# Tables

# Table 1
# Investigation Location Summary
# SSI/RI Report
# SOCs 4 and 5
# UMore Mining Area
# Dakota County, Minnesota

| Location Number | Preliminary Operable Unit Number[5] | Coordinates [1] Northing meters | Coordinates [1] Easting meters | Elevation [2] feet MSL | Depth feet bgs | Soil Sample Collected | Temporary Well Installed | Maximum Soil Vapor Headspace (ppm) [3] | Comment |
|---|---|---|---|---|---|---|---|---|---|
| **SOC#4 DNT Loading Platform and Drainage Ditch (Includes AOC3A-D1)** | | | | | | | | | |
| SOC4-GP1 | SOC4-OU1 | 4951431.3 | 492604.5 | 945.9 | 55 | X | X | < 3.2 | No groundwater accumulation in temporary wells |
| SOC4-GP2 | SOC4-OU1 | 4951179.3 | 492567.8 | 942.4 | 20 | X | | < 3.2 | |
| SOC4-GP3 | SOC4-OU1 | 4951067.3 | 492497.5 | 942.8 | 20 | X | | < 3.2 | |
| SOC4-GP4 | SOC4-OU2 | 4950954.3 | 492343.5 | 939.1 | 60 | X | X | < 3.2 | |
| SOC4-GP5 | SOC4-OU2 | 4950894.7 | 492254.5 | 935.5 | 62 | X | X | < 3.2 | |
| SOC4-GP6 | SOC4-OU3 | 4950813.5 | 492141.1 | 934.8 | 20 | X | | < 3.2 | |
| SOC4-GP7 | SOC4-OU2 | 4950994.8 | 492259.2 | 941.4 | 20 | X | | < 3.2 | |
| SOC4-TT1 | SOC4-OU1 | 4951528.6 | 492596.0 | 946.7 | 11 | | | < 3.2 | |
| | | 4951528.5 | 492602.0 | 943.8 | | | | | |
| SOC4-TT2 | SOC4-OU1 | 4951481.3 | 492594.2 | 945.7 | 19 | | | < 3.2 | Minor concrete debris encountered |
| | SOC4-OU1 | 4951482.4 | 492600.0 | 943.3 | | | | | |
| SOC4-TT3 | SOC4-OU1 | 4951455.7 | 492601.6 | 944.5 | 7.5 | | | < 3.2 | |
| | SOC4-OU1 | 4951457.3 | 492611.8 | 942.2 | | | | | |
| SOC4-TT4 | SOC4-OU1 | 4951430.9 | 492613.0 | 942.0 | 5 | | | < 3.2 | |
| | SOC4-OU1 | 4951433.5 | 492625.9 | 942.1 | | | | | |
| SOC4-TT5 | SOC4-OU1 | 4951228.7 | 492621.1 | 938.6 | 10 | | | < 3.2 | |
| | SOC4-OU1 | 4951236.3 | 492622.6 | 938.0 | | | | | |
| SOC4-TT6 | SOC4-OU1 | 4951244.7 | 492589.0 | 937.2 | 20 | X | | < 3.2 | |
| | SOC4-OU1 | 4951243.1 | 492582.2 | 936.8 | | | | | |
| SOC4-TT7 | SOC4-OU1 | 4951138.3 | 492536.7 | 943.4 | 6 | | | < 3.2 | |
| | SOC4-OU1 | 4951137.6 | 492532.4 | 943.4 | | | | | |
| SOC4-TT8 | SOC4-OU1 | 4951017.1 | 492467.7 | 942.9 | 9 | | | < 3.2 | |
| | SOC4-OU1 | 4951021.7 | 492471.7 | 942.4 | | | | | |
| SOC4-TT9 | SOC4-OU2 | 4951002.9 | 492364.4 | 944.4 | 6 | X | | < 3.2 | Buried debris encountered |
| | SOC4-OU2 | 4951002.2 | 492358.5 | 943.6 | | | | | |
| SOC4-TT9A | SOC4-OU2 | 4951002.9 | 492369.8 | 944.8 | 4 | | | -- | Test pits added to further investigate extent of buried debris. |
| SOC4-TT9B | SOC4-OU2 | 4951005.3 | 492354.6 | 943.5 | 6 | | | < 3.2 | |
| SOC4-TT9C | SOC4-OU2 | 4950999.1 | 492340.4 | 944.8 | 3 | | | | |
| SOC4-TT9D | SOC4-OU2 | 4951001.4 | 492349.5 | 943.4 | 4 | | | -- | |
| SOC4-TT9E | SOC4-OU2 | 4950993.7 | 492357.1 | 943.4 | 3.5 | | | -- | |
| SOC4-TT9F | SOC4-OU2 | 4950986.4 | 492355.1 | 942.8 | 5 | | | -- | |
| SOC4-TT9G | SOC4-OU2 | 4950979.5 | 492352.9 | 942.3 | 3 | | | -- | |
| SOC4-TT9H | SOC4-OU2 | 4950984.8 | 492362.3 | 943.9 | 4 | | | -- | |
| SOC4-TT10 | SOC4-OU2 | 4950974.4 | 492351.3 | 941.7 | 6 | | | < 3.2 | |
| | SOC4-OU2 | 4950974.5 | 492339.7 | 942.9 | | | | | |
| SOC4-TT11 | SOC4-OU2 | 4950944.9 | 492327.7 | 936.8 | 9 | | | < 3.2 | |
| | SOC4-OU2 | 4950934.3 | 492328.3 | 937.4 | | | | | |
| SOC4-TT12 | SOC4-OU2 | 4950923.2 | 492298.2 | 935.9 | 17 | X | | < 3.2 | |
| | SOC4-OU2 | 4950913.0 | 492282.3 | 936.6 | | | | | |
| SOC4-TT13 | SOC4-OU3 | 4950853.6 | 492194.7 | 936.1 | 5 | | | < 3.2 | |
| | SOC4-OU3 | 4950865.5 | 492212.6 | 935.9 | | | | | |
| SOC4-TT14 | SOC4-OU3 | 4950820.1 | 492152.2 | 935.2 | 5 | | | < 3.2 | |
| | SOC4-OU3 | 4950830.7 | 492166.4 | 935.9 | | | | | |
| SOC4-TT15 | SOC4-OU2 | 4950791.6 | 492113.1 | 934.2 | 5 | | | < 3.2 | |
| | | 4950804.3 | 492129.5 | 934.7 | | | | | |
| SOC4-TT16 | SOC4-OU1 | 4951328.0 | 492614.7 | 943.3 | 5 | | | < 3.2 | Test trench added to further investigate an area of suspected distressed vegetation. |
| | | 4951310.1 | 492615.3 | 942.2 | | | | | |
| **SOC#5 Central Services Station and Offices/Former DNT Bunkers (Includes AOC5)** | | | | | | | | | |
| SOC5-GP1 | GS/GW | 4951536.4 | 492407.3 | 946.7 | 24 | X | X | < 3.2 | |
| SOC5-GP2 | GS/GW | 4951468.4 | 492408.8 | 947.1 | 46 | X | X | < 3.2 | No groundwater accumulation in temporary wells |
| SOC5-GP3 | GS/GW | 4951386.1 | 492378.4 | 941.6 | 52 | X | X | < 3.2 | |
| SOC5-GP4 | GS/GW | 4951405.7 | 492322.0 | 940.4 | 52 | X | X | < 3.2 | |
| SOC5-GP5 | SOC5-OU3 | 4951394.8 | 492233.6 | 946.6 | 20 | X | | < 3.2 | |
| SOC5-GP6 | SOC5-OU3 | 4951395.0 | 492251.9 | 947.2 | 20 | X | | < 3.2 | |
| SOC5-GP7 | SOC5-OU3 | 4951367.0 | 492236.2 | 946.1 | 20 | X | | < 3.2 | |
| SOC5-GP8 | SOC5-OU3 | 4951372.0 | 492247.3 | 946.7 | 20 | X | | 14.4 | 1-1.5': Staining and strong petro odor |
| SOC5-GP9 | GW | 4951326.9 | 492411.8 | 947.9 | 52 | | X | < 3.2 | No groundwater accumulation in temporary wells |
| SOC5-GP10 | GW | 4951195.0 | 492410.0 | 945.2 | 68 | | X | < 3.2 | |
| SOC5-GP11 | GW | 4951060.8 | 492409.5 | 945.3 | 68 | | X | < 3.2 | |

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| Location Number | Preliminary Operable Unit Number[5] | Coordinates [1] Northing meters | Coordinates [1] Easting meters | Elevation [2] feet MSL | Depth feet bgs | Soil Sample Collected | Temporary Well Installed | Maximum Soil Vapor Headspace (ppm) [3] | Comment |
|---|---|---|---|---|---|---|---|---|---|
| SOC5-GP12 (A - D) | SOC5-OU2 | 4951446.3 | 492359.7 | 939.3 | 12 | X | | < 3.2 | One center boring (A) and three perimeter borings (B - D) drilled for composite soil sampling |
| | | 4951444.8 | 492359.6 | 939.4 | 5 | | | < 3.2 | |
| | | 4951448.1 | 492360.9 | 939.5 | 5 | | | < 3.2 | |
| | | 4951447.0 | 492357.9 | 939.5 | 5 | | | < 3.2 | |
| SOC5-GP13 (A - D) | SOC5-OU2 | 4951425.7 | 492358.6 | 938.8 | 12 | X | | < 3.2 | One center boring (A) and three perimeter borings (B - D) drilled for composite soil sampling |
| | | 4951425.4 | 492361.4 | 939.2 | 5 | | | < 3.2 | |
| | | 4951427.2 | 492358.4 | 938.8 | 5 | | | < 3.2 | |
| | | 4951425.0 | 492357.1 | 938.7 | 5 | | | < 3.2 | |
| SOC5-GP14 (A - D) | SOC5-OU2 | 4951460.2 | 492394.1 | 946.8 | 12 | X | | < 3.2 | One center boring (A) and three perimeter borings (B - D) drilled for composite soil sampling |
| | | 4951460.3 | 492392.8 | 946.4 | 5 | | | < 3.2 | |
| | | 4951460.7 | 492396.0 | 946.9 | 5 | | | < 3.2 | |
| | | 4951458.5 | 492395.0 | 946.9 | 5 | | | < 3.2 | |
| SOC5-GP15 | SOC5-OU1 | 4951454.1 | 492388.1 | 950.0 | 4 | X | | < 3.2 | |
| SOC5-GP16 | SOC5-OU1 | 4951447.6 | 492403.1 | 949.6 | 4 | X | | < 3.2 | |
| SOC5-GP17 | SOC5-OU1 | 4951441.6 | 492390.9 | 950.8 | 4 | X | | < 3.2 | |
| SOC5-GP18 | SOC5-OU1 | 4951323.0 | 492394.2 | 951.7 | 4 | X | | < 3.2 | |
| SOC5-GP19 | SOC5-OU1 | 4951318.0 | 492402.8 | 949.5 | 4 | X | | < 3.2 | |
| SOC5-GP20 | SOC5-OU1 | 4951307.5 | 492385.5 | 951.2 | 4 | X | | < 3.2 | |
| SOC5-GP21 | SOC5-OU1 | 4951189.0 | 492389.9 | 950.4 | 4 | X | | < 3.2 | |
| SOC5-GP22 | SOC5-OU1 | 4951182.5 | 492403.9 | 947.7 | 4 | X | | < 3.2 | |
| SOC5-GP23 | SOC5-OU1 | 4951176.0 | 492391.5 | 949.3 | 4 | X | | < 3.2 | |
| SOC5-GP24 | SOC5-OU1 | 4951057.2 | 492383.7 | 945.6 | 4 | X | | < 3.2 | Possible buried brick and concrete from 2.5 to 3 ft bgs. Possible old foundation. |
| SOC5-GP25 | SOC5-OU1 | 4951051.5 | 492400.8 | 946.3 | 4 | X | | < 3.2 | Possible construction material/waterproofing debris from at 1 ft bgs |
| SOC5-GP26 | SOC5-OU1 | 4951044.6 | 492389.2 | 952.0 | 4 | X | | < 3.2 | |
| SOC5-GP27 (A - D) | SOC5-OU2 | 4951429.9 | 492375.5 | 943.2 | 12 | X | | < 3.2 | One center boring (A) and three perimeter borings (B - D) drilled for composite soil sampling |
| | | 4951428.9 | 492377.6 | 943.9 | 5 | | | < 3.2 | |
| | | 4951431.6 | 492374.0 | 943.2 | 5 | | | < 3.2 | |
| | | 4951428.2 | 492373.9 | 943.3 | 5 | | | < 3.2 | |
| SOC5-GP28 | SOC5-OU2 | 4951327.8 | 492329.0 | 947.2 | 20 | X | | < 3.2 | Apparent bottom of former lagoon at 9 ft bgs |
| SOC5-SS1 | GS | 4951531.7 | 492308.8 | 946.9 | 0.5 | X | | < 3.2 | |
| SOC5-SS1 | GS | 4951531.7 | 492308.8 | 946.9 | 2 | X | | < 3.2 | Additional surface sample collected to further define limits of SVOC exceedance. |
| SOC5-SS1A [4] | GS | 4951528.3 | 492302.2 | 946 | 0.5 | X | | < 3.2 | |
| SOC5-SS1B [4] | GS | 4951538.0 | 492309.6 | 946 | 0.5 | X | | < 3.2 | |
| SOC5-SS1C [4] | GS | 4951527.9 | 492314.6 | 946 | 0.5 | X | | < 3.2 | |
| SOC5-SS2 | GS | 4951513.5 | 492233.6 | 944.5 | 0.5 | X | | < 3.2 | |
| SOC5-SS2A [4] | GS | 4951518.5 | 492233.6 | 944 | 0.5 | X | | < 3.2 | Additional surface samples collected to further define limits of mercury exceedance. |
| SOC5-SS2B [4] | GS | 4951508.4 | 492233.4 | 944 | 0.5 | X | | < 3.2 | |
| SOC5-SS2B [4] | GS | 4951508.4 | 492233.4 | 944 | 2 | X | | < 3.2 | |
| SOC5-SS2B | GS | 4951512.6 | 492235.2 | 944 | 4 | X | | < 3.2 | |
| SOC5-SS2C [4] | GS | 4951542.1 | 492234.8 | 944 | 0.5 | X | | < 3.2 | |
| SOC5-SS2D [4] | GS | 4951514.3 | 492224.8 | 946 | 0.5 | X | | < 3.2 | |
| SOC5-SS2E [4] | GS | 4951509.9 | 492230.9 | 946 | 0.5 | X | | < 3.2 | |
| SOC5-SS2F [4] | GS | 4951510.8 | 492238.5 | 946 | 0.5 | X | | < 3.2 | |
| SOC5-SS2G [4] | GS | 4951483.0 | 492231.5 | 946 | 0.5 | X | | < 3.2 | |
| SOC5-SS2H [4] | GS | 4951482.5 | 492233.1 | 944 | 0.5 | X | | < 3.2 | |
| SOC5-SS2I [4] | GS | 4951484.4 | 492238.0 | 946 | 0.5 | X | | < 3.2 | |
| SOC5-SS2J | GS | 4951524.3 | 492235.8 | 944 | 1 | X | | < 3.2 | |
| SOC5-SS2J | GS | 4951524.3 | 492235.8 | 944 | 3 | X | | < 3.2 | |
| SOC5-SS2K | GS | 4951497.7 | 492235.1 | 944 | 1 | X | | < 3.2 | |
| SOC5-SS2K | GS | 4951497.7 | 492235.1 | 944 | 3 | X | | < 3.2 | |
| SOC5-SS2L | GS | 4951521.6 | 492238.0 | 946 | 1 | X | | < 3.2 | |
| SOC5-SS2M | GS | 4951504.0 | 492237.7 | 946 | 1 | X | | < 3.2 | |
| SOC5-SS2N | GS | 4951533.8 | 492226.1 | 946 | 1 | X | | < 3.2 | |
| SOC5-SS2O | GS | 4951515.9 | 492228.7 | 946 | 1 | X | | < 3.2 | |
| SOC5-SS2O | GS | 4951515.9 | 492228.7 | 946 | 3 | X | | < 3.2 | |
| SOC5-SS2P | GS | 4951495.7 | 492226.9 | 946 | 1 | X | | < 3.2 | |
| SOC5-SS2Q | GS | 4951526.5 | 492218.6 | 946 | 2 | X | | < 3.2 | |
| SOC5-SS2R | GS | 4951508.2 | 492219.9 | 946 | 2 | X | | < 3.2 | |
| SOC5-SS2T | GS | 4951504.9 | 492235.6 | 944 | 1 | X | | < 3.2 | |
| SOC5-SS2T | GS | 4951504.9 | 492235.6 | 944 | 3 | X | | < 3.2 | |
| SOC5-SS3 | GS | 4951321.6 | 492233.0 | 943.3 | 0.5 | X | | < 3.2 | |
| SOC5-SS4 | GS | 4951318.6 | 492304.8 | 944.5 | 0.5 | X | | < 3.2 | |

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|---|---|---|---|---|---|---|---|---|---|
| SOC5-SS5 | GS | 4951188.0 | 492232.0 | 942.1 | 0.5 | X | | < 3.2 | |
| SOC5-SS6 | GS | 4951195.7 | 492292.9 | 945.6 | 0.5 | X | | < 3.2 | |
| SOC5-SS7 | GS | 4951218.9 | 492358.1 | 937.9 | 0.5 | X | | < 3.2 | |
| SOC5-SS8 | GS | 4951131.6 | 492354.8 | 936.1 | 0.5 | X | | < 3.2 | |
| SOC5-SS9 | GS | 4951063.6 | 492288.1 | 946.8 | 0.5 | X | | < 3.2 | |
| SOC5-SS10 | GS | 4951032.3 | 492352.6 | 937.5 | 0.5 | X | | < 3.2 | |
| SOC5-SS11 | GS | 4951022.7 | 492378.9 | 944.8 | 0.5 | X | | < 3.2 | |
| SOC5-SS12 | SOC5-OU1 | 4951515.7 | 492275.1 | 949.4 | 0.5 | X | | < 3.2 | |
| SOC5-SS14 | SOC5-OU1 | 4951507.2 | 492263.0 | 955.2 | 0.5 | X | | < 3.2 | |
| SOC5-SS16 | SOC5-OU1 | 4951387.8 | 492262.3 | 947.1 | 0.5 | X | | < 3.2 | |
| SOC5-SS18 | SOC5-OU1 | 4951383.3 | 492274.7 | 947.1 | 0.5 | X | | < 3.2 | |
| SOC5-SS19 [4] | SOC5-OU1 | 4951382.2 | 492279.3 | 947 | 0.5 | X | | < 3.2 | |
| SOC5-SS20 | SOC5-OU1 | 4951376.2 | 492268.4 | 946.6 | 0.5 | X | | < 3.2 | |
| SOC5-SS21 [4] | SOC5-OU1 | 4951369.5 | 492266.9 | 946 | 0.5 | X | | < 3.2 | |
| SOC5-SS22 | SOC5-OU1 | 4951255.2 | 492261.2 | 946.8 | 0.5 | X | | < 3.2 | |
| SOC5-SS23 [4] | SOC5-OU1 | 4951259.8 | 492261.0 | 946 | 0.5 | X | | < 3.2 | |
| SOC5-SS24 | SOC5-OU1 | 4951249.5 | 492274.0 | 945.9 | 0.5 | X | | < 3.2 | |
| SOC5-SS25 [4] | SOC5-OU1 | 4951251.5 | 492277.4 | 945 | 0.5 | X | | < 3.2 | |
| SOC5-SS26 | SOC5-OU1 | 4951244.3 | 492261.8 | 946.7 | 0.5 | X | | < 3.2 | |
| SOC5-SS27 [4] | SOC5-OU1 | 4951239.8 | 492262.4 | 946 | 0.5 | X | | < 3.2 | |
| SOC5-SS28 | SOC5-OU1 | 4951122.9 | 492261.3 | 947.9 | 0.5 | X | | < 3.2 | |
| SOC5-SS30 | SOC5-OU1 | 4951117.6 | 492272.7 | 947.9 | 0.5 | X | | < 3.2 | |
| SOC5-SS32 | SOC5-OU1 | 4951112.3 | 492261.8 | 949.3 | 0.5 | X | | < 3.2 | |
| SOC5-SS39 [4] | Other | 4951302.7 | 492390.4 | 946 | 0.5 | X | | < 3.2 | Surface soil sample location was moved to further evaluate the dirt floor inside the shed, south of building 607 |
| SOC5-SS43 [4] | SOC5-OU1 | 4951060.3 | 492383.5 | 945 | 0.5 | X | | < 3.2 | |
| SOC5-SS44 [4] | SOC5-OU1 | 4951051.8 | 492404.8 | 945 | 0.5 | X | | < 3.2 | |
| SOC5-SS45 [4] | SOC5-OU1 | 4951039.0 | 492388.7 | 950 | 0.5 | X | | < 3.2 | |
| SOC5-SS46 | Other | 4951293.0 | 492238.0 | 945.8 | 0.5 | X | | < 3.2 | |
| SOC5-SS47 | Other | 4951067.3 | 492243.0 | 946.0 | 0.5 | X | | < 3.2 | |
| SOC5-SS48 | Other | 4951282.0 | 492367.2 | 945.3 | 0.5 | X | | < 3.2 | |
| SOC5-SS49 | Other | 4951100.5 | 492366.1 | 943.9 | 0.5 | X | | < 3.2 | |
| SOC5-TT1 | SOC5-OU1 | 4951509.6 | 492274.7 | 949.8 | 5 | | | < 3.2 | |
| | SOC5-OU1 | 4951514.7 | 492275.3 | 949.5 | | | | | |
| SOC5-TT2 | SOC5-OU1 | 4951507.6 | 492249.3 | 948.2 | 8 | X | | < 3.2 | |
| | SOC5-OU1 | 4951507.8 | 492257.5 | 952.9 | | | | | |
| SOC5-TT3 | SOC5-OU1 & OU2 | 4951467.8 | 492375.8 | 942.4 | 7 | | | < 3.2 | |
| | | 4951451.9 | 492376.0 | 942.7 | | | | | |
| SOC5-TT4 | SOC5-OU1 | 4951452.3 | 492401.3 | 952.3 | 14 | | | < 3.2 | |
| | | 4951455.7 | 492403.9 | 947.6 | | | | | |
| SOC5-TT5 | SOC5-OU1 | 4951440.9 | 492376.7 | 943.5 | 5 | X | | < 3.2 | |
| | | 4951440.6 | 492387.3 | 947.1 | | | | | |
| SOC5-TT6 | SOC5-OU1 | 4951441.4 | 492396.1 | 947.7 | 8 | | | < 3.2 | |
| | | 4951439.8 | 492403.4 | 946.8 | | | | | |
| SOC5-TT7 | SOC5-OU1 | 4951388.0 | 492274.9 | 946.8 | 3.5 | X | | < 3.2 | |
| | | 4951387.9 | 492251.2 | 947.1 | | | | | |
| SOC5-TT8 | SOC5-OU1 | 4951384.9 | 492273.8 | 947.4 | 3.5 | | | < 3.2 | |
| | | 4951385.8 | 492278.4 | 947.1 | | | | | |
| SOC5-TT9 | SOC5-OU1 | 4951321.7 | 492376.4 | 946.8 | 15 | X | | < 3.2 | |
| | | 4951320.4 | 492381.9 | 955.1 | | | | | |
| SOC5-TT10 | SOC5-OU1 | 4951321.1 | 492406.3 | 948.8 | 13 | | | < 3.2 | |
| | | 4951321.0 | 492398.6 | 954.8 | | | | | |
| SOC5-TT11 | SOC5-OU1 | 4951309.7 | 492375.7 | 946.8 | 12 | | | < 3.2 | |
| | | 4951309.6 | 492381.4 | 954.1 | | | | | |
| SOC5-TT12 | SOC5-OU1 | 4951309.4 | 492405.0 | 948.7 | 16 | | | < 3.2 | |
| | | 4951309.6 | 492397.1 | 953.0 | | | | | |
| SOC5-TT13 | SOC5-OU1 | 4951243.7 | 492249.7 | 946.5 | 9 | X | | < 3.2 | |
| | | 4951243.8 | 492263.9 | 946.4 | | | | | |
| SOC5-TT14 | SOC5-OU1 | 4951254.8 | 492273.6 | 945.9 | 3 | | | < 3.2 | |
| | | 4951251.3 | 492273.5 | 946.3 | | | | | |
| SOC5-TT15 | SOC5-OU1 | 4951257.0 | 492249.8 | 945.9 | 3.5 | | | < 3.2 | |
| | | 4951256.3 | 492272.9 | 946.1 | | | | | |
| SOC5-TT16 | SOC5-OU1 | 4951193.1 | 492385.7 | 945.7 | 10 | | | < 3.2 | |
| | | 4951188.7 | 492385.9 | 951.3 | | | | | |
| SOC5-TT17 | SOC5-OU1 | 4951188.3 | 492400.4 | 951.5 | 12 | | | < 3.2 | |
| | | 4951191.8 | 492405.7 | 945.2 | | | | | |

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| Location Number | Preliminary Operable Unit Number[5] | Coordinates [1] Northing meters | Coordinates [1] Easting meters | Elevation [2] feet MSL | Depth feet bgs | Soil Sample Collected | Temporary Well Installed | Maximum Soil Vapor Headspace (ppm) [3] | Comment |
|---|---|---|---|---|---|---|---|---|---|
| SOC5-TT18 | SOC5-OU1 | 4951176.6 | 492380.3 | 949.4 | 10 | X | | < 3.2 | |
| | | 4951177.3 | 492375.3 | 943.4 | | | | | |
| SOC5-TT19 | SOC5-OU1 | 4951174.2 | 492405.5 | 945.2 | 12 | | | < 3.2 | |
| | | 4951178.5 | 492400.3 | 952.0 | | | | | |
| SOC5-TT20 | SOC5-OU1 | 4951123.5 | 492273.5 | 947.6 | 4 | | | < 3.2 | |
| | | 4951123.6 | 492247.8 | 946.3 | | | | | |
| SOC5-TT21 | SOC5-OU1 | 4951112.1 | 492273.2 | 948.5 | 4 | | | < 3.2 | |
| | | 4951122.9 | 492273.7 | 947.7 | | | | | |
| SOC5-TT22 | SOC5-OU1 | 4951110.5 | 492245.5 | 946.2 | 10 | | | < 3.2 | |
| | | 4951111.5 | 492273.8 | 948.5 | | | | | |
| SOC5-TT23 | SOC5-OU1 | 4951045.6 | 492399.5 | 946.2 | 5 | | | < 3.2 | |
| | | 4951040.6 | 492400.2 | 945.0 | | | | | |
| SOC5-TT24 | SOC5-OU1 | 4951056.4 | 492400.6 | 945.7 | 5 | | | < 3.2 | |
| | | 4951056.6 | 492405.9 | 945.2 | | | | | |
| SOC5-TT25 | SOC5-OU1 | 4951044.5 | 492379.5 | 945.8 | 5 | X | | < 3.2 | |
| | | 4951045.1 | 492373.5 | 945.0 | | | | | |
| SOC5-TT26 | SOC5-OU1 | 4951411.0 | 492304.2 | 944.1 | 8 | | | < 3.2 | Test trench added to further investigate limits of former lagoon |
| | | 4951396.3 | 492303.5 | 943.1 | | | | | |
| SOC5-TT27 | SOC5-OU2 | 4951414.7 | 492342.7 | 940.7 | 13 | | | < 3.2 | Test trench added to further investigate limits of former lagoon |
| | | 4951407.2 | 492341.5 | 940.8 | | | | | |
| SOC5-TT28 | SOC5-OU2 | 4951380.8 | 492336.0 | 945.8 | 5 | | | < 3.2 | Test trench added to further investigate limits of former lagoon |
| | SOC5-OU2 | 4951369.6 | 492327.3 | 946.0 | | | | | |
| SOC5-TT29 | SOC5-OU2 | 4951339.0 | 492333.6 | 946.2 | 8 | X | | < 3.2 | Test trench was re-named from planned work plan location |
| | SOC5-OU2 | 4951331.6 | 492319.3 | 945.7 | | | | | |
| SOC5-TT30 | SOC5-OU2 | 4951323.8 | 492322.6 | 945.5 | 7 | | | < 3.2 | Test trench was re-named from planned work plan location |
| | SOC5-OU2 | 4951319.2 | 492329.3 | 945.8 | | | | | |
| SOC5-TT31 | SOC5-OU2 | 4951318.2 | 492332.6 | 945.5 | 6 | | | < 3.2 | Test trench was re-named from planned work plan location |
| | SOC5-OU2 | 4951318.2 | 492342.9 | 945.9 | | | | | |
| SOC5-TT32 | SOC5-OU2 | 4951333.4 | 492342.3 | 946.8 | 6 | | | < 3.2 | Test trench was re-named from planned work plan location |
| | SOC5-OU2 | 4951342.5 | 492339.9 | 946.4 | | | | | |
| SOC5-TT33 | SOC5-OU1 | 4951106.4 | 492257.1 | 947.7 | 4 | | | < 3.2 | Test trench added to further investigate fill material around the DNT bunker |
| | | 4951106.4 | 492257.1 | 947.7 | | | | | |
| SOC5-TT34 | SOC5-OU1 | 4951107.0 | 492270.5 | 947.6 | 4 | | | < 3.2 | Test trench added to further investigate fill material around the DNT bunker |
| | | 4951107.0 | 492270.5 | 947.6 | | | | | |
| SOC5-TT35 | SOC5-OU1 | 4951375.6 | 492270.0 | 946.6 | 2 | | | < 3.2 | Test trench added to further investigate floor drain inside the DNT bunker |
| | | 4951375.1 | 492274.7 | 946.5 | | | | | |
| SOC5-TT36 | SOC5-OU1 | 4951378.9 | 492249.6 | 946.8 | 6 | | | < 3.2 | Test trench added to further investigate floor drain inside the DNT bunker |
| | | 4951379.3 | 492253.0 | 947.1 | | | | | |
| SOC5-TT37 | SOC5-OU1 | 4951376.6 | 492247.1 | 946.6 | 6 | | | < 3.2 | Test trench added to further investigate floor drain inside the DNT bunker |
| | | 4951376.6 | 492251.2 | 946.9 | | | | | |
| SOC5-TT38 | SOC5-OU1 | 4951245.8 | 492247.9 | 946.0 | 12 | | | < 3.2 | Test trench added to further investigate floor drain inside the DNT bunker. Minor concrete debris encountered. |
| | | 4951239.3 | 492248.1 | 946.0 | | | | | |

**Notes:**

[1] Northing and easting measured relative to Universal Transverse Mercator (UTM) Coordinates in meters (horizontal datum NAD 83(1996))

[2] Vertical elevation measured relative to MSL in U.S. feet (vertical datum NAVD 88)

[3] Headspace not measured above background. Result reported as less than 3.2 parts per million.

[4] Coordinates and elevation estimated from data collected in the field and Dakota County LIDAR survey

[5] Preliminary Operable Unit Descriptions

SOC4-OU1 - DNT-Loading Platform and Drainage Ditch
SOC4-OU2 - Settling Basin and Drainage Ditch South of SOC 5
SOC4-OU3 - Area of Suspected Surficial Debris
SOC5-OU1 - DNT-Storage Bunkers
SOC5-OU2 - Pesticide Release Area
SOC5-OU3 - Petroleum Release Area
GS - Green Space
GW - Groundwater
Other - Other sampling location

Blank indicates no sample or screening data collected
Soil boring and test trench logs are included in Appendix B
bgs = below ground surface
MSL = mean sea level
ppm = parts per million
-- = Headspace reading not collected.

# Table 2
# Sample Collection and Analysis Summary
# SSI/RI Report
# SOCs 4 and 5
# UMore Mining Area
# Dakota County, Minnesota

| Sample Name | Preliminary Operating Unit Number[5] | Sample Date | Sample Matrix | | | Analytes | | | | | | | | | | | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Soil | Water | Other | VOCs | SVOCs | Metals [1] | Mercury | Perchlorate | Nitrocellulose | Nitrogen [2] | OC Pesticides [3] | List 1&2 Pesticides [4] | PCBs | Asbestos | |
| **SOC#4 DNT Loading Platform and Drainage Ditch (Includes AOC3A-D1)** | | | | | | | | | | | | | | | | | |
| SOC4-GP1-0.5-2 | SOC4-OU1 | 9/9/2009 | X | | | | X | X | | | X | | | | | | |
| SOC4-GP2-1-3 | SOC4-OU1 | 9/11/2009 | X | | | | X | | | | X | | | | | | |
| SOC4-GP3-1-3 | SOC4-OU1 | 9/11/2009 | X | | | | X | | | | X | | | | | | |
| SOC4-GP4 | GW | 9/10/2009 | | X | | | X | X | | | X | X | | | | | |
| SOC4-GP4-1-2 | SOC4-OU2 | 9/10/2009 | X | | | X | X | X | | | X | | X | X | | | |
| SOC4-GP5 | GW | 9/10/2009 | | X | | X | X | X | | | X | X | | | | | |
| SOC4-GP5-1-3 | SOC4-OU2 | 9/10/2009 | X | | | | X | X | | | X | | | | | | |
| SOC4-GP6-1-2 | SOC4-OU3 | 9/9/2009 | X | | | | X | X | | | X | | | | | | |
| SOC4-GP7-1-2 | SOC4-OU2 | 9/10/2009 | X | | | | X | | | | X | | | | | | |
| SOC4-TT6-0.5 | SOC4-OU1 | 9/18/2009 | X | | | | X | X | | | X | | X | X | | | |
| SOC4-TT9-6 | SOC4-OU2 | 9/10/2009 | X | | | | X | X | | | X | | X | X | | | Sample collected below buried debris. |
| SOC4-TT12-0.5 | SOC4-OU2 | 9/17/2009 | X | | | | X | X | | | X | | X | X | X | | |
| **SOC#5 Central Services Station and Offices/Former DNT Bunkers (Includes AOC5)** | | | | | | | | | | | | | | | | | |
| SOC5-GP1-0.5-1.5 | GS | 9/2/2009 | X | | | | X | X | | | | | | | | | |
| SOC5-GP1 | GW | 9/2/2009 | | X | | X | X | X | | X | X | X | X | X | | | |
| SOC5-GP2-2-3' | GS | 9/2/2009 | X | | | | X | X | | | | | | | | | |
| SOC5-GP3-1-2' | GS | 9/2/2009 | X | | | | X | X | | | | | | | | | |
| SOC5-GP3 | GW | 9/3/09, 9/8/09-9/9/09 | | X | | X | X | X | | | X | X | X | X | | | |
| SOC5-GP4 | GW | 9/1/2009 | | X | | X | X | X | | | X | X | X | X | | | |
| SOC5-GP4-4-6' | GS | 8/31/2009 | X | | | | X | X | | | | | | | | | |
| SOC5-GP5-1.5-2.5 | SOC5-OU3 | 8/31/2009 | X | | | X | X | X | | | X | | | | | | |
| SOC5-GP5-10-12 | SOC5-OU3 | 8/31/2009 | X | | | X | X | X | | | X | | | | | | |
| SOC5-GP6-1-2 | SOC5-OU3 | 8/31/2009 | X | | | X | X | X | | | X | | | | | | |
| SOC5-GP6-18-20 | SOC5-OU3 | 8/31/2009 | X | | | X | X | X | | | X | | | | | | |
| SOC5-GP7-0.5-2 | SOC5-OU3 | 8/31/2009 | X | | | X | X | X | | | X | | | | | | |
| SOC5-GP7-19-20 | SOC5-OU3 | 8/31/2009 | X | | | X | X | X | | | X | | | | | | |
| SOC5-GP8-1-1.5 | SOC5-OU3 | 8/31/2009 | X | | | X | X | X | | | X | | | | | | |
| SOC5-GP8-5-7 | SOC5-OU3 | 8/31/2009 | X | | | X | X | X | | | X | | | | | | |
| SOC5-GP10 | GW | 9/8/2009 | | X | | X | X | X | | X | X | X | X | X | | | |
| SOC5-GP11 | GW | 9/9/2009 | | X | | X | X | X | | | X | X | X | X | | | |
| SOC5-GP12-0.5-1 | SOC5-OU2 | 9/1/2009 | X | | | | | | | | | | X | X | | | |
| SOC5-GP12-2-2.5 | SOC5-OU2 | 9/1/2009 | X | | | | | | | | | | X | X | | | |
| SOC5-GP13-0.5 | SOC5-OU2 | 9/1/2009 | X | | | | | | | | | | X | X | | | |
| SOC5-GP13-2-2.5 | SOC5-OU2 | 9/1/2009 | X | | | | | | | | | | X | X | | | |
| SOC5-GP14-0.5 | SOC5-OU2 | 9/1/2009 | X | | | | | | | | | | X | X | | | |
| SOC5-GP14-2-2.5 | SOC5-OU2 | 9/1/2009 | X | | | | | | | | | | X | X | | | |
| SOC5-GP15-0.5-4 | SOC5-OU1 | 9/3/2009 | X | | | | X | | | | | | | | | | |
| SOC5-GP16-0.5-4 | SOC5-OU1 | 9/3/2009 | X | | | | X | | | | | | | | | | |
| SOC5-GP17-0.5-4 | SOC5-OU1 | 9/3/2009 | X | | | | X | | | | | | | | | | |
| SOC5-GP18-0.5-4 | SOC5-OU1 | 9/3/2009 | X | | | | X | | | | | | | | | | |
| SOC5-GP19-1-4 | SOC5-OU1 | 9/3/2009 | X | | | | X | | | | | | | | | | |
| SOC5-GP20-0.5-4 | SOC5-OU1 | 9/3/2009 | X | | | | X | | | | | | | | | | |
| SOC5-GP21-0.5-4 | SOC5-OU1 | 9/3/2009 | X | | | | X | | | | | | | | | | |
| SOC5-GP22-0.5-4 | SOC5-OU1 | 9/3/2009 | X | | | | X | | | | | | | | | | |
| SOC5-GP23-0.5-4 | SOC5-OU1 | 9/3/2009 | X | | | | X | | | | | | | | | | |
| SOC5-GP24-0.5-2 | SOC5-OU1 | 9/3/2009 | X | | | | X | | | | | | | | | | |
| SOC5-GP25-1-3 | SOC5-OU1 | 9/3/2009 | X | | | | X | | | | | | | | | | |
| SOC5-GP26-0.5-4 | SOC5-OU1 | 9/3/2009 | X | | | | X | | | | | | | | | | |
| SOC5-GP27-0.5 | SOC5-OU2 | 9/1/2009 | X | | | | | | | | | | X | X | | | |
| SOC5-GP27-2-2.5 | SOC5-OU2 | 9/1/2009 | X | | | | | | | | | | X | X | | | |
| SOC5-GP28-9-10 | SOC5-OU2 | 9/2/2009 | X | | | | | | | | | | X | X | | | Sample collected immediately below apparent bottom of landfill |

**Table 2**
**Sample Collection and Analysis Summary**
**SSI/RI Report**
**SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| Sample Name | Preliminary Operating Unit Number[5] | Sample Date | Sample Matrix | | | Analytes | | | | | | | | | | | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Soil | Water | Other | VOCs | SVOCs | Metals [1] | Mercury | Perchlorate | Nitrocellulose | Nitrogen [2] | OC Pesticides [3] | List 1&2 Pesticides [4] | PCBs | Asbestos | |
| SOC5-SS1-0.5 | GS | 8/31/2009 | X | | | | X | X | | | X | | X | X | | | |
| SOC5-SS1-1.5-2 | GS | 9/25/2009 | X | | | | X | | | | | | | | | | Sample collected to further define extent of SVOC |
| SOC5-SS1A-0.5 | GS | 9/25/2009 | X | | | | X | | | | | | | | | | |
| SOC5-SS1B-0.5 | GS | 9/25/2009 | X | | | | X | | | | | | | | | | |
| SOC5-SS1C-0.5 | GS | 9/25/2009 | X | | | | X | | | | | | | | | | |
| SOC5-SS2-0.5 | GS | 8/31/2009 | X | | | | X | X | | | X | | X | X | | | |
| SOC5-SS2A-0.5 | GS | 9/25/2009 | X | | | | | | X | | | | | | | | Sample collected to further define extent of mercury |
| SOC5-SS2B-0.5 | GS | 9/25/2009 | X | | | | | | X | | | | | | | | |
| SOC5-SS2B-1.5-2.0 | GS | 11/10/2009 | X | | | | | | X | | | | | | | | |
| SOC5-SS2B-3-4 | GS | 12/23/2009 | X | | | | | | X | | | | | | | | |
| SOC5-SS2C-0.5 | GS | 11/10/2009 | X | | | | | | X | | | | | | | | |
| SOC5-SS2D-0.5 | GS | 11/10/2009 | X | | | | | | X | | | | | | | | |
| SOC5-SS2E-0.5 | GS | 11/10/2009 | X | | | | | | X | | | | | | | | |
| SOC5-SS2F-0.5 | GS | 11/10/2009 | X | | | | | | X | | | | | | | | |
| SOC5-SS2G-0.5 | GS | 11/10/2009 | X | | | | | | X | | | | | | | | |
| SOC5-SS2H-0.5 | GS | 11/10/2009 | X | | | | | | X | | | | | | | | |
| SOC5-SS2I-0.5 | GS | 11/10/2009 | X | | | | | | X | | | | | | | | |
| SOC5-SS2J-0-1 | GS | 12/23/2009 | X | | | | | | X | | | | | | | | |
| SOC5-SS2J-2-3 | GS | 12/23/2009 | X | | | | | | X | | | | | | | | |
| SOC5-SS2K-0-1 | GS | 12/23/2009 | X | | | | | | X | | | | | | | | |
| SOC5-SS2K-2-3 | GS | 12/23/2009 | X | | | | | | X | | | | | | | | |
| SOC5-SS2L-0-1 | GS | 12/23/2009 | X | | | | | | X | | | | | | | | |
| SOC5-SS2M-0-1 | GS | 12/23/2009 | X | | | | | | X | | | | | | | | |
| SOC5-SS2N-0-1 | GS | 12/23/2009 | X | | | | | | X | | | | | | | | |
| SOC5-SS2O-0-1 | GS | 12/23/2009 | X | | | | | | X | | | | | | | | |
| SOC5-SS2O-2-3 | GS | 12/23/2009 | X | | | | | | X | | | | | | | | |
| SOC5-SS2P-0-1 | GS | 12/23/2009 | X | | | | | | X | | | | | | | | |
| SOC5-SS2Q-0-2 | GS | 12/23/2009 | X | | | | | | X | | | | | | | | |
| SOC5-SS2R-0-2 | GS | 12/23/2009 | X | | | | | | X | | | | | | | | |
| SOC5-SS2T-0-1 | GS | 12/23/2009 | X | | | | | | X | | | | | | | | |
| SOC5-SS2T-2-3 | GS | 12/23/2009 | X | | | | | | X | | | | | | | | |
| SOC5-SS3-0.5 | GS | 8/31/2009 | X | | | | X | X | | | X | | X | X | | | |
| SOC5-SS4-0.5 | GS | 8/31/2009 | X | | | | X | X | | | X | | X | X | | | |
| SOC5-SS5-0.5 | GS | 8/31/2009 | X | | | | X | X | | | X | | X | X | | | |
| SOC5-SS6-0.5 | GS | 8/31/2009 | X | | | | X | X | | | X | | X | X | | | |
| SOC5-SS7-0.5 | GS | 9/18/2009 | X | | | | X | X | | | X | | X | X | | | |
| SOC5-SS8-0.5 | GS | 9/10/2009 | X | | | | X | X | | | X | | X | X | | | |
| SOC5-SS9-0.5 | GS | 9/1/2009 | X | | | | X | X | | | X | | X | X | | | |
| SOC5-SS10-0.5 | GS | 9/10/2009 | X | | | | X | X | | | X | | X | X | | | |
| SOC5-SS11-0.5 | GS | 9/18/2009 | X | | | | X | X | | | X | | X | X | | | |
| SOC5-SS12-0.5 | SOC5-OU1 | 8/31/2009 | X | | | | X | | | | | | | | | | |
| SOC5-SS14-0.5 | SOC5-OU1 | 8/31/2009 | X | | | | X | | | | | | | | | | |
| SOC5-SS16-0.5 | SOC5-OU1 | 8/31/2009 | X | | | | X | | | | | | | | | | |
| SOC5-SS18-0.5 | SOC5-OU1 | 8/31/2009 | X | | | | X | | | | | | | | | | |
| SOC5-SS19-0.5 | SOC5-OU1 | 9/25/2009 | X | | | | X | | | | | | | | | | |
| SOC5-SS20-0.5 | SOC5-OU1 | 8/31/2009 | X | | | | X | | | | | | | | | | |
| SOC5-SS21-0.5 | SOC5-OU1 | 9/25/2009 | X | | | | X | | | | | | | | | | |
| SOC5-SS22-0.5 | SOC5-OU1 | 8/31/2009 | X | | | | X | | | | | | | | | | |
| SOC5-SS23-0.5 | SOC5-OU1 | 9/25/2009 | X | | | | X | | | | | | | | | | |
| SOC5-SS24-0.5 | SOC5-OU1 | 8/31/2009 | X | | | | X | | | | | | | | | | |
| SOC5-SS25-0.5 | SOC5-OU1 | 9/25/2009 | X | | | | X | | | | | | | | | | |
| SOC5-SS26-0.5 | SOC5-OU1 | 8/31/2009 | X | | | | X | | | | | | | | | | |
| SOC5-SS27-0.5 | SOC5-OU1 | 9/25/2009 | X | | | | X | | | | | | | | | | |

**Table 2**
**Sample Collection and Analysis Summary**
**SSI/RI Report**
**SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| Sample Name | Preliminary Operating Unit Number[5] | Sample Date | Sample Matrix | | | Analytes | | | | | | | | | | | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Soil | Water | Other | VOCs | SVOCs | Metals [1] | Mercury | Perchlorate | Nitrocellulose | Nitrogen [2] | OC Pesticides [3] | List 1&2 Pesticides [4] | PCBs | Asbestos | |
| SOC5-SS28-0.5 | SOC5-OU1 | 8/31/2009 | X | | | | X | | | | | | | | | | |
| SOC5-SS30-0.5 | SOC5-OU1 | 8/31/2009 | X | | | | X | | | | | | | | | | |
| SOC5-SS32-0.5 | SOC5-OU1 | 8/31/2009 | X | | | | X | | | | | | | | | | |
| SOC5-SS39-0.5 | Other | 9/25/2009 | X | | | | X | X | | | | | | | | | Sample collected below dirt floor inside the shed south of Building 607. |
| SOC5-SS43-0.5 | SOC5-OU1 | 9/25/2009 | X | | | | X | | | | | | | | | | |
| SOC5-SS44-0.5 | SOC5-OU1 | 9/25/2009 | X | | | | X | | | | | | | | | | |
| SOC5-SS45-0.5 | SOC5-OU1 | 9/25/2009 | X | | | | X | | | | | | | | | | |
| SOC5-SS46-0.5 | Other | 8/31/2009 | X | | | | | | | | | | | | X | | |
| SOC5-SS47-0.5 | Other | 9/18/2009 | X | | | | | | | | | | | | X | | |
| SOC5-SS48-0.5 | Other | 9/8/2009 | X | | | | | | | | | | | | X | | |
| SOC5-SS49-0.5 | Other | 9/8/2009 | X | | | | | | | | | | | | X | | |
| SOC5-TT2-3 | SOC5-OU1 | 9/3/2009 | X | | | | X | X | | | X | | X | X | | | Sample collected below clay pipe. |
| SOC5-TT5-4 | SOC5-OU1 | 9/3/2009 | X | | | | X | X | | | X | | X | X | | | Sample collected below clay pipe. |
| SOC5-TT7-4 | SOC5-OU1 | 9/8/2009 | X | | | | X | X | | | X | | X | X | | | Sample collected below clay pipe. |
| SOC5-TT9-13 | SOC5-OU1 | 9/8/2009 | X | | | | X | X | | | X | | X | X | | | Sample collected below clay pipe. |
| SOC5-TT13-3 | SOC5-OU1 | 9/10/2009 | X | | | | X | X | | | X | | X | X | | | Sample collected below clay pipe. |
| SOC5-TT18-4 | SOC5-OU1 | 9/9/2009 | X | | | | X | X | | | X | | X | X | | | Sample collected below clay pipe. |
| SOC5-TT25-5 | SOC5-OU1 | 9/9/2009 | X | | | | X | X | | | X | | X | X | | | Sample collected below clay pipe. |
| SOC5-TT29-5 | SOC5-OU2 | 9/1/2009 | X | | | | | X | | | | | X | X | | | Sample collected of suspect lagoon bottom. |
| SOC5-TT29-6 | SOC5-OU2 | 9/1/2009 | X | | | | | | | | | | X | X | | | Sample collected of native soil below lagoon bottom. |
| SOC5-Bld604-Npipe | Other | 9/2/2009 | | | X | | X | | | | X | | | | | | Sample collected of white precipitate inside clay pipe at Building 604. |
| Tar Coating | Other | 8/30/2009 | | | X | | X | | | | | | | | | | Sample collected to evaluate whether tar coating was source of SVOC detections around bunkers. |
| Bunker 260-E - North Exterior Wall | Other | 6/26/2009 | | | X | | | | | | | | | | | X | Sample collected to evaluate whether tar coating is asbestos-containing material. |

**Notes:**

1 - Metals - includes all metals on Pollutant Priority List (i.e., antimony, arsenic, beryllium, cadmium, total chromium, copper, lead, mercury, nickel, selenium, silver, thallium and zinc)
2 - Nitrogen analysis include Nitrate+Nitrite (As N) and Total Kjeldahl Nitrogen (TKN)
3 - OC-Pest - includes organochlorine pesticides listed in EPA method # 8081A
4 - List1&2-Pest - includes Minnesota Department of Agriculture Pesticides List 1 (neutral) and List 2 (acid) pesticides
5 - Preliminary Operating Unit Descriptions
SOC4-OU1 - DNT-Loading Platform and Drainage Ditch
SOC4-OU2 - Settling Basin and Drainage Ditch South of SOC 5
SOC4-OU3 - Area of Suspected Surficial Debris
SOC5-OU1 - DNT-Storage Bunkers
SOC5-OU2 - Pesticide Release Area
SOC5-OU3 - Petroleum Release Area
GS - Green Space
GW - Groundwater
Other - Other sampling location
VOCs - Volatile organic compounds
SVOCs - Semi-volatile organic compounds
PCBs - Polychlorinated biphenyls
Blank indicates no sample collected
See Sampling Anaysis Plan for analytical method number
Investigative samples listed in this table. See Appendices for quality assurance/quality control (QA/QC) sample information

# Table 3
## SOC 4 - Soil Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | Sys Loc Code | SOC4-GP1 | SOC4-GP2 | SOC4-GP3 | SOC4-GP4 | | SOC4-GP5 | SOC4-GP6 | SOC4-GP7 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/09/2009 | 09/11/2009 | 09/11/2009 | 09/10/2009 | | 09/10/2009 | 09/09/2009 | 09/10/2009 |
| | | Depth Interval | 0.5-2 | 1-3 | 1-3 | 1-2 | 1-2 | 1-3 | 1-2 | 1-2 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | | |
| **Exceedance Key** | No Exceed | No Exceed | | | | | | | | |
| General Parameters | | | | | | | | | | |
| Nitrocellulose | | | < 5.9 mg/kg | < 5.7 mg/kg | < 5.8 mg/kg | < 5.9 mg/kg | -- | < 5.8 mg/kg | < 5.7 mg/kg | < 5.8 mg/kg |
| Metals | | | | | | | | | | |
| Antimony | 2.7 mg/kg | 12 mg/kg | < 0.59 mg/kg | -- | -- | < 0.58 mg/kg | < 0.59 mg/kg | < 0.57 mg/kg | < 0.51 mg/kg | -- |
| Arsenic | 15.1 mg/kg | 9 mg/kg | 5.5 mg/kg | -- | -- | 5.8 mg/kg | 6.7 mg/kg | 5.0 mg/kg | 1.2 mg/kg | -- |
| Beryllium | 1.4 mg/kg | 55 mg/kg | < 0.29 mg/kg | -- | -- | < 0.29 mg/kg | < 0.29 mg/kg | < 0.29 mg/kg | < 0.26 mg/kg | -- |
| Cadmium | 4.4 mg/kg | 25 mg/kg | < 0.29 mg/kg | -- | -- | < 0.29 mg/kg | < 0.29 mg/kg | < 0.29 mg/kg | < 0.26 mg/kg | -- |
| Chromium, total | 1000000 mg/kg | 44000 mg/kg | 13 mg/kg | -- | -- | 14 mg/kg | 18 mg/kg | 13 mg/kg | 5.4 mg/kg | -- |
| Copper | 400 mg/kg | 100 mg/kg | 8.3 mg/kg | -- | -- | 11 mg/kg | 13 mg/kg | 10 mg/kg | 6.0 mg/kg | -- |
| Lead | 525 mg/kg | 300 mg/kg | 9.6 mg/kg | -- | -- | 8.2 mg/kg | 9.6 mg/kg | 7.9 mg/kg | 1.1 mg/kg | -- |
| Mercury | 1.6 MC mg/kg | 0.5 mg/kg | < 0.12 mg/kg | -- | -- | < 0.12 mg/kg | < 0.12 mg/kg | < 0.11 mg/kg | < 0.10 mg/kg | -- |
| Nickel | 88 mg/kg | 560 mg/kg | 11 mg/kg | -- | -- | 18 mg/kg | 19 mg/kg | 14 mg/kg | 6.1 mg/kg | -- |
| Selenium | 1.5 mg/kg | 160 mg/kg | < 1.2 mg/kg | -- | -- | < 1.2 mg/kg | < 1.2 mg/kg | < 1.1 mg/kg | < 1.0 mg/kg | -- |
| Silver | 3.9 mg/kg | 160 mg/kg | < 0.29 mg/kg | -- | -- | < 0.29 mg/kg | < 0.29 mg/kg | < 0.29 mg/kg | < 0.26 mg/kg | -- |
| Thallium | | 3 mg/kg | < 2.4 mg/kg | -- | -- | < 2.3 mg/kg | < 2.4 mg/kg | < 2.3 mg/kg | < 2.0 mg/kg | -- |
| Zinc | 1500 mg/kg | 8700 mg/kg | < 1.2 mg/kg | -- | -- | < 1.2 * mg/kg | < 1.2 mg/kg | < 1.1 mg/kg | < 1.0 mg/kg | -- |
| SVOCs | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.31 mg/kg | 200 mg/kg | < 0.032 mg/kg | < 0.030 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg | < 0.032 mg/kg | < 0.031 mg/kg | < 0.028 mg/kg | < 0.031 mg/kg |
| 1,2-Dichlorobenzene | 8.1 mg/kg | 26 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.026 mg/kg | < 0.029 mg/kg |
| 1,3-Dichlorobenzene | 4.2 mg/kg | 26 mg/kg | < 0.027 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.026 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg |
| 1,4-Dichlorobenzene | 0.13 mg/kg | 30 mg/kg | < 0.028 mg/kg | < 0.027 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.024 mg/kg | < 0.028 mg/kg |
| 2,3,4,6-Tetrachlorophenol | | 636 mg/kg | < 0.045 mg/kg | < 0.042 mg/kg | < 0.044 mg/kg | < 0.044 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg | < 0.039 mg/kg | < 0.044 mg/kg |
| 2,4,5-Trichlorophenol | | 1920 mg/kg | < 0.028 mg/kg | < 0.027 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.024 mg/kg | < 0.028 mg/kg |
| 2,4,6-Trichlorophenol | 0.21 mg/kg | 595 mg/kg | < 0.041 mg/kg | < 0.039 mg/kg | < 0.040 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.036 mg/kg | < 0.041 mg/kg |
| 2,4-Dichlorophenol | 0.076 mg/kg | 48 mg/kg | < 0.041 mg/kg | < 0.039 mg/kg | < 0.040 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.036 mg/kg | < 0.041 mg/kg |
| 2,4-Dimethylphenol | 0.34 mg/kg | 390 mg/kg | < 0.11 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.11 mg/kg | < 0.10 mg/kg | < 0.092 mg/kg | < 0.10 mg/kg |
| 2,4-Dinitrophenol | 0.014 mg/kg | | < 0.068 mg/kg | < 0.064 mg/kg | < 0.067 mg/kg | < 0.067 mg/kg | < 0.068 mg/kg | < 0.067 mg/kg | < 0.059 mg/kg | < 0.067 mg/kg |
| 2,4-Dinitrotoluene | 0.001 mg/kg | 50 mg/kg | < 0.025 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.025 mg/kg | < 0.024 mg/kg | < 0.021 mg/kg | < 0.024 mg/kg |
| 2,6-Dichlorophenol | | | < 0.051 mg/kg | < 0.048 mg/kg | < 0.049 mg/kg | < 0.050 mg/kg | < 0.051 mg/kg | < 0.049 mg/kg | < 0.044 mg/kg | < 0.050 mg/kg |
| 2,6-Dinitrotoluene | 0.001 mg/kg | 25 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.019 mg/kg | < 0.022 mg/kg |
| 2-Chloronaphthalene | | | < 0.022 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.019 mg/kg | < 0.022 mg/kg |
| 2-Chlorophenol | 0.26 mg/kg | | < 0.045 mg/kg | < 0.042 mg/kg | < 0.044 mg/kg | < 0.044 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg | < 0.039 mg/kg | < 0.044 mg/kg |
| 2-Methyl-4,6-dinitrophenol | | | < 0.087 mg/kg | < 0.082 mg/kg | < 0.085 mg/kg | < 0.086 mg/kg | < 0.087 mg/kg | < 0.085 mg/kg | < 0.076 mg/kg | < 0.086 mg/kg |
| 2-Methylnaphthalene | | 100 mg/kg | < 0.033 mg/kg | < 0.031 mg/kg | < 0.032 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg | < 0.032 mg/kg | < 0.029 mg/kg | < 0.033 mg/kg |
| 2-Nitroaniline | | | < 0.024 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.023 mg/kg | < 0.020 mg/kg | < 0.023 mg/kg |
| 2-Nitrophenol | 0.6 mg/kg | | < 0.042 mg/kg | < 0.040 mg/kg | < 0.041 mg/kg | < 0.042 mg/kg | < 0.042 mg/kg | < 0.041 mg/kg | < 0.037 mg/kg | < 0.042 mg/kg |
| 3,3`-Dichlorobenzidine | 0.36 mg/kg | 25 mg/kg | < 0.46 mg/kg | < 0.43 mg/kg | < 0.45 mg/kg | < 0.45 mg/kg | < 0.46 mg/kg | < 0.45 mg/kg | < 0.40 mg/kg | < 0.45 mg/kg |
| 3-Nitroaniline | | | < 0.039 mg/kg | < 0.037 mg/kg | < 0.038 mg/kg | < 0.038 mg/kg | < 0.039 mg/kg | < 0.038 mg/kg | < 0.034 mg/kg | < 0.038 mg/kg |
| 4-Bromophenyl phenyl ether | | | < 0.020 mg/kg | < 0.019 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.017 mg/kg | < 0.020 mg/kg |
| 4-Chloro-3-methylphenol | | | < 0.047 mg/kg | < 0.044 mg/kg | < 0.046 mg/kg | < 0.047 mg/kg | < 0.047 mg/kg | < 0.046 mg/kg | < 0.041 mg/kg | < 0.047 mg/kg |

# Table 3
## SOC 4 - Soil Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | Sys Loc Code | SOC4-GP1 | SOC4-GP2 | SOC4-GP3 | SOC4-GP4 | | SOC4-GP5 | SOC4-GP6 | SOC4-GP7 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/09/2009 | 09/11/2009 | 09/11/2009 | 09/10/2009 | | 09/10/2009 | 09/09/2009 | 09/10/2009 |
| | | Depth Interval | 0.5-2 | 1-3 | 1-3 | 1-2 | 1-2 | 1-3 | 1-2 | 1-2 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | | |
| **Exceedance Key** | No Exceed | No Exceed | | | | | | | | |
| 4-Chloroaniline | | | < 0.13 mg/kg | < 0.12 mg/kg | < 0.13 mg/kg | < 0.13 mg/kg | < 0.13 mg/kg | < 0.13 mg/kg | < 0.11 mg/kg | < 0.13 mg/kg |
| 4-Chlorophenyl phenyl ether | | | < 0.027 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.026 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg |
| 4-Nitroaniline | | | < 0.027 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.026 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg |
| 4-Nitrophenol | | | < 0.12 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.12 mg/kg | < 0.12 mg/kg | < 0.11 mg/kg | < 0.10 mg/kg | < 0.12 mg/kg |
| Acenaphthene | 50 mg/kg | 1200 mg/kg | < 0.033 mg/kg | < 0.031 mg/kg | < 0.032 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg | < 0.032 mg/kg | < 0.029 mg/kg | < 0.033 mg/kg |
| Acenaphthylene | | | < 0.027 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.026 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg |
| Aniline | | | < 0.11 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.11 mg/kg | < 0.10 mg/kg | < 0.092 mg/kg | < 0.10 mg/kg |
| Anthracene | 942 mg/kg | 7880 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.026 mg/kg | < 0.029 mg/kg |
| Azobenzene | | | < 0.024 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.023 mg/kg | < 0.020 mg/kg | < 0.023 mg/kg |
| Benzidine | | | < 0.85 mg/kg | < 0.80 mg/kg | < 0.83 mg/kg | < 0.84 mg/kg | < 0.85 mg/kg | < 0.83 mg/kg | < 0.73 mg/kg | < 0.84 mg/kg |
| Benzo(g,h,i)perylene | | | < 0.035 mg/kg | < 0.033 mg/kg | < 0.034 mg/kg | < 0.035 mg/kg | < 0.035 mg/kg | < 0.034 mg/kg | < 0.031 mg/kg | < 0.035 mg/kg |
| Benzoic Acid | 30 mg/kg | 50000 mg/kg | < 0.068 mg/kg | < 0.064 mg/kg | < 0.067 mg/kg | < 0.067 mg/kg | < 0.068 mg/kg | < 0.067 mg/kg | < 0.059 mg/kg | < 0.067 mg/kg |
| Benzyl alcohol | | 8700 mg/kg | < 0.14 mg/kg | < 0.13 mg/kg | < 0.14 mg/kg | < 0.14 mg/kg | < 0.14 mg/kg | < 0.14 mg/kg | < 0.12 mg/kg | < 0.14 mg/kg |
| Bis(2-chloroethoxy)methane | | | < 0.025 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.025 mg/kg | < 0.024 mg/kg | < 0.021 mg/kg | < 0.024 mg/kg |
| Bis(2-chloroethyl)ether | 0.001 mg/kg | 2.5 mg/kg | < 0.028 mg/kg | < 0.027 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.024 mg/kg | < 0.028 mg/kg |
| Bis(2-chloroisopropyl)ether | 0.67 mg/kg | | < 0.026 mg/kg | < 0.024 mg/kg | < 0.025 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.025 mg/kg | < 0.022 mg/kg | < 0.026 mg/kg |
| Bis(2-ethylhexyl)phthalate | 40 mg/kg | 570 mg/kg | < 0.024 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.023 mg/kg | < 0.020 mg/kg | < 0.023 mg/kg |
| Butyl benzyl phthalate | 28 mg/kg | 580 mg/kg | < 0.025 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.025 mg/kg | < 0.024 mg/kg | < 0.021 mg/kg | < 0.024 mg/kg |
| Carbazole | | 700 mg/kg | < 0.026 mg/kg | < 0.024 mg/kg | < 0.025 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.025 mg/kg | < 0.022 mg/kg | < 0.026 mg/kg |
| Dibenzofuran | | 104 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.019 mg/kg | < 0.022 mg/kg |
| Diethyl phthalate | 18 mg/kg | | < 0.018 mg/kg | < 0.017 mg/kg | < 0.017 mg/kg | < 0.017 mg/kg | < 0.018 mg/kg | < 0.017 mg/kg | < 0.015 mg/kg | < 0.017 mg/kg |
| Dimethyl phthalate | 172 mg/kg | | < 0.021 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.018 mg/kg | < 0.021 mg/kg |
| Di-n-butyl phthalate | 23 mg/kg | 2440 mg/kg | < 0.044 mg/kg | < 0.041 mg/kg | < 0.043 mg/kg | < 0.043 mg/kg | < 0.044 mg/kg | < 0.043 mg/kg | < 0.038 mg/kg | < 0.043 mg/kg |
| Di-n-octyl phthalate | | 520 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.026 mg/kg | < 0.029 mg/kg |
| Fluoranthene | 295 mg/kg | 1080 mg/kg | < 0.028 mg/kg | < 0.027 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.024 mg/kg | < 0.028 mg/kg |
| Fluorene | 47 mg/kg | 850 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.018 mg/kg | < 0.021 mg/kg |
| Hexachlorobenzene | 0.32 mg/kg | 5 mg/kg | < 0.019 mg/kg | < 0.018 mg/kg | < 0.018 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg | < 0.018 mg/kg | < 0.016 mg/kg | < 0.019 mg/kg |
| Hexachlorobutadiene | 25 mg/kg | 6 mg/kg | < 0.039 mg/kg | < 0.037 mg/kg | < 0.038 mg/kg | < 0.038 mg/kg | < 0.039 mg/kg | < 0.038 mg/kg | < 0.034 mg/kg | < 0.038 mg/kg |
| Hexachlorocyclopentadiene | 4.4 mg/kg | 2 mg/kg | < 0.048 mg/kg | < 0.046 mg/kg | < 0.047 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg | < 0.047 mg/kg | < 0.042 mg/kg | < 0.048 mg/kg |
| Hexachloroethane | 0.05 mg/kg | | < 0.033 mg/kg | < 0.031 mg/kg | < 0.032 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg | < 0.032 mg/kg | < 0.029 mg/kg | < 0.033 mg/kg |
| Isophorone | 0.16 mg/kg | | < 0.020 mg/kg | < 0.019 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.017 mg/kg | < 0.020 mg/kg |
| Naphthalene | 7.5 mg/kg | 10 mg/kg | < 0.034 mg/kg | < 0.032 mg/kg | < 0.033 mg/kg | < 0.034 mg/kg | < 0.034 mg/kg | < 0.033 mg/kg | < 0.030 mg/kg | < 0.034 mg/kg |
| Nitrobenzene | | | < 0.035 mg/kg | < 0.033 mg/kg | < 0.034 mg/kg | < 0.035 mg/kg | < 0.035 mg/kg | < 0.034 mg/kg | < 0.031 mg/kg | < 0.035 mg/kg |
| N-Nitrosodimethylamine | 0.82 mg/kg | | < 0.038 mg/kg | < 0.036 mg/kg | < 0.037 mg/kg | < 0.037 mg/kg | < 0.038 mg/kg | < 0.037 mg/kg | < 0.033 mg/kg | < 0.037 mg/kg |
| N-Nitrosodi-n-propylamine | | 0.7 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.026 mg/kg | < 0.029 mg/kg |
| N-Nitrosodiphenylamine | 0.88 mg/kg | 1950 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.018 mg/kg | < 0.021 mg/kg |
| o-Cresol | 0.064 mg/kg | 75 mg/kg | < 0.041 mg/kg | < 0.039 mg/kg | < 0.040 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.036 mg/kg | < 0.041 mg/kg |
| p-Cresol | 0.033 mg/kg | 10 mg/kg | < 0.032 mg/kg | < 0.030 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg | < 0.032 mg/kg | < 0.031 mg/kg | < 0.028 mg/kg | < 0.031 mg/kg |
| Pentachlorophenol | 0.034 mg/kg | 80 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.098 mg/kg | < 0.11 mg/kg |
| Phenanthrene | | | < 0.022 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | 0.051 j mg/kg | < 0.022 mg/kg |

# Table 3
## SOC 4 - Soil Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | Sys Loc Code | SOC4-GP1 | SOC4-GP2 | SOC4-GP3 | SOC4-GP4 | | SOC4-GP5 | SOC4-GP6 | SOC4-GP7 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/09/2009 | 09/11/2009 | 09/11/2009 | 09/10/2009 | | 09/10/2009 | 09/09/2009 | 09/10/2009 |
| | | Depth Interval | 0.5-2 | 1-3 | 1-3 | 1-2 | 1-2 | 1-3 | 1-2 | 1-2 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | | |
| **Exceedance Key** | No Exceed | No Exceed | | | | | | | | |
| Phenol | 7.8 mg/kg | 1500 mg/kg | < 0.067 mg/kg | < 0.063 mg/kg | < 0.066 mg/kg | < 0.066 mg/kg | < 0.067 mg/kg | < 0.066 mg/kg | < 0.058 mg/kg | < 0.066 mg/kg |
| Pyrene | 272 mg/kg | 890 mg/kg | < 0.027 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.026 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg |
| Benzo(a)anthracene | T | T | < 0.032 mg/kg | < 0.030 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg | < 0.032 mg/kg | < 0.031 mg/kg | < 0.028 mg/kg | < 0.031 mg/kg |
| Benzo(a)pyrene | T | T | < 0.032 mg/kg | < 0.030 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg | < 0.032 mg/kg | < 0.031 mg/kg | < 0.028 mg/kg | < 0.031 mg/kg |
| Benzo(b)fluoranthene | T | T | < 0.040 mg/kg | < 0.038 mg/kg | < 0.039 mg/kg | < 0.040 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.035 mg/kg | < 0.040 mg/kg |
| Benzo(k)fluoranthene | T | T | < 0.036 mg/kg | < 0.034 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.032 mg/kg | < 0.036 mg/kg |
| Chrysene | T | T | < 0.039 mg/kg | < 0.037 mg/kg | < 0.038 mg/kg | < 0.038 mg/kg | < 0.039 mg/kg | < 0.038 mg/kg | < 0.034 mg/kg | < 0.038 mg/kg |
| Dibenz(a,h)anthracene | T | T | < 0.040 mg/kg | < 0.038 mg/kg | < 0.039 mg/kg | < 0.040 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.035 mg/kg | < 0.040 mg/kg |
| Indeno(1,2,3-cd)pyrene | T | T | < 0.038 mg/kg | < 0.036 mg/kg | < 0.037 mg/kg | < 0.037 mg/kg | < 0.038 mg/kg | < 0.037 mg/kg | < 0.033 mg/kg | < 0.037 mg/kg |
| **BaP equivalent, non-detects at zero for the detection limit.[1]** | 10.2 T mg/kg | 2 T mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg |
| VOCs | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | 1.4 mg/kg | 31 mg/kg | -- | -- | -- | < 0.033 mg/kg | < 0.031 mg/kg | -- | -- | -- |
| 1,1,1-Trichloroethane | 3.5 mg/kg | 140 mg/kg | -- | -- | -- | < 0.041 mg/kg | < 0.039 mg/kg | -- | -- | -- |
| 1,1,2,2-Tetrachloroethane | 0.005 mg/kg | 3.5 mg/kg | -- | -- | -- | < 0.031 mg/kg | < 0.029 mg/kg | -- | -- | -- |
| 1,1,2-Trichloroethane | 0.01 mg/kg | 9 mg/kg | -- | -- | -- | < 0.046 mg/kg | < 0.044 mg/kg | -- | -- | -- |
| 1,1-Dichloro-1-propene | | | -- | -- | -- | < 0.034 mg/kg | < 0.032 mg/kg | -- | -- | -- |
| 1,1-Dichloroethane | 0.18 mg/kg | 34 mg/kg | -- | -- | -- | < 0.030 mg/kg | < 0.028 mg/kg | -- | -- | -- |
| 1,1-Dichloroethylene | 0.025 mg/kg | 20 mg/kg | -- | -- | -- | < 0.031 mg/kg | < 0.029 mg/kg | -- | -- | -- |
| 1,2,3-Trichlorobenzene | | | -- | -- | -- | < 0.083 mg/kg | < 0.078 mg/kg | -- | -- | -- |
| 1,2,3-Trichloropropane | 0.35 mg/kg | | -- | -- | -- | < 0.066 mg/kg | < 0.062 mg/kg | -- | -- | -- |
| 1,2,4-Trichlorobenzene | 0.31 mg/kg | 200 mg/kg | -- | -- | -- | < 0.080 mg/kg | < 0.075 mg/kg | -- | -- | -- |
| 1,2,4-Trimethylbenzene | | 8 mg/kg | -- | -- | -- | < 0.025 mg/kg | < 0.024 mg/kg | -- | -- | -- |
| 1,2-Dibromo-3-chloropropane | 0.001 mg/kg | | -- | -- | -- | < 0.071 mg/kg | < 0.067 mg/kg | -- | -- | -- |
| 1,2-Dibromoethane | 0.00001 mg/kg | 0.3 mg/kg | -- | -- | -- | < 0.048 mg/kg | < 0.045 mg/kg | -- | -- | -- |
| 1,2-Dichlorobenzene | 8.1 mg/kg | 26 mg/kg | -- | -- | -- | < 0.034 mg/kg | < 0.032 mg/kg | -- | -- | -- |
| 1,2-Dichloroethane | 0.01 mg/kg | 4 mg/kg | -- | -- | -- | < 0.031 mg/kg | < 0.029 mg/kg | -- | -- | -- |
| 1,2-Dichloroethylene, cis | 0.14 mg/kg | 8 mg/kg | -- | -- | -- | < 0.058 mg/kg | < 0.054 mg/kg | -- | -- | -- |
| 1,2-Dichloroethylene, trans | 0.27 mg/kg | 11 mg/kg | -- | -- | -- | < 0.028 mg/kg | < 0.026 mg/kg | -- | -- | -- |
| 1,2-Dichloropropane | 0.011 mg/kg | 4 mg/kg | -- | -- | -- | < 0.035 mg/kg | < 0.033 mg/kg | -- | -- | -- |
| 1,3,5-Trimethylbenzene | | 3 mg/kg | -- | -- | -- | < 0.019 mg/kg | < 0.018 mg/kg | -- | -- | -- |
| 1,3-Dichloro-1-propene trans | 0.005 mg/kg | | -- | -- | -- | < 0.044 mg/kg | < 0.041 mg/kg | -- | -- | -- |
| 1,3-Dichloro-1-propene, cis | 0.005 mg/kg | | -- | -- | -- | < 0.029 mg/kg | < 0.027 mg/kg | -- | -- | -- |
| 1,3-Dichlorobenzene | 4.2 mg/kg | 26 mg/kg | -- | -- | -- | < 0.035 mg/kg | < 0.033 mg/kg | -- | -- | -- |
| 1,3-Dichloropropane | | | -- | -- | -- | < 0.021 mg/kg | < 0.020 mg/kg | -- | -- | -- |
| 1,4-Dichlorobenzene | 0.13 mg/kg | 30 mg/kg | -- | -- | -- | < 0.023 mg/kg | < 0.021 mg/kg | -- | -- | -- |
| 2,2-Dichloropropane | | | -- | -- | -- | < 0.085 mg/kg | < 0.080 mg/kg | -- | -- | -- |
| Acetone | 0.7 mg/kg | 340 mg/kg | -- | -- | -- | < 0.40 mg/kg | < 0.38 mg/kg | -- | -- | -- |
| Allyl Chloride | 0.032 mg/kg | | -- | -- | -- | < 0.084 mg/kg | < 0.079 mg/kg | -- | -- | -- |
| Benzene | 0.034 mg/kg | 6 mg/kg | -- | -- | -- | < 0.019 mg/kg | < 0.018 mg/kg | -- | -- | -- |

# Table 3
## SOC 4 - Soil Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | Sys Loc Code | SOC4-GP1 | SOC4-GP2 | SOC4-GP3 | SOC4-GP4 | | SOC4-GP5 | SOC4-GP6 | SOC4-GP7 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/09/2009 | 09/11/2009 | 09/11/2009 | 09/10/2009 | | 09/10/2009 | 09/09/2009 | 09/10/2009 |
| | | Depth Interval | 0.5-2 | 1-3 | 1-3 | 1-2 | 1-2 | 1-3 | 1-2 | 1-2 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | | |
| **Exceedance Key** | No Exceed | No Exceed | | | | | | | | |
| Bromobenzene | | | -- | -- | -- | < 0.024 mg/kg | < 0.022 mg/kg | -- | -- | -- |
| Bromochloromethane | 0.15 mg/kg | | -- | -- | -- | < 0.031 mg/kg | < 0.029 mg/kg | -- | -- | -- |
| Bromodichloromethane | 0.013 mg/kg | 10 mg/kg | -- | -- | -- | < 0.044 mg/kg | < 0.041 mg/kg | -- | -- | -- |
| Bromoform | 0.14 mg/kg | 370 mg/kg | -- | -- | -- | < 0.10 mg/kg | < 0.094 mg/kg | -- | -- | -- |
| Bromomethane | 0.5 mg/kg | 0.7 mg/kg | -- | -- | -- | < 0.18 mg/kg | < 0.16 mg/kg | -- | -- | -- |
| Butyl benzene | | 30 mg/kg | -- | -- | -- | < 0.040 mg/kg | < 0.038 mg/kg | -- | -- | -- |
| Butylbenzene sec | | 25 mg/kg | -- | -- | -- | < 0.013 mg/kg | < 0.012 mg/kg | -- | -- | -- |
| Butylbenzene tert- | | 30 mg/kg | -- | -- | -- | < 0.023 mg/kg | < 0.021 mg/kg | -- | -- | -- |
| Carbon tetrachloride | 0.023 mg/kg | 0.3 mg/kg | -- | -- | -- | < 0.034 mg/kg | < 0.032 mg/kg | -- | -- | -- |
| Chlorobenzene | 1.1 mg/kg | 11 mg/kg | -- | -- | -- | < 0.031 mg/kg | < 0.029 mg/kg | -- | -- | -- |
| Chlorodibromomethane | 0.03 mg/kg | 12 mg/kg | -- | -- | -- | < 0.040 mg/kg | < 0.038 mg/kg | -- | -- | -- |
| Chloroethane | | 1000 mg/kg | -- | -- | -- | < 0.091 mg/kg | < 0.086 mg/kg | -- | -- | -- |
| Chloroform | 0.17 mg/kg | 2.5 mg/kg | -- | -- | -- | < 0.053 mg/kg | < 0.049 mg/kg | -- | -- | -- |
| Chloromethane | 0.006 mg/kg | 8 mg/kg | -- | -- | -- | < 0.051 mg/kg | < 0.048 mg/kg | -- | -- | -- |
| Chlorotoluene o- | | 436 mg/kg | -- | -- | -- | < 0.023 mg/kg | < 0.021 mg/kg | -- | -- | -- |
| Chlorotoluene p- | | | -- | -- | -- | < 0.036 mg/kg | < 0.034 mg/kg | -- | -- | -- |
| Cumene (isopropyl benzene) | 18 mg/kg | 30 mg/kg | -- | -- | -- | < 0.029 mg/kg | < 0.027 mg/kg | -- | -- | -- |
| Cymene p- (Toluene isopropyl p-) | | | -- | -- | -- | < 0.038 mg/kg | < 0.035 mg/kg | -- | -- | -- |
| Dibromomethane (methylene bromide) | | 260 mg/kg | -- | -- | -- | < 0.058 mg/kg | < 0.054 mg/kg | -- | -- | -- |
| Dichlorodifluoromethane (CFC-12) | 38 mg/kg | 16 mg/kg | -- | -- | -- | < 0.10 mg/kg | < 0.096 mg/kg | -- | -- | -- |
| Dichlorofluoromethane (CFC-21) | | | -- | -- | -- | < 0.055 mg/kg | < 0.052 mg/kg | -- | -- | -- |
| Ethyl benzene | 4.7 mg/kg | 200 mg/kg | -- | -- | -- | < 0.028 mg/kg | < 0.026 mg/kg | -- | -- | -- |
| Ethyl ether | 1.2 mg/kg | | -- | -- | -- | < 0.060 mg/kg | < 0.056 mg/kg | -- | -- | -- |
| Hexachlorobutadiene | 25 mg/kg | 6 mg/kg | -- | -- | -- | < 0.16 mg/kg | < 0.15 mg/kg | -- | -- | -- |
| Methyl ethyl ketone | 6.4 mg/kg | 5500 mg/kg | -- | -- | -- | < 0.15 mg/kg | < 0.14 mg/kg | -- | -- | -- |
| Methyl isobutyl ketone | 0.42 mg/kg | 1700 mg/kg | -- | -- | -- | < 0.12 mg/kg | < 0.11 mg/kg | -- | -- | -- |
| Methyl tertiary butyl ether (MTBE) | 0.027 mg/kg | | -- | -- | -- | < 0.021 mg/kg | < 0.020 mg/kg | -- | -- | -- |
| Methylene chloride | 0.068 mg/kg | 97 mg/kg | -- | -- | -- | < 0.21 mg/kg | < 0.20 mg/kg | -- | -- | -- |
| Naphthalene | 7.5 mg/kg | 10 mg/kg | -- | -- | -- | < 0.081 mg/kg | < 0.076 mg/kg | -- | -- | -- |
| Propylbenzene | | 30 mg/kg | -- | -- | -- | < 0.018 mg/kg | < 0.016 mg/kg | -- | -- | -- |
| Styrene | 1.9 mg/kg | 210 mg/kg | -- | -- | -- | < 0.050 mg/kg | < 0.047 mg/kg | -- | -- | -- |
| Tetrachloroethylene | 0.068 mg/kg | 72 mg/kg | -- | -- | -- | < 0.044 mg/kg | < 0.041 mg/kg | -- | -- | -- |
| Tetrahydrofuran | 0.16 mg/kg | | -- | -- | -- | < 0.13 mg/kg | < 0.12 mg/kg | -- | -- | -- |
| Toluene | 6.4 mg/kg | 107 mg/kg | -- | -- | -- | < 0.035 mg/kg | < 0.033 mg/kg | -- | -- | -- |
| Trichloroethylene | 0.14 mg/kg | 29 mg/kg | -- | -- | -- | < 0.050 mg/kg | < 0.047 mg/kg | -- | -- | -- |
| Trichlorofluoromethane | 22 mg/kg | 67 mg/kg | -- | -- | -- | < 0.040 mg/kg | < 0.038 mg/kg | -- | -- | -- |
| Trichlorotrifluoroethane (Freon 113) | 2580 mg/kg | 3745 mg/kg | -- | -- | -- | < 0.081 mg/kg | < 0.076 mg/kg | -- | -- | -- |
| Vinyl chloride | 0.001 mg/kg | 0.8 mg/kg | -- | -- | -- | < 0.029 mg/kg | < 0.027 mg/kg | -- | -- | -- |
| Xylene m & p | M | M | -- | -- | -- | < 0.11 mg/kg | < 0.10 mg/kg | -- | -- | -- |
| Xylene, o- | M | M | -- | -- | -- | < 0.039 mg/kg | < 0.036 mg/kg | -- | -- | -- |

**Table 3**
**SOC 4 - Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC4-GP1 | SOC4-GP2 | SOC4-GP3 | SOC4-GP4 | | SOC4-GP5 | SOC4-GP6 | SOC4-GP7 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/09/2009 | 09/11/2009 | 09/11/2009 | 09/10/2009 | | 09/10/2009 | 09/09/2009 | 09/10/2009 |
| | | Depth Interval | 0.5-2 | 1-3 | 1-3 | 1-2 | 1-2 | 1-3 | 1-2 | 1-2 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | | |
| **Exceedance Key** | No Exceed | No Exceed | | | | | | | | |
| Xylenes, total | 45 M mg/kg | 45 M mg/kg | -- | -- | -- | ND mg/kg | ND mg/kg | -- | -- | -- |
| Pesticides | | | | | | | | | | |
| 2,4,5-TP (Silvex) | | | -- | -- | -- | < 0.056 mg/kg | -- | -- | -- | -- |
| 2,4,5-Trichlorophenoxyacetic acid | | 290 mg/kg | -- | -- | -- | < 0.056 mg/kg | -- | -- | -- | -- |
| 2,4-D | | 285 mg/kg | -- | -- | -- | < 0.056 mg/kg | -- | -- | -- | -- |
| 2,4-DB | | 226 mg/kg | -- | -- | -- | < 0.056 mg/kg | -- | -- | -- | -- |
| 4,4'-DDD | | 56 mg/kg | -- | -- | -- | < 0.085 mg/kg | < 0.087 mg/kg | -- | -- | -- |
| 4,4'-DDE | | 40 mg/kg | -- | -- | -- | < 0.085 mg/kg | < 0.087 mg/kg | -- | -- | -- |
| 4,4'-DDT | | 15 mg/kg | -- | -- | -- | < 0.085 mg/kg | < 0.087 mg/kg | -- | -- | -- |
| a-BHC | | 2 mg/kg | -- | -- | -- | < 0.085 mg/kg | < 0.087 mg/kg | -- | -- | -- |
| Aldrin | | 1 mg/kg | -- | -- | -- | < 0.085 mg/kg | < 0.087 mg/kg | -- | -- | -- |
| b-BHC | | 7 mg/kg | -- | -- | -- | < 0.085 mg/kg | < 0.087 mg/kg | -- | -- | -- |
| Bentazone | | | -- | -- | -- | < 0.056 mg/kg | -- | -- | -- | -- |
| Chlordane, alpha | | | -- | -- | -- | < 0.085 mg/kg | < 0.087 mg/kg | -- | -- | -- |
| Chlordane, gamma | | | -- | -- | -- | < 0.085 mg/kg | < 0.087 mg/kg | -- | -- | -- |
| d-BHC | | | -- | -- | -- | < 0.085 mg/kg | < 0.087 mg/kg | -- | -- | -- |
| Dicamba | | | -- | -- | -- | < 0.056 mg/kg | -- | -- | -- | -- |
| Dieldrin | | 0.8 mg/kg | -- | -- | -- | < 0.085 mg/kg | < 0.087 mg/kg | -- | -- | -- |
| Dinoseb (DNBP) | | | -- | -- | -- | < 0.056 mg/kg | -- | -- | -- | -- |
| Endosulfan I | | | -- | -- | -- | < 0.085 mg/kg | < 0.087 mg/kg | -- | -- | -- |
| Endosulfan II | | | -- | -- | -- | < 0.085 mg/kg | < 0.087 mg/kg | -- | -- | -- |
| Endosulfan Sulfate | | | -- | -- | -- | < 0.085 mg/kg | < 0.087 mg/kg | -- | -- | -- |
| Endrin | | 8 mg/kg | -- | -- | -- | < 0.085 mg/kg | < 0.087 mg/kg | -- | -- | -- |
| Endrin Aldehyde | | | -- | -- | -- | < 0.085 mg/kg | < 0.087 mg/kg | -- | -- | -- |
| Endrin Ketone | | | -- | -- | -- | < 0.085 mg/kg | < 0.087 mg/kg | -- | -- | -- |
| g-BHC (Lindane) | | 9 mg/kg | -- | -- | -- | < 0.085 mg/kg | < 0.087 mg/kg | -- | -- | -- |
| Heptachlor | | 2 mg/kg | -- | -- | -- | < 0.085 mg/kg | < 0.087 mg/kg | -- | -- | -- |
| Heptachlor Epoxide | | 0.4 mg/kg | -- | -- | -- | < 0.085 mg/kg | < 0.087 mg/kg | -- | -- | -- |
| MCPA | | 16 mg/kg | -- | -- | -- | < 0.056 mg/kg | -- | -- | -- | -- |
| Methoxychlor | | 11 mg/kg | -- | -- | -- | < 0.085 mg/kg | < 0.087 mg/kg | -- | -- | -- |
| Pentachlorophenol | 0.034 mg/kg | 80 mg/kg | -- | -- | -- | < 0.056 mg/kg | -- | -- | -- | -- |
| Picloram | | 2000 mg/kg | -- | -- | -- | < 0.056 * mg/kg | -- | -- | -- | -- |
| Toxaphene | | 13 mg/kg | -- | -- | -- | < 1.7 mg/kg | < 1.7 mg/kg | -- | -- | -- |
| Triclopyr | | | -- | -- | -- | < 0.056 mg/kg | -- | -- | -- | -- |
| Acetochlor | | | -- | -- | -- | < 0.046 mg/kg | -- | -- | -- | -- |
| Alachlor (Lasso) | | | -- | -- | -- | < 0.046 mg/kg | -- | -- | -- | -- |
| Atrazine (Primatol) | | | -- | -- | -- | < 0.046 mg/kg | -- | -- | -- | -- |
| Chlorpyrifos (Lorsban) | | | -- | -- | -- | < 0.046 mg/kg | -- | -- | -- | -- |
| Cyanazine (Bladex) | | | -- | -- | -- | < 0.046 mg/kg | -- | -- | -- | -- |
| Deisopropyl atrazine | | | -- | -- | -- | < 0.046 mg/kg | -- | -- | -- | -- |

**Table 3**
**SOC 4 - Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC4-GP1 | SOC4-GP2 | SOC4-GP3 | SOC4-GP4 | | SOC4-GP5 | SOC4-GP6 | SOC4-GP7 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/09/2009 | 09/11/2009 | 09/11/2009 | 09/10/2009 | | 09/10/2009 | 09/09/2009 | 09/10/2009 |
| | | Depth Interval | 0.5-2 | 1-3 | 1-3 | 1-2 | 1-2 | 1-3 | 1-2 | 1-2 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | | |
| **Exceedance Key** | No Exceed | No Exceed | | | | | | | | |
| Desethylatrazine | | | -- | -- | -- | < 0.046 mg/kg | -- | -- | -- | -- |
| Dimethenamid | | | -- | -- | -- | < 0.046 mg/kg | -- | -- | -- | -- |
| EPTC (Eradicane) | | | -- | -- | -- | < 0.046 mg/kg | -- | -- | -- | -- |
| Ethalfluralin (Sonalan) | | | -- | -- | -- | < 0.046 mg/kg | -- | -- | -- | -- |
| Fonofos (Dyphonate) | | | -- | -- | -- | < 0.046 mg/kg | -- | -- | -- | -- |
| Metolachlor (Dual) | | 435 mg/kg | -- | -- | -- | < 0.046 mg/kg | -- | -- | -- | -- |
| Metribuzin | | | -- | -- | -- | < 0.046 mg/kg | -- | -- | -- | -- |
| Pendimethalin (Prowl) | | | -- | -- | -- | < 0.046 mg/kg | -- | -- | -- | -- |
| Phorate (Thimet) | | | -- | -- | -- | < 0.046 mg/kg | -- | -- | -- | -- |
| Prometon (Pramitol) | | | -- | -- | -- | < 0.046 mg/kg | -- | -- | -- | -- |
| Propachlor | | | -- | -- | -- | < 0.046 mg/kg | -- | -- | -- | -- |
| Propazine (Milogard) | | | -- | -- | -- | < 0.046 mg/kg | -- | -- | -- | -- |
| Simazine (Princep) | | | -- | -- | -- | < 0.046 mg/kg | -- | -- | -- | -- |
| Terbufos (Counter) | | 0.6 mg/kg | -- | -- | -- | < 0.046 mg/kg | -- | -- | -- | -- |
| Triallate (Far-Go) | | | -- | -- | -- | < 0.046 mg/kg | -- | -- | -- | -- |
| Trifluralin (Treflan) | | | -- | -- | -- | < 0.046 mg/kg | -- | -- | -- | -- |
| | | | | | | | | | | |
| PCBs | | | | | | | | | | |
| Aroclor 1016 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | -- | -- | -- | -- | -- | -- | -- | -- |

# Table 3
## SOC 4 - Soil Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | Sys Loc Code | SOC4-TT6 | SOC4-TT9 | | SOC4-TT12 | |
|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/18/2009 | 09/10/2009 | | 09/17/2009 | |
| | | Depth Interval | 0.5 | 6 | 6 | 0.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | |
| **Exceedance Key** | No Exceed | No Exceed | | | | | |
| General Parameters | | | | | | | |
| Nitrocellulose | | | < 5.9 mg/kg | < 5.1 mg/kg | -- | < 6.1 mg/kg | < 6.1 mg/kg |
| Metals | | | | | | | |
| Antimony | 2.7 mg/kg | 12 mg/kg | < 0.60 mg/kg | < 0.51 mg/kg | < 0.51 mg/kg | < 0.62 mg/kg | < 0.62 mg/kg |
| Arsenic | 15.1 mg/kg | 9 mg/kg | 7.7 mg/kg | 1.4 mg/kg | 1.4 mg/kg | 8.1 mg/kg | 8.0 mg/kg |
| Beryllium | 1.4 mg/kg | 55 mg/kg | 0.34 mg/kg | < 0.25 mg/kg | < 0.25 mg/kg | 0.41 mg/kg | 0.39 mg/kg |
| Cadmium | 4.4 mg/kg | 25 mg/kg | < 0.30 mg/kg | < 0.25 mg/kg | < 0.25 mg/kg | < 0.31 mg/kg | < 0.31 mg/kg |
| Chromium, total | 1000000 mg/kg | 44000 mg/kg | 20 mg/kg | 5.3 * mg/kg | 9.1 mg/kg | 22 mg/kg | 21 mg/kg |
| Copper | 400 mg/kg | 100 mg/kg | < 1.2 mg/kg | 5.2 mg/kg | 5.6 mg/kg | < 1.2 * mg/kg | < 1.2 * mg/kg |
| Lead | 525 mg/kg | 300 mg/kg | 14 mg/kg | 1.4 mg/kg | 1.6 mg/kg | 16 mg/kg | 16 mg/kg |
| Mercury | 1.6 MC mg/kg | 0.5 mg/kg | < 0.12 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.12 mg/kg | < 0.12 mg/kg |
| Nickel | 88 mg/kg | 560 mg/kg | 16 mg/kg | 8.4 mg/kg | 7.7 mg/kg | 15 mg/kg | 15 mg/kg |
| Selenium | 1.5 mg/kg | 160 mg/kg | < 1.2 mg/kg | < 1.0 mg/kg | < 1.0 mg/kg | < 1.2 mg/kg | < 1.2 mg/kg |
| Silver | 3.9 mg/kg | 160 mg/kg | < 0.30 mg/kg | < 0.25 mg/kg | < 0.25 mg/kg | < 0.31 mg/kg | < 0.31 mg/kg |
| Thallium | | 3 mg/kg | < 2.4 mg/kg | < 2.0 mg/kg | < 2.0 mg/kg | < 2.5 mg/kg | < 2.5 mg/kg |
| Zinc | 1500 mg/kg | 8700 mg/kg | 47 mg/kg | 3.8 * mg/kg | 7.0 mg/kg | 58 mg/kg | 58 mg/kg |
| SVOCs | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.31 mg/kg | 200 mg/kg | < 0.032 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg |
| 1,2-Dichlorobenzene | 8.1 mg/kg | 26 mg/kg | < 0.030 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg |
| 1,3-Dichlorobenzene | 4.2 mg/kg | 26 mg/kg | < 0.027 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg |
| 1,4-Dichlorobenzene | 0.13 mg/kg | 30 mg/kg | < 0.029 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.030 mg/kg | < 0.030 mg/kg |
| 2,3,4,6-Tetrachlorophenol | | 636 mg/kg | < 0.045 mg/kg | < 0.038 mg/kg | < 0.038 mg/kg | < 0.047 mg/kg | < 0.047 mg/kg |
| 2,4,5-Trichlorophenol | | 1920 mg/kg | < 0.029 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.030 mg/kg | < 0.030 mg/kg |
| 2,4,6-Trichlorophenol | 0.21 mg/kg | 595 mg/kg | < 0.042 mg/kg | < 0.035 mg/kg | < 0.035 mg/kg | < 0.043 mg/kg | < 0.043 mg/kg |
| 2,4-Dichlorophenol | 0.076 mg/kg | 48 mg/kg | < 0.042 mg/kg | < 0.035 mg/kg | < 0.035 mg/kg | < 0.043 mg/kg | < 0.043 mg/kg |
| 2,4-Dimethylphenol | 0.34 mg/kg | 390 mg/kg | < 0.11 mg/kg | < 0.091 mg/kg | < 0.091 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg |
| 2,4-Dinitrophenol | 0.014 mg/kg | | < 0.069 mg/kg | < 0.059 mg/kg | < 0.059 mg/kg | < 0.072 mg/kg | < 0.072 mg/kg |
| 2,4-Dinitrotoluene | 0.001 mg/kg | 50 mg/kg | < 0.025 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg |
| 2,6-Dichlorophenol | | | < 0.051 mg/kg | < 0.043 mg/kg | < 0.043 mg/kg | < 0.053 mg/kg | < 0.053 mg/kg |
| 2,6-Dinitrotoluene | 0.001 mg/kg | 25 mg/kg | < 0.023 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg |
| 2-Chloronaphthalene | | | < 0.023 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg |
| 2-Chlorophenol | 0.26 mg/kg | | < 0.045 mg/kg | < 0.038 mg/kg | < 0.038 mg/kg | < 0.047 mg/kg | < 0.047 mg/kg |
| 2-Methyl-4,6-dinitrophenol | | | < 0.088 mg/kg | < 0.075 mg/kg | < 0.075 mg/kg | < 0.091 mg/kg | < 0.091 mg/kg |
| 2-Methylnaphthalene | | 100 mg/kg | < 0.033 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.035 mg/kg | < 0.035 mg/kg |
| 2-Nitroaniline | | | < 0.024 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg |
| 2-Nitrophenol | 0.6 mg/kg | | < 0.043 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.044 mg/kg | < 0.044 mg/kg |
| 3,3`-Dichlorobenzidine | 0.36 mg/kg | 25 mg/kg | < 0.46 mg/kg | < 0.39 mg/kg | < 0.39 mg/kg | < 0.48 mg/kg | < 0.48 mg/kg |
| 3-Nitroaniline | | | < 0.039 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg |
| 4-Bromophenyl phenyl ether | | | < 0.020 mg/kg | < 0.017 mg/kg | < 0.017 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg |
| 4-Chloro-3-methylphenol | | | < 0.048 mg/kg | < 0.040 mg/kg | < 0.040 mg/kg | < 0.049 mg/kg | < 0.049 mg/kg |

# Table 3
## SOC 4 - Soil Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | Sys Loc Code | SOC4-TT6 | SOC4-TT9 | | SOC4-TT12 | |
|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/18/2009 | 09/10/2009 | | 09/17/2009 | |
| | | Depth Interval | 0.5 | 6 | 6 | 0.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | |
| **Exceedance Key** | No Exceed | No Exceed | | | | | |
| 4-Chloroaniline | | | < 0.13 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.14 mg/kg | < 0.14 mg/kg |
| 4-Chlorophenyl phenyl ether | | | < 0.027 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg |
| 4-Nitroaniline | | | < 0.027 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg |
| 4-Nitrophenol | | | < 0.12 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.12 mg/kg | < 0.12 mg/kg |
| Acenaphthene | 50 mg/kg | 1200 mg/kg | < 0.033 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.035 mg/kg | < 0.035 mg/kg |
| Acenaphthylene | | | < 0.027 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg |
| Aniline | | | < 0.11 mg/kg | < 0.091 mg/kg | < 0.091 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg |
| Anthracene | 942 mg/kg | 7880 mg/kg | < 0.030 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg |
| Azobenzene | | | < 0.024 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg |
| Benzidine | | | < 0.86 mg/kg | < 0.73 mg/kg | < 0.73 mg/kg | < 0.89 mg/kg | < 0.89 mg/kg |
| Benzo(g,h,i)perylene | | | < 0.036 mg/kg | < 0.030 mg/kg | < 0.030 mg/kg | < 0.037 mg/kg | < 0.037 mg/kg |
| Benzoic Acid | 30 mg/kg | 50000 mg/kg | < 0.069 mg/kg | < 0.059 mg/kg | < 0.059 mg/kg | < 0.072 mg/kg | < 0.072 mg/kg |
| Benzyl alcohol | | 8700 mg/kg | < 0.14 mg/kg | < 0.12 mg/kg | < 0.12 mg/kg | < 0.15 mg/kg | < 0.15 mg/kg |
| Bis(2-chloroethoxy)methane | | | < 0.025 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg |
| Bis(2-chloroethyl)ether | 0.001 mg/kg | 2.5 mg/kg | < 0.029 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.030 mg/kg | < 0.030 mg/kg |
| Bis(2-chloroisopropyl)ether | 0.67 mg/kg | | < 0.026 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg |
| Bis(2-ethylhexyl)phthalate | 40 mg/kg | 570 mg/kg | < 0.024 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg |
| Butyl benzyl phthalate | 28 mg/kg | 580 mg/kg | < 0.025 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg |
| Carbazole | | 700 mg/kg | < 0.026 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg |
| Dibenzofuran | | 104 mg/kg | < 0.023 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg |
| Diethyl phthalate | 18 mg/kg | | < 0.018 mg/kg | < 0.015 mg/kg | < 0.015 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg |
| Dimethyl phthalate | 172 mg/kg | | < 0.021 mg/kg | < 0.018 mg/kg | < 0.018 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg |
| Di-n-butyl phthalate | 23 mg/kg | 2440 mg/kg | < 0.044 mg/kg | < 0.037 mg/kg | < 0.037 mg/kg | < 0.046 mg/kg | < 0.046 mg/kg |
| Di-n-octyl phthalate | | 520 mg/kg | < 0.030 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg |
| Fluoranthene | 295 mg/kg | 1080 mg/kg | < 0.029 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.030 mg/kg | < 0.030 mg/kg |
| Fluorene | 47 mg/kg | 850 mg/kg | < 0.021 mg/kg | < 0.018 mg/kg | < 0.018 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg |
| Hexachlorobenzene | 0.32 mg/kg | 5 mg/kg | < 0.019 mg/kg | < 0.016 mg/kg | < 0.016 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg |
| Hexachlorobutadiene | 25 mg/kg | 6 mg/kg | < 0.039 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg |
| Hexachlorocyclopentadiene | 4.4 mg/kg | 2 mg/kg | < 0.049 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg |
| Hexachloroethane | 0.05 mg/kg | | < 0.033 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.035 mg/kg | < 0.035 mg/kg |
| Isophorone | 0.16 mg/kg | | < 0.020 mg/kg | < 0.017 mg/kg | < 0.017 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg |
| Naphthalene | 7.5 mg/kg | 10 mg/kg | < 0.035 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg |
| Nitrobenzene | | | < 0.036 mg/kg | < 0.030 mg/kg | < 0.030 mg/kg | < 0.037 mg/kg | < 0.037 mg/kg |
| N-Nitrosodimethylamine | 0.82 mg/kg | | < 0.038 mg/kg | < 0.032 mg/kg | < 0.032 mg/kg | < 0.040 mg/kg | < 0.040 mg/kg |
| N-Nitrosodi-n-propylamine | | 0.7 mg/kg | < 0.030 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg |
| N-Nitrosodiphenylamine | 0.88 mg/kg | 1950 mg/kg | < 0.021 mg/kg | < 0.018 mg/kg | < 0.018 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg |
| o-Cresol | 0.064 mg/kg | 75 mg/kg | < 0.042 mg/kg | < 0.035 mg/kg | < 0.035 mg/kg | < 0.043 mg/kg | < 0.043 mg/kg |
| p-Cresol | 0.033 mg/kg | 10 mg/kg | < 0.032 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg |
| Pentachlorophenol | 0.034 mg/kg | 80 mg/kg | < 0.11 mg/kg | < 0.097 mg/kg | < 0.097 mg/kg | < 0.12 mg/kg | < 0.12 mg/kg |
| Phenanthrene | | | < 0.023 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg |

# Table 3
## SOC 4 - Soil Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | Sys Loc Code | SOC4-TT6 | SOC4-TT9 | | SOC4-TT12 | |
|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/18/2009 | 09/10/2009 | | 09/17/2009 | |
| | | Depth Interval | 0.5 | 6 | 6 | 0.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | |
| **Exceedance Key** | No Exceed | No Exceed | | | | | |
| Phenol | 7.8 mg/kg | 1500 mg/kg | < 0.068 mg/kg | < 0.058 mg/kg | < 0.058 mg/kg | < 0.070 mg/kg | < 0.070 mg/kg |
| Pyrene | 272 mg/kg | 890 mg/kg | < 0.027 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg |
| Benzo(a)anthracene | T | T | < 0.032 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg |
| Benzo(a)pyrene | T | T | < 0.032 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg |
| Benzo(b)fluoranthene | T | T | < 0.040 mg/kg | < 0.034 mg/kg | < 0.034 mg/kg | < 0.042 mg/kg | < 0.042 mg/kg |
| Benzo(k)fluoranthene | T | T | < 0.037 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg | < 0.038 mg/kg | < 0.038 mg/kg |
| Chrysene | T | T | < 0.039 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg |
| Dibenz(a,h)anthracene | T | T | < 0.040 mg/kg | < 0.034 mg/kg | < 0.034 mg/kg | < 0.042 mg/kg | < 0.042 mg/kg |
| Indeno(1,2,3-cd)pyrene | T | T | < 0.038 mg/kg | < 0.032 mg/kg | < 0.032 mg/kg | < 0.040 mg/kg | < 0.040 mg/kg |
| **BaP equivalent, non-detects at zero for the detection limit.[1]** | 10.2 T mg/kg | 2 T mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg |
| VOCs | | | | | | | |
| 1,1,1,2-Tetrachloroethane | 1.4 mg/kg | 31 mg/kg | -- | -- | -- | -- | -- |
| 1,1,1-Trichloroethane | 3.5 mg/kg | 140 mg/kg | -- | -- | -- | -- | -- |
| 1,1,2,2-Tetrachloroethane | 0.005 mg/kg | 3.5 mg/kg | -- | -- | -- | -- | -- |
| 1,1,2-Trichloroethane | 0.01 mg/kg | 9 mg/kg | -- | -- | -- | -- | -- |
| 1,1-Dichloro-1-propene | | | -- | -- | -- | -- | -- |
| 1,1-Dichloroethane | 0.18 mg/kg | 34 mg/kg | -- | -- | -- | -- | -- |
| 1,1-Dichloroethylene | 0.025 mg/kg | 20 mg/kg | -- | -- | -- | -- | -- |
| 1,2,3-Trichlorobenzene | | | -- | -- | -- | -- | -- |
| 1,2,3-Trichloropropane | 0.35 mg/kg | | -- | -- | -- | -- | -- |
| 1,2,4-Trichlorobenzene | 0.31 mg/kg | 200 mg/kg | -- | -- | -- | -- | -- |
| 1,2,4-Trimethylbenzene | | 8 mg/kg | -- | -- | -- | -- | -- |
| 1,2-Dibromo-3-chloropropane | 0.001 mg/kg | | -- | -- | -- | -- | -- |
| 1,2-Dibromoethane | 0.00001 mg/kg | 0.3 mg/kg | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | 8.1 mg/kg | 26 mg/kg | -- | -- | -- | -- | -- |
| 1,2-Dichloroethane | 0.01 mg/kg | 4 mg/kg | -- | -- | -- | -- | -- |
| 1,2-Dichloroethylene, cis | 0.14 mg/kg | 8 mg/kg | -- | -- | -- | -- | -- |
| 1,2-Dichloroethylene, trans | 0.27 mg/kg | 11 mg/kg | -- | -- | -- | -- | -- |
| 1,2-Dichloropropane | 0.011 mg/kg | 4 mg/kg | -- | -- | -- | -- | -- |
| 1,3,5-Trimethylbenzene | | 3 mg/kg | -- | -- | -- | -- | -- |
| 1,3-Dichloro-1-propene trans | 0.005 mg/kg | | -- | -- | -- | -- | -- |
| 1,3-Dichloro-1-propene, cis | 0.005 mg/kg | | -- | -- | -- | -- | -- |
| 1,3-Dichlorobenzene | 4.2 mg/kg | 26 mg/kg | -- | -- | -- | -- | -- |
| 1,3-Dichloropropane | | | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | 0.13 mg/kg | 30 mg/kg | -- | -- | -- | -- | -- |
| 2,2-Dichloropropane | | | -- | -- | -- | -- | -- |
| Acetone | 0.7 mg/kg | 340 mg/kg | -- | -- | -- | -- | -- |
| Allyl Chloride | 0.032 mg/kg | | -- | -- | -- | -- | -- |
| Benzene | 0.034 mg/kg | 6 mg/kg | -- | -- | -- | -- | -- |

# Table 3
## SOC 4 - Soil Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | Sys Loc Code | SOC4-TT6 | SOC4-TT9 | | SOC4-TT12 | |
|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/18/2009 | 09/10/2009 | | 09/17/2009 | |
| | | Depth Interval | 0.5 | 6 | 6 | 0.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | |
| **Exceedance Key** | No Exceed | No Exceed | | | | | |
| Bromobenzene | | | -- | -- | -- | -- | -- |
| Bromochloromethane | 0.15 mg/kg | | -- | -- | -- | -- | -- |
| Bromodichloromethane | 0.013 mg/kg | 10 mg/kg | -- | -- | -- | -- | -- |
| Bromoform | 0.14 mg/kg | 370 mg/kg | -- | -- | -- | -- | -- |
| Bromomethane | 0.5 mg/kg | 0.7 mg/kg | -- | -- | -- | -- | -- |
| Butyl benzene | | 30 mg/kg | -- | -- | -- | -- | -- |
| Butylbenzene sec | | 25 mg/kg | -- | -- | -- | -- | -- |
| Butylbenzene tert- | | 30 mg/kg | -- | -- | -- | -- | -- |
| Carbon tetrachloride | 0.023 mg/kg | 0.3 mg/kg | -- | -- | -- | -- | -- |
| Chlorobenzene | 1.1 mg/kg | 11 mg/kg | -- | -- | -- | -- | -- |
| Chlorodibromomethane | 0.03 mg/kg | 12 mg/kg | -- | -- | -- | -- | -- |
| Chloroethane | | 1000 mg/kg | -- | -- | -- | -- | -- |
| Chloroform | 0.17 mg/kg | 2.5 mg/kg | -- | -- | -- | -- | -- |
| Chloromethane | 0.006 mg/kg | 8 mg/kg | -- | -- | -- | -- | -- |
| Chlorotoluene o- | | 436 mg/kg | -- | -- | -- | -- | -- |
| Chlorotoluene p- | | | -- | -- | -- | -- | -- |
| Cumene (isopropyl benzene) | 18 mg/kg | 30 mg/kg | -- | -- | -- | -- | -- |
| Cymene p- (Toluene isopropyl p-) | | | -- | -- | -- | -- | -- |
| Dibromomethane (methylene bromide) | | 260 mg/kg | -- | -- | -- | -- | -- |
| Dichlorodifluoromethane (CFC-12) | 38 mg/kg | 16 mg/kg | -- | -- | -- | -- | -- |
| Dichlorofluoromethane (CFC-21) | | | -- | -- | -- | -- | -- |
| Ethyl benzene | 4.7 mg/kg | 200 mg/kg | -- | -- | -- | -- | -- |
| Ethyl ether | 1.2 mg/kg | | -- | -- | -- | -- | -- |
| Hexachlorobutadiene | 25 mg/kg | 6 mg/kg | -- | -- | -- | -- | -- |
| Methyl ethyl ketone | 6.4 mg/kg | 5500 mg/kg | -- | -- | -- | -- | -- |
| Methyl isobutyl ketone | 0.42 mg/kg | 1700 mg/kg | -- | -- | -- | -- | -- |
| Methyl tertiary butyl ether (MTBE) | 0.027 mg/kg | | -- | -- | -- | -- | -- |
| Methylene chloride | 0.068 mg/kg | 97 mg/kg | -- | -- | -- | -- | -- |
| Naphthalene | 7.5 mg/kg | 10 mg/kg | -- | -- | -- | -- | -- |
| Propylbenzene | | 30 mg/kg | -- | -- | -- | -- | -- |
| Styrene | 1.9 mg/kg | 210 mg/kg | -- | -- | -- | -- | -- |
| Tetrachloroethylene | 0.068 mg/kg | 72 mg/kg | -- | -- | -- | -- | -- |
| Tetrahydrofuran | 0.16 mg/kg | | -- | -- | -- | -- | -- |
| Toluene | 6.4 mg/kg | 107 mg/kg | -- | -- | -- | -- | -- |
| Trichloroethylene | 0.14 mg/kg | 29 mg/kg | -- | -- | -- | -- | -- |
| Trichlorofluoromethane | 22 mg/kg | 67 mg/kg | -- | -- | -- | -- | -- |
| Trichlorotrifluoroethane (Freon 113) | 2580 mg/kg | 3745 mg/kg | -- | -- | -- | -- | -- |
| Vinyl chloride | 0.001 mg/kg | 0.8 mg/kg | -- | -- | -- | -- | -- |
| Xylene m & p | M | M | -- | -- | -- | -- | -- |
| Xylene, o- | M | M | -- | -- | -- | -- | -- |

# Table 3
## SOC 4 - Soil Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | Sys Loc Code | SOC4-TT6 | SOC4-TT9 | | SOC4-TT12 | |
|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/18/2009 | 09/10/2009 | | 09/17/2009 | |
| | | Depth Interval | 0.5 | 6 | 6 | 0.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | |
| **Exceedance Key** | No Exceed | No Exceed | | | | | |
| Xylenes, total | 45 M mg/kg | 45 M mg/kg | -- | -- | -- | -- | -- |
| Pesticides | | | | | | | |
| 2,4,5-TP (Silvex) | | | < 0.059 mg/kg | < 0.050 mg/kg | < 0.049 mg/kg | < 0.061 mg/kg | < 0.060 mg/kg |
| 2,4,5-Trichlorophenoxyacetic acid | | 290 mg/kg | < 0.059 mg/kg | < 0.050 mg/kg | < 0.049 mg/kg | < 0.061 mg/kg | < 0.060 mg/kg |
| 2,4-D | | 285 mg/kg | < 0.059 mg/kg | < 0.050 mg/kg | < 0.049 mg/kg | < 0.061 mg/kg | < 0.060 mg/kg |
| 2,4-DB | | 226 mg/kg | < 0.059 mg/kg | < 0.050 mg/kg | < 0.049 mg/kg | < 0.061 mg/kg | < 0.060 mg/kg |
| 4,4'-DDD | | 56 mg/kg | < 0.028 mg/kg | < 0.075 mg/kg | < 0.072 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg |
| 4,4'-DDE | | 40 mg/kg | < 0.028 mg/kg | < 0.075 mg/kg | < 0.072 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg |
| 4,4'-DDT | | 15 mg/kg | < 0.028 mg/kg | < 0.075 mg/kg | < 0.072 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg |
| a-BHC | | 2 mg/kg | < 0.028 mg/kg | < 0.075 mg/kg | < 0.072 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg |
| Aldrin | | 1 mg/kg | < 0.028 mg/kg | < 0.075 mg/kg | < 0.072 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg |
| b-BHC | | 7 mg/kg | < 0.028 mg/kg | < 0.075 mg/kg | < 0.072 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg |
| Bentazone | | | < 0.059 mg/kg | < 0.050 mg/kg | < 0.049 mg/kg | < 0.061 mg/kg | < 0.060 mg/kg |
| Chlordane, alpha | | | < 0.028 mg/kg | < 0.075 mg/kg | < 0.072 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg |
| Chlordane, gamma | | | < 0.028 mg/kg | < 0.075 mg/kg | < 0.072 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg |
| d-BHC | | | < 0.028 mg/kg | < 0.075 mg/kg | < 0.072 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg |
| Dicamba | | | < 0.059 mg/kg | < 0.050 mg/kg | < 0.049 mg/kg | < 0.061 mg/kg | < 0.060 mg/kg |
| Dieldrin | | 0.8 mg/kg | < 0.028 mg/kg | < 0.075 mg/kg | < 0.072 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg |
| Dinoseb (DNBP) | | | < 0.059 mg/kg | < 0.050 mg/kg | < 0.049 mg/kg | < 0.061 mg/kg | < 0.060 mg/kg |
| Endosulfan I | | | < 0.028 mg/kg | < 0.075 mg/kg | < 0.072 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg |
| Endosulfan II | | | < 0.028 mg/kg | < 0.075 mg/kg | < 0.072 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg |
| Endosulfan Sulfate | | | < 0.028 mg/kg | < 0.075 mg/kg | < 0.072 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg |
| Endrin | | 8 mg/kg | < 0.028 mg/kg | < 0.075 mg/kg | < 0.072 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg |
| Endrin Aldehyde | | | < 0.028 mg/kg | < 0.075 mg/kg | < 0.072 mg/kg | < 0.029 * mg/kg | < 0.030 * mg/kg |
| Endrin Ketone | | | < 0.028 mg/kg | < 0.075 mg/kg | < 0.072 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg |
| g-BHC (Lindane) | | 9 mg/kg | < 0.028 mg/kg | < 0.075 mg/kg | < 0.072 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg |
| Heptachlor | | 2 mg/kg | < 0.028 mg/kg | < 0.075 mg/kg | < 0.072 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg |
| Heptachlor Epoxide | | 0.4 mg/kg | < 0.028 mg/kg | < 0.075 mg/kg | < 0.072 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg |
| MCPA | | 16 mg/kg | < 0.059 mg/kg | < 0.050 mg/kg | < 0.049 mg/kg | < 0.061 mg/kg | < 0.060 mg/kg |
| Methoxychlor | | 11 mg/kg | < 0.028 mg/kg | < 0.075 mg/kg | < 0.072 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg |
| Pentachlorophenol | 0.034 mg/kg | 80 mg/kg | < 0.059 mg/kg | < 0.050 mg/kg | < 0.049 mg/kg | < 0.061 mg/kg | < 0.060 mg/kg |
| Picloram | | 2000 mg/kg | < 0.059 * mg/kg | < 0.050 * mg/kg | < 0.049 * mg/kg | < 0.061 * mg/kg | < 0.060 * mg/kg |
| Toxaphene | | 13 mg/kg | < 0.56 mg/kg | < 1.5 mg/kg | < 1.4 mg/kg | < 0.58 mg/kg | < 0.60 mg/kg |
| Triclopyr | | | < 0.059 mg/kg | < 0.050 mg/kg | < 0.049 mg/kg | < 0.061 mg/kg | < 0.060 mg/kg |
| Acetochlor | | | < 0.047 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Alachlor (Lasso) | | | < 0.047 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Atrazine (Primatol) | | | < 0.047 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Chlorpyrifos (Lorsban) | | | < 0.047 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Cyanazine (Bladex) | | | < 0.047 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Deisopropyl atrazine | | | < 0.047 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |

**Table 3**
**SOC 4 - Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC4-TT6 | SOC4-TT9 | | SOC4-TT12 | |
|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/18/2009 | 09/10/2009 | | 09/17/2009 | |
| | | Depth Interval | 0.5 | 6 | 6 | 0.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | |
| **Exceedance Key** | No Exceed | No Exceed | | | | | |
| Desethylatrazine | | | < 0.047 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Dimethenamid | | | < 0.047 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| EPTC (Eradicane) | | | < 0.047 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Ethalfluralin (Sonalan) | | | < 0.047 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Fonofos (Dyphonate) | | | < 0.047 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Metolachlor (Dual) | | 435 mg/kg | < 0.047 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Metribuzin | | | < 0.047 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Pendimethalin (Prowl) | | | < 0.047 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Phorate (Thimet) | | | < 0.047 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Prometon (Pramitol) | | | < 0.047 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Propachlor | | | < 0.047 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Propazine (Milogard) | | | < 0.047 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Simazine (Princep) | | | < 0.047 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Terbufos (Counter) | | 0.6 mg/kg | < 0.047 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Triallate (Far-Go) | | | < 0.047 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Trifluralin (Treflan) | | | < 0.047 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| | | | | | | | |
| PCBs | | | | | | | |
| Aroclor 1016 | | | -- | -- | -- | < 0.25 mg/kg | < 0.25 mg/kg |
| Aroclor 1221 | | | -- | -- | -- | < 0.25 mg/kg | < 0.25 mg/kg |
| Aroclor 1232 | | | -- | -- | -- | < 0.25 mg/kg | < 0.25 mg/kg |
| Aroclor 1242 | | | -- | -- | -- | < 0.25 mg/kg | < 0.25 mg/kg |
| Aroclor 1248 | | | -- | -- | -- | < 0.25 mg/kg | < 0.25 mg/kg |
| Aroclor 1254 | | | -- | -- | -- | < 0.25 mg/kg | < 0.25 mg/kg |
| Aroclor 1260 | | | -- | -- | -- | < 0.25 mg/kg | < 0.25 mg/kg |

| Data Qualifiers/Footnotes - Soil | |
|---|---|
| **Qualifier** | **Definition** |
| -- | Not analyzed/not available. |
| a | Estimated value, calculated using some or all values that are estimates. |
| b | Potential false positive value based on blank data validation procedures. |
| c | Coeluting compound. |
| e | Estimated value, exceeded the instrument calibration range. |
| h | EPA recommended sample preservation, extraction or analysis holding time was exceeded. |
| I | Indeterminate value based on failure of blind duplicate data to meet quality assurance criteria. |
| j | Reported value is less than the stated laboratory quantitation limit and is considered an estimated value. |
| p | Relative percent difference is >40% (25% CLP pesticides) between primary and confirmation GC columns. |
| r | The presence of the compound is suspect based on the ID criteria of the retention time and relative retention time obtained from the examination of the chromatograms. |
| * | Estimated value, QA/QC criteria not met. |
| ** | Unusable value, QA/QC criteria not met. |
| ND | Not detected. |

## Data Qualifiers / Footnotes - Soil

| | Qualifier | Definition |
|---|---|---|
| MN Tier I SLV | DI | Value represents a criteria for 2,3,7,8-TCDD or 2,3,7,8-TCDD equivalents. |
| | M | Value represents the criteria for mixed Xylenes. |
| | MC | Mercury as Mercuric Chloride. |
| | NA | Not Applicable. |
| | T | Value represents a criteria for the total carcinogenic PAHs as BaP. Total carcinogenic PAHs are: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenz(a,h)anthracene, Chrysene and Indeno(1,2.3-cd)pyrene. |
| MN Tier I SRV | DI | Value represents a criteria for 2,3,7,8-TCDD or 2,3,7,8-TCDD equivalents. |
| | M | Value represents the criteria for mixed Xylenes. |
| | T | Value represents a criteria for the total carcinogenic PAHs as BaP. Total carcinogenic PAHs are: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenz(a,h)anthracene, Chrysene and Indeno(1,2.3-cd)pyrene. |

1 Total BaP equivalence (2002) calculated using zero for the detection limit on the non detected compounds.

| | CAS No. | Site Conc. (mg/kg) dry weight | Relative Potency Factor | BaP Equivalent (mg/kg) |
|---|---|---|---|---|
| Benzo(a)anthracene | 56553 | 0.000 | 0.1 | 0.000 |
| Benzo(b)fluoranthene | 205992 | 0.000 | 0.1 | 0.000 |
| Benzo(k)fluoranthene | 207089 | 0.000 | 0.1 | 0.000 |
| Benzo(a)pyrene | 50328 | 0.000 | 1 | 0.000 |
| Chrysene | 218019 | 0.000 | 0.01 | 0.000 |
| Dibenz(a,h)anthracene | 53703 | 0.000 | 0.56 | 0.000 |
| Indeno(1,2,3-cd)pyrene | 193395 | 0.000 | 0.1 | 0.000 |
| | | Total BaP equivalence = compare this value to the BaP criteria | | 0.000 |

# Table 4
## SOC 4 - Groundwater Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | | Sys Loc Code | SOC4-GP4 | SOC4-GP5 |
|---|---|---|---|---|---|
| | | | Sample Date | 09/10/2009 | 09/10/2009 |
| Chemical Name | Total or Dissolved | EPA Maximum Contaminant Limit | MN GW Values Table | | |
| **Effective Date** | | 5/1/2009 | 6/2/2009 | | |
| **Exceedance Key** | | **Bold** | No Exceed | | |
| General Parameters | | | | | |
| Nitrate + Nitrite | NA | **10 mg/l** | | **17 mg/l** | **21 mg/l** |
| Nitrocellulose | NA | | | < 0.50 mg/l | < 0.50 mg/l |
| Nitrogen total kjeldahl | NA | | | < 0.50 mg/l | < 0.50 mg/l |
| Metals | | | | | |
| Antimony | Dissolved | 6 ug/l | 6 HRL93 ug/l | < 0.046 ug/l | 0.20 j ug/l |
| Arsenic | Dissolved | 10 ug/l | | < 10 ug/l | < 10 ug/l |
| Beryllium | Dissolved | 4 ug/l | 0.08 HRL93 ug/l | < 0.027 ug/l | < 0.027 ug/l |
| Cadmium | Dissolved | 5 ug/l | 4 HRL93 ug/l | < 1.0 ug/l | < 1.0 ug/l |
| Chromium | Dissolved | 100 ug/l | 100 CR ug/l | < 10 ug/l | < 10 ug/l |
| Copper | Dissolved | 1300 TT (7) ug/l | | < 20 ug/l | < 20 ug/l |
| Lead | Dissolved | 15 TT(7) ug/l | | < 3.0 ug/l | < 3.0 ug/l |
| Mercury | Dissolved | 2 ug/l | | < 0.20 ug/l | < 0.20 ug/l |
| Nickel | Dissolved | | 100 HRL93 ug/l | 5.1 ug/l | 6.3 ug/l |
| Selenium | Dissolved | 50 ug/l | 30 HRL93 ug/l | < 20 ug/l | < 20 ug/l |
| Silver | Dissolved | | 30 HRL93 ug/l | < 5.0 ug/l | < 5.0 ug/l |
| Thallium | Dissolved | 2 ug/l | 0.6 HRL94 ug/l | < 0.0081 ug/l | 0.0093 j ug/l |
| Zinc | Dissolved | | 2000 HRL94 ug/l | < 20 ug/l | < 20 ug/l |
| SVOCs | | | | | |
| 1,2,4-Trichlorobenzene | NA | 70 ug/l | | < 0.18 ug/l | < 0.18 ug/l |
| 1,2-Dichlorobenzene | NA | 600 ug/l | 600 HRL93 ug/l | < 0.21 ug/l | < 0.21 ug/l |
| 1,3-Dichlorobenzene | NA | | | < 0.19 ug/l | < 0.19 ug/l |
| 1,4-Dichlorobenzene | NA | 75 ug/l | 10 HRL94 ug/l | < 0.20 ug/l | < 0.20 ug/l |
| 2,3,4,6-Tetrachlorophenol | NA | | | < 0.56 ug/l | < 0.56 ug/l |
| 2,4,5-Trichlorophenol | NA | | | < 0.74 ug/l | < 0.74 ug/l |
| 2,4,6-Trichlorophenol | NA | | 30 HRL93 ug/l | < 0.44 ug/l | < 0.44 ug/l |
| 2,4-Dichlorophenol | NA | | 20 HRL93 ug/l | < 0.44 ug/l | < 0.44 ug/l |
| 2,4-Dimethylphenol | NA | | 100 HRL93 ug/l | < 1.5 ug/l | < 1.5 ug/l |
| 2,4-Dinitrophenol | NA | | 10 HRL94 ug/l | < 0.93 ug/l | < 0.93 ug/l |
| 2,4-Dinitrotoluene | NA | | | < 0.31 ug/l | < 0.31 ug/l |
| 2,6-Dichlorophenol | NA | | | < 0.44 ug/l | < 0.44 ug/l |
| 2,6-Dinitrotoluene | NA | | | < 0.33 ug/l | < 0.33 ug/l |
| 2-Chloronaphthalene | NA | | | < 0.26 ug/l | < 0.26 ug/l |
| 2-Chlorophenol | NA | | 30 HRL93 ug/l | < 0.42 ug/l | < 0.42 ug/l |
| 2-Methyl-4,6-dinitrophenol | NA | | | < 0.60 ug/l | < 0.60 ug/l |
| 2-Methylnaphthalene | NA | | | < 0.61 ug/l | < 0.61 ug/l |
| 2-Nitroaniline | NA | | | < 0.67 ug/l | < 0.67 ug/l |
| 2-Nitrophenol | NA | | | < 0.83 ug/l | < 0.83 ug/l |
| 3,3`-Dichlorobenzidine | NA | | 0.8 HRL93 ug/l | < 6.8 ug/l | < 6.8 ug/l |
| 3-Nitroaniline | NA | | | < 1.1 ug/l | < 1.1 ug/l |
| 4-Bromophenyl phenyl ether | NA | | | < 0.16 ug/l | < 0.16 ug/l |
| 4-Chloro-3-methylphenol | NA | | | < 0.51 ug/l | < 0.51 ug/l |
| 4-Chloroaniline | NA | | | < 2.1 ug/l | < 2.1 ug/l |

**Table 4**
**SOC 4 - Groundwater Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | | **Sys Loc Code** | **SOC4-GP4** | **SOC4-GP5** |
|---|---|---|---|---|---|
| | | | **Sample Date** | **09/10/2009** | **09/10/2009** |
| Chemical Name | Total or Dissolved | EPA Maximum Contaminant Limit | MN GW Values Table | | |
| **Effective Date** | | 5/1/2009 | 6/2/2009 | | |
| **Exceedance Key** | | **Bold** | No Exceed | | |
| 4-Chlorophenyl phenyl ether | NA | | | < 0.23 ug/l | < 0.23 ug/l |
| 4-Nitroaniline | NA | | | < 0.55 ug/l | < 0.55 ug/l |
| 4-Nitrophenol | NA | | | < 1.1 ug/l | < 1.1 ug/l |
| Acenaphthene | NA | | 400 HRL93 ug/l | < 0.33 ug/l | < 0.33 ug/l |
| Acenaphthylene | NA | | | < 0.23 ug/l | < 0.23 ug/l |
| Aniline | NA | | | < 2.0 ug/l | < 2.0 ug/l |
| Anthracene | NA | | 2000 HRL93 ug/l | < 0.34 ug/l | < 0.34 ug/l |
| Azobenzene | NA | | | < 0.22 ug/l | < 0.22 ug/l |
| Benzidine | NA | | | < 17 ug/l | < 17 ug/l |
| Benzo(a)anthracene | NA | | | < 0.34 ug/l | < 0.34 ug/l |
| Benzo(a)pyrene | NA | 0.2 ug/l | | < 0.27 ug/l | < 0.27 ug/l |
| Benzo(b)fluoranthene | NA | | | < 0.20 ug/l | < 0.20 ug/l |
| Benzo(g,h,i)perylene | NA | | | < 0.24 ug/l | < 0.24 ug/l |
| Benzo(k)fluoranthene | NA | | | < 0.29 ug/l | < 0.29 ug/l |
| Benzoic Acid | NA | | 30000 HRL93 ug/l | 7.9 j ug/l | 7.5 j ug/l |
| Benzyl alcohol | NA | | | < 0.50 ug/l | < 0.50 ug/l |
| Bis(2-chloroethoxy)methane | NA | | | < 0.17 ug/l | < 0.17 ug/l |
| Bis(2-chloroethyl)ether | NA | | 0.3 HRL93 ug/l | < 0.16 ug/l | < 0.16 ug/l |
| Bis(2-chloroisopropyl)ether | NA | | | < 0.18 ug/l | < 0.18 ug/l |
| Bis(2-ethylhexyl)phthalate | NA | 6 ug/l | 6 MCL ug/l | < 0.40 ug/l | < 0.40 ug/l |
| Butyl benzyl phthalate | NA | | 100 HRL93 ug/l | < 0.34 ug/l | < 0.34 ug/l |
| Carbazole | NA | | | < 0.24 ug/l | < 0.24 ug/l |
| Chrysene | NA | | | < 0.25 ug/l | < 0.25 ug/l |
| Dibenz(a,h)anthracene | NA | | | < 0.21 ug/l | < 0.21 ug/l |
| Dibenzofuran | NA | | | < 0.36 ug/l | < 0.36 ug/l |
| Diethyl phthalate | NA | | 6000 HRL93 ug/l | < 0.21 ug/l | < 0.21 ug/l |
| Dimethyl phthalate | NA | | 70000 HRL94 ug/l | < 0.22 ug/l | < 0.22 ug/l |
| Di-n-butyl phthalate | NA | | 700 HRL93 ug/l | < 0.26 ug/l | < 0.26 ug/l |
| Di-n-octyl phthalate | NA | | | < 0.35 ug/l | < 0.35 ug/l |
| Fluoranthene | NA | | 300 HRL93 ug/l | < 0.36 ug/l | < 0.36 ug/l |
| Fluorene | NA | | 300 HRL93 ug/l | < 0.37 ug/l | < 0.37 ug/l |
| Hexachlorobenzene | NA | 1 ug/l | 0.2 HRL93 ug/l | < 0.19 ug/l | < 0.19 ug/l |
| Hexachlorobutadiene | NA | | 1 HRL93 ug/l | < 0.24 ug/l | < 0.24 ug/l |
| Hexachlorocyclopentadiene | NA | 50 ug/l | | < 0.29 ug/l | < 0.29 ug/l |
| Hexachloroethane | NA | | | < 0.29 ug/l | < 0.29 ug/l |
| Indeno(1,2,3-cd)pyrene | NA | | | < 0.29 ug/l | < 0.29 ug/l |
| Isophorone | NA | | 100 HRL93 ug/l | < 0.21 ug/l | < 0.21 ug/l |
| Naphthalene | NA | | 300 HRL94 ug/l | < 0.34 ug/l | < 0.34 ug/l |
| Nitrobenzene | NA | | | < 0.36 ug/l | < 0.36 ug/l |
| N-Nitrosodimethylamine | NA | | | < 0.88 ug/l | < 0.88 ug/l |
| N-Nitrosodi-n-propylamine | NA | | | < 0.19 ug/l | < 0.19 ug/l |
| N-Nitrosodiphenylamine | NA | | 70 HRL93 ug/l | < 0.21 ug/l | < 0.21 ug/l |
| o-Cresol | NA | | 30 HRL93 ug/l | < 0.58 ug/l | < 0.58 ug/l |

**Table 4**
**SOC 4 - Groundwater Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | | Sys Loc Code | SOC4-GP4 | SOC4-GP5 |
|---|---|---|---|---|---|
| | | | Sample Date | 09/10/2009 | 09/10/2009 |
| Chemical Name | Total or Dissolved | EPA Maximum Contaminant Limit | MN GW Values Table | | |
| **Effective Date** | | 5/1/2009 | 6/2/2009 | | |
| **Exceedance Key** | | **Bold** | No Exceed | | |
| p-Cresol | NA | | 3 HRL94 ug/l | < 0.73 ug/l | < 0.73 ug/l |
| Pentachlorophenol | NA | 1 ug/l | 1 MCL ug/l | < 0.55 ug/l | < 0.55 ug/l |
| Phenanthrene | NA | | | < 0.36 ug/l | < 0.36 ug/l |
| Phenol | NA | | 4000 HRL93 ug/l | < 0.53 ug/l | < 0.53 ug/l |
| Pyrene | NA | | 200 HRL93 ug/l | < 0.44 ug/l | < 0.44 ug/l |
| VOCs | | | | | |
| 1,1,1,2-Tetrachloroethane | NA | | 70 HRL93 ug/l | -- | < 0.28 ug/l |
| 1,1,1-Trichloroethane | NA | 200 ug/l | 9000 HRL08 (1) ug/l | -- | < 0.17 ug/l |
| 1,1,2,2-Tetrachloroethane | NA | | 2 HRL94 ug/l | -- | < 0.13 ug/l |
| 1,1,2-Trichloroethane | NA | 5 ug/l | 3 HRL93 ug/l | -- | < 0.19 ug/l |
| 1,1-Dichloro-1-propene | NA | | | -- | < 0.15 ug/l |
| 1,1-Dichloroethane | NA | | 100 RAA (1) ug/l | -- | < 0.11 ug/l |
| 1,1-Dichloroethylene | NA | 7 ug/l | 200 HBV09 (1) ug/l | -- | < 0.12 ug/l |
| 1,2,3-Trichlorobenzene | NA | | | -- | < 0.47 ug/l |
| 1,2,3-Trichloropropane | NA | | 40 HRL93 ug/l | -- | < 0.24 ug/l |
| 1,2,4-Trichlorobenzene | NA | 70 ug/l | | -- | < 0.32 ug/l |
| 1,2,4-Trimethylbenzene | NA | | | -- | < 0.17 ug/l |
| 1,2-Dibromo-3-chloropropane | NA | 0.2 ug/l | | -- | < 0.60 ug/l |
| 1,2-Dibromoethane | NA | 0.05 ug/l | 0.004 HRL93 ug/l | -- | < 0.37 ug/l |
| 1,2-Dichlorobenzene | NA | 600 ug/l | 600 HRL93 ug/l | -- | < 0.16 ug/l |
| 1,2-Dichloroethane | NA | 5 ug/l | 4 HRL93 ug/l | -- | < 0.18 ug/l |
| 1,2-Dichloroethylene, cis | NA | 70 ug/l | 50 HRL08 (1) ug/l | -- | < 0.19 ug/l |
| 1,2-Dichloroethylene, trans | NA | 100 ug/l | 100 HRL93 ug/l | -- | < 0.29 ug/l |
| 1,2-Dichloropropane | NA | 5 ug/l | 5 HRL94 ug/l | -- | < 0.21 ug/l |
| 1,3,5-Trimethylbenzene | NA | | 100 HRL08 (1,2) ug/l | -- | < 0.18 ug/l |
| 1,3-Dichloro-1-propene trans | NA | | | -- | < 0.17 ug/l |
| 1,3-Dichloro-1-propene, cis | NA | | | -- | < 0.16 ug/l |
| 1,3-Dichlorobenzene | NA | | | -- | < 0.21 ug/l |
| 1,3-Dichloropropane | NA | | 2 HRL94 ug/l | -- | < 0.15 ug/l |
| 1,4-Dichlorobenzene | NA | 75 ug/l | 10 HRL94 ug/l | -- | < 0.17 ug/l |
| 2,2-Dichloropropane | NA | | | -- | < 0.58 ug/l |
| Acetone | NA | | 700 HRL93 ug/l | -- | < 2.8 ug/l |
| Allyl Chloride | NA | | 30 HRL94 ug/l | -- | < 0.76 ug/l |
| Benzene | NA | 5 ug/l | 2 HRL08 (1) ug/l | -- | < 0.093 ug/l |
| Bromobenzene | NA | | | -- | < 0.17 ug/l |
| Bromochloromethane | NA | | | -- | < 0.21 ug/l |
| Bromodichloromethane | NA | 80 (2) ug/l | 6 HRL93 ug/l | -- | < 0.22 ug/l |
| Bromoform | NA | 80 (2) ug/l | 40 HRL93 ug/l | -- | < 0.50 ug/l |
| Bromomethane | NA | | 10 HRL93 ug/l | -- | < 0.95 ug/l |
| Butyl benzene | NA | | | -- | < 0.32 ug/l |
| Butylbenzene sec | NA | | | -- | < 0.22 ug/l |
| Butylbenzene tert- | NA | | | -- | < 0.19 ug/l |
| Carbon tetrachloride | NA | 5 ug/l | 3 HRL93 ug/l | -- | < 0.16 ug/l |

**Table 4**
**SOC 4 - Groundwater Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | | **Sys Loc Code** | **SOC4-GP4** | **SOC4-GP5** |
|---|---|---|---|---|---|
| | | | **Sample Date** | **09/10/2009** | **09/10/2009** |
| Chemical Name | Total or Dissolved | EPA Maximum Contaminant Limit | MN GW Values Table | | |
| **Effective Date** | | 5/1/2009 | 6/2/2009 | | |
| **Exceedance Key** | | **Bold** | No Exceed | | |
| Chlorobenzene | NA | 100 ug/l | 100 HRL93 ug/l | -- | < 0.15 ug/l |
| Chlorodibromomethane | NA | 80 (2) ug/l | | -- | < 0.50 ug/l |
| Chloroethane | NA | | | -- | < 0.46 ug/l |
| Chloroform | NA | 80 (2) ug/l | 30 HRL08 (1,2) ug/l | -- | < 0.19 ug/l |
| Chloromethane | NA | | | -- | < 0.37 ug/l |
| Chlorotoluene o- | NA | | | -- | < 0.17 ug/l |
| Chlorotoluene p- | NA | | | -- | < 0.14 ug/l |
| Cumene (isopropyl benzene) | NA | | 300 HRL93 ug/l | -- | < 0.17 ug/l |
| Cymene p- (Toluene isopropyl p-) | NA | | | -- | < 0.30 ug/l |
| Dibromomethane (methylene bromide) | NA | | | -- | < 0.30 ug/l |
| Dichlorodifluoromethane (CFC-12) | NA | | 700 HBV09 (1) ug/l | -- | < 0.58 ug/l |
| Dichlorofluoromethane (CFC-21) | NA | | | -- | < 0.31 ug/l |
| Ethyl benzene | NA | 700 ug/l | 700 HRL93 ug/l | -- | < 0.21 ug/l |
| Ethyl ether | NA | | 1000 HRL93 ug/l | -- | < 0.53 ug/l |
| Hexachlorobutadiene | NA | | 1 HRL93 ug/l | -- | < 0.76 ug/l |
| Methyl ethyl ketone | NA | | 4000 HRL94 ug/l | -- | < 0.67 ug/l |
| Methyl isobutyl ketone | NA | | 300 HRL94 ug/l | -- | < 1.1 ug/l |
| Methyl tertiary butyl ether (MTBE) | NA | | | -- | < 0.13 ug/l |
| Methylene chloride | NA | 5 ug/l | 5 MCL ug/l | -- | < 0.65 ug/l |
| Naphthalene | NA | | 300 HRL94 ug/l | -- | < 0.40 ug/l |
| Propylbenzene | NA | | | -- | < 0.13 ug/l |
| Styrene | NA | 100 ug/l | | -- | < 0.13 ug/l |
| Tetrachloroethylene | NA | 5 ug/l | 5 MCL ug/l | -- | < 0.20 ug/l |
| Tetrahydrofuran | NA | | | -- | < 0.77 ug/l |
| Toluene | NA | 1000 ug/l | 1000 HRL93 ug/l | -- | < 0.21 ug/l |
| Trichloroethylene | NA | 5 ug/l | 5 MCL ug/l | -- | < 0.20 ug/l |
| Trichlorofluoromethane | NA | | 2000 HRL93 ug/l | -- | < 0.17 ug/l |
| Trichlorotrifluoroethane (Freon 113) | NA | | 200000 HRL93 ug/l | -- | < 0.28 ug/l |
| Vinyl chloride | NA | 2 ug/l | 0.2 HRL08 (1) ug/l | -- | < 0.087 ug/l |
| Xylene m & p | NA | | 10000 HRL93 ug/l | -- | < 0.42 ug/l |
| Xylene, o- | NA | | 10000 HRL93 ug/l | -- | < 0.18 ug/l |
| Xylenes, total | NA | 10000 ug/l | 10000 HRL93 ug/l | -- | ND ug/l |

| Data Qualifiers/Footnotes - Groundwater | |
|---|---|
| **Qualifier** | **Definition** |
| -- | Not analyzed/not available. |
| a | Estimated value, calculated using some or all values that are estimates. |
| b | Potential false positive value based on blank data validation procedures. |
| c | Coeluting compound. |
| e | Estimated value, exceeded the instrument calibration range. |
| h | EPA recommended sample preservation, extraction or analysis holding time was exceeded. |
| I | Indeterminate value based on failure of blind duplicate data to meet quality assurance criteria. |
| j | Reported value is less than the stated laboratory quantitation limit and is considered an estimated value. |
| p | Relative percent difference is >40% (25% CLP pesticides) between primary and confirmation GC columns. |
| r | The presence of the compound is suspect based on the ID criteria of the retention time and relative retention time obtained from the examination of the chromatograms. |
| * | Estimated value, QA/QC criteria not met. |
| ** | Unusable value, QA/QC criteria not met. |
| ND | Not detected. |

## Criteria Footnotes - Groundwater

| | Qualifier | Definition |
|---|---|---|
| EPA Maximum Contaminant Level | (1) | When acrylamide is used in drinking water systems, the combination (or product) of dose and monomer level shall not exceed that equivalent to a polyacrylamide polymer containing 0.05% monomer dosed at 1 mg/L. |
| | (14) | Millirems per years. |
| | (15) | Picocuries per liter. |
| | (2) | 1998 Final Rule for Disinfectants and Disinfection By-products: The total for trihalomethanes is 0.08 mg/L. |
| | (3) | The MCL value for any combination of two or more of these three chemicals (Aldicarb, Aldicarb sulfone, Aldicarb sulfoxide) should not exceed 0.007 mg/L because of similar mode of action. |
| | (5) | No more than 5.0% samples total coliform-positive in a month. Every sample that has total coliforms must be analyzed for fecal coliforms; no fecal coliforms are allowed. |
| | (6) | Under review. |
| | (7) | Copper action level at 1.3 mg/L, Lead action level at 0.015 mg/L |
| | (8) | Proposed 7/2001 arsenic rule states that the Jan. 2001 MCL of 10 ppb will not be enforced until 2006, and is still being evaluated at 3,5,10,20 ppb. |
| | TT | Treatment technique. |
| MN GW Values Table | (1) | Value is representative of the most conservative exposure duration published in the Minnesota Department of Health Groundwater Values Table. |
| | (2) | Set at short term HRL. |
| | HBV | Health Based Value. |
| | HRL | Health Risk Limit. |
| | RAA | Risk Assessment Advice. |
| | CR | Value represents the criteria for Chromium, hexavalent. |

# Table 5
## SOC 5 - Former DNT-Storage Bunkers (OU1) Soil Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | Sys Loc Code | SOC5-SS12 | SOC5-SS14 | SOC5-SS16 | SOC5-SS18 | SOC5-SS19 | SOC5-SS20 | SOC5-SS21 | SOC5-SS22 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 08/31/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 | 09/25/2009 | 08/31/2009 | 09/25/2009 | 08/31/2009 |
| | | Depth Interval | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | | |
| General Parameters | | | | | | | | | | |
| Nitrocellulose | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Metals | | | | | | | | | | |
| Antimony | 2.7 mg/kg | 12 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Arsenic | 15.1 mg/kg | 9 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Beryllium | 1.4 mg/kg | 55 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Cadmium | 4.4 mg/kg | 25 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Chromium, total | 1000000 mg/kg | 44000 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Copper | 400 mg/kg | 100 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Lead | 525 mg/kg | 300 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Mercury | 1.6 MC mg/kg | 0.5 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Nickel | 88 mg/kg | 560 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Selenium | 1.5 mg/kg | 160 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Silver | 3.9 mg/kg | 160 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Thallium | | 3 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Zinc | 1500 mg/kg | 8700 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| SVOCs | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.31 mg/kg | 200 mg/kg | < 0.033 mg/kg | < 0.028 mg/kg | < 0.060 mg/kg | < 0.062 mg/kg | < 0.028 mg/kg | < 0.15 mg/kg | < 0.029 mg/kg | < 0.066 mg/kg |
| 1,2-Dichlorobenzene | 8.1 mg/kg | 26 mg/kg | < 0.031 mg/kg | < 0.026 mg/kg | < 0.056 mg/kg | < 0.057 mg/kg | < 0.026 mg/kg | < 0.14 mg/kg | < 0.027 mg/kg | < 0.061 mg/kg |
| 1,3-Dichlorobenzene | 4.2 mg/kg | 26 mg/kg | < 0.028 mg/kg | < 0.024 mg/kg | < 0.051 mg/kg | < 0.053 mg/kg | < 0.024 mg/kg | < 0.13 mg/kg | < 0.025 mg/kg | < 0.056 mg/kg |
| 1,4-Dichlorobenzene | 0.13 mg/kg | 30 mg/kg | < 0.030 mg/kg | < 0.025 mg/kg | < 0.053 mg/kg | < 0.055 mg/kg | < 0.025 mg/kg | < 0.14 mg/kg | < 0.026 mg/kg | < 0.059 mg/kg |
| 2,3,4,6-Tetrachlorophenol | | 636 mg/kg | < 0.047 mg/kg | < 0.040 mg/kg | < 0.084 mg/kg | < 0.087 mg/kg | < 0.040 mg/kg | < 0.22 mg/kg | < 0.041 mg/kg | < 0.093 mg/kg |
| 2,4,5-Trichlorophenol | | 1920 mg/kg | < 0.030 mg/kg | < 0.025 mg/kg | < 0.053 mg/kg | < 0.055 mg/kg | < 0.025 mg/kg | < 0.14 mg/kg | < 0.026 mg/kg | < 0.059 mg/kg |
| 2,4,6-Trichlorophenol | 0.21 mg/kg | 595 mg/kg | < 0.043 mg/kg | < 0.037 mg/kg | < 0.078 mg/kg | < 0.080 mg/kg | < 0.037 mg/kg | < 0.20 mg/kg | < 0.038 mg/kg | < 0.085 mg/kg |
| 2,4-Dichlorophenol | 0.076 mg/kg | 48 mg/kg | < 0.043 mg/kg | < 0.037 mg/kg | < 0.078 mg/kg | < 0.080 mg/kg | < 0.037 mg/kg | < 0.20 mg/kg | < 0.038 mg/kg | < 0.085 mg/kg |
| 2,4-Dimethylphenol | 0.34 mg/kg | 390 mg/kg | < 0.11 mg/kg | < 0.095 mg/kg | < 0.20 mg/kg | < 0.21 mg/kg | < 0.095 mg/kg | < 0.51 mg/kg | < 0.097 mg/kg | < 0.22 mg/kg |
| 2,4-Dinitrophenol | 0.014 mg/kg | | < 0.072 mg/kg | < 0.061 mg/kg | < 0.13 mg/kg | < 0.13 mg/kg | < 0.061 mg/kg | < 0.33 mg/kg | < 0.062 mg/kg | < 0.14 mg/kg |
| 2,4-Dinitrotoluene | 0.001 mg/kg | 50 mg/kg | < 0.026 mg/kg | < 0.022 mg/kg | < 0.047 mg/kg | < 0.048 mg/kg | < 0.022 mg/kg | < 0.12 mg/kg | < 0.023 mg/kg | < 0.051 mg/kg |
| 2,6-Dichlorophenol | | | < 0.053 mg/kg | < 0.045 mg/kg | < 0.096 mg/kg | < 0.099 mg/kg | < 0.045 mg/kg | < 0.24 mg/kg | < 0.046 mg/kg | < 0.10 mg/kg |
| 2,6-Dinitrotoluene | 0.001 mg/kg | 25 mg/kg | < 0.023 mg/kg | < 0.020 mg/kg | < 0.042 mg/kg | < 0.044 mg/kg | < 0.020 mg/kg | < 0.11 mg/kg | < 0.020 mg/kg | < 0.046 mg/kg |
| 2-Chloronaphthalene | | | < 0.023 mg/kg | < 0.020 mg/kg | < 0.042 mg/kg | < 0.044 mg/kg | < 0.020 mg/kg | < 0.11 mg/kg | < 0.020 mg/kg | < 0.046 mg/kg |
| 2-Chlorophenol | 0.26 mg/kg | | < 0.047 mg/kg | < 0.040 mg/kg | < 0.084 mg/kg | < 0.087 mg/kg | < 0.040 mg/kg | < 0.22 mg/kg | < 0.041 mg/kg | < 0.093 mg/kg |
| 2-Methyl-4,6-dinitrophenol | | | < 0.091 mg/kg | < 0.078 mg/kg | < 0.16 mg/kg | < 0.17 mg/kg | < 0.078 mg/kg | < 0.42 mg/kg | < 0.080 mg/kg | < 0.18 mg/kg |
| 2-Methylnaphthalene | | 100 mg/kg | 0.14 j mg/kg | 0.75 mg/kg | 0.17 j mg/kg | 0.24 j mg/kg | < 0.029 mg/kg | 4.9 mg/kg | < 0.030 mg/kg | 0.85 mg/kg |
| 2-Nitroaniline | | | < 0.025 mg/kg | < 0.021 mg/kg | < 0.044 mg/kg | < 0.046 mg/kg | < 0.021 mg/kg | < 0.11 mg/kg | < 0.022 mg/kg | < 0.049 mg/kg |
| 2-Nitrophenol | 0.6 mg/kg | | < 0.044 mg/kg | < 0.038 mg/kg | < 0.080 mg/kg | < 0.083 mg/kg | < 0.038 mg/kg | < 0.20 mg/kg | < 0.039 mg/kg | < 0.088 mg/kg |
| 3,3`-Dichlorobenzidine | 0.36 mg/kg | 25 mg/kg | < 0.48 mg/kg | < 0.41 mg/kg | < 0.87 mg/kg | < 0.90 mg/kg | < 0.41 mg/kg | < 2.2 mg/kg | < 0.42 mg/kg | < 0.95 mg/kg |
| 3-Nitroaniline | | | < 0.041 mg/kg | < 0.035 mg/kg | < 0.073 mg/kg | < 0.076 mg/kg | < 0.035 mg/kg | < 0.19 mg/kg | < 0.035 mg/kg | < 0.080 mg/kg |
| 4-Bromophenyl phenyl ether | | | < 0.021 mg/kg | < 0.018 mg/kg | < 0.038 mg/kg | < 0.039 mg/kg | < 0.018 mg/kg | < 0.097 mg/kg | < 0.018 mg/kg | < 0.041 mg/kg |
| 4-Chloro-3-methylphenol | | | < 0.049 mg/kg | < 0.042 mg/kg | < 0.089 mg/kg | < 0.092 mg/kg | < 0.042 mg/kg | < 0.23 mg/kg | < 0.043 mg/kg | < 0.098 mg/kg |
| 4-Chloroaniline | | | < 0.14 mg/kg | < 0.12 mg/kg | < 0.24 mg/kg | < 0.25 mg/kg | < 0.12 mg/kg | < 0.62 mg/kg | < 0.12 mg/kg | < 0.27 mg/kg |

# Table 5
## SOC 5 - Former DNT-Storage Bunkers (OU1) Soil Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | Sys Loc Code | SOC5-SS12 | SOC5-SS14 | SOC5-SS16 | SOC5-SS18 | SOC5-SS19 | SOC5-SS20 | SOC5-SS21 | SOC5-SS22 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 08/31/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 | 09/25/2009 | 08/31/2009 | 09/25/2009 | 08/31/2009 |
| | | Depth Interval | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | | |
| 4-Chlorophenyl phenyl ether | | | < 0.028 mg/kg | < 0.024 mg/kg | < 0.051 mg/kg | < 0.053 mg/kg | < 0.024 mg/kg | < 0.13 mg/kg | < 0.025 mg/kg | < 0.056 mg/kg |
| 4-Nitroaniline | | | < 0.028 mg/kg | < 0.024 mg/kg | < 0.051 mg/kg | < 0.053 mg/kg | < 0.024 mg/kg | < 0.13 mg/kg | < 0.025 mg/kg | < 0.056 mg/kg |
| 4-Nitrophenol | | | < 0.12 mg/kg | < 0.10 mg/kg | < 0.22 mg/kg | < 0.23 mg/kg | < 0.10 mg/kg | < 0.56 mg/kg | < 0.11 mg/kg | < 0.24 mg/kg |
| Acenaphthene | 50 mg/kg | 1200 mg/kg | 0.39 j mg/kg | 4.0 mg/kg | 0.69 j mg/kg | 1.1 mg/kg | 0.18 j mg/kg | 10 mg/kg | 0.10 j mg/kg | 4.1 mg/kg |
| Acenaphthylene | | | < 0.028 mg/kg | < 0.024 mg/kg | < 0.051 mg/kg | < 0.053 mg/kg | < 0.024 mg/kg | 0.38 j mg/kg | < 0.025 mg/kg | 0.12 j mg/kg |
| Aniline | | | < 0.11 mg/kg | < 0.095 mg/kg | < 0.20 mg/kg | < 0.21 mg/kg | < 0.095 mg/kg | < 0.51 mg/kg | < 0.097 mg/kg | < 0.22 mg/kg |
| Anthracene | 942 mg/kg | 7880 mg/kg | 0.72 mg/kg | 6.1 mg/kg | 1.5 mg/kg | 2.7 mg/kg | 0.41 mg/kg | 19 mg/kg | 0.23 j mg/kg | 11 mg/kg |
| Azobenzene | | | < 0.025 mg/kg | < 0.021 mg/kg | < 0.044 mg/kg | < 0.046 mg/kg | < 0.021 mg/kg | < 0.11 mg/kg | < 0.022 mg/kg | < 0.049 mg/kg |
| Benzidine | | | < 0.89 mg/kg | < 0.76 mg/kg | < 1.6 mg/kg | < 1.7 mg/kg | < 0.76 mg/kg | < 4.1 mg/kg | < 0.77 mg/kg | < 1.8 mg/kg |
| Benzo(g,h,i)perylene | | | 0.60 mg/kg | 2.2 mg/kg | 1.2 mg/kg | 3.1 mg/kg | 0.47 mg/kg | 18 mg/kg | 0.38 mg/kg | 6.8 mg/kg |
| Benzoic Acid | 30 mg/kg | 50000 mg/kg | < 0.072 mg/kg | < 0.061 mg/kg | < 0.13 mg/kg | < 0.13 mg/kg | < 0.061 mg/kg | < 0.33 mg/kg | < 0.062 mg/kg | < 0.14 mg/kg |
| Benzyl alcohol | | 8700 mg/kg | < 0.15 mg/kg | < 0.13 mg/kg | < 0.27 mg/kg | < 0.28 mg/kg | < 0.13 mg/kg | < 0.68 mg/kg | < 0.13 mg/kg | < 0.29 mg/kg |
| Bis(2-chloroethoxy)methane | | | < 0.026 mg/kg | < 0.022 mg/kg | < 0.047 mg/kg | < 0.048 mg/kg | < 0.022 mg/kg | < 0.12 mg/kg | < 0.023 mg/kg | < 0.051 mg/kg |
| Bis(2-chloroethyl)ether | 0.001 mg/kg | 2.5 mg/kg | < 0.030 mg/kg | < 0.025 mg/kg | < 0.053 mg/kg | < 0.055 mg/kg | < 0.025 mg/kg | < 0.14 mg/kg | < 0.026 mg/kg | < 0.059 mg/kg |
| Bis(2-chloroisopropyl)ether | 0.67 mg/kg | | < 0.027 mg/kg | < 0.023 mg/kg | < 0.049 mg/kg | < 0.051 mg/kg | < 0.023 mg/kg | < 0.12 mg/kg | < 0.024 mg/kg | < 0.054 mg/kg |
| Bis(2-ethylhexyl)phthalate | 40 mg/kg | 570 mg/kg | < 0.025 mg/kg | < 0.021 mg/kg | 0.37 j mg/kg | < 0.046 mg/kg | < 0.021 mg/kg | < 0.11 mg/kg | < 0.022 mg/kg | < 0.049 mg/kg |
| Butyl benzyl phthalate | 28 mg/kg | 580 mg/kg | < 0.026 mg/kg | < 0.022 mg/kg | < 0.047 mg/kg | < 0.048 mg/kg | < 0.022 mg/kg | < 0.12 mg/kg | < 0.023 mg/kg | < 0.051 mg/kg |
| Carbazole | | 700 mg/kg | 0.31 j mg/kg | 3.0 mg/kg | 0.63 j mg/kg | 1.2 mg/kg | 0.16 j mg/kg | 12 mg/kg | 0.16 j mg/kg | 4.0 mg/kg |
| Dibenzofuran | | 104 mg/kg | 0.24 j mg/kg | 2.1 mg/kg | 0.40 j mg/kg | 0.62 j mg/kg | 0.088 j mg/kg | 7.6 mg/kg | 0.061 j mg/kg | 2.5 mg/kg |
| Diethyl phthalate | 18 mg/kg | | < 0.019 mg/kg | < 0.016 mg/kg | < 0.033 mg/kg | < 0.034 mg/kg | < 0.016 mg/kg | < 0.085 mg/kg | < 0.016 mg/kg | < 0.037 mg/kg |
| Dimethyl phthalate | 172 mg/kg | | < 0.022 mg/kg | < 0.019 mg/kg | < 0.040 mg/kg | < 0.041 mg/kg | < 0.019 mg/kg | < 0.10 mg/kg | < 0.019 mg/kg | < 0.044 mg/kg |
| Di-n-butyl phthalate | 23 mg/kg | 2440 mg/kg | < 0.046 mg/kg | 0.19 j mg/kg | < 0.082 mg/kg | < 0.085 mg/kg | < 0.039 mg/kg | < 0.21 mg/kg | < 0.040 mg/kg | 0.13 j mg/kg |
| Di-n-octyl phthalate | | 520 mg/kg | < 0.031 mg/kg | < 0.026 mg/kg | < 0.056 mg/kg | < 0.057 mg/kg | < 0.026 mg/kg | < 0.14 mg/kg | < 0.027 mg/kg | < 0.061 mg/kg |
| Fluoranthene | 295 mg/kg | 1080 mg/kg | 3.2 mg/kg | 26 mg/kg | 7.7 mg/kg | 15 mg/kg | 2.4 mg/kg | 130 mg/kg | 1.9 mg/kg | 62 mg/kg |
| Fluorene | 47 mg/kg | 850 mg/kg | 0.48 mg/kg | 3.8 mg/kg | 0.80 mg/kg | 1.3 mg/kg | 0.21 j mg/kg | 12 mg/kg | 0.12 j mg/kg | 5.5 mg/kg |
| Hexachlorobenzene | 0.32 mg/kg | 5 mg/kg | < 0.020 mg/kg | < 0.017 mg/kg | < 0.036 mg/kg | < 0.037 mg/kg | < 0.017 mg/kg | < 0.091 mg/kg | < 0.017 mg/kg | < 0.039 mg/kg |
| Hexachlorobutadiene | 25 mg/kg | 6 mg/kg | < 0.041 mg/kg | < 0.035 mg/kg | < 0.073 mg/kg | < 0.076 mg/kg | < 0.035 mg/kg | < 0.19 mg/kg | < 0.035 mg/kg | < 0.080 mg/kg |
| Hexachlorocyclopentadiene | 4.4 mg/kg | 2 mg/kg | < 0.051 mg/kg | < 0.043 mg/kg | < 0.091 mg/kg | < 0.094 mg/kg | < 0.043 mg/kg | < 0.23 mg/kg | < 0.044 mg/kg | < 0.10 mg/kg |
| Hexachloroethane | 0.05 mg/kg | | < 0.035 mg/kg | < 0.029 mg/kg | < 0.062 mg/kg | < 0.064 mg/kg | < 0.029 mg/kg | < 0.16 mg/kg | < 0.030 mg/kg | < 0.068 mg/kg |
| Isophorone | 0.16 mg/kg | | < 0.021 mg/kg | < 0.018 mg/kg | < 0.038 mg/kg | < 0.039 mg/kg | < 0.018 mg/kg | < 0.097 mg/kg | < 0.018 mg/kg | < 0.041 mg/kg |
| Naphthalene | **7.5 mg/kg** | 10 mg/kg | 0.23 j mg/kg | 1.3 mg/kg | 0.27 j mg/kg | 0.36 j mg/kg | < 0.031 mg/kg | **12 mg/kg** | < 0.031 mg/kg | 1.3 mg/kg |
| Nitrobenzene | | | < 0.037 mg/kg | < 0.032 mg/kg | < 0.067 mg/kg | < 0.069 mg/kg | < 0.032 mg/kg | < 0.17 mg/kg | < 0.032 mg/kg | < 0.073 mg/kg |
| N-Nitrosodimethylamine | 0.82 mg/kg | | < 0.040 mg/kg | < 0.034 mg/kg | < 0.071 mg/kg | < 0.074 mg/kg | < 0.034 mg/kg | < 0.18 mg/kg | < 0.034 mg/kg | < 0.078 mg/kg |
| N-Nitrosodi-n-propylamine | | 0.7 mg/kg | < 0.031 mg/kg | < 0.026 mg/kg | < 0.056 mg/kg | < 0.057 mg/kg | < 0.026 mg/kg | < 0.14 mg/kg | < 0.027 mg/kg | < 0.061 mg/kg |
| N-Nitrosodiphenylamine | 0.88 mg/kg | 1950 mg/kg | < 0.022 mg/kg | < 0.019 mg/kg | < 0.040 mg/kg | < 0.041 mg/kg | < 0.019 mg/kg | < 0.10 mg/kg | < 0.019 mg/kg | < 0.044 mg/kg |
| o-Cresol | 0.064 mg/kg | 75 mg/kg | < 0.043 mg/kg | < 0.037 mg/kg | < 0.078 mg/kg | < 0.080 mg/kg | < 0.037 mg/kg | < 0.20 mg/kg | < 0.038 mg/kg | < 0.085 mg/kg |
| p-Cresol | **0.033 mg/kg** | 10 mg/kg | < 0.033 mg/kg | **0.053 j mg/kg** | < 0.060 mg/kg | < 0.062 mg/kg | < 0.028 mg/kg | < 0.15 mg/kg | < 0.029 mg/kg | **0.15 j mg/kg** |
| Pentachlorophenol | 0.034 mg/kg | 80 mg/kg | < 0.12 mg/kg | < 0.10 mg/kg | < 0.21 mg/kg | < 0.22 mg/kg | < 0.10 mg/kg | < 0.55 mg/kg | < 0.10 mg/kg | < 0.23 mg/kg |
| Phenanthrene | | | 2.8 mg/kg | 29 mg/kg | 6.2 mg/kg | 11 mg/kg | 1.8 mg/kg | 100 mg/kg | 1.4 mg/kg | 46 mg/kg |
| Phenol | 7.8 mg/kg | 1500 mg/kg | < 0.070 mg/kg | < 0.060 mg/kg | < 0.13 mg/kg | < 0.13 mg/kg | < 0.060 mg/kg | < 0.32 mg/kg | < 0.061 mg/kg | < 0.14 mg/kg |
| Pyrene | 272 mg/kg | 890 mg/kg | 2.8 mg/kg | 20 mg/kg | 6.2 mg/kg | 13 mg/kg | 2.0 mg/kg | 110 mg/kg | 1.6 mg/kg | 49 mg/kg |

**Table 5**
**SOC 5 - Former DNT-Storage Bunkers (OU1) Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS12 | SOC5-SS14 | SOC5-SS16 | SOC5-SS18 | SOC5-SS19 | SOC5-SS20 | SOC5-SS21 | SOC5-SS22 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 08/31/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 | 09/25/2009 | 08/31/2009 | 09/25/2009 | 08/31/2009 |
| | | Depth Interval | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | | |
| Benzo(a)anthracene | T | T | 1.5 mg/kg | 7.8 mg/kg | 3.3 mg/kg | 7.5 mg/kg | 1.0 mg/kg | 51 mg/kg | 0.75 mg/kg | 24 mg/kg |
| Benzo(a)pyrene | T | T | 1.2 mg/kg | 5.9 mg/kg | 2.8 mg/kg | 6.3 mg/kg | 0.90 mg/kg | 43 mg/kg | 0.68 mg/kg | 18 mg/kg |
| Benzo(b)fluoranthene | T | T | 1.5 mg/kg | 7.3 mg/kg | 3.8 mg/kg | 8.4 mg/kg | 1.2 mg/kg | 65 mg/kg | 0.96 mg/kg | 28 mg/kg |
| Benzo(k)fluoranthene | T | T | 0.68 mg/kg | 2.9 mg/kg | 1.6 mg/kg | 3.3 mg/kg | 0.50 mg/kg | 20 mg/kg | 0.43 mg/kg | 7.6 mg/kg |
| Chrysene | T | T | 1.5 mg/kg | 7.8 mg/kg | 3.6 mg/kg | 8.4 mg/kg | 1.2 mg/kg | 64 mg/kg | 0.95 mg/kg | 24 mg/kg |
| Dibenz(a,h)anthracene | T | T | 0.20 j mg/kg | 0.80 mg/kg | 0.42 j mg/kg | 1.1 mg/kg | 0.14 j mg/kg | 7.2 mg/kg | 0.11 j mg/kg | 2.9 mg/kg |
| Indeno(1,2,3-cd)pyrene | T | T | 0.70 mg/kg | 2.9 mg/kg | 1.5 mg/kg | 3.8 mg/kg | 0.50 mg/kg | 25 mg/kg | 0.40 mg/kg | 9.4 mg/kg |
| **BaP equivalent, non-detects at zero for the detection limit.[1]** | **10.2 T mg/kg** | 2 T mg/kg | 1.8 a mg/kg | 8.5 mg/kg | 4.1 a mg/kg | 9.3 mg/kg | 1.3 a mg/kg | **64** mg/kg | 1.0 a mg/kg | **27** mg/kg |
| Pesticides | | | | | | | | | | |
| 2,4,5-TP (Silvex) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4,5-Trichlorophenoxyacetic acid | | 290 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-D | | 285 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-DB | | 226 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,4'-DDD | | 56 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,4'-DDE | | 40 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,4'-DDT | | 15 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| a-BHC | | 2 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Acetochlor | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Alachlor (Lasso) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aldrin | | 1 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Atrazine (Primatol) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| b-BHC | | 7 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Bentazone | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Chlordane, alpha | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Chlordane, gamma | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Chlorpyrifos (Lorsban) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Cyanazine (Bladex) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| d-BHC | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Deisopropyl atrazine | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Desethylatrazine | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Dicamba | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Dieldrin | | 0.8 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Dimethenamid | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Dinoseb (DNBP) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Endosulfan I | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Endosulfan II | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Endosulfan Sulfate | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Endrin | | 8 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Endrin Aldehyde | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Endrin Ketone | | | -- | -- | -- | -- | -- | -- | -- | -- |

**Table 5**
**SOC 5 - Former DNT-Storage Bunkers (OU1) Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS12 | SOC5-SS14 | SOC5-SS16 | SOC5-SS18 | SOC5-SS19 | SOC5-SS20 | SOC5-SS21 | SOC5-SS22 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 08/31/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 | 09/25/2009 | 08/31/2009 | 09/25/2009 | 08/31/2009 |
| | | Depth Interval | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | | |
| EPTC (Eradicane) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Ethalfluralin (Sonalan) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Fonofos (Dyphonate) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| g-BHC (Lindane) | | 9 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Heptachlor | | 2 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Heptachlor Epoxide | | 0.4 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| MCPA | | 16 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Methoxychlor | | 11 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Metolachlor (Dual) | | 435 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Metribuzin | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Pendimethalin (Prowl) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 0.034 mg/kg | 80 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Phorate (Thimet) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Picloram | | 2000 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Prometon (Pramitol) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Propachlor | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Propazine (Milogard) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Simazine (Princep) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Terbufos (Counter) | | 0.6 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Toxaphene | | 13 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Triallate (Far-Go) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Triclopyr | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Trifluralin (Treflan) | | | -- | -- | -- | -- | -- | -- | -- | -- |

# Table 5
## SOC 5 - Former DNT-Storage Bunkers (OU1) Soil Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | Sys Loc Code | SOC5-SS23 | SOC5-SS24 | SOC5-SS25 | SOC5-SS26 | SOC5-SS27 | SOC5-SS28 | SOC5-SS30 | SOC5-SS32 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/25/2009 | 08/31/2009 | 09/25/2009 | 08/31/2009 | 09/25/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 |
| | | Depth Interval | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | | |
| General Parameters | | | | | | | | | | |
| Nitrocellulose | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Metals | | | | | | | | | | |
| Antimony | 2.7 mg/kg | 12 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Arsenic | 15.1 mg/kg | 9 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Beryllium | 1.4 mg/kg | 55 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Cadmium | 4.4 mg/kg | 25 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Chromium, total | 1000000 mg/kg | 44000 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Copper | 400 mg/kg | 100 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Lead | 525 mg/kg | 300 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Mercury | 1.6 MC mg/kg | 0.5 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Nickel | 88 mg/kg | 560 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Selenium | 1.5 mg/kg | 160 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Silver | 3.9 mg/kg | 160 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Thallium | | 3 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Zinc | 1500 mg/kg | 8700 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| SVOCs | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.31 mg/kg | 200 mg/kg | < 0.030 mg/kg | < 0.030 mg/kg | < 0.031 mg/kg | < 0.033 mg/kg | < 0.031 mg/kg | < 0.032 mg/kg | < 0.032 mg/kg | < 0.031 mg/kg |
| 1,2-Dichlorobenzene | 8.1 mg/kg | 26 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | < 0.030 mg/kg | < 0.028 mg/kg |
| 1,3-Dichlorobenzene | 4.2 mg/kg | 26 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.028 mg/kg | < 0.026 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.026 mg/kg |
| 1,4-Dichlorobenzene | 0.13 mg/kg | 30 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.027 mg/kg |
| 2,3,4,6-Tetrachlorophenol | | 636 mg/kg | < 0.042 mg/kg | < 0.042 mg/kg | < 0.044 mg/kg | < 0.046 mg/kg | < 0.044 mg/kg | < 0.045 mg/kg | < 0.045 mg/kg | < 0.043 mg/kg |
| 2,4,5-Trichlorophenol | | 1920 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.027 mg/kg |
| 2,4,6-Trichlorophenol | 0.21 mg/kg | 595 mg/kg | < 0.039 mg/kg | < 0.039 mg/kg | < 0.040 mg/kg | < 0.043 mg/kg | < 0.040 mg/kg | < 0.042 mg/kg | < 0.042 mg/kg | < 0.040 mg/kg |
| 2,4-Dichlorophenol | 0.076 mg/kg | 48 mg/kg | < 0.039 mg/kg | < 0.039 mg/kg | < 0.040 mg/kg | < 0.043 mg/kg | < 0.040 mg/kg | < 0.042 mg/kg | < 0.042 mg/kg | < 0.040 mg/kg |
| 2,4-Dimethylphenol | 0.34 mg/kg | 390 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.11 mg/kg | < 0.10 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.10 mg/kg |
| 2,4-Dinitrophenol | 0.014 mg/kg | | < 0.064 mg/kg | < 0.064 mg/kg | < 0.067 mg/kg | < 0.071 mg/kg | < 0.067 mg/kg | < 0.069 mg/kg | < 0.069 mg/kg | < 0.066 mg/kg |
| 2,4-Dinitrotoluene | 0.001 mg/kg | 50 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.026 mg/kg | < 0.024 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.024 mg/kg |
| 2,6-Dichlorophenol | | | < 0.048 mg/kg | < 0.048 mg/kg | < 0.049 mg/kg | < 0.052 mg/kg | < 0.049 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.049 mg/kg |
| 2,6-Dinitrotoluene | 0.001 mg/kg | 25 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg |
| 2-Chloronaphthalene | | | < 0.021 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg |
| 2-Chlorophenol | 0.26 mg/kg | | < 0.042 mg/kg | < 0.042 mg/kg | < 0.044 mg/kg | < 0.046 mg/kg | < 0.044 mg/kg | < 0.045 mg/kg | < 0.045 mg/kg | < 0.043 mg/kg |
| 2-Methyl-4,6-dinitrophenol | | | < 0.082 mg/kg | < 0.082 mg/kg | < 0.085 mg/kg | < 0.090 mg/kg | < 0.085 mg/kg | < 0.088 mg/kg | < 0.088 mg/kg | < 0.084 mg/kg |
| 2-Methylnaphthalene | | 100 mg/kg | < 0.031 mg/kg | 0.074 j mg/kg | 0.087 j mg/kg | 0.052 j mg/kg | < 0.032 mg/kg | 0.96 mg/kg | < 0.033 mg/kg | 0.097 j mg/kg |
| 2-Nitroaniline | | | < 0.022 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.023 mg/kg |
| 2-Nitrophenol | 0.6 mg/kg | | < 0.040 mg/kg | < 0.040 mg/kg | < 0.041 mg/kg | < 0.044 mg/kg | < 0.041 mg/kg | < 0.043 mg/kg | < 0.043 mg/kg | < 0.041 mg/kg |
| 3,3`-Dichlorobenzidine | 0.36 mg/kg | 25 mg/kg | < 0.43 mg/kg | < 0.43 mg/kg | < 0.45 mg/kg | < 0.48 mg/kg | < 0.45 mg/kg | < 0.46 mg/kg | < 0.46 mg/kg | < 0.44 mg/kg |
| 3-Nitroaniline | | | < 0.037 mg/kg | < 0.037 mg/kg | < 0.038 mg/kg | < 0.040 mg/kg | < 0.038 mg/kg | < 0.039 mg/kg | < 0.039 mg/kg | < 0.038 mg/kg |
| 4-Bromophenyl phenyl ether | | | < 0.019 mg/kg | < 0.019 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.019 mg/kg |
| 4-Chloro-3-methylphenol | | | < 0.044 mg/kg | < 0.044 mg/kg | < 0.046 mg/kg | < 0.049 mg/kg | < 0.046 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg | < 0.045 mg/kg |
| 4-Chloroaniline | | | < 0.12 mg/kg | < 0.12 mg/kg | < 0.13 mg/kg | < 0.13 mg/kg | < 0.13 mg/kg | < 0.13 mg/kg | < 0.13 mg/kg | < 0.12 mg/kg |

# Table 5
## SOC 5 - Former DNT-Storage Bunkers (OU1) Soil Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | Sys Loc Code | SOC5-SS23 | SOC5-SS24 | SOC5-SS25 | SOC5-SS26 | SOC5-SS27 | SOC5-SS28 | SOC5-SS30 | SOC5-SS32 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/25/2009 | 08/31/2009 | 09/25/2009 | 08/31/2009 | 09/25/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 |
| | | Depth Interval | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | | |
| 4-Chlorophenyl phenyl ether | | | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.028 mg/kg | < 0.026 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.026 mg/kg |
| 4-Nitroaniline | | | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.028 mg/kg | < 0.026 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.026 mg/kg |
| 4-Nitrophenol | | | < 0.11 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.12 mg/kg | < 0.11 mg/kg | < 0.12 mg/kg | < 0.12 mg/kg | < 0.11 mg/kg |
| Acenaphthene | 50 mg/kg | 1200 mg/kg | < 0.031 mg/kg | 0.30 j mg/kg | 0.31 j mg/kg | 0.23 j mg/kg | 0.10 j mg/kg | 4.0 mg/kg | 0.23 j mg/kg | 0.47 mg/kg |
| Acenaphthylene | | | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.028 mg/kg | < 0.026 mg/kg | 0.073 j mg/kg | < 0.027 mg/kg | < 0.026 mg/kg |
| Aniline | | | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.11 mg/kg | < 0.10 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.10 mg/kg |
| Anthracene | 942 mg/kg | 7880 mg/kg | 0.044 j mg/kg | 0.74 mg/kg | 0.62 mg/kg | 0.66 mg/kg | 0.29 j mg/kg | 7.4 mg/kg | 0.48 mg/kg | 1.2 mg/kg |
| Azobenzene | | | < 0.022 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.023 mg/kg |
| Benzidine | | | < 0.80 mg/kg | < 0.80 mg/kg | < 0.83 mg/kg | < 0.88 mg/kg | < 0.83 mg/kg | < 0.86 mg/kg | < 0.86 mg/kg | < 0.82 mg/kg |
| Benzo(g,h,i)perylene | | | 0.066 j mg/kg | 0.92 mg/kg | 0.51 mg/kg | 0.51 mg/kg | 0.24 j mg/kg | 4.1 mg/kg | 0.49 mg/kg | 1.7 mg/kg |
| Benzoic Acid | 30 mg/kg | 50000 mg/kg | < 0.064 mg/kg | < 0.064 mg/kg | < 0.067 mg/kg | < 0.071 mg/kg | < 0.067 mg/kg | < 0.069 mg/kg | < 0.069 mg/kg | < 0.066 mg/kg |
| Benzyl alcohol | | 8700 mg/kg | < 0.13 mg/kg | < 0.13 mg/kg | < 0.14 mg/kg | < 0.15 mg/kg | < 0.14 mg/kg | < 0.14 mg/kg | < 0.14 mg/kg | < 0.14 mg/kg |
| Bis(2-chloroethoxy)methane | | | < 0.023 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.026 mg/kg | < 0.024 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.024 mg/kg |
| Bis(2-chloroethyl)ether | 0.001 mg/kg | 2.5 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.027 mg/kg |
| Bis(2-chloroisopropyl)ether | 0.67 mg/kg | | < 0.024 mg/kg | < 0.024 mg/kg | < 0.025 mg/kg | < 0.027 mg/kg | < 0.025 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.025 mg/kg |
| Bis(2-ethylhexyl)phthalate | 40 mg/kg | 570 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.023 mg/kg |
| Butyl benzyl phthalate | 28 mg/kg | 580 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.026 mg/kg | < 0.024 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.024 mg/kg |
| Carbazole | | 700 mg/kg | < 0.024 mg/kg | 0.52 mg/kg | 0.38 j mg/kg | 0.27 j mg/kg | 0.14 j mg/kg | 2.8 mg/kg | 0.30 j mg/kg | 0.64 mg/kg |
| Dibenzofuran | | 104 mg/kg | < 0.021 mg/kg | 0.18 j mg/kg | 0.18 j mg/kg | 0.13 j mg/kg | 0.049 j mg/kg | 2.0 mg/kg | 0.12 j mg/kg | 0.26 j mg/kg |
| Diethyl phthalate | 18 mg/kg | | < 0.017 mg/kg | < 0.017 mg/kg | < 0.017 mg/kg | < 0.018 mg/kg | < 0.017 mg/kg | < 0.018 mg/kg | < 0.018 mg/kg | < 0.017 mg/kg |
| Dimethyl phthalate | 172 mg/kg | | < 0.020 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg |
| Di-n-butyl phthalate | 23 mg/kg | 2440 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.043 mg/kg | < 0.045 mg/kg | < 0.043 mg/kg | 0.33 jb mg/kg | < 0.044 mg/kg | 0.10 jb mg/kg |
| Di-n-octyl phthalate | | 520 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | < 0.030 mg/kg | < 0.028 mg/kg |
| Fluoranthene | 295 mg/kg | 1080 mg/kg | 0.33 j mg/kg | 5.5 mg/kg | 2.9 mg/kg | 2.8 mg/kg | 1.3 mg/kg | 29 mg/kg | 2.7 mg/kg | 7.6 mg/kg |
| Fluorene | 47 mg/kg | 850 mg/kg | < 0.020 mg/kg | 0.33 j mg/kg | 0.33 j mg/kg | 0.29 j mg/kg | 0.11 j mg/kg | 4.3 mg/kg | 0.24 j mg/kg | 0.52 mg/kg |
| Hexachlorobenzene | 0.32 mg/kg | 5 mg/kg | < 0.018 mg/kg | < 0.018 mg/kg | < 0.018 mg/kg | < 0.020 mg/kg | < 0.018 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg | < 0.018 mg/kg |
| Hexachlorobutadiene | 25 mg/kg | 6 mg/kg | < 0.037 mg/kg | < 0.037 mg/kg | < 0.038 mg/kg | < 0.040 mg/kg | < 0.038 mg/kg | < 0.039 mg/kg | < 0.039 mg/kg | < 0.038 mg/kg |
| Hexachlorocyclopentadiene | 4.4 mg/kg | 2 mg/kg | < 0.046 mg/kg | < 0.046 mg/kg | < 0.047 mg/kg | < 0.050 mg/kg | < 0.047 mg/kg | < 0.049 mg/kg | < 0.049 mg/kg | < 0.047 mg/kg |
| Hexachloroethane | 0.05 mg/kg | | < 0.031 mg/kg | < 0.031 mg/kg | < 0.032 mg/kg | < 0.034 mg/kg | < 0.032 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg | < 0.032 mg/kg |
| Isophorone | 0.16 mg/kg | | < 0.019 mg/kg | < 0.019 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.019 mg/kg |
| Naphthalene | **7.5 mg/kg** | 10 mg/kg | < 0.032 mg/kg | 0.13 j mg/kg | 0.19 j mg/kg | 0.087 j mg/kg | < 0.033 mg/kg | 1.4 mg/kg | 0.082 j mg/kg | 0.16 j mg/kg |
| Nitrobenzene | | | < 0.033 mg/kg | < 0.033 mg/kg | < 0.034 mg/kg | < 0.037 mg/kg | < 0.034 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.034 mg/kg |
| N-Nitrosodimethylamine | 0.82 mg/kg | | < 0.036 mg/kg | < 0.036 mg/kg | < 0.037 mg/kg | < 0.039 mg/kg | < 0.037 mg/kg | < 0.038 mg/kg | < 0.038 mg/kg | < 0.036 mg/kg |
| N-Nitrosodi-n-propylamine | | 0.7 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | < 0.030 mg/kg | < 0.028 mg/kg |
| N-Nitrosodiphenylamine | 0.88 mg/kg | 1950 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg |
| o-Cresol | 0.064 mg/kg | 75 mg/kg | < 0.039 mg/kg | < 0.039 mg/kg | < 0.040 mg/kg | < 0.043 mg/kg | < 0.040 mg/kg | < 0.042 mg/kg | < 0.042 mg/kg | < 0.040 mg/kg |
| p-Cresol | **0.033 mg/kg** | 10 mg/kg | < 0.030 mg/kg | < 0.030 mg/kg | < 0.031 mg/kg | < 0.033 mg/kg | < 0.031 mg/kg | **0.068 j mg/kg** | < 0.032 mg/kg | < 0.031 mg/kg |
| Pentachlorophenol | 0.034 mg/kg | 80 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.12 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg |
| Phenanthrene | | | 0.21 j mg/kg | 3.8 mg/kg | 2.6 mg/kg | 2.1 mg/kg | 0.90 mg/kg | 28 mg/kg | 2.3 mg/kg | 5.4 mg/kg |
| Phenol | 7.8 mg/kg | 1500 mg/kg | < 0.063 mg/kg | < 0.063 mg/kg | < 0.066 mg/kg | < 0.070 mg/kg | < 0.066 mg/kg | < 0.068 mg/kg | < 0.068 mg/kg | < 0.065 mg/kg |
| Pyrene | 272 mg/kg | 890 mg/kg | 0.27 j mg/kg | 4.8 mg/kg | 2.4 mg/kg | 2.3 mg/kg | 1.1 mg/kg | 22 mg/kg | 2.2 mg/kg | 6.5 mg/kg |

**Table 5**
**SOC 5 - Former DNT-Storage Bunkers (OU1) Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS23 | SOC5-SS24 | SOC5-SS25 | SOC5-SS26 | SOC5-SS27 | SOC5-SS28 | SOC5-SS30 | SOC5-SS32 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/25/2009 | 08/31/2009 | 09/25/2009 | 08/31/2009 | 09/25/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 |
| | | Depth Interval | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | | |
| Benzo(a)anthracene | T | T | 0.14 j mg/kg | 2.5 mg/kg | 1.2 mg/kg | 1.3 mg/kg | 0.59 mg/kg | 12 mg/kg | 1.1 mg/kg | 3.3 mg/kg |
| Benzo(a)pyrene | T | T | 0.12 j mg/kg | 2.3 mg/kg | 1.0 mg/kg | 1.0 mg/kg | 0.49 mg/kg | 9.1 mg/kg | 0.96 mg/kg | 3.0 mg/kg |
| Benzo(b)fluoranthene | T | T | 0.17 j mg/kg | 3.3 mg/kg | 1.4 mg/kg | 1.4 mg/kg | 0.65 mg/kg | 11 mg/kg | 1.3 mg/kg | 4.2 mg/kg |
| Benzo(k)fluoranthene | T | T | 0.077 j mg/kg | 1.3 mg/kg | 0.58 mg/kg | 0.56 mg/kg | 0.28 j mg/kg | 4.4 mg/kg | 0.52 mg/kg | 1.7 mg/kg |
| Chrysene | T | T | 0.16 j mg/kg | 3.1 mg/kg | 1.4 mg/kg | 1.3 mg/kg | 0.63 mg/kg | 12 mg/kg | 1.3 mg/kg | 4.2 mg/kg |
| Dibenz(a,h)anthracene | T | T | < 0.038 mg/kg | 0.35 j mg/kg | 0.17 j mg/kg | 0.17 j mg/kg | 0.080 j mg/kg | 1.5 mg/kg | 0.15 j mg/kg | 0.53 mg/kg |
| Indeno(1,2,3-cd)pyrene | T | T | 0.073 j mg/kg | 1.2 mg/kg | 0.57 mg/kg | 0.61 mg/kg | 0.27 j mg/kg | 5.2 mg/kg | 0.59 mg/kg | 2.0 mg/kg |
| **BaP equivalent, non-detects at zero for the detection limit.[1]** | **10.2 T mg/kg** | 2 T mg/kg | 0.17 a mg/kg | 3.4 a mg/kg | 1.5 a mg/kg | 1.5 a mg/kg | 0.72 a mg/kg | **13** mg/kg | 1.4 a mg/kg | 4.5 mg/kg |
| Pesticides | | | | | | | | | | |
| 2,4,5-TP (Silvex) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4,5-Trichlorophenoxyacetic acid | | 290 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-D | | 285 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-DB | | 226 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,4'-DDD | | 56 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,4'-DDE | | 40 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,4'-DDT | | 15 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| a-BHC | | 2 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Acetochlor | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Alachlor (Lasso) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aldrin | | 1 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Atrazine (Primatol) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| b-BHC | | 7 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Bentazone | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Chlordane, alpha | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Chlordane, gamma | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Chlorpyrifos (Lorsban) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Cyanazine (Bladex) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| d-BHC | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Deisopropyl atrazine | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Desethylatrazine | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Dicamba | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Dieldrin | | 0.8 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Dimethenamid | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Dinoseb (DNBP) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Endosulfan I | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Endosulfan II | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Endosulfan Sulfate | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Endrin | | 8 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Endrin Aldehyde | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Endrin Ketone | | | -- | -- | -- | -- | -- | -- | -- | -- |

**Table 5**
**SOC 5 - Former DNT-Storage Bunkers (OU1) Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS23 | SOC5-SS24 | SOC5-SS25 | SOC5-SS26 | SOC5-SS27 | SOC5-SS28 | SOC5-SS30 | SOC5-SS32 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/25/2009 | 08/31/2009 | 09/25/2009 | 08/31/2009 | 09/25/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 |
| | | Depth Interval | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | | |
| EPTC (Eradicane) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Ethalfluralin (Sonalan) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Fonofos (Dyphonate) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| g-BHC (Lindane) | | 9 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Heptachlor | | 2 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Heptachlor Epoxide | | 0.4 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| MCPA | | 16 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Methoxychlor | | 11 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Metolachlor (Dual) | | 435 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Metribuzin | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Pendimethalin (Prowl) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 0.034 mg/kg | 80 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Phorate (Thimet) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Picloram | | 2000 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Prometon (Pramitol) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Propachlor | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Propazine (Milogard) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Simazine (Princep) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Terbufos (Counter) | | 0.6 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Toxaphene | | 13 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Triallate (Far-Go) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Triclopyr | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Trifluralin (Treflan) | | | -- | -- | -- | -- | -- | -- | -- | -- |

# Table 5
## SOC 5 - Former DNT-Storage Bunkers (OU1) Soil Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | Sys Loc Code | SOC5-SS43 | SOC5-SS44 | SOC5-SS45 | SOC5-GP15 | SOC5-GP16 | SOC5-GP17 | SOC5-GP18 |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/25/2009 | 09/25/2009 | 09/25/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 |
| | | Depth Interval | 0.5 | 0.5 | 0.5 | 0.5-4 | 0.5-4 | 0.5-4 | 0.5-4 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| General Parameters | | | | | | | | | |
| Nitrocellulose | | | -- | -- | -- | -- | -- | -- | -- |
| Metals | | | | | | | | | |
| Antimony | 2.7 mg/kg | 12 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Arsenic | 15.1 mg/kg | 9 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Beryllium | 1.4 mg/kg | 55 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Cadmium | 4.4 mg/kg | 25 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Chromium, total | 1000000 mg/kg | 44000 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Copper | 400 mg/kg | 100 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Lead | 525 mg/kg | 300 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Mercury | 1.6 MC mg/kg | 0.5 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Nickel | 88 mg/kg | 560 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Selenium | 1.5 mg/kg | 160 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Silver | 3.9 mg/kg | 160 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Thallium | | 3 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Zinc | 1500 mg/kg | 8700 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| SVOCs | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.31 mg/kg | 200 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | < 0.031 mg/kg | < 0.030 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg |
| 1,2-Dichlorobenzene | 8.1 mg/kg | 26 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg |
| 1,3-Dichlorobenzene | 4.2 mg/kg | 26 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg |
| 1,4-Dichlorobenzene | 0.13 mg/kg | 30 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.028 mg/kg | < 0.027 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg |
| 2,3,4,6-Tetrachlorophenol | | 636 mg/kg | < 0.041 mg/kg | < 0.042 mg/kg | < 0.044 mg/kg | < 0.042 mg/kg | < 0.044 mg/kg | < 0.044 mg/kg | < 0.044 mg/kg |
| 2,4,5-Trichlorophenol | | 1920 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.028 mg/kg | < 0.027 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg |
| 2,4,6-Trichlorophenol | 0.21 mg/kg | 595 mg/kg | < 0.038 mg/kg | < 0.038 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.040 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg |
| 2,4-Dichlorophenol | 0.076 mg/kg | 48 mg/kg | < 0.038 mg/kg | < 0.038 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.040 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg |
| 2,4-Dimethylphenol | 0.34 mg/kg | 390 mg/kg | < 0.098 mg/kg | < 0.099 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg |
| 2,4-Dinitrophenol | 0.014 mg/kg | | < 0.063 mg/kg | < 0.064 mg/kg | < 0.067 mg/kg | < 0.064 mg/kg | < 0.067 mg/kg | < 0.067 mg/kg | < 0.067 mg/kg |
| 2,4-Dinitrotoluene | 0.001 mg/kg | 50 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg |
| 2,6-Dichlorophenol | | | < 0.047 mg/kg | < 0.047 mg/kg | < 0.049 mg/kg | < 0.048 mg/kg | < 0.049 mg/kg | < 0.050 mg/kg | < 0.050 mg/kg |
| 2,6-Dinitrotoluene | 0.001 mg/kg | 25 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg |
| 2-Chloronaphthalene | | | < 0.021 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg |
| 2-Chlorophenol | 0.26 mg/kg | | < 0.041 mg/kg | < 0.042 mg/kg | < 0.044 mg/kg | < 0.042 mg/kg | < 0.044 mg/kg | < 0.044 mg/kg | < 0.044 mg/kg |
| 2-Methyl-4,6-dinitrophenol | | | < 0.080 mg/kg | < 0.081 mg/kg | < 0.085 mg/kg | < 0.082 mg/kg | < 0.085 mg/kg | < 0.086 mg/kg | < 0.086 mg/kg |
| 2-Methylnaphthalene | | 100 mg/kg | < 0.030 mg/kg | 1.6 mg/kg | < 0.032 mg/kg | < 0.031 mg/kg | < 0.032 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg |
| 2-Nitroaniline | | | < 0.022 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg |
| 2-Nitrophenol | 0.6 mg/kg | | < 0.039 mg/kg | < 0.040 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.041 mg/kg | < 0.042 mg/kg | < 0.042 mg/kg |
| 3,3`-Dichlorobenzidine | 0.36 mg/kg | 25 mg/kg | < 0.42 mg/kg | < 0.43 mg/kg | < 0.45 mg/kg | < 0.43 mg/kg | < 0.45 mg/kg | < 0.45 mg/kg | < 0.45 mg/kg |
| 3-Nitroaniline | | | < 0.036 mg/kg | < 0.036 mg/kg | < 0.038 mg/kg | < 0.037 mg/kg | < 0.038 mg/kg | < 0.038 mg/kg | < 0.038 mg/kg |
| 4-Bromophenyl phenyl ether | | | < 0.018 mg/kg | < 0.019 mg/kg | < 0.020 mg/kg | < 0.019 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg |
| 4-Chloro-3-methylphenol | | | < 0.043 mg/kg | < 0.044 mg/kg | < 0.046 mg/kg | < 0.044 mg/kg | < 0.046 mg/kg | < 0.047 mg/kg | < 0.047 mg/kg |
| 4-Chloroaniline | | | < 0.12 mg/kg | < 0.12 mg/kg | < 0.13 mg/kg | < 0.12 mg/kg | < 0.13 mg/kg | < 0.13 mg/kg | < 0.13 mg/kg |

# Table 5
## SOC 5 - Former DNT-Storage Bunkers (OU1) Soil Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | Sys Loc Code | SOC5-SS43 | SOC5-SS44 | SOC5-SS45 | SOC5-GP15 | SOC5-GP16 | SOC5-GP17 | SOC5-GP18 |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/25/2009 | 09/25/2009 | 09/25/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 |
| | | Depth Interval | 0.5 | 0.5 | 0.5 | 0.5-4 | 0.5-4 | 0.5-4 | 0.5-4 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| 4-Chlorophenyl phenyl ether | | | < 0.025 mg/kg | < 0.025 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg |
| 4-Nitroaniline | | | < 0.025 mg/kg | < 0.025 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg |
| 4-Nitrophenol | | | < 0.11 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.12 mg/kg | < 0.12 mg/kg |
| Acenaphthene | 50 mg/kg | 1200 mg/kg | 0.10 j mg/kg | 3.9 mg/kg | 0.034 j mg/kg | < 0.031 mg/kg | < 0.032 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg |
| Acenaphthylene | | | < 0.025 mg/kg | < 0.025 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg |
| Aniline | | | < 0.098 mg/kg | < 0.099 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg |
| Anthracene | 942 mg/kg | 7880 mg/kg | 0.21 j mg/kg | 5.8 mg/kg | 0.082 j mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg |
| Azobenzene | | | < 0.022 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg |
| Benzidine | | | < 0.78 mg/kg | < 0.79 mg/kg | < 0.83 mg/kg | < 0.80 mg/kg | < 0.83 mg/kg | < 0.84 mg/kg | < 0.84 mg/kg |
| Benzo(g,h,i)perylene | | | 0.43 mg/kg | 1.7 mg/kg | 0.40 mg/kg | < 0.033 mg/kg | < 0.034 mg/kg | < 0.035 mg/kg | < 0.035 mg/kg |
| Benzoic Acid | 30 mg/kg | 50000 mg/kg | < 0.063 mg/kg | < 0.064 mg/kg | < 0.067 mg/kg | < 0.064 mg/kg | < 0.067 mg/kg | < 0.067 mg/kg | < 0.067 mg/kg |
| Benzyl alcohol | | 8700 mg/kg | < 0.13 mg/kg | < 0.13 mg/kg | < 0.14 mg/kg | < 0.13 mg/kg | < 0.14 mg/kg | < 0.14 mg/kg | < 0.14 mg/kg |
| Bis(2-chloroethoxy)methane | | | < 0.023 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg |
| Bis(2-chloroethyl)ether | 0.001 mg/kg | 2.5 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.028 mg/kg | < 0.027 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg |
| Bis(2-chloroisopropyl)ether | 0.67 mg/kg | | < 0.024 mg/kg | < 0.024 mg/kg | < 0.025 mg/kg | < 0.024 mg/kg | < 0.025 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg |
| Bis(2-ethylhexyl)phthalate | 40 mg/kg | 570 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg |
| Butyl benzyl phthalate | 28 mg/kg | 580 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg |
| Carbazole | | 700 mg/kg | < 0.024 mg/kg | 2.5 mg/kg | < 0.025 mg/kg | < 0.024 mg/kg | < 0.025 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg |
| Dibenzofuran | | 104 mg/kg | 0.042 j mg/kg | 2.5 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg |
| Diethyl phthalate | 18 mg/kg | | < 0.016 mg/kg | < 0.016 mg/kg | < 0.017 mg/kg | < 0.017 mg/kg | < 0.017 mg/kg | < 0.017 mg/kg | < 0.017 mg/kg |
| Dimethyl phthalate | 172 mg/kg | | < 0.020 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg |
| Di-n-butyl phthalate | 23 mg/kg | 2440 mg/kg | < 0.040 mg/kg | < 0.041 mg/kg | < 0.043 mg/kg | < 0.041 mg/kg | < 0.043 mg/kg | < 0.043 mg/kg | < 0.043 mg/kg |
| Di-n-octyl phthalate | | 520 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg |
| Fluoranthene | 295 mg/kg | 1080 mg/kg | 1.1 mg/kg | 14 mg/kg | 0.68 mg/kg | < 0.027 mg/kg | < 0.028 mg/kg | 0.043 j mg/kg | < 0.028 mg/kg |
| Fluorene | 47 mg/kg | 850 mg/kg | 0.24 j mg/kg | 3.8 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg |
| Hexachlorobenzene | 0.32 mg/kg | 5 mg/kg | < 0.017 mg/kg | < 0.018 mg/kg | < 0.018 mg/kg | < 0.018 mg/kg | < 0.018 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg |
| Hexachlorobutadiene | 25 mg/kg | 6 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.038 mg/kg | < 0.037 mg/kg | < 0.038 mg/kg | < 0.038 mg/kg | < 0.038 mg/kg |
| Hexachlorocyclopentadiene | 4.4 mg/kg | 2 mg/kg | < 0.045 mg/kg | < 0.045 mg/kg | < 0.047 mg/kg | < 0.046 mg/kg | < 0.047 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Hexachloroethane | 0.05 mg/kg | | < 0.030 mg/kg | < 0.031 mg/kg | < 0.032 mg/kg | < 0.031 mg/kg | < 0.032 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg |
| Isophorone | 0.16 mg/kg | | < 0.018 mg/kg | < 0.019 mg/kg | < 0.020 mg/kg | < 0.019 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg |
| Naphthalene | **7.5 mg/kg** | 10 mg/kg | < 0.032 mg/kg | 2.4 mg/kg | < 0.033 mg/kg | < 0.032 mg/kg | < 0.033 mg/kg | < 0.034 mg/kg | < 0.034 mg/kg |
| Nitrobenzene | | | < 0.033 mg/kg | < 0.033 mg/kg | < 0.034 mg/kg | < 0.033 mg/kg | < 0.034 mg/kg | < 0.035 mg/kg | < 0.035 mg/kg |
| N-Nitrosodimethylamine | 0.82 mg/kg | | < 0.035 mg/kg | < 0.035 mg/kg | < 0.037 mg/kg | < 0.036 mg/kg | < 0.037 mg/kg | < 0.037 mg/kg | < 0.037 mg/kg |
| N-Nitrosodi-n-propylamine | | 0.7 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg |
| N-Nitrosodiphenylamine | 0.88 mg/kg | 1950 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg |
| o-Cresol | 0.064 mg/kg | 75 mg/kg | < 0.038 mg/kg | < 0.038 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.040 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg |
| p-Cresol | **0.033 mg/kg** | 10 mg/kg | < 0.029 mg/kg | **0.054 j mg/kg** | < 0.031 mg/kg | < 0.030 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg |
| Pentachlorophenol | 0.034 mg/kg | 80 mg/kg | < 0.10 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg |
| Phenanthrene | | | 0.86 mg/kg | 19 mg/kg | 0.42 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg |
| Phenol | 7.8 mg/kg | 1500 mg/kg | < 0.062 mg/kg | < 0.063 mg/kg | < 0.066 mg/kg | < 0.063 mg/kg | < 0.066 mg/kg | < 0.066 mg/kg | < 0.066 mg/kg |
| Pyrene | 272 mg/kg | 890 mg/kg | 1.1 mg/kg | 12 mg/kg | 0.66 mg/kg | < 0.026 mg/kg | 0.030 j mg/kg | 0.044 j mg/kg | < 0.027 mg/kg |

# Table 5
## SOC 5 - Former DNT-Storage Bunkers (OU1) Soil Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | Sys Loc Code | SOC5-SS43 | SOC5-SS44 | SOC5-SS45 | SOC5-GP15 | SOC5-GP16 | SOC5-GP17 | SOC5-GP18 |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/25/2009 | 09/25/2009 | 09/25/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 |
| | | Depth Interval | 0.5 | 0.5 | 0.5 | 0.5-4 | 0.5-4 | 0.5-4 | 0.5-4 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| Benzo(a)anthracene | T | T | 0.60 mg/kg | 6.6 mg/kg | 0.35 j mg/kg | < 0.030 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg |
| Benzo(a)pyrene | T | T | 0.41 mg/kg | 4.7 mg/kg | 0.25 j mg/kg | < 0.030 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg |
| Benzo(b)fluoranthene | T | T | 0.63 mg/kg | 5.5 mg/kg | 0.47 mg/kg | < 0.038 mg/kg | < 0.039 mg/kg | < 0.040 mg/kg | < 0.040 mg/kg |
| Benzo(k)fluoranthene | T | T | 0.22 j mg/kg | 2.2 mg/kg | 0.15 j mg/kg | < 0.034 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg |
| Chrysene | T | T | 0.51 mg/kg | 5.8 mg/kg | 0.35 j mg/kg | < 0.037 mg/kg | < 0.038 mg/kg | < 0.038 mg/kg | < 0.038 mg/kg |
| Dibenz(a,h)anthracene | T | T | < 0.037 mg/kg | 0.76 mg/kg | < 0.039 mg/kg | < 0.038 mg/kg | < 0.039 mg/kg | < 0.040 mg/kg | < 0.040 mg/kg |
| Indeno(1,2,3-cd)pyrene | T | T | 0.38 mg/kg | 2.2 mg/kg | 0.32 j mg/kg | < 0.036 mg/kg | < 0.037 mg/kg | < 0.037 mg/kg | < 0.037 mg/kg |
| **BaP equivalent, non-detects at zero for the detection limit.[1]** | **10.2 T mg/kg** | 2 T mg/kg | 0.60 a mg/kg | 6.8 mg/kg | 0.39 a mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg |
| Pesticides | | | | | | | | | |
| 2,4,5-TP (Silvex) | | | -- | -- | -- | -- | -- | -- | -- |
| 2,4,5-Trichlorophenoxyacetic acid | | 290 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,4-D | | 285 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,4-DB | | 226 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 4,4'-DDD | | 56 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 4,4'-DDE | | 40 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 4,4'-DDT | | 15 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| a-BHC | | 2 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Acetochlor | | | -- | -- | -- | -- | -- | -- | -- |
| Alachlor (Lasso) | | | -- | -- | -- | -- | -- | -- | -- |
| Aldrin | | 1 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Atrazine (Primatol) | | | -- | -- | -- | -- | -- | -- | -- |
| b-BHC | | 7 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Bentazone | | | -- | -- | -- | -- | -- | -- | -- |
| Chlordane, alpha | | | -- | -- | -- | -- | -- | -- | -- |
| Chlordane, gamma | | | -- | -- | -- | -- | -- | -- | -- |
| Chlorpyrifos (Lorsban) | | | -- | -- | -- | -- | -- | -- | -- |
| Cyanazine (Bladex) | | | -- | -- | -- | -- | -- | -- | -- |
| d-BHC | | | -- | -- | -- | -- | -- | -- | -- |
| Deisopropyl atrazine | | | -- | -- | -- | -- | -- | -- | -- |
| Desethylatrazine | | | -- | -- | -- | -- | -- | -- | -- |
| Dicamba | | | -- | -- | -- | -- | -- | -- | -- |
| Dieldrin | | 0.8 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Dimethenamid | | | -- | -- | -- | -- | -- | -- | -- |
| Dinoseb (DNBP) | | | -- | -- | -- | -- | -- | -- | -- |
| Endosulfan I | | | -- | -- | -- | -- | -- | -- | -- |
| Endosulfan II | | | -- | -- | -- | -- | -- | -- | -- |
| Endosulfan Sulfate | | | -- | -- | -- | -- | -- | -- | -- |
| Endrin | | 8 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Endrin Aldehyde | | | -- | -- | -- | -- | -- | -- | -- |
| Endrin Ketone | | | -- | -- | -- | -- | -- | -- | -- |

**Table 5**
**SOC 5 - Former DNT-Storage Bunkers (OU1) Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS43 | SOC5-SS44 | SOC5-SS45 | SOC5-GP15 | SOC5-GP16 | SOC5-GP17 | SOC5-GP18 |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/25/2009 | 09/25/2009 | 09/25/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 |
| | | Depth Interval | 0.5 | 0.5 | 0.5 | 0.5-4 | 0.5-4 | 0.5-4 | 0.5-4 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| EPTC (Eradicane) | | | -- | -- | -- | -- | -- | -- | -- |
| Ethalfluralin (Sonalan) | | | -- | -- | -- | -- | -- | -- | -- |
| Fonofos (Dyphonate) | | | -- | -- | -- | -- | -- | -- | -- |
| g-BHC (Lindane) | | 9 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Heptachlor | | 2 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Heptachlor Epoxide | | 0.4 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| MCPA | | 16 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Methoxychlor | | 11 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Metolachlor (Dual) | | 435 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Metribuzin | | | -- | -- | -- | -- | -- | -- | -- |
| Pendimethalin (Prowl) | | | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 0.034 mg/kg | 80 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Phorate (Thimet) | | | -- | -- | -- | -- | -- | -- | -- |
| Picloram | | 2000 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Prometon (Pramitol) | | | -- | -- | -- | -- | -- | -- | -- |
| Propachlor | | | -- | -- | -- | -- | -- | -- | -- |
| Propazine (Milogard) | | | -- | -- | -- | -- | -- | -- | -- |
| Simazine (Princep) | | | -- | -- | -- | -- | -- | -- | -- |
| Terbufos (Counter) | | 0.6 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Toxaphene | | 13 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Triallate (Far-Go) | | | -- | -- | -- | -- | -- | -- | -- |
| Triclopyr | | | -- | -- | -- | -- | -- | -- | -- |
| Trifluralin (Treflan) | | | -- | -- | -- | -- | -- | -- | -- |

# Table 5
## SOC 5 - Former DNT-Storage Bunkers (OU1) Soil Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | Sys Loc Code | SOC5-GP19 | SOC5-GP20 | SOC5-GP21 | SOC5-GP22 | SOC5-GP23 | SOC5-GP24 | SOC5-GP25 | SOC5-GP26 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/03/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 |
| | | Depth Interval | 1-4 | 0.5-4 | 0.5-4 | 0.5-4 | 0.5-4 | 0.5-2 | 1-3 | 0.5-4 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | | |
| General Parameters | | | | | | | | | | |
| Nitrocellulose | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Metals | | | | | | | | | | |
| Antimony | 2.7 mg/kg | 12 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Arsenic | 15.1 mg/kg | 9 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Beryllium | 1.4 mg/kg | 55 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Cadmium | 4.4 mg/kg | 25 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Chromium, total | 1000000 mg/kg | 44000 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Copper | 400 mg/kg | 100 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Lead | 525 mg/kg | 300 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Mercury | 1.6 MC mg/kg | 0.5 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Nickel | 88 mg/kg | 560 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Selenium | 1.5 mg/kg | 160 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Silver | 3.9 mg/kg | 160 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Thallium | | 3 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Zinc | 1500 mg/kg | 8700 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| SVOCs | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.31 mg/kg | 200 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | < 0.033 mg/kg | < 0.031 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg | < 0.032 mg/kg |
| 1,2-Dichlorobenzene | 8.1 mg/kg | 26 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.028 mg/kg | < 0.030 mg/kg | < 0.029 mg/kg | < 0.027 mg/kg | < 0.026 mg/kg | < 0.029 mg/kg |
| 1,3-Dichlorobenzene | 4.2 mg/kg | 26 mg/kg | < 0.025 mg/kg | < 0.024 mg/kg | < 0.026 mg/kg | < 0.028 mg/kg | < 0.026 mg/kg | < 0.024 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg |
| 1,4-Dichlorobenzene | 0.13 mg/kg | 30 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.027 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg | < 0.026 mg/kg | < 0.024 mg/kg | < 0.028 mg/kg |
| 2,3,4,6-Tetrachlorophenol | | 636 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.043 mg/kg | < 0.046 mg/kg | < 0.044 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.045 mg/kg |
| 2,4,5-Trichlorophenol | | 1920 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.027 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg | < 0.026 mg/kg | < 0.024 mg/kg | < 0.028 mg/kg |
| 2,4,6-Trichlorophenol | 0.21 mg/kg | 595 mg/kg | < 0.038 mg/kg | < 0.037 mg/kg | < 0.039 mg/kg | < 0.042 mg/kg | < 0.040 mg/kg | < 0.037 mg/kg | < 0.036 mg/kg | < 0.041 mg/kg |
| 2,4-Dichlorophenol | 0.076 mg/kg | 48 mg/kg | < 0.038 mg/kg | < 0.037 mg/kg | < 0.039 mg/kg | < 0.042 mg/kg | < 0.040 mg/kg | < 0.037 mg/kg | < 0.036 mg/kg | < 0.041 mg/kg |
| 2,4-Dimethylphenol | 0.34 mg/kg | 390 mg/kg | < 0.098 mg/kg | < 0.096 mg/kg | < 0.10 mg/kg | < 0.11 mg/kg | < 0.10 mg/kg | < 0.096 mg/kg | < 0.092 mg/kg | < 0.11 mg/kg |
| 2,4-Dinitrophenol | 0.014 mg/kg | | < 0.063 mg/kg | < 0.062 mg/kg | < 0.065 mg/kg | < 0.070 mg/kg | < 0.067 mg/kg | < 0.062 mg/kg | < 0.059 mg/kg | < 0.068 mg/kg |
| 2,4-Dinitrotoluene | 0.001 mg/kg | 50 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg | < 0.024 mg/kg | < 0.025 mg/kg | < 0.024 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.025 mg/kg |
| 2,6-Dichlorophenol | | | < 0.047 mg/kg | < 0.046 mg/kg | < 0.048 mg/kg | < 0.052 mg/kg | < 0.049 mg/kg | < 0.046 mg/kg | < 0.044 mg/kg | < 0.051 mg/kg |
| 2,6-Dinitrotoluene | 0.001 mg/kg | 25 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg | < 0.020 mg/kg | < 0.019 mg/kg | < 0.022 mg/kg |
| 2-Chloronaphthalene | | | < 0.021 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg | < 0.020 mg/kg | < 0.019 mg/kg | < 0.022 mg/kg |
| 2-Chlorophenol | 0.26 mg/kg | | < 0.041 mg/kg | < 0.040 mg/kg | < 0.043 mg/kg | < 0.046 mg/kg | < 0.044 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.045 mg/kg |
| 2-Methyl-4,6-dinitrophenol | | | < 0.080 mg/kg | < 0.079 mg/kg | < 0.083 mg/kg | < 0.089 mg/kg | < 0.085 mg/kg | < 0.079 mg/kg | < 0.076 mg/kg | < 0.087 mg/kg |
| 2-Methylnaphthalene | | 100 mg/kg | < 0.030 mg/kg | < 0.030 mg/kg | < 0.031 mg/kg | < 0.034 mg/kg | < 0.032 mg/kg | 0.048 j mg/kg | < 0.029 mg/kg | < 0.033 mg/kg |
| 2-Nitroaniline | | | < 0.022 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.024 mg/kg | < 0.023 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.024 mg/kg |
| 2-Nitrophenol | 0.6 mg/kg | | < 0.039 mg/kg | < 0.038 mg/kg | < 0.040 mg/kg | < 0.043 mg/kg | < 0.041 mg/kg | < 0.038 mg/kg | < 0.037 mg/kg | < 0.042 mg/kg |
| 3,3`-Dichlorobenzidine | 0.36 mg/kg | 25 mg/kg | < 0.42 mg/kg | < 0.41 mg/kg | < 0.44 mg/kg | < 0.47 mg/kg | < 0.45 mg/kg | < 0.41 mg/kg | < 0.40 mg/kg | < 0.46 mg/kg |
| 3-Nitroaniline | | | < 0.036 mg/kg | < 0.035 mg/kg | < 0.037 mg/kg | < 0.040 mg/kg | < 0.038 mg/kg | < 0.035 mg/kg | < 0.034 mg/kg | < 0.039 mg/kg |
| 4-Bromophenyl phenyl ether | | | < 0.018 mg/kg | < 0.018 mg/kg | < 0.019 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.018 mg/kg | < 0.017 mg/kg | < 0.020 mg/kg |
| 4-Chloro-3-methylphenol | | | < 0.043 mg/kg | < 0.043 mg/kg | < 0.045 mg/kg | < 0.048 mg/kg | < 0.046 mg/kg | < 0.043 mg/kg | < 0.041 mg/kg | < 0.047 mg/kg |
| 4-Chloroaniline | | | < 0.12 mg/kg | < 0.12 mg/kg | < 0.12 mg/kg | < 0.13 mg/kg | < 0.13 mg/kg | < 0.12 mg/kg | < 0.11 mg/kg | < 0.13 mg/kg |

# Table 5
## SOC 5 - Former DNT-Storage Bunkers (OU1) Soil Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | Sys Loc Code | SOC5-GP19 | SOC5-GP20 | SOC5-GP21 | SOC5-GP22 | SOC5-GP23 | SOC5-GP24 | SOC5-GP25 | SOC5-GP26 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/03/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 |
| | | Depth Interval | 1-4 | 0.5-4 | 0.5-4 | 0.5-4 | 0.5-4 | 0.5-2 | 1-3 | 0.5-4 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | | |
| 4-Chlorophenyl phenyl ether | | | < 0.025 mg/kg | < 0.024 mg/kg | < 0.026 mg/kg | < 0.028 mg/kg | < 0.026 mg/kg | < 0.024 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg |
| 4-Nitroaniline | | | < 0.025 mg/kg | < 0.024 mg/kg | < 0.026 mg/kg | < 0.028 mg/kg | < 0.026 mg/kg | < 0.024 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg |
| 4-Nitrophenol | | | < 0.11 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.12 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.10 mg/kg | < 0.12 mg/kg |
| Acenaphthene | 50 mg/kg | 1200 mg/kg | < 0.030 mg/kg | < 0.030 mg/kg | < 0.031 mg/kg | < 0.034 mg/kg | < 0.032 mg/kg | 0.18 j mg/kg | < 0.029 mg/kg | < 0.033 mg/kg |
| Acenaphthylene | | | < 0.025 mg/kg | < 0.024 mg/kg | < 0.026 mg/kg | < 0.028 mg/kg | < 0.026 mg/kg | < 0.024 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg |
| Aniline | | | < 0.098 mg/kg | < 0.096 mg/kg | < 0.10 mg/kg | < 0.11 mg/kg | < 0.10 mg/kg | < 0.096 mg/kg | < 0.092 mg/kg | < 0.11 mg/kg |
| Anthracene | 942 mg/kg | 7880 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.028 mg/kg | < 0.030 mg/kg | < 0.029 mg/kg | 0.35 mg/kg | < 0.026 mg/kg | < 0.029 mg/kg |
| Azobenzene | | | < 0.022 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.024 mg/kg | < 0.023 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.024 mg/kg |
| Benzidine | | | < 0.78 mg/kg | < 0.77 mg/kg | < 0.81 mg/kg | < 0.87 mg/kg | < 0.83 mg/kg | < 0.77 mg/kg | < 0.73 mg/kg | < 0.85 mg/kg |
| Benzo(g,h,i)perylene | | | < 0.033 mg/kg | < 0.032 mg/kg | < 0.034 mg/kg | < 0.036 mg/kg | < 0.034 mg/kg | 0.27 j mg/kg | < 0.031 mg/kg | < 0.035 mg/kg |
| Benzoic Acid | 30 mg/kg | 50000 mg/kg | < 0.063 mg/kg | < 0.062 mg/kg | < 0.065 mg/kg | < 0.070 mg/kg | < 0.067 mg/kg | < 0.062 mg/kg | < 0.059 mg/kg | < 0.068 mg/kg |
| Benzyl alcohol | | 8700 mg/kg | < 0.13 mg/kg | < 0.13 mg/kg | < 0.13 mg/kg | < 0.14 mg/kg | < 0.14 mg/kg | < 0.13 mg/kg | < 0.12 mg/kg | < 0.14 mg/kg |
| Bis(2-chloroethoxy)methane | | | < 0.023 mg/kg | < 0.022 mg/kg | < 0.024 mg/kg | < 0.025 mg/kg | < 0.024 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.025 mg/kg |
| Bis(2-chloroethyl)ether | 0.001 mg/kg | 2.5 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.027 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg | < 0.026 mg/kg | < 0.024 mg/kg | < 0.028 mg/kg |
| Bis(2-chloroisopropyl)ether | 0.67 mg/kg | | < 0.024 mg/kg | < 0.023 mg/kg | < 0.025 mg/kg | < 0.027 mg/kg | < 0.025 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg | < 0.026 mg/kg |
| Bis(2-ethylhexyl)phthalate | 40 mg/kg | 570 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.024 mg/kg | < 0.023 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.024 mg/kg |
| Butyl benzyl phthalate | 28 mg/kg | 580 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg | < 0.024 mg/kg | < 0.025 mg/kg | < 0.024 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.025 mg/kg |
| Carbazole | | 700 mg/kg | < 0.024 mg/kg | < 0.023 mg/kg | < 0.025 mg/kg | < 0.027 mg/kg | < 0.025 mg/kg | 0.12 j mg/kg | < 0.022 mg/kg | < 0.026 mg/kg |
| Dibenzofuran | | 104 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg | 0.11 j mg/kg | < 0.019 mg/kg | < 0.022 mg/kg |
| Diethyl phthalate | 18 mg/kg | | < 0.016 mg/kg | < 0.016 mg/kg | < 0.017 mg/kg | < 0.018 mg/kg | < 0.017 mg/kg | < 0.016 mg/kg | < 0.015 mg/kg | < 0.018 mg/kg |
| Dimethyl phthalate | 172 mg/kg | | < 0.020 mg/kg | < 0.019 mg/kg | < 0.020 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.019 mg/kg | < 0.018 mg/kg | < 0.021 mg/kg |
| Di-n-butyl phthalate | 23 mg/kg | 2440 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.042 mg/kg | < 0.045 mg/kg | < 0.043 mg/kg | < 0.039 mg/kg | < 0.038 mg/kg | < 0.044 mg/kg |
| Di-n-octyl phthalate | | 520 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.028 mg/kg | < 0.030 mg/kg | < 0.029 mg/kg | < 0.027 mg/kg | < 0.026 mg/kg | < 0.029 mg/kg |
| Fluoranthene | 295 mg/kg | 1080 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.027 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg | 1.7 mg/kg | < 0.024 mg/kg | < 0.028 mg/kg |
| Fluorene | 47 mg/kg | 850 mg/kg | < 0.020 mg/kg | < 0.019 mg/kg | < 0.020 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | 0.15 j mg/kg | < 0.018 mg/kg | < 0.021 mg/kg |
| Hexachlorobenzene | 0.32 mg/kg | 5 mg/kg | < 0.017 mg/kg | < 0.017 mg/kg | < 0.018 mg/kg | < 0.019 mg/kg | < 0.018 mg/kg | < 0.017 mg/kg | < 0.016 mg/kg | < 0.019 mg/kg |
| Hexachlorobutadiene | 25 mg/kg | 6 mg/kg | < 0.036 mg/kg | < 0.035 mg/kg | < 0.037 mg/kg | < 0.040 mg/kg | < 0.038 mg/kg | < 0.035 mg/kg | < 0.034 mg/kg | < 0.039 mg/kg |
| Hexachlorocyclopentadiene | 4.4 mg/kg | 2 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg | < 0.046 mg/kg | < 0.049 mg/kg | < 0.047 mg/kg | < 0.044 mg/kg | < 0.042 mg/kg | < 0.048 mg/kg |
| Hexachloroethane | 0.05 mg/kg | | < 0.030 mg/kg | < 0.030 mg/kg | < 0.031 mg/kg | < 0.034 mg/kg | < 0.032 mg/kg | < 0.030 mg/kg | < 0.029 mg/kg | < 0.033 mg/kg |
| Isophorone | 0.16 mg/kg | | < 0.018 mg/kg | < 0.018 mg/kg | < 0.019 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.018 mg/kg | < 0.017 mg/kg | < 0.020 mg/kg |
| Naphthalene | **7.5 mg/kg** | 10 mg/kg | < 0.032 mg/kg | < 0.031 mg/kg | < 0.033 mg/kg | < 0.035 mg/kg | < 0.033 mg/kg | 0.052 j mg/kg | < 0.030 mg/kg | < 0.034 mg/kg |
| Nitrobenzene | | | < 0.033 mg/kg | < 0.032 mg/kg | < 0.034 mg/kg | < 0.036 mg/kg | < 0.034 mg/kg | < 0.032 mg/kg | < 0.031 mg/kg | < 0.035 mg/kg |
| N-Nitrosodimethylamine | 0.82 mg/kg | | < 0.035 mg/kg | < 0.034 mg/kg | < 0.036 mg/kg | < 0.039 mg/kg | < 0.037 mg/kg | < 0.034 mg/kg | < 0.033 mg/kg | < 0.038 mg/kg |
| N-Nitrosodi-n-propylamine | | 0.7 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.028 mg/kg | < 0.030 mg/kg | < 0.029 mg/kg | < 0.027 mg/kg | < 0.026 mg/kg | < 0.029 mg/kg |
| N-Nitrosodiphenylamine | 0.88 mg/kg | 1950 mg/kg | < 0.020 mg/kg | < 0.019 mg/kg | < 0.020 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.019 mg/kg | < 0.018 mg/kg | < 0.021 mg/kg |
| o-Cresol | 0.064 mg/kg | 75 mg/kg | < 0.038 mg/kg | < 0.037 mg/kg | < 0.039 mg/kg | < 0.042 mg/kg | < 0.040 mg/kg | < 0.037 mg/kg | < 0.036 mg/kg | < 0.041 mg/kg |
| p-Cresol | **0.033 mg/kg** | 10 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | < 0.033 mg/kg | < 0.031 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg | < 0.032 mg/kg |
| Pentachlorophenol | 0.034 mg/kg | 80 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.11 mg/kg | < 0.12 mg/kg | < 0.11 mg/kg | < 0.10 mg/kg | < 0.098 mg/kg | < 0.11 mg/kg |
| Phenanthrene | | | < 0.021 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg | 1.6 mg/kg | < 0.019 mg/kg | < 0.022 mg/kg |
| Phenol | 7.8 mg/kg | 1500 mg/kg | < 0.062 mg/kg | < 0.061 mg/kg | < 0.064 mg/kg | < 0.069 mg/kg | < 0.066 mg/kg | < 0.061 mg/kg | < 0.058 mg/kg | < 0.067 mg/kg |
| Pyrene | 272 mg/kg | 890 mg/kg | < 0.025 mg/kg | < 0.024 mg/kg | < 0.026 mg/kg | < 0.028 mg/kg | < 0.026 mg/kg | 1.5 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg |

# Table 5
## SOC 5 - Former DNT-Storage Bunkers (OU1) Soil Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | Sys Loc Code | SOC5-GP19 | SOC5-GP20 | SOC5-GP21 | SOC5-GP22 | SOC5-GP23 | SOC5-GP24 | SOC5-GP25 | SOC5-GP26 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/03/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 |
| | | Depth Interval | 1-4 | 0.5-4 | 0.5-4 | 0.5-4 | 0.5-4 | 0.5-2 | 1-3 | 0.5-4 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | | |
| Benzo(a)anthracene | T | T | < 0.029 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | < 0.033 mg/kg | < 0.031 mg/kg | 0.81 mg/kg | < 0.028 mg/kg | < 0.032 mg/kg |
| Benzo(a)pyrene | T | T | < 0.029 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | < 0.033 mg/kg | < 0.031 mg/kg | 0.56 mg/kg | < 0.028 mg/kg | < 0.032 mg/kg |
| Benzo(b)fluoranthene | T | T | < 0.037 mg/kg | < 0.036 mg/kg | < 0.038 mg/kg | < 0.041 mg/kg | < 0.039 mg/kg | 0.75 mg/kg | < 0.035 mg/kg | < 0.040 mg/kg |
| Benzo(k)fluoranthene | T | T | < 0.034 mg/kg | < 0.033 mg/kg | < 0.035 mg/kg | < 0.037 mg/kg | < 0.036 mg/kg | 0.31 j mg/kg | < 0.032 mg/kg | < 0.036 mg/kg |
| Chrysene | T | T | < 0.036 mg/kg | < 0.035 mg/kg | < 0.037 mg/kg | < 0.040 mg/kg | < 0.038 mg/kg | 0.74 mg/kg | < 0.034 mg/kg | < 0.039 mg/kg |
| Dibenz(a,h)anthracene | T | T | < 0.037 mg/kg | < 0.036 mg/kg | < 0.038 mg/kg | < 0.041 mg/kg | < 0.039 mg/kg | 0.16 j mg/kg | < 0.035 mg/kg | < 0.040 mg/kg |
| Indeno(1,2,3-cd)pyrene | T | T | < 0.035 mg/kg | < 0.034 mg/kg | < 0.036 mg/kg | < 0.039 mg/kg | < 0.037 mg/kg | 0.27 j mg/kg | < 0.033 mg/kg | < 0.038 mg/kg |
| **BaP equivalent, non-detects at zero for the detection limit.[1]** | **10.2 T mg/kg** | 2 T mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | 0.87 a mg/kg | ND mg/kg | ND mg/kg |
| Pesticides | | | | | | | | | | |
| 2,4,5-TP (Silvex) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4,5-Trichlorophenoxyacetic acid | | 290 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-D | | 285 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| 2,4-DB | | 226 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,4'-DDD | | 56 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,4'-DDE | | 40 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| 4,4'-DDT | | 15 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| a-BHC | | 2 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Acetochlor | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Alachlor (Lasso) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Aldrin | | 1 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Atrazine (Primatol) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| b-BHC | | 7 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Bentazone | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Chlordane, alpha | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Chlordane, gamma | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Chlorpyrifos (Lorsban) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Cyanazine (Bladex) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| d-BHC | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Deisopropyl atrazine | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Desethylatrazine | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Dicamba | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Dieldrin | | 0.8 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Dimethenamid | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Dinoseb (DNBP) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Endosulfan I | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Endosulfan II | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Endosulfan Sulfate | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Endrin | | 8 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Endrin Aldehyde | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Endrin Ketone | | | -- | -- | -- | -- | -- | -- | -- | -- |

**Table 5**
**SOC 5 - Former DNT-Storage Bunkers (OU1) Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-GP19 | SOC5-GP20 | SOC5-GP21 | SOC5-GP22 | SOC5-GP23 | SOC5-GP24 | SOC5-GP25 | SOC5-GP26 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/03/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 | 09/03/2009 |
| | | Depth Interval | 1-4 | 0.5-4 | 0.5-4 | 0.5-4 | 0.5-4 | 0.5-2 | 1-3 | 0.5-4 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | | |
| EPTC (Eradicane) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Ethalfluralin (Sonalan) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Fonofos (Dyphonate) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| g-BHC (Lindane) | | 9 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Heptachlor | | 2 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Heptachlor Epoxide | | 0.4 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| MCPA | | 16 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Methoxychlor | | 11 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Metolachlor (Dual) | | 435 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Metribuzin | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Pendimethalin (Prowl) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 0.034 mg/kg | 80 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Phorate (Thimet) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Picloram | | 2000 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Prometon (Pramitol) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Propachlor | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Propazine (Milogard) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Simazine (Princep) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Terbufos (Counter) | | 0.6 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Toxaphene | | 13 mg/kg | -- | -- | -- | -- | -- | -- | -- | -- |
| Triallate (Far-Go) | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Triclopyr | | | -- | -- | -- | -- | -- | -- | -- | -- |
| Trifluralin (Treflan) | | | -- | -- | -- | -- | -- | -- | -- | -- |

# Table 5
## SOC 5 - Former DNT-Storage Bunkers (OU1) Soil Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | Sys Loc Code | SOC5TT2 | SOC5TT5 | SOC5-TT7 | SOC5-TT9 | SOC5-TT13 | SOC5-TT18 | SOC5-TT25 |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/03/2009 | 09/03/2009 | 09/08/2009 | 09/08/2009 | 09/10/2009 | 09/09/2009 | 09/09/2009 |
| | | Depth Interval | 3 | 4 | 4 | 13 | 3 | 4 | 5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| General Parameters | | | | | | | | | |
| Nitrocellulose | | | < 5.2 mg/kg | < 5.1 mg/kg | < 5.2 mg/kg | < 5.2 mg/kg | < 5.1 mg/kg | < 6.5 mg/kg | < 5.5 mg/kg |
| Metals | | | | | | | | | |
| Antimony | 2.7 mg/kg | 12 mg/kg | < 0.52 mg/kg | < 0.53 mg/kg | < 0.52 mg/kg | < 0.51 mg/kg | < 0.52 mg/kg | < 0.57 mg/kg | < 0.53 mg/kg |
| Arsenic | 15.1 mg/kg | 9 mg/kg | 1.5 mg/kg | 1.3 mg/kg | 1.5 mg/kg | 1.7 mg/kg | 1.3 mg/kg | 3.2 mg/kg | 3.9 mg/kg |
| Beryllium | 1.4 mg/kg | 55 mg/kg | < 0.26 mg/kg | < 0.26 mg/kg | < 0.26 mg/kg | < 0.26 mg/kg | < 0.26 mg/kg | < 0.29 mg/kg | < 0.27 mg/kg |
| Cadmium | 4.4 mg/kg | 25 mg/kg | < 0.26 mg/kg | < 0.26 mg/kg | < 0.26 mg/kg | < 0.26 mg/kg | < 0.26 mg/kg | < 0.29 mg/kg | < 0.27 mg/kg |
| Chromium, total | 1000000 mg/kg | 44000 mg/kg | 6.3 mg/kg | 7.8 mg/kg | 4.4 mg/kg | 6.7 mg/kg | 4.9 mg/kg | 12 mg/kg | 8.9 mg/kg |
| Copper | 400 mg/kg | 100 mg/kg | 4.6 mg/kg | 9.6 mg/kg | 6.9 mg/kg | 7.4 mg/kg | 5.0 mg/kg | 10 mg/kg | 7.7 mg/kg |
| Lead | 525 mg/kg | 300 mg/kg | 2.2 mg/kg | 1.7 mg/kg | 1.5 mg/kg | 1.4 mg/kg | 1.6 mg/kg | 5.3 mg/kg | 4.6 mg/kg |
| Mercury | 1.6 MC mg/kg | 0.5 mg/kg | < 0.10 mg/kg | < 0.11 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg |
| Nickel | 88 mg/kg | 560 mg/kg | 7.0 mg/kg | 11 mg/kg | 5.8 mg/kg | 8.9 mg/kg | 5.0 mg/kg | 14 mg/kg | 12 mg/kg |
| Selenium | 1.5 mg/kg | 160 mg/kg | < 1.0 mg/kg | < 1.1 mg/kg | < 1.0 mg/kg | < 1.0 mg/kg | < 1.0 mg/kg | < 1.1 mg/kg | < 1.1 mg/kg |
| Silver | 3.9 mg/kg | 160 mg/kg | < 0.26 mg/kg | < 0.26 mg/kg | < 0.26 mg/kg | < 0.26 mg/kg | < 0.26 mg/kg | < 0.29 mg/kg | < 0.27 mg/kg |
| Thallium | | 3 mg/kg | < 2.1 mg/kg | < 2.1 mg/kg | < 2.1 mg/kg | < 2.0 mg/kg | < 2.1 mg/kg | < 2.3 mg/kg | < 2.1 mg/kg |
| Zinc | 1500 mg/kg | 8700 mg/kg | < 1.0 mg/kg | < 1.1 mg/kg | 3.6 * mg/kg | 3.2 mg/kg | 3.8 mg/kg | 25 mg/kg | 18 mg/kg |
| SVOCs | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.31 mg/kg | 200 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.031 mg/kg | < 0.029 mg/kg |
| 1,2-Dichlorobenzene | 8.1 mg/kg | 26 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.029 mg/kg | < 0.027 mg/kg |
| 1,3-Dichlorobenzene | 4.2 mg/kg | 26 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.026 mg/kg | < 0.024 mg/kg |
| 1,4-Dichlorobenzene | 0.13 mg/kg | 30 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.024 mg/kg | < 0.025 mg/kg | < 0.028 mg/kg | < 0.026 mg/kg |
| 2,3,4,6-Tetrachlorophenol | | 636 mg/kg | < 0.039 mg/kg | < 0.040 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.039 mg/kg | < 0.044 mg/kg | < 0.040 mg/kg |
| 2,4,5-Trichlorophenol | | 1920 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.024 mg/kg | < 0.025 mg/kg | < 0.028 mg/kg | < 0.026 mg/kg |
| 2,4,6-Trichlorophenol | 0.21 mg/kg | 595 mg/kg | < 0.036 mg/kg | < 0.037 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.040 mg/kg | < 0.037 mg/kg |
| 2,4-Dichlorophenol | 0.076 mg/kg | 48 mg/kg | < 0.036 mg/kg | < 0.037 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.040 mg/kg | < 0.037 mg/kg |
| 2,4-Dimethylphenol | 0.34 mg/kg | 390 mg/kg | < 0.093 mg/kg | < 0.095 mg/kg | < 0.094 mg/kg | < 0.092 mg/kg | < 0.093 mg/kg | < 0.10 mg/kg | < 0.096 mg/kg |
| 2,4-Dinitrophenol | 0.014 mg/kg | | < 0.060 mg/kg | < 0.061 mg/kg | < 0.060 mg/kg | < 0.059 mg/kg | < 0.060 mg/kg | < 0.067 mg/kg | < 0.062 mg/kg |
| 2,4-Dinitrotoluene | 0.001 mg/kg | 50 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.024 mg/kg | < 0.022 mg/kg |
| 2,6-Dichlorophenol | | | < 0.044 mg/kg | < 0.045 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg | < 0.044 mg/kg | < 0.049 mg/kg | < 0.046 mg/kg |
| 2,6-Dinitrotoluene | 0.001 mg/kg | 25 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.019 mg/kg | < 0.020 mg/kg | < 0.022 mg/kg | < 0.020 mg/kg |
| 2-Chloronaphthalene | | | < 0.020 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.019 mg/kg | < 0.020 mg/kg | < 0.022 mg/kg | < 0.020 mg/kg |
| 2-Chlorophenol | 0.26 mg/kg | | < 0.039 mg/kg | < 0.040 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.039 mg/kg | < 0.044 mg/kg | < 0.040 mg/kg |
| 2-Methyl-4,6-dinitrophenol | | | < 0.076 mg/kg | < 0.078 mg/kg | < 0.077 mg/kg | < 0.076 mg/kg | < 0.076 mg/kg | < 0.085 mg/kg | < 0.079 mg/kg |
| 2-Methylnaphthalene | | 100 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.032 mg/kg | < 0.030 mg/kg |
| 2-Nitroaniline | | | < 0.021 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.023 mg/kg | < 0.021 mg/kg |
| 2-Nitrophenol | 0.6 mg/kg | | < 0.037 mg/kg | < 0.038 mg/kg | < 0.038 mg/kg | < 0.037 mg/kg | < 0.037 mg/kg | < 0.041 mg/kg | < 0.038 mg/kg |
| 3,3`-Dichlorobenzidine | 0.36 mg/kg | 25 mg/kg | < 0.40 mg/kg | < 0.41 mg/kg | < 0.41 mg/kg | < 0.40 mg/kg | < 0.40 mg/kg | < 0.45 mg/kg | < 0.41 mg/kg |
| 3-Nitroaniline | | | < 0.034 mg/kg | < 0.035 mg/kg | < 0.034 mg/kg | < 0.034 mg/kg | < 0.034 mg/kg | < 0.038 mg/kg | < 0.035 mg/kg |
| 4-Bromophenyl phenyl ether | | | < 0.018 mg/kg | < 0.018 mg/kg | < 0.018 mg/kg | < 0.017 mg/kg | < 0.018 mg/kg | < 0.020 mg/kg | < 0.018 mg/kg |
| 4-Chloro-3-methylphenol | | | < 0.041 mg/kg | < 0.042 mg/kg | < 0.042 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.046 mg/kg | < 0.043 mg/kg |
| 4-Chloroaniline | | | < 0.11 mg/kg | < 0.12 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.13 mg/kg | < 0.12 mg/kg |

# Table 5
## SOC 5 - Former DNT-Storage Bunkers (OU1) Soil Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | Sys Loc Code | SOC5TT2 | SOC5TT5 | SOC5-TT7 | SOC5-TT9 | SOC5-TT13 | SOC5-TT18 | SOC5-TT25 |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/03/2009 | 09/03/2009 | 09/08/2009 | 09/08/2009 | 09/10/2009 | 09/09/2009 | 09/09/2009 |
| | | Depth Interval | 3 | 4 | 4 | 13 | 3 | 4 | 5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| 4-Chlorophenyl phenyl ether | | | < 0.024 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.026 mg/kg | < 0.024 mg/kg |
| 4-Nitroaniline | | | < 0.024 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.026 mg/kg | < 0.024 mg/kg |
| 4-Nitrophenol | | | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg |
| Acenaphthene | 50 mg/kg | 1200 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.032 mg/kg | < 0.030 mg/kg |
| Acenaphthylene | | | < 0.024 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.026 mg/kg | < 0.024 mg/kg |
| Aniline | | | < 0.093 mg/kg | < 0.095 mg/kg | < 0.094 mg/kg | < 0.092 mg/kg | < 0.093 mg/kg | < 0.10 mg/kg | < 0.096 mg/kg |
| Anthracene | 942 mg/kg | 7880 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.029 mg/kg | < 0.027 mg/kg |
| Azobenzene | | | < 0.021 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.023 mg/kg | < 0.021 mg/kg |
| Benzidine | | | < 0.74 mg/kg | < 0.76 mg/kg | < 0.75 mg/kg | < 0.73 mg/kg | < 0.74 mg/kg | < 0.83 mg/kg | < 0.77 mg/kg |
| Benzo(g,h,i)perylene | | | < 0.031 mg/kg | < 0.032 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg | < 0.034 mg/kg | < 0.032 mg/kg |
| Benzoic Acid | 30 mg/kg | 50000 mg/kg | < 0.060 mg/kg | < 0.061 mg/kg | < 0.060 mg/kg | < 0.059 mg/kg | < 0.060 mg/kg | < 0.067 mg/kg | < 0.062 mg/kg |
| Benzyl alcohol | | 8700 mg/kg | < 0.12 mg/kg | < 0.13 mg/kg | < 0.12 mg/kg | < 0.12 mg/kg | < 0.12 mg/kg | < 0.14 mg/kg | < 0.13 mg/kg |
| Bis(2-chloroethoxy)methane | | | < 0.022 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.024 mg/kg | < 0.022 mg/kg |
| Bis(2-chloroethyl)ether | 0.001 mg/kg | 2.5 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.024 mg/kg | < 0.025 mg/kg | < 0.028 mg/kg | < 0.026 mg/kg |
| Bis(2-chloroisopropyl)ether | 0.67 mg/kg | | < 0.023 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.025 mg/kg | < 0.023 mg/kg |
| Bis(2-ethylhexyl)phthalate | 40 mg/kg | 570 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.023 mg/kg | < 0.021 mg/kg |
| Butyl benzyl phthalate | 28 mg/kg | 580 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.024 mg/kg | < 0.022 mg/kg |
| Carbazole | | 700 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.025 mg/kg | < 0.023 mg/kg |
| Dibenzofuran | | 104 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.019 mg/kg | < 0.020 mg/kg | < 0.022 mg/kg | < 0.020 mg/kg |
| Diethyl phthalate | 18 mg/kg | | < 0.015 mg/kg | < 0.016 mg/kg | < 0.016 mg/kg | < 0.015 mg/kg | < 0.015 mg/kg | < 0.017 mg/kg | < 0.016 mg/kg |
| Dimethyl phthalate | 172 mg/kg | | < 0.019 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg | < 0.018 mg/kg | < 0.019 mg/kg | < 0.021 mg/kg | < 0.019 mg/kg |
| Di-n-butyl phthalate | 23 mg/kg | 2440 mg/kg | < 0.038 mg/kg | < 0.039 mg/kg | < 0.039 mg/kg | < 0.038 mg/kg | < 0.038 mg/kg | < 0.043 mg/kg | < 0.039 mg/kg |
| Di-n-octyl phthalate | | 520 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.029 mg/kg | < 0.027 mg/kg |
| Fluoranthene | 295 mg/kg | 1080 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.024 mg/kg | < 0.025 mg/kg | < 0.028 mg/kg | < 0.026 mg/kg |
| Fluorene | 47 mg/kg | 850 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg | < 0.018 mg/kg | < 0.019 mg/kg | < 0.021 mg/kg | < 0.019 mg/kg |
| Hexachlorobenzene | 0.32 mg/kg | 5 mg/kg | < 0.016 mg/kg | < 0.017 mg/kg | < 0.017 mg/kg | < 0.016 mg/kg | < 0.016 mg/kg | < 0.018 mg/kg | < 0.017 mg/kg |
| Hexachlorobutadiene | 25 mg/kg | 6 mg/kg | < 0.034 mg/kg | < 0.035 mg/kg | < 0.034 mg/kg | < 0.034 mg/kg | < 0.034 mg/kg | < 0.038 mg/kg | < 0.035 mg/kg |
| Hexachlorocyclopentadiene | 4.4 mg/kg | 2 mg/kg | < 0.042 mg/kg | < 0.043 mg/kg | < 0.043 mg/kg | < 0.042 mg/kg | < 0.042 mg/kg | < 0.047 mg/kg | < 0.044 mg/kg |
| Hexachloroethane | 0.05 mg/kg | | < 0.029 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.032 mg/kg | < 0.030 mg/kg |
| Isophorone | 0.16 mg/kg | | < 0.018 mg/kg | < 0.018 mg/kg | < 0.018 mg/kg | < 0.017 mg/kg | < 0.018 mg/kg | < 0.020 mg/kg | < 0.018 mg/kg |
| Naphthalene | **7.5 mg/kg** | 10 mg/kg | < 0.030 mg/kg | < 0.031 mg/kg | < 0.030 mg/kg | < 0.030 mg/kg | < 0.030 mg/kg | < 0.033 mg/kg | < 0.031 mg/kg |
| Nitrobenzene | | | < 0.031 mg/kg | < 0.032 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg | < 0.034 mg/kg | < 0.032 mg/kg |
| N-Nitrosodimethylamine | 0.82 mg/kg | | < 0.033 mg/kg | < 0.034 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg | < 0.037 mg/kg | < 0.034 mg/kg |
| N-Nitrosodi-n-propylamine | | 0.7 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.029 mg/kg | < 0.027 mg/kg |
| N-Nitrosodiphenylamine | 0.88 mg/kg | 1950 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg | < 0.018 mg/kg | < 0.019 mg/kg | < 0.021 mg/kg | < 0.019 mg/kg |
| o-Cresol | 0.064 mg/kg | 75 mg/kg | < 0.036 mg/kg | < 0.037 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.040 mg/kg | < 0.037 mg/kg |
| p-Cresol | **0.033 mg/kg** | 10 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.031 mg/kg | < 0.029 mg/kg |
| Pentachlorophenol | 0.034 mg/kg | 80 mg/kg | < 0.099 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.098 mg/kg | < 0.099 mg/kg | < 0.11 mg/kg | < 0.10 mg/kg |
| Phenanthrene | | | < 0.020 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.019 mg/kg | < 0.020 mg/kg | < 0.022 mg/kg | < 0.020 mg/kg |
| Phenol | 7.8 mg/kg | 1500 mg/kg | < 0.059 mg/kg | < 0.060 mg/kg | < 0.059 mg/kg | < 0.058 mg/kg | < 0.059 mg/kg | < 0.066 mg/kg | < 0.061 mg/kg |
| Pyrene | 272 mg/kg | 890 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.026 mg/kg | < 0.024 mg/kg |

# Table 5
## SOC 5 - Former DNT-Storage Bunkers (OU1) Soil Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | Sys Loc Code | SOC5TT2 | SOC5TT5 | SOC5-TT7 | SOC5-TT9 | SOC5-TT13 | SOC5-TT18 | SOC5-TT25 |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/03/2009 | 09/03/2009 | 09/08/2009 | 09/08/2009 | 09/10/2009 | 09/09/2009 | 09/09/2009 |
| | | Depth Interval | 3 | 4 | 4 | 13 | 3 | 4 | 5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| Benzo(a)anthracene | T | T | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.031 mg/kg | < 0.029 mg/kg |
| Benzo(a)pyrene | T | T | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.031 mg/kg | < 0.029 mg/kg |
| Benzo(b)fluoranthene | T | T | < 0.035 mg/kg | < 0.036 mg/kg | < 0.035 mg/kg | < 0.035 mg/kg | < 0.035 mg/kg | < 0.039 mg/kg | < 0.036 mg/kg |
| Benzo(k)fluoranthene | T | T | < 0.032 mg/kg | < 0.033 mg/kg | < 0.032 mg/kg | < 0.032 mg/kg | < 0.032 mg/kg | < 0.036 mg/kg | < 0.033 mg/kg |
| Chrysene | T | T | < 0.034 mg/kg | < 0.035 mg/kg | < 0.034 mg/kg | < 0.034 mg/kg | < 0.034 mg/kg | < 0.038 mg/kg | < 0.035 mg/kg |
| Dibenz(a,h)anthracene | T | T | < 0.035 mg/kg | < 0.036 mg/kg | < 0.035 mg/kg | < 0.035 mg/kg | < 0.035 mg/kg | < 0.039 mg/kg | < 0.036 mg/kg |
| Indeno(1,2,3-cd)pyrene | T | T | < 0.033 mg/kg | < 0.034 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg | < 0.037 mg/kg | < 0.034 mg/kg |
| **BaP equivalent, non-detects at zero for the detection limit.[1]** | **10.2 T mg/kg** | 2 T mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg |
| Pesticides | | | | | | | | | |
| 2,4,5-TP (Silvex) | | | < 0.051 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.052 mg/kg | < 0.057 mg/kg | < 0.056 mg/kg |
| 2,4,5-Trichlorophenoxyacetic acid | | 290 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.052 mg/kg | < 0.057 mg/kg | < 0.056 mg/kg |
| 2,4-D | | 285 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.052 mg/kg | < 0.057 mg/kg | < 0.056 mg/kg |
| 2,4-DB | | 226 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.052 mg/kg | < 0.057 mg/kg | < 0.056 mg/kg |
| 4,4'-DDD | | 56 mg/kg | < 0.025 mg/kg | < 0.023 mg/kg | < 0.077 mg/kg | < 0.072 mg/kg | < 0.072 mg/kg | < 0.082 mg/kg | < 0.077 mg/kg |
| 4,4'-DDE | | 40 mg/kg | < 0.025 mg/kg | < 0.023 mg/kg | < 0.077 mg/kg | < 0.072 mg/kg | < 0.072 mg/kg | < 0.082 mg/kg | < 0.077 mg/kg |
| 4,4'-DDT | | 15 mg/kg | < 0.025 mg/kg | < 0.023 mg/kg | < 0.077 mg/kg | < 0.072 mg/kg | < 0.072 mg/kg | < 0.082 mg/kg | < 0.077 mg/kg |
| a-BHC | | 2 mg/kg | < 0.025 mg/kg | < 0.023 mg/kg | < 0.077 mg/kg | < 0.072 mg/kg | < 0.072 mg/kg | < 0.082 mg/kg | < 0.077 mg/kg |
| Acetochlor | | | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg |
| Alachlor (Lasso) | | | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg |
| Aldrin | | 1 mg/kg | < 0.025 mg/kg | < 0.023 mg/kg | < 0.077 mg/kg | < 0.072 mg/kg | < 0.072 mg/kg | < 0.082 mg/kg | < 0.077 mg/kg |
| Atrazine (Primatol) | | | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg |
| b-BHC | | 7 mg/kg | < 0.025 mg/kg | < 0.023 mg/kg | < 0.077 mg/kg | < 0.072 mg/kg | < 0.072 mg/kg | < 0.082 mg/kg | < 0.077 mg/kg |
| Bentazone | | | < 0.051 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.052 mg/kg | < 0.057 mg/kg | < 0.056 mg/kg |
| Chlordane, alpha | | | < 0.025 mg/kg | < 0.023 mg/kg | < 0.077 mg/kg | < 0.072 mg/kg | < 0.072 mg/kg | < 0.082 mg/kg | < 0.077 mg/kg |
| Chlordane, gamma | | | < 0.025 mg/kg | < 0.023 mg/kg | < 0.077 mg/kg | < 0.072 mg/kg | < 0.072 mg/kg | < 0.082 mg/kg | < 0.077 mg/kg |
| Chlorpyrifos (Lorsban) | | | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg |
| Cyanazine (Bladex) | | | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg |
| d-BHC | | | < 0.025 mg/kg | < 0.023 mg/kg | < 0.077 mg/kg | < 0.072 mg/kg | < 0.072 mg/kg | < 0.082 mg/kg | < 0.077 mg/kg |
| Deisopropyl atrazine | | | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg |
| Desethylatrazine | | | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg |
| Dicamba | | | < 0.051 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.052 mg/kg | < 0.057 mg/kg | < 0.056 mg/kg |
| Dieldrin | | 0.8 mg/kg | < 0.025 mg/kg | < 0.023 mg/kg | < 0.077 mg/kg | < 0.072 mg/kg | < 0.072 mg/kg | < 0.082 mg/kg | < 0.077 mg/kg |
| Dimethenamid | | | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg |
| Dinoseb (DNBP) | | | < 0.051 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.052 mg/kg | < 0.057 mg/kg | < 0.056 mg/kg |
| Endosulfan I | | | < 0.025 mg/kg | < 0.023 mg/kg | < 0.077 mg/kg | < 0.072 mg/kg | < 0.072 mg/kg | < 0.082 mg/kg | < 0.077 mg/kg |
| Endosulfan II | | | < 0.025 mg/kg | < 0.023 mg/kg | < 0.077 mg/kg | < 0.072 mg/kg | < 0.072 mg/kg | < 0.082 mg/kg | < 0.077 mg/kg |
| Endosulfan Sulfate | | | < 0.025 mg/kg | < 0.023 mg/kg | < 0.077 mg/kg | < 0.072 mg/kg | < 0.072 mg/kg | < 0.082 mg/kg | < 0.077 mg/kg |
| Endrin | | 8 mg/kg | < 0.025 mg/kg | < 0.023 mg/kg | < 0.077 mg/kg | < 0.072 mg/kg | < 0.072 mg/kg | < 0.082 mg/kg | < 0.077 mg/kg |
| Endrin Aldehyde | | | < 0.025 mg/kg | < 0.023 mg/kg | < 0.077 mg/kg | < 0.072 mg/kg | < 0.072 mg/kg | < 0.082 mg/kg | < 0.077 mg/kg |
| Endrin Ketone | | | < 0.025 mg/kg | < 0.023 mg/kg | < 0.077 mg/kg | < 0.072 mg/kg | < 0.072 mg/kg | < 0.082 mg/kg | < 0.077 mg/kg |

**Table 5**
**SOC 5 - Former DNT-Storage Bunkers (OU1) Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5TT2 | SOC5TT5 | SOC5-TT7 | SOC5-TT9 | SOC5-TT13 | SOC5-TT18 | SOC5-TT25 |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/03/2009 | 09/03/2009 | 09/08/2009 | 09/08/2009 | 09/10/2009 | 09/09/2009 | 09/09/2009 |
| | | Depth Interval | 3 | 4 | 4 | 13 | 3 | 4 | 5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| EPTC (Eradicane) | | | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg |
| Ethalfluralin (Sonalan) | | | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg |
| Fonofos (Dyphonate) | | | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg |
| g-BHC (Lindane) | | 9 mg/kg | < 0.025 mg/kg | < 0.023 mg/kg | < 0.077 mg/kg | < 0.072 mg/kg | < 0.072 mg/kg | < 0.082 mg/kg | < 0.077 mg/kg |
| Heptachlor | | 2 mg/kg | < 0.025 mg/kg | < 0.023 mg/kg | < 0.077 mg/kg | < 0.072 mg/kg | < 0.072 mg/kg | < 0.082 mg/kg | < 0.077 mg/kg |
| Heptachlor Epoxide | | 0.4 mg/kg | < 0.025 mg/kg | < 0.023 mg/kg | < 0.077 mg/kg | < 0.072 mg/kg | < 0.072 mg/kg | < 0.082 mg/kg | < 0.077 mg/kg |
| MCPA | | 16 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.052 mg/kg | < 0.057 mg/kg | < 0.056 mg/kg |
| Methoxychlor | | 11 mg/kg | < 0.025 mg/kg | < 0.023 mg/kg | < 0.077 mg/kg | < 0.072 mg/kg | < 0.072 mg/kg | < 0.082 mg/kg | < 0.077 mg/kg |
| Metolachlor (Dual) | | 435 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg |
| Metribuzin | | | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg |
| Pendimethalin (Prowl) | | | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg |
| Pentachlorophenol | 0.034 mg/kg | 80 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.052 mg/kg | < 0.057 mg/kg | < 0.056 mg/kg |
| Phorate (Thimet) | | | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg |
| Picloram | | 2000 mg/kg | < 0.051 * mg/kg | < 0.051 * mg/kg | < 0.051 * mg/kg | < 0.051 * mg/kg | < 0.052 * mg/kg | < 0.057 * mg/kg | < 0.056 * mg/kg |
| Prometon (Pramitol) | | | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg |
| Propachlor | | | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg |
| Propazine (Milogard) | | | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg |
| Simazine (Princep) | | | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg |
| Terbufos (Counter) | | 0.6 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg |
| Toxaphene | | 13 mg/kg | < 0.49 mg/kg | < 0.47 mg/kg | < 1.5 mg/kg | < 1.4 mg/kg | < 1.4 mg/kg | < 1.6 mg/kg | < 1.5 mg/kg |
| Triallate (Far-Go) | | | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg |
| Triclopyr | | | < 0.051 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.052 mg/kg | < 0.057 mg/kg | < 0.056 mg/kg |
| Trifluralin (Treflan) | | | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg |

| Data Qualifiers/Footnotes - Soil | |
|---|---|
| **Qualifier** | **Definition** |
| -- | Not analyzed/not available. |
| a | Estimated value, calculated using some or all values that are estimates. |
| b | Potential false positive value based on blank data validation procedures. |
| c | Coeluting compound. |
| e | Estimated value, exceeded the instrument calibration range. |
| h | EPA recommended sample preservation, extraction or analysis holding time was exceeded. |
| I | Indeterminate value based on failure of blind duplicate data to meet quality assurance criteria. |
| j | Reported value is less than the stated laboratory quantitation limit and is considered an estimated value. |
| p | Relative percent difference is >40% (25% CLP pesticides) between primary and confirmation GC columns. |
| r | The presence of the compound is suspect based on the ID criteria of the retention time and relative retention time obtained from the examination of the chromatograms. |
| * | Estimated value, QA/QC criteria not met. |
| ** | Unusable value, QA/QC criteria not met. |
| ND | Not detected. |

## Data Qualifiers / Footnotes - Soil

| | Qualifier | Definition |
|---|---|---|
| MN Tier I SLV | DI | Value represents a criteria for 2,3,7,8-TCDD or 2,3,7,8-TCDD equivalents. |
| | M | Value represents the criteria for mixed Xylenes. |
| | MC | Mercury as Mercuric Chloride. |
| | NA | Not Applicable. |
| | T | Value represents a criteria for the total carcinogenic PAHs as BaP. Total carcinogenic PAHs are: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenz(a,h)anthracene, Chrysene and Indeno(1,2.3-cd)pyrene. |
| MN Tier I SRV | DI | Value represents a criteria for 2,3,7,8-TCDD or 2,3,7,8-TCDD equivalents. |
| | M | Value represents the criteria for mixed Xylenes. |
| | T | Value represents a criteria for the total carcinogenic PAHs as BaP. Total carcinogenic PAHs are: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenz(a,h)anthracene, Chrysene and Indeno(1,2.3-cd)pyrene. |

1 Total BaP equivalence (2002) calculated using zero for the detection limit on the non detected compounds.

| | CAS No. | Site Conc. (mg/kg) dry weight | Relative Potency Factor | BaP Equivalent (mg/kg) |
|---|---|---|---|---|
| Benzo(a)anthracene | 56553 | 0.000 | 0.1 | 0.000 |
| Benzo(b)fluoranthene | 205992 | 0.000 | 0.1 | 0.000 |
| Benzo(k)fluoranthene | 207089 | 0.000 | 0.1 | 0.000 |
| Benzo(a)pyrene | 50328 | 0.000 | 1 | 0.000 |
| Chrysene | 218019 | 0.000 | 0.01 | 0.000 |
| Dibenz(a,h)anthracene | 53703 | 0.000 | 0.56 | 0.000 |
| Indeno(1,2,3-cd)pyrene | 193395 | 0.000 | 0.1 | 0.000 |
| | | Total BaP equivalence = compare this value to the BaP criteria | | 0.000 |

# Table 6
## SOC 5 - Pesticide Release Area (OU2) Soil Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | Sys Loc Code | SOC5-GP12 | SOC5-GP12 | SOC5-GP13 | SOC5-GP13 | SOC5-GP14 | SOC5-GP14 | SOC5-GP27 |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/01/2009 | 09/01/2009 | 09/01/2009 | 09/01/2009 | 09/01/2009 | 09/01/2009 | 09/01/2009 |
| | | Depth Interval | 0.5 - 1 | 2-2.5 | 0.5 | 2-2.5 | 0.5 | 2-2.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | No Exceed | No Exceed | | | | | | | |
| Metals | | | | | | | | | |
| Antimony | 2.7 mg/kg | 12 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Arsenic | 15.1 mg/kg | 9 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Beryllium | 1.4 mg/kg | 55 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Cadmium | 4.4 mg/kg | 25 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Chromium, total | 1000000 mg/kg | 44000 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Copper | 400 mg/kg | 100 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Lead | 525 mg/kg | 300 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Mercury | 1.6 MC mg/kg | 0.5 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Nickel | 88 mg/kg | 560 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Selenium | 1.5 mg/kg | 160 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Silver | 3.9 mg/kg | 160 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Thallium | | 3 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Zinc | 1500 mg/kg | 8700 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Pesticides | | | | | | | | | |
| 2,4,5-TP (Silvex) | | | < 0.056 h mg/kg | < 0.065 mg/kg | < 0.056 h mg/kg | < 0.063 mg/kg | < 0.058 h mg/kg | < 0.058 mg/kg | < 0.056 h mg/kg |
| 2,4,5-Trichlorophenoxyacetic acid | | 290 mg/kg | < 0.056 h mg/kg | < 0.065 mg/kg | < 0.056 h mg/kg | < 0.063 mg/kg | < 0.058 h mg/kg | < 0.058 mg/kg | < 0.056 h mg/kg |
| 2,4-D | | 285 mg/kg | < 0.056 h mg/kg | < 0.065 mg/kg | < 0.056 h mg/kg | < 0.063 mg/kg | < 0.058 h mg/kg | < 0.058 mg/kg | < 0.056 h mg/kg |
| 2,4-DB | | 226 mg/kg | < 0.056 h mg/kg | < 0.065 mg/kg | < 0.056 h mg/kg | < 0.063 mg/kg | < 0.058 h mg/kg | < 0.058 mg/kg | < 0.056 h mg/kg |
| 4,4'-DDD | | 56 mg/kg | < 0.028 h mg/kg | < 0.033 mg/kg | 0.086 h mg/kg | < 0.030 mg/kg | < 0.028 h mg/kg | < 0.027 mg/kg | < 0.028 h mg/kg |
| 4,4'-DDE | | 40 mg/kg | 0.035 h mg/kg | < 0.033 mg/kg | 0.030 h mg/kg | < 0.030 mg/kg | < 0.028 h mg/kg | < 0.027 mg/kg | < 0.028 h mg/kg |
| 4,4'-DDT | | 15 mg/kg | 0.070 h mg/kg | < 0.033 mg/kg | 0.054 h mg/kg | < 0.030 mg/kg | < 0.028 h mg/kg | < 0.027 mg/kg | < 0.028 h mg/kg |
| a-BHC | | 2 mg/kg | < 0.028 h mg/kg | < 0.033 mg/kg | < 0.028 h mg/kg | < 0.030 mg/kg | < 0.028 h mg/kg | < 0.027 mg/kg | < 0.028 h mg/kg |
| Acetochlor | | | < 0.090 h mg/kg | < 0.052 mg/kg | < 0.087 h mg/kg | < 0.051 mg/kg | < 0.090 h mg/kg | < 0.047 mg/kg | < 0.088 h mg/kg |
| Alachlor (Lasso) | | | < 0.090 h mg/kg | < 0.052 mg/kg | < 0.087 h mg/kg | < 0.051 mg/kg | < 0.090 h mg/kg | < 0.047 mg/kg | < 0.088 h mg/kg |
| Aldrin | | 1 mg/kg | < 0.028 h mg/kg | < 0.033 mg/kg | < 0.028 h mg/kg | < 0.030 mg/kg | < 0.028 h mg/kg | < 0.027 mg/kg | < 0.028 h mg/kg |
| Atrazine (Primatol) | | | < 0.090 h mg/kg | 0.052 j mg/kg | < 0.087 h mg/kg | < 0.051 mg/kg | < 0.090 h mg/kg | < 0.047 mg/kg | < 0.088 h mg/kg |
| b-BHC | | 7 mg/kg | < 0.028 h mg/kg | < 0.033 mg/kg | < 0.028 h mg/kg | < 0.030 mg/kg | < 0.028 h mg/kg | < 0.027 mg/kg | < 0.028 h mg/kg |
| Bentazone | | | < 0.056 h mg/kg | < 0.065 mg/kg | < 0.056 h mg/kg | < 0.063 mg/kg | < 0.058 h mg/kg | < 0.058 mg/kg | < 0.056 h mg/kg |
| Chlordane, alpha | | | < 0.028 h mg/kg | < 0.033 mg/kg | 0.41 h mg/kg | < 0.030 mg/kg | < 0.028 h mg/kg | < 0.027 mg/kg | < 0.028 h mg/kg |
| Chlordane, gamma | | | < 0.028 h mg/kg | < 0.033 mg/kg | 0.19 h mg/kg | < 0.030 mg/kg | < 0.028 h mg/kg | < 0.027 mg/kg | < 0.028 h mg/kg |
| Chlorpyrifos (Lorsban) | | | < 0.090 h mg/kg | < 0.052 mg/kg | < 0.087 h mg/kg | < 0.051 mg/kg | < 0.090 h mg/kg | < 0.047 mg/kg | < 0.088 h mg/kg |
| Cyanazine (Bladex) | | | < 0.090 h mg/kg | < 0.052 mg/kg | < 0.087 h mg/kg | < 0.051 mg/kg | < 0.090 h mg/kg | < 0.047 mg/kg | < 0.088 h mg/kg |
| d-BHC | | | < 0.028 h mg/kg | < 0.033 mg/kg | < 0.028 h mg/kg | < 0.030 mg/kg | < 0.028 h mg/kg | < 0.027 mg/kg | < 0.028 h mg/kg |
| Deisopropyl atrazine | | | < 0.090 h mg/kg | < 0.052 mg/kg | < 0.087 h mg/kg | < 0.051 mg/kg | < 0.090 h mg/kg | < 0.047 mg/kg | < 0.088 h mg/kg |
| Desethylatrazine | | | < 0.090 h mg/kg | 0.052 j mg/kg | < 0.087 h mg/kg | < 0.051 mg/kg | < 0.090 h mg/kg | < 0.047 mg/kg | < 0.088 h mg/kg |
| Dicamba | | | < 0.056 h mg/kg | < 0.065 mg/kg | < 0.056 h mg/kg | < 0.063 mg/kg | < 0.058 h mg/kg | < 0.058 mg/kg | < 0.056 h mg/kg |
| Dieldrin | | 0.8 mg/kg | < 0.028 h mg/kg | < 0.033 mg/kg | 0.060 h mg/kg | < 0.030 mg/kg | < 0.028 h mg/kg | < 0.027 mg/kg | < 0.028 h mg/kg |
| Dimethenamid | | | < 0.090 h mg/kg | < 0.052 mg/kg | < 0.087 h mg/kg | < 0.051 mg/kg | < 0.090 h mg/kg | < 0.047 mg/kg | < 0.088 h mg/kg |
| Dinoseb (DNBP) | | | < 0.056 *h mg/kg | < 0.065 mg/kg | < 0.056 *h mg/kg | < 0.063 mg/kg | < 0.058 *h mg/kg | < 0.058 mg/kg | < 0.056 *h mg/kg |
| Endosulfan I | | | < 0.028 h mg/kg | < 0.033 mg/kg | < 0.028 h mg/kg | < 0.030 mg/kg | < 0.028 h mg/kg | < 0.027 mg/kg | < 0.028 h mg/kg |

**Table 6**
**SOC 5 - Pesticide Release Area (OU2) Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-GP12 | SOC5-GP12 | SOC5-GP13 | SOC5-GP13 | SOC5-GP14 | SOC5-GP14 | SOC5-GP27 |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/01/2009 | 09/01/2009 | 09/01/2009 | 09/01/2009 | 09/01/2009 | 09/01/2009 | 09/01/2009 |
| | | Depth Interval | 0.5 - 1 | 2-2.5 | 0.5 | 2-2.5 | 0.5 | 2-2.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | No Exceed | No Exceed | | | | | | | |
| Endosulfan II | | | < 0.028 h mg/kg | < 0.033 mg/kg | < 0.028 h mg/kg | < 0.030 mg/kg | < 0.028 h mg/kg | < 0.027 mg/kg | < 0.028 h mg/kg |
| Endosulfan Sulfate | | | < 0.028 h mg/kg | < 0.033 mg/kg | < 0.028 h mg/kg | < 0.030 mg/kg | < 0.028 h mg/kg | < 0.027 mg/kg | < 0.028 h mg/kg |
| Endrin | | 8 mg/kg | < 0.028 h mg/kg | < 0.033 mg/kg | < 0.028 h mg/kg | < 0.030 mg/kg | < 0.028 h mg/kg | < 0.027 mg/kg | < 0.028 h mg/kg |
| Endrin Aldehyde | | | < 0.028 h mg/kg | < 0.033 mg/kg | < 0.028 h mg/kg | < 0.030 mg/kg | < 0.028 h mg/kg | < 0.027 mg/kg | < 0.028 h mg/kg |
| Endrin Ketone | | | < 0.028 h mg/kg | < 0.033 mg/kg | < 0.028 h mg/kg | < 0.030 mg/kg | < 0.028 h mg/kg | < 0.027 mg/kg | < 0.028 h mg/kg |
| EPTC (Eradicane) | | | < 0.090 h mg/kg | < 0.052 mg/kg | < 0.087 h mg/kg | < 0.051 mg/kg | < 0.090 h mg/kg | < 0.047 mg/kg | < 0.088 h mg/kg |
| Ethalfluralin (Sonalan) | | | < 0.090 h mg/kg | < 0.052 mg/kg | < 0.087 h mg/kg | < 0.051 mg/kg | < 0.090 h mg/kg | < 0.047 mg/kg | < 0.088 h mg/kg |
| Fonofos (Dyphonate) | | | < 0.090 h mg/kg | < 0.052 mg/kg | < 0.087 h mg/kg | < 0.051 mg/kg | < 0.090 h mg/kg | < 0.047 mg/kg | < 0.088 h mg/kg |
| g-BHC (Lindane) | | 9 mg/kg | < 0.028 h mg/kg | < 0.033 mg/kg | < 0.028 h mg/kg | < 0.030 mg/kg | < 0.028 h mg/kg | < 0.027 mg/kg | < 0.028 h mg/kg |
| Heptachlor | | 2 mg/kg | < 0.028 h mg/kg | < 0.033 mg/kg | < 0.028 h mg/kg | < 0.030 mg/kg | < 0.028 h mg/kg | < 0.027 mg/kg | < 0.028 h mg/kg |
| Heptachlor Epoxide | | 0.4 mg/kg | < 0.028 h mg/kg | < 0.033 mg/kg | < 0.028 h mg/kg | < 0.030 mg/kg | < 0.028 h mg/kg | < 0.027 mg/kg | < 0.028 h mg/kg |
| MCPA | | 16 mg/kg | < 0.056 h mg/kg | < 0.065 mg/kg | < 0.056 h mg/kg | < 0.063 mg/kg | < 0.058 h mg/kg | < 0.058 mg/kg | < 0.056 h mg/kg |
| Methoxychlor | | 11 mg/kg | < 0.028 h mg/kg | < 0.033 mg/kg | < 0.028 h mg/kg | < 0.030 mg/kg | < 0.028 h mg/kg | < 0.027 mg/kg | < 0.028 h mg/kg |
| Metolachlor (Dual) | | 435 mg/kg | < 0.090 h mg/kg | < 0.052 mg/kg | < 0.087 h mg/kg | < 0.051 mg/kg | < 0.090 h mg/kg | < 0.047 mg/kg | < 0.088 h mg/kg |
| Metribuzin | | | < 0.090 h mg/kg | < 0.052 mg/kg | < 0.087 h mg/kg | < 0.051 mg/kg | < 0.090 h mg/kg | < 0.047 mg/kg | < 0.088 h mg/kg |
| Pendimethalin (Prowl) | | | < 0.090 h mg/kg | < 0.052 mg/kg | < 0.087 h mg/kg | < 0.051 mg/kg | < 0.090 h mg/kg | < 0.047 mg/kg | < 0.088 h mg/kg |
| Pentachlorophenol | 0.034 mg/kg | 80 mg/kg | < 0.056 h mg/kg | < 0.065 mg/kg | < 0.056 h mg/kg | < 0.063 mg/kg | < 0.058 h mg/kg | < 0.058 mg/kg | < 0.056 h mg/kg |
| Phorate (Thimet) | | | < 0.090 h mg/kg | < 0.052 mg/kg | < 0.087 h mg/kg | < 0.051 mg/kg | < 0.090 h mg/kg | < 0.047 mg/kg | < 0.088 h mg/kg |
| Picloram | | 2000 mg/kg | < 0.056 *h mg/kg | < 0.065 * mg/kg | < 0.056 *h mg/kg | < 0.063 * mg/kg | < 0.058 *h mg/kg | < 0.058 * mg/kg | < 0.056 *h mg/kg |
| Prometon (Pramitol) | | | < 0.090 h mg/kg | < 0.052 mg/kg | < 0.087 h mg/kg | < 0.051 mg/kg | < 0.090 h mg/kg | < 0.047 mg/kg | < 0.088 h mg/kg |
| Propachlor | | | < 0.090 h mg/kg | < 0.052 mg/kg | < 0.087 h mg/kg | < 0.051 mg/kg | < 0.090 h mg/kg | < 0.047 mg/kg | < 0.088 h mg/kg |
| Propazine (Milogard) | | | < 0.090 h mg/kg | < 0.052 mg/kg | < 0.087 h mg/kg | < 0.051 mg/kg | < 0.090 h mg/kg | < 0.047 mg/kg | < 0.088 h mg/kg |
| Simazine (Princep) | | | < 0.090 h mg/kg | < 0.052 mg/kg | < 0.087 h mg/kg | < 0.051 mg/kg | < 0.090 h mg/kg | < 0.047 mg/kg | < 0.088 h mg/kg |
| Terbufos (Counter) | | 0.6 mg/kg | < 0.090 h mg/kg | < 0.052 mg/kg | < 0.087 h mg/kg | < 0.051 mg/kg | < 0.090 h mg/kg | < 0.047 mg/kg | < 0.088 h mg/kg |
| Toxaphene | | 13 mg/kg | < 0.55 h mg/kg | < 0.65 mg/kg | < 0.56 h mg/kg | < 0.59 mg/kg | < 0.57 h mg/kg | < 0.55 mg/kg | < 0.56 h mg/kg |
| Triallate (Far-Go) | | | < 0.090 h mg/kg | < 0.052 mg/kg | < 0.087 h mg/kg | < 0.051 mg/kg | < 0.090 h mg/kg | < 0.047 mg/kg | < 0.088 h mg/kg |
| Triclopyr | | | < 0.056 h mg/kg | < 0.065 mg/kg | < 0.056 h mg/kg | < 0.063 mg/kg | < 0.058 h mg/kg | < 0.058 mg/kg | < 0.056 h mg/kg |
| Trifluralin (Treflan) | | | < 0.090 h mg/kg | < 0.052 mg/kg | < 0.087 h mg/kg | < 0.051 mg/kg | < 0.090 h mg/kg | < 0.047 mg/kg | < 0.088 h mg/kg |

**Table 6**
**SOC 5 - Pesticide Release Area (OU2) Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-GP27 | SOC5-GP28 | SOC5-TT29 | SOC5-TT29 |
|---|---|---|---|---|---|---|
| | | Sample Date | 09/01/2009 | 09/02/2009 | 09/01/2009 | 09/01/2009 |
| | | Depth Interval | 2-2.5 | 9-10 | 5 | 6 |
| | | Depth Unit | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | |
| **Exceedance Key** | No Exceed | No Exceed | | | | |
| Metals | | | | | | |
| Antimony | 2.7 mg/kg | 12 mg/kg | -- | -- | < 0.57 mg/kg | -- |
| Arsenic | 15.1 mg/kg | 9 mg/kg | -- | -- | 6.7 mg/kg | -- |
| Beryllium | 1.4 mg/kg | 55 mg/kg | -- | -- | < 0.29 mg/kg | -- |
| Cadmium | 4.4 mg/kg | 25 mg/kg | -- | -- | < 0.29 mg/kg | -- |
| Chromium, total | 1000000 mg/kg | 44000 mg/kg | -- | -- | 16 mg/kg | -- |
| Copper | 400 mg/kg | 100 mg/kg | -- | -- | 9.5 mg/kg | -- |
| Lead | 525 mg/kg | 300 mg/kg | -- | -- | 8.9 mg/kg | -- |
| Mercury | 1.6 MC mg/kg | 0.5 mg/kg | -- | -- | < 0.11 mg/kg | -- |
| Nickel | 88 mg/kg | 560 mg/kg | -- | -- | 13 mg/kg | -- |
| Selenium | 1.5 mg/kg | 160 mg/kg | -- | -- | < 1.1 mg/kg | -- |
| Silver | 3.9 mg/kg | 160 mg/kg | -- | -- | < 0.29 mg/kg | -- |
| Thallium | | 3 mg/kg | -- | -- | < 2.3 mg/kg | -- |
| Zinc | 1500 mg/kg | 8700 mg/kg | -- | -- | 33 mg/kg | -- |
| Pesticides | | | | | | |
| 2,4,5-TP (Silvex) | | | < 0.055 mg/kg | < 0.051 mg/kg | < 0.055 mg/kg | < 0.051 mg/kg |
| 2,4,5-Trichlorophenoxyacetic acid | | 290 mg/kg | < 0.055 mg/kg | < 0.051 mg/kg | < 0.055 mg/kg | < 0.051 mg/kg |
| 2,4-D | | 285 mg/kg | < 0.055 mg/kg | < 0.051 mg/kg | < 0.055 mg/kg | < 0.051 mg/kg |
| 2,4-DB | | 226 mg/kg | < 0.055 mg/kg | < 0.051 mg/kg | < 0.055 mg/kg | < 0.051 mg/kg |
| 4,4'-DDD | | 56 mg/kg | < 0.027 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg | < 0.075 mg/kg |
| 4,4'-DDE | | 40 mg/kg | < 0.027 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg | < 0.075 mg/kg |
| 4,4'-DDT | | 15 mg/kg | < 0.027 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg | < 0.075 mg/kg |
| a-BHC | | 2 mg/kg | < 0.027 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg | < 0.075 mg/kg |
| Acetochlor | | | < 0.044 mg/kg | < 0.041 mg/kg | < 0.046 mg/kg | < 0.041 mg/kg |
| Alachlor (Lasso) | | | < 0.044 mg/kg | < 0.041 mg/kg | < 0.046 mg/kg | < 0.041 mg/kg |
| Aldrin | | 1 mg/kg | < 0.027 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg | < 0.075 mg/kg |
| Atrazine (Primatol) | | | < 0.044 mg/kg | < 0.041 mg/kg | < 0.046 mg/kg | < 0.041 mg/kg |
| b-BHC | | 7 mg/kg | < 0.027 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg | < 0.075 mg/kg |
| Bentazone | | | < 0.055 mg/kg | < 0.051 mg/kg | < 0.055 mg/kg | < 0.051 mg/kg |
| Chlordane, alpha | | | < 0.027 mg/kg | < 0.023 mg/kg | 0.15 mg/kg | < 0.075 mg/kg |
| Chlordane, gamma | | | < 0.027 mg/kg | < 0.023 mg/kg | 0.072 mg/kg | < 0.075 mg/kg |
| Chlorpyrifos (Lorsban) | | | < 0.044 mg/kg | < 0.041 mg/kg | < 0.046 mg/kg | < 0.041 mg/kg |
| Cyanazine (Bladex) | | | < 0.044 mg/kg | < 0.041 mg/kg | < 0.046 mg/kg | < 0.041 mg/kg |
| d-BHC | | | < 0.027 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg | < 0.075 mg/kg |
| Deisopropyl atrazine | | | < 0.044 mg/kg | < 0.041 mg/kg | < 0.046 mg/kg | < 0.041 mg/kg |
| Desethylatrazine | | | < 0.044 mg/kg | < 0.041 mg/kg | < 0.046 mg/kg | < 0.041 mg/kg |
| Dicamba | | | < 0.055 mg/kg | < 0.051 mg/kg | < 0.055 mg/kg | < 0.051 mg/kg |
| Dieldrin | | 0.8 mg/kg | < 0.027 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg | < 0.075 mg/kg |
| Dimethenamid | | | < 0.044 mg/kg | < 0.041 mg/kg | < 0.046 mg/kg | < 0.041 mg/kg |
| Dinoseb (DNBP) | | | < 0.055 mg/kg | < 0.051 mg/kg | < 0.055 mg/kg | < 0.051 mg/kg |
| Endosulfan I | | | < 0.027 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg | < 0.075 mg/kg |

**Table 6**
**SOC 5 - Pesticide Release Area (OU2) Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-GP27 | SOC5-GP28 | SOC5-TT29 | SOC5-TT29 |
|---|---|---|---|---|---|---|
| | | Sample Date | 09/01/2009 | 09/02/2009 | 09/01/2009 | 09/01/2009 |
| | | Depth Interval | 2-2.5 | 9-10 | 5 | 6 |
| | | Depth Unit | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | |
| **Exceedance Key** | No Exceed | No Exceed | | | | |
| Endosulfan II | | | < 0.027 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg | < 0.075 mg/kg |
| Endosulfan Sulfate | | | < 0.027 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg | < 0.075 mg/kg |
| Endrin | | 8 mg/kg | < 0.027 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg | < 0.075 mg/kg |
| Endrin Aldehyde | | | < 0.027 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg | < 0.075 mg/kg |
| Endrin Ketone | | | < 0.027 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg | < 0.075 mg/kg |
| EPTC (Eradicane) | | | < 0.044 mg/kg | < 0.041 mg/kg | < 0.046 mg/kg | < 0.041 mg/kg |
| Ethalfluralin (Sonalan) | | | < 0.044 mg/kg | < 0.041 mg/kg | < 0.046 mg/kg | < 0.041 mg/kg |
| Fonofos (Dyphonate) | | | < 0.044 mg/kg | < 0.041 mg/kg | < 0.046 mg/kg | < 0.041 mg/kg |
| g-BHC (Lindane) | | 9 mg/kg | < 0.027 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg | < 0.075 mg/kg |
| Heptachlor | | 2 mg/kg | < 0.027 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg | < 0.075 mg/kg |
| Heptachlor Epoxide | | 0.4 mg/kg | < 0.027 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg | < 0.075 mg/kg |
| MCPA | | 16 mg/kg | < 0.055 mg/kg | < 0.051 mg/kg | < 0.055 mg/kg | < 0.051 mg/kg |
| Methoxychlor | | 11 mg/kg | < 0.027 mg/kg | < 0.023 mg/kg | < 0.027 mg/kg | < 0.075 mg/kg |
| Metolachlor (Dual) | | 435 mg/kg | < 0.044 mg/kg | < 0.041 mg/kg | < 0.046 mg/kg | < 0.041 mg/kg |
| Metribuzin | | | < 0.044 mg/kg | < 0.041 mg/kg | < 0.046 mg/kg | < 0.041 mg/kg |
| Pendimethalin (Prowl) | | | < 0.044 mg/kg | < 0.041 mg/kg | < 0.046 mg/kg | < 0.041 mg/kg |
| Pentachlorophenol | 0.034 mg/kg | 80 mg/kg | < 0.055 mg/kg | < 0.051 mg/kg | < 0.055 mg/kg | < 0.051 mg/kg |
| Phorate (Thimet) | | | < 0.044 mg/kg | < 0.041 mg/kg | < 0.046 mg/kg | < 0.041 mg/kg |
| Picloram | | 2000 mg/kg | < 0.055 * mg/kg | < 0.051 qn mg/kg | < 0.055 * mg/kg | < 0.051 * mg/kg |
| Prometon (Pramitol) | | | < 0.044 mg/kg | < 0.041 mg/kg | < 0.046 mg/kg | < 0.041 mg/kg |
| Propachlor | | | < 0.044 mg/kg | < 0.041 mg/kg | < 0.046 mg/kg | < 0.041 mg/kg |
| Propazine (Milogard) | | | < 0.044 mg/kg | < 0.041 mg/kg | < 0.046 mg/kg | < 0.041 mg/kg |
| Simazine (Princep) | | | < 0.044 mg/kg | < 0.041 mg/kg | < 0.046 mg/kg | < 0.041 mg/kg |
| Terbufos (Counter) | | 0.6 mg/kg | < 0.044 mg/kg | < 0.041 mg/kg | < 0.046 mg/kg | < 0.041 mg/kg |
| Toxaphene | | 13 mg/kg | < 0.54 mg/kg | < 0.47 mg/kg | < 0.55 mg/kg | < 1.5 mg/kg |
| Triallate (Far-Go) | | | < 0.044 mg/kg | < 0.041 mg/kg | < 0.046 mg/kg | < 0.041 mg/kg |
| Triclopyr | | | < 0.055 mg/kg | < 0.051 mg/kg | < 0.055 mg/kg | < 0.051 mg/kg |
| Trifluralin (Treflan) | | | < 0.044 mg/kg | < 0.041 mg/kg | < 0.046 mg/kg | < 0.041 mg/kg |

| Data Qualifiers/Footnotes - Soil | |
|---|---|
| **Qualifier** | **Definition** |
| -- | Not analyzed/not available. |
| a | Estimated value, calculated using some or all values that are estimates. |
| b | Potential false positive value based on blank data validation procedures. |
| c | Coeluting compound. |
| e | Estimated value, exceeded the instrument calibration range. |
| h | EPA recommended sample preservation, extraction or analysis holding time was exceeded. |
| I | Indeterminate value based on failure of blind duplicate data to meet quality assurance criteria. |
| j | Reported value is less than the stated laboratory quantitation limit and is considered an estimated value. |
| p | Relative percent difference is >40% (25% CLP pesticides) between primary and confirmation GC columns. |
| r | The presence of the compound is suspect based on the ID criteria of the retention time and relative retention time obtained from the examination of the chromatograms. |
| * | Estimated value, QA/QC criteria not met. |
| ** | Unusable value, QA/QC criteria not met. |
| ND | Not detected. |

## Data Qualifiers / Footnotes - Soil

| | Qualifier | Definition |
|---|---|---|
| MN Tier I SLV | DI | Value represents a criteria for 2,3,7,8-TCDD or 2,3,7,8-TCDD equivalents. |
| | M | Value represents the criteria for mixed Xylenes. |
| | MC | Mercury as Mercuric Chloride. |
| | NA | Not Applicable. |
| | T | Value represents a criteria for the total carcinogenic PAHs as BaP. Total carcinogenic PAHs are: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenz(a,h)anthracene, Chrysene and Indeno(1,2.3-cd)pyrene. |
| MN Tier I SRV | DI | Value represents a criteria for 2,3,7,8-TCDD or 2,3,7,8-TCDD equivalents. |
| | M | Value represents the criteria for mixed Xylenes. |
| | T | Value represents a criteria for the total carcinogenic PAHs as BaP. Total carcinogenic PAHs are: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenz(a,h)anthracene, Chrysene and Indeno(1,2.3-cd)pyrene. |

# Table 7
## SOC 5 - Petroleum Release Area (OU3) Soil Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | Sys Loc Code | SOC5-GP5 | SOC5-GP5 | SOC5-GP6 | SOC5-GP6 | SOC5-GP7 | SOC5-GP7 | SOC5-GP8 | SOC5-GP8 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 08/31/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 |
| | | Depth Interval | 1.5-2.5 | 10-12 | 1-2 | 18-20 | 0.5-2 | 19-20 | 1-1.5 | 5-7 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | | |
| General Parameters | | | | | | | | | | |
| Nitrocellulose | | | < 5.2 mg/kg | < 5.2 mg/kg | < 5.4 mg/kg | < 5.1 mg/kg | < 5.1 mg/kg | < 5.2 mg/kg | < 5.7 mg/kg | < 5.2 mg/kg |
| Metals | | | | | | | | | | |
| Antimony | 2.7 mg/kg | 12 mg/kg | < 0.52 mg/kg | < 0.52 mg/kg | < 0.55 mg/kg | < 0.52 mg/kg | < 0.52 mg/kg | < 0.52 mg/kg | 0.58 mg/kg | < 0.52 mg/kg |
| Arsenic | 15.1 mg/kg | 9 mg/kg | 9.4 mg/kg | 1.0 mg/kg | 4.1 mg/kg | 1.6 mg/kg | 2.3 mg/kg | 0.89 mg/kg | 4.7 mg/kg | 1.4 mg/kg |
| Beryllium | 1.4 mg/kg | 55 mg/kg | < 0.26 mg/kg | < 0.26 mg/kg | < 0.27 mg/kg | < 0.26 mg/kg | < 0.26 mg/kg | < 0.26 mg/kg | < 0.28 mg/kg | < 0.26 mg/kg |
| Cadmium | 4.4 mg/kg | 25 mg/kg | < 0.26 mg/kg | < 0.26 mg/kg | < 0.27 mg/kg | < 0.26 mg/kg | < 0.26 mg/kg | < 0.26 mg/kg | 0.31 mg/kg | < 0.26 mg/kg |
| Chromium, total | 1000000 mg/kg | 44000 mg/kg | 10 mg/kg | 4.1 mg/kg | 11 mg/kg | 7.8 mg/kg | 8.0 mg/kg | 3.9 mg/kg | 11 mg/kg | 6.5 mg/kg |
| Copper | 400 mg/kg | 100 mg/kg | 6.9 mg/kg | 3.6 mg/kg | 11 mg/kg | 9.9 mg/kg | 8.8 mg/kg | 3.0 mg/kg | 21 mg/kg | 6.3 mg/kg |
| Lead | 525 mg/kg | 300 mg/kg | 5.3 mg/kg | 1.5 mg/kg | 5.8 mg/kg | 2.5 mg/kg | 20 mg/kg | 1.2 mg/kg | 300 mg/kg | 1.9 mg/kg |
| Mercury | 1.6 MC mg/kg | 0.5 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.11 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.11 mg/kg | < 0.10 mg/kg |
| Nickel | 88 mg/kg | 560 mg/kg | 10 mg/kg | 4.6 mg/kg | 13 mg/kg | 14 mg/kg | 9.4 mg/kg | 3.9 mg/kg | 12 mg/kg | 7.2 mg/kg |
| Selenium | 1.5 mg/kg | 160 mg/kg | < 1.0 mg/kg | < 1.0 mg/kg | < 1.1 mg/kg | < 1.0 mg/kg | < 1.0 mg/kg | < 1.0 mg/kg | < 1.1 mg/kg | < 1.0 mg/kg |
| Silver | 3.9 mg/kg | 160 mg/kg | < 0.26 mg/kg | < 0.26 mg/kg | < 0.27 mg/kg | < 0.26 mg/kg | < 0.26 mg/kg | < 0.26 mg/kg | < 0.28 mg/kg | < 0.26 mg/kg |
| Thallium | | 3 mg/kg | < 2.1 mg/kg | < 2.1 mg/kg | < 2.2 mg/kg | < 2.1 mg/kg | < 2.1 mg/kg | < 2.1 mg/kg | < 2.2 mg/kg | < 2.1 mg/kg |
| Zinc | 1500 mg/kg | 8700 mg/kg | 7.0 mg/kg | 4.2 mg/kg | 6.1 mg/kg | < 1.0 mg/kg | 9.3 mg/kg | < 1.0 mg/kg | 56 mg/kg | 5.0 mg/kg |
| SVOCs | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.31 mg/kg | 200 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.030 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.036 mg/kg | < 0.028 mg/kg |
| 1,2-Dichlorobenzene | 8.1 mg/kg | 26 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.027 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.033 mg/kg | < 0.026 mg/kg |
| 1,3-Dichlorobenzene | 4.2 mg/kg | 26 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.025 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.031 mg/kg | < 0.024 mg/kg |
| 1,4-Dichlorobenzene | 0.13 mg/kg | 30 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.026 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.032 mg/kg | < 0.025 mg/kg |
| 2,3,4,6-Tetrachlorophenol | | 636 mg/kg | < 0.039 mg/kg | < 0.040 mg/kg | < 0.042 mg/kg | < 0.039 mg/kg | < 0.039 mg/kg | < 0.040 mg/kg | < 0.051 mg/kg | < 0.039 mg/kg |
| 2,4,5-Trichlorophenol | | 1920 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.026 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.032 mg/kg | < 0.025 mg/kg |
| 2,4,6-Trichlorophenol | 0.21 mg/kg | 595 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.038 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.047 mg/kg | < 0.036 mg/kg |
| 2,4-Dichlorophenol | 0.076 mg/kg | 48 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.038 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.047 mg/kg | < 0.036 mg/kg |
| 2,4-Dimethylphenol | 0.34 mg/kg | 390 mg/kg | < 0.093 mg/kg | < 0.094 mg/kg | < 0.099 mg/kg | < 0.093 mg/kg | < 0.093 mg/kg | < 0.094 mg/kg | < 0.12 mg/kg | < 0.093 mg/kg |
| 2,4-Dinitrophenol | 0.014 mg/kg | | < 0.060 mg/kg | < 0.060 mg/kg | < 0.064 mg/kg | < 0.060 mg/kg | < 0.060 mg/kg | < 0.060 mg/kg | < 0.077 mg/kg | < 0.060 mg/kg |
| 2,4-Dinitrotoluene | 0.001 mg/kg | 50 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.028 mg/kg | < 0.022 mg/kg |
| 2,6-Dichlorophenol | | | < 0.044 mg/kg | < 0.045 mg/kg | < 0.047 mg/kg | < 0.044 mg/kg | < 0.044 mg/kg | < 0.045 mg/kg | < 0.057 mg/kg | < 0.044 mg/kg |
| 2,6-Dinitrotoluene | 0.001 mg/kg | 25 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.025 mg/kg | < 0.020 mg/kg |
| 2-Chloronaphthalene | | | < 0.020 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.025 mg/kg | < 0.020 mg/kg |
| 2-Chlorophenol | 0.26 mg/kg | | < 0.039 mg/kg | < 0.040 mg/kg | < 0.042 mg/kg | < 0.039 mg/kg | < 0.039 mg/kg | < 0.040 mg/kg | < 0.051 mg/kg | < 0.039 mg/kg |
| 2-Methyl-4,6-dinitrophenol | | | < 0.076 mg/kg | < 0.077 mg/kg | < 0.081 mg/kg | < 0.076 mg/kg | < 0.076 mg/kg | < 0.077 mg/kg | < 0.099 mg/kg | < 0.076 mg/kg |
| 2-Methylnaphthalene | | 100 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.031 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.037 mg/kg | < 0.029 mg/kg |
| 2-Nitroaniline | | | < 0.021 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.027 mg/kg | < 0.021 mg/kg |
| 2-Nitrophenol | 0.6 mg/kg | | < 0.037 mg/kg | < 0.038 mg/kg | < 0.040 mg/kg | < 0.037 mg/kg | < 0.037 mg/kg | < 0.038 mg/kg | < 0.048 mg/kg | < 0.037 mg/kg |
| 3,3`-Dichlorobenzidine | 0.36 mg/kg | 25 mg/kg | < 0.40 mg/kg | < 0.41 mg/kg | < 0.43 mg/kg | < 0.40 mg/kg | < 0.40 mg/kg | < 0.41 mg/kg | < 0.52 mg/kg | < 0.40 mg/kg |
| 3-Nitroaniline | | | < 0.034 mg/kg | < 0.034 mg/kg | < 0.036 mg/kg | < 0.034 mg/kg | < 0.034 mg/kg | < 0.034 mg/kg | < 0.044 mg/kg | < 0.034 mg/kg |
| 4-Bromophenyl phenyl ether | | | < 0.018 mg/kg | < 0.018 mg/kg | < 0.019 mg/kg | < 0.018 mg/kg | < 0.018 mg/kg | < 0.018 mg/kg | < 0.023 mg/kg | < 0.018 mg/kg |
| 4-Chloro-3-methylphenol | | | < 0.041 mg/kg | < 0.042 mg/kg | < 0.044 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.042 mg/kg | < 0.053 mg/kg | < 0.041 mg/kg |
| 4-Chloroaniline | | | < 0.11 mg/kg | < 0.11 mg/kg | < 0.12 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.15 mg/kg | < 0.11 mg/kg |

# Table 7
## SOC 5 - Petroleum Release Area (OU3) Soil Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | Sys Loc Code | SOC5-GP5 | SOC5-GP5 | SOC5-GP6 | SOC5-GP6 | SOC5-GP7 | SOC5-GP7 | SOC5-GP8 | SOC5-GP8 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 08/31/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 |
| | | Depth Interval | 1.5-2.5 | 10-12 | 1-2 | 18-20 | 0.5-2 | 19-20 | 1-1.5 | 5-7 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | | |
| 4-Chlorophenyl phenyl ether | | | < 0.024 mg/kg | < 0.024 mg/kg | < 0.025 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.031 mg/kg | < 0.024 mg/kg |
| 4-Nitroaniline | | | < 0.024 mg/kg | < 0.024 mg/kg | < 0.025 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.031 mg/kg | < 0.024 mg/kg |
| 4-Nitrophenol | | | < 0.10 mg/kg | < 0.10 mg/kg | < 0.11 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.13 mg/kg | < 0.10 mg/kg |
| Acenaphthene | 50 mg/kg | 1200 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.031 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.037 mg/kg | < 0.029 mg/kg |
| Acenaphthylene | | | < 0.024 mg/kg | < 0.024 mg/kg | < 0.025 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.031 mg/kg | < 0.024 mg/kg |
| Aniline | | | < 0.093 mg/kg | < 0.094 mg/kg | < 0.099 mg/kg | < 0.093 mg/kg | < 0.093 mg/kg | < 0.094 mg/kg | < 0.12 mg/kg | < 0.093 mg/kg |
| Anthracene | 942 mg/kg | 7880 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.027 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.033 mg/kg | < 0.026 mg/kg |
| Azobenzene | | | < 0.021 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.027 mg/kg | < 0.021 mg/kg |
| Benzidine | | | < 0.74 mg/kg | < 0.75 mg/kg | < 0.79 mg/kg | < 0.74 mg/kg | < 0.74 mg/kg | < 0.75 mg/kg | < 0.96 mg/kg | < 0.74 mg/kg |
| Benzo(g,h,i)perylene | | | < 0.031 mg/kg | < 0.031 mg/kg | < 0.033 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg | < 0.040 mg/kg | < 0.031 mg/kg |
| Benzoic Acid | 30 mg/kg | 50000 mg/kg | < 0.060 mg/kg | < 0.060 mg/kg | < 0.064 mg/kg | < 0.060 mg/kg | < 0.060 mg/kg | < 0.060 mg/kg | < 0.077 mg/kg | < 0.060 mg/kg |
| Benzyl alcohol | | 8700 mg/kg | < 0.12 mg/kg | < 0.12 mg/kg | < 0.13 mg/kg | < 0.12 mg/kg | < 0.12 mg/kg | < 0.12 mg/kg | < 0.16 mg/kg | < 0.12 mg/kg |
| Bis(2-chloroethoxy)methane | | | < 0.022 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.028 mg/kg | < 0.022 mg/kg |
| Bis(2-chloroethyl)ether | 0.001 mg/kg | 2.5 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.026 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.032 mg/kg | < 0.025 mg/kg |
| Bis(2-chloroisopropyl)ether | 0.67 mg/kg | | < 0.023 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.029 mg/kg | < 0.023 mg/kg |
| Bis(2-ethylhexyl)phthalate | 40 mg/kg | 570 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.027 mg/kg | < 0.021 mg/kg |
| Butyl benzyl phthalate | 28 mg/kg | 580 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.028 mg/kg | < 0.022 mg/kg |
| Carbazole | | 700 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.029 mg/kg | < 0.023 mg/kg |
| Dibenzofuran | | 104 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.025 mg/kg | < 0.020 mg/kg |
| Diethyl phthalate | 18 mg/kg | | < 0.015 mg/kg | < 0.016 mg/kg | < 0.016 mg/kg | < 0.015 mg/kg | < 0.015 mg/kg | < 0.016 mg/kg | < 0.020 mg/kg | < 0.015 mg/kg |
| Dimethyl phthalate | 172 mg/kg | | < 0.019 mg/kg | < 0.019 mg/kg | < 0.020 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg | < 0.024 mg/kg | < 0.019 mg/kg |
| Di-n-butyl phthalate | 23 mg/kg | 2440 mg/kg | 0.090 jb mg/kg | 0.11 jb mg/kg | 0.10 jb mg/kg | 0.098 jb mg/kg | < 0.038 mg/kg | < 0.039 mg/kg | < 0.049 mg/kg | < 0.038 mg/kg |
| Di-n-octyl phthalate | | 520 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.027 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.033 mg/kg | < 0.026 mg/kg |
| Fluoranthene | 295 mg/kg | 1080 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.026 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | 0.11 j mg/kg | < 0.025 mg/kg |
| Fluorene | 47 mg/kg | 850 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg | < 0.020 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg | < 0.024 mg/kg | < 0.019 mg/kg |
| Hexachlorobenzene | 0.32 mg/kg | 5 mg/kg | < 0.016 mg/kg | < 0.017 mg/kg | < 0.018 mg/kg | < 0.016 mg/kg | < 0.016 mg/kg | < 0.017 mg/kg | < 0.021 mg/kg | < 0.016 mg/kg |
| Hexachlorobutadiene | 25 mg/kg | 6 mg/kg | < 0.034 mg/kg | < 0.034 mg/kg | < 0.036 mg/kg | < 0.034 mg/kg | < 0.034 mg/kg | < 0.034 mg/kg | < 0.044 mg/kg | < 0.034 mg/kg |
| Hexachlorocyclopentadiene | 4.4 mg/kg | 2 mg/kg | < 0.042 mg/kg | < 0.043 mg/kg | < 0.045 mg/kg | < 0.042 mg/kg | < 0.042 mg/kg | < 0.043 mg/kg | < 0.055 mg/kg | < 0.042 mg/kg |
| Hexachloroethane | 0.05 mg/kg | | < 0.029 mg/kg | < 0.029 mg/kg | < 0.031 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.037 mg/kg | < 0.029 mg/kg |
| Isophorone | 0.16 mg/kg | | < 0.018 mg/kg | < 0.018 mg/kg | < 0.019 mg/kg | < 0.018 mg/kg | < 0.018 mg/kg | < 0.018 mg/kg | < 0.023 mg/kg | < 0.018 mg/kg |
| Naphthalene | 7.5 mg/kg | 10 mg/kg | < 0.030 mg/kg | < 0.030 mg/kg | < 0.032 mg/kg | < 0.030 mg/kg | < 0.030 mg/kg | < 0.030 mg/kg | < 0.039 mg/kg | < 0.030 mg/kg |
| Nitrobenzene | | | < 0.031 mg/kg | < 0.031 mg/kg | < 0.033 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg | < 0.040 mg/kg | < 0.031 mg/kg |
| N-Nitrosodimethylamine | 0.82 mg/kg | | < 0.033 mg/kg | < 0.033 mg/kg | < 0.035 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg | < 0.043 mg/kg | < 0.033 mg/kg |
| N-Nitrosodi-n-propylamine | | 0.7 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.027 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.033 mg/kg | < 0.026 mg/kg |
| N-Nitrosodiphenylamine | 0.88 mg/kg | 1950 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg | < 0.020 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg | < 0.024 mg/kg | < 0.019 mg/kg |
| o-Cresol | 0.064 mg/kg | 75 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.038 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.047 mg/kg | < 0.036 mg/kg |
| p-Cresol | 0.033 mg/kg | 10 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.030 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.036 mg/kg | < 0.028 mg/kg |
| Pentachlorophenol | **0.034 mg/kg** | 80 mg/kg | < 0.099 mg/kg | < 0.10 mg/kg | < 0.11 mg/kg | < 0.099 mg/kg | < 0.099 mg/kg | < 0.10 mg/kg | **0.15 j mg/kg** | < 0.099 mg/kg |
| Phenanthrene | | | < 0.020 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | 0.038 j mg/kg | < 0.020 mg/kg |
| Phenol | 7.8 mg/kg | 1500 mg/kg | < 0.059 mg/kg | < 0.059 mg/kg | < 0.063 mg/kg | < 0.059 mg/kg | < 0.059 mg/kg | < 0.059 mg/kg | < 0.076 mg/kg | < 0.059 mg/kg |
| Pyrene | 272 mg/kg | 890 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.025 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | 0.42 j mg/kg | < 0.024 mg/kg |

# Table 7
## SOC 5 - Petroleum Release Area (OU3) Soil Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | Sys Loc Code | SOC5-GP5 | SOC5-GP5 | SOC5-GP6 | SOC5-GP6 | SOC5-GP7 | SOC5-GP7 | SOC5-GP8 | SOC5-GP8 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 08/31/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 |
| | | Depth Interval | 1.5-2.5 | 10-12 | 1-2 | 18-20 | 0.5-2 | 19-20 | 1-1.5 | 5-7 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | | |
| Benzo(a)anthracene | T | T | < 0.028 mg/kg | < 0.028 mg/kg | < 0.030 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.036 mg/kg | < 0.028 mg/kg |
| Benzo(a)pyrene | T | T | < 0.028 mg/kg | < 0.028 mg/kg | < 0.030 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.036 mg/kg | < 0.028 mg/kg |
| Benzo(b)fluoranthene | T | T | < 0.035 mg/kg | < 0.035 mg/kg | < 0.037 mg/kg | < 0.035 mg/kg | < 0.035 mg/kg | < 0.035 mg/kg | < 0.045 mg/kg | < 0.035 mg/kg |
| Benzo(k)fluoranthene | T | T | < 0.032 mg/kg | < 0.032 mg/kg | < 0.034 mg/kg | < 0.032 mg/kg | < 0.032 mg/kg | < 0.032 mg/kg | < 0.041 mg/kg | < 0.032 mg/kg |
| Chrysene | T | T | < 0.034 mg/kg | < 0.034 mg/kg | < 0.036 mg/kg | < 0.034 mg/kg | < 0.034 mg/kg | < 0.034 mg/kg | < 0.044 mg/kg | < 0.034 mg/kg |
| Dibenz(a,h)anthracene | T | T | < 0.035 mg/kg | < 0.035 mg/kg | < 0.037 mg/kg | < 0.035 mg/kg | < 0.035 mg/kg | < 0.035 mg/kg | < 0.045 mg/kg | < 0.035 mg/kg |
| Indeno(1,2,3-cd)pyrene | T | T | < 0.033 mg/kg | < 0.033 mg/kg | < 0.035 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg | < 0.043 mg/kg | < 0.033 mg/kg |
| **BaP equivalent, non-detects at zero for the detection limit.[1]** | 10.2 T mg/kg | 2 T mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg |
| VOCs | | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | 1.4 mg/kg | 31 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | < 0.031 mg/kg | < 0.027 mg/kg | < 0.030 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg |
| 1,1,1-Trichloroethane | 3.5 mg/kg | 140 mg/kg | < 0.037 mg/kg | < 0.037 mg/kg | < 0.040 mg/kg | < 0.034 mg/kg | < 0.039 mg/kg | < 0.037 mg/kg | < 0.037 mg/kg | < 0.037 mg/kg |
| 1,1,2,2-Tetrachloroethane | 0.005 mg/kg | 3.5 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.030 mg/kg | < 0.026 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg |
| 1,1,2-Trichloroethane | 0.01 mg/kg | 9 mg/kg | < 0.042 mg/kg | < 0.042 mg/kg | < 0.045 mg/kg | < 0.038 mg/kg | < 0.043 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.042 mg/kg |
| 1,1-Dichloro-1-propene | | | < 0.030 mg/kg | < 0.031 mg/kg | < 0.033 mg/kg | < 0.028 mg/kg | < 0.032 mg/kg | < 0.030 mg/kg | < 0.030 mg/kg | < 0.030 mg/kg |
| 1,1-Dichloroethane | 0.18 mg/kg | 34 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.029 mg/kg | < 0.025 mg/kg | < 0.028 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg |
| 1,1-Dichloroethylene | 0.025 mg/kg | 20 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.030 mg/kg | < 0.026 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg |
| 1,2,3-Trichlorobenzene | | | < 0.074 mg/kg | < 0.075 mg/kg | < 0.080 mg/kg | < 0.068 mg/kg | < 0.077 mg/kg | < 0.074 mg/kg | < 0.073 mg/kg | < 0.075 mg/kg |
| 1,2,3-Trichloropropane | 0.35 mg/kg | | < 0.060 mg/kg | < 0.060 mg/kg | < 0.064 mg/kg | < 0.055 mg/kg | < 0.062 mg/kg | < 0.059 mg/kg | < 0.059 mg/kg | < 0.060 mg/kg |
| 1,2,4-Trichlorobenzene | 0.31 mg/kg | 200 mg/kg | < 0.072 mg/kg | < 0.073 mg/kg | < 0.077 mg/kg | < 0.066 mg/kg | < 0.075 mg/kg | < 0.071 mg/kg | < 0.071 mg/kg | < 0.072 mg/kg |
| 1,2,4-Trimethylbenzene | | 8 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | < 0.021 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg |
| 1,2-Dibromo-3-chloropropane | 0.001 mg/kg | | < 0.064 mg/kg | < 0.065 mg/kg | < 0.069 mg/kg | < 0.059 mg/kg | < 0.067 mg/kg | < 0.064 mg/kg | < 0.063 mg/kg | < 0.064 mg/kg |
| 1,2-Dibromoethane | 0.00001 mg/kg | 0.3 mg/kg | < 0.043 mg/kg | < 0.043 mg/kg | < 0.046 mg/kg | < 0.039 mg/kg | < 0.044 mg/kg | < 0.042 mg/kg | < 0.042 mg/kg | < 0.043 mg/kg |
| 1,2-Dichlorobenzene | 8.1 mg/kg | 26 mg/kg | < 0.030 mg/kg | < 0.031 mg/kg | < 0.033 mg/kg | < 0.028 mg/kg | < 0.032 mg/kg | < 0.030 mg/kg | < 0.030 mg/kg | < 0.030 mg/kg |
| 1,2-Dichloroethane | 0.01 mg/kg | 4 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.030 mg/kg | < 0.026 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg |
| 1,2-Dichloroethylene, cis | 0.14 mg/kg | 8 mg/kg | < 0.052 mg/kg | < 0.052 mg/kg | < 0.055 mg/kg | < 0.047 mg/kg | < 0.054 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.052 mg/kg |
| 1,2-Dichloroethylene, trans | 0.27 mg/kg | 11 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.027 mg/kg | < 0.023 mg/kg | < 0.026 mg/kg | < 0.025 mg/kg | < 0.024 mg/kg | < 0.025 mg/kg |
| 1,2-Dichloropropane | 0.011 mg/kg | 4 mg/kg | < 0.032 mg/kg | < 0.032 mg/kg | < 0.034 mg/kg | < 0.029 mg/kg | < 0.033 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg | < 0.032 mg/kg |
| 1,3,5-Trimethylbenzene | | 3 mg/kg | < 0.017 mg/kg | < 0.017 mg/kg | < 0.018 mg/kg | < 0.015 mg/kg | < 0.018 mg/kg | < 0.017 mg/kg | 0.049 j mg/kg | < 0.017 mg/kg |
| 1,3-Dichloro-1-propene trans | 0.005 mg/kg | | < 0.039 mg/kg | < 0.040 mg/kg | < 0.042 mg/kg | < 0.036 mg/kg | < 0.041 mg/kg | < 0.039 mg/kg | < 0.039 mg/kg | < 0.040 mg/kg |
| 1,3-Dichloro-1-propene, cis | 0.005 mg/kg | | < 0.026 mg/kg | < 0.026 mg/kg | < 0.028 mg/kg | < 0.024 mg/kg | < 0.027 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg |
| 1,3-Dichlorobenzene | 4.2 mg/kg | 26 mg/kg | < 0.032 mg/kg | < 0.032 mg/kg | < 0.034 mg/kg | < 0.029 mg/kg | < 0.033 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg | < 0.032 mg/kg |
| 1,3-Dichloropropane | | | < 0.019 mg/kg | < 0.019 mg/kg | < 0.020 mg/kg | < 0.018 mg/kg | < 0.020 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg |
| 1,4-Dichlorobenzene | 0.13 mg/kg | 30 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.022 mg/kg | < 0.019 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg |
| 2,2-Dichloropropane | | | < 0.077 mg/kg | < 0.077 mg/kg | < 0.082 mg/kg | < 0.070 mg/kg | < 0.079 mg/kg | < 0.076 mg/kg | < 0.076 mg/kg | < 0.077 mg/kg |
| Acetone | 0.7 mg/kg | 340 mg/kg | < 0.36 mg/kg | < 0.36 mg/kg | < 0.39 mg/kg | < 0.33 mg/kg | < 0.37 mg/kg | < 0.36 mg/kg | < 0.36 mg/kg | < 0.36 mg/kg |
| Allyl Chloride | 0.032 mg/kg | | < 0.075 mg/kg | < 0.076 mg/kg | < 0.081 mg/kg | < 0.069 mg/kg | < 0.078 mg/kg | < 0.075 mg/kg | < 0.074 mg/kg | < 0.076 mg/kg |
| Benzene | 0.034 mg/kg | 6 mg/kg | < 0.017 mg/kg | < 0.017 mg/kg | < 0.018 mg/kg | < 0.015 mg/kg | < 0.018 mg/kg | < 0.017 mg/kg | < 0.017 mg/kg | < 0.017 mg/kg |
| Bromobenzene | | | < 0.021 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.020 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg |
| Bromochloromethane | 0.15 mg/kg | | < 0.028 mg/kg | < 0.028 mg/kg | < 0.030 mg/kg | < 0.026 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg |
| Bromodichloromethane | 0.013 mg/kg | 10 mg/kg | < 0.039 mg/kg | < 0.040 mg/kg | < 0.042 mg/kg | < 0.036 mg/kg | < 0.041 mg/kg | < 0.039 mg/kg | < 0.039 mg/kg | < 0.040 mg/kg |

**Table 7**
**SOC 5 - Petroleum Release Area (OU3) Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-GP5 | SOC5-GP5 | SOC5-GP6 | SOC5-GP6 | SOC5-GP7 | SOC5-GP7 | SOC5-GP8 | SOC5-GP8 |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 08/31/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 | 08/31/2009 |
| | | Depth Interval | 1.5-2.5 | 10-12 | 1-2 | 18-20 | 0.5-2 | 19-20 | 1-1.5 | 5-7 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | | |
| Bromoform | 0.14 mg/kg | 370 mg/kg | < 0.090 mg/kg | < 0.091 mg/kg | < 0.096 mg/kg | < 0.082 mg/kg | < 0.094 mg/kg | < 0.089 mg/kg | < 0.089 mg/kg | < 0.090 mg/kg |
| Bromomethane | 0.5 mg/kg | 0.7 mg/kg | < 0.16 mg/kg | < 0.16 mg/kg | < 0.17 mg/kg | < 0.14 mg/kg | < 0.16 mg/kg | < 0.16 mg/kg | < 0.16 mg/kg | < 0.16 mg/kg |
| Butyl benzene | | 30 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.039 mg/kg | < 0.033 mg/kg | < 0.037 mg/kg | < 0.036 mg/kg | 0.13 j mg/kg | < 0.036 mg/kg |
| Butylbenzene sec | | 25 mg/kg | < 0.011 mg/kg | < 0.011 mg/kg | < 0.012 mg/kg | < 0.010 mg/kg | < 0.012 mg/kg | < 0.011 mg/kg | < 0.011 mg/kg | < 0.011 mg/kg |
| Butylbenzene tert- | | 30 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.022 mg/kg | < 0.019 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg |
| Carbon tetrachloride | 0.023 mg/kg | 0.3 mg/kg | < 0.030 mg/kg | < 0.031 mg/kg | < 0.033 mg/kg | < 0.028 mg/kg | < 0.032 mg/kg | < 0.030 mg/kg | < 0.030 mg/kg | < 0.030 mg/kg |
| Chlorobenzene | 1.1 mg/kg | 11 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.030 mg/kg | < 0.026 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg |
| Chlorodibromomethane | 0.03 mg/kg | 12 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.039 mg/kg | < 0.033 mg/kg | < 0.037 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg |
| Chloroethane | | 1000 mg/kg | < 0.082 mg/kg | < 0.083 mg/kg | < 0.088 mg/kg | < 0.075 mg/kg | < 0.085 mg/kg | < 0.081 mg/kg | < 0.081 mg/kg | < 0.082 mg/kg |
| Chloroform | 0.17 mg/kg | 2.5 mg/kg | < 0.047 mg/kg | < 0.048 mg/kg | < 0.051 mg/kg | < 0.043 mg/kg | < 0.049 mg/kg | < 0.047 mg/kg | < 0.047 mg/kg | < 0.047 mg/kg |
| Chloromethane | 0.006 mg/kg | 8 mg/kg | < 0.046 mg/kg | < 0.047 mg/kg | < 0.049 mg/kg | < 0.042 mg/kg | < 0.048 mg/kg | < 0.046 mg/kg | < 0.046 mg/kg | < 0.046 mg/kg |
| Chlorotoluene o- | | 436 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.022 mg/kg | < 0.019 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg |
| Chlorotoluene p- | | | < 0.033 mg/kg | < 0.033 mg/kg | < 0.035 mg/kg | < 0.030 mg/kg | < 0.034 mg/kg | < 0.032 mg/kg | < 0.032 mg/kg | < 0.033 mg/kg |
| Cumene (isopropyl benzene) | 18 mg/kg | 30 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.028 mg/kg | < 0.024 mg/kg | < 0.027 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg |
| Cymene p- (Toluene isopropyl p-) | | | < 0.034 mg/kg | < 0.034 mg/kg | < 0.036 mg/kg | < 0.031 mg/kg | < 0.035 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg | < 0.034 mg/kg |
| Dibromomethane (methylene bromide) | | 260 mg/kg | < 0.052 mg/kg | < 0.052 mg/kg | < 0.055 mg/kg | < 0.047 mg/kg | < 0.054 mg/kg | < 0.051 mg/kg | < 0.051 mg/kg | < 0.052 mg/kg |
| Dichlorodifluoromethane (CFC-12) | 38 mg/kg | 16 mg/kg | < 0.092 mg/kg | < 0.093 mg/kg | < 0.099 mg/kg | < 0.085 mg/kg | < 0.096 mg/kg | < 0.091 mg/kg | < 0.091 mg/kg | < 0.093 mg/kg |
| Dichlorofluoromethane (CFC-21) | | | < 0.050 mg/kg | < 0.050 mg/kg | < 0.053 mg/kg | < 0.045 mg/kg | < 0.051 mg/kg | < 0.049 mg/kg | < 0.049 mg/kg | < 0.050 mg/kg |
| Ethyl benzene | 4.7 mg/kg | 200 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.027 mg/kg | < 0.023 mg/kg | < 0.026 mg/kg | < 0.025 mg/kg | < 0.024 mg/kg | < 0.025 mg/kg |
| Ethyl ether | 1.2 mg/kg | | < 0.054 mg/kg | < 0.055 mg/kg | < 0.058 mg/kg | < 0.049 mg/kg | < 0.056 mg/kg | < 0.053 mg/kg | < 0.053 mg/kg | < 0.054 mg/kg |
| Hexachlorobutadiene | 25 mg/kg | 6 mg/kg | < 0.15 mg/kg | < 0.15 mg/kg | < 0.16 mg/kg | < 0.13 mg/kg | < 0.15 mg/kg | < 0.14 mg/kg | < 0.14 mg/kg | < 0.15 mg/kg |
| Methyl ethyl ketone | 6.4 mg/kg | 5500 mg/kg | < 0.14 mg/kg | < 0.14 mg/kg | < 0.14 mg/kg | < 0.12 mg/kg | < 0.14 mg/kg | < 0.13 mg/kg | < 0.13 mg/kg | < 0.14 mg/kg |
| Methyl isobutyl ketone | 0.42 mg/kg | 1700 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.11 mg/kg | < 0.095 mg/kg | < 0.11 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg |
| Methyl tertiary butyl ether (MTBE) | 0.027 mg/kg | | < 0.019 mg/kg | < 0.019 mg/kg | < 0.020 mg/kg | < 0.018 mg/kg | < 0.020 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg |
| Methylene chloride | 0.068 mg/kg | 97 mg/kg | < 0.19 mg/kg | < 0.19 mg/kg | < 0.20 mg/kg | < 0.18 mg/kg | < 0.20 mg/kg | < 0.19 mg/kg | < 0.19 mg/kg | < 0.19 mg/kg |
| Naphthalene | 7.5 mg/kg | 10 mg/kg | < 0.073 mg/kg | < 0.074 mg/kg | < 0.078 mg/kg | < 0.067 mg/kg | < 0.076 mg/kg | < 0.072 mg/kg | < 0.072 mg/kg | < 0.073 mg/kg |
| Propylbenzene | | 30 mg/kg | < 0.016 mg/kg | < 0.016 mg/kg | < 0.017 mg/kg | < 0.014 mg/kg | < 0.016 mg/kg | < 0.016 mg/kg | < 0.016 mg/kg | < 0.016 mg/kg |
| Styrene | 1.9 mg/kg | 210 mg/kg | < 0.045 mg/kg | < 0.045 mg/kg | < 0.048 mg/kg | < 0.041 mg/kg | < 0.047 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg | < 0.045 mg/kg |
| Tetrachloroethylene | 0.068 mg/kg | 72 mg/kg | < 0.039 mg/kg | < 0.040 mg/kg | < 0.042 mg/kg | < 0.036 mg/kg | < 0.041 mg/kg | < 0.039 mg/kg | < 0.039 mg/kg | < 0.040 mg/kg |
| Tetrahydrofuran | 0.16 mg/kg | | < 0.11 mg/kg | < 0.11 mg/kg | < 0.12 mg/kg | < 0.10 mg/kg | < 0.12 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg |
| Toluene | 6.4 mg/kg | 107 mg/kg | < 0.032 mg/kg | < 0.032 mg/kg | < 0.034 mg/kg | < 0.029 mg/kg | < 0.033 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg | < 0.032 mg/kg |
| Trichloroethylene | 0.14 mg/kg | 29 mg/kg | < 0.045 mg/kg | < 0.045 mg/kg | < 0.048 mg/kg | < 0.041 mg/kg | < 0.047 mg/kg | < 0.045 mg/kg | < 0.044 mg/kg | < 0.045 mg/kg |
| Trichlorofluoromethane | 22 mg/kg | 67 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.039 mg/kg | < 0.033 mg/kg | < 0.037 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg |
| Trichlorotrifluoroethane (Freon 113) | 2580 mg/kg | 3745 mg/kg | < 0.073 mg/kg | < 0.074 mg/kg | < 0.078 mg/kg | < 0.067 mg/kg | < 0.076 mg/kg | < 0.072 mg/kg | < 0.072 mg/kg | < 0.073 mg/kg |
| Vinyl chloride | 0.001 mg/kg | 0.8 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.028 mg/kg | < 0.024 mg/kg | < 0.027 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg |
| Xylene m & p | M | M | < 0.099 mg/kg | < 0.10 mg/kg | < 0.11 mg/kg | < 0.091 mg/kg | < 0.10 mg/kg | < 0.098 mg/kg | < 0.098 mg/kg | < 0.099 mg/kg |
| Xylene, o- | M | M | < 0.035 mg/kg | < 0.035 mg/kg | < 0.037 mg/kg | < 0.032 mg/kg | < 0.036 mg/kg | < 0.035 mg/kg | < 0.034 mg/kg | < 0.035 mg/kg |
| Xylenes, total | 45 M mg/kg | 45 M mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg |

| Data Qualifiers/Footnotes - Soil | |
|---|---|
| **Qualifier** | **Definition** |
| -- | Not analyzed/not available. |
| a | Estimated value, calculated using some or all values that are estimates. |
| b | Potential false positive value based on blank data validation procedures. |
| c | Coeluting compound. |
| e | Estimated value, exceeded the instrument calibration range. |
| h | EPA recommended sample preservation, extraction or analysis holding time was exceeded. |
| I | Indeterminate value based on failure of blind duplicate data to meet quality assurance criteria. |
| j | Reported value is less than the stated laboratory quantitation limit and is considered an estimated value. |
| p | Relative percent difference is >40% (25% CLP pesticides) between primary and confirmation GC columns. |
| r | The presence of the compound is suspect based on the ID criteria of the retention time and relative retention time obtained from the examination of the chromatograms. |
| * | Estimated value, QA/QC criteria not met. |
| ** | Unusable value, QA/QC criteria not met. |
| ND | Not detected. |

## Data Qualifiers / Footnotes - Soil

| | Qualifier | Definition |
|---|---|---|
| MN Tier I SLV | DI | Value represents a criteria for 2,3,7,8-TCDD or 2,3,7,8-TCDD equivalents. |
| | M | Value represents the criteria for mixed Xylenes. |
| | MC | Mercury as Mercuric Chloride. |
| | NA | Not Applicable. |
| | T | Value represents a criteria for the total carcinogenic PAHs as BaP. Total carcinogenic PAHs are: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenz(a,h)anthracene, Chrysene and Indeno(1,2.3-cd)pyrene. |
| MN Tier I SRV | DI | Value represents a criteria for 2,3,7,8-TCDD or 2,3,7,8-TCDD equivalents. |
| | M | Value represents the criteria for mixed Xylenes. |
| | T | Value represents a criteria for the total carcinogenic PAHs as BaP. Total carcinogenic PAHs are: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenz(a,h)anthracene, Chrysene and Indeno(1,2.3-cd)pyrene. |

1 Total BaP equivalence (2002) calculated using zero for the detection limit on the non detected compounds.

| | CAS No. | Site Conc. (mg/kg) dry weight | Relative Potency Factor | BaP Equivalent (mg/kg) |
|---|---|---|---|---|
| Benzo(a)anthracene | 56553 | 0.000 | 0.1 | 0.000 |
| Benzo(b)fluoranthene | 205992 | 0.000 | 0.1 | 0.000 |
| Benzo(k)fluoranthene | 207089 | 0.000 | 0.1 | 0.000 |
| Benzo(a)pyrene | 50328 | 0.000 | 1 | 0.000 |
| Chrysene | 218019 | 0.000 | 0.01 | 0.000 |
| Dibenz(a,h)anthracene | 53703 | 0.000 | 0.56 | 0.000 |
| Indeno(1,2,3-cd)pyrene | 193395 | 0.000 | 0.1 | 0.000 |
| | | Total BaP equivalence = compare this value to the BaP criteria | | 0.000 |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS1 | SOC5-SS1 | SOC5-SS1A | | SOC5-SS1B | SOC5-SS1C | SOC5-SS2 |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 08/31/2009 | 09/25/2009 | 09/25/2009 | | 09/25/2009 | 09/25/2009 | 08/31/2009 |
| | | Depth Interval | 0.5 | 1.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| General Parameters | | | | | | | | | |
| Nitrocellulose | | | < 6.3 mg/kg | -- | -- | -- | -- | -- | < 6.2 mg/kg |
| Metals | | | | | | | | | |
| Antimony | 2.7 mg/kg | 12 mg/kg | < 0.61 mg/kg | -- | -- | -- | -- | -- | < 0.61 mg/kg |
| Arsenic | 15.1 mg/kg | 9 mg/kg | 6.4 mg/kg | -- | -- | -- | -- | -- | 6.7 mg/kg |
| Beryllium | 1.4 mg/kg | 55 mg/kg | 0.48 mg/kg | -- | -- | -- | -- | -- | 0.57 mg/kg |
| Cadmium | 4.4 mg/kg | 25 mg/kg | < 0.30 mg/kg | -- | -- | -- | -- | -- | 0.35 mg/kg |
| Chromium, total | 1000000 mg/kg | 44000 mg/kg | 15 mg/kg | -- | -- | -- | -- | -- | 17 mg/kg |
| Copper | 400 mg/kg | 100 mg/kg | 9.3 mg/kg | -- | -- | -- | -- | -- | 10 mg/kg |
| Lead | 525 mg/kg | 300 mg/kg | 16 mg/kg | -- | -- | -- | -- | -- | 21 mg/kg |
| Mercury | **1.6 MC mg/kg** | 0.5 mg/kg | < 0.12 mg/kg | -- | -- | -- | -- | -- | 0.66 mg/kg |
| Nickel | 88 mg/kg | 560 mg/kg | 13 mg/kg | -- | -- | -- | -- | -- | 15 mg/kg |
| Selenium | 1.5 mg/kg | 160 mg/kg | < 1.2 mg/kg | -- | -- | -- | -- | -- | < 1.2 mg/kg |
| Silver | 3.9 mg/kg | 160 mg/kg | < 0.30 mg/kg | -- | -- | -- | -- | -- | < 0.30 mg/kg |
| Thallium | | 3 mg/kg | < 2.4 mg/kg | -- | -- | -- | -- | -- | < 2.4 mg/kg |
| Zinc | 1500 mg/kg | 8700 mg/kg | 20 mg/kg | -- | -- | -- | -- | -- | 20 mg/kg |
| SVOCs | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.31 mg/kg | 200 mg/kg | < 0.066 mg/kg | < 0.031 mg/kg | < 0.030 mg/kg | < 0.030 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg | < 0.033 mg/kg |
| 1,2-Dichlorobenzene | 8.1 mg/kg | 26 mg/kg | < 0.061 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg |
| 1,3-Dichlorobenzene | 4.2 mg/kg | 26 mg/kg | < 0.056 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.028 mg/kg |
| 1,4-Dichlorobenzene | 0.13 mg/kg | 30 mg/kg | < 0.059 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg |
| 2,3,4,6-Tetrachlorophenol | | 636 mg/kg | < 0.093 mg/kg | < 0.043 mg/kg | < 0.043 mg/kg | < 0.043 mg/kg | < 0.044 mg/kg | < 0.044 mg/kg | < 0.046 mg/kg |
| 2,4,5-Trichlorophenol | | 1920 mg/kg | < 0.059 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg |
| 2,4,6-Trichlorophenol | 0.21 mg/kg | 595 mg/kg | < 0.085 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.039 mg/kg | < 0.040 mg/kg | < 0.040 mg/kg | < 0.043 mg/kg |
| 2,4-Dichlorophenol | 0.076 mg/kg | 48 mg/kg | < 0.085 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.039 mg/kg | < 0.040 mg/kg | < 0.040 mg/kg | < 0.043 mg/kg |
| 2,4-Dimethylphenol | 0.34 mg/kg | 390 mg/kg | < 0.22 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.11 mg/kg |
| 2,4-Dinitrophenol | 0.014 mg/kg | | < 0.14 mg/kg | < 0.066 mg/kg | < 0.065 mg/kg | < 0.065 mg/kg | < 0.067 mg/kg | < 0.067 mg/kg | < 0.071 mg/kg |
| 2,4-Dinitrotoluene | 0.001 mg/kg | 50 mg/kg | < 0.051 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.026 mg/kg |
| 2,6-Dichlorophenol | | | < 0.10 mg/kg | < 0.049 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg | < 0.049 mg/kg | < 0.049 mg/kg | < 0.052 mg/kg |
| 2,6-Dinitrotoluene | 0.001 mg/kg | 25 mg/kg | < 0.046 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg |
| 2-Chloronaphthalene | | | < 0.046 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg |
| 2-Chlorophenol | 0.26 mg/kg | | < 0.093 mg/kg | < 0.043 mg/kg | < 0.043 mg/kg | < 0.043 mg/kg | < 0.044 mg/kg | < 0.044 mg/kg | < 0.046 mg/kg |
| 2-Methyl-4,6-dinitrophenol | | | < 0.18 mg/kg | < 0.084 mg/kg | < 0.083 mg/kg | < 0.083 mg/kg | < 0.085 mg/kg | < 0.085 mg/kg | < 0.090 mg/kg |
| 2-Methylnaphthalene | | 100 mg/kg | 2.2 mg/kg | < 0.032 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg | < 0.032 mg/kg | < 0.032 mg/kg | < 0.034 mg/kg |
| 2-Nitroaniline | | | < 0.049 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg |
| 2-Nitrophenol | 0.6 mg/kg | | < 0.088 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg | < 0.040 mg/kg | < 0.041 mg/kg | < 0.041 mg/kg | < 0.044 mg/kg |
| 3,3`-Dichlorobenzidine | 0.36 mg/kg | 25 mg/kg | < 0.95 mg/kg | < 0.44 mg/kg | < 0.44 mg/kg | < 0.44 mg/kg | < 0.45 mg/kg | < 0.45 mg/kg | < 0.48 mg/kg |
| 3-Nitroaniline | | | < 0.080 mg/kg | < 0.038 mg/kg | < 0.037 mg/kg | < 0.037 mg/kg | < 0.038 mg/kg | < 0.038 mg/kg | < 0.040 mg/kg |
| 4-Bromophenyl phenyl ether | | | < 0.041 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg |
| 4-Chloro-3-methylphenol | | | < 0.098 mg/kg | < 0.045 mg/kg | < 0.045 mg/kg | < 0.045 mg/kg | < 0.046 mg/kg | < 0.046 mg/kg | < 0.049 mg/kg |
| 4-Chloroaniline | | | < 0.27 mg/kg | < 0.12 mg/kg | < 0.12 mg/kg | < 0.12 mg/kg | < 0.13 mg/kg | < 0.13 mg/kg | < 0.13 mg/kg |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS1 | SOC5-SS1 | SOC5-SS1A | | SOC5-SS1B | SOC5-SS1C | SOC5-SS2 |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 08/31/2009 | 09/25/2009 | 09/25/2009 | | 09/25/2009 | 09/25/2009 | 08/31/2009 |
| | | Depth Interval | 0.5 | 1.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| 4-Chlorophenyl phenyl ether | | | < 0.056 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.028 mg/kg |
| 4-Nitroaniline | | | < 0.056 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.028 mg/kg |
| 4-Nitrophenol | | | < 0.24 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.12 mg/kg |
| Acenaphthene | 50 mg/kg | 1200 mg/kg | 10 mg/kg | < 0.032 mg/kg | 0.033 j mg/kg | < 0.031 mg/kg | < 0.032 mg/kg | < 0.032 mg/kg | < 0.034 mg/kg |
| Acenaphthylene | | | < 0.056 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.028 mg/kg |
| Aniline | | | < 0.22 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.11 mg/kg |
| Anthracene | 942 mg/kg | 7880 mg/kg | 16 mg/kg | < 0.028 mg/kg | 0.065 j mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | 0.049 j mg/kg |
| Azobenzene | | | < 0.049 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg |
| Benzidine | | | < 1.8 mg/kg | < 0.82 mg/kg | < 0.81 mg/kg | < 0.81 mg/kg | < 0.83 mg/kg | < 0.83 mg/kg | < 0.88 mg/kg |
| Benzo(g,h,i)perylene | | | 4.0 mg/kg | < 0.034 mg/kg | 0.035 j mg/kg | < 0.034 mg/kg | < 0.034 mg/kg | < 0.034 mg/kg | < 0.037 mg/kg |
| Benzoic Acid | 30 mg/kg | 50000 mg/kg | < 0.14 mg/kg | < 0.066 mg/kg | < 0.065 mg/kg | < 0.065 mg/kg | < 0.067 mg/kg | < 0.067 mg/kg | < 0.071 mg/kg |
| Benzyl alcohol | | 8700 mg/kg | < 0.29 mg/kg | < 0.14 mg/kg | < 0.13 mg/kg | < 0.13 mg/kg | < 0.14 mg/kg | < 0.14 mg/kg | < 0.15 mg/kg |
| Bis(2-chloroethoxy)methane | | | < 0.051 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.026 mg/kg |
| Bis(2-chloroethyl)ether | 0.001 mg/kg | 2.5 mg/kg | < 0.059 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.027 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg |
| Bis(2-chloroisopropyl)ether | 0.67 mg/kg | | < 0.054 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.027 mg/kg |
| Bis(2-ethylhexyl)phthalate | 40 mg/kg | 570 mg/kg | < 0.049 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg |
| Butyl benzyl phthalate | 28 mg/kg | 580 mg/kg | < 0.051 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.026 mg/kg |
| Carbazole | | 700 mg/kg | 7.9 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.027 mg/kg |
| Dibenzofuran | | 104 mg/kg | 5.9 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg |
| Diethyl phthalate | 18 mg/kg | | < 0.037 mg/kg | < 0.017 mg/kg | < 0.017 mg/kg | < 0.017 mg/kg | < 0.017 mg/kg | < 0.017 mg/kg | < 0.018 mg/kg |
| Dimethyl phthalate | 172 mg/kg | | < 0.044 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg |
| Di-n-butyl phthalate | 23 mg/kg | 2440 mg/kg | 0.15 j mg/kg | < 0.042 mg/kg | < 0.042 mg/kg | < 0.042 mg/kg | < 0.043 mg/kg | < 0.043 mg/kg | < 0.045 mg/kg |
| Di-n-octyl phthalate | | 520 mg/kg | < 0.061 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg |
| Fluoranthene | 295 mg/kg | 1080 mg/kg | 40 mg/kg | < 0.027 mg/kg | 0.23 j mg/kg | < 0.027 mg/kg | < 0.028 mg/kg | 0.077 j mg/kg | 0.20 j mg/kg |
| Fluorene | 47 mg/kg | 850 mg/kg | 10 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg |
| Hexachlorobenzene | 0.32 mg/kg | 5 mg/kg | < 0.039 mg/kg | < 0.018 mg/kg | < 0.018 mg/kg | < 0.018 mg/kg | < 0.018 mg/kg | < 0.018 mg/kg | < 0.020 mg/kg |
| Hexachlorobutadiene | 25 mg/kg | 6 mg/kg | < 0.080 mg/kg | < 0.038 mg/kg | < 0.037 mg/kg | < 0.037 mg/kg | < 0.038 mg/kg | < 0.038 mg/kg | < 0.040 mg/kg |
| Hexachlorocyclopentadiene | 4.4 mg/kg | 2 mg/kg | < 0.10 mg/kg | < 0.047 mg/kg | < 0.046 mg/kg | < 0.046 mg/kg | < 0.047 mg/kg | < 0.047 mg/kg | < 0.050 mg/kg |
| Hexachloroethane | 0.05 mg/kg | | < 0.068 mg/kg | < 0.032 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg | < 0.032 mg/kg | < 0.032 mg/kg | < 0.034 mg/kg |
| Isophorone | 0.16 mg/kg | | < 0.041 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg |
| Naphthalene | 7.5 mg/kg | 10 mg/kg | 3.0 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg | < 0.035 mg/kg |
| Nitrobenzene | | | < 0.073 mg/kg | < 0.034 mg/kg | < 0.034 mg/kg | < 0.034 mg/kg | < 0.034 mg/kg | < 0.034 mg/kg | < 0.037 mg/kg |
| N-Nitrosodimethylamine | 0.82 mg/kg | | < 0.078 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | < 0.037 mg/kg | < 0.037 mg/kg | < 0.039 mg/kg |
| N-Nitrosodi-n-propylamine | | 0.7 mg/kg | < 0.061 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg |
| N-Nitrosodiphenylamine | 0.88 mg/kg | 1950 mg/kg | < 0.044 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg |
| o-Cresol | 0.064 mg/kg | 75 mg/kg | < 0.085 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.039 mg/kg | < 0.040 mg/kg | < 0.040 mg/kg | < 0.043 mg/kg |
| p-Cresol | **0.033 mg/kg** | 10 mg/kg | **0.12 j mg/kg** | < 0.031 mg/kg | < 0.030 mg/kg | < 0.030 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg | < 0.033 mg/kg |
| Pentachlorophenol | **0.034 mg/kg** | 80 mg/kg | < 0.23 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.12 mg/kg |
| Phenanthrene | | | 53 mg/kg | < 0.022 mg/kg | 0.22 j mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.022 mg/kg | 0.19 j mg/kg |
| Phenol | 7.8 mg/kg | 1500 mg/kg | < 0.14 mg/kg | < 0.065 mg/kg | < 0.064 mg/kg | < 0.064 mg/kg | < 0.066 mg/kg | < 0.066 mg/kg | < 0.070 mg/kg |
| Pyrene | 272 mg/kg | 890 mg/kg | 32 mg/kg | < 0.026 mg/kg | 0.17 j mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | 0.062 j mg/kg | 0.17 j mg/kg |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS1 | SOC5-SS1 | SOC5-SS1A | | SOC5-SS1B | SOC5-SS1C | SOC5-SS2 |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 08/31/2009 | 09/25/2009 | 09/25/2009 | | 09/25/2009 | 09/25/2009 | 08/31/2009 |
| | | Depth Interval | 0.5 | 1.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| Benzo(a)anthracene | T | T | 16 mg/kg | < 0.031 mg/kg | 0.095 j mg/kg | < 0.030 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg | 0.093 j mg/kg |
| Benzo(a)pyrene | T | T | 11 mg/kg | < 0.031 mg/kg | 0.071 j mg/kg | < 0.030 mg/kg | < 0.031 mg/kg | < 0.031 mg/kg | 0.073 j mg/kg |
| Benzo(b)fluoranthene | T | T | 13 mg/kg | < 0.039 mg/kg | 0.090 j mg/kg | < 0.038 mg/kg | < 0.039 mg/kg | < 0.039 mg/kg | 0.095 j mg/kg |
| Benzo(k)fluoranthene | T | T | 5.6 mg/kg | < 0.035 mg/kg | 0.042 j mg/kg | < 0.035 mg/kg | < 0.036 mg/kg | < 0.036 mg/kg | 0.038 j mg/kg |
| Chrysene | T | T | 15 mg/kg | < 0.038 mg/kg | 0.095 j mg/kg | < 0.037 mg/kg | < 0.038 mg/kg | < 0.038 mg/kg | 0.093 j mg/kg |
| Dibenz(a,h)anthracene | T | T | 1.7 mg/kg | < 0.039 mg/kg | < 0.038 mg/kg | < 0.038 mg/kg | < 0.039 mg/kg | < 0.039 mg/kg | < 0.041 mg/kg |
| Indeno(1,2,3-cd)pyrene | T | T | 5.4 mg/kg | < 0.036 mg/kg | 0.037 j mg/kg | < 0.036 mg/kg | < 0.037 mg/kg | < 0.037 mg/kg | 0.041 j mg/kg |
| **BaP equivalent, non-detects at zero for the detection limit.[1]** | **10.2 T mg/kg** | 2 T mg/kg | **16** mg/kg | ND mg/kg | 0.10 a mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | 0.10 a mg/kg |
| Pesticides | | | | | | | | | |
| 2,4,5-TP (Silvex) | | | < 0.061 mg/kg | -- | -- | -- | -- | -- | < 0.059 mg/kg |
| 2,4,5-Trichlorophenoxyacetic acid | | 290 mg/kg | < 0.061 mg/kg | -- | -- | -- | -- | -- | < 0.059 mg/kg |
| 2,4-D | | 285 mg/kg | < 0.061 mg/kg | -- | -- | -- | -- | -- | < 0.059 mg/kg |
| 2,4-DB | | 226 mg/kg | < 0.061 mg/kg | -- | -- | -- | -- | -- | < 0.059 mg/kg |
| 4,4'-DDD | | 56 mg/kg | < 0.030 mg/kg | -- | -- | -- | -- | -- | < 0.028 mg/kg |
| 4,4'-DDE | | 40 mg/kg | < 0.030 mg/kg | -- | -- | -- | -- | -- | < 0.028 mg/kg |
| 4,4'-DDT | | 15 mg/kg | < 0.030 mg/kg | -- | -- | -- | -- | -- | 0.062 mg/kg |
| a-BHC | | 2 mg/kg | < 0.030 mg/kg | -- | -- | -- | -- | -- | < 0.028 mg/kg |
| Acetochlor | | | < 0.057 mg/kg | -- | -- | -- | -- | -- | < 0.057 mg/kg |
| Alachlor (Lasso) | | | < 0.057 mg/kg | -- | -- | -- | -- | -- | < 0.057 mg/kg |
| Aldrin | | 1 mg/kg | < 0.030 mg/kg | -- | -- | -- | -- | -- | < 0.028 mg/kg |
| Atrazine (Primatol) | | | < 0.057 mg/kg | -- | -- | -- | -- | -- | < 0.057 mg/kg |
| b-BHC | | 7 mg/kg | < 0.030 mg/kg | -- | -- | -- | -- | -- | < 0.028 mg/kg |
| Bentazone | | | < 0.061 mg/kg | -- | -- | -- | -- | -- | < 0.059 mg/kg |
| Chlordane, alpha | | | < 0.030 mg/kg | -- | -- | -- | -- | -- | < 0.028 mg/kg |
| Chlordane, gamma | | | < 0.030 mg/kg | -- | -- | -- | -- | -- | < 0.028 mg/kg |
| Chlorpyrifos (Lorsban) | | | < 0.057 mg/kg | -- | -- | -- | -- | -- | < 0.057 mg/kg |
| Cyanazine (Bladex) | | | < 0.057 mg/kg | -- | -- | -- | -- | -- | < 0.057 mg/kg |
| d-BHC | | | < 0.030 mg/kg | -- | -- | -- | -- | -- | < 0.028 mg/kg |
| Deisopropyl atrazine | | | < 0.057 mg/kg | -- | -- | -- | -- | -- | < 0.057 mg/kg |
| Desethylatrazine | | | < 0.057 mg/kg | -- | -- | -- | -- | -- | < 0.057 mg/kg |
| Dicamba | | | < 0.061 mg/kg | -- | -- | -- | -- | -- | < 0.059 mg/kg |
| Dieldrin | | 0.8 mg/kg | < 0.030 mg/kg | -- | -- | -- | -- | -- | < 0.028 mg/kg |
| Dimethenamid | | | < 0.057 mg/kg | -- | -- | -- | -- | -- | < 0.057 mg/kg |
| Dinoseb (DNBP) | | | < 0.061 mg/kg | -- | -- | -- | -- | -- | < 0.059 mg/kg |
| Endosulfan I | | | < 0.030 mg/kg | -- | -- | -- | -- | -- | < 0.028 mg/kg |
| Endosulfan II | | | < 0.030 mg/kg | -- | -- | -- | -- | -- | < 0.028 mg/kg |
| Endosulfan Sulfate | | | < 0.030 mg/kg | -- | -- | -- | -- | -- | < 0.028 mg/kg |
| Endrin | | 8 mg/kg | < 0.030 mg/kg | -- | -- | -- | -- | -- | < 0.028 mg/kg |
| Endrin Aldehyde | | | < 0.030 mg/kg | -- | -- | -- | -- | -- | < 0.028 mg/kg |
| Endrin Ketone | | | < 0.030 mg/kg | -- | -- | -- | -- | -- | < 0.028 mg/kg |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS1 | SOC5-SS1 | SOC5-SS1A | | SOC5-SS1B | SOC5-SS1C | SOC5-SS2 |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 08/31/2009 | 09/25/2009 | 09/25/2009 | | 09/25/2009 | 09/25/2009 | 08/31/2009 |
| | | Depth Interval | 0.5 | 1.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| EPTC (Eradicane) | | | < 0.057 mg/kg | -- | -- | -- | -- | -- | < 0.057 mg/kg |
| Ethalfluralin (Sonalan) | | | < 0.057 mg/kg | -- | -- | -- | -- | -- | < 0.057 mg/kg |
| Fonofos (Dyphonate) | | | < 0.057 mg/kg | -- | -- | -- | -- | -- | < 0.057 mg/kg |
| g-BHC (Lindane) | | 9 mg/kg | < 0.030 mg/kg | -- | -- | -- | -- | -- | < 0.028 mg/kg |
| Heptachlor | | 2 mg/kg | < 0.030 mg/kg | -- | -- | -- | -- | -- | < 0.028 mg/kg |
| Heptachlor Epoxide | | 0.4 mg/kg | < 0.030 mg/kg | -- | -- | -- | -- | -- | < 0.028 mg/kg |
| MCPA | | 16 mg/kg | < 0.061 mg/kg | -- | -- | -- | -- | -- | < 0.059 mg/kg |
| Methoxychlor | | 11 mg/kg | < 0.030 mg/kg | -- | -- | -- | -- | -- | < 0.028 mg/kg |
| Metolachlor (Dual) | | 435 mg/kg | < 0.057 mg/kg | -- | -- | -- | -- | -- | < 0.057 mg/kg |
| Metribuzin | | | < 0.057 mg/kg | -- | -- | -- | -- | -- | < 0.057 mg/kg |
| Pendimethalin (Prowl) | | | < 0.057 mg/kg | -- | -- | -- | -- | -- | < 0.057 mg/kg |
| Pentachlorophenol | 0.034 mg/kg | 80 mg/kg | < 0.061 mg/kg | -- | -- | -- | -- | -- | < 0.059 mg/kg |
| Phorate (Thimet) | | | < 0.057 mg/kg | -- | -- | -- | -- | -- | < 0.057 mg/kg |
| Picloram | | 2000 mg/kg | < 0.061 * mg/kg | -- | -- | -- | -- | -- | < 0.059 * mg/kg |
| Prometon (Pramitol) | | | < 0.057 mg/kg | -- | -- | -- | -- | -- | < 0.057 mg/kg |
| Propachlor | | | < 0.057 mg/kg | -- | -- | -- | -- | -- | < 0.057 mg/kg |
| Propazine (Milogard) | | | < 0.057 mg/kg | -- | -- | -- | -- | -- | < 0.057 mg/kg |
| Simazine (Princep) | | | < 0.057 mg/kg | -- | -- | -- | -- | -- | < 0.057 mg/kg |
| Terbufos (Counter) | | 0.6 mg/kg | < 0.057 mg/kg | -- | -- | -- | -- | -- | < 0.057 mg/kg |
| Toxaphene | | 13 mg/kg | < 0.59 mg/kg | -- | -- | -- | -- | -- | < 0.55 mg/kg |
| Triallate (Far-Go) | | | < 0.057 mg/kg | -- | -- | -- | -- | -- | < 0.057 mg/kg |
| Triclopyr | | | < 0.061 mg/kg | -- | -- | -- | -- | -- | < 0.059 mg/kg |
| Trifluralin (Treflan) | | | < 0.057 mg/kg | -- | -- | -- | -- | -- | < 0.057 mg/kg |
| PCBs | | | | | | | | | |
| Aroclor 1016 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | -- | -- | -- | -- | -- | -- | -- |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS2A | SOC5-SS2B | SOC5-SS2B | SOC5-SS2B | | SOC5-SS2C | SOC5-SS2D |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/25/2009 | 09/25/2009 | 11/10/2009 | 12/23/2009 | | 11/10/2009 | 11/10/2009 |
| | | Depth Interval | 0.5 | 0.5 | 1.5 - 2 | 3 - 4 | | 0 - 0.5 | 0 - 0.5 |
| | | Depth Unit | ft | ft | ft | ft | | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| General Parameters | | | | | | | | | |
| Nitrocellulose | | | -- | -- | -- | -- | -- | -- | -- |
| Metals | | | | | | | | | |
| Antimony | 2.7 mg/kg | 12 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Arsenic | 15.1 mg/kg | 9 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Beryllium | 1.4 mg/kg | 55 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Cadmium | 4.4 mg/kg | 25 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Chromium, total | 1000000 mg/kg | 44000 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Copper | 400 mg/kg | 100 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Lead | 525 mg/kg | 300 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Mercury | **1.6 MC mg/kg** | 0.5 mg/kg | 0.39 mg/kg | **3.8 mg/kg** | **3.0 mg/kg** | < 0.10 mg/kg | < 0.10 mg/kg | < 0.12 mg/kg | < 0.13 mg/kg |
| Nickel | 88 mg/kg | 560 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Selenium | 1.5 mg/kg | 160 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Silver | 3.9 mg/kg | 160 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Thallium | | 3 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Zinc | 1500 mg/kg | 8700 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| SVOCs | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.31 mg/kg | 200 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | 8.1 mg/kg | 26 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 1,3-Dichlorobenzene | 4.2 mg/kg | 26 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | 0.13 mg/kg | 30 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,3,4,6-Tetrachlorophenol | | 636 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,4,5-Trichlorophenol | | 1920 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,4,6-Trichlorophenol | 0.21 mg/kg | 595 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dichlorophenol | 0.076 mg/kg | 48 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | 0.34 mg/kg | 390 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dinitrophenol | 0.014 mg/kg | | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dinitrotoluene | 0.001 mg/kg | 50 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,6-Dichlorophenol | | | -- | -- | -- | -- | -- | -- | -- |
| 2,6-Dinitrotoluene | 0.001 mg/kg | 25 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2-Chloronaphthalene | | | -- | -- | -- | -- | -- | -- | -- |
| 2-Chlorophenol | 0.26 mg/kg | | -- | -- | -- | -- | -- | -- | -- |
| 2-Methyl-4,6-dinitrophenol | | | -- | -- | -- | -- | -- | -- | -- |
| 2-Methylnaphthalene | | 100 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2-Nitroaniline | | | -- | -- | -- | -- | -- | -- | -- |
| 2-Nitrophenol | 0.6 mg/kg | | -- | -- | -- | -- | -- | -- | -- |
| 3,3`-Dichlorobenzidine | 0.36 mg/kg | 25 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 3-Nitroaniline | | | -- | -- | -- | -- | -- | -- | -- |
| 4-Bromophenyl phenyl ether | | | -- | -- | -- | -- | -- | -- | -- |
| 4-Chloro-3-methylphenol | | | -- | -- | -- | -- | -- | -- | -- |
| 4-Chloroaniline | | | -- | -- | -- | -- | -- | -- | -- |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS2A | SOC5-SS2B | SOC5-SS2B | SOC5-SS2B | | SOC5-SS2C | SOC5-SS2D |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/25/2009 | 09/25/2009 | 11/10/2009 | 12/23/2009 | | 11/10/2009 | 11/10/2009 |
| | | Depth Interval | 0.5 | 0.5 | 1.5 - 2 | 3 - 4 | | 0 - 0.5 | 0 - 0.5 |
| | | Depth Unit | ft | ft | ft | ft | | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| 4-Chlorophenyl phenyl ether | | | -- | -- | -- | -- | -- | -- | -- |
| 4-Nitroaniline | | | -- | -- | -- | -- | -- | -- | -- |
| 4-Nitrophenol | | | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | 50 mg/kg | 1200 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | | | -- | -- | -- | -- | -- | -- | -- |
| Aniline | | | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | 942 mg/kg | 7880 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Azobenzene | | | -- | -- | -- | -- | -- | -- | -- |
| Benzidine | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | | | -- | -- | -- | -- | -- | -- | -- |
| Benzoic Acid | 30 mg/kg | 50000 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Benzyl alcohol | | 8700 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Bis(2-chloroethoxy)methane | | | -- | -- | -- | -- | -- | -- | -- |
| Bis(2-chloroethyl)ether | 0.001 mg/kg | 2.5 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Bis(2-chloroisopropyl)ether | 0.67 mg/kg | | -- | -- | -- | -- | -- | -- | -- |
| Bis(2-ethylhexyl)phthalate | 40 mg/kg | 570 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Butyl benzyl phthalate | 28 mg/kg | 580 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Carbazole | | 700 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | | 104 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | 18 mg/kg | | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | 172 mg/kg | | -- | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | 23 mg/kg | 2440 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | | 520 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | 295 mg/kg | 1080 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Fluorene | 47 mg/kg | 850 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | 0.32 mg/kg | 5 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene | 25 mg/kg | 6 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorocyclopentadiene | 4.4 mg/kg | 2 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | 0.05 mg/kg | | -- | -- | -- | -- | -- | -- | -- |
| Isophorone | 0.16 mg/kg | | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | 7.5 mg/kg | 10 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Nitrobenzene | | | -- | -- | -- | -- | -- | -- | -- |
| N-Nitrosodimethylamine | 0.82 mg/kg | | -- | -- | -- | -- | -- | -- | -- |
| N-Nitrosodi-n-propylamine | | 0.7 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| N-Nitrosodiphenylamine | 0.88 mg/kg | 1950 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| o-Cresol | 0.064 mg/kg | 75 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| p-Cresol | **0.033 mg/kg** | 10 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | **0.034 mg/kg** | 80 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | | | -- | -- | -- | -- | -- | -- | -- |
| Phenol | 7.8 mg/kg | 1500 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | 272 mg/kg | 890 mg/kg | -- | -- | -- | -- | -- | -- | -- |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS2A | SOC5-SS2B | SOC5-SS2B | SOC5-SS2B | | SOC5-SS2C | SOC5-SS2D |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/25/2009 | 09/25/2009 | 11/10/2009 | 12/23/2009 | | 11/10/2009 | 11/10/2009 |
| | | Depth Interval | 0.5 | 0.5 | 1.5 - 2 | 3 - 4 | | 0 - 0.5 | 0 - 0.5 |
| | | Depth Unit | ft | ft | ft | ft | | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| Benzo(a)anthracene | T | T | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | T | T | -- | -- | -- | -- | -- | -- | -- |
| Benzo(b)fluoranthene | T | T | -- | -- | -- | -- | -- | -- | -- |
| Benzo(k)fluoranthene | T | T | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | T | T | -- | -- | -- | -- | -- | -- | -- |
| Dibenz(a,h)anthracene | T | T | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-cd)pyrene | T | T | -- | -- | -- | -- | -- | -- | -- |
| **BaP equivalent, non-detects at zero for the detection limit.[1]** | **10.2 T mg/kg** | 2 T mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Pesticides | | | | | | | | | |
| 2,4,5-TP (Silvex) | | | -- | -- | -- | -- | -- | -- | -- |
| 2,4,5-Trichlorophenoxyacetic acid | | 290 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,4-D | | 285 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,4-DB | | 226 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 4,4'-DDD | | 56 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 4,4'-DDE | | 40 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 4,4'-DDT | | 15 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| a-BHC | | 2 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Acetochlor | | | -- | -- | -- | -- | -- | -- | -- |
| Alachlor (Lasso) | | | -- | -- | -- | -- | -- | -- | -- |
| Aldrin | | 1 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Atrazine (Primatol) | | | -- | -- | -- | -- | -- | -- | -- |
| b-BHC | | 7 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Bentazone | | | -- | -- | -- | -- | -- | -- | -- |
| Chlordane, alpha | | | -- | -- | -- | -- | -- | -- | -- |
| Chlordane, gamma | | | -- | -- | -- | -- | -- | -- | -- |
| Chlorpyrifos (Lorsban) | | | -- | -- | -- | -- | -- | -- | -- |
| Cyanazine (Bladex) | | | -- | -- | -- | -- | -- | -- | -- |
| d-BHC | | | -- | -- | -- | -- | -- | -- | -- |
| Deisopropyl atrazine | | | -- | -- | -- | -- | -- | -- | -- |
| Desethylatrazine | | | -- | -- | -- | -- | -- | -- | -- |
| Dicamba | | | -- | -- | -- | -- | -- | -- | -- |
| Dieldrin | | 0.8 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Dimethenamid | | | -- | -- | -- | -- | -- | -- | -- |
| Dinoseb (DNBP) | | | -- | -- | -- | -- | -- | -- | -- |
| Endosulfan I | | | -- | -- | -- | -- | -- | -- | -- |
| Endosulfan II | | | -- | -- | -- | -- | -- | -- | -- |
| Endosulfan Sulfate | | | -- | -- | -- | -- | -- | -- | -- |
| Endrin | | 8 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Endrin Aldehyde | | | -- | -- | -- | -- | -- | -- | -- |
| Endrin Ketone | | | -- | -- | -- | -- | -- | -- | -- |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS2A | SOC5-SS2B | SOC5-SS2B | SOC5-SS2B | | SOC5-SS2C | SOC5-SS2D |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/25/2009 | 09/25/2009 | 11/10/2009 | 12/23/2009 | | 11/10/2009 | 11/10/2009 |
| | | Depth Interval | 0.5 | 0.5 | 1.5 - 2 | 3 - 4 | | 0 - 0.5 | 0 - 0.5 |
| | | Depth Unit | ft | ft | ft | ft | | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| EPTC (Eradicane) | | | -- | -- | -- | -- | -- | -- | -- |
| Ethalfluralin (Sonalan) | | | -- | -- | -- | -- | -- | -- | -- |
| Fonofos (Dyphonate) | | | -- | -- | -- | -- | -- | -- | -- |
| g-BHC (Lindane) | | 9 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Heptachlor | | 2 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Heptachlor Epoxide | | 0.4 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| MCPA | | 16 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Methoxychlor | | 11 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Metolachlor (Dual) | | 435 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Metribuzin | | | -- | -- | -- | -- | -- | -- | -- |
| Pendimethalin (Prowl) | | | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 0.034 mg/kg | 80 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Phorate (Thimet) | | | -- | -- | -- | -- | -- | -- | -- |
| Picloram | | 2000 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Prometon (Pramitol) | | | -- | -- | -- | -- | -- | -- | -- |
| Propachlor | | | -- | -- | -- | -- | -- | -- | -- |
| Propazine (Milogard) | | | -- | -- | -- | -- | -- | -- | -- |
| Simazine (Princep) | | | -- | -- | -- | -- | -- | -- | -- |
| Terbufos (Counter) | | 0.6 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Toxaphene | | 13 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Triallate (Far-Go) | | | -- | -- | -- | -- | -- | -- | -- |
| Triclopyr | | | -- | -- | -- | -- | -- | -- | -- |
| Trifluralin (Treflan) | | | -- | -- | -- | -- | -- | -- | -- |
| PCBs | | | | | | | | | |
| Aroclor 1016 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | -- | -- | -- | -- | -- | -- | -- |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS2E | SOC5-SS2F | SOC5-SS2G | SOC5-SS2H | SOC5-SS2I | | SOC5-SS2J |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 11/10/2009 | 11/10/2009 | 11/10/2009 | 11/10/2009 | 11/10/2009 | | 12/23/2009 |
| | | Depth Interval | 0 - 0.5 | 0 - 0.5 | 0 - 0.5 | 0 - 0.5 | 0 - 0.5 | 0 - 0.5 | 0 - 1 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| General Parameters | | | | | | | | | |
| Nitrocellulose | | | -- | -- | -- | -- | -- | -- | -- |
| Metals | | | | | | | | | |
| Antimony | 2.7 mg/kg | 12 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Arsenic | 15.1 mg/kg | 9 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Beryllium | 1.4 mg/kg | 55 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Cadmium | 4.4 mg/kg | 25 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Chromium, total | 1000000 mg/kg | 44000 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Copper | 400 mg/kg | 100 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Lead | 525 mg/kg | 300 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Mercury | **1.6 MC mg/kg** | 0.5 mg/kg | < 0.12 mg/kg | < 0.11 mg/kg | < 0.13 mg/kg | 0.17 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg |
| Nickel | 88 mg/kg | 560 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Selenium | 1.5 mg/kg | 160 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Silver | 3.9 mg/kg | 160 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Thallium | | 3 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Zinc | 1500 mg/kg | 8700 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| SVOCs | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.31 mg/kg | 200 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | 8.1 mg/kg | 26 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 1,3-Dichlorobenzene | 4.2 mg/kg | 26 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | 0.13 mg/kg | 30 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,3,4,6-Tetrachlorophenol | | 636 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,4,5-Trichlorophenol | | 1920 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,4,6-Trichlorophenol | 0.21 mg/kg | 595 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dichlorophenol | 0.076 mg/kg | 48 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | 0.34 mg/kg | 390 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dinitrophenol | 0.014 mg/kg | | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dinitrotoluene | 0.001 mg/kg | 50 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,6-Dichlorophenol | | | -- | -- | -- | -- | -- | -- | -- |
| 2,6-Dinitrotoluene | 0.001 mg/kg | 25 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2-Chloronaphthalene | | | -- | -- | -- | -- | -- | -- | -- |
| 2-Chlorophenol | 0.26 mg/kg | | -- | -- | -- | -- | -- | -- | -- |
| 2-Methyl-4,6-dinitrophenol | | | -- | -- | -- | -- | -- | -- | -- |
| 2-Methylnaphthalene | | 100 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2-Nitroaniline | | | -- | -- | -- | -- | -- | -- | -- |
| 2-Nitrophenol | 0.6 mg/kg | | -- | -- | -- | -- | -- | -- | -- |
| 3,3`-Dichlorobenzidine | 0.36 mg/kg | 25 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 3-Nitroaniline | | | -- | -- | -- | -- | -- | -- | -- |
| 4-Bromophenyl phenyl ether | | | -- | -- | -- | -- | -- | -- | -- |
| 4-Chloro-3-methylphenol | | | -- | -- | -- | -- | -- | -- | -- |
| 4-Chloroaniline | | | -- | -- | -- | -- | -- | -- | -- |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS2E | SOC5-SS2F | SOC5-SS2G | SOC5-SS2H | SOC5-SS2I | | SOC5-SS2J |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 11/10/2009 | 11/10/2009 | 11/10/2009 | 11/10/2009 | 11/10/2009 | | 12/23/2009 |
| | | Depth Interval | 0 - 0.5 | 0 - 0.5 | 0 - 0.5 | 0 - 0.5 | 0 - 0.5 | 0 - 0.5 | 0 - 1 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| 4-Chlorophenyl phenyl ether | | | -- | -- | -- | -- | -- | -- | -- |
| 4-Nitroaniline | | | -- | -- | -- | -- | -- | -- | -- |
| 4-Nitrophenol | | | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | 50 mg/kg | 1200 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | | | -- | -- | -- | -- | -- | -- | -- |
| Aniline | | | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | 942 mg/kg | 7880 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Azobenzene | | | -- | -- | -- | -- | -- | -- | -- |
| Benzidine | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | | | -- | -- | -- | -- | -- | -- | -- |
| Benzoic Acid | 30 mg/kg | 50000 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Benzyl alcohol | | 8700 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Bis(2-chloroethoxy)methane | | | -- | -- | -- | -- | -- | -- | -- |
| Bis(2-chloroethyl)ether | 0.001 mg/kg | 2.5 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Bis(2-chloroisopropyl)ether | 0.67 mg/kg | | -- | -- | -- | -- | -- | -- | -- |
| Bis(2-ethylhexyl)phthalate | 40 mg/kg | 570 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Butyl benzyl phthalate | 28 mg/kg | 580 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Carbazole | | 700 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | | 104 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | 18 mg/kg | | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | 172 mg/kg | | -- | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | 23 mg/kg | 2440 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | | 520 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | 295 mg/kg | 1080 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Fluorene | 47 mg/kg | 850 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | 0.32 mg/kg | 5 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene | 25 mg/kg | 6 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorocyclopentadiene | 4.4 mg/kg | 2 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | 0.05 mg/kg | | -- | -- | -- | -- | -- | -- | -- |
| Isophorone | 0.16 mg/kg | | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | 7.5 mg/kg | 10 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Nitrobenzene | | | -- | -- | -- | -- | -- | -- | -- |
| N-Nitrosodimethylamine | 0.82 mg/kg | | -- | -- | -- | -- | -- | -- | -- |
| N-Nitrosodi-n-propylamine | | 0.7 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| N-Nitrosodiphenylamine | 0.88 mg/kg | 1950 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| o-Cresol | 0.064 mg/kg | 75 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| p-Cresol | **0.033 mg/kg** | 10 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | **0.034 mg/kg** | 80 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | | | -- | -- | -- | -- | -- | -- | -- |
| Phenol | 7.8 mg/kg | 1500 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | 272 mg/kg | 890 mg/kg | -- | -- | -- | -- | -- | -- | -- |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS2E | SOC5-SS2F | SOC5-SS2G | SOC5-SS2H | SOC5-SS2I | | SOC5-SS2J |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 11/10/2009 | 11/10/2009 | 11/10/2009 | 11/10/2009 | 11/10/2009 | | 12/23/2009 |
| | | Depth Interval | 0 - 0.5 | 0 - 0.5 | 0 - 0.5 | 0 - 0.5 | 0 - 0.5 | 0 - 0.5 | 0 - 1 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| Benzo(a)anthracene | T | T | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | T | T | -- | -- | -- | -- | -- | -- | -- |
| Benzo(b)fluoranthene | T | T | -- | -- | -- | -- | -- | -- | -- |
| Benzo(k)fluoranthene | T | T | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | T | T | -- | -- | -- | -- | -- | -- | -- |
| Dibenz(a,h)anthracene | T | T | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-cd)pyrene | T | T | -- | -- | -- | -- | -- | -- | -- |
| **BaP equivalent, non-detects at zero for the detection limit.[1]** | **10.2 T mg/kg** | 2 T mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Pesticides | | | | | | | | | |
| 2,4,5-TP (Silvex) | | | -- | -- | -- | -- | -- | -- | -- |
| 2,4,5-Trichlorophenoxyacetic acid | | 290 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,4-D | | 285 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,4-DB | | 226 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 4,4'-DDD | | 56 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 4,4'-DDE | | 40 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 4,4'-DDT | | 15 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| a-BHC | | 2 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Acetochlor | | | -- | -- | -- | -- | -- | -- | -- |
| Alachlor (Lasso) | | | -- | -- | -- | -- | -- | -- | -- |
| Aldrin | | 1 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Atrazine (Primatol) | | | -- | -- | -- | -- | -- | -- | -- |
| b-BHC | | 7 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Bentazone | | | -- | -- | -- | -- | -- | -- | -- |
| Chlordane, alpha | | | -- | -- | -- | -- | -- | -- | -- |
| Chlordane, gamma | | | -- | -- | -- | -- | -- | -- | -- |
| Chlorpyrifos (Lorsban) | | | -- | -- | -- | -- | -- | -- | -- |
| Cyanazine (Bladex) | | | -- | -- | -- | -- | -- | -- | -- |
| d-BHC | | | -- | -- | -- | -- | -- | -- | -- |
| Deisopropyl atrazine | | | -- | -- | -- | -- | -- | -- | -- |
| Desethylatrazine | | | -- | -- | -- | -- | -- | -- | -- |
| Dicamba | | | -- | -- | -- | -- | -- | -- | -- |
| Dieldrin | | 0.8 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Dimethenamid | | | -- | -- | -- | -- | -- | -- | -- |
| Dinoseb (DNBP) | | | -- | -- | -- | -- | -- | -- | -- |
| Endosulfan I | | | -- | -- | -- | -- | -- | -- | -- |
| Endosulfan II | | | -- | -- | -- | -- | -- | -- | -- |
| Endosulfan Sulfate | | | -- | -- | -- | -- | -- | -- | -- |
| Endrin | | 8 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Endrin Aldehyde | | | -- | -- | -- | -- | -- | -- | -- |
| Endrin Ketone | | | -- | -- | -- | -- | -- | -- | -- |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS2E | SOC5-SS2F | SOC5-SS2G | SOC5-SS2H | SOC5-SS2I | | SOC5-SS2J |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 11/10/2009 | 11/10/2009 | 11/10/2009 | 11/10/2009 | 11/10/2009 | | 12/23/2009 |
| | | Depth Interval | 0 - 0.5 | 0 - 0.5 | 0 - 0.5 | 0 - 0.5 | 0 - 0.5 | 0 - 0.5 | 0 - 1 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| EPTC (Eradicane) | | | -- | -- | -- | -- | -- | -- | -- |
| Ethalfluralin (Sonalan) | | | -- | -- | -- | -- | -- | -- | -- |
| Fonofos (Dyphonate) | | | -- | -- | -- | -- | -- | -- | -- |
| g-BHC (Lindane) | | 9 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Heptachlor | | 2 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Heptachlor Epoxide | | 0.4 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| MCPA | | 16 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Methoxychlor | | 11 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Metolachlor (Dual) | | 435 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Metribuzin | | | -- | -- | -- | -- | -- | -- | -- |
| Pendimethalin (Prowl) | | | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 0.034 mg/kg | 80 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Phorate (Thimet) | | | -- | -- | -- | -- | -- | -- | -- |
| Picloram | | 2000 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Prometon (Pramitol) | | | -- | -- | -- | -- | -- | -- | -- |
| Propachlor | | | -- | -- | -- | -- | -- | -- | -- |
| Propazine (Milogard) | | | -- | -- | -- | -- | -- | -- | -- |
| Simazine (Princep) | | | -- | -- | -- | -- | -- | -- | -- |
| Terbufos (Counter) | | 0.6 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Toxaphene | | 13 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Triallate (Far-Go) | | | -- | -- | -- | -- | -- | -- | -- |
| Triclopyr | | | -- | -- | -- | -- | -- | -- | -- |
| Trifluralin (Treflan) | | | -- | -- | -- | -- | -- | -- | -- |
| PCBs | | | | | | | | | |
| Aroclor 1016 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | -- | -- | -- | -- | -- | -- | -- |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS2J | SOC5-SS2K | SOC5-SS2K | SOC5-SS2L | SOC5-SS2M | SOC5-SS2N | SOC5-SS2O |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 |
| | | Depth Interval | 2 - 3 | 0 - 1 | 2 - 3 | 0 - 1 | 0 - 1 | 0 - 1 | 0 - 1 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| General Parameters | | | | | | | | | |
| Nitrocellulose | | | -- | -- | -- | -- | -- | -- | -- |
| Metals | | | | | | | | | |
| Antimony | 2.7 mg/kg | 12 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Arsenic | 15.1 mg/kg | 9 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Beryllium | 1.4 mg/kg | 55 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Cadmium | 4.4 mg/kg | 25 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Chromium, total | 1000000 mg/kg | 44000 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Copper | 400 mg/kg | 100 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Lead | 525 mg/kg | 300 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Mercury | **1.6 MC mg/kg** | 0.5 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.12 mg/kg | < 0.12 mg/kg |
| Nickel | 88 mg/kg | 560 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Selenium | 1.5 mg/kg | 160 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Silver | 3.9 mg/kg | 160 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Thallium | | 3 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Zinc | 1500 mg/kg | 8700 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| SVOCs | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.31 mg/kg | 200 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 1,2-Dichlorobenzene | 8.1 mg/kg | 26 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 1,3-Dichlorobenzene | 4.2 mg/kg | 26 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 1,4-Dichlorobenzene | 0.13 mg/kg | 30 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,3,4,6-Tetrachlorophenol | | 636 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,4,5-Trichlorophenol | | 1920 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,4,6-Trichlorophenol | 0.21 mg/kg | 595 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dichlorophenol | 0.076 mg/kg | 48 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dimethylphenol | 0.34 mg/kg | 390 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dinitrophenol | 0.014 mg/kg | | -- | -- | -- | -- | -- | -- | -- |
| 2,4-Dinitrotoluene | 0.001 mg/kg | 50 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,6-Dichlorophenol | | | -- | -- | -- | -- | -- | -- | -- |
| 2,6-Dinitrotoluene | 0.001 mg/kg | 25 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2-Chloronaphthalene | | | -- | -- | -- | -- | -- | -- | -- |
| 2-Chlorophenol | 0.26 mg/kg | | -- | -- | -- | -- | -- | -- | -- |
| 2-Methyl-4,6-dinitrophenol | | | -- | -- | -- | -- | -- | -- | -- |
| 2-Methylnaphthalene | | 100 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2-Nitroaniline | | | -- | -- | -- | -- | -- | -- | -- |
| 2-Nitrophenol | 0.6 mg/kg | | -- | -- | -- | -- | -- | -- | -- |
| 3,3`-Dichlorobenzidine | 0.36 mg/kg | 25 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 3-Nitroaniline | | | -- | -- | -- | -- | -- | -- | -- |
| 4-Bromophenyl phenyl ether | | | -- | -- | -- | -- | -- | -- | -- |
| 4-Chloro-3-methylphenol | | | -- | -- | -- | -- | -- | -- | -- |
| 4-Chloroaniline | | | -- | -- | -- | -- | -- | -- | -- |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS2J | SOC5-SS2K | SOC5-SS2K | SOC5-SS2L | SOC5-SS2M | SOC5-SS2N | SOC5-SS2O |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 |
| | | Depth Interval | 2 - 3 | 0 - 1 | 2 - 3 | 0 - 1 | 0 - 1 | 0 - 1 | 0 - 1 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| 4-Chlorophenyl phenyl ether | | | -- | -- | -- | -- | -- | -- | -- |
| 4-Nitroaniline | | | -- | -- | -- | -- | -- | -- | -- |
| 4-Nitrophenol | | | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthene | 50 mg/kg | 1200 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Acenaphthylene | | | -- | -- | -- | -- | -- | -- | -- |
| Aniline | | | -- | -- | -- | -- | -- | -- | -- |
| Anthracene | 942 mg/kg | 7880 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Azobenzene | | | -- | -- | -- | -- | -- | -- | -- |
| Benzidine | | | -- | -- | -- | -- | -- | -- | -- |
| Benzo(g,h,i)perylene | | | -- | -- | -- | -- | -- | -- | -- |
| Benzoic Acid | 30 mg/kg | 50000 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Benzyl alcohol | | 8700 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Bis(2-chloroethoxy)methane | | | -- | -- | -- | -- | -- | -- | -- |
| Bis(2-chloroethyl)ether | 0.001 mg/kg | 2.5 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Bis(2-chloroisopropyl)ether | 0.67 mg/kg | | -- | -- | -- | -- | -- | -- | -- |
| Bis(2-ethylhexyl)phthalate | 40 mg/kg | 570 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Butyl benzyl phthalate | 28 mg/kg | 580 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Carbazole | | 700 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Dibenzofuran | | 104 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Diethyl phthalate | 18 mg/kg | | -- | -- | -- | -- | -- | -- | -- |
| Dimethyl phthalate | 172 mg/kg | | -- | -- | -- | -- | -- | -- | -- |
| Di-n-butyl phthalate | 23 mg/kg | 2440 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Di-n-octyl phthalate | | 520 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Fluoranthene | 295 mg/kg | 1080 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Fluorene | 47 mg/kg | 850 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobenzene | 0.32 mg/kg | 5 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorobutadiene | 25 mg/kg | 6 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Hexachlorocyclopentadiene | 4.4 mg/kg | 2 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Hexachloroethane | 0.05 mg/kg | | -- | -- | -- | -- | -- | -- | -- |
| Isophorone | 0.16 mg/kg | | -- | -- | -- | -- | -- | -- | -- |
| Naphthalene | 7.5 mg/kg | 10 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Nitrobenzene | | | -- | -- | -- | -- | -- | -- | -- |
| N-Nitrosodimethylamine | 0.82 mg/kg | | -- | -- | -- | -- | -- | -- | -- |
| N-Nitrosodi-n-propylamine | | 0.7 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| N-Nitrosodiphenylamine | 0.88 mg/kg | 1950 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| o-Cresol | 0.064 mg/kg | 75 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| p-Cresol | **0.033 mg/kg** | 10 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | **0.034 mg/kg** | 80 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Phenanthrene | | | -- | -- | -- | -- | -- | -- | -- |
| Phenol | 7.8 mg/kg | 1500 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Pyrene | 272 mg/kg | 890 mg/kg | -- | -- | -- | -- | -- | -- | -- |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS2J | SOC5-SS2K | SOC5-SS2K | SOC5-SS2L | SOC5-SS2M | SOC5-SS2N | SOC5-SS2O |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 |
| | | Depth Interval | 2 - 3 | 0 - 1 | 2 - 3 | 0 - 1 | 0 - 1 | 0 - 1 | 0 - 1 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| Benzo(a)anthracene | T | T | -- | -- | -- | -- | -- | -- | -- |
| Benzo(a)pyrene | T | T | -- | -- | -- | -- | -- | -- | -- |
| Benzo(b)fluoranthene | T | T | -- | -- | -- | -- | -- | -- | -- |
| Benzo(k)fluoranthene | T | T | -- | -- | -- | -- | -- | -- | -- |
| Chrysene | T | T | -- | -- | -- | -- | -- | -- | -- |
| Dibenz(a,h)anthracene | T | T | -- | -- | -- | -- | -- | -- | -- |
| Indeno(1,2,3-cd)pyrene | T | T | -- | -- | -- | -- | -- | -- | -- |
| **BaP equivalent, non-detects at zero for the detection limit.[1]** | **10.2 T mg/kg** | 2 T mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Pesticides | | | | | | | | | |
| 2,4,5-TP (Silvex) | | | -- | -- | -- | -- | -- | -- | -- |
| 2,4,5-Trichlorophenoxyacetic acid | | 290 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,4-D | | 285 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 2,4-DB | | 226 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 4,4'-DDD | | 56 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 4,4'-DDE | | 40 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| 4,4'-DDT | | 15 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| a-BHC | | 2 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Acetochlor | | | -- | -- | -- | -- | -- | -- | -- |
| Alachlor (Lasso) | | | -- | -- | -- | -- | -- | -- | -- |
| Aldrin | | 1 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Atrazine (Primatol) | | | -- | -- | -- | -- | -- | -- | -- |
| b-BHC | | 7 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Bentazone | | | -- | -- | -- | -- | -- | -- | -- |
| Chlordane, alpha | | | -- | -- | -- | -- | -- | -- | -- |
| Chlordane, gamma | | | -- | -- | -- | -- | -- | -- | -- |
| Chlorpyrifos (Lorsban) | | | -- | -- | -- | -- | -- | -- | -- |
| Cyanazine (Bladex) | | | -- | -- | -- | -- | -- | -- | -- |
| d-BHC | | | -- | -- | -- | -- | -- | -- | -- |
| Deisopropyl atrazine | | | -- | -- | -- | -- | -- | -- | -- |
| Desethylatrazine | | | -- | -- | -- | -- | -- | -- | -- |
| Dicamba | | | -- | -- | -- | -- | -- | -- | -- |
| Dieldrin | | 0.8 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Dimethenamid | | | -- | -- | -- | -- | -- | -- | -- |
| Dinoseb (DNBP) | | | -- | -- | -- | -- | -- | -- | -- |
| Endosulfan I | | | -- | -- | -- | -- | -- | -- | -- |
| Endosulfan II | | | -- | -- | -- | -- | -- | -- | -- |
| Endosulfan Sulfate | | | -- | -- | -- | -- | -- | -- | -- |
| Endrin | | 8 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Endrin Aldehyde | | | -- | -- | -- | -- | -- | -- | -- |
| Endrin Ketone | | | -- | -- | -- | -- | -- | -- | -- |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS2J | SOC5-SS2K | SOC5-SS2K | SOC5-SS2L | SOC5-SS2M | SOC5-SS2N | SOC5-SS2O |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 |
| | | Depth Interval | 2 - 3 | 0 - 1 | 2 - 3 | 0 - 1 | 0 - 1 | 0 - 1 | 0 - 1 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| EPTC (Eradicane) | | | -- | -- | -- | -- | -- | -- | -- |
| Ethalfluralin (Sonalan) | | | -- | -- | -- | -- | -- | -- | -- |
| Fonofos (Dyphonate) | | | -- | -- | -- | -- | -- | -- | -- |
| g-BHC (Lindane) | | 9 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Heptachlor | | 2 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Heptachlor Epoxide | | 0.4 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| MCPA | | 16 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Methoxychlor | | 11 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Metolachlor (Dual) | | 435 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Metribuzin | | | -- | -- | -- | -- | -- | -- | -- |
| Pendimethalin (Prowl) | | | -- | -- | -- | -- | -- | -- | -- |
| Pentachlorophenol | 0.034 mg/kg | 80 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Phorate (Thimet) | | | -- | -- | -- | -- | -- | -- | -- |
| Picloram | | 2000 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Prometon (Pramitol) | | | -- | -- | -- | -- | -- | -- | -- |
| Propachlor | | | -- | -- | -- | -- | -- | -- | -- |
| Propazine (Milogard) | | | -- | -- | -- | -- | -- | -- | -- |
| Simazine (Princep) | | | -- | -- | -- | -- | -- | -- | -- |
| Terbufos (Counter) | | 0.6 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Toxaphene | | 13 mg/kg | -- | -- | -- | -- | -- | -- | -- |
| Triallate (Far-Go) | | | -- | -- | -- | -- | -- | -- | -- |
| Triclopyr | | | -- | -- | -- | -- | -- | -- | -- |
| Trifluralin (Treflan) | | | -- | -- | -- | -- | -- | -- | -- |
| PCBs | | | | | | | | | |
| Aroclor 1016 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | -- | -- | -- | -- | -- | -- | -- |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS2O | SOC5-SS2P | SOC5-SS2Q | SOC5-SS2R | SOC5-SS2T | SOC5-SS2T | SOC5-SS3 |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 | 08/31/2009 |
| | | Depth Interval | 2 - 3 | 0 - 1 | 0 - 2 | 0 - 2 | 0 - 1 | 2 - 3 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| General Parameters | | | | | | | | | |
| Nitrocellulose | | | -- | -- | -- | -- | -- | -- | < 6.3 mg/kg |
| Metals | | | | | | | | | |
| Antimony | 2.7 mg/kg | 12 mg/kg | -- | -- | -- | -- | -- | -- | 0.73 mg/kg |
| Arsenic | 15.1 mg/kg | 9 mg/kg | -- | -- | -- | -- | -- | -- | 7.1 mg/kg |
| Beryllium | 1.4 mg/kg | 55 mg/kg | -- | -- | -- | -- | -- | -- | 0.54 mg/kg |
| Cadmium | 4.4 mg/kg | 25 mg/kg | -- | -- | -- | -- | -- | -- | < 0.32 mg/kg |
| Chromium, total | 1000000 mg/kg | 44000 mg/kg | -- | -- | -- | -- | -- | -- | 17 mg/kg |
| Copper | 400 mg/kg | 100 mg/kg | -- | -- | -- | -- | -- | -- | 16 mg/kg |
| Lead | 525 mg/kg | 300 mg/kg | -- | -- | -- | -- | -- | -- | 22 mg/kg |
| Mercury | **1.6 MC mg/kg** | 0.5 mg/kg | < 0.11 mg/kg | < 0.13 mg/kg | < 0.10 mg/kg | < 0.13 mg/kg | < 0.11 mg/kg | < 0.10 mg/kg | < 0.13 mg/kg |
| Nickel | 88 mg/kg | 560 mg/kg | -- | -- | -- | -- | -- | -- | 17 mg/kg |
| Selenium | 1.5 mg/kg | 160 mg/kg | -- | -- | -- | -- | -- | -- | < 1.3 mg/kg |
| Silver | 3.9 mg/kg | 160 mg/kg | -- | -- | -- | -- | -- | -- | < 0.32 mg/kg |
| Thallium | | 3 mg/kg | -- | -- | -- | -- | -- | -- | < 2.5 mg/kg |
| Zinc | 1500 mg/kg | 8700 mg/kg | -- | -- | -- | -- | -- | -- | 24 mg/kg |
| SVOCs | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.31 mg/kg | 200 mg/kg | -- | -- | -- | -- | -- | -- | < 0.034 mg/kg |
| 1,2-Dichlorobenzene | 8.1 mg/kg | 26 mg/kg | -- | -- | -- | -- | -- | -- | < 0.032 mg/kg |
| 1,3-Dichlorobenzene | 4.2 mg/kg | 26 mg/kg | -- | -- | -- | -- | -- | -- | < 0.029 mg/kg |
| 1,4-Dichlorobenzene | 0.13 mg/kg | 30 mg/kg | -- | -- | -- | -- | -- | -- | < 0.030 mg/kg |
| 2,3,4,6-Tetrachlorophenol | | 636 mg/kg | -- | -- | -- | -- | -- | -- | < 0.048 mg/kg |
| 2,4,5-Trichlorophenol | | 1920 mg/kg | -- | -- | -- | -- | -- | -- | < 0.030 mg/kg |
| 2,4,6-Trichlorophenol | 0.21 mg/kg | 595 mg/kg | -- | -- | -- | -- | -- | -- | < 0.044 mg/kg |
| 2,4-Dichlorophenol | 0.076 mg/kg | 48 mg/kg | -- | -- | -- | -- | -- | -- | < 0.044 mg/kg |
| 2,4-Dimethylphenol | 0.34 mg/kg | 390 mg/kg | -- | -- | -- | -- | -- | -- | < 0.11 mg/kg |
| 2,4-Dinitrophenol | 0.014 mg/kg | | -- | -- | -- | -- | -- | -- | < 0.073 mg/kg |
| 2,4-Dinitrotoluene | 0.001 mg/kg | 50 mg/kg | -- | -- | -- | -- | -- | -- | < 0.027 mg/kg |
| 2,6-Dichlorophenol | | | -- | -- | -- | -- | -- | -- | < 0.054 mg/kg |
| 2,6-Dinitrotoluene | 0.001 mg/kg | 25 mg/kg | -- | -- | -- | -- | -- | -- | < 0.024 mg/kg |
| 2-Chloronaphthalene | | | -- | -- | -- | -- | -- | -- | < 0.024 mg/kg |
| 2-Chlorophenol | 0.26 mg/kg | | -- | -- | -- | -- | -- | -- | < 0.048 mg/kg |
| 2-Methyl-4,6-dinitrophenol | | | -- | -- | -- | -- | -- | -- | < 0.094 mg/kg |
| 2-Methylnaphthalene | | 100 mg/kg | -- | -- | -- | -- | -- | -- | < 0.035 mg/kg |
| 2-Nitroaniline | | | -- | -- | -- | -- | -- | -- | < 0.025 mg/kg |
| 2-Nitrophenol | 0.6 mg/kg | | -- | -- | -- | -- | -- | -- | < 0.046 mg/kg |
| 3,3`-Dichlorobenzidine | 0.36 mg/kg | 25 mg/kg | -- | -- | -- | -- | -- | -- | < 0.49 mg/kg |
| 3-Nitroaniline | | | -- | -- | -- | -- | -- | -- | < 0.042 mg/kg |
| 4-Bromophenyl phenyl ether | | | -- | -- | -- | -- | -- | -- | < 0.022 mg/kg |
| 4-Chloro-3-methylphenol | | | -- | -- | -- | -- | -- | -- | < 0.051 mg/kg |
| 4-Chloroaniline | | | -- | -- | -- | -- | -- | -- | < 0.14 mg/kg |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS2O | SOC5-SS2P | SOC5-SS2Q | SOC5-SS2R | SOC5-SS2T | SOC5-SS2T | SOC5-SS3 |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 | 08/31/2009 |
| | | Depth Interval | 2 - 3 | 0 - 1 | 0 - 2 | 0 - 2 | 0 - 1 | 2 - 3 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| 4-Chlorophenyl phenyl ether | | | -- | -- | -- | -- | -- | -- | < 0.029 mg/kg |
| 4-Nitroaniline | | | -- | -- | -- | -- | -- | -- | < 0.029 mg/kg |
| 4-Nitrophenol | | | -- | -- | -- | -- | -- | -- | < 0.13 mg/kg |
| Acenaphthene | 50 mg/kg | 1200 mg/kg | -- | -- | -- | -- | -- | -- | < 0.035 mg/kg |
| Acenaphthylene | | | -- | -- | -- | -- | -- | -- | < 0.029 mg/kg |
| Aniline | | | -- | -- | -- | -- | -- | -- | < 0.11 mg/kg |
| Anthracene | 942 mg/kg | 7880 mg/kg | -- | -- | -- | -- | -- | -- | < 0.032 mg/kg |
| Azobenzene | | | -- | -- | -- | -- | -- | -- | < 0.025 mg/kg |
| Benzidine | | | -- | -- | -- | -- | -- | -- | < 0.91 mg/kg |
| Benzo(g,h,i)perylene | | | -- | -- | -- | -- | -- | -- | < 0.038 mg/kg |
| Benzoic Acid | 30 mg/kg | 50000 mg/kg | -- | -- | -- | -- | -- | -- | < 0.073 mg/kg |
| Benzyl alcohol | | 8700 mg/kg | -- | -- | -- | -- | -- | -- | < 0.15 mg/kg |
| Bis(2-chloroethoxy)methane | | | -- | -- | -- | -- | -- | -- | < 0.027 mg/kg |
| Bis(2-chloroethyl)ether | 0.001 mg/kg | 2.5 mg/kg | -- | -- | -- | -- | -- | -- | < 0.030 mg/kg |
| Bis(2-chloroisopropyl)ether | 0.67 mg/kg | | -- | -- | -- | -- | -- | -- | < 0.028 mg/kg |
| Bis(2-ethylhexyl)phthalate | 40 mg/kg | 570 mg/kg | -- | -- | -- | -- | -- | -- | < 0.025 mg/kg |
| Butyl benzyl phthalate | 28 mg/kg | 580 mg/kg | -- | -- | -- | -- | -- | -- | < 0.027 mg/kg |
| Carbazole | | 700 mg/kg | -- | -- | -- | -- | -- | -- | < 0.028 mg/kg |
| Dibenzofuran | | 104 mg/kg | -- | -- | -- | -- | -- | -- | < 0.024 mg/kg |
| Diethyl phthalate | 18 mg/kg | | -- | -- | -- | -- | -- | -- | < 0.019 mg/kg |
| Dimethyl phthalate | 172 mg/kg | | -- | -- | -- | -- | -- | -- | < 0.023 mg/kg |
| Di-n-butyl phthalate | 23 mg/kg | 2440 mg/kg | -- | -- | -- | -- | -- | -- | < 0.047 mg/kg |
| Di-n-octyl phthalate | | 520 mg/kg | -- | -- | -- | -- | -- | -- | < 0.032 mg/kg |
| Fluoranthene | 295 mg/kg | 1080 mg/kg | -- | -- | -- | -- | -- | -- | 0.064 j mg/kg |
| Fluorene | 47 mg/kg | 850 mg/kg | -- | -- | -- | -- | -- | -- | < 0.023 mg/kg |
| Hexachlorobenzene | 0.32 mg/kg | 5 mg/kg | -- | -- | -- | -- | -- | -- | < 0.020 mg/kg |
| Hexachlorobutadiene | 25 mg/kg | 6 mg/kg | -- | -- | -- | -- | -- | -- | < 0.042 mg/kg |
| Hexachlorocyclopentadiene | 4.4 mg/kg | 2 mg/kg | -- | -- | -- | -- | -- | -- | < 0.052 mg/kg |
| Hexachloroethane | 0.05 mg/kg | | -- | -- | -- | -- | -- | -- | < 0.035 mg/kg |
| Isophorone | 0.16 mg/kg | | -- | -- | -- | -- | -- | -- | < 0.022 mg/kg |
| Naphthalene | 7.5 mg/kg | 10 mg/kg | -- | -- | -- | -- | -- | -- | < 0.037 mg/kg |
| Nitrobenzene | | | -- | -- | -- | -- | -- | -- | < 0.038 mg/kg |
| N-Nitrosodimethylamine | 0.82 mg/kg | | -- | -- | -- | -- | -- | -- | < 0.041 mg/kg |
| N-Nitrosodi-n-propylamine | | 0.7 mg/kg | -- | -- | -- | -- | -- | -- | < 0.032 mg/kg |
| N-Nitrosodiphenylamine | 0.88 mg/kg | 1950 mg/kg | -- | -- | -- | -- | -- | -- | < 0.023 mg/kg |
| o-Cresol | 0.064 mg/kg | 75 mg/kg | -- | -- | -- | -- | -- | -- | < 0.044 mg/kg |
| p-Cresol | **0.033 mg/kg** | 10 mg/kg | -- | -- | -- | -- | -- | -- | < 0.034 mg/kg |
| Pentachlorophenol | **0.034 mg/kg** | 80 mg/kg | -- | -- | -- | -- | -- | -- | < 0.12 mg/kg |
| Phenanthrene | | | -- | -- | -- | -- | -- | -- | < 0.024 mg/kg |
| Phenol | 7.8 mg/kg | 1500 mg/kg | -- | -- | -- | -- | -- | -- | < 0.072 mg/kg |
| Pyrene | 272 mg/kg | 890 mg/kg | -- | -- | -- | -- | -- | -- | < 0.029 mg/kg |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS2O | SOC5-SS2P | SOC5-SS2Q | SOC5-SS2R | SOC5-SS2T | SOC5-SS2T | SOC5-SS3 |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 | 08/31/2009 |
| | | Depth Interval | 2 - 3 | 0 - 1 | 0 - 2 | 0 - 2 | 0 - 1 | 2 - 3 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| Benzo(a)anthracene | T | T | -- | -- | -- | -- | -- | -- | < 0.034 mg/kg |
| Benzo(a)pyrene | T | T | -- | -- | -- | -- | -- | -- | < 0.034 mg/kg |
| Benzo(b)fluoranthene | T | T | -- | -- | -- | -- | -- | -- | 0.043 j mg/kg |
| Benzo(k)fluoranthene | T | T | -- | -- | -- | -- | -- | -- | < 0.039 mg/kg |
| Chrysene | T | T | -- | -- | -- | -- | -- | -- | < 0.042 mg/kg |
| Dibenz(a,h)anthracene | T | T | -- | -- | -- | -- | -- | -- | < 0.043 mg/kg |
| Indeno(1,2,3-cd)pyrene | T | T | -- | -- | -- | -- | -- | -- | < 0.041 mg/kg |
| **BaP equivalent, non-detects at zero for the detection limit.[1]** | **10.2 T mg/kg** | 2 T mg/kg | -- | -- | -- | -- | -- | -- | 0.0043 a mg/kg |
| Pesticides | | | | | | | | | |
| 2,4,5-TP (Silvex) | | | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| 2,4,5-Trichlorophenoxyacetic acid | | 290 mg/kg | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| 2,4-D | | 285 mg/kg | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| 2,4-DB | | 226 mg/kg | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| 4,4'-DDD | | 56 mg/kg | -- | -- | -- | -- | -- | -- | < 0.030 mg/kg |
| 4,4'-DDE | | 40 mg/kg | -- | -- | -- | -- | -- | -- | < 0.030 mg/kg |
| 4,4'-DDT | | 15 mg/kg | -- | -- | -- | -- | -- | -- | < 0.030 mg/kg |
| a-BHC | | 2 mg/kg | -- | -- | -- | -- | -- | -- | < 0.030 mg/kg |
| Acetochlor | | | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| Alachlor (Lasso) | | | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| Aldrin | | 1 mg/kg | -- | -- | -- | -- | -- | -- | < 0.030 mg/kg |
| Atrazine (Primatol) | | | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| b-BHC | | 7 mg/kg | -- | -- | -- | -- | -- | -- | < 0.030 mg/kg |
| Bentazone | | | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| Chlordane, alpha | | | -- | -- | -- | -- | -- | -- | < 0.030 mg/kg |
| Chlordane, gamma | | | -- | -- | -- | -- | -- | -- | < 0.030 mg/kg |
| Chlorpyrifos (Lorsban) | | | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| Cyanazine (Bladex) | | | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| d-BHC | | | -- | -- | -- | -- | -- | -- | < 0.030 mg/kg |
| Deisopropyl atrazine | | | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| Desethylatrazine | | | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| Dicamba | | | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| Dieldrin | | 0.8 mg/kg | -- | -- | -- | -- | -- | -- | < 0.030 mg/kg |
| Dimethenamid | | | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| Dinoseb (DNBP) | | | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| Endosulfan I | | | -- | -- | -- | -- | -- | -- | < 0.030 mg/kg |
| Endosulfan II | | | -- | -- | -- | -- | -- | -- | < 0.030 mg/kg |
| Endosulfan Sulfate | | | -- | -- | -- | -- | -- | -- | < 0.030 mg/kg |
| Endrin | | 8 mg/kg | -- | -- | -- | -- | -- | -- | < 0.030 mg/kg |
| Endrin Aldehyde | | | -- | -- | -- | -- | -- | -- | < 0.030 mg/kg |
| Endrin Ketone | | | -- | -- | -- | -- | -- | -- | < 0.030 mg/kg |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS2O | SOC5-SS2P | SOC5-SS2Q | SOC5-SS2R | SOC5-SS2T | SOC5-SS2T | SOC5-SS3 |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 | 12/23/2009 | 08/31/2009 |
| | | Depth Interval | 2 - 3 | 0 - 1 | 0 - 2 | 0 - 2 | 0 - 1 | 2 - 3 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| EPTC (Eradicane) | | | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| Ethalfluralin (Sonalan) | | | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| Fonofos (Dyphonate) | | | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| g-BHC (Lindane) | | 9 mg/kg | -- | -- | -- | -- | -- | -- | < 0.030 mg/kg |
| Heptachlor | | 2 mg/kg | -- | -- | -- | -- | -- | -- | < 0.030 mg/kg |
| Heptachlor Epoxide | | 0.4 mg/kg | -- | -- | -- | -- | -- | -- | < 0.030 mg/kg |
| MCPA | | 16 mg/kg | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| Methoxychlor | | 11 mg/kg | -- | -- | -- | -- | -- | -- | < 0.030 mg/kg |
| Metolachlor (Dual) | | 435 mg/kg | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| Metribuzin | | | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| Pendimethalin (Prowl) | | | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| Pentachlorophenol | 0.034 mg/kg | 80 mg/kg | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| Phorate (Thimet) | | | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| Picloram | | 2000 mg/kg | -- | -- | -- | -- | -- | -- | < 0.063 * mg/kg |
| Prometon (Pramitol) | | | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| Propachlor | | | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| Propazine (Milogard) | | | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| Simazine (Princep) | | | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| Terbufos (Counter) | | 0.6 mg/kg | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| Toxaphene | | 13 mg/kg | -- | -- | -- | -- | -- | -- | < 0.60 mg/kg |
| Triallate (Far-Go) | | | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| Triclopyr | | | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| Trifluralin (Treflan) | | | -- | -- | -- | -- | -- | -- | < 0.063 mg/kg |
| PCBs | | | | | | | | | |
| Aroclor 1016 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | -- | -- | -- | -- | -- | -- | -- |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS4 | SOC5-SS5 | SOC5-SS5 | SOC5-SS6 | SOC5-SS7 | SOC5-SS8 | SOC5-SS9 |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 08/31/2009 | 08/31/2009 | 09/25/2009 | 08/31/2009 | 09/18/2009 | 09/10/2009 | 09/01/2009 |
| | | Depth Interval | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| General Parameters | | | | | | | | | |
| Nitrocellulose | | | < 6.3 mg/kg | < 6.4 mg/kg | -- | < 6.1 mg/kg | < 6.0 mg/kg | < 6.1 mg/kg | < 6.2 mg/kg |
| Metals | | | | | | | | | |
| Antimony | 2.7 mg/kg | 12 mg/kg | < 0.59 mg/kg | < 0.65 mg/kg | -- | < 0.60 mg/kg | < 0.54 mg/kg | < 0.60 mg/kg | < 0.59 mg/kg |
| Arsenic | 15.1 mg/kg | 9 mg/kg | 5.7 mg/kg | 6.9 mg/kg | -- | 7.0 mg/kg | 4.2 mg/kg | 6.5 mg/kg | 6.9 mg/kg |
| Beryllium | 1.4 mg/kg | 55 mg/kg | 0.31 mg/kg | < 0.32 mg/kg | -- | 0.53 mg/kg | < 0.27 mg/kg | < 0.30 mg/kg | < 0.29 mg/kg |
| Cadmium | 4.4 mg/kg | 25 mg/kg | < 0.29 mg/kg | < 0.32 mg/kg | -- | < 0.30 mg/kg | < 0.27 mg/kg | < 0.30 mg/kg | < 0.29 mg/kg |
| Chromium, total | 1000000 mg/kg | 44000 mg/kg | 15 mg/kg | 15 mg/kg | -- | 15 mg/kg | 13 mg/kg | 14 mg/kg | 15 mg/kg |
| Copper | 400 mg/kg | 100 mg/kg | 11 mg/kg | 14 mg/kg | -- | 9.6 mg/kg | < 1.1 mg/kg | 14 mg/kg | 11 mg/kg |
| Lead | 525 mg/kg | 300 mg/kg | 13 mg/kg | 18 mg/kg | -- | 13 mg/kg | 12 mg/kg | 11 mg/kg | 11 mg/kg |
| Mercury | **1.6 MC mg/kg** | 0.5 mg/kg | < 0.12 mg/kg | -- | < 0.12 mg/kg | < 0.12 mg/kg | < 0.11 mg/kg | < 0.12 mg/kg | < 0.12 mg/kg |
| Nickel | 88 mg/kg | 560 mg/kg | 14 mg/kg | 15 mg/kg | -- | 14 mg/kg | 12 mg/kg | 17 mg/kg | 14 mg/kg |
| Selenium | 1.5 mg/kg | 160 mg/kg | < 1.2 mg/kg | < 1.3 mg/kg | -- | < 1.2 mg/kg | < 1.1 mg/kg | < 1.2 mg/kg | < 1.2 mg/kg |
| Silver | 3.9 mg/kg | 160 mg/kg | < 0.29 mg/kg | < 0.32 mg/kg | -- | < 0.30 mg/kg | < 0.27 mg/kg | < 0.30 mg/kg | < 0.29 mg/kg |
| Thallium | | 3 mg/kg | < 2.4 mg/kg | < 2.6 mg/kg | -- | < 2.4 mg/kg | < 2.2 mg/kg | < 2.4 mg/kg | < 2.4 mg/kg |
| Zinc | 1500 mg/kg | 8700 mg/kg | 39 mg/kg | 12 mg/kg | -- | 25 mg/kg | 33 mg/kg | 37 mg/kg | 36 mg/kg |
| SVOCs | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.31 mg/kg | 200 mg/kg | < 0.032 mg/kg | < 0.035 mg/kg | -- | < 0.033 mg/kg | < 0.029 mg/kg | < 0.033 mg/kg | < 0.032 mg/kg |
| 1,2-Dichlorobenzene | 8.1 mg/kg | 26 mg/kg | < 0.029 mg/kg | < 0.032 mg/kg | -- | < 0.030 mg/kg | < 0.027 mg/kg | < 0.030 mg/kg | < 0.029 mg/kg |
| 1,3-Dichlorobenzene | 4.2 mg/kg | 26 mg/kg | < 0.027 mg/kg | < 0.030 mg/kg | -- | < 0.028 mg/kg | < 0.025 mg/kg | < 0.028 mg/kg | < 0.027 mg/kg |
| 1,4-Dichlorobenzene | 0.13 mg/kg | 30 mg/kg | < 0.028 mg/kg | < 0.031 mg/kg | -- | < 0.029 mg/kg | < 0.026 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg |
| 2,3,4,6-Tetrachlorophenol | | 636 mg/kg | < 0.045 mg/kg | < 0.049 mg/kg | -- | < 0.046 mg/kg | < 0.041 mg/kg | < 0.046 mg/kg | < 0.045 mg/kg |
| 2,4,5-Trichlorophenol | | 1920 mg/kg | < 0.028 mg/kg | < 0.031 mg/kg | -- | < 0.029 mg/kg | < 0.026 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg |
| 2,4,6-Trichlorophenol | 0.21 mg/kg | 595 mg/kg | < 0.041 mg/kg | < 0.045 mg/kg | -- | < 0.042 mg/kg | < 0.038 mg/kg | < 0.042 mg/kg | < 0.041 mg/kg |
| 2,4-Dichlorophenol | 0.076 mg/kg | 48 mg/kg | < 0.041 mg/kg | < 0.045 mg/kg | -- | < 0.042 mg/kg | < 0.038 mg/kg | < 0.042 mg/kg | < 0.041 mg/kg |
| 2,4-Dimethylphenol | 0.34 mg/kg | 390 mg/kg | < 0.11 mg/kg | < 0.12 mg/kg | -- | < 0.11 mg/kg | < 0.097 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg |
| 2,4-Dinitrophenol | 0.014 mg/kg | | < 0.068 mg/kg | < 0.075 mg/kg | -- | < 0.070 mg/kg | < 0.062 mg/kg | < 0.070 mg/kg | < 0.068 mg/kg |
| 2,4-Dinitrotoluene | 0.001 mg/kg | 50 mg/kg | < 0.025 mg/kg | < 0.027 mg/kg | -- | < 0.025 mg/kg | < 0.023 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg |
| 2,6-Dichlorophenol | | | < 0.051 mg/kg | < 0.056 mg/kg | -- | < 0.052 mg/kg | < 0.046 mg/kg | < 0.052 mg/kg | < 0.051 mg/kg |
| 2,6-Dinitrotoluene | 0.001 mg/kg | 25 mg/kg | < 0.022 mg/kg | < 0.025 mg/kg | -- | < 0.023 mg/kg | < 0.020 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg |
| 2-Chloronaphthalene | | | < 0.022 mg/kg | < 0.025 mg/kg | -- | < 0.023 mg/kg | < 0.020 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg |
| 2-Chlorophenol | 0.26 mg/kg | | < 0.045 mg/kg | < 0.049 mg/kg | -- | < 0.046 mg/kg | < 0.041 mg/kg | < 0.046 mg/kg | < 0.045 mg/kg |
| 2-Methyl-4,6-dinitrophenol | | | < 0.087 mg/kg | < 0.096 mg/kg | -- | < 0.089 mg/kg | < 0.080 mg/kg | < 0.089 mg/kg | < 0.087 mg/kg |
| 2-Methylnaphthalene | | 100 mg/kg | < 0.033 mg/kg | < 0.036 mg/kg | -- | < 0.034 mg/kg | < 0.030 mg/kg | < 0.034 mg/kg | < 0.033 mg/kg |
| 2-Nitroaniline | | | < 0.024 mg/kg | < 0.026 mg/kg | -- | < 0.024 mg/kg | < 0.022 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg |
| 2-Nitrophenol | 0.6 mg/kg | | < 0.042 mg/kg | < 0.047 mg/kg | -- | < 0.043 mg/kg | < 0.039 mg/kg | < 0.043 mg/kg | < 0.042 mg/kg |
| 3,3`-Dichlorobenzidine | 0.36 mg/kg | 25 mg/kg | < 0.46 mg/kg | < 0.51 mg/kg | -- | < 0.47 mg/kg | < 0.42 mg/kg | < 0.47 mg/kg | < 0.46 mg/kg |
| 3-Nitroaniline | | | < 0.039 mg/kg | < 0.043 mg/kg | -- | < 0.040 mg/kg | < 0.035 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg |
| 4-Bromophenyl phenyl ether | | | < 0.020 mg/kg | < 0.022 mg/kg | -- | < 0.020 mg/kg | < 0.018 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg |
| 4-Chloro-3-methylphenol | | | < 0.047 mg/kg | < 0.052 mg/kg | -- | < 0.048 mg/kg | < 0.043 mg/kg | < 0.048 mg/kg | < 0.047 mg/kg |
| 4-Chloroaniline | | | < 0.13 mg/kg | < 0.14 mg/kg | -- | < 0.13 mg/kg | < 0.12 mg/kg | < 0.13 mg/kg | < 0.13 mg/kg |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS4 | SOC5-SS5 | SOC5-SS5 | SOC5-SS6 | SOC5-SS7 | SOC5-SS8 | SOC5-SS9 |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 08/31/2009 | 08/31/2009 | 09/25/2009 | 08/31/2009 | 09/18/2009 | 09/10/2009 | 09/01/2009 |
| | | Depth Interval | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| 4-Chlorophenyl phenyl ether | | | < 0.027 mg/kg | < 0.030 mg/kg | -- | < 0.028 mg/kg | < 0.025 mg/kg | < 0.028 mg/kg | < 0.027 mg/kg |
| 4-Nitroaniline | | | < 0.027 mg/kg | < 0.030 mg/kg | -- | < 0.028 mg/kg | < 0.025 mg/kg | < 0.028 mg/kg | < 0.027 mg/kg |
| 4-Nitrophenol | | | < 0.12 mg/kg | < 0.13 mg/kg | -- | < 0.12 mg/kg | < 0.11 mg/kg | < 0.12 mg/kg | < 0.12 mg/kg |
| Acenaphthene | 50 mg/kg | 1200 mg/kg | < 0.033 mg/kg | < 0.036 mg/kg | -- | < 0.034 mg/kg | < 0.030 mg/kg | < 0.034 mg/kg | < 0.033 mg/kg |
| Acenaphthylene | | | < 0.027 mg/kg | < 0.030 mg/kg | -- | < 0.028 mg/kg | < 0.025 mg/kg | < 0.028 mg/kg | < 0.027 mg/kg |
| Aniline | | | < 0.11 mg/kg | < 0.12 mg/kg | -- | < 0.11 mg/kg | < 0.097 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg |
| Anthracene | 942 mg/kg | 7880 mg/kg | < 0.029 mg/kg | < 0.032 mg/kg | -- | < 0.030 mg/kg | < 0.027 mg/kg | < 0.030 mg/kg | < 0.029 mg/kg |
| Azobenzene | | | < 0.024 mg/kg | < 0.026 mg/kg | -- | < 0.024 mg/kg | < 0.022 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg |
| Benzidine | | | < 0.85 mg/kg | < 0.94 mg/kg | -- | < 0.87 mg/kg | < 0.77 mg/kg | < 0.87 mg/kg | < 0.85 mg/kg |
| Benzo(g,h,i)perylene | | | < 0.035 mg/kg | < 0.039 mg/kg | -- | < 0.036 mg/kg | < 0.032 mg/kg | < 0.036 mg/kg | < 0.035 mg/kg |
| Benzoic Acid | 30 mg/kg | 50000 mg/kg | < 0.068 mg/kg | < 0.075 mg/kg | -- | < 0.070 mg/kg | < 0.062 mg/kg | < 0.070 mg/kg | < 0.068 mg/kg |
| Benzyl alcohol | | 8700 mg/kg | < 0.14 mg/kg | < 0.16 mg/kg | -- | < 0.14 mg/kg | < 0.13 mg/kg | < 0.14 mg/kg | < 0.14 mg/kg |
| Bis(2-chloroethoxy)methane | | | < 0.025 mg/kg | < 0.027 mg/kg | -- | < 0.025 mg/kg | < 0.023 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg |
| Bis(2-chloroethyl)ether | 0.001 mg/kg | 2.5 mg/kg | < 0.028 mg/kg | < 0.031 mg/kg | -- | < 0.029 mg/kg | < 0.026 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg |
| Bis(2-chloroisopropyl)ether | 0.67 mg/kg | | < 0.026 mg/kg | < 0.029 mg/kg | -- | < 0.027 mg/kg | < 0.024 mg/kg | < 0.027 mg/kg | < 0.026 mg/kg |
| Bis(2-ethylhexyl)phthalate | 40 mg/kg | 570 mg/kg | < 0.024 mg/kg | < 0.026 mg/kg | -- | < 0.024 mg/kg | < 0.022 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg |
| Butyl benzyl phthalate | 28 mg/kg | 580 mg/kg | < 0.025 mg/kg | < 0.027 mg/kg | -- | < 0.025 mg/kg | < 0.023 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg |
| Carbazole | | 700 mg/kg | < 0.026 mg/kg | < 0.029 mg/kg | -- | < 0.027 mg/kg | < 0.024 mg/kg | < 0.027 mg/kg | < 0.026 mg/kg |
| Dibenzofuran | | 104 mg/kg | < 0.022 mg/kg | < 0.025 mg/kg | -- | < 0.023 mg/kg | < 0.020 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg |
| Diethyl phthalate | 18 mg/kg | | < 0.018 mg/kg | < 0.019 mg/kg | -- | < 0.018 mg/kg | < 0.016 mg/kg | < 0.018 mg/kg | < 0.018 mg/kg |
| Dimethyl phthalate | 172 mg/kg | | < 0.021 mg/kg | < 0.023 mg/kg | -- | < 0.022 mg/kg | < 0.019 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg |
| Di-n-butyl phthalate | 23 mg/kg | 2440 mg/kg | < 0.044 mg/kg | 0.28 jb mg/kg | -- | < 0.045 mg/kg | < 0.040 mg/kg | < 0.045 mg/kg | 0.15 jb mg/kg |
| Di-n-octyl phthalate | | 520 mg/kg | < 0.029 mg/kg | < 0.032 mg/kg | -- | < 0.030 mg/kg | < 0.027 mg/kg | < 0.030 mg/kg | < 0.029 mg/kg |
| Fluoranthene | 295 mg/kg | 1080 mg/kg | 0.083 j mg/kg | < 0.031 mg/kg | -- | < 0.029 mg/kg | < 0.026 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg |
| Fluorene | 47 mg/kg | 850 mg/kg | < 0.021 mg/kg | < 0.023 mg/kg | -- | < 0.022 mg/kg | < 0.019 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg |
| Hexachlorobenzene | 0.32 mg/kg | 5 mg/kg | < 0.019 mg/kg | < 0.021 mg/kg | -- | < 0.019 mg/kg | < 0.017 mg/kg | < 0.019 mg/kg | < 0.019 mg/kg |
| Hexachlorobutadiene | 25 mg/kg | 6 mg/kg | < 0.039 mg/kg | < 0.043 mg/kg | -- | < 0.040 mg/kg | < 0.035 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg |
| Hexachlorocyclopentadiene | 4.4 mg/kg | 2 mg/kg | < 0.048 mg/kg | < 0.053 mg/kg | -- | < 0.049 mg/kg | < 0.044 mg/kg | < 0.049 mg/kg | < 0.048 mg/kg |
| Hexachloroethane | 0.05 mg/kg | | < 0.033 mg/kg | < 0.036 mg/kg | -- | < 0.034 mg/kg | < 0.030 mg/kg | < 0.034 mg/kg | < 0.033 mg/kg |
| Isophorone | 0.16 mg/kg | | < 0.020 mg/kg | < 0.022 mg/kg | -- | < 0.020 mg/kg | < 0.018 mg/kg | < 0.020 mg/kg | < 0.020 mg/kg |
| Naphthalene | 7.5 mg/kg | 10 mg/kg | < 0.034 mg/kg | < 0.038 mg/kg | -- | < 0.035 mg/kg | < 0.031 mg/kg | < 0.035 mg/kg | < 0.034 mg/kg |
| Nitrobenzene | | | < 0.035 mg/kg | < 0.039 mg/kg | -- | < 0.036 mg/kg | < 0.032 mg/kg | < 0.036 mg/kg | < 0.035 mg/kg |
| N-Nitrosodimethylamine | 0.82 mg/kg | | < 0.038 mg/kg | < 0.042 mg/kg | -- | < 0.039 mg/kg | < 0.034 mg/kg | < 0.039 mg/kg | < 0.038 mg/kg |
| N-Nitrosodi-n-propylamine | | 0.7 mg/kg | < 0.029 mg/kg | < 0.032 mg/kg | -- | < 0.030 mg/kg | < 0.027 mg/kg | < 0.030 mg/kg | < 0.029 mg/kg |
| N-Nitrosodiphenylamine | 0.88 mg/kg | 1950 mg/kg | < 0.021 mg/kg | < 0.023 mg/kg | -- | < 0.022 mg/kg | < 0.019 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg |
| o-Cresol | 0.064 mg/kg | 75 mg/kg | < 0.041 mg/kg | < 0.045 mg/kg | -- | < 0.042 mg/kg | < 0.038 mg/kg | < 0.042 mg/kg | < 0.041 mg/kg |
| p-Cresol | **0.033 mg/kg** | 10 mg/kg | < 0.032 mg/kg | < 0.035 mg/kg | -- | < 0.033 mg/kg | < 0.029 mg/kg | < 0.033 mg/kg | < 0.032 mg/kg |
| Pentachlorophenol | **0.034 mg/kg** | 80 mg/kg | < 0.11 mg/kg | < 0.12 mg/kg | -- | < 0.12 mg/kg | < 0.10 mg/kg | < 0.12 mg/kg | < 0.11 mg/kg |
| Phenanthrene | | | < 0.022 mg/kg | < 0.025 mg/kg | -- | < 0.023 mg/kg | < 0.020 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg |
| Phenol | 7.8 mg/kg | 1500 mg/kg | < 0.067 mg/kg | < 0.074 mg/kg | -- | < 0.069 mg/kg | < 0.061 mg/kg | < 0.069 mg/kg | < 0.067 mg/kg |
| Pyrene | 272 mg/kg | 890 mg/kg | 0.067 j mg/kg | < 0.030 mg/kg | -- | < 0.028 mg/kg | < 0.025 mg/kg | < 0.028 mg/kg | < 0.027 mg/kg |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS4 | SOC5-SS5 | SOC5-SS5 | SOC5-SS6 | SOC5-SS7 | SOC5-SS8 | SOC5-SS9 |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 08/31/2009 | 08/31/2009 | 09/25/2009 | 08/31/2009 | 09/18/2009 | 09/10/2009 | 09/01/2009 |
| | | Depth Interval | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| Benzo(a)anthracene | T | T | 0.048 j mg/kg | < 0.035 mg/kg | -- | < 0.033 mg/kg | < 0.029 mg/kg | < 0.033 mg/kg | < 0.032 mg/kg |
| Benzo(a)pyrene | T | T | 0.036 j mg/kg | < 0.035 mg/kg | -- | < 0.033 mg/kg | < 0.029 mg/kg | < 0.033 mg/kg | < 0.032 mg/kg |
| Benzo(b)fluoranthene | T | T | 0.056 j mg/kg | < 0.044 mg/kg | -- | < 0.041 mg/kg | < 0.037 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg |
| Benzo(k)fluoranthene | T | T | < 0.036 mg/kg | < 0.040 mg/kg | -- | < 0.037 mg/kg | < 0.033 mg/kg | < 0.037 mg/kg | < 0.036 mg/kg |
| Chrysene | T | T | 0.049 j mg/kg | < 0.043 mg/kg | -- | < 0.040 mg/kg | < 0.035 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg |
| Dibenz(a,h)anthracene | T | T | < 0.040 mg/kg | < 0.044 mg/kg | -- | < 0.041 mg/kg | < 0.037 mg/kg | < 0.041 mg/kg | < 0.040 mg/kg |
| Indeno(1,2,3-cd)pyrene | T | T | < 0.038 mg/kg | < 0.042 mg/kg | -- | < 0.039 mg/kg | < 0.034 mg/kg | < 0.039 mg/kg | < 0.038 mg/kg |
| **BaP equivalent, non-detects at zero for the detection limit.[1]** | **10.2 T mg/kg** | 2 T mg/kg | 0.047 a mg/kg | ND mg/kg | -- | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg |
| Pesticides | | | | | | | | | |
| 2,4,5-TP (Silvex) | | | < 0.057 mg/kg | < 0.061 mg/kg | -- | < 0.061 mg/kg | < 0.27 * mg/kg | < 0.060 mg/kg | < 0.059 mg/kg |
| 2,4,5-Trichlorophenoxyacetic acid | | 290 mg/kg | < 0.057 mg/kg | < 0.061 mg/kg | -- | < 0.061 mg/kg | < 0.27 * mg/kg | < 0.060 mg/kg | < 0.059 mg/kg |
| 2,4-D | | 285 mg/kg | < 0.057 mg/kg | < 0.061 mg/kg | -- | < 0.061 mg/kg | < 0.27 * mg/kg | < 0.060 mg/kg | < 0.059 mg/kg |
| 2,4-DB | | 226 mg/kg | < 0.057 mg/kg | < 0.061 mg/kg | -- | < 0.061 mg/kg | < 0.27 * mg/kg | < 0.060 mg/kg | < 0.059 mg/kg |
| 4,4'-DDD | | 56 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | -- | < 0.029 mg/kg | < 0.026 mg/kg | < 0.088 mg/kg | < 0.029 mg/kg |
| 4,4'-DDE | | 40 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | -- | < 0.029 mg/kg | < 0.026 mg/kg | < 0.088 mg/kg | < 0.029 mg/kg |
| 4,4'-DDT | | 15 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | -- | < 0.029 mg/kg | < 0.026 mg/kg | < 0.088 mg/kg | < 0.029 mg/kg |
| a-BHC | | 2 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | -- | < 0.029 mg/kg | < 0.026 mg/kg | < 0.088 mg/kg | < 0.029 mg/kg |
| Acetochlor | | | < 0.054 mg/kg | < 0.058 mg/kg | -- | < 0.058 mg/kg | < 0.043 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Alachlor (Lasso) | | | < 0.054 mg/kg | < 0.058 mg/kg | -- | < 0.058 mg/kg | < 0.043 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Aldrin | | 1 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | -- | < 0.029 mg/kg | < 0.026 mg/kg | < 0.088 mg/kg | < 0.029 mg/kg |
| Atrazine (Primatol) | | | < 0.054 mg/kg | < 0.058 mg/kg | -- | < 0.058 mg/kg | < 0.043 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| b-BHC | | 7 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | -- | < 0.029 mg/kg | < 0.026 mg/kg | < 0.088 mg/kg | < 0.029 mg/kg |
| Bentazone | | | < 0.057 mg/kg | < 0.061 mg/kg | -- | < 0.061 mg/kg | < 0.27 * mg/kg | < 0.060 mg/kg | < 0.059 mg/kg |
| Chlordane, alpha | | | 0.084 mg/kg | < 0.030 mg/kg | -- | < 0.029 mg/kg | < 0.026 mg/kg | < 0.088 mg/kg | < 0.029 mg/kg |
| Chlordane, gamma | | | < 0.029 mg/kg | < 0.030 mg/kg | -- | < 0.029 mg/kg | < 0.026 mg/kg | < 0.088 mg/kg | < 0.029 mg/kg |
| Chlorpyrifos (Lorsban) | | | < 0.054 mg/kg | < 0.058 mg/kg | -- | < 0.058 mg/kg | < 0.043 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Cyanazine (Bladex) | | | < 0.054 mg/kg | < 0.058 mg/kg | -- | < 0.058 mg/kg | < 0.043 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| d-BHC | | | < 0.029 mg/kg | < 0.030 mg/kg | -- | < 0.029 mg/kg | < 0.026 mg/kg | < 0.088 mg/kg | < 0.029 mg/kg |
| Deisopropyl atrazine | | | < 0.054 mg/kg | < 0.058 mg/kg | -- | < 0.058 mg/kg | < 0.043 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Desethylatrazine | | | < 0.054 mg/kg | < 0.058 mg/kg | -- | < 0.058 mg/kg | < 0.043 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Dicamba | | | < 0.057 mg/kg | < 0.061 mg/kg | -- | < 0.061 mg/kg | < 0.27 * mg/kg | < 0.060 mg/kg | < 0.059 mg/kg |
| Dieldrin | | 0.8 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | -- | < 0.029 mg/kg | < 0.026 mg/kg | < 0.088 mg/kg | < 0.029 mg/kg |
| Dimethenamid | | | < 0.054 mg/kg | < 0.058 mg/kg | -- | < 0.058 mg/kg | < 0.043 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Dinoseb (DNBP) | | | < 0.057 mg/kg | < 0.061 mg/kg | -- | < 0.061 mg/kg | < 0.27 * mg/kg | < 0.060 mg/kg | < 0.059 mg/kg |
| Endosulfan I | | | < 0.029 mg/kg | < 0.030 mg/kg | -- | < 0.029 mg/kg | < 0.026 mg/kg | < 0.088 mg/kg | < 0.029 mg/kg |
| Endosulfan II | | | < 0.029 mg/kg | < 0.030 mg/kg | -- | < 0.029 mg/kg | < 0.026 mg/kg | < 0.088 mg/kg | < 0.029 mg/kg |
| Endosulfan Sulfate | | | < 0.029 mg/kg | < 0.030 mg/kg | -- | < 0.029 mg/kg | < 0.026 mg/kg | < 0.088 mg/kg | < 0.029 mg/kg |
| Endrin | | 8 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | -- | < 0.029 mg/kg | < 0.026 mg/kg | < 0.088 mg/kg | < 0.029 mg/kg |
| Endrin Aldehyde | | | < 0.029 mg/kg | < 0.030 mg/kg | -- | < 0.029 mg/kg | < 0.026 mg/kg | < 0.088 * mg/kg | < 0.029 mg/kg |
| Endrin Ketone | | | < 0.029 mg/kg | < 0.030 mg/kg | -- | < 0.029 mg/kg | < 0.026 mg/kg | < 0.088 mg/kg | < 0.029 mg/kg |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS4 | SOC5-SS5 | SOC5-SS5 | SOC5-SS6 | SOC5-SS7 | SOC5-SS8 | SOC5-SS9 |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 08/31/2009 | 08/31/2009 | 09/25/2009 | 08/31/2009 | 09/18/2009 | 09/10/2009 | 09/01/2009 |
| | | Depth Interval | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| EPTC (Eradicane) | | | < 0.054 mg/kg | < 0.058 mg/kg | -- | < 0.058 mg/kg | < 0.043 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Ethalfluralin (Sonalan) | | | < 0.054 mg/kg | < 0.058 mg/kg | -- | < 0.058 mg/kg | < 0.043 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Fonofos (Dyphonate) | | | < 0.054 mg/kg | < 0.058 mg/kg | -- | < 0.058 mg/kg | < 0.043 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| g-BHC (Lindane) | | 9 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | -- | < 0.029 mg/kg | < 0.026 mg/kg | < 0.088 mg/kg | < 0.029 mg/kg |
| Heptachlor | | 2 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | -- | < 0.029 mg/kg | < 0.026 mg/kg | < 0.088 mg/kg | < 0.029 mg/kg |
| Heptachlor Epoxide | | 0.4 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | -- | < 0.029 mg/kg | < 0.026 mg/kg | < 0.088 mg/kg | < 0.029 mg/kg |
| MCPA | | 16 mg/kg | < 0.057 mg/kg | < 0.061 mg/kg | -- | < 0.061 mg/kg | < 0.27 * mg/kg | < 0.060 mg/kg | < 0.059 mg/kg |
| Methoxychlor | | 11 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | -- | < 0.029 mg/kg | < 0.026 mg/kg | < 0.088 mg/kg | < 0.029 mg/kg |
| Metolachlor (Dual) | | 435 mg/kg | < 0.054 mg/kg | < 0.058 mg/kg | -- | < 0.058 mg/kg | < 0.043 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Metribuzin | | | < 0.054 mg/kg | < 0.058 mg/kg | -- | < 0.058 mg/kg | < 0.043 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Pendimethalin (Prowl) | | | < 0.054 mg/kg | < 0.058 mg/kg | -- | < 0.058 mg/kg | < 0.043 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Pentachlorophenol | 0.034 mg/kg | 80 mg/kg | < 0.057 mg/kg | < 0.061 mg/kg | -- | < 0.061 mg/kg | < 0.27 * mg/kg | < 0.060 mg/kg | < 0.059 mg/kg |
| Phorate (Thimet) | | | < 0.054 mg/kg | < 0.058 mg/kg | -- | < 0.058 mg/kg | < 0.043 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Picloram | | 2000 mg/kg | < 0.057 * mg/kg | < 0.061 * mg/kg | -- | < 0.061 * mg/kg | < 0.27 * mg/kg | < 0.060 * mg/kg | < 0.059 * mg/kg |
| Prometon (Pramitol) | | | < 0.054 mg/kg | < 0.058 mg/kg | -- | < 0.058 mg/kg | < 0.043 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Propachlor | | | < 0.054 mg/kg | < 0.058 mg/kg | -- | < 0.058 mg/kg | < 0.043 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Propazine (Milogard) | | | < 0.054 mg/kg | < 0.058 mg/kg | -- | < 0.058 mg/kg | < 0.043 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Simazine (Princep) | | | < 0.054 mg/kg | < 0.058 mg/kg | -- | < 0.058 mg/kg | < 0.043 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Terbufos (Counter) | | 0.6 mg/kg | < 0.054 mg/kg | < 0.058 mg/kg | -- | < 0.058 mg/kg | < 0.043 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Toxaphene | | 13 mg/kg | < 0.57 mg/kg | < 0.59 mg/kg | -- | < 0.58 mg/kg | < 0.52 mg/kg | < 1.8 mg/kg | < 0.58 mg/kg |
| Triallate (Far-Go) | | | < 0.054 mg/kg | < 0.058 mg/kg | -- | < 0.058 mg/kg | < 0.043 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| Triclopyr | | | < 0.057 mg/kg | < 0.061 mg/kg | -- | < 0.061 mg/kg | < 0.27 * mg/kg | < 0.060 mg/kg | < 0.059 mg/kg |
| Trifluralin (Treflan) | | | < 0.054 mg/kg | < 0.058 mg/kg | -- | < 0.058 mg/kg | < 0.043 mg/kg | < 0.048 mg/kg | < 0.048 mg/kg |
| PCBs | | | | | | | | | |
| Aroclor 1016 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1221 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1232 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1242 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1248 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1254 | | | -- | -- | -- | -- | -- | -- | -- |
| Aroclor 1260 | | | -- | -- | -- | -- | -- | -- | -- |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS10 | | SOC5-SS11 | SOC5-SS39 | SOC5-SS46 | SOC5-SS47 | SOC5-SS48 |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/10/2009 | | 09/18/2009 | 09/25/2009 | 08/31/2009 | 09/18/2009 | 09/08/2009 |
| | | Depth Interval | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| General Parameters | | | | | | | | | |
| Nitrocellulose | | | < 5.7 mg/kg | < 5.9 mg/kg | < 6.2 mg/kg | -- | -- | -- | -- |
| Metals | | | | | | | | | |
| Antimony | 2.7 mg/kg | 12 mg/kg | < 0.57 mg/kg | < 0.56 mg/kg | < 0.58 mg/kg | < 0.61 mg/kg | -- | -- | -- |
| Arsenic | 15.1 mg/kg | 9 mg/kg | 5.8 mg/kg | 4.9 mg/kg | 6.3 mg/kg | 5.8 mg/kg | -- | -- | -- |
| Beryllium | 1.4 mg/kg | 55 mg/kg | < 0.29 mg/kg | < 0.28 mg/kg | < 0.29 mg/kg | < 0.30 mg/kg | -- | -- | -- |
| Cadmium | 4.4 mg/kg | 25 mg/kg | < 0.29 mg/kg | < 0.28 mg/kg | < 0.29 mg/kg | 0.54 mg/kg | -- | -- | -- |
| Chromium, total | 1000000 mg/kg | 44000 mg/kg | 10 mg/kg | 10 mg/kg | 15 mg/kg | 12 mg/kg | -- | -- | -- |
| Copper | 400 mg/kg | 100 mg/kg | 8.9 mg/kg | 8.3 mg/kg | < 1.2 mg/kg | < 1.2 mg/kg | -- | -- | -- |
| Lead | 525 mg/kg | 300 mg/kg | 10 mg/kg | 9.5 mg/kg | 14 mg/kg | 12 mg/kg | -- | -- | -- |
| Mercury | **1.6 MC mg/kg** | 0.5 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.12 mg/kg | < 0.12 mg/kg | -- | -- | -- |
| Nickel | 88 mg/kg | 560 mg/kg | 12 mg/kg | 12 mg/kg | 11 mg/kg | 11 mg/kg | -- | -- | -- |
| Selenium | 1.5 mg/kg | 160 mg/kg | < 1.1 mg/kg | < 1.1 mg/kg | < 1.2 mg/kg | < 1.2 mg/kg | -- | -- | -- |
| Silver | 3.9 mg/kg | 160 mg/kg | < 0.29 mg/kg | < 0.28 mg/kg | < 0.29 mg/kg | < 0.30 mg/kg | -- | -- | -- |
| Thallium | | 3 mg/kg | < 2.3 mg/kg | < 2.2 mg/kg | < 2.3 mg/kg | < 2.4 mg/kg | -- | -- | -- |
| Zinc | 1500 mg/kg | 8700 mg/kg | 30 mg/kg | 29 mg/kg | 45 mg/kg | 110 mg/kg | -- | -- | -- |
| SVOCs | | | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.31 mg/kg | 200 mg/kg | < 0.031 mg/kg | < 0.030 mg/kg | < 0.031 mg/kg | < 0.033 mg/kg | -- | -- | -- |
| 1,2-Dichlorobenzene | 8.1 mg/kg | 26 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | -- | -- | -- |
| 1,3-Dichlorobenzene | 4.2 mg/kg | 26 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.027 mg/kg | < 0.028 mg/kg | -- | -- | -- |
| 1,4-Dichlorobenzene | 0.13 mg/kg | 30 mg/kg | < 0.028 mg/kg | < 0.027 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | -- | -- | -- |
| 2,3,4,6-Tetrachlorophenol | | 636 mg/kg | < 0.044 mg/kg | < 0.043 mg/kg | < 0.044 mg/kg | < 0.046 mg/kg | -- | -- | -- |
| 2,4,5-Trichlorophenol | | 1920 mg/kg | < 0.028 mg/kg | < 0.027 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | -- | -- | -- |
| 2,4,6-Trichlorophenol | 0.21 mg/kg | 595 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.041 mg/kg | < 0.043 mg/kg | -- | -- | -- |
| 2,4-Dichlorophenol | 0.076 mg/kg | 48 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.041 mg/kg | < 0.043 mg/kg | -- | -- | -- |
| 2,4-Dimethylphenol | 0.34 mg/kg | 390 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.11 mg/kg | -- | -- | -- |
| 2,4-Dinitrophenol | 0.014 mg/kg | | < 0.067 mg/kg | < 0.065 mg/kg | < 0.067 mg/kg | < 0.071 mg/kg | -- | -- | -- |
| 2,4-Dinitrotoluene | 0.001 mg/kg | 50 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.026 mg/kg | -- | -- | -- |
| 2,6-Dichlorophenol | | | < 0.049 mg/kg | < 0.048 mg/kg | < 0.050 mg/kg | < 0.052 mg/kg | -- | -- | -- |
| 2,6-Dinitrotoluene | 0.001 mg/kg | 25 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | -- | -- | -- |
| 2-Chloronaphthalene | | | < 0.022 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | -- | -- | -- |
| 2-Chlorophenol | 0.26 mg/kg | | < 0.044 mg/kg | < 0.043 mg/kg | < 0.044 mg/kg | < 0.046 mg/kg | -- | -- | -- |
| 2-Methyl-4,6-dinitrophenol | | | < 0.085 mg/kg | < 0.083 mg/kg | < 0.086 mg/kg | < 0.090 mg/kg | -- | -- | -- |
| 2-Methylnaphthalene | | 100 mg/kg | < 0.032 mg/kg | < 0.031 mg/kg | < 0.033 mg/kg | < 0.034 mg/kg | -- | -- | -- |
| 2-Nitroaniline | | | < 0.023 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | -- | -- | -- |
| 2-Nitrophenol | 0.6 mg/kg | | < 0.041 mg/kg | < 0.040 mg/kg | < 0.042 mg/kg | < 0.044 mg/kg | -- | -- | -- |
| 3,3`-Dichlorobenzidine | 0.36 mg/kg | 25 mg/kg | < 0.45 mg/kg | < 0.44 mg/kg | < 0.45 mg/kg | < 0.48 mg/kg | -- | -- | -- |
| 3-Nitroaniline | | | < 0.038 mg/kg | < 0.037 mg/kg | < 0.038 mg/kg | < 0.040 mg/kg | -- | -- | -- |
| 4-Bromophenyl phenyl ether | | | < 0.020 mg/kg | < 0.019 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | -- | -- | -- |
| 4-Chloro-3-methylphenol | | | < 0.046 mg/kg | < 0.045 mg/kg | < 0.047 mg/kg | < 0.049 mg/kg | -- | -- | -- |
| 4-Chloroaniline | | | < 0.13 mg/kg | < 0.12 mg/kg | < 0.13 mg/kg | < 0.13 mg/kg | -- | -- | -- |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS10 | | SOC5-SS11 | SOC5-SS39 | SOC5-SS46 | SOC5-SS47 | SOC5-SS48 |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/10/2009 | | 09/18/2009 | 09/25/2009 | 08/31/2009 | 09/18/2009 | 09/08/2009 |
| | | Depth Interval | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| 4-Chlorophenyl phenyl ether | | | < 0.026 mg/kg | < 0.026 mg/kg | < 0.027 mg/kg | < 0.028 mg/kg | -- | -- | -- |
| 4-Nitroaniline | | | < 0.026 mg/kg | < 0.026 mg/kg | < 0.027 mg/kg | < 0.028 mg/kg | -- | -- | -- |
| 4-Nitrophenol | | | < 0.11 mg/kg | < 0.11 mg/kg | < 0.12 mg/kg | < 0.12 mg/kg | -- | -- | -- |
| Acenaphthene | 50 mg/kg | 1200 mg/kg | < 0.032 mg/kg | < 0.031 mg/kg | < 0.033 mg/kg | < 0.034 mg/kg | -- | -- | -- |
| Acenaphthylene | | | < 0.026 mg/kg | < 0.026 mg/kg | < 0.027 mg/kg | < 0.028 mg/kg | -- | -- | -- |
| Aniline | | | < 0.10 mg/kg | < 0.10 mg/kg | < 0.10 mg/kg | < 0.11 mg/kg | -- | -- | -- |
| Anthracene | 942 mg/kg | 7880 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | -- | -- | -- |
| Azobenzene | | | < 0.023 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | -- | -- | -- |
| Benzidine | | | < 0.83 mg/kg | < 0.81 mg/kg | < 0.84 mg/kg | < 0.88 mg/kg | -- | -- | -- |
| Benzo(g,h,i)perylene | | | < 0.034 mg/kg | < 0.034 mg/kg | < 0.035 mg/kg | < 0.037 mg/kg | -- | -- | -- |
| Benzoic Acid | 30 mg/kg | 50000 mg/kg | < 0.067 mg/kg | < 0.065 mg/kg | < 0.067 mg/kg | < 0.071 mg/kg | -- | -- | -- |
| Benzyl alcohol | | 8700 mg/kg | < 0.14 mg/kg | < 0.13 mg/kg | < 0.14 mg/kg | < 0.15 mg/kg | -- | -- | -- |
| Bis(2-chloroethoxy)methane | | | < 0.024 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.026 mg/kg | -- | -- | -- |
| Bis(2-chloroethyl)ether | 0.001 mg/kg | 2.5 mg/kg | < 0.028 mg/kg | < 0.027 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | -- | -- | -- |
| Bis(2-chloroisopropyl)ether | 0.67 mg/kg | | < 0.025 mg/kg | < 0.025 mg/kg | < 0.026 mg/kg | < 0.027 mg/kg | -- | -- | -- |
| Bis(2-ethylhexyl)phthalate | 40 mg/kg | 570 mg/kg | < 0.023 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | < 0.024 mg/kg | -- | -- | -- |
| Butyl benzyl phthalate | 28 mg/kg | 580 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.024 mg/kg | < 0.026 mg/kg | -- | -- | -- |
| Carbazole | | 700 mg/kg | < 0.025 mg/kg | < 0.025 mg/kg | < 0.026 mg/kg | < 0.027 mg/kg | -- | -- | -- |
| Dibenzofuran | | 104 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | < 0.023 mg/kg | -- | -- | -- |
| Diethyl phthalate | 18 mg/kg | | < 0.017 mg/kg | < 0.017 mg/kg | < 0.017 mg/kg | < 0.018 mg/kg | -- | -- | -- |
| Dimethyl phthalate | 172 mg/kg | | < 0.021 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | -- | -- | -- |
| Di-n-butyl phthalate | 23 mg/kg | 2440 mg/kg | < 0.043 mg/kg | < 0.042 mg/kg | < 0.043 mg/kg | < 0.045 mg/kg | -- | -- | -- |
| Di-n-octyl phthalate | | 520 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | -- | -- | -- |
| Fluoranthene | 295 mg/kg | 1080 mg/kg | < 0.028 mg/kg | < 0.027 mg/kg | < 0.028 mg/kg | 0.15 j mg/kg | -- | -- | -- |
| Fluorene | 47 mg/kg | 850 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | -- | -- | -- |
| Hexachlorobenzene | 0.32 mg/kg | 5 mg/kg | < 0.018 mg/kg | < 0.018 mg/kg | < 0.019 mg/kg | < 0.020 mg/kg | -- | -- | -- |
| Hexachlorobutadiene | 25 mg/kg | 6 mg/kg | < 0.038 mg/kg | < 0.037 mg/kg | < 0.038 mg/kg | < 0.040 mg/kg | -- | -- | -- |
| Hexachlorocyclopentadiene | 4.4 mg/kg | 2 mg/kg | < 0.047 mg/kg | < 0.046 mg/kg | < 0.048 mg/kg | < 0.050 mg/kg | -- | -- | -- |
| Hexachloroethane | 0.05 mg/kg | | < 0.032 mg/kg | < 0.031 mg/kg | < 0.033 mg/kg | < 0.034 mg/kg | -- | -- | -- |
| Isophorone | 0.16 mg/kg | | < 0.020 mg/kg | < 0.019 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | -- | -- | -- |
| Naphthalene | 7.5 mg/kg | 10 mg/kg | < 0.033 mg/kg | < 0.033 mg/kg | < 0.034 mg/kg | < 0.035 mg/kg | -- | -- | -- |
| Nitrobenzene | | | < 0.034 mg/kg | < 0.034 mg/kg | < 0.035 mg/kg | < 0.037 mg/kg | -- | -- | -- |
| N-Nitrosodimethylamine | 0.82 mg/kg | | < 0.037 mg/kg | < 0.036 mg/kg | < 0.037 mg/kg | < 0.039 mg/kg | -- | -- | -- |
| N-Nitrosodi-n-propylamine | | 0.7 mg/kg | < 0.029 mg/kg | < 0.028 mg/kg | < 0.029 mg/kg | < 0.030 mg/kg | -- | -- | -- |
| N-Nitrosodiphenylamine | 0.88 mg/kg | 1950 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | -- | -- | -- |
| o-Cresol | 0.064 mg/kg | 75 mg/kg | < 0.040 mg/kg | < 0.039 mg/kg | < 0.041 mg/kg | < 0.043 mg/kg | -- | -- | -- |
| p-Cresol | **0.033 mg/kg** | 10 mg/kg | < 0.031 mg/kg | < 0.030 mg/kg | < 0.031 mg/kg | < 0.033 mg/kg | -- | -- | -- |
| Pentachlorophenol | **0.034 mg/kg** | 80 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.11 mg/kg | < 0.12 mg/kg | -- | -- | -- |
| Phenanthrene | | | < 0.022 mg/kg | < 0.021 mg/kg | < 0.022 mg/kg | 0.10 j mg/kg | -- | -- | -- |
| Phenol | 7.8 mg/kg | 1500 mg/kg | < 0.066 mg/kg | < 0.064 mg/kg | < 0.066 mg/kg | < 0.070 mg/kg | -- | -- | -- |
| Pyrene | 272 mg/kg | 890 mg/kg | < 0.026 mg/kg | < 0.026 mg/kg | < 0.027 mg/kg | 0.13 j mg/kg | -- | -- | -- |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS10 | | SOC5-SS11 | SOC5-SS39 | SOC5-SS46 | SOC5-SS47 | SOC5-SS48 |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/10/2009 | | 09/18/2009 | 09/25/2009 | 08/31/2009 | 09/18/2009 | 09/08/2009 |
| | | Depth Interval | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| Benzo(a)anthracene | T | T | < 0.031 mg/kg | < 0.030 mg/kg | < 0.031 mg/kg | 0.080 j mg/kg | -- | -- | -- |
| Benzo(a)pyrene | T | T | < 0.031 mg/kg | < 0.030 mg/kg | < 0.031 mg/kg | < 0.033 mg/kg | -- | -- | -- |
| Benzo(b)fluoranthene | T | T | < 0.039 mg/kg | < 0.038 mg/kg | < 0.040 mg/kg | 0.18 j mg/kg | -- | -- | -- |
| Benzo(k)fluoranthene | T | T | < 0.036 mg/kg | < 0.035 mg/kg | < 0.036 mg/kg | < 0.038 mg/kg | -- | -- | -- |
| Chrysene | T | T | < 0.038 mg/kg | < 0.037 mg/kg | < 0.038 mg/kg | 0.068 j mg/kg | -- | -- | -- |
| Dibenz(a,h)anthracene | T | T | < 0.039 mg/kg | < 0.038 mg/kg | < 0.040 mg/kg | < 0.041 mg/kg | -- | -- | -- |
| Indeno(1,2,3-cd)pyrene | T | T | < 0.037 mg/kg | < 0.036 mg/kg | < 0.037 mg/kg | < 0.039 mg/kg | -- | -- | -- |
| **BaP equivalent, non-detects at zero for the detection limit.[1]** | **10.2 T mg/kg** | 2 T mg/kg | ND mg/kg | ND mg/kg | ND mg/kg | 0.027 a mg/kg | -- | -- | -- |
| Pesticides | | | | | | | | | |
| 2,4,5-TP (Silvex) | | | < 0.056 mg/kg | < 0.057 mg/kg | < 0.057 mg/kg | -- | -- | -- | -- |
| 2,4,5-Trichlorophenoxyacetic acid | | 290 mg/kg | < 0.056 mg/kg | < 0.057 mg/kg | < 0.057 mg/kg | -- | -- | -- | -- |
| 2,4-D | | 285 mg/kg | < 0.056 mg/kg | < 0.057 mg/kg | < 0.057 mg/kg | -- | -- | -- | -- |
| 2,4-DB | | 226 mg/kg | < 0.056 mg/kg | < 0.057 mg/kg | < 0.057 mg/kg | -- | -- | -- | -- |
| 4,4'-DDD | | 56 mg/kg | < 0.086 mg/kg | < 0.082 mg/kg | < 0.028 mg/kg | -- | -- | -- | -- |
| 4,4'-DDE | | 40 mg/kg | < 0.086 mg/kg | < 0.082 mg/kg | < 0.028 mg/kg | -- | -- | -- | -- |
| 4,4'-DDT | | 15 mg/kg | < 0.086 mg/kg | < 0.082 mg/kg | < 0.028 mg/kg | -- | -- | -- | -- |
| a-BHC | | 2 mg/kg | < 0.086 mg/kg | < 0.082 mg/kg | < 0.028 mg/kg | -- | -- | -- | -- |
| Acetochlor | | | < 0.046 mg/kg | < 0.046 mg/kg | < 0.045 mg/kg | -- | -- | -- | -- |
| Alachlor (Lasso) | | | < 0.046 mg/kg | < 0.046 mg/kg | < 0.045 mg/kg | -- | -- | -- | -- |
| Aldrin | | 1 mg/kg | < 0.086 mg/kg | < 0.082 mg/kg | < 0.028 mg/kg | -- | -- | -- | -- |
| Atrazine (Primatol) | | | < 0.046 mg/kg | < 0.046 * mg/kg | < 0.045 mg/kg | -- | -- | -- | -- |
| b-BHC | | 7 mg/kg | < 0.086 mg/kg | < 0.082 mg/kg | < 0.028 mg/kg | -- | -- | -- | -- |
| Bentazone | | | < 0.056 mg/kg | < 0.057 mg/kg | < 0.057 mg/kg | -- | -- | -- | -- |
| Chlordane, alpha | | | < 0.086 mg/kg | < 0.082 mg/kg | < 0.028 mg/kg | -- | -- | -- | -- |
| Chlordane, gamma | | | < 0.086 mg/kg | < 0.082 mg/kg | < 0.028 mg/kg | -- | -- | -- | -- |
| Chlorpyrifos (Lorsban) | | | < 0.046 mg/kg | < 0.046 mg/kg | < 0.045 mg/kg | -- | -- | -- | -- |
| Cyanazine (Bladex) | | | < 0.046 mg/kg | < 0.046 * mg/kg | < 0.045 mg/kg | -- | -- | -- | -- |
| d-BHC | | | < 0.086 mg/kg | < 0.082 mg/kg | < 0.028 mg/kg | -- | -- | -- | -- |
| Deisopropyl atrazine | | | < 0.046 mg/kg | < 0.046 * mg/kg | < 0.045 mg/kg | -- | -- | -- | -- |
| Desethylatrazine | | | < 0.046 mg/kg | < 0.046 mg/kg | < 0.045 mg/kg | -- | -- | -- | -- |
| Dicamba | | | < 0.056 mg/kg | < 0.057 mg/kg | < 0.057 mg/kg | -- | -- | -- | -- |
| Dieldrin | | 0.8 mg/kg | < 0.086 mg/kg | < 0.082 mg/kg | < 0.028 mg/kg | -- | -- | -- | -- |
| Dimethenamid | | | < 0.046 mg/kg | < 0.046 mg/kg | < 0.045 mg/kg | -- | -- | -- | -- |
| Dinoseb (DNBP) | | | < 0.056 mg/kg | < 0.057 mg/kg | < 0.057 mg/kg | -- | -- | -- | -- |
| Endosulfan I | | | < 0.086 mg/kg | < 0.082 mg/kg | < 0.028 mg/kg | -- | -- | -- | -- |
| Endosulfan II | | | < 0.086 mg/kg | < 0.082 mg/kg | < 0.028 mg/kg | -- | -- | -- | -- |
| Endosulfan Sulfate | | | < 0.086 mg/kg | < 0.082 mg/kg | < 0.028 mg/kg | -- | -- | -- | -- |
| Endrin | | 8 mg/kg | < 0.086 mg/kg | < 0.082 mg/kg | < 0.028 mg/kg | -- | -- | -- | -- |
| Endrin Aldehyde | | | < 0.086 mg/kg | < 0.082 mg/kg | < 0.028 mg/kg | -- | -- | -- | -- |
| Endrin Ketone | | | < 0.086 mg/kg | < 0.082 mg/kg | < 0.028 mg/kg | -- | -- | -- | -- |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS10 | | SOC5-SS11 | SOC5-SS39 | SOC5-SS46 | SOC5-SS47 | SOC5-SS48 |
|---|---|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/10/2009 | | 09/18/2009 | 09/25/2009 | 08/31/2009 | 09/18/2009 | 09/08/2009 |
| | | Depth Interval | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| | | Depth Unit | ft | ft | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | | | |
| EPTC (Eradicane) | | | < 0.046 mg/kg | < 0.046 mg/kg | < 0.045 mg/kg | -- | -- | -- | -- |
| Ethalfluralin (Sonalan) | | | < 0.046 mg/kg | < 0.046 mg/kg | < 0.045 mg/kg | -- | -- | -- | -- |
| Fonofos (Dyphonate) | | | < 0.046 mg/kg | < 0.046 mg/kg | < 0.045 mg/kg | -- | -- | -- | -- |
| g-BHC (Lindane) | | 9 mg/kg | < 0.086 mg/kg | < 0.082 mg/kg | < 0.028 mg/kg | -- | -- | -- | -- |
| Heptachlor | | 2 mg/kg | < 0.086 mg/kg | < 0.082 mg/kg | < 0.028 mg/kg | -- | -- | -- | -- |
| Heptachlor Epoxide | | 0.4 mg/kg | < 0.086 mg/kg | < 0.082 mg/kg | < 0.028 mg/kg | -- | -- | -- | -- |
| MCPA | | 16 mg/kg | < 0.056 mg/kg | < 0.057 mg/kg | < 0.057 mg/kg | -- | -- | -- | -- |
| Methoxychlor | | 11 mg/kg | < 0.086 mg/kg | < 0.082 mg/kg | < 0.028 mg/kg | -- | -- | -- | -- |
| Metolachlor (Dual) | | 435 mg/kg | < 0.046 mg/kg | < 0.046 mg/kg | < 0.045 mg/kg | -- | -- | -- | -- |
| Metribuzin | | | < 0.046 mg/kg | < 0.046 mg/kg | < 0.045 mg/kg | -- | -- | -- | -- |
| Pendimethalin (Prowl) | | | < 0.046 mg/kg | < 0.046 mg/kg | < 0.045 mg/kg | -- | -- | -- | -- |
| Pentachlorophenol | 0.034 mg/kg | 80 mg/kg | < 0.056 mg/kg | < 0.057 mg/kg | < 0.057 mg/kg | -- | -- | -- | -- |
| Phorate (Thimet) | | | < 0.046 mg/kg | < 0.046 mg/kg | < 0.045 mg/kg | -- | -- | -- | -- |
| Picloram | | 2000 mg/kg | < 0.056 * mg/kg | < 0.057 * mg/kg | < 0.057 * mg/kg | -- | -- | -- | -- |
| Prometon (Pramitol) | | | < 0.046 mg/kg | < 0.046 mg/kg | < 0.045 mg/kg | -- | -- | -- | -- |
| Propachlor | | | < 0.046 mg/kg | < 0.046 mg/kg | < 0.045 mg/kg | -- | -- | -- | -- |
| Propazine (Milogard) | | | < 0.046 mg/kg | < 0.046 * mg/kg | < 0.045 mg/kg | -- | -- | -- | -- |
| Simazine (Princep) | | | < 0.046 mg/kg | < 0.046 * mg/kg | < 0.045 mg/kg | -- | -- | -- | -- |
| Terbufos (Counter) | | 0.6 mg/kg | < 0.046 mg/kg | < 0.046 mg/kg | < 0.045 mg/kg | -- | -- | -- | -- |
| Toxaphene | | 13 mg/kg | < 1.7 mg/kg | < 1.6 mg/kg | < 0.55 mg/kg | -- | -- | -- | -- |
| Triallate (Far-Go) | | | < 0.046 mg/kg | < 0.046 mg/kg | < 0.045 mg/kg | -- | -- | -- | -- |
| Triclopyr | | | < 0.056 mg/kg | < 0.057 mg/kg | < 0.057 mg/kg | -- | -- | -- | -- |
| Trifluralin (Treflan) | | | < 0.046 mg/kg | < 0.046 mg/kg | < 0.045 mg/kg | -- | -- | -- | -- |
| PCBs | | | | | | | | | |
| Aroclor 1016 | | | -- | -- | -- | -- | < 0.20 mg/kg | < 0.20 mg/kg | < 0.21 mg/kg |
| Aroclor 1221 | | | -- | -- | -- | -- | < 0.20 mg/kg | < 0.20 mg/kg | < 0.21 mg/kg |
| Aroclor 1232 | | | -- | -- | -- | -- | < 0.20 mg/kg | < 0.20 mg/kg | < 0.21 mg/kg |
| Aroclor 1242 | | | -- | -- | -- | -- | < 0.20 mg/kg | < 0.20 mg/kg | < 0.21 mg/kg |
| Aroclor 1248 | | | -- | -- | -- | -- | < 0.20 mg/kg | < 0.20 mg/kg | < 0.21 mg/kg |
| Aroclor 1254 | | | -- | -- | -- | -- | < 0.20 mg/kg | < 0.20 mg/kg | < 0.21 mg/kg |
| Aroclor 1260 | | | -- | -- | -- | -- | < 0.20 mg/kg | < 0.20 mg/kg | < 0.21 mg/kg |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS49 | SOC5-GP1 | SOC5-GP2 | SOC5-GP3 | SOC5-GP4 |
|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/08/2009 | 09/02/2009 | 09/02/2009 | 09/02/2009 | 08/31/2009 |
| | | Depth Interval | 0.5 | 0.5-1.5 | 2-3 | 1-2 | 4-6 |
| | | Depth Unit | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | |
| General Parameters | | | | | | | |
| Nitrocellulose | | | -- | -- | -- | -- | -- |
| Metals | | | | | | | |
| Antimony | 2.7 mg/kg | 12 mg/kg | -- | < 0.60 mg/kg | < 0.56 mg/kg | < 0.52 mg/kg | < 0.62 mg/kg |
| Arsenic | 15.1 mg/kg | 9 mg/kg | -- | 7.6 mg/kg | 8.0 mg/kg | 3.1 mg/kg | 8.4 mg/kg |
| Beryllium | 1.4 mg/kg | 55 mg/kg | -- | < 0.30 mg/kg | < 0.28 mg/kg | < 0.26 mg/kg | 0.48 mg/kg |
| Cadmium | 4.4 mg/kg | 25 mg/kg | -- | < 0.30 mg/kg | < 0.28 mg/kg | < 0.26 mg/kg | < 0.31 mg/kg |
| Chromium, total | 1000000 mg/kg | 44000 mg/kg | -- | 16 mg/kg | 17 mg/kg | 9.2 mg/kg | 14 mg/kg |
| Copper | 400 mg/kg | 100 mg/kg | -- | 14 mg/kg | 12 mg/kg | 8.1 mg/kg | 9.6 mg/kg |
| Lead | 525 mg/kg | 300 mg/kg | -- | 10 mg/kg | 8.8 mg/kg | 3.6 mg/kg | 10 mg/kg |
| Mercury | **1.6 MC mg/kg** | 0.5 mg/kg | -- | < 0.12 mg/kg | < 0.11 mg/kg | < 0.10 mg/kg | < 0.12 mg/kg |
| Nickel | 88 mg/kg | 560 mg/kg | -- | 16 mg/kg | 15 mg/kg | 9.7 mg/kg | 15 mg/kg |
| Selenium | 1.5 mg/kg | 160 mg/kg | -- | < 1.2 mg/kg | < 1.1 mg/kg | < 1.0 mg/kg | < 1.2 mg/kg |
| Silver | 3.9 mg/kg | 160 mg/kg | -- | < 0.30 mg/kg | < 0.28 mg/kg | < 0.26 mg/kg | < 0.31 mg/kg |
| Thallium | | 3 mg/kg | -- | < 2.4 mg/kg | < 2.2 mg/kg | < 2.1 mg/kg | < 2.5 mg/kg |
| Zinc | 1500 mg/kg | 8700 mg/kg | -- | 36 mg/kg | 36 mg/kg | 15 mg/kg | 24 mg/kg |
| SVOCs | | | | | | | |
| 1,2,4-Trichlorobenzene | 0.31 mg/kg | 200 mg/kg | -- | < 0.032 mg/kg | < 0.030 mg/kg | < 0.028 mg/kg | < 0.034 mg/kg |
| 1,2-Dichlorobenzene | 8.1 mg/kg | 26 mg/kg | -- | < 0.030 mg/kg | < 0.028 mg/kg | < 0.026 mg/kg | < 0.031 mg/kg |
| 1,3-Dichlorobenzene | 4.2 mg/kg | 26 mg/kg | -- | < 0.027 mg/kg | < 0.026 mg/kg | < 0.024 mg/kg | < 0.029 mg/kg |
| 1,4-Dichlorobenzene | 0.13 mg/kg | 30 mg/kg | -- | < 0.029 mg/kg | < 0.027 mg/kg | < 0.025 mg/kg | < 0.030 mg/kg |
| 2,3,4,6-Tetrachlorophenol | | 636 mg/kg | -- | < 0.045 mg/kg | < 0.043 mg/kg | < 0.040 mg/kg | < 0.048 mg/kg |
| 2,4,5-Trichlorophenol | | 1920 mg/kg | -- | < 0.029 mg/kg | < 0.027 mg/kg | < 0.025 mg/kg | < 0.030 mg/kg |
| 2,4,6-Trichlorophenol | 0.21 mg/kg | 595 mg/kg | -- | < 0.042 mg/kg | < 0.039 mg/kg | < 0.036 mg/kg | < 0.044 mg/kg |
| 2,4-Dichlorophenol | 0.076 mg/kg | 48 mg/kg | -- | < 0.042 mg/kg | < 0.039 mg/kg | < 0.036 mg/kg | < 0.044 mg/kg |
| 2,4-Dimethylphenol | 0.34 mg/kg | 390 mg/kg | -- | < 0.11 mg/kg | < 0.10 mg/kg | < 0.094 mg/kg | < 0.11 mg/kg |
| 2,4-Dinitrophenol | 0.014 mg/kg | | -- | < 0.069 mg/kg | < 0.065 mg/kg | < 0.060 mg/kg | < 0.072 mg/kg |
| 2,4-Dinitrotoluene | 0.001 mg/kg | 50 mg/kg | -- | < 0.025 mg/kg | < 0.024 mg/kg | < 0.022 mg/kg | < 0.026 mg/kg |
| 2,6-Dichlorophenol | | | -- | < 0.051 mg/kg | < 0.048 mg/kg | < 0.045 mg/kg | < 0.054 mg/kg |
| 2,6-Dinitrotoluene | 0.001 mg/kg | 25 mg/kg | -- | < 0.023 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.024 mg/kg |
| 2-Chloronaphthalene | | | -- | < 0.023 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.024 mg/kg |
| 2-Chlorophenol | 0.26 mg/kg | | -- | < 0.045 mg/kg | < 0.043 mg/kg | < 0.040 mg/kg | < 0.048 mg/kg |
| 2-Methyl-4,6-dinitrophenol | | | -- | < 0.088 mg/kg | < 0.083 mg/kg | < 0.077 mg/kg | < 0.092 mg/kg |
| 2-Methylnaphthalene | | 100 mg/kg | -- | < 0.033 mg/kg | < 0.031 mg/kg | < 0.029 mg/kg | < 0.035 mg/kg |
| 2-Nitroaniline | | | -- | < 0.024 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.025 mg/kg |
| 2-Nitrophenol | 0.6 mg/kg | | -- | < 0.043 mg/kg | < 0.040 mg/kg | < 0.038 mg/kg | < 0.045 mg/kg |
| 3,3`-Dichlorobenzidine | 0.36 mg/kg | 25 mg/kg | -- | < 0.46 mg/kg | < 0.44 mg/kg | < 0.41 mg/kg | < 0.49 mg/kg |
| 3-Nitroaniline | | | -- | < 0.039 mg/kg | < 0.037 mg/kg | < 0.034 mg/kg | < 0.041 mg/kg |
| 4-Bromophenyl phenyl ether | | | -- | < 0.020 mg/kg | < 0.019 mg/kg | < 0.018 mg/kg | < 0.021 mg/kg |
| 4-Chloro-3-methylphenol | | | -- | < 0.048 mg/kg | < 0.045 mg/kg | < 0.042 mg/kg | < 0.050 mg/kg |
| 4-Chloroaniline | | | -- | < 0.13 mg/kg | < 0.12 mg/kg | < 0.11 mg/kg | < 0.14 mg/kg |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS49 | SOC5-GP1 | SOC5-GP2 | SOC5-GP3 | SOC5-GP4 |
|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/08/2009 | 09/02/2009 | 09/02/2009 | 09/02/2009 | 08/31/2009 |
| | | Depth Interval | 0.5 | 0.5-1.5 | 2-3 | 1-2 | 4-6 |
| | | Depth Unit | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | |
| 4-Chlorophenyl phenyl ether | | | -- | < 0.027 mg/kg | < 0.026 mg/kg | < 0.024 mg/kg | < 0.029 mg/kg |
| 4-Nitroaniline | | | -- | < 0.027 mg/kg | < 0.026 mg/kg | < 0.024 mg/kg | < 0.029 mg/kg |
| 4-Nitrophenol | | | -- | < 0.12 mg/kg | < 0.11 mg/kg | < 0.10 mg/kg | < 0.12 mg/kg |
| Acenaphthene | 50 mg/kg | 1200 mg/kg | -- | < 0.033 mg/kg | < 0.031 mg/kg | < 0.029 mg/kg | < 0.035 mg/kg |
| Acenaphthylene | | | -- | < 0.027 mg/kg | < 0.026 mg/kg | < 0.024 mg/kg | < 0.029 mg/kg |
| Aniline | | | -- | < 0.11 mg/kg | < 0.10 mg/kg | < 0.094 mg/kg | < 0.11 mg/kg |
| Anthracene | 942 mg/kg | 7880 mg/kg | -- | < 0.030 mg/kg | < 0.028 mg/kg | < 0.026 mg/kg | < 0.031 mg/kg |
| Azobenzene | | | -- | < 0.024 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.025 mg/kg |
| Benzidine | | | -- | < 0.86 mg/kg | < 0.81 mg/kg | < 0.75 mg/kg | < 0.90 mg/kg |
| Benzo(g,h,i)perylene | | | -- | < 0.036 mg/kg | < 0.034 mg/kg | < 0.031 mg/kg | < 0.038 mg/kg |
| Benzoic Acid | 30 mg/kg | 50000 mg/kg | -- | < 0.069 mg/kg | < 0.065 mg/kg | < 0.060 mg/kg | < 0.072 mg/kg |
| Benzyl alcohol | | 8700 mg/kg | -- | < 0.14 mg/kg | < 0.13 mg/kg | < 0.12 mg/kg | < 0.15 mg/kg |
| Bis(2-chloroethoxy)methane | | | -- | < 0.025 mg/kg | < 0.024 mg/kg | < 0.022 mg/kg | < 0.026 mg/kg |
| Bis(2-chloroethyl)ether | 0.001 mg/kg | 2.5 mg/kg | -- | < 0.029 mg/kg | < 0.027 mg/kg | < 0.025 mg/kg | < 0.030 mg/kg |
| Bis(2-chloroisopropyl)ether | 0.67 mg/kg | | -- | < 0.026 mg/kg | < 0.025 mg/kg | < 0.023 mg/kg | < 0.028 mg/kg |
| Bis(2-ethylhexyl)phthalate | 40 mg/kg | 570 mg/kg | -- | < 0.024 mg/kg | < 0.022 mg/kg | < 0.021 mg/kg | < 0.025 mg/kg |
| Butyl benzyl phthalate | 28 mg/kg | 580 mg/kg | -- | < 0.025 mg/kg | < 0.024 mg/kg | < 0.022 mg/kg | < 0.026 mg/kg |
| Carbazole | | 700 mg/kg | -- | < 0.026 mg/kg | < 0.025 mg/kg | < 0.023 mg/kg | < 0.028 mg/kg |
| Dibenzofuran | | 104 mg/kg | -- | < 0.023 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.024 mg/kg |
| Diethyl phthalate | 18 mg/kg | | -- | < 0.018 mg/kg | < 0.017 mg/kg | < 0.016 mg/kg | < 0.019 mg/kg |
| Dimethyl phthalate | 172 mg/kg | | -- | < 0.021 mg/kg | < 0.020 mg/kg | < 0.019 mg/kg | < 0.022 mg/kg |
| Di-n-butyl phthalate | 23 mg/kg | 2440 mg/kg | -- | < 0.044 mg/kg | < 0.042 mg/kg | < 0.039 mg/kg | < 0.046 mg/kg |
| Di-n-octyl phthalate | | 520 mg/kg | -- | < 0.030 mg/kg | < 0.028 mg/kg | < 0.026 mg/kg | < 0.031 mg/kg |
| Fluoranthene | 295 mg/kg | 1080 mg/kg | -- | < 0.029 mg/kg | < 0.027 mg/kg | < 0.025 mg/kg | < 0.030 mg/kg |
| Fluorene | 47 mg/kg | 850 mg/kg | -- | < 0.021 mg/kg | < 0.020 mg/kg | < 0.019 mg/kg | < 0.022 mg/kg |
| Hexachlorobenzene | 0.32 mg/kg | 5 mg/kg | -- | < 0.019 mg/kg | < 0.018 mg/kg | < 0.017 mg/kg | < 0.020 mg/kg |
| Hexachlorobutadiene | 25 mg/kg | 6 mg/kg | -- | < 0.039 mg/kg | < 0.037 mg/kg | < 0.034 mg/kg | < 0.041 mg/kg |
| Hexachlorocyclopentadiene | 4.4 mg/kg | 2 mg/kg | -- | < 0.049 mg/kg | < 0.046 mg/kg | < 0.043 mg/kg | < 0.051 mg/kg |
| Hexachloroethane | 0.05 mg/kg | | -- | < 0.033 mg/kg | < 0.031 mg/kg | < 0.029 mg/kg | < 0.035 mg/kg |
| Isophorone | 0.16 mg/kg | | -- | < 0.020 mg/kg | < 0.019 mg/kg | < 0.018 mg/kg | < 0.021 mg/kg |
| Naphthalene | 7.5 mg/kg | 10 mg/kg | -- | < 0.035 mg/kg | < 0.033 mg/kg | < 0.030 mg/kg | < 0.036 mg/kg |
| Nitrobenzene | | | -- | < 0.036 mg/kg | < 0.034 mg/kg | < 0.031 mg/kg | < 0.038 mg/kg |
| N-Nitrosodimethylamine | 0.82 mg/kg | | -- | < 0.038 mg/kg | < 0.036 mg/kg | < 0.033 mg/kg | < 0.040 mg/kg |
| N-Nitrosodi-n-propylamine | | 0.7 mg/kg | -- | < 0.030 mg/kg | < 0.028 mg/kg | < 0.026 mg/kg | < 0.031 mg/kg |
| N-Nitrosodiphenylamine | 0.88 mg/kg | 1950 mg/kg | -- | < 0.021 mg/kg | < 0.020 mg/kg | < 0.019 mg/kg | < 0.022 mg/kg |
| o-Cresol | 0.064 mg/kg | 75 mg/kg | -- | < 0.042 mg/kg | < 0.039 mg/kg | < 0.036 mg/kg | < 0.044 mg/kg |
| p-Cresol | **0.033 mg/kg** | 10 mg/kg | -- | < 0.032 mg/kg | < 0.030 mg/kg | < 0.028 mg/kg | < 0.034 mg/kg |
| Pentachlorophenol | **0.034 mg/kg** | 80 mg/kg | -- | < 0.11 mg/kg | < 0.11 mg/kg | < 0.10 mg/kg | < 0.12 mg/kg |
| Phenanthrene | | | -- | < 0.023 mg/kg | < 0.021 mg/kg | < 0.020 mg/kg | < 0.024 mg/kg |
| Phenol | 7.8 mg/kg | 1500 mg/kg | -- | < 0.068 mg/kg | < 0.064 mg/kg | < 0.059 mg/kg | < 0.071 mg/kg |
| Pyrene | 272 mg/kg | 890 mg/kg | -- | < 0.027 mg/kg | < 0.026 mg/kg | < 0.024 mg/kg | < 0.029 mg/kg |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS49 | SOC5-GP1 | SOC5-GP2 | SOC5-GP3 | SOC5-GP4 |
|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/08/2009 | 09/02/2009 | 09/02/2009 | 09/02/2009 | 08/31/2009 |
| | | Depth Interval | 0.5 | 0.5-1.5 | 2-3 | 1-2 | 4-6 |
| | | Depth Unit | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | |
| Benzo(a)anthracene | T | T | -- | < 0.032 mg/kg | < 0.030 mg/kg | < 0.028 mg/kg | < 0.034 mg/kg |
| Benzo(a)pyrene | T | T | -- | < 0.032 mg/kg | < 0.030 mg/kg | < 0.028 mg/kg | < 0.034 mg/kg |
| Benzo(b)fluoranthene | T | T | -- | < 0.040 mg/kg | < 0.038 mg/kg | < 0.035 mg/kg | < 0.042 mg/kg |
| Benzo(k)fluoranthene | T | T | -- | < 0.037 mg/kg | < 0.035 mg/kg | < 0.032 mg/kg | < 0.039 mg/kg |
| Chrysene | T | T | -- | < 0.039 mg/kg | < 0.037 mg/kg | < 0.034 mg/kg | < 0.041 mg/kg |
| Dibenz(a,h)anthracene | T | T | -- | < 0.040 mg/kg | < 0.038 mg/kg | < 0.035 mg/kg | < 0.042 mg/kg |
| Indeno(1,2,3-cd)pyrene | T | T | -- | < 0.038 mg/kg | < 0.036 mg/kg | < 0.033 mg/kg | < 0.040 mg/kg |
| **BaP equivalent, non-detects at zero for the detection limit.[1]** | **10.2 T mg/kg** | 2 T mg/kg | -- | ND mg/kg | ND mg/kg | ND mg/kg | ND mg/kg |
| Pesticides | | | | | | | |
| 2,4,5-TP (Silvex) | | | -- | -- | -- | -- | -- |
| 2,4,5-Trichlorophenoxyacetic acid | | 290 mg/kg | -- | -- | -- | -- | -- |
| 2,4-D | | 285 mg/kg | -- | -- | -- | -- | -- |
| 2,4-DB | | 226 mg/kg | -- | -- | -- | -- | -- |
| 4,4'-DDD | | 56 mg/kg | -- | -- | -- | -- | -- |
| 4,4'-DDE | | 40 mg/kg | -- | -- | -- | -- | -- |
| 4,4'-DDT | | 15 mg/kg | -- | -- | -- | -- | -- |
| a-BHC | | 2 mg/kg | -- | -- | -- | -- | -- |
| Acetochlor | | | -- | -- | -- | -- | -- |
| Alachlor (Lasso) | | | -- | -- | -- | -- | -- |
| Aldrin | | 1 mg/kg | -- | -- | -- | -- | -- |
| Atrazine (Primatol) | | | -- | -- | -- | -- | -- |
| b-BHC | | 7 mg/kg | -- | -- | -- | -- | -- |
| Bentazone | | | -- | -- | -- | -- | -- |
| Chlordane, alpha | | | -- | -- | -- | -- | -- |
| Chlordane, gamma | | | -- | -- | -- | -- | -- |
| Chlorpyrifos (Lorsban) | | | -- | -- | -- | -- | -- |
| Cyanazine (Bladex) | | | -- | -- | -- | -- | -- |
| d-BHC | | | -- | -- | -- | -- | -- |
| Deisopropyl atrazine | | | -- | -- | -- | -- | -- |
| Desethylatrazine | | | -- | -- | -- | -- | -- |
| Dicamba | | | -- | -- | -- | -- | -- |
| Dieldrin | | 0.8 mg/kg | -- | -- | -- | -- | -- |
| Dimethenamid | | | -- | -- | -- | -- | -- |
| Dinoseb (DNBP) | | | -- | -- | -- | -- | -- |
| Endosulfan I | | | -- | -- | -- | -- | -- |
| Endosulfan II | | | -- | -- | -- | -- | -- |
| Endosulfan Sulfate | | | -- | -- | -- | -- | -- |
| Endrin | | 8 mg/kg | -- | -- | -- | -- | -- |
| Endrin Aldehyde | | | -- | -- | -- | -- | -- |
| Endrin Ketone | | | -- | -- | -- | -- | -- |

**Table 8**
**SOC 5 - Green Space Soil Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | Sys Loc Code | SOC5-SS49 | SOC5-GP1 | SOC5-GP2 | SOC5-GP3 | SOC5-GP4 |
|---|---|---|---|---|---|---|---|
| | | Sample Date | 09/08/2009 | 09/02/2009 | 09/02/2009 | 09/02/2009 | 08/31/2009 |
| | | Depth Interval | 0.5 | 0.5-1.5 | 2-3 | 1-2 | 4-6 |
| | | Depth Unit | ft | ft | ft | ft | ft |
| Chemical Name | MN Tier I SLV | MN Tier I SRV | | | | | |
| **Effective Date** | 06/27/2005 | 06/22/2009 | | | | | |
| **Exceedance Key** | **Bold** | Underline | | | | | |
| EPTC (Eradicane) | | | -- | -- | -- | -- | -- |
| Ethalfluralin (Sonalan) | | | -- | -- | -- | -- | -- |
| Fonofos (Dyphonate) | | | -- | -- | -- | -- | -- |
| g-BHC (Lindane) | | 9 mg/kg | -- | -- | -- | -- | -- |
| Heptachlor | | 2 mg/kg | -- | -- | -- | -- | -- |
| Heptachlor Epoxide | | 0.4 mg/kg | -- | -- | -- | -- | -- |
| MCPA | | 16 mg/kg | -- | -- | -- | -- | -- |
| Methoxychlor | | 11 mg/kg | -- | -- | -- | -- | -- |
| Metolachlor (Dual) | | 435 mg/kg | -- | -- | -- | -- | -- |
| Metribuzin | | | -- | -- | -- | -- | -- |
| Pendimethalin (Prowl) | | | -- | -- | -- | -- | -- |
| Pentachlorophenol | 0.034 mg/kg | 80 mg/kg | -- | -- | -- | -- | -- |
| Phorate (Thimet) | | | -- | -- | -- | -- | -- |
| Picloram | | 2000 mg/kg | -- | -- | -- | -- | -- |
| Prometon (Pramitol) | | | -- | -- | -- | -- | -- |
| Propachlor | | | -- | -- | -- | -- | -- |
| Propazine (Milogard) | | | -- | -- | -- | -- | -- |
| Simazine (Princep) | | | -- | -- | -- | -- | -- |
| Terbufos (Counter) | | 0.6 mg/kg | -- | -- | -- | -- | -- |
| Toxaphene | | 13 mg/kg | -- | -- | -- | -- | -- |
| Triallate (Far-Go) | | | -- | -- | -- | -- | -- |
| Triclopyr | | | -- | -- | -- | -- | -- |
| Trifluralin (Treflan) | | | -- | -- | -- | -- | -- |
| PCBs | | | | | | | |
| Aroclor 1016 | | | < 0.21 mg/kg | -- | -- | -- | -- |
| Aroclor 1221 | | | < 0.21 mg/kg | -- | -- | -- | -- |
| Aroclor 1232 | | | < 0.21 mg/kg | -- | -- | -- | -- |
| Aroclor 1242 | | | < 0.21 mg/kg | -- | -- | -- | -- |
| Aroclor 1248 | | | < 0.21 mg/kg | -- | -- | -- | -- |
| Aroclor 1254 | | | < 0.21 mg/kg | -- | -- | -- | -- |
| Aroclor 1260 | | | < 0.21 mg/kg | -- | -- | -- | -- |

| Data Qualifiers/Footnotes - Soil | |
|---|---|
| **Qualifier** | **Definition** |
| -- | Not analyzed/not available. |
| a | Estimated value, calculated using some or all values that are estimates. |
| b | Potential false positive value based on blank data validation procedures. |
| c | Coeluting compound. |
| e | Estimated value, exceeded the instrument calibration range. |
| h | EPA recommended sample preservation, extraction or analysis holding time was exceeded. |
| I | Indeterminate value based on failure of blind duplicate data to meet quality assurance criteria. |
| j | Reported value is less than the stated laboratory quantitation limit and is considered an estimated value. |
| p | Relative percent difference is >40% (25% CLP pesticides) between primary and confirmation GC columns. |
| r | The presence of the compound is suspect based on the ID criteria of the retention time and relative retention time obtained from the examination of the chromatograms. |
| * | Estimated value, QA/QC criteria not met. |
| ** | Unusable value, QA/QC criteria not met. |
| ND | Not detected. |

## Data Qualifiers / Footnotes - Soil

| | Qualifier | Definition |
|---|---|---|
| MN Tier I SLV | DI | Value represents a criteria for 2,3,7,8-TCDD or 2,3,7,8-TCDD equivalents. |
| | M | Value represents the criteria for mixed Xylenes. |
| | MC | Mercury as Mercuric Chloride. |
| | NA | Not Applicable. |
| | T | Value represents a criteria for the total carcinogenic PAHs as BaP. Total carcinogenic PAHs are: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenz(a,h)anthracene, Chrysene and Indeno(1,2.3-cd)pyrene. |
| MN Tier I SRV | DI | Value represents a criteria for 2,3,7,8-TCDD or 2,3,7,8-TCDD equivalents. |
| | M | Value represents the criteria for mixed Xylenes. |
| | T | Value represents a criteria for the total carcinogenic PAHs as BaP. Total carcinogenic PAHs are: Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenz(a,h)anthracene, Chrysene and Indeno(1,2.3-cd)pyrene. |

# Table 9
## SOC 5 Groundwater Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | | Sys Loc Code | SOC5-GP1 | | SOC5-GP3 | SOC5-GP3 | SOC5-GP3 | SOC5-GP4 |
|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 09/02/2009 | | 09/03/2009 | 09/08/2009 | 09/09/2009 | 09/01/2009 |
| Chemical Name | Total or Dissolved | EPA Maximum Contaminant Limit | MN GW Values Table | | | | | | |
| **Effective Date** | | 5/1/2009 | 6/2/2009 | | | | | | |
| **Exceedance Key** | | **Bold** | Underline | | | | | | |
| General Parameters | | | | | | | | | |
| Nitrate + Nitrite | NA | **10 mg/l** | | 3.8 mg/l | 3.9 mg/l | -- | 2.3 mg/l | -- | 8.4 mg/l |
| Nitrogen total kjeldahl | NA | | | < 2.0 mg/l | < 2.0 mg/l | -- | 2.4 mg/l | -- | < 2.0 mg/l |
| Nitrocellulose | NA | | | < 0.50 mg/l | < 0.50 mg/l | -- | < 0.50 mg/l | -- | < 0.50 mg/l |
| Perchlorate | NA | | | < 4.0 ug/l | < 4.0 ug/l | -- | -- | -- | -- |
| Metals | | | | | | | | | |
| Antimony | Dissolved | 6 ug/l | 6 HRL93 ug/l | 0.54 ug/l | 1.2 ug/l | -- | -- | < 0.046 ug/l | 4.7 ug/l |
| Arsenic | Dissolved | 10 ug/l | | < 10 ug/l | < 10 ug/l | -- | -- | < 10 ug/l | < 10 ug/l |
| Beryllium | Dissolved | 4 ug/l | 0.08 HRL93 ug/l | < 0.027 * ug/l | < 0.027 * ug/l | -- | -- | < 0.027 ug/l | 0.45 j ug/l |
| Cadmium | Dissolved | 5 ug/l | 4 HRL93 ug/l | < 1.0 ug/l | < 1.0 ug/l | -- | -- | < 1.0 ug/l | < 1.0 ug/l |
| Chromium | Dissolved | 100 ug/l | 100 CR ug/l | < 10 ug/l | < 10 ug/l | -- | -- | < 10 ug/l | < 10 ug/l |
| Copper | Dissolved | 1300 TT (7) ug/l | | < 20 ug/l | < 20 ug/l | -- | -- | < 20 ug/l | < 20 ug/l |
| Lead | Dissolved | 15 TT(7) ug/l | | < 3.0 ug/l | < 3.0 ug/l | -- | -- | < 3.0 ug/l | < 3.0 ug/l |
| Mercury | Dissolved | 2 ug/l | | < 0.20 ug/l | < 0.20 ug/l | -- | -- | < 0.20 ug/l | < 0.20 ug/l |
| Nickel | Dissolved | | 100 HRL93 ug/l | 5.3 ug/l | 6.4 ug/l | -- | -- | 28 ug/l | < 5.0 ug/l |
| Selenium | Dissolved | 50 ug/l | 30 HRL93 ug/l | < 20 ug/l | < 20 ug/l | -- | -- | < 20 ug/l | < 20 ug/l |
| Silver | Dissolved | | 30 HRL93 ug/l | < 5.0 ug/l | < 5.0 ug/l | -- | -- | < 5.0 ug/l | < 5.0 ug/l |
| Thallium | Dissolved | 2 ug/l | 0.6 HRL94 ug/l | 0.097 j ug/l | 0.11 j ug/l | -- | -- | < 0.0081 ug/l | 1.9 ug/l |
| Zinc | Dissolved | | 2000 HRL94 ug/l | < 20 ug/l | < 20 ug/l | -- | -- | < 20 ug/l | < 20 ug/l |
| SVOCs | | | | | | | | | |
| 1,2,4-Trichlorobenzene | NA | 70 ug/l | | < 0.18 ug/l | < 0.18 ug/l | -- | -- | < 0.18 ug/l | < 0.18 ug/l |
| 1,2-Dichlorobenzene | NA | 600 ug/l | 600 HRL93 ug/l | < 0.21 ug/l | < 0.21 ug/l | -- | -- | < 0.21 ug/l | < 0.21 ug/l |
| 1,3-Dichlorobenzene | NA | | | < 0.19 ug/l | < 0.19 ug/l | -- | -- | < 0.19 ug/l | < 0.19 ug/l |
| 1,4-Dichlorobenzene | NA | 75 ug/l | 10 HRL94 ug/l | < 0.20 ug/l | < 0.20 ug/l | -- | -- | < 0.20 ug/l | < 0.20 ug/l |
| 2,3,4,6-Tetrachlorophenol | NA | | | < 0.56 ug/l | < 0.56 ug/l | -- | -- | < 0.56 ug/l | < 0.56 ug/l |
| 2,4,5-Trichlorophenol | NA | | | < 0.74 ug/l | < 0.74 ug/l | -- | -- | < 0.74 ug/l | < 0.74 ug/l |
| 2,4,6-Trichlorophenol | NA | | 30 HRL93 ug/l | < 0.44 ug/l | < 0.44 ug/l | -- | -- | < 0.44 ug/l | < 0.44 ug/l |
| 2,4-Dichlorophenol | NA | | 20 HRL93 ug/l | < 0.44 ug/l | < 0.44 ug/l | -- | -- | < 0.44 ug/l | < 0.44 ug/l |
| 2,4-Dimethylphenol | NA | | 100 HRL93 ug/l | < 1.5 ug/l | < 1.5 ug/l | -- | -- | < 1.5 ug/l | < 1.5 ug/l |
| 2,4-Dinitrophenol | NA | | 10 HRL94 ug/l | < 0.93 ug/l | < 0.93 ug/l | -- | -- | < 0.93 ug/l | < 0.93 ug/l |
| 2,4-Dinitrotoluene | NA | | | < 0.31 ug/l | < 0.31 ug/l | -- | -- | < 0.31 ug/l | < 0.31 ug/l |
| 2,6-Dichlorophenol | NA | | | < 0.44 ug/l | < 0.44 ug/l | -- | -- | < 0.44 ug/l | < 0.44 ug/l |
| 2,6-Dinitrotoluene | NA | | | < 0.33 ug/l | < 0.33 ug/l | -- | -- | < 0.33 ug/l | < 0.33 ug/l |
| 2-Chloronaphthalene | NA | | | < 0.26 ug/l | < 0.26 ug/l | -- | -- | < 0.26 ug/l | < 0.26 ug/l |
| 2-Chlorophenol | NA | | 30 HRL93 ug/l | < 0.42 ug/l | < 0.42 ug/l | -- | -- | < 0.42 ug/l | < 0.42 ug/l |
| 2-Methyl-4,6-dinitrophenol | NA | | | < 0.60 ug/l | < 0.60 ug/l | -- | -- | < 0.60 ug/l | < 0.60 ug/l |
| 2-Methylnaphthalene | NA | | | < 0.61 ug/l | < 0.61 ug/l | -- | -- | < 0.61 ug/l | < 0.61 ug/l |
| 2-Nitroaniline | NA | | | < 0.67 ug/l | < 0.67 ug/l | -- | -- | < 0.67 ug/l | < 0.67 ug/l |
| 2-Nitrophenol | NA | | | < 0.83 ug/l | < 0.83 ug/l | -- | -- | < 0.83 ug/l | < 0.83 ug/l |
| 3,3`-Dichlorobenzidine | NA | | 0.8 HRL93 ug/l | < 6.8 ug/l | < 6.8 ug/l | -- | -- | < 6.8 ug/l | < 6.8 ug/l |
| 3-Nitroaniline | NA | | | < 1.1 ug/l | < 1.1 ug/l | -- | -- | < 1.1 ug/l | < 1.1 ug/l |
| 4-Bromophenyl phenyl ether | NA | | | < 0.16 ug/l | < 0.16 ug/l | -- | -- | < 0.16 ug/l | < 0.16 ug/l |

# Table 9
## SOC 5 Groundwater Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | | Sys Loc Code | SOC5-GP1 | | SOC5-GP3 | SOC5-GP3 | SOC5-GP3 | SOC5-GP4 |
|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 09/02/2009 | | 09/03/2009 | 09/08/2009 | 09/09/2009 | 09/01/2009 |
| Chemical Name | Total or Dissolved | EPA Maximum Contaminant Limit | MN GW Values Table | | | | | | |
| **Effective Date** | | 5/1/2009 | 6/2/2009 | | | | | | |
| **Exceedance Key** | | **Bold** | Underline | | | | | | |
| 4-Chloro-3-methylphenol | NA | | | < 0.51 ug/l | < 0.51 ug/l | -- | -- | < 0.51 ug/l | < 0.51 ug/l |
| 4-Chloroaniline | NA | | | < 2.1 ug/l | < 2.1 ug/l | -- | -- | < 2.1 ug/l | < 2.1 ug/l |
| 4-Chlorophenyl phenyl ether | NA | | | < 0.23 ug/l | < 0.23 ug/l | -- | -- | < 0.23 ug/l | < 0.23 ug/l |
| 4-Nitroaniline | NA | | | < 0.55 ug/l | < 0.55 ug/l | -- | -- | < 0.55 ug/l | < 0.55 ug/l |
| 4-Nitrophenol | NA | | | < 1.1 ug/l | < 1.1 ug/l | -- | -- | < 1.1 ug/l | < 1.1 ug/l |
| Acenaphthene | NA | | 400 HRL93 ug/l | < 0.33 ug/l | < 0.33 ug/l | -- | -- | < 0.33 ug/l | < 0.33 ug/l |
| Acenaphthylene | NA | | | < 0.23 ug/l | < 0.23 ug/l | -- | -- | < 0.23 ug/l | < 0.23 ug/l |
| Aniline | NA | | | < 2.0 ug/l | < 2.0 ug/l | -- | -- | < 2.0 ug/l | < 2.0 ug/l |
| Anthracene | NA | | 2000 HRL93 ug/l | < 0.34 ug/l | < 0.34 ug/l | -- | -- | < 0.34 ug/l | < 0.34 ug/l |
| Azobenzene | NA | | | < 0.22 ug/l | < 0.22 ug/l | -- | -- | < 0.22 ug/l | < 0.22 ug/l |
| Benzidine | NA | | | < 17 ug/l | < 17 ug/l | -- | -- | < 17 ug/l | < 17 ug/l |
| Benzo(a)anthracene | NA | | | < 0.34 ug/l | < 0.34 ug/l | -- | -- | < 0.34 ug/l | < 0.34 ug/l |
| Benzo(a)pyrene | NA | 0.2 ug/l | | < 0.27 ug/l | < 0.27 ug/l | -- | -- | < 0.27 ug/l | < 0.27 ug/l |
| Benzo(b)fluoranthene | NA | | | < 0.20 ug/l | < 0.20 ug/l | -- | -- | < 0.20 ug/l | < 0.20 ug/l |
| Benzo(g,h,i)perylene | NA | | | < 0.24 ug/l | < 0.24 ug/l | -- | -- | < 0.24 ug/l | < 0.24 ug/l |
| Benzo(k)fluoranthene | NA | | | < 0.29 ug/l | < 0.29 ug/l | -- | -- | < 0.29 ug/l | < 0.29 ug/l |
| Benzoic Acid | NA | | 30000 HRL93 ug/l | < 1.1 ug/l | < 1.1 ug/l | -- | -- | < 1.1 ug/l | 3.8 j ug/l |
| Benzyl alcohol | NA | | | < 0.50 ug/l | < 0.50 ug/l | -- | -- | < 0.50 ug/l | < 0.50 ug/l |
| Bis(2-chloroethoxy)methane | NA | | | < 0.17 ug/l | < 0.17 ug/l | -- | -- | < 0.17 ug/l | < 0.17 ug/l |
| Bis(2-chloroethyl)ether | NA | | 0.3 HRL93 ug/l | < 0.16 ug/l | < 0.16 ug/l | -- | -- | < 0.16 ug/l | < 0.16 ug/l |
| Bis(2-chloroisopropyl)ether | NA | | | < 0.18 ug/l | < 0.18 ug/l | -- | -- | < 0.18 ug/l | < 0.18 ug/l |
| Bis(2-ethylhexyl)phthalate | NA | 6 ug/l | | < 0.40 ug/l | < 0.40 ug/l | -- | -- | < 0.40 ug/l | < 0.40 ug/l |
| Butyl benzyl phthalate | NA | | 100 HRL93 ug/l | < 0.34 ug/l | < 0.34 ug/l | -- | -- | < 0.34 ug/l | < 0.34 ug/l |
| Carbazole | NA | | | < 0.24 ug/l | < 0.24 ug/l | -- | -- | < 0.24 ug/l | < 0.24 ug/l |
| Chrysene | NA | | | < 0.25 ug/l | < 0.25 ug/l | -- | -- | < 0.25 ug/l | < 0.25 ug/l |
| Dibenz(a,h)anthracene | NA | | | < 0.21 ug/l | < 0.21 ug/l | -- | -- | < 0.21 ug/l | < 0.21 ug/l |
| Dibenzofuran | NA | | | < 0.36 ug/l | < 0.36 ug/l | -- | -- | < 0.36 ug/l | < 0.36 ug/l |
| Diethyl phthalate | NA | | 6000 HRL93 ug/l | < 0.21 ug/l | < 0.21 ug/l | -- | -- | < 0.21 ug/l | < 0.21 ug/l |
| Dimethyl phthalate | NA | | 70000 HRL94 ug/l | < 0.22 ug/l | < 0.22 ug/l | -- | -- | < 0.22 ug/l | < 0.22 ug/l |
| Di-n-butyl phthalate | NA | | 700 HRL93 ug/l | < 0.26 ug/l | < 0.26 ug/l | -- | -- | < 0.26 ug/l | < 0.26 ug/l |
| Di-n-octyl phthalate | NA | | | < 0.35 ug/l | < 0.35 ug/l | -- | -- | < 0.35 ug/l | < 0.35 ug/l |
| Fluoranthene | NA | | 300 HRL93 ug/l | < 0.36 ug/l | < 0.36 ug/l | -- | -- | < 0.36 ug/l | < 0.36 ug/l |
| Fluorene | NA | | 300 HRL93 ug/l | < 0.37 ug/l | < 0.37 ug/l | -- | -- | < 0.37 ug/l | < 0.37 ug/l |
| Hexachlorobenzene | NA | 1 ug/l | 0.2 HRL93 ug/l | < 0.19 ug/l | < 0.19 ug/l | -- | -- | < 0.19 ug/l | < 0.19 ug/l |
| Hexachlorobutadiene | NA | | 1 HRL93 ug/l | < 0.24 ug/l | < 0.24 ug/l | -- | -- | < 0.24 ug/l | < 0.24 ug/l |
| Hexachlorocyclopentadiene | NA | 50 ug/l | | < 0.29 ug/l | < 0.29 ug/l | -- | -- | < 0.29 ug/l | < 0.29 ug/l |
| Hexachloroethane | NA | | | < 0.29 ug/l | < 0.29 ug/l | -- | -- | < 0.29 ug/l | < 0.29 ug/l |
| Indeno(1,2,3-cd)pyrene | NA | | | < 0.29 ug/l | < 0.29 ug/l | -- | -- | < 0.29 ug/l | < 0.29 ug/l |
| Isophorone | NA | | 100 HRL93 ug/l | < 0.21 ug/l | < 0.21 ug/l | -- | -- | < 0.21 ug/l | < 0.21 ug/l |
| Naphthalene | NA | | 300 HRL94 ug/l | < 0.34 ug/l | < 0.34 ug/l | -- | -- | < 0.34 ug/l | < 0.34 ug/l |
| Nitrobenzene | NA | | | < 0.36 ug/l | < 0.36 ug/l | -- | -- | < 0.36 ug/l | < 0.36 ug/l |
| N-Nitrosodimethylamine | NA | | | < 0.88 ug/l | < 0.88 ug/l | -- | -- | < 0.88 ug/l | < 0.88 ug/l |

# Table 9
## SOC 5 Groundwater Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | | Sys Loc Code | SOC5-GP1 | | SOC5-GP3 | SOC5-GP3 | SOC5-GP3 | SOC5-GP4 |
|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 09/02/2009 | | 09/03/2009 | 09/08/2009 | 09/09/2009 | 09/01/2009 |
| Chemical Name | Total or Dissolved | EPA Maximum Contaminant Limit | MN GW Values Table | | | | | | |
| **Effective Date** | | 5/1/2009 | 6/2/2009 | | | | | | |
| **Exceedance Key** | | **Bold** | Underline | | | | | | |
| N-Nitrosodi-n-propylamine | NA | | | < 0.19 ug/l | < 0.19 ug/l | -- | -- | < 0.19 ug/l | < 0.19 ug/l |
| N-Nitrosodiphenylamine | NA | | 70 HRL93 ug/l | < 0.21 ug/l | < 0.21 ug/l | -- | -- | < 0.21 ug/l | < 0.21 ug/l |
| o-Cresol | NA | | 30 HRL93 ug/l | < 0.58 ug/l | < 0.58 ug/l | -- | -- | < 0.58 ug/l | < 0.58 ug/l |
| p-Cresol | NA | | 3 HRL94 ug/l | < 0.73 ug/l | < 0.73 ug/l | -- | -- | < 0.73 ug/l | < 0.73 ug/l |
| Pentachlorophenol | NA | 1 ug/l | | < 0.55 ug/l | < 0.55 ug/l | -- | -- | < 0.55 ug/l | < 0.55 ug/l |
| Phenanthrene | NA | | | < 0.36 ug/l | < 0.36 ug/l | -- | -- | < 0.36 ug/l | < 0.36 ug/l |
| Phenol | NA | | 4000 HRL93 ug/l | < 0.53 ug/l | < 0.53 ug/l | -- | -- | < 0.53 ug/l | < 0.53 ug/l |
| Pyrene | NA | | 200 HRL93 ug/l | < 0.44 ug/l | < 0.44 ug/l | -- | -- | < 0.44 ug/l | < 0.44 ug/l |
| VOCs | | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | NA | | 70 HRL93 ug/l | < 0.28 ug/l | < 0.28 ug/l | -- | < 0.28 ug/l | -- | < 0.28 h ug/l |
| 1,1,1-Trichloroethane | NA | 200 ug/l | 9000 HRL08 (1) ug/l | < 0.17 ug/l | < 0.17 ug/l | -- | < 0.17 ug/l | -- | < 0.17 h ug/l |
| 1,1,2,2-Tetrachloroethane | NA | | 2 HRL94 ug/l | < 0.13 ug/l | < 0.13 ug/l | -- | < 0.13 ug/l | -- | < 0.13 h ug/l |
| 1,1,2-Trichloroethane | NA | 5 ug/l | 3 HRL93 ug/l | < 0.19 ug/l | < 0.19 ug/l | -- | < 0.19 ug/l | -- | < 0.19 h ug/l |
| 1,1-Dichloro-1-propene | NA | | | < 0.15 ug/l | < 0.15 ug/l | -- | < 0.15 ug/l | -- | < 0.15 h ug/l |
| 1,1-Dichloroethane | NA | | 100 RAA (1) ug/l | < 0.11 ug/l | < 0.11 ug/l | -- | < 0.11 ug/l | -- | < 0.11 h ug/l |
| 1,1-Dichloroethylene | NA | 7 ug/l | 200 HBV09 (1) ug/l | < 0.12 ug/l | < 0.12 ug/l | -- | < 0.12 ug/l | -- | < 0.12 h ug/l |
| 1,2,3-Trichlorobenzene | NA | | | < 0.47 ug/l | < 0.47 ug/l | -- | < 0.47 ug/l | -- | < 0.47 h ug/l |
| 1,2,3-Trichloropropane | NA | | 40 HRL93 ug/l | < 0.24 ug/l | < 0.24 ug/l | -- | < 0.24 ug/l | -- | < 0.24 h ug/l |
| 1,2,4-Trichlorobenzene | NA | 70 ug/l | | < 0.32 ug/l | < 0.32 ug/l | -- | < 0.32 ug/l | -- | < 0.32 h ug/l |
| 1,2,4-Trimethylbenzene | NA | | | < 0.17 ug/l | < 0.17 ug/l | -- | < 0.17 ug/l | -- | < 0.17 h ug/l |
| 1,2-Dibromo-3-chloropropane | NA | 0.2 ug/l | | < 0.60 ug/l | < 0.60 ug/l | -- | < 0.60 ug/l | -- | < 0.60 h ug/l |
| 1,2-Dibromoethane | NA | 0.05 ug/l | 0.004 HRL93 ug/l | < 0.37 ug/l | < 0.37 ug/l | -- | < 0.37 ug/l | -- | < 0.37 h ug/l |
| 1,2-Dichlorobenzene | NA | 600 ug/l | 600 HRL93 ug/l | < 0.16 ug/l | < 0.16 ug/l | -- | < 0.16 ug/l | -- | < 0.16 h ug/l |
| 1,2-Dichloroethane | NA | 5 ug/l | 4 HRL93 ug/l | < 0.18 ug/l | < 0.18 ug/l | -- | < 0.18 ug/l | -- | < 0.18 h ug/l |
| 1,2-Dichloroethylene, cis | NA | 70 ug/l | 50 HRL08 (1) ug/l | < 0.19 ug/l | < 0.19 ug/l | -- | < 0.19 ug/l | -- | < 0.19 h ug/l |
| 1,2-Dichloroethylene, trans | NA | 100 ug/l | 100 HRL93 ug/l | < 0.29 ug/l | < 0.29 ug/l | -- | < 0.29 ug/l | -- | < 0.29 h ug/l |
| 1,2-Dichloropropane | NA | 5 ug/l | 5 HRL94 ug/l | < 0.21 ug/l | < 0.21 ug/l | -- | < 0.21 ug/l | -- | < 0.21 h ug/l |
| 1,3,5-Trimethylbenzene | NA | | 100 HRL08 (1,2) ug/l | < 0.18 ug/l | < 0.18 ug/l | -- | < 0.18 ug/l | -- | < 0.18 h ug/l |
| 1,3-Dichloro-1-propene trans | NA | | | < 0.17 ug/l | < 0.17 ug/l | -- | < 0.17 ug/l | -- | < 0.17 h ug/l |
| 1,3-Dichloro-1-propene, cis | NA | | | < 0.16 ug/l | < 0.16 ug/l | -- | < 0.16 ug/l | -- | < 0.16 h ug/l |
| 1,3-Dichlorobenzene | NA | | | < 0.21 ug/l | < 0.21 ug/l | -- | < 0.21 ug/l | -- | < 0.21 h ug/l |
| 1,3-Dichloropropane | NA | | 2 HRL94 ug/l | < 0.15 ug/l | < 0.15 ug/l | -- | < 0.15 ug/l | -- | < 0.15 h ug/l |
| 1,4-Dichlorobenzene | NA | 75 ug/l | 10 HRL94 ug/l | < 0.17 ug/l | < 0.17 ug/l | -- | < 0.17 ug/l | -- | < 0.17 h ug/l |
| 2,2-Dichloropropane | NA | | | < 0.58 ug/l | < 0.58 ug/l | -- | < 0.58 ug/l | -- | < 0.58 h ug/l |
| Acetone | NA | | 700 HRL93 ug/l | < 2.8 ug/l | < 2.8 ug/l | -- | < 2.8 ug/l | -- | < 2.8 h ug/l |
| Allyl Chloride | NA | | 30 HRL94 ug/l | < 0.76 ug/l | < 0.76 ug/l | -- | < 0.76 ug/l | -- | < 0.76 h ug/l |
| Benzene | NA | 5 ug/l | 2 HRL08 (1) ug/l | < 0.093 ug/l | < 0.093 ug/l | -- | < 0.093 ug/l | -- | < 0.093 h ug/l |
| Bromobenzene | NA | | | < 0.17 ug/l | < 0.17 ug/l | -- | < 0.17 ug/l | -- | < 0.17 h ug/l |
| Bromochloromethane | NA | | | < 0.21 ug/l | < 0.21 ug/l | -- | < 0.21 ug/l | -- | < 0.21 h ug/l |
| Bromodichloromethane | NA | 80 (2) ug/l | 6 HRL93 ug/l | < 0.22 ug/l | < 0.22 ug/l | -- | < 0.22 ug/l | -- | < 0.22 h ug/l |
| Bromoform | NA | 80 (2) ug/l | 40 HRL93 ug/l | < 0.50 ug/l | < 0.50 ug/l | -- | < 0.50 ug/l | -- | < 0.50 h ug/l |
| Bromomethane | NA | | 10 HRL93 ug/l | < 0.95 ug/l | < 0.95 ug/l | -- | < 0.95 ug/l | -- | < 0.95 h ug/l |

# Table 9
## SOC 5 Groundwater Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | | Sys Loc Code | SOC5-GP1 | | SOC5-GP3 | SOC5-GP3 | SOC5-GP3 | SOC5-GP4 |
|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 09/02/2009 | | 09/03/2009 | 09/08/2009 | 09/09/2009 | 09/01/2009 |
| Chemical Name | Total or Dissolved | EPA Maximum Contaminant Limit | MN GW Values Table | | | | | | |
| **Effective Date** | | 5/1/2009 | 6/2/2009 | | | | | | |
| **Exceedance Key** | | **Bold** | Underline | | | | | | |
| Butyl benzene | NA | | | < 0.32 ug/l | < 0.32 ug/l | -- | < 0.32 ug/l | -- | < 0.32 h ug/l |
| Butylbenzene sec | NA | | | < 0.22 ug/l | < 0.22 ug/l | -- | < 0.22 ug/l | -- | < 0.22 h ug/l |
| Butylbenzene tert- | NA | | | < 0.19 ug/l | < 0.19 ug/l | -- | < 0.19 ug/l | -- | < 0.19 h ug/l |
| Carbon tetrachloride | NA | 5 ug/l | 3 HRL93 ug/l | < 0.16 ug/l | < 0.16 ug/l | -- | < 0.16 ug/l | -- | < 0.16 h ug/l |
| Chlorobenzene | NA | 100 ug/l | 100 HRL93 ug/l | < 0.15 ug/l | < 0.15 ug/l | -- | < 0.15 ug/l | -- | < 0.15 h ug/l |
| Chlorodibromomethane | NA | 80 (2) ug/l | 10 HRL93 ug/l | < 0.50 ug/l | < 0.50 ug/l | -- | < 0.50 ug/l | -- | < 0.50 h ug/l |
| Chloroethane | NA | | | < 0.46 ug/l | < 0.46 ug/l | -- | < 0.46 ug/l | -- | < 0.46 h ug/l |
| Chloroform | NA | 80 (2) ug/l | 30 HRL08 (1,2) ug/l | < 0.19 ug/l | < 0.19 ug/l | -- | < 0.19 ug/l | -- | < 0.19 h ug/l |
| Chloromethane | NA | | | 36 * ug/l | 52 * ug/l | -- | < 0.37 ug/l | -- | 6.9 h ug/l |
| Chlorotoluene o- | NA | | | < 0.17 ug/l | < 0.17 ug/l | -- | < 0.17 ug/l | -- | < 0.17 h ug/l |
| Chlorotoluene p- | NA | | | < 0.14 ug/l | < 0.14 ug/l | -- | < 0.14 ug/l | -- | < 0.14 h ug/l |
| Cumene (isopropyl benzene) | NA | | 300 HRL93 ug/l | < 0.17 ug/l | < 0.17 ug/l | -- | < 0.17 ug/l | -- | < 0.17 h ug/l |
| Cymene p- (Toluene isopropyl p-) | NA | | | < 0.30 ug/l | < 0.30 ug/l | -- | < 0.30 ug/l | -- | < 0.30 h ug/l |
| Dibromomethane (methylene bromide) | NA | | | < 0.30 ug/l | < 0.30 ug/l | -- | < 0.30 ug/l | -- | < 0.30 h ug/l |
| Dichlorodifluoromethane (CFC-12) | NA | | 700 HBV09 (1) ug/l | < 0.58 ug/l | < 0.58 ug/l | -- | < 0.58 ug/l | -- | < 0.58 h ug/l |
| Dichlorofluoromethane (CFC-21) | NA | | | < 0.31 ug/l | < 0.31 ug/l | -- | < 0.31 ug/l | -- | < 0.31 h ug/l |
| Ethyl benzene | NA | 700 ug/l | 700 HRL93 ug/l | < 0.21 ug/l | < 0.21 ug/l | -- | < 0.21 ug/l | -- | < 0.21 h ug/l |
| Ethyl ether | NA | | 1000 HRL93 ug/l | < 0.53 ug/l | < 0.53 ug/l | -- | < 0.53 ug/l | -- | < 0.53 h ug/l |
| Hexachlorobutadiene | NA | | 1 HRL93 ug/l | < 0.76 ug/l | < 0.76 ug/l | -- | < 0.76 ug/l | -- | < 0.76 h ug/l |
| Methyl ethyl ketone | NA | | 4000 HRL94 ug/l | < 0.67 ug/l | < 0.67 ug/l | -- | < 0.67 ug/l | -- | < 0.67 h ug/l |
| Methyl isobutyl ketone | NA | | 300 HRL94 ug/l | < 1.1 ug/l | < 1.1 ug/l | -- | < 1.1 ug/l | -- | < 1.1 h ug/l |
| Methyl tertiary butyl ether (MTBE) | NA | | | < 0.13 ug/l | < 0.13 ug/l | -- | < 0.13 ug/l | -- | < 0.13 h ug/l |
| Methylene chloride | NA | 5 ug/l | | < 0.65 ug/l | < 0.65 ug/l | -- | < 0.65 ug/l | -- | < 0.65 h ug/l |
| Naphthalene | NA | | 300 HRL94 ug/l | < 0.40 ug/l | < 0.40 ug/l | -- | < 0.40 ug/l | -- | < 0.40 h ug/l |
| Propylbenzene | NA | | | < 0.13 ug/l | < 0.13 ug/l | -- | < 0.13 ug/l | -- | < 0.13 h ug/l |
| Styrene | NA | 100 ug/l | | < 0.13 ug/l | < 0.13 ug/l | -- | < 0.13 ug/l | -- | < 0.13 h ug/l |
| Tetrachloroethylene | NA | 5 ug/l | | < 0.20 ug/l | < 0.20 ug/l | -- | < 0.20 ug/l | -- | < 0.20 h ug/l |
| Tetrahydrofuran | NA | | | < 0.77 ug/l | < 0.77 ug/l | -- | < 0.77 ug/l | -- | < 0.77 h ug/l |
| Toluene | NA | 1000 ug/l | 1000 HRL93 ug/l | < 0.21 ug/l | < 0.21 ug/l | -- | < 0.21 ug/l | -- | < 0.21 h ug/l |
| Trichloroethylene | NA | 5 ug/l | | < 0.20 ug/l | < 0.20 ug/l | -- | < 0.20 ug/l | -- | < 0.20 h ug/l |
| Trichlorofluoromethane | NA | | 2000 HRL93 ug/l | < 0.17 ug/l | < 0.17 ug/l | -- | < 0.17 ug/l | -- | < 0.17 h ug/l |
| Trichlorotrifluoroethane (Freon 113) | NA | | 200000 HRL93 ug/l | < 0.28 ug/l | < 0.28 ug/l | -- | < 0.28 ug/l | -- | < 0.28 h ug/l |
| Vinyl chloride | NA | 2 ug/l | 0.2 HRL08 (1) ug/l | < 0.087 ug/l | < 0.087 ug/l | -- | < 0.087 ug/l | -- | < 0.087 h ug/l |
| Xylene m & p | NA | | 10000 HRL93 ug/l | < 0.42 ug/l | < 0.42 ug/l | -- | < 0.42 ug/l | -- | < 0.42 h ug/l |
| Xylene, o- | NA | | 10000 HRL93 ug/l | < 0.18 ug/l | < 0.18 ug/l | -- | < 0.18 ug/l | -- | < 0.18 h ug/l |
| Xylenes, total | NA | 10000 ug/l | 10000 HRL93 ug/l | ND ug/l | ND ug/l | -- | ND ug/l | -- | ND ug/l |
| Pesticides | | | | | | | | | |
| 2,4,5-TP (Silvex) | NA | 50 ug/l | | < 0.56 ug/l | < 0.56 ug/l | < 0.65 ug/l | -- | -- | < 0.61 ug/l |
| 2,4,5-Trichlorophenoxyacetic acid | NA | | 70 HRL93 ug/l | < 0.56 ug/l | < 0.56 ug/l | < 0.65 ug/l | -- | -- | < 0.61 ug/l |
| 2,4-D | NA | 70 ug/l | 70 HRL93 ug/l | < 0.56 ug/l | < 0.56 ug/l | < 0.65 ug/l | -- | -- | < 0.61 ug/l |
| 2,4-DB | NA | | | < 0.56 ug/l | < 0.56 ug/l | < 0.65 ug/l | -- | -- | < 0.61 ug/l |
| 4,4'-DDD | NA | | 1 HRL93 ug/l | < 0.018 ug/l | < 0.024 ug/l | -- | < 0.018 ug/l | -- | < 0.016 ug/l |

# Table 9
## SOC 5 Groundwater Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | | Sys Loc Code | SOC5-GP1 | | SOC5-GP3 | SOC5-GP3 | SOC5-GP3 | SOC5-GP4 |
|---|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 09/02/2009 | | 09/03/2009 | 09/08/2009 | 09/09/2009 | 09/01/2009 |
| Chemical Name | Total or Dissolved | EPA Maximum Contaminant Limit | MN GW Values Table | | | | | | |
| **Effective Date** | | 5/1/2009 | 6/2/2009 | | | | | | |
| **Exceedance Key** | | **Bold** | Underline | | | | | | |
| 4,4'-DDE | NA | | 1 HRL93 ug/l | < 0.018 ug/l | < 0.024 ug/l | -- | < 0.018 ug/l | -- | < 0.016 ug/l |
| 4,4'-DDT | NA | | 1 HRL93 ug/l | < 0.022 ug/l | < 0.030 ug/l | -- | < 0.023 ug/l | -- | < 0.020 ug/l |
| a-BHC | NA | | | < 0.023 ug/l | < 0.032 ug/l | -- | < 0.024 ug/l | -- | < 0.021 ug/l |
| Aldrin | NA | | | < 0.020 ug/l | < 0.027 ug/l | -- | < 0.020 ug/l | -- | < 0.018 ug/l |
| b-BHC | NA | | | < 0.018 ug/l | < 0.024 ug/l | -- | < 0.018 ug/l | -- | < 0.016 ug/l |
| Bentazone | NA | | | < 0.56 ug/l | < 0.56 ug/l | < 0.65 ug/l | -- | -- | < 0.61 ug/l |
| Chlordane, alpha | NA | | | < 0.018 ug/l | < 0.024 ug/l | -- | < 0.018 ug/l | -- | < 0.016 ug/l |
| Chlordane, gamma | NA | | | < 0.047 ug/l | < 0.064 ug/l | -- | < 0.049 ug/l | -- | < 0.042 ug/l |
| d-BHC | NA | | | < 0.016 ug/l | < 0.021 ug/l | -- | < 0.016 ug/l | -- | < 0.014 ug/l |
| Dicamba | NA | | 200 HRL93 ug/l | < 0.56 ug/l | < 0.56 ug/l | < 0.65 ug/l | -- | -- | < 0.61 ug/l |
| Dieldrin | NA | | 0.006 HRL08 (1) ug/l | < 0.027 ug/l | < 0.036 ug/l | -- | < 0.027 ug/l | -- | < 0.024 ug/l |
| Dinoseb (DNBP) | NA | 7 ug/l | | < 1.1 ug/l | < 1.1 ug/l | < 1.3 ug/l | -- | -- | < 1.2 ug/l |
| Endosulfan I | NA | | | < 0.024 ug/l | < 0.032 ug/l | -- | < 0.024 ug/l | -- | < 0.021 ug/l |
| Endosulfan II | NA | | | < 0.021 ug/l | < 0.029 ug/l | -- | < 0.022 ug/l | -- | < 0.019 ug/l |
| Endosulfan Sulfate | NA | | | < 0.022 ug/l | < 0.029 ug/l | -- | < 0.022 ug/l | -- | < 0.019 ug/l |
| Endrin | NA | 2 ug/l | | < 0.022 ug/l | < 0.030 ug/l | -- | < 0.023 ug/l | -- | < 0.020 ug/l |
| Endrin Aldehyde | NA | | | < 0.045 ug/l | < 0.061 ug/l | -- | < 0.046 ug/l | -- | < 0.040 ug/l |
| Endrin Ketone | NA | | | < 0.021 ug/l | < 0.028 ug/l | -- | < 0.022 ug/l | -- | < 0.019 ug/l |
| g-BHC (Lindane) | NA | 0.2 ug/l | | < 0.022 ug/l | < 0.030 ug/l | -- | < 0.023 ug/l | -- | < 0.020 ug/l |
| Heptachlor | NA | 0.4 ug/l | 0.08 HRL93 ug/l | < 0.020 ug/l | < 0.027 ug/l | -- | < 0.020 ug/l | -- | < 0.018 ug/l |
| Heptachlor Epoxide | NA | 0.2 ug/l | 0.04 HRL93 ug/l | < 0.043 ug/l | < 0.058 ug/l | -- | < 0.044 ug/l | -- | < 0.038 ug/l |
| MCPA | NA | | 3 HRL93 ug/l | < 0.34 ug/l | < 0.33 ug/l | < 0.39 ug/l | -- | -- | < 0.37 ug/l |
| Methoxychlor | NA | 40 ug/l | | < 0.029 ug/l | < 0.040 ug/l | -- | < 0.030 ug/l | -- | < 0.026 ug/l |
| Pentachlorophenol | NA | 1 ug/l | 1 MCL ug/l | < 0.56 ug/l | < 0.56 ug/l | < 0.65 * ug/l | -- | -- | < 0.61 ug/l |
| Picloram | NA | 500 ug/l | 500 HRL93 ug/l | < 0.56 ug/l | < 0.56 ug/l | < 0.65 ug/l | -- | -- | < 0.61 ug/l |
| Toxaphene | NA | 3 ug/l | 0.3 HRL93 ug/l | < 1.1 ug/l | < 1.5 ug/l | -- | < 1.1 ug/l | -- | < 1.0 ug/l |
| Triclopyr | NA | | | < 0.56 ug/l | < 0.56 ug/l | < 0.65 ug/l | -- | -- | < 0.61 ug/l |
| Acetochlor | NA | | 9 HRL08 (1) ug/l | < 0.30 ug/l | < 0.29 ug/l | < 0.33 ug/l | -- | -- | < 0.28 ug/l |
| Alachlor (Lasso) | NA | 2 ug/l | 5 HRL08 (1) ug/l | < 0.22 ug/l | < 0.22 ug/l | < 0.25 ug/l | -- | -- | < 0.21 ug/l |
| Atrazine (Primatol) | NA | 3 (6) ug/l | 3 MCL ug/l | < 0.28 ug/l | < 0.27 ug/l | 0.90 ug/l | -- | -- | 1.0 ug/l |
| Chlorpyrifos (Lorsban) | NA | | | < 0.40 ug/l | < 0.39 ug/l | < 0.44 ug/l | -- | -- | < 0.38 ug/l |
| Cyanazine (Bladex) | NA | | 1 HRL08 (1) ug/l | < 0.58 ug/l | < 0.56 ug/l | < 0.63 ug/l | -- | -- | < 0.55 ug/l |
| Deisopropyl atrazine | NA | | | < 0.31 ug/l | < 0.30 ug/l | < 0.34 ug/l | -- | -- | < 0.29 ug/l |
| Desethylatrazine | NA | | | < 0.35 ug/l | < 0.33 ug/l | 1.9 ug/l | -- | -- | 0.70 ug/l |
| Dimethenamid | NA | | | < 0.28 ug/l | < 0.27 ug/l | < 0.31 ug/l | -- | -- | < 0.27 ug/l |
| EPTC (Eradicane) | NA | | 200 HRL93 ug/l | < 0.26 ug/l | < 0.25 ug/l | < 0.28 ug/l | -- | -- | < 0.24 ug/l |
| Ethalfluralin (Sonalan) | NA | | | < 0.56 ug/l | < 0.54 ug/l | < 0.61 ug/l | -- | -- | < 0.53 ug/l |
| Fonofos (Dyphonate) | NA | | | < 0.35 ug/l | < 0.34 ug/l | < 0.39 ug/l | -- | -- | < 0.34 ug/l |
| Metolachlor (Dual) | NA | | 300 HBV09 (1) ug/l | < 0.33 ug/l | < 0.32 ug/l | < 0.36 ug/l | -- | -- | < 0.31 ug/l |
| Metribuzin | NA | | | < 0.42 ug/l | < 0.40 ug/l | < 0.46 ug/l | -- | -- | < 0.40 ug/l |
| Pendimethalin (Prowl) | NA | | | < 0.30 ug/l | < 0.29 ug/l | < 0.33 ug/l | -- | -- | < 0.29 ug/l |
| Phorate (Thimet) | NA | | | < 0.70 ug/l | < 0.67 ug/l | < 0.76 ug/l | -- | -- | < 0.66 ug/l |

**Table 9**
**SOC 5 Groundwater Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | | **Sys Loc Code** | **SOC5-GP1** | | **SOC5-GP3** | **SOC5-GP3** | **SOC5-GP3** | **SOC5-GP4** |
|---|---|---|---|---|---|---|---|---|---|
| | | | **Sample Date** | **09/02/2009** | | **09/03/2009** | **09/08/2009** | **09/09/2009** | **09/01/2009** |
| Chemical Name | Total or Dissolved | EPA Maximum Contaminant Limit | MN GW Values Table | | | | | | |
| **Effective Date** | | 5/1/2009 | 6/2/2009 | | | | | | |
| **Exceedance Key** | | **Bold** | Underline | | | | | | |
| Prometon (Pramitol) | NA | | 100 HRL93 ug/l | < 0.35 ug/l | < 0.34 ug/l | < 0.38 ug/l | -- | -- | < 0.33 ug/l |
| Propachlor | NA | | | < 0.17 ug/l | < 0.16 ug/l | < 0.18 ug/l | -- | -- | < 0.16 ug/l |
| Propazine (Milogard) | NA | | | < 0.25 ug/l | < 0.24 ug/l | < 0.27 ug/l | -- | -- | < 0.23 ug/l |
| Simazine (Princep) | NA | 4 ug/l | 4 MCL ug/l | < 0.38 ug/l | < 0.36 ug/l | < 0.41 ug/l | -- | -- | < 0.36 ug/l |
| Terbufos (Counter) | NA | | | < 0.65 ug/l | < 0.62 ug/l | < 0.71 ug/l | -- | -- | < 0.62 ug/l |
| Triallate (Far-Go) | NA | | | < 0.40 ug/l | < 0.39 ug/l | < 0.44 ug/l | -- | -- | < 0.38 ug/l |
| Trifluralin (Treflan) | NA | | | < 0.25 ug/l | < 0.25 ug/l | < 0.28 ug/l | -- | -- | < 0.24 ug/l |

**Table 9**
**SOC 5 Groundwater Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | | Sys Loc Code<br>Sample Date | SOC5-GP10<br>09/08/2009 | SOC5-GP11<br>09/09/2009 |
|---|---|---|---|---|---|
| Chemical Name | Total or Dissolved | EPA Maximum Contaminant Limit | MN GW Values Table | | |
| **Effective Date** | | 5/1/2009 | 6/2/2009 | | |
| **Exceedance Key** | | **Bold** | Underline | | |
| General Parameters | | | | | |
| Nitrate + Nitrite | NA | **10 mg/l** | | 7.7 mg/l | **13 mg/l** |
| Nitrogen total kjeldahl | NA | | | < 0.50 mg/l | < 0.50 mg/l |
| Nitrocellulose | NA | | | < 0.5 mg/l | < 0.50 mg/l |
| Perchlorate | NA | | | < 4.0 ug/l | -- |
| Metals | | | | | |
| Antimony | Dissolved | 6 ug/l | 6 HRL93 ug/l | 0.47 j ug/l | 0.15 j ug/l |
| Arsenic | Dissolved | 10 ug/l | | < 10 ug/l | < 10 ug/l |
| Beryllium | Dissolved | 4 ug/l | 0.08 HRL93 ug/l | < 0.027 ug/l | < 0.027 ug/l |
| Cadmium | Dissolved | 5 ug/l | 4 HRL93 ug/l | < 1.0 ug/l | < 1.0 ug/l |
| Chromium | Dissolved | 100 ug/l | 100 CR ug/l | < 10 ug/l | < 10 ug/l |
| Copper | Dissolved | 1300 TT (7) ug/l | | < 20 ug/l | < 20 ug/l |
| Lead | Dissolved | 15 TT(7) ug/l | | < 3.0 ug/l | < 3.0 ug/l |
| Mercury | Dissolved | 2 ug/l | | < 0.20 ug/l | < 0.20 ug/l |
| Nickel | Dissolved | | 100 HRL93 ug/l | 5.2 ug/l | < 5.0 ug/l |
| Selenium | Dissolved | 50 ug/l | 30 HRL93 ug/l | < 20 ug/l | < 20 ug/l |
| Silver | Dissolved | | 30 HRL93 ug/l | < 5.0 ug/l | < 5.0 ug/l |
| Thallium | Dissolved | 2 ug/l | 0.6 HRL94 ug/l | 0.010 j ug/l | < 0.0081 ug/l |
| Zinc | Dissolved | | 2000 HRL94 ug/l | < 20 ug/l | < 20 ug/l |
| SVOCs | | | | | |
| 1,2,4-Trichlorobenzene | NA | 70 ug/l | | < 0.18 ug/l | < 0.18 ug/l |
| 1,2-Dichlorobenzene | NA | 600 ug/l | 600 HRL93 ug/l | < 0.21 ug/l | < 0.21 ug/l |
| 1,3-Dichlorobenzene | NA | | | < 0.19 ug/l | < 0.19 ug/l |
| 1,4-Dichlorobenzene | NA | 75 ug/l | 10 HRL94 ug/l | < 0.20 ug/l | < 0.20 ug/l |
| 2,3,4,6-Tetrachlorophenol | NA | | | < 0.56 ug/l | < 0.56 ug/l |
| 2,4,5-Trichlorophenol | NA | | | < 0.74 ug/l | < 0.74 ug/l |
| 2,4,6-Trichlorophenol | NA | | 30 HRL93 ug/l | < 0.44 ug/l | < 0.44 ug/l |
| 2,4-Dichlorophenol | NA | | 20 HRL93 ug/l | < 0.44 ug/l | < 0.44 ug/l |
| 2,4-Dimethylphenol | NA | | 100 HRL93 ug/l | < 1.5 ug/l | < 1.5 ug/l |
| 2,4-Dinitrophenol | NA | | 10 HRL94 ug/l | < 0.93 ug/l | < 0.93 ug/l |
| 2,4-Dinitrotoluene | NA | | | < 0.31 ug/l | < 0.31 ug/l |
| 2,6-Dichlorophenol | NA | | | < 0.44 ug/l | < 0.44 ug/l |
| 2,6-Dinitrotoluene | NA | | | < 0.33 ug/l | < 0.33 ug/l |
| 2-Chloronaphthalene | NA | | | < 0.26 ug/l | < 0.26 ug/l |
| 2-Chlorophenol | NA | | 30 HRL93 ug/l | < 0.42 ug/l | < 0.42 ug/l |
| 2-Methyl-4,6-dinitrophenol | NA | | | < 0.60 ug/l | < 0.60 ug/l |
| 2-Methylnaphthalene | NA | | | < 0.61 ug/l | < 0.61 ug/l |
| 2-Nitroaniline | NA | | | < 0.67 ug/l | < 0.67 ug/l |
| 2-Nitrophenol | NA | | | < 0.83 ug/l | < 0.83 ug/l |
| 3,3`-Dichlorobenzidine | NA | | 0.8 HRL93 ug/l | < 6.8 ug/l | < 6.8 ug/l |
| 3-Nitroaniline | NA | | | < 1.1 ug/l | < 1.1 ug/l |
| 4-Bromophenyl phenyl ether | NA | | | < 0.16 ug/l | < 0.16 ug/l |

**Table 9**
**SOC 5 Groundwater Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | | **Sys Loc Code** | **SOC5-GP10** | **SOC5-GP11** |
|---|---|---|---|---|---|
| | | | **Sample Date** | **09/08/2009** | **09/09/2009** |
| Chemical Name | Total or Dissolved | EPA Maximum Contaminant Limit | MN GW Values Table | | |
| **Effective Date** | | 5/1/2009 | 6/2/2009 | | |
| **Exceedance Key** | | **Bold** | Underline | | |
| 4-Chloro-3-methylphenol | NA | | | < 0.51 ug/l | < 0.51 ug/l |
| 4-Chloroaniline | NA | | | < 2.1 ug/l | < 2.1 ug/l |
| 4-Chlorophenyl phenyl ether | NA | | | < 0.23 ug/l | < 0.23 ug/l |
| 4-Nitroaniline | NA | | | < 0.55 ug/l | < 0.55 ug/l |
| 4-Nitrophenol | NA | | | < 1.1 ug/l | < 1.1 ug/l |
| Acenaphthene | NA | | 400 HRL93 ug/l | < 0.33 ug/l | < 0.33 ug/l |
| Acenaphthylene | NA | | | < 0.23 ug/l | < 0.23 ug/l |
| Aniline | NA | | | < 2.0 ug/l | < 2.0 ug/l |
| Anthracene | NA | | 2000 HRL93 ug/l | < 0.34 ug/l | < 0.34 ug/l |
| Azobenzene | NA | | | < 0.22 ug/l | < 0.22 ug/l |
| Benzidine | NA | | | < 17 ug/l | < 17 ug/l |
| Benzo(a)anthracene | NA | | | < 0.34 ug/l | < 0.34 ug/l |
| Benzo(a)pyrene | NA | 0.2 ug/l | | < 0.27 ug/l | < 0.27 ug/l |
| Benzo(b)fluoranthene | NA | | | < 0.20 ug/l | < 0.20 ug/l |
| Benzo(g,h,i)perylene | NA | | | < 0.24 ug/l | < 0.24 ug/l |
| Benzo(k)fluoranthene | NA | | | < 0.29 ug/l | < 0.29 ug/l |
| Benzoic Acid | NA | | 30000 HRL93 ug/l | 7.1 j ug/l | < 1.1 ug/l |
| Benzyl alcohol | NA | | | < 0.50 ug/l | < 0.50 ug/l |
| Bis(2-chloroethoxy)methane | NA | | | < 0.17 ug/l | < 0.17 ug/l |
| Bis(2-chloroethyl)ether | NA | | 0.3 HRL93 ug/l | < 0.16 ug/l | < 0.16 ug/l |
| Bis(2-chloroisopropyl)ether | NA | | | < 0.18 ug/l | < 0.18 ug/l |
| Bis(2-ethylhexyl)phthalate | NA | 6 ug/l | | < 0.40 ug/l | < 0.40 ug/l |
| Butyl benzyl phthalate | NA | | 100 HRL93 ug/l | < 0.34 ug/l | < 0.34 ug/l |
| Carbazole | NA | | | < 0.24 ug/l | < 0.24 ug/l |
| Chrysene | NA | | | < 0.25 ug/l | < 0.25 ug/l |
| Dibenz(a,h)anthracene | NA | | | < 0.21 ug/l | < 0.21 ug/l |
| Dibenzofuran | NA | | | < 0.36 ug/l | < 0.36 ug/l |
| Diethyl phthalate | NA | | 6000 HRL93 ug/l | < 0.21 ug/l | < 0.21 ug/l |
| Dimethyl phthalate | NA | | 70000 HRL94 ug/l | < 0.22 ug/l | < 0.22 ug/l |
| Di-n-butyl phthalate | NA | | 700 HRL93 ug/l | < 0.26 ug/l | < 0.26 ug/l |
| Di-n-octyl phthalate | NA | | | < 0.35 ug/l | < 0.35 ug/l |
| Fluoranthene | NA | | 300 HRL93 ug/l | < 0.36 ug/l | < 0.36 ug/l |
| Fluorene | NA | | 300 HRL93 ug/l | < 0.37 ug/l | < 0.37 ug/l |
| Hexachlorobenzene | NA | 1 ug/l | 0.2 HRL93 ug/l | < 0.19 ug/l | < 0.19 ug/l |
| Hexachlorobutadiene | NA | | 1 HRL93 ug/l | < 0.24 ug/l | < 0.24 ug/l |
| Hexachlorocyclopentadiene | NA | 50 ug/l | | < 0.29 ug/l | < 0.29 ug/l |
| Hexachloroethane | NA | | | < 0.29 ug/l | < 0.29 ug/l |
| Indeno(1,2,3-cd)pyrene | NA | | | < 0.29 ug/l | < 0.29 ug/l |
| Isophorone | NA | | 100 HRL93 ug/l | < 0.21 ug/l | < 0.21 ug/l |
| Naphthalene | NA | | 300 HRL94 ug/l | < 0.34 ug/l | < 0.34 ug/l |
| Nitrobenzene | NA | | | < 0.36 ug/l | < 0.36 ug/l |
| N-Nitrosodimethylamine | NA | | | < 0.88 ug/l | < 0.88 ug/l |

**Table 9**
**SOC 5 Groundwater Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | | Sys Loc Code<br>Sample Date | SOC5-GP10<br>09/08/2009 | SOC5-GP11<br>09/09/2009 |
|---|---|---|---|---|---|
| Chemical Name | Total or Dissolved | EPA Maximum Contaminant Limit | MN GW Values Table | | |
| **Effective Date** | | 5/1/2009 | 6/2/2009 | | |
| **Exceedance Key** | | **Bold** | Underline | | |
| N-Nitrosodi-n-propylamine | NA | | | < 0.19 ug/l | < 0.19 ug/l |
| N-Nitrosodiphenylamine | NA | | 70 HRL93 ug/l | < 0.21 ug/l | < 0.21 ug/l |
| o-Cresol | NA | | 30 HRL93 ug/l | < 0.58 ug/l | < 0.58 ug/l |
| p-Cresol | NA | | 3 HRL94 ug/l | < 0.73 ug/l | < 0.73 ug/l |
| Pentachlorophenol | NA | 1 ug/l | | < 0.55 ug/l | < 0.55 ug/l |
| Phenanthrene | NA | | | < 0.36 ug/l | < 0.36 ug/l |
| Phenol | NA | | 4000 HRL93 ug/l | < 0.53 ug/l | < 0.53 ug/l |
| Pyrene | NA | | 200 HRL93 ug/l | < 0.44 ug/l | < 0.44 ug/l |
| VOCs | | | | | |
| 1,1,1,2-Tetrachloroethane | NA | | 70 HRL93 ug/l | < 0.28 ug/l | < 0.28 ug/l |
| 1,1,1-Trichloroethane | NA | 200 ug/l | 9000 HRL08 (1) ug/l | < 0.17 ug/l | < 0.17 ug/l |
| 1,1,2,2-Tetrachloroethane | NA | | 2 HRL94 ug/l | < 0.13 ug/l | < 0.13 ug/l |
| 1,1,2-Trichloroethane | NA | 5 ug/l | 3 HRL93 ug/l | < 0.19 ug/l | < 0.19 ug/l |
| 1,1-Dichloro-1-propene | NA | | | < 0.15 ug/l | < 0.15 ug/l |
| 1,1-Dichloroethane | NA | | 100 RAA (1) ug/l | < 0.11 ug/l | < 0.11 ug/l |
| 1,1-Dichloroethylene | NA | 7 ug/l | 200 HBV09 (1) ug/l | < 0.12 ug/l | < 0.12 ug/l |
| 1,2,3-Trichlorobenzene | NA | | | < 0.47 ug/l | < 0.47 ug/l |
| 1,2,3-Trichloropropane | NA | | 40 HRL93 ug/l | < 0.24 ug/l | < 0.24 ug/l |
| 1,2,4-Trichlorobenzene | NA | 70 ug/l | | < 0.32 ug/l | < 0.32 ug/l |
| 1,2,4-Trimethylbenzene | NA | | | < 0.17 ug/l | < 0.17 ug/l |
| 1,2-Dibromo-3-chloropropane | NA | 0.2 ug/l | | < 0.60 ug/l | < 0.60 ug/l |
| 1,2-Dibromoethane | NA | 0.05 ug/l | 0.004 HRL93 ug/l | < 0.37 ug/l | < 0.37 ug/l |
| 1,2-Dichlorobenzene | NA | 600 ug/l | 600 HRL93 ug/l | < 0.16 ug/l | < 0.16 ug/l |
| 1,2-Dichloroethane | NA | 5 ug/l | 4 HRL93 ug/l | < 0.18 ug/l | < 0.18 ug/l |
| 1,2-Dichloroethylene, cis | NA | 70 ug/l | 50 HRL08 (1) ug/l | < 0.19 ug/l | < 0.19 ug/l |
| 1,2-Dichloroethylene, trans | NA | 100 ug/l | 100 HRL93 ug/l | < 0.29 ug/l | < 0.29 ug/l |
| 1,2-Dichloropropane | NA | 5 ug/l | 5 HRL94 ug/l | < 0.21 ug/l | < 0.21 ug/l |
| 1,3,5-Trimethylbenzene | NA | | 100 HRL08 (1,2) ug/l | < 0.18 ug/l | < 0.18 ug/l |
| 1,3-Dichloro-1-propene trans | NA | | | < 0.17 ug/l | < 0.17 ug/l |
| 1,3-Dichloro-1-propene, cis | NA | | | < 0.16 ug/l | < 0.16 ug/l |
| 1,3-Dichlorobenzene | NA | | | < 0.21 ug/l | < 0.21 ug/l |
| 1,3-Dichloropropane | NA | | 2 HRL94 ug/l | < 0.15 ug/l | < 0.15 ug/l |
| 1,4-Dichlorobenzene | NA | 75 ug/l | 10 HRL94 ug/l | < 0.17 ug/l | < 0.17 ug/l |
| 2,2-Dichloropropane | NA | | | < 0.58 ug/l | < 0.58 ug/l |
| Acetone | NA | | 700 HRL93 ug/l | < 2.8 ug/l | < 2.8 ug/l |
| Allyl Chloride | NA | | 30 HRL94 ug/l | < 0.76 ug/l | < 0.76 ug/l |
| Benzene | NA | 5 ug/l | 2 HRL08 (1) ug/l | < 0.093 ug/l | < 0.093 ug/l |
| Bromobenzene | NA | | | < 0.17 ug/l | < 0.17 ug/l |
| Bromochloromethane | NA | | | < 0.21 ug/l | < 0.21 ug/l |
| Bromodichloromethane | NA | 80 (2) ug/l | 6 HRL93 ug/l | < 0.22 ug/l | < 0.22 ug/l |
| Bromoform | NA | 80 (2) ug/l | 40 HRL93 ug/l | < 0.50 ug/l | < 0.50 ug/l |
| Bromomethane | NA | | 10 HRL93 ug/l | < 0.95 ug/l | < 0.95 ug/l |

# Table 9
## SOC 5 Groundwater Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | | Sys Loc Code<br>Sample Date | SOC5-GP10<br>09/08/2009 | SOC5-GP11<br>09/09/2009 |
|---|---|---|---|---|---|
| Chemical Name | Total or Dissolved | EPA Maximum Contaminant Limit | MN GW Values Table | | |
| **Effective Date** | | 5/1/2009 | 6/2/2009 | | |
| **Exceedance Key** | | **Bold** | Underline | | |
| Butyl benzene | NA | | | < 0.32 ug/l | < 0.32 ug/l |
| Butylbenzene sec | NA | | | < 0.22 ug/l | < 0.22 ug/l |
| Butylbenzene tert- | NA | | | < 0.19 ug/l | < 0.19 ug/l |
| Carbon tetrachloride | NA | 5 ug/l | 3 HRL93 ug/l | < 0.16 ug/l | < 0.16 ug/l |
| Chlorobenzene | NA | 100 ug/l | 100 HRL93 ug/l | < 0.15 ug/l | < 0.15 ug/l |
| Chlorodibromomethane | NA | 80 (2) ug/l | 10 HRL93 ug/l | < 0.50 ug/l | < 0.50 ug/l |
| Chloroethane | NA | | | < 0.46 ug/l | < 0.46 ug/l |
| Chloroform | NA | 80 (2) ug/l | 30 HRL08 (1,2) ug/l | < 0.19 ug/l | < 0.19 ug/l |
| Chloromethane | NA | | | < 0.37 ug/l | < 0.37 ug/l |
| Chlorotoluene o- | NA | | | < 0.17 ug/l | < 0.17 ug/l |
| Chlorotoluene p- | NA | | | < 0.14 ug/l | < 0.14 ug/l |
| Cumene (isopropyl benzene) | NA | | 300 HRL93 ug/l | < 0.17 ug/l | < 0.17 ug/l |
| Cymene p- (Toluene isopropyl p-) | NA | | | < 0.30 ug/l | < 0.30 ug/l |
| Dibromomethane (methylene bromide) | NA | | | < 0.30 ug/l | < 0.30 ug/l |
| Dichlorodifluoromethane (CFC-12) | NA | | 700 HBV09 (1) ug/l | < 0.58 ug/l | < 0.58 ug/l |
| Dichlorofluoromethane (CFC-21) | NA | | | < 0.31 ug/l | < 0.31 ug/l |
| Ethyl benzene | NA | 700 ug/l | 700 HRL93 ug/l | < 0.21 ug/l | < 0.21 ug/l |
| Ethyl ether | NA | | 1000 HRL93 ug/l | < 0.53 ug/l | < 0.53 ug/l |
| Hexachlorobutadiene | NA | | 1 HRL93 ug/l | < 0.76 ug/l | < 0.76 ug/l |
| Methyl ethyl ketone | NA | | 4000 HRL94 ug/l | < 0.67 ug/l | < 0.67 ug/l |
| Methyl isobutyl ketone | NA | | 300 HRL94 ug/l | < 1.1 ug/l | < 1.1 ug/l |
| Methyl tertiary butyl ether (MTBE) | NA | | | < 0.13 ug/l | < 0.13 ug/l |
| Methylene chloride | NA | 5 ug/l | | < 0.65 ug/l | < 0.65 ug/l |
| Naphthalene | NA | | 300 HRL94 ug/l | < 0.40 ug/l | < 0.40 ug/l |
| Propylbenzene | NA | | | < 0.13 ug/l | < 0.13 ug/l |
| Styrene | NA | 100 ug/l | | < 0.13 ug/l | < 0.13 ug/l |
| Tetrachloroethylene | NA | 5 ug/l | | < 0.20 ug/l | < 0.20 ug/l |
| Tetrahydrofuran | NA | | | < 0.77 ug/l | < 0.77 ug/l |
| Toluene | NA | 1000 ug/l | 1000 HRL93 ug/l | < 0.21 ug/l | < 0.21 ug/l |
| Trichloroethylene | NA | 5 ug/l | | < 0.20 ug/l | < 0.20 ug/l |
| Trichlorofluoromethane | NA | | 2000 HRL93 ug/l | < 0.17 ug/l | < 0.17 ug/l |
| Trichlorotrifluoroethane (Freon 113) | NA | | 200000 HRL93 ug/l | < 0.28 ug/l | < 0.28 ug/l |
| Vinyl chloride | NA | 2 ug/l | 0.2 HRL08 (1) ug/l | < 0.087 ug/l | < 0.087 ug/l |
| Xylene m & p | NA | | 10000 HRL93 ug/l | < 0.42 ug/l | < 0.42 ug/l |
| Xylene, o- | NA | | 10000 HRL93 ug/l | < 0.18 ug/l | < 0.18 ug/l |
| Xylenes, total | NA | 10000 ug/l | 10000 HRL93 ug/l | ND ug/l | ND ug/l |
| Pesticides | | | | | |
| 2,4,5-TP (Silvex) | NA | 50 ug/l | | < 0.50 ug/l | < 0.50 ug/l |
| 2,4,5-Trichlorophenoxyacetic acid | NA | | 70 HRL93 ug/l | < 0.50 ug/l | < 0.50 ug/l |
| 2,4-D | NA | 70 ug/l | 70 HRL93 ug/l | < 0.50 ug/l | < 0.50 ug/l |
| 2,4-DB | NA | | | < 0.50 ug/l | < 0.50 ug/l |
| 4,4'-DDD | NA | | 1 HRL93 ug/l | < 0.017 ug/l | < 0.017 ug/l |

**Table 9**
**SOC 5 Groundwater Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | | Sys Loc Code<br>Sample Date | SOC5-GP10<br>09/08/2009 | SOC5-GP11<br>09/09/2009 |
|---|---|---|---|---|---|
| Chemical Name | Total or Dissolved | EPA Maximum Contaminant Limit | MN GW Values Table | | |
| **Effective Date** | | 5/1/2009 | 6/2/2009 | | |
| **Exceedance Key** | | **Bold** | Underline | | |
| 4,4'-DDE | NA | | 1 HRL93 ug/l | < 0.017 ug/l | < 0.017 ug/l |
| 4,4'-DDT | NA | | 1 HRL93 ug/l | < 0.021 ug/l | < 0.021 ug/l |
| a-BHC | NA | | | < 0.022 ug/l | < 0.022 ug/l |
| Aldrin | NA | | | < 0.019 ug/l | < 0.019 ug/l |
| b-BHC | NA | | | < 0.017 ug/l | < 0.017 ug/l |
| Bentazone | NA | | | < 0.50 ug/l | < 0.50 ug/l |
| Chlordane, alpha | NA | | | < 0.017 ug/l | < 0.017 ug/l |
| Chlordane, gamma | NA | | | < 0.045 ug/l | < 0.045 ug/l |
| d-BHC | NA | | | < 0.015 ug/l | < 0.015 ug/l |
| Dicamba | NA | | 200 HRL93 ug/l | < 0.50 ug/l | < 0.50 ug/l |
| Dieldrin | NA | | 0.006 HRL08 (1) ug/l | < 0.026 ug/l | < 0.025 ug/l |
| Dinoseb (DNBP) | NA | 7 ug/l | | < 0.50 ug/l | < 0.50 ug/l |
| Endosulfan I | NA | | | < 0.023 ug/l | < 0.022 ug/l |
| Endosulfan II | NA | | | < 0.020 ug/l | < 0.020 ug/l |
| Endosulfan Sulfate | NA | | | < 0.021 ug/l | < 0.021 ug/l |
| Endrin | NA | 2 ug/l | | < 0.022 ug/l | < 0.021 ug/l |
| Endrin Aldehyde | NA | | | < 0.043 ug/l | < 0.043 ug/l |
| Endrin Ketone | NA | | | < 0.020 ug/l | < 0.020 ug/l |
| g-BHC (Lindane) | NA | 0.2 ug/l | | < 0.022 ug/l | < 0.021 ug/l |
| Heptachlor | NA | 0.4 ug/l | 0.08 HRL93 ug/l | < 0.019 ug/l | < 0.019 ug/l |
| Heptachlor Epoxide | NA | 0.2 ug/l | 0.04 HRL93 ug/l | < 0.041 ug/l | < 0.041 ug/l |
| MCPA | NA | | 3 HRL93 ug/l | < 0.30 ug/l | < 0.30 ug/l |
| Methoxychlor | NA | 40 ug/l | | < 0.028 ug/l | < 0.028 ug/l |
| Pentachlorophenol | NA | 1 ug/l | 1 MCL ug/l | < 0.50 ug/l | < 0.50 ug/l |
| Picloram | NA | 500 ug/l | 500 HRL93 ug/l | < 0.50 ug/l | < 0.50 ug/l |
| Toxaphene | NA | 3 ug/l | 0.3 HRL93 ug/l | < 1.1 ug/l | < 1.1 ug/l |
| Triclopyr | NA | | | < 0.50 ug/l | < 0.50 ug/l |
| Acetochlor | NA | | 9 HRL08 (1) ug/l | < 0.32 ug/l | < 0.30 ug/l |
| Alachlor (Lasso) | NA | 2 ug/l | 5 HRL08 (1) ug/l | < 0.24 ug/l | < 0.22 ug/l |
| Atrazine (Primatol) | NA | 3 (6) ug/l | 3 MCL ug/l | 0.73 ug/l | < 0.28 ug/l |
| Chlorpyrifos (Lorsban) | NA | | | < 0.43 ug/l | < 0.40 ug/l |
| Cyanazine (Bladex) | NA | | 1 HRL08 (1) ug/l | < 0.62 ug/l | < 0.58 ug/l |
| Deisopropyl atrazine | NA | | | < 0.33 ug/l | < 0.31 ug/l |
| Desethylatrazine | NA | | | 0.45 j ug/l | < 0.35 ug/l |
| Dimethenamid | NA | | | < 0.30 ug/l | < 0.28 ug/l |
| EPTC (Eradicane) | NA | | 200 HRL93 ug/l | < 0.28 ug/l | < 0.26 ug/l |
| Ethalfluralin (Sonalan) | NA | | | < 0.60 ug/l | < 0.56 ug/l |
| Fonofos (Dyphonate) | NA | | | < 0.38 ug/l | < 0.35 ug/l |
| Metolachlor (Dual) | NA | | 300 HBV09 (1) ug/l | < 0.35 ug/l | < 0.33 ug/l |
| Metribuzin | NA | | | < 0.45 ug/l | < 0.42 ug/l |
| Pendimethalin (Prowl) | NA | | | < 0.32 ug/l | < 0.30 ug/l |
| Phorate (Thimet) | NA | | | < 0.75 ug/l | < 0.70 ug/l |

**Table 9**
**SOC 5 Groundwater Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | | **Sys Loc Code** | **SOC5-GP10** | **SOC5-GP11** |
|---|---|---|---|---|---|
| | | | **Sample Date** | **09/08/2009** | **09/09/2009** |
| Chemical Name | Total or Dissolved | EPA Maximum Contaminant Limit | MN GW Values Table | | |
| **Effective Date** | | 5/1/2009 | 6/2/2009 | | |
| **Exceedance Key** | | **Bold** | Underline | | |
| Prometon (Pramitol) | NA | | 100 HRL93 ug/l | < 0.38 ug/l | < 0.35 ug/l |
| Propachlor | NA | | | < 0.18 ug/l | < 0.17 ug/l |
| Propazine (Milogard) | NA | | | < 0.26 ug/l | < 0.25 ug/l |
| Simazine (Princep) | NA | 4 ug/l | 4 MCL ug/l | < 0.41 ug/l | < 0.38 ug/l |
| Terbufos (Counter) | NA | | | < 0.70 ug/l | < 0.65 ug/l |
| Triallate (Far-Go) | NA | | | < 0.43 ug/l | < 0.40 ug/l |
| Trifluralin (Treflan) | NA | | | < 0.27 ug/l | < 0.25 ug/l |

| Data Qualifiers/Footnotes - Groundwater | |
|---|---|
| **Qualifier** | **Definition** |
| -- | Not analyzed/not available. |
| a | Estimated value, calculated using some or all values that are estimates. |
| b | Potential false positive value based on blank data validation procedures. |
| c | Coeluting compound. |
| e | Estimated value, exceeded the instrument calibration range. |
| h | EPA recommended sample preservation, extraction or analysis holding time was exceeded. |
| I | Indeterminate value based on failure of blind duplicate data to meet quality assurance criteria. |
| j | Reported value is less than the stated laboratory quantitation limit and is considered an estimated value. |
| p | Relative percent difference is >40% (25% CLP pesticides) between primary and confirmation GC columns. |
| r | The presence of the compound is suspect based on the ID criteria of the retention time and relative retention time obtained from the examination of the chromatograms. |
| * | Estimated value, QA/QC criteria not met. |
| ** | Unusable value, QA/QC criteria not met. |
| ND | Not detected. |

## Criteria Footnotes - Groundwater

| | Qualifier | Definition |
|---|---|---|
| EPA Maximum Contaminant Level | (1) | When acrylamide is used in drinking water systems, the combination (or product) of dose and monomer level shall not exceed that equivalent to a polyacrylamide polymer containing 0.05% monomer dosed at 1 mg/L. |
| | (14) | Millirems per years. |
| | (15) | Picocuries per liter. |
| | (2) | 1998 Final Rule for Disinfectants and Disinfection By-products: The total for trihalomethanes is 0.08 mg/L. |
| | (3) | The MCL value for any combination of two or more of these three chemicals (Aldicarb, Aldicarb sulfone, Aldicarb sulfoxide) should not exceed 0.007 mg/L because of similar mode of action. |
| | (5) | No more than 5.0% samples total coliform-positive in a month. Every sample that has total coliforms must be analyzed for fecal coliforms; no fecal coliforms are allowed. |
| | (6) | Under review. |
| | (7) | Copper action level at 1.3 mg/L, Lead action level at 0.015 mg/L |
| | (8) | Proposed 7/2001 arsenic rule states that the Jan. 2001 MCL of 10 ppb will not be enforced until 2006, and is still being evaluated at 3,5,10,20 ppb. |
| | TT | Treatment technique. |
| MN GW Values Table | (1) | Value is representative of the most conservative exposure duration published in the Minnesota Department of Health Groundwater Values Table. |
| | (2) | Set at short term HRL. |
| | HBV | Health Based Value. |
| | HRL | Health Risk Limit. |
| | RAA | Risk Assessment Advice. |
| | CR | Value represents the criteria for Chromium, hexavalent. |

**Table 10**
**Sampled Water Supply Well Construction Details**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| Unique Well ID Number | Description | Sample Collection Location | Aquifer | Top of Bedrock (feet bgs)[1] | Total Well Depth (feet bgs) | Groundwater Use | Comment |
|---|---|---|---|---|---|---|---|
| 207605 | UofM Ag. Enginering Buildings (SOC 3) | Spigot located approx. 100-feet east of well house. | PDC | 151 | 206 | Non-potable | Groundwater used for operations. |
| 207607 | UofM Central Services (SOC 5/AOC 5) | Spigot located within 10-feet of well. | PDC | 150 | 170 | Non-potable | Groundwater used for operations. |
| 208402 | UMore Park Administration Building | Exterior spigot on south side of building. | PDC | 161 | 166 | Non-potable | Groundwater used for restroom and kitchenette facilities. |
| 208405 | UofM Owned/Leased Residence | Exterior spigot on north side of house. | PDC | ~200 | 235 | Potable | Consumptive use by residents. |

[1] Based on well record from County Well Index (Minnesota Geologic Survey, 2006)
bgs - Below ground surface

# Table 11
## Water Supply Well - Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | | Sys Loc Code | WSW-207605 | WSW-207607 | WSW-207607 | WSW-208402 | WSW-208402 |
|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 09/29/2009 | 09/15/2009 | 09/30/2009 | 09/15/2009 | 09/29/2009 |
| Chemical Name | Total or Dissolved | EPA Maximum Contaminant Limit | MN GW Values Table | | | | | |
| **Effective Date** | | 5/1/2009 | 6/2/2009 | | | | | |
| **Exceedance Key** | | **Bold** | Underline | | | | | |
| General Parameters | | | | | | | | |
| Nitrate + Nitrite | NA | 10 mg/l | | 1.9 mg/l | 5.7 mg/l | -- | 1.2 mg/l | -- |
| Nitrocellulose | NA | | | < 0.50 mg/l | < 0.50 mg/l | -- | < 0.50 mg/l | -- |
| Nitrogen total kjeldahl | NA | | | < 0.50 mg/l | < 0.50 mg/l | -- | < 0.50 mg/l | -- |
| Perchlorate | NA | | | < 4.0 ug/l | < 4.0 ug/l | -- | < 4.0 ug/l | -- |
| Metals | | | | | | | | |
| Antimony | Total | 6 ug/l | 6 HRL93 ug/l | < 0.046 ug/l | 1.8 ug/l | -- | < 0.046 ug/l | -- |
| Arsenic | Total | 10 ug/l | | < 10 ug/l | < 10 ug/l | -- | < 10 ug/l | -- |
| Beryllium | Total | 4 ug/l | 0.08 HRL93 ug/l | < 0.027 * ug/l | 1.7 ug/l | -- | < 0.027 ug/l | -- |
| Cadmium | Total | 5 ug/l | 4 HRL93 ug/l | < 1.0 ug/l | < 1.0 ug/l | -- | < 1.0 ug/l | -- |
| Chromium | Total | 100 ug/l | 100 CR ug/l | < 10 ug/l | < 10 ug/l | -- | < 10 ug/l | -- |
| Copper | Total | 1300 TT (7) ug/l | | < 20 ug/l | < 20 ug/l | -- | 210 ug/l | -- |
| Lead | Total | **15 TT(7) ug/l** | | < 3.0 ug/l | < 3.0 ug/l | -- | **18 ug/l** | -- |
| Mercury | Total | 2 ug/l | | < 0.20 ug/l | < 0.20 ug/l | -- | < 0.20 ug/l | -- |
| Nickel | Total | | 100 HRL93 ug/l | < 5.0 ug/l | < 5.0 ug/l | -- | < 5.0 ug/l | -- |
| Selenium | Total | 50 ug/l | 30 HRL93 ug/l | < 20 ug/l | < 20 ug/l | -- | < 20 ug/l | -- |
| Silver | Total | | 30 HRL93 ug/l | < 5.0 ug/l | < 5.0 ug/l | -- | < 5.0 ug/l | -- |
| Thallium | Total | 2 ug/l | 0.6 HRL94 ug/l | 0.082 j ug/l | 1.7 ug/l | -- | 0.074 jb ug/l | -- |
| Zinc | Total | | 2000 HRL94 ug/l | 270 ug/l | 42 ug/l | -- | 180 ug/l | -- |
| SVOCs | | | | | | | | |
| 1,2,4-Trichlorobenzene | NA | 70 ug/l | | < 0.18 ug/l | < 0.18 ug/l | -- | < 0.18 ug/l | -- |
| 1,2-Dichlorobenzene | NA | 600 ug/l | 600 HRL93 ug/l | < 0.21 ug/l | < 0.21 ug/l | -- | < 0.21 ug/l | -- |
| 1,3-Dichlorobenzene | NA | | | < 0.19 ug/l | < 0.19 ug/l | -- | < 0.19 ug/l | -- |
| 1,4-Dichlorobenzene | NA | 75 ug/l | 10 HRL94 ug/l | < 0.20 ug/l | < 0.20 ug/l | -- | < 0.20 ug/l | -- |
| 2,3,4,6-Tetrachlorophenol | NA | | | < 0.56 ug/l | < 0.56 ug/l | -- | < 0.56 ug/l | -- |
| 2,4,5-Trichlorophenol | NA | | | < 0.74 ug/l | < 0.74 ug/l | -- | < 0.74 ug/l | -- |
| 2,4,6-Trichlorophenol | NA | | 30 HRL93 ug/l | < 0.44 ug/l | < 0.44 ug/l | -- | < 0.44 ug/l | -- |
| 2,4-Dichlorophenol | NA | | 20 HRL93 ug/l | < 0.44 ug/l | < 0.44 ug/l | -- | < 0.44 ug/l | -- |
| 2,4-Dimethylphenol | NA | | 100 HRL93 ug/l | < 1.5 ug/l | < 1.5 ug/l | -- | < 1.5 ug/l | -- |
| 2,4-Dinitrophenol | NA | | 10 HRL94 ug/l | < 0.93 ug/l | < 0.93 ug/l | -- | < 0.93 ug/l | -- |
| 2,4-Dinitrotoluene | NA | | | < 0.31 ug/l | < 0.31 ug/l | -- | < 0.31 ug/l | -- |
| 2,6-Dichlorophenol | NA | | | < 0.44 ug/l | < 0.44 ug/l | -- | < 0.44 ug/l | -- |
| 2,6-Dinitrotoluene | NA | | | < 0.33 ug/l | < 0.33 ug/l | -- | < 0.33 ug/l | -- |
| 2-Chloronaphthalene | NA | | | < 0.26 ug/l | < 0.26 ug/l | -- | < 0.26 ug/l | -- |
| 2-Chlorophenol | NA | | 30 HRL93 ug/l | < 0.42 ug/l | < 0.42 ug/l | -- | < 0.42 ug/l | -- |
| 2-Methyl-4,6-dinitrophenol | NA | | | < 0.60 ug/l | < 0.60 ug/l | -- | < 0.60 ug/l | -- |
| 2-Methylnaphthalene | NA | | | < 0.61 ug/l | < 0.61 ug/l | -- | < 0.61 ug/l | -- |
| 2-Nitroaniline | NA | | | < 0.67 ug/l | < 0.67 ug/l | -- | < 0.67 ug/l | -- |
| 2-Nitrophenol | NA | | | < 0.83 ug/l | < 0.83 ug/l | -- | < 0.83 ug/l | -- |
| 3,3`-Dichlorobenzidine | NA | | 0.8 HRL93 ug/l | < 6.8 ug/l | < 6.8 ug/l | -- | < 6.8 ug/l | -- |
| 3-Nitroaniline | NA | | | < 1.1 ug/l | < 1.1 ug/l | -- | < 1.1 ug/l | -- |
| 4-Bromophenyl phenyl ether | NA | | | < 0.16 ug/l | < 0.16 ug/l | -- | < 0.16 ug/l | -- |
| 4-Chloro-3-methylphenol | NA | | | < 0.51 ug/l | < 0.51 ug/l | -- | < 0.51 ug/l | -- |
| 4-Chloroaniline | NA | | | < 2.1 ug/l | < 2.1 ug/l | -- | < 2.1 ug/l | -- |

**Table 11**
**Water Supply Well - Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | | Sys Loc Code | WSW-207605 | WSW-207607 | WSW-207607 | WSW-208402 | WSW-208402 |
|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 09/29/2009 | 09/15/2009 | 09/30/2009 | 09/15/2009 | 09/29/2009 |
| Chemical Name | Total or Dissolved | EPA Maximum Contaminant Limit | MN GW Values Table | | | | | |
| **Effective Date** | | 5/1/2009 | 6/2/2009 | | | | | |
| **Exceedance Key** | | **Bold** | Underline | | | | | |
| 4-Chlorophenyl phenyl ether | NA | | | < 0.23 ug/l | < 0.23 ug/l | -- | < 0.23 ug/l | -- |
| 4-Nitroaniline | NA | | | < 0.55 ug/l | < 0.55 ug/l | -- | < 0.55 ug/l | -- |
| 4-Nitrophenol | NA | | | < 1.1 ug/l | < 1.1 ug/l | -- | < 1.1 ug/l | -- |
| Acenaphthene | NA | | 400 HRL93 ug/l | < 0.33 ug/l | < 0.33 ug/l | -- | < 0.33 ug/l | -- |
| Acenaphthylene | NA | | | < 0.23 ug/l | < 0.23 ug/l | -- | < 0.23 ug/l | -- |
| Aniline | NA | | | < 2.0 ug/l | < 2.0 ug/l | -- | < 2.0 ug/l | -- |
| Anthracene | NA | | 2000 HRL93 ug/l | < 0.34 ug/l | < 0.34 ug/l | -- | < 0.34 ug/l | -- |
| Azobenzene | NA | | | < 0.22 ug/l | < 0.22 ug/l | -- | < 0.22 ug/l | -- |
| Benzidine | NA | | | < 17 ug/l | < 17 ug/l | -- | < 17 ug/l | -- |
| Benzo(a)anthracene | NA | | | < 0.34 ug/l | < 0.34 ug/l | -- | < 0.34 ug/l | -- |
| Benzo(a)pyrene | NA | 0.2 ug/l | | < 0.27 ug/l | < 0.27 ug/l | -- | < 0.27 ug/l | -- |
| Benzo(b)fluoranthene | NA | | | < 0.20 ug/l | < 0.20 ug/l | -- | < 0.20 ug/l | -- |
| Benzo(g,h,i)perylene | NA | | | < 0.24 ug/l | < 0.24 ug/l | -- | < 0.24 ug/l | -- |
| Benzo(k)fluoranthene | NA | | | < 0.29 ug/l | < 0.29 ug/l | -- | < 0.29 ug/l | -- |
| Benzoic Acid | NA | | 30000 HRL93 ug/l | < 1.1 ug/l | < 1.1 ug/l | -- | < 1.1 ug/l | -- |
| Benzyl alcohol | NA | | | < 0.50 ug/l | < 0.50 ug/l | -- | < 0.50 ug/l | -- |
| Bis(2-chloroethoxy)methane | NA | | | < 0.17 ug/l | < 0.17 ug/l | -- | < 0.17 ug/l | -- |
| Bis(2-chloroethyl)ether | NA | | 0.3 HRL93 ug/l | < 0.16 ug/l | < 0.16 ug/l | -- | < 0.16 ug/l | -- |
| Bis(2-chloroisopropyl)ether | NA | | | < 0.18 ug/l | < 0.18 ug/l | -- | < 0.18 ug/l | -- |
| Bis(2-ethylhexyl)phthalate | NA | 6 ug/l | 6 MCL ug/l | < 0.40 ug/l | < 0.40 ug/l | -- | < 0.40 ug/l | -- |
| Butyl benzyl phthalate | NA | | 100 HRL93 ug/l | < 0.34 ug/l | < 0.34 ug/l | -- | < 0.34 ug/l | -- |
| Carbazole | NA | | | < 0.24 ug/l | < 0.24 ug/l | -- | < 0.24 ug/l | -- |
| Chrysene | NA | | | < 0.25 ug/l | < 0.25 ug/l | -- | < 0.25 ug/l | -- |
| Dibenz(a,h)anthracene | NA | | | < 0.21 ug/l | < 0.21 ug/l | -- | < 0.21 ug/l | -- |
| Dibenzofuran | NA | | | < 0.36 ug/l | < 0.36 ug/l | -- | < 0.36 ug/l | -- |
| Diethyl phthalate | NA | | 6000 HRL93 ug/l | < 0.21 ug/l | < 0.21 ug/l | -- | < 0.21 ug/l | -- |
| Dimethyl phthalate | NA | | 70000 HRL94 ug/l | < 0.22 ug/l | < 0.22 ug/l | -- | < 0.22 ug/l | -- |
| Di-n-butyl phthalate | NA | | 700 HRL93 ug/l | < 0.26 ug/l | < 0.26 ug/l | -- | < 0.26 ug/l | -- |
| Di-n-octyl phthalate | NA | | | < 0.35 ug/l | < 0.35 ug/l | -- | < 0.35 ug/l | -- |
| Fluoranthene | NA | | 300 HRL93 ug/l | < 0.36 ug/l | < 0.36 ug/l | -- | < 0.36 ug/l | -- |
| Fluorene | NA | | 300 HRL93 ug/l | < 0.37 ug/l | < 0.37 ug/l | -- | < 0.37 ug/l | -- |
| Hexachlorobenzene | NA | 1 ug/l | 0.2 HRL93 ug/l | < 0.19 ug/l | < 0.19 ug/l | -- | < 0.19 ug/l | -- |
| Hexachlorobutadiene | NA | | 1 HRL93 ug/l | < 0.24 ug/l | < 0.24 ug/l | -- | < 0.24 ug/l | -- |
| Hexachlorocyclopentadiene | NA | 50 ug/l | | < 0.29 ug/l | < 0.29 ug/l | -- | < 0.29 ug/l | -- |
| Hexachloroethane | NA | | | < 0.29 ug/l | < 0.29 ug/l | -- | < 0.29 ug/l | -- |
| Indeno(1,2,3-cd)pyrene | NA | | | < 0.29 ug/l | < 0.29 ug/l | -- | < 0.29 ug/l | -- |
| Isophorone | NA | | 100 HRL93 ug/l | < 0.21 ug/l | < 0.21 ug/l | -- | < 0.21 ug/l | -- |
| Naphthalene | NA | | 300 HRL94 ug/l | < 0.34 ug/l | < 0.34 ug/l | -- | < 0.34 ug/l | -- |
| Nitrobenzene | NA | | | < 0.36 ug/l | < 0.36 ug/l | -- | < 0.36 ug/l | -- |
| N-Nitrosodimethylamine | NA | | | < 0.88 ug/l | < 0.88 ug/l | -- | < 0.88 ug/l | -- |
| N-Nitrosodi-n-propylamine | NA | | | < 0.19 ug/l | < 0.19 ug/l | -- | < 0.19 ug/l | -- |
| N-Nitrosodiphenylamine | NA | | 70 HRL93 ug/l | < 0.21 ug/l | < 0.21 ug/l | -- | < 0.21 ug/l | -- |
| o-Cresol | NA | | 30 HRL93 ug/l | < 0.58 ug/l | < 0.58 ug/l | -- | < 0.58 ug/l | -- |
| p-Cresol | NA | | 3 HRL94 ug/l | < 0.73 ug/l | < 0.73 ug/l | -- | < 0.73 ug/l | -- |

**Table 11**
**Water Supply Well - Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | | Sys Loc Code | WSW-207605 | WSW-207607 | WSW-207607 | WSW-208402 | WSW-208402 |
|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 09/29/2009 | 09/15/2009 | 09/30/2009 | 09/15/2009 | 09/29/2009 |
| Chemical Name | Total or Dissolved | EPA Maximum Contaminant Limit | MN GW Values Table | | | | | |
| **Effective Date** | | 5/1/2009 | 6/2/2009 | | | | | |
| **Exceedance Key** | | **Bold** | Underline | | | | | |
| Pentachlorophenol | NA | 1 ug/l | 1 MCL ug/l | < 0.55 ug/l | < 0.55 ug/l | -- | < 0.55 ug/l | -- |
| Phenanthrene | NA | | | < 0.36 ug/l | < 0.36 ug/l | -- | < 0.36 ug/l | -- |
| Phenol | NA | | 4000 HRL93 ug/l | < 0.53 ug/l | < 0.53 ug/l | -- | < 0.53 ug/l | -- |
| Pyrene | NA | | 200 HRL93 ug/l | < 0.44 ug/l | < 0.44 ug/l | -- | < 0.44 ug/l | -- |
| VOCs | | | | | | | | |
| 1,1,1,2-Tetrachloroethane | NA | | 70 HRL93 ug/l | < 0.28 ug/l | < 0.28 ug/l | -- | < 0.28 ug/l | -- |
| 1,1,1-Trichloroethane | NA | 200 ug/l | 9000 HRL08 (1) ug/l | < 0.17 ug/l | < 0.17 ug/l | -- | < 0.17 ug/l | -- |
| 1,1,2,2-Tetrachloroethane | NA | | 2 HRL94 ug/l | < 0.13 ug/l | < 0.13 ug/l | -- | < 0.13 ug/l | -- |
| 1,1,2-Trichloroethane | NA | 5 ug/l | 3 HRL93 ug/l | < 0.19 ug/l | < 0.19 ug/l | -- | < 0.19 ug/l | -- |
| 1,1-Dichloro-1-propene | NA | | | < 0.15 ug/l | < 0.15 ug/l | -- | < 0.15 ug/l | -- |
| 1,1-Dichloroethane | NA | | 100 RAA (1) ug/l | < 0.11 ug/l | < 0.11 ug/l | -- | < 0.11 ug/l | -- |
| 1,1-Dichloroethylene | NA | 7 ug/l | 200 HBV09 (1) ug/l | < 0.12 ug/l | < 0.12 ug/l | -- | < 0.12 ug/l | -- |
| 1,2,3-Trichlorobenzene | NA | | | < 0.47 ug/l | < 0.47 ug/l | -- | < 0.47 ug/l | -- |
| 1,2,3-Trichloropropane | NA | | 40 HRL93 ug/l | < 0.24 ug/l | < 0.24 ug/l | -- | < 0.24 ug/l | -- |
| 1,2,4-Trichlorobenzene | NA | 70 ug/l | | < 0.32 ug/l | < 0.32 ug/l | -- | < 0.32 ug/l | -- |
| 1,2,4-Trimethylbenzene | NA | | | < 0.17 ug/l | < 0.17 ug/l | -- | < 0.17 ug/l | -- |
| 1,2-Dibromo-3-chloropropane | NA | 0.2 ug/l | | < 0.60 ug/l | < 0.60 ug/l | -- | < 0.60 ug/l | -- |
| 1,2-Dibromoethane | NA | 0.05 ug/l | 0.004 HRL93 ug/l | < 0.37 ug/l | < 0.37 ug/l | -- | < 0.37 ug/l | -- |
| 1,2-Dichlorobenzene | NA | 600 ug/l | 600 HRL93 ug/l | < 0.16 ug/l | < 0.16 ug/l | -- | < 0.16 ug/l | -- |
| 1,2-Dichloroethane | NA | 5 ug/l | 4 HRL93 ug/l | < 0.18 ug/l | < 0.18 ug/l | -- | < 0.18 ug/l | -- |
| 1,2-Dichloroethylene, cis | NA | 70 ug/l | 50 HRL08 (1) ug/l | < 0.19 ug/l | < 0.19 ug/l | -- | < 0.19 ug/l | -- |
| 1,2-Dichloroethylene, trans | NA | 100 ug/l | 100 HRL93 ug/l | < 0.29 ug/l | < 0.29 ug/l | -- | < 0.29 ug/l | -- |
| 1,2-Dichloropropane | NA | 5 ug/l | 5 HRL94 ug/l | < 0.21 ug/l | < 0.21 ug/l | -- | < 0.21 ug/l | -- |
| 1,3,5-Trimethylbenzene | NA | | 100 HRL08 (1,2) ug/l | < 0.18 ug/l | < 0.18 ug/l | -- | < 0.18 ug/l | -- |
| 1,3-Dichloro-1-propene trans | NA | | | < 0.17 ug/l | < 0.17 ug/l | -- | < 0.17 ug/l | -- |
| 1,3-Dichloro-1-propene, cis | NA | | | < 0.16 ug/l | < 0.16 ug/l | -- | < 0.16 ug/l | -- |
| 1,3-Dichlorobenzene | NA | | | < 0.21 ug/l | < 0.21 ug/l | -- | < 0.21 ug/l | -- |
| 1,3-Dichloropropane | NA | | 2 HRL94 ug/l | < 0.15 ug/l | < 0.15 ug/l | -- | < 0.15 ug/l | -- |
| 1,4-Dichlorobenzene | NA | 75 ug/l | 10 HRL94 ug/l | < 0.17 ug/l | < 0.17 ug/l | -- | < 0.17 ug/l | -- |
| 2,2-Dichloropropane | NA | | | < 0.58 ug/l | < 0.58 ug/l | -- | < 0.58 ug/l | -- |
| Acetone | NA | | 700 HRL93 ug/l | < 2.8 ug/l | < 2.8 ug/l | -- | < 2.8 ug/l | -- |
| Allyl Chloride | NA | | 30 HRL94 ug/l | < 0.76 ug/l | < 0.76 ug/l | -- | < 0.76 ug/l | -- |
| Benzene | NA | 5 ug/l | 2 HRL08 (1) ug/l | < 0.093 ug/l | < 0.093 ug/l | -- | < 0.093 ug/l | -- |
| Bromobenzene | NA | | | < 0.17 ug/l | < 0.17 ug/l | -- | < 0.17 ug/l | -- |
| Bromochloromethane | NA | | | < 0.21 ug/l | < 0.21 ug/l | -- | < 0.21 ug/l | -- |
| Bromodichloromethane | NA | 80 (2) ug/l | 6 HRL93 ug/l | < 0.22 ug/l | < 0.22 ug/l | -- | < 0.22 ug/l | -- |
| Bromoform | NA | 80 (2) ug/l | 40 HRL93 ug/l | < 0.50 ug/l | < 0.50 ug/l | -- | < 0.50 ug/l | -- |
| Bromomethane | NA | | 10 HRL93 ug/l | < 0.95 ug/l | < 0.95 ug/l | -- | < 0.95 ug/l | -- |
| Butyl benzene | NA | | | < 0.32 ug/l | < 0.32 ug/l | -- | < 0.32 ug/l | -- |
| Butylbenzene sec | NA | | | < 0.22 ug/l | < 0.22 ug/l | -- | < 0.22 ug/l | -- |
| Butylbenzene tert- | NA | | | < 0.19 ug/l | < 0.19 ug/l | -- | < 0.19 ug/l | -- |
| Carbon tetrachloride | NA | 5 ug/l | 3 HRL93 ug/l | < 0.16 ug/l | < 0.16 ug/l | -- | < 0.16 ug/l | -- |
| Chlorobenzene | NA | 100 ug/l | 100 HRL93 ug/l | < 0.15 ug/l | < 0.15 ug/l | -- | < 0.15 ug/l | -- |
| Chlorodibromomethane | NA | 80 (2) ug/l | | < 0.50 ug/l | < 0.50 ug/l | -- | < 0.50 ug/l | -- |

**Table 11**
**Water Supply Well - Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | | Sys Loc Code | WSW-207605 | WSW-207607 | WSW-207607 | WSW-208402 | WSW-208402 |
|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 09/29/2009 | 09/15/2009 | 09/30/2009 | 09/15/2009 | 09/29/2009 |
| Chemical Name | Total or Dissolved | EPA Maximum Contaminant Limit | MN GW Values Table | | | | | |
| **Effective Date** | | 5/1/2009 | 6/2/2009 | | | | | |
| **Exceedance Key** | | **Bold** | Underline | | | | | |
| Chloroethane | NA | | | < 0.46 ug/l | < 0.46 ug/l | -- | < 0.46 ug/l | -- |
| Chloroform | NA | 80 (2) ug/l | 30 HRL08 (1,2) ug/l | < 0.19 ug/l | < 0.19 ug/l | -- | < 0.19 ug/l | -- |
| Chloromethane | NA | | | < 0.37 ug/l | < 0.37 ug/l | -- | < 0.37 ug/l | -- |
| Chlorotoluene o- | NA | | | < 0.17 ug/l | < 0.17 ug/l | -- | < 0.17 ug/l | -- |
| Chlorotoluene p- | NA | | | < 0.14 ug/l | < 0.14 ug/l | -- | < 0.14 ug/l | -- |
| Cumene (isopropyl benzene) | NA | | 300 HRL93 ug/l | < 0.17 ug/l | < 0.17 ug/l | -- | < 0.17 ug/l | -- |
| Cymene p- (Toluene isopropyl p-) | NA | | | < 0.30 ug/l | < 0.30 ug/l | -- | < 0.30 ug/l | -- |
| Dibromomethane (methylene bromide) | NA | | | < 0.30 ug/l | < 0.30 ug/l | -- | < 0.30 ug/l | -- |
| Dichlorodifluoromethane (CFC-12) | NA | | 700 HBV09 (1) ug/l | < 0.58 ug/l | < 0.58 ug/l | -- | < 0.58 ug/l | -- |
| Dichlorofluoromethane (CFC-21) | NA | | | < 0.31 ug/l | < 0.31 ug/l | -- | < 0.31 ug/l | -- |
| Ethyl benzene | NA | 700 ug/l | 700 HRL93 ug/l | < 0.21 ug/l | < 0.21 ug/l | -- | < 0.21 ug/l | -- |
| Ethyl ether | NA | | 1000 HRL93 ug/l | < 0.53 ug/l | < 0.53 ug/l | -- | < 0.53 ug/l | -- |
| Hexachlorobutadiene | NA | | 1 HRL93 ug/l | < 0.76 ug/l | < 0.76 ug/l | -- | < 0.76 ug/l | -- |
| Methyl ethyl ketone | NA | | 4000 HRL94 ug/l | < 0.67 ug/l | < 0.67 ug/l | -- | < 0.67 ug/l | -- |
| Methyl isobutyl ketone | NA | | 300 HRL94 ug/l | < 1.1 ug/l | < 1.1 ug/l | -- | < 1.1 ug/l | -- |
| Methyl tertiary butyl ether (MTBE) | NA | | | < 0.13 ug/l | < 0.13 ug/l | -- | < 0.13 ug/l | -- |
| Methylene chloride | NA | 5 ug/l | 5 MCL ug/l | < 0.65 ug/l | < 0.65 ug/l | -- | < 0.65 ug/l | -- |
| Naphthalene | NA | | 300 HRL94 ug/l | < 0.40 ug/l | < 0.40 ug/l | -- | < 0.40 ug/l | -- |
| Propylbenzene | NA | | | < 0.13 ug/l | < 0.13 ug/l | -- | < 0.13 ug/l | -- |
| Styrene | NA | 100 ug/l | | < 0.13 ug/l | < 0.13 ug/l | -- | < 0.13 ug/l | -- |
| Tetrachloroethylene | NA | 5 ug/l | 5 MCL ug/l | < 0.20 ug/l | < 0.20 ug/l | -- | < 0.20 ug/l | -- |
| Tetrahydrofuran | NA | | | < 0.77 ug/l | < 0.77 ug/l | -- | < 0.77 ug/l | -- |
| Toluene | NA | 1000 ug/l | 1000 HRL93 ug/l | < 0.21 ug/l | < 0.21 ug/l | -- | < 0.21 ug/l | -- |
| Trichloroethylene | NA | 5 ug/l | 5 MCL ug/l | < 0.20 ug/l | < 0.20 ug/l | -- | < 0.20 ug/l | -- |
| Trichlorofluoromethane | NA | | 2000 HRL93 ug/l | < 0.17 ug/l | < 0.17 ug/l | -- | < 0.17 ug/l | -- |
| Trichlorotrifluoroethane (Freon 113) | NA | | 200000 HRL93 ug/l | < 0.28 ug/l | < 0.28 ug/l | -- | < 0.28 ug/l | -- |
| Vinyl chloride | NA | 2 ug/l | 0.2 HRL08 (1) ug/l | < 0.087 ug/l | < 0.087 ug/l | -- | < 0.087 ug/l | -- |
| Xylene m & p | NA | | 10000 HRL93 ug/l | < 0.42 ug/l | < 0.42 ug/l | -- | < 0.42 ug/l | -- |
| Xylene, o- | NA | | 10000 HRL93 ug/l | < 0.18 ug/l | < 0.18 ug/l | -- | < 0.18 ug/l | -- |
| Xylenes, total | NA | 10000 ug/l | 10000 HRL93 ug/l | ND ug/l | ND ug/l | -- | ND ug/l | -- |
| Pesticides | | | | | | | | |
| 2,4,5-TP (Silvex) | NA | 50 ug/l | 50 MCL ug/l | < 0.52 ug/l | -- | < 0.50 ug/l | -- | < 0.51 ug/l |
| 2,4,5-Trichlorophenoxyacetic acid | NA | | 70 HRL93 ug/l | < 0.52 ug/l | -- | < 0.50 ug/l | -- | < 0.51 ug/l |
| 2,4-D | NA | 70 ug/l | 70 HRL93 ug/l | < 0.52 ug/l | -- | < 0.50 ug/l | -- | < 0.51 ug/l |
| 2,4-DB | NA | | | < 0.52 ug/l | -- | < 0.50 ug/l | -- | < 0.51 ug/l |
| 4,4'-DDD | NA | | 1 HRL93 ug/l | < 0.016 ug/l | < 0.015 ug/l | -- | < 0.015 ug/l | -- |
| 4,4'-DDE | NA | | 1 HRL93 ug/l | < 0.016 ug/l | < 0.015 ug/l | -- | < 0.015 ug/l | -- |
| 4,4'-DDT | NA | | 1 HRL93 ug/l | < 0.020 ug/l | < 0.019 ug/l | -- | < 0.019 ug/l | -- |
| a-BHC | NA | | | < 0.021 ug/l | < 0.020 ug/l | -- | < 0.020 ug/l | -- |
| Aldrin | NA | | | < 0.018 ug/l | < 0.017 ug/l | -- | < 0.017 ug/l | -- |
| b-BHC | NA | | | < 0.016 ug/l | < 0.015 ug/l | -- | < 0.015 ug/l | -- |
| Bentazone | NA | | | < 0.52 ug/l | -- | < 0.50 ug/l | -- | < 0.51 ug/l |
| Chlordane, alpha | NA | | | < 0.016 ug/l | < 0.015 ug/l | -- | < 0.015 ug/l | -- |
| Chlordane, gamma | NA | | | < 0.042 ug/l | < 0.040 ug/l | -- | < 0.040 ug/l | -- |

# Table 11
## Water Supply Well - Sampling Results
## SSI/RI Report SOCs 4 and 5
## UMore Mining Area
## Dakota County, Minnesota

| | | | Sys Loc Code | WSW-207605 | WSW-207607 | WSW-207607 | WSW-208402 | WSW-208402 |
|---|---|---|---|---|---|---|---|---|
| | | | Sample Date | 09/29/2009 | 09/15/2009 | 09/30/2009 | 09/15/2009 | 09/29/2009 |
| Chemical Name | Total or Dissolved | EPA Maximum Contaminant Limit | MN GW Values Table | | | | | |
| **Effective Date** | | 5/1/2009 | 6/2/2009 | | | | | |
| **Exceedance Key** | | **Bold** | Underline | | | | | |
| d-BHC | NA | | | < 0.014 ug/l | < 0.013 ug/l | -- | < 0.013 ug/l | -- |
| Dicamba | NA | | 200 HRL93 ug/l | < 0.52 ug/l | -- | < 0.50 ug/l | -- | < 0.51 ug/l |
| Dieldrin | NA | | 0.006 HRL08 (1) ug/l | < 0.024 ug/l | < 0.023 ug/l | -- | < 0.023 ug/l | -- |
| Dinoseb (DNBP) | NA | 7 ug/l | | < 0.52 ug/l | -- | < 0.50 ug/l | -- | < 0.51 ug/l |
| Endosulfan I | NA | | | < 0.021 ug/l | < 0.020 ug/l | -- | < 0.020 ug/l | -- |
| Endosulfan II | NA | | | < 0.019 ug/l | < 0.018 ug/l | -- | < 0.018 ug/l | -- |
| Endosulfan Sulfate | NA | | | < 0.019 ug/l | < 0.018 ug/l | -- | < 0.018 ug/l | -- |
| Endrin | NA | 2 ug/l | | < 0.020 ug/l | < 0.019 ug/l | -- | < 0.019 ug/l | -- |
| Endrin Aldehyde | NA | | | < 0.040 ug/l | < 0.038 ug/l | -- | < 0.038 ug/l | -- |
| Endrin Ketone | NA | | | < 0.019 ug/l | < 0.018 ug/l | -- | < 0.018 ug/l | -- |
| g-BHC (Lindane) | NA | 0.2 ug/l | | < 0.020 ug/l | < 0.019 ug/l | -- | < 0.019 ug/l | -- |
| Heptachlor | NA | 0.4 ug/l | 0.08 HRL93 ug/l | < 0.018 ug/l | < 0.017 ug/l | -- | < 0.017 ug/l | -- |
| Heptachlor Epoxide | NA | 0.2 ug/l | 0.04 HRL93 ug/l | < 0.038 ug/l | < 0.036 ug/l | -- | < 0.036 ug/l | -- |
| MCPA | NA | | 3 HRL93 ug/l | < 0.31 ug/l | -- | < 0.30 ug/l | -- | < 0.31 ug/l |
| Methoxychlor | NA | 40 ug/l | | < 0.026 ug/l | < 0.025 ug/l | -- | < 0.025 ug/l | -- |
| Pentachlorophenol | NA | 1 ug/l | 1 MCL ug/l | < 0.52 ug/l | -- | < 0.50 ug/l | -- | < 0.51 ug/l |
| Picloram | NA | 500 ug/l | 500 HRL93 ug/l | < 0.52 ug/l | -- | < 0.50 ug/l | -- | < 0.51 ug/l |
| Toxaphene | NA | 3 ug/l | 0.3 HRL93 ug/l | < 1.0 ug/l | < 0.95 ug/l | -- | < 0.95 ug/l | -- |
| Triclopyr | NA | | | < 0.52 ug/l | -- | < 0.50 ug/l | -- | < 0.51 ug/l |
| Acetochlor | NA | | 9 HRL08 (1) ug/l | < 0.25 ug/l | < 0.24 ug/l | -- | -- | < 0.25 ug/l |
| Alachlor (Lasso) | NA | 2 ug/l | 5 HRL08 (1) ug/l | < 0.19 ug/l | < 0.18 ug/l | -- | -- | < 0.19 ug/l |
| Atrazine (Primatol) | NA | 3 (6) ug/l | 3 MCL ug/l | < 0.24 ug/l | < 0.23 ug/l | -- | -- | < 0.24 ug/l |
| Chlorpyrifos (Lorsban) | NA | | | < 0.34 ug/l | < 0.32 ug/l | -- | -- | < 0.34 ug/l |
| Cyanazine (Bladex) | NA | | 1 HRL08 (1) ug/l | < 0.48 ug/l | < 0.46 ug/l | -- | -- | < 0.48 ug/l |
| Deisopropyl atrazine | NA | | | < 0.26 ug/l | < 0.24 ug/l | -- | -- | < 0.26 ug/l |
| Desethylatrazine | NA | | | < 0.29 ug/l | < 0.28 ug/l | -- | -- | < 0.29 ug/l |
| Dimethenamid | NA | | | < 0.24 ug/l | < 0.22 ug/l | -- | -- | < 0.24 ug/l |
| EPTC (Eradicane) | NA | | 200 HRL93 ug/l | < 0.22 ug/l | < 0.20 ug/l | -- | -- | < 0.22 ug/l |
| Ethalfluralin (Sonalan) | NA | | | < 0.47 ug/l | < 0.44 ug/l | -- | -- | < 0.47 ug/l |
| Fonofos (Dyphonate) | NA | | | < 0.30 ug/l | < 0.28 ug/l | -- | -- | < 0.30 ug/l |
| Metolachlor (Dual) | NA | | 300 HBV09 (1) ug/l | < 0.28 ug/l | < 0.26 ug/l | -- | -- | < 0.28 ug/l |
| Metribuzin | NA | | | < 0.35 ug/l | < 0.33 ug/l | -- | -- | < 0.35 ug/l |
| Pendimethalin (Prowl) | NA | | | < 0.25 ug/l | < 0.24 ug/l | -- | -- | < 0.25 ug/l |
| Phorate (Thimet) | NA | | | < 0.58 ug/l | < 0.56 ug/l | -- | -- | < 0.58 ug/l |
| Prometon (Pramitol) | NA | | 100 HRL93 ug/l | < 0.29 ug/l | < 0.28 ug/l | -- | -- | < 0.29 ug/l |
| Propachlor | NA | | | < 0.14 ug/l | < 0.13 ug/l | -- | -- | < 0.14 ug/l |
| Propazine (Milogard) | NA | | | < 0.21 ug/l | < 0.20 ug/l | -- | -- | < 0.21 ug/l |
| Simazine (Princep) | NA | 4 ug/l | 4 MCL ug/l | < 0.32 ug/l | < 0.30 ug/l | -- | -- | < 0.32 ug/l |
| Terbufos (Counter) | NA | | | < 0.54 ug/l | < 0.52 ug/l | -- | -- | < 0.54 ug/l |
| Triallate (Far-Go) | NA | | | < 0.34 ug/l | < 0.32 ug/l | -- | -- | < 0.34 ug/l |
| Trifluralin (Treflan) | NA | | | < 0.21 ug/l | < 0.20 ug/l | -- | -- | < 0.21 ug/l |

**Table 11**
**Water Supply Well - Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | | Sys Loc Code | WSW-208405 | WSW-208405 |
|---|---|---|---|---|---|
| | | | Sample Date | 09/15/2009 | 09/30/2009 |
| Chemical Name | Total or Dissolved | EPA Maximum Contaminant Limit | MN GW Values Table | | |
| **Effective Date** | | 5/1/2009 | 6/2/2009 | | |
| **Exceedance Key** | | **Bold** | Underline | | |
| General Parameters | | | | | |
| Nitrate + Nitrite | NA | 10 mg/l | | 2.6 mg/l | -- |
| Nitrocellulose | NA | | | < 0.50 mg/l | -- |
| Nitrogen total kjeldahl | NA | | | < 0.50 mg/l | -- |
| Perchlorate | NA | | | < 4.0 ug/l | -- |
| Metals | | | | | |
| Antimony | Total | 6 ug/l | 6 HRL93 ug/l | 0.15 j ug/l | -- |
| Arsenic | Total | 10 ug/l | | < 10 ug/l | -- |
| Beryllium | Total | 4 ug/l | 0.08 HRL93 ug/l | < 0.027 ug/l | -- |
| Cadmium | Total | 5 ug/l | 4 HRL93 ug/l | < 1.0 ug/l | -- |
| Chromium | Total | 100 ug/l | 100 CR ug/l | < 10 ug/l | -- |
| Copper | Total | 1300 TT (7) ug/l | | < 20 ug/l | -- |
| Lead | Total | **15 TT(7) ug/l** | | < 3.0 ug/l | -- |
| Mercury | Total | 2 ug/l | | < 0.20 ug/l | -- |
| Nickel | Total | | 100 HRL93 ug/l | 6.7 ug/l | -- |
| Selenium | Total | 50 ug/l | 30 HRL93 ug/l | < 20 ug/l | -- |
| Silver | Total | | 30 HRL93 ug/l | < 5.0 ug/l | -- |
| Thallium | Total | 2 ug/l | 0.6 HRL94 ug/l | 0.33 jb ug/l | -- |
| Zinc | Total | | 2000 HRL94 ug/l | 140 ug/l | -- |
| SVOCs | | | | | |
| 1,2,4-Trichlorobenzene | NA | 70 ug/l | | < 0.18 ug/l | -- |
| 1,2-Dichlorobenzene | NA | 600 ug/l | 600 HRL93 ug/l | < 0.21 ug/l | -- |
| 1,3-Dichlorobenzene | NA | | | < 0.19 ug/l | -- |
| 1,4-Dichlorobenzene | NA | 75 ug/l | 10 HRL94 ug/l | < 0.20 ug/l | -- |
| 2,3,4,6-Tetrachlorophenol | NA | | | < 0.56 ug/l | -- |
| 2,4,5-Trichlorophenol | NA | | | < 0.74 ug/l | -- |
| 2,4,6-Trichlorophenol | NA | | 30 HRL93 ug/l | < 0.44 ug/l | -- |
| 2,4-Dichlorophenol | NA | | 20 HRL93 ug/l | < 0.44 ug/l | -- |
| 2,4-Dimethylphenol | NA | | 100 HRL93 ug/l | < 1.5 ug/l | -- |
| 2,4-Dinitrophenol | NA | | 10 HRL94 ug/l | < 0.93 ug/l | -- |
| 2,4-Dinitrotoluene | NA | | | < 0.31 ug/l | -- |
| 2,6-Dichlorophenol | NA | | | < 0.44 ug/l | -- |
| 2,6-Dinitrotoluene | NA | | | < 0.33 ug/l | -- |
| 2-Chloronaphthalene | NA | | | < 0.26 ug/l | -- |
| 2-Chlorophenol | NA | | 30 HRL93 ug/l | < 0.42 ug/l | -- |
| 2-Methyl-4,6-dinitrophenol | NA | | | < 0.60 ug/l | -- |
| 2-Methylnaphthalene | NA | | | < 0.61 ug/l | -- |
| 2-Nitroaniline | NA | | | < 0.67 ug/l | -- |
| 2-Nitrophenol | NA | | | < 0.83 ug/l | -- |
| 3,3`-Dichlorobenzidine | NA | | 0.8 HRL93 ug/l | < 6.8 ug/l | -- |
| 3-Nitroaniline | NA | | | < 1.1 ug/l | -- |
| 4-Bromophenyl phenyl ether | NA | | | < 0.16 ug/l | -- |
| 4-Chloro-3-methylphenol | NA | | | < 0.51 ug/l | -- |
| 4-Chloroaniline | NA | | | < 2.1 ug/l | -- |

**Table 11**
**Water Supply Well - Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | | **Sys Loc Code** | **WSW-208405** | **WSW-208405** |
|---|---|---|---|---|---|
| | | | **Sample Date** | **09/15/2009** | **09/30/2009** |
| Chemical Name | Total or Dissolved | EPA Maximum Contaminant Limit | MN GW Values Table | | |
| **Effective Date** | | 5/1/2009 | 6/2/2009 | | |
| **Exceedance Key** | | **Bold** | Underline | | |
| 4-Chlorophenyl phenyl ether | NA | | | < 0.23 ug/l | -- |
| 4-Nitroaniline | NA | | | < 0.55 ug/l | -- |
| 4-Nitrophenol | NA | | | < 1.1 ug/l | -- |
| Acenaphthene | NA | | 400 HRL93 ug/l | < 0.33 ug/l | -- |
| Acenaphthylene | NA | | | < 0.23 ug/l | -- |
| Aniline | NA | | | < 2.0 ug/l | -- |
| Anthracene | NA | | 2000 HRL93 ug/l | < 0.34 ug/l | -- |
| Azobenzene | NA | | | < 0.22 ug/l | -- |
| Benzidine | NA | | | < 17 ug/l | -- |
| Benzo(a)anthracene | NA | | | < 0.34 ug/l | -- |
| Benzo(a)pyrene | NA | 0.2 ug/l | | < 0.27 ug/l | -- |
| Benzo(b)fluoranthene | NA | | | < 0.20 ug/l | -- |
| Benzo(g,h,i)perylene | NA | | | < 0.24 ug/l | -- |
| Benzo(k)fluoranthene | NA | | | < 0.29 ug/l | -- |
| Benzoic Acid | NA | | 30000 HRL93 ug/l | < 1.1 ug/l | -- |
| Benzyl alcohol | NA | | | < 0.50 ug/l | -- |
| Bis(2-chloroethoxy)methane | NA | | | < 0.17 ug/l | -- |
| Bis(2-chloroethyl)ether | NA | | 0.3 HRL93 ug/l | < 0.16 ug/l | -- |
| Bis(2-chloroisopropyl)ether | NA | | | < 0.18 ug/l | -- |
| Bis(2-ethylhexyl)phthalate | NA | 6 ug/l | 6 MCL ug/l | < 0.40 ug/l | -- |
| Butyl benzyl phthalate | NA | | 100 HRL93 ug/l | < 0.34 ug/l | -- |
| Carbazole | NA | | | < 0.24 ug/l | -- |
| Chrysene | NA | | | < 0.25 ug/l | -- |
| Dibenz(a,h)anthracene | NA | | | < 0.21 ug/l | -- |
| Dibenzofuran | NA | | | < 0.36 ug/l | -- |
| Diethyl phthalate | NA | | 6000 HRL93 ug/l | < 0.21 ug/l | -- |
| Dimethyl phthalate | NA | | 70000 HRL94 ug/l | < 0.22 ug/l | -- |
| Di-n-butyl phthalate | NA | | 700 HRL93 ug/l | < 0.26 ug/l | -- |
| Di-n-octyl phthalate | NA | | | < 0.35 ug/l | -- |
| Fluoranthene | NA | | 300 HRL93 ug/l | < 0.36 ug/l | -- |
| Fluorene | NA | | 300 HRL93 ug/l | < 0.37 ug/l | -- |
| Hexachlorobenzene | NA | 1 ug/l | 0.2 HRL93 ug/l | < 0.19 ug/l | -- |
| Hexachlorobutadiene | NA | | 1 HRL93 ug/l | < 0.24 ug/l | -- |
| Hexachlorocyclopentadiene | NA | 50 ug/l | | < 0.29 ug/l | -- |
| Hexachloroethane | NA | | | < 0.29 ug/l | -- |
| Indeno(1,2,3-cd)pyrene | NA | | | < 0.29 ug/l | -- |
| Isophorone | NA | | 100 HRL93 ug/l | < 0.21 ug/l | -- |
| Naphthalene | NA | | 300 HRL94 ug/l | < 0.34 ug/l | -- |
| Nitrobenzene | NA | | | < 0.36 ug/l | -- |
| N-Nitrosodimethylamine | NA | | | < 0.88 ug/l | -- |
| N-Nitrosodi-n-propylamine | NA | | | < 0.19 ug/l | -- |
| N-Nitrosodiphenylamine | NA | | 70 HRL93 ug/l | < 0.21 ug/l | -- |
| o-Cresol | NA | | 30 HRL93 ug/l | < 0.58 ug/l | -- |
| p-Cresol | NA | | 3 HRL94 ug/l | < 0.73 ug/l | -- |

**Table 11**
**Water Supply Well - Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | | **Sys Loc Code** | **WSW-208405** | **WSW-208405** |
|---|---|---|---|---|---|
| | | | **Sample Date** | **09/15/2009** | **09/30/2009** |
| Chemical Name | Total or Dissolved | EPA Maximum Contaminant Limit | MN GW Values Table | | |
| **Effective Date** | | 5/1/2009 | 6/2/2009 | | |
| **Exceedance Key** | | **Bold** | Underline | | |
| Pentachlorophenol | NA | 1 ug/l | 1 MCL ug/l | < 0.55 ug/l | -- |
| Phenanthrene | NA | | | < 0.36 ug/l | -- |
| Phenol | NA | | 4000 HRL93 ug/l | < 0.53 ug/l | -- |
| Pyrene | NA | | 200 HRL93 ug/l | < 0.44 ug/l | -- |
| VOCs | | | | | |
| 1,1,1,2-Tetrachloroethane | NA | | 70 HRL93 ug/l | < 0.28 ug/l | -- |
| 1,1,1-Trichloroethane | NA | 200 ug/l | 9000 HRL08 (1) ug/l | < 0.17 ug/l | -- |
| 1,1,2,2-Tetrachloroethane | NA | | 2 HRL94 ug/l | < 0.13 ug/l | -- |
| 1,1,2-Trichloroethane | NA | 5 ug/l | 3 HRL93 ug/l | < 0.19 ug/l | -- |
| 1,1-Dichloro-1-propene | NA | | | < 0.15 ug/l | -- |
| 1,1-Dichloroethane | NA | | 100 RAA (1) ug/l | < 0.11 ug/l | -- |
| 1,1-Dichloroethylene | NA | 7 ug/l | 200 HBV09 (1) ug/l | < 0.12 ug/l | -- |
| 1,2,3-Trichlorobenzene | NA | | | < 0.47 ug/l | -- |
| 1,2,3-Trichloropropane | NA | | 40 HRL93 ug/l | < 0.24 ug/l | -- |
| 1,2,4-Trichlorobenzene | NA | 70 ug/l | | < 0.32 ug/l | -- |
| 1,2,4-Trimethylbenzene | NA | | | < 0.17 ug/l | -- |
| 1,2-Dibromo-3-chloropropane | NA | 0.2 ug/l | | < 0.60 ug/l | -- |
| 1,2-Dibromoethane | NA | 0.05 ug/l | 0.004 HRL93 ug/l | < 0.37 ug/l | -- |
| 1,2-Dichlorobenzene | NA | 600 ug/l | 600 HRL93 ug/l | < 0.16 ug/l | -- |
| 1,2-Dichloroethane | NA | 5 ug/l | 4 HRL93 ug/l | < 0.18 ug/l | -- |
| 1,2-Dichloroethylene, cis | NA | 70 ug/l | 50 HRL08 (1) ug/l | < 0.19 ug/l | -- |
| 1,2-Dichloroethylene, trans | NA | 100 ug/l | 100 HRL93 ug/l | < 0.29 ug/l | -- |
| 1,2-Dichloropropane | NA | 5 ug/l | 5 HRL94 ug/l | < 0.21 ug/l | -- |
| 1,3,5-Trimethylbenzene | NA | | 100 HRL08 (1,2) ug/l | < 0.18 ug/l | -- |
| 1,3-Dichloro-1-propene trans | NA | | | < 0.17 ug/l | -- |
| 1,3-Dichloro-1-propene, cis | NA | | | < 0.16 ug/l | -- |
| 1,3-Dichlorobenzene | NA | | | < 0.21 ug/l | -- |
| 1,3-Dichloropropane | NA | | 2 HRL94 ug/l | < 0.15 ug/l | -- |
| 1,4-Dichlorobenzene | NA | 75 ug/l | 10 HRL94 ug/l | < 0.17 ug/l | -- |
| 2,2-Dichloropropane | NA | | | < 0.58 ug/l | -- |
| Acetone | NA | | 700 HRL93 ug/l | < 2.8 ug/l | -- |
| Allyl Chloride | NA | | 30 HRL94 ug/l | < 0.76 ug/l | -- |
| Benzene | NA | 5 ug/l | 2 HRL08 (1) ug/l | < 0.093 ug/l | -- |
| Bromobenzene | NA | | | < 0.17 ug/l | -- |
| Bromochloromethane | NA | | | < 0.21 ug/l | -- |
| Bromodichloromethane | NA | 80 (2) ug/l | 6 HRL93 ug/l | < 0.22 ug/l | -- |
| Bromoform | NA | 80 (2) ug/l | 40 HRL93 ug/l | < 0.50 ug/l | -- |
| Bromomethane | NA | | 10 HRL93 ug/l | < 0.95 ug/l | -- |
| Butyl benzene | NA | | | < 0.32 ug/l | -- |
| Butylbenzene sec | NA | | | < 0.22 ug/l | -- |
| Butylbenzene tert- | NA | | | < 0.19 ug/l | -- |
| Carbon tetrachloride | NA | 5 ug/l | 3 HRL93 ug/l | < 0.16 ug/l | -- |
| Chlorobenzene | NA | 100 ug/l | 100 HRL93 ug/l | < 0.15 ug/l | -- |
| Chlorodibromomethane | NA | 80 (2) ug/l | | < 0.50 ug/l | -- |

**Table 11**
**Water Supply Well - Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | | **Sys Loc Code** | **WSW-208405** | **WSW-208405** |
|---|---|---|---|---|---|
| | | | **Sample Date** | **09/15/2009** | **09/30/2009** |
| Chemical Name | Total or Dissolved | EPA Maximum Contaminant Limit | MN GW Values Table | | |
| **Effective Date** | | 5/1/2009 | 6/2/2009 | | |
| **Exceedance Key** | | **Bold** | Underline | | |
| Chloroethane | NA | | | < 0.46 ug/l | -- |
| Chloroform | NA | 80 (2) ug/l | 30 HRL08 (1,2) ug/l | < 0.19 ug/l | -- |
| Chloromethane | NA | | | < 0.37 ug/l | -- |
| Chlorotoluene o- | NA | | | < 0.17 ug/l | -- |
| Chlorotoluene p- | NA | | | < 0.14 ug/l | -- |
| Cumene (isopropyl benzene) | NA | | 300 HRL93 ug/l | < 0.17 ug/l | -- |
| Cymene p- (Toluene isopropyl p-) | NA | | | < 0.30 ug/l | -- |
| Dibromomethane (methylene bromide) | NA | | | < 0.30 ug/l | -- |
| Dichlorodifluoromethane (CFC-12) | NA | | 700 HBV09 (1) ug/l | < 0.58 ug/l | -- |
| Dichlorofluoromethane (CFC-21) | NA | | | < 0.31 ug/l | -- |
| Ethyl benzene | NA | 700 ug/l | 700 HRL93 ug/l | < 0.21 ug/l | -- |
| Ethyl ether | NA | | 1000 HRL93 ug/l | < 0.53 ug/l | -- |
| Hexachlorobutadiene | NA | | 1 HRL93 ug/l | < 0.76 ug/l | -- |
| Methyl ethyl ketone | NA | | 4000 HRL94 ug/l | < 0.67 ug/l | -- |
| Methyl isobutyl ketone | NA | | 300 HRL94 ug/l | < 1.1 ug/l | -- |
| Methyl tertiary butyl ether (MTBE) | NA | | | < 0.13 ug/l | -- |
| Methylene chloride | NA | 5 ug/l | 5 MCL ug/l | < 0.65 ug/l | -- |
| Naphthalene | NA | | 300 HRL94 ug/l | < 0.40 ug/l | -- |
| Propylbenzene | NA | | | < 0.13 ug/l | -- |
| Styrene | NA | 100 ug/l | | < 0.13 ug/l | -- |
| Tetrachloroethylene | NA | 5 ug/l | 5 MCL ug/l | < 0.20 ug/l | -- |
| Tetrahydrofuran | NA | | | < 0.77 ug/l | -- |
| Toluene | NA | 1000 ug/l | 1000 HRL93 ug/l | < 0.21 ug/l | -- |
| Trichloroethylene | NA | 5 ug/l | 5 MCL ug/l | < 0.20 ug/l | -- |
| Trichlorofluoromethane | NA | | 2000 HRL93 ug/l | < 0.17 ug/l | -- |
| Trichlorotrifluoroethane (Freon 113) | NA | | 200000 HRL93 ug/l | < 0.28 ug/l | -- |
| Vinyl chloride | NA | 2 ug/l | 0.2 HRL08 (1) ug/l | < 0.087 ug/l | -- |
| Xylene m & p | NA | | 10000 HRL93 ug/l | < 0.42 ug/l | -- |
| Xylene, o- | NA | | 10000 HRL93 ug/l | < 0.18 ug/l | -- |
| Xylenes, total | NA | 10000 ug/l | 10000 HRL93 ug/l | ND ug/l | -- |
| Pesticides | | | | | |
| 2,4,5-TP (Silvex) | NA | 50 ug/l | 50 MCL ug/l | -- | < 0.50 ug/l |
| 2,4,5-Trichlorophenoxyacetic acid | NA | | 70 HRL93 ug/l | -- | < 0.50 ug/l |
| 2,4-D | NA | 70 ug/l | 70 HRL93 ug/l | -- | < 0.50 ug/l |
| 2,4-DB | NA | | | -- | < 0.50 ug/l |
| 4,4'-DDD | NA | | 1 HRL93 ug/l | < 0.015 ug/l | -- |
| 4,4'-DDE | NA | | 1 HRL93 ug/l | < 0.015 ug/l | -- |
| 4,4'-DDT | NA | | 1 HRL93 ug/l | < 0.019 ug/l | -- |
| a-BHC | NA | | | < 0.020 ug/l | -- |
| Aldrin | NA | | | < 0.017 ug/l | -- |
| b-BHC | NA | | | < 0.015 ug/l | -- |
| Bentazone | NA | | | -- | < 0.50 ug/l |
| Chlordane, alpha | NA | | | < 0.015 ug/l | -- |
| Chlordane, gamma | NA | | | < 0.040 ug/l | -- |

**Table 11**
**Water Supply Well - Sampling Results**
**SSI/RI Report SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| | | | **Sys Loc Code** | **WSW-208405** | **WSW-208405** |
|---|---|---|---|---|---|
| | | | **Sample Date** | **09/15/2009** | **09/30/2009** |
| Chemical Name | Total or Dissolved | EPA Maximum Contaminant Limit | MN GW Values Table | | |
| **Effective Date** | | 5/1/2009 | 6/2/2009 | | |
| **Exceedance Key** | | **Bold** | Underline | | |
| d-BHC | NA | | | < 0.013 ug/l | -- |
| Dicamba | NA | | 200 HRL93 ug/l | -- | < 0.50 ug/l |
| Dieldrin | NA | | 0.006 HRL08 (1) ug/l | < 0.023 ug/l | -- |
| Dinoseb (DNBP) | NA | 7 ug/l | | -- | < 0.50 ug/l |
| Endosulfan I | NA | | | < 0.020 ug/l | -- |
| Endosulfan II | NA | | | < 0.018 ug/l | -- |
| Endosulfan Sulfate | NA | | | < 0.018 ug/l | -- |
| Endrin | NA | 2 ug/l | | < 0.019 ug/l | -- |
| Endrin Aldehyde | NA | | | < 0.038 ug/l | -- |
| Endrin Ketone | NA | | | < 0.018 ug/l | -- |
| g-BHC (Lindane) | NA | 0.2 ug/l | | < 0.019 ug/l | -- |
| Heptachlor | NA | 0.4 ug/l | 0.08 HRL93 ug/l | < 0.017 ug/l | -- |
| Heptachlor Epoxide | NA | 0.2 ug/l | 0.04 HRL93 ug/l | < 0.036 ug/l | -- |
| MCPA | NA | | 3 HRL93 ug/l | -- | < 0.30 ug/l |
| Methoxychlor | NA | 40 ug/l | | < 0.025 ug/l | -- |
| Pentachlorophenol | NA | 1 ug/l | 1 MCL ug/l | -- | < 0.50 ug/l |
| Picloram | NA | 500 ug/l | 500 HRL93 ug/l | -- | < 0.50 ug/l |
| Toxaphene | NA | 3 ug/l | 0.3 HRL93 ug/l | < 0.95 ug/l | -- |
| Triclopyr | NA | | | -- | < 0.50 ug/l |
| Acetochlor | NA | | 9 HRL08 (1) ug/l | < 0.24 ug/l | -- |
| Alachlor (Lasso) | NA | 2 ug/l | 5 HRL08 (1) ug/l | < 0.18 ug/l | -- |
| Atrazine (Primatol) | NA | 3 (6) ug/l | 3 MCL ug/l | < 0.23 ug/l | -- |
| Chlorpyrifos (Lorsban) | NA | | | < 0.32 ug/l | -- |
| Cyanazine (Bladex) | NA | | 1 HRL08 (1) ug/l | < 0.46 ug/l | -- |
| Deisopropyl atrazine | NA | | | < 0.24 ug/l | -- |
| Desethylatrazine | NA | | | < 0.28 ug/l | -- |
| Dimethenamid | NA | | | < 0.22 ug/l | -- |
| EPTC (Eradicane) | NA | | 200 HRL93 ug/l | < 0.20 ug/l | -- |
| Ethalfluralin (Sonalan) | NA | | | < 0.44 ug/l | -- |
| Fonofos (Dyphonate) | NA | | | < 0.28 ug/l | -- |
| Metolachlor (Dual) | NA | | 300 HBV09 (1) ug/l | < 0.26 ug/l | -- |
| Metribuzin | NA | | | < 0.33 ug/l | -- |
| Pendimethalin (Prowl) | NA | | | < 0.24 ug/l | -- |
| Phorate (Thimet) | NA | | | < 0.56 ug/l | -- |
| Prometon (Pramitol) | NA | | 100 HRL93 ug/l | < 0.28 ug/l | -- |
| Propachlor | NA | | | < 0.13 ug/l | -- |
| Propazine (Milogard) | NA | | | < 0.20 ug/l | -- |
| Simazine (Princep) | NA | 4 ug/l | 4 MCL ug/l | < 0.30 ug/l | -- |
| Terbufos (Counter) | NA | | | < 0.52 ug/l | -- |
| Triallate (Far-Go) | NA | | | < 0.32 ug/l | -- |
| Trifluralin (Treflan) | NA | | | < 0.20 ug/l | -- |

| Data Qualifiers/Footnotes - Groundwater | |
|---|---|
| **Qualifier** | **Definition** |
| -- | Not analyzed/not available. |
| a | Estimated value, calculated using some or all values that are estimates. |
| b | Potential false positive value based on blank data validation procedures. |
| c | Coeluting compound. |
| e | Estimated value, exceeded the instrument calibration range. |
| h | EPA recommended sample preservation, extraction or analysis holding time was exceeded. |
| I | Indeterminate value based on failure of blind duplicate data to meet quality assurance criteria. |
| j | Reported value is less than the stated laboratory quantitation limit and is considered an estimated value. |
| p | Relative percent difference is >40% (25% CLP pesticides) between primary and confirmation GC columns. |
| r | The presence of the compound is suspect based on the ID criteria of the retention time and relative retention time obtained from the examination of the chromatograms. |
| * | Estimated value, QA/QC criteria not met. |
| ** | Unusable value, QA/QC criteria not met. |
| NA | NA indicates that a fractional portion of the sample is not part of the analytical testing or field collection procedures. |
| ND | Not detected. |

## Criteria Footnotes - Groundwater

| | Qualifier | Definition |
|---|---|---|
| EPA Maximum Contaminant Level | (1) | When acrylamide is used in drinking water systems, the combination (or product) of dose and monomer level shall not exceed that equivalent to a polyacrylamide polymer containing 0.05% monomer dosed at 1 mg/L. |
| | (14) | Millirems per years. |
| | (15) | Picocuries per liter. |
| | (2) | 1998 Final Rule for Disinfectants and Disinfection By-products: The total for trihalomethanes is 0.08 mg/L. |
| | (3) | The MCL value for any combination of two or more of these three chemicals (Aldicarb, Aldicarb sulfone, Aldicarb sulfoxide) should not exceed 0.007 mg/L because of similar mode of action. |
| | (5) | No more than 5.0% samples total coliform-positive in a month. Every sample that has total coliforms must be analyzed for fecal coliforms; no fecal coliforms are allowed. |
| | (6) | Under review. |
| | (7) | Copper action level at 1.3 mg/L, Lead action level at 0.015 mg/L |
| | (8) | Proposed 7/2001 arsenic rule states that the Jan. 2001 MCL of 10 ppb will not be enforced until 2006, and is still being evaluated at 3,5,10,20 ppb. |
| | TT | Treatment technique. |
| MN GW Values Table | (1) | Value is representative of the most conservative exposure duration published in the Minnesota Department of Health Groundwater Values Table. |
| | (2) | Set at short term HRL. |
| | HBV | Health Based Value. |
| | HRL | Health Risk Limit. |
| | RAA | Risk Assessment Advice. |
| | CR | Value represents the criteria for Chromium, hexavalent. |

**Table 12**
**Baseline Risk Evaluation Summary**
**SSI/RI Report**
**SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| Site of Concern and Operable Unit (Preliminary) | | Remedial Action/ Investigation Recommended | Constituents of Concern[1] | Affected Media | | Potential Receptors | | | Routes of Migration | | Potential Exposure Pathways | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Debris | Soil | Public | Site Workers | Exported Soil Recipients | Release to Soil | Contained in Buried Debris | Inhalation[2] | Ingestion[2] | Dermal |
| SOC 4 | OU1-Frm. DNT Platform and Ditch | No | NA | | | | | | | | | | |
| | OU2-Settling Basin and Ditch | Yes | SVOCs | unknown | | | X | | | unknown | | X | X |
| | | | Metals | unknown | | | X | | | unknown | | X | |
| | | | VOCs | unknown | | | X | | | unknown | X | X | X |
| | | | Pesticides | unknown | | | X | | | unknown | | X | |
| | OU3-Surficial Debris Area | No | NA | | | | | | | | | | |
| SOC 5 | OU1-DNT Storage Bunkers | Yes | SVOCs (cPAHs) | | X | | X | X | X | | | X | X |
| | OU2-Pesticide Release Area | No | NA | | | | | | | | | | |
| | OU3-Petroleum Release Area | Yes | Lead | | X | | X | X | X | | X | X | X |
| | | | VOCs | | unknown | | | | unknown | | X | X | X |
| | Dirt Roads | No | NA | | | | | | | | | | |
| | Green Space | Yes | Mercury | | X | X | | X | X | | X | X | X |
| | Water Supply Wells | No | NA | | | | | | | | | | |

Notes:

[1]Detected above residential risk-screening criteria and attributed to past land use

[2]Includes exposure to dust.

VOCs - Volatile organic compounds

SVOCs - Semi-volatile organic compounds

NA - Not applicable. No analytes attributed to land use detected above risk-screening criteria.

**Table 13**
**Refined Conceptual Release Models**
**SSI/RI Report**
**SOCs 4 and 5**
**UMore Mining Area**
**Dakota County, Minnesota**

| Site of Concern and Operable Unit and Media | Remedial Action/ Investigation Recommended | Environmental Impacts | | | Anticipated Remedial Action | | | | Implementation Timeline | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Description | Source and Migration Mechanism | Extent | Additional Investigation | Excavation | Off-Site Disposal | Confirmation Sampling | 2010 | Before/During Site Preparation |
| SOC4-OU2: Settling Basin and Ditch (Soil) | Yes | Buried demolition debris | Debris burial | Horizontal extent estimated to be 120 feet x 55 feet and approximately 5-10 feet thick. Estimated volume is 1,200-2,400 cubic yards (in place). | | X | X | X | | X |
| SOC5-OU1: DNT Storage Bunkers (Soil) | Yes | Surface soils impacted by cPAHs, as measured by B(a)P equivalent concentrations, and SVOCs. B(a)P is the recommended indicator parameter. | Inclusion of weathered fragements of waterproofing material falling off exterior DNT Storage Bunker walls. Limited dispersal via surface operations (lawn mowing, snow plowing, earthwork). | Horizontal extent is estimated to be 15 feet around bunkers 260-D through H. Vertical extent is 1/2 foot thick. Total estimated volume is approximately 400 cubic yards (in place). | | X | X | X | | X |
| SOC5-OU3: Petroleum Release Area (Soil) | Yes | Surface and shallow sub-surface soils impacted with lead and possibly other petroleum related compounds. | Surface or shallow subsurface releases of leaded gasoline in the vincinty of a former fuel dispensor | Vertical extent limited to upper 4.5 feet of soil. Lateral extent estimated to be less than 50 feet by 20 feet. | X | X | X | X | | X |
| SOC 5 Green Space: NW Drainage Ditch (Soil) | Yes | Surface and shallow sub-surface soils impacted with mercury. | Source unknown. | Horizontal extent has been defined as the bottom of the drainage ditch which measures approximately of 6 feet by 40 feet. Vertical extent is approximately 2 feet. Details of the corrective actions will be submitted to the MPCA prior to soil mitigation. | X | X | X | X | X | |
| SOC 5 Green Space: Isolated Areas (Soil) | Yes | Isolated surface soils impacted with mercuy. | Source unknown. | Isolated detections (from FSI) will be evaluated with aditional sampling. | X | X | X | X | | X |