Table 1
Summary of Transformers and Capacitors - 1999,
Steubenville East Coke Plant,
Wheeling-Pittsburgh Steel Corporation
Follansbee, West Virginia

| SWMU ID | Current Status | Location | PCB Containing*** | Inside Bldg. | Transformer I.D. | Vendor | Survey Date | Survey Date | Survey Date | Survey Date | Survey Date | Survey Date |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-24 | Existing | #1 Substation | NO | NO | -- | -- | -- | -- | -- | -- | -- | May-99 |
| D-10 | Unknown | #2 Substation | Unknown | YES | -- | -- | -- | -- | -- | -- | -- | -- |
| F-5 | Existing | # 11 Substation | YES | YES | H878874 | -- | -- | -- | -- | -- | -- | May-99 |
| F-6 | Removed 9/99 | #12 Substation -Sinter Plant | YES | YES | C-854835 | G.E. | 3/29/1974 | 3/18/1980 | 10/17/1988 | -- | Nov-94 | |
| C-16 | Existing | #14 Substation | Unknown | YES | 3697334 | Westinghouse | 3/29/1974 | 3/18/1980 | NL | -- | NL | |
| B-27 | Unknown | #15 Substation | Unknown | YES | -- | -- | -- | -- | -- | -- | -- | May-99 |
| C-19 | Unknown | #16 Substation | NO | YES | 4392035 | Westinghouse | 3/29/1974 | 3/18/1980 | NL | -- | NL | May-99 |
| D-19 | Existing | #17 Substation | YES | YES | 4392034 | Westinghouse | 3/29/1974 | 3/18/1980 | 10/17/1988 | -- | Nov-94 | |
| C-15 | Existing | #18 Substation | YES | YES | 4392033 | Westinghouse | 3/29/1974 | 3/18/1980 | 10/17/1988 | -- | Nov-94 | |
| -- | Unknown | #20 Substation | Unknown | YES | | | | | | | | |
| C-17 | Existing | # 31 Substation | NO | NO | -- | -- | -- | -- | -- | -- | -- | May-99 |
| C-18 | Existing | #32 Substation | YES | YES | H884142 | G.E. | NL | 3/18/1980 | 10/17/1988 | -- | Nov-94 | |
| C-18 | Existing | #32 Substation | YES | YES | PAV-7956-01 | Westinghouse | NL | NL | 10/17/1988 | 9/20/1991 | Nov-94 | |
| D-11 | Existing | #33 Substation | YES | YES | H884143 | G.E. | NL | 3/18/1980 | 10/17/1988 | -- | Nov-94 | |
| B-26 | Existing | #35 Substation | YES | YES | H884144 | G.E. | NL | 3/18/1980 | 10/17/1988 | -- | Nov-94 | |
| H-9 | Existing | Chem Lab | YES | YES | S/N 46350 | G.E. | NL | NL | NL | 9/20/1991 | Nov-94 | |
| B-29 | Unknown | Precipitator Transformer | NO | YES | -- | -- | -- | -- | -- | -- | -- | May-99 |
| Sector B | Existing | Near B-10 Saturators | NO | YES | 68-2028 | -- | -- | -- | -- | -- | -- | May-99 |
| Sector B | Existing | Near B-10 Saturators | NO | YES | 68-2039 | -- | -- | -- | -- | -- | -- | May-99 |
| -- | Unknown | Precipitator | NO | YES | S/N L495318 | G.E. | NL | NL | NL | 9/20/1991 | NL | |
| -- | Unknown | Precipitator | NO | YES | S/N L495319 | G.E. | NL | NL | NL | 9/20/1991 | Nov-94 | |
| C-19 | Out-of-service 6/23/93 | #16 Substation | Unknown | YES | S/N 2143214 | G.E. | NL | NL | NL | 9/20/1991 | NL | -- |
| C-19 | Removed 4/27/92 | #16 Substation | Unknown | YES | 2108838 | A.C. | 3/29/1974 | 3/18/1980 | 10/17/1988 | -- | Removed 4/27/92 | -- |
| C-19 | Removed 4/27/92 | #16 Substation | Unknown | YES | 2108839 | A.C. | 3/29/1974 | 3/18/1980 | 10/17/1988 | -- | Removed 4/27/92 | -- |
| C-19 | Removed 4/27/92 | #16 Substation | Unknown | YES | 2108840 | A.C. | 3/29/1974 | 3/18/1980 | 10/17/1988 | -- | Removed 4/27/92 | -- |
| C-19 | Removed 4/27/92 | #16 Substation | Unknown | YES | 2414394 | A.C. | 3/29/1974 | 3/18/1980 | 10/17/1988 | -- | Removed 4/27/92 | -- |
| C-19 | Removed 4/27/92 | #16 Substation | Unknown | YES | 2414395 | A.C. | 3/29/1974 | 3/18/1980 | 10/17/1988 | -- | Removed 4/27/92 | -- |
| C-19 | Removed 4/27/92 | #16 Substation | Unknown | YES | 2414396 | A.C. | 3/29/1974 | 3/18/1980 | 10/17/1988 | -- | Removed 4/27/92 | -- |
| -- | Removed 6/23/93 | #19 Substation | Unknown | YES | 2113211 | A.C. | -- | -- | -- | -- | Removed 6/23/93 | -- |
| B-25 | Removed 10/11/95 | #19 Substation | Unknown | YES | 2113212 | A.C. | 3/29/1974 | 3/18/1980 | 10/17/1988 | -- | Nov-94 | -- |
| B-25 | Removed 10/11/95 | #19 Substation | Unknown | YES | 2113213 | A.C. | 3/29/1974 | 3/18/1980 | 10/17/1988 | -- | Nov-94 | -- |
| B-28 | Removed 8/27/91 | #34 Substation | Unknown | YES | C-249174-B | G.E. | NL | 3/18/1980 | 10/17/1988 | -- | Removed 8/27/91 | -- |
| B-28 | Removed 8/27/91 | #34 Substation | Unknown | YES | C-249174-A | G.E. | NL | 3/18/1980 | 10/17/1988 | -- | Removed 8/27/91 | -- |
| -- | Removed 11/21/95 | Sinter Plant | Unknown | Unknown | S/N 1879253 | G.E. | NL | NL | NL | 9/20/1991 | Nov-94 | -- |

** Plus 5 contaminated spare units mentioned.*
*** Plus 4 capacitors mentioned.*
*** - PCB Containing refers to Transformers and/or Capacitors containing >50ppm PCBs
*^NA Not applicable; this was not a survey of transformers, but correspondence.*
*NL Not Listed*
*Correspondence dated 12/31/90 mentions 21 PCB transformers and 13 PCB capacitors at the facility.*
*Correspondence dated 12/31/91 mentions 19 PCB transformers and 5 PCB capacitors at the facility.*
*Correspondence dated 12/31/92 mentions 13 PCB transformers and 5 PCB capacitors at the facility.*
*Correspondence dated 12/31/93 mentions 12 PCB transformers and 4 PCB capacitors at the facility.*
*Correspondence dated 12/31/94 mentions 12 PCB transformers and 4 PCB capacitors at the facility.*
*Correspondence dated* >SCIFOLLANSDOCCAREPORTNPCB-LSTXLS
*Correspondence dated 12/31/96 mentions 9 PCB transformers and 4 PCB capacitors at the facility.*

** Plus 5 contaminated spare units mentioned.*
*** Plus 4 capacitors mentioned.*
*^NA Not applicable; this was not a survey of transformers, but correspondence.*
*NL Not Listed*
*Correspondence dated 12/31/90 mentions 21 PCB transformers and 13 PCB capacitors at the facility.*
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*Correspondence dated 12/31/96 mentions 9 PCB transformers and 4 PCB capacitors at the facility.*

Table 2
List of Solid Waste Management Units,
Steubenville East Coke Plant,
Wheeling-Pittsburgh Steel Corporation,
Follansbee, West Virginia

| RFI Sector | SWMU Description | SWMU I.D. | COCs by Area | Existing Structure |
|---|---|---|---|---|
| A North End | Former Allied Number 6 Fuel Oil Storage Area | A-1 | metals inorganics VOCs SVOCs | N |
| | Fuel Gas Condensate Tank (5000 gallons) | A-2 | | Y |
| | Fuel Gas Condensate Tank (500 gallons) | A-3 | | Y |
| | Light Oil AST | A-4 | | Y |
| | Wash Oil AST | A-5 | | Y |
| | Light Oil Sump | A-6 | | Y |
| | Former Light Oil Refining Area | A-7 | | N |
| | Quench Tower/Quench Sump for Batteries 1, 2, and 3 | A-8 | | Y |
| | Muck Tank | A-9 | | Y |
| | Hydraulic Oil AST | A-10 | | Y |
| | Fuel Gas Condensate Tank | A-11 | | Y |
| | Former Tank Car Cleaning Area | A-12 | | N |
| | Still Tank | A-13 | | Y |
| | North End COG Drip Legs (2) | A-14 | | Y |
| B Byproducts | Flush Tank | B-1 | metals inorganics VOCs SVOCs | Y |
| | Final Cooler Pump Tank | B-2 | | Y |
| | Light Oil Running Tank | B-3 | | Y |
| | Old Muck Tank | B-4 | | Y |
| | Wash Oil Decanter Tank | B-5 | | Y |
| | Wash Oil Circulation Tank | B-6 | | Y |
| | Process Sump | B-7 | | Y |
| | Gas Holder | B-8 | | Y |
| | Benzol Washers and Final Coolers | B-9 | | Y |
| | Saturators, Acid Separators, and Detarrers, with sump | B-10 | | Y |
| | Sulphate Storage Room | B-11 | | Y |
| | Ammonia Still/Deacifiers | B-12 | | Y |
| | Flushing Liquor AST | B-13 | | Y |
| | Tar Precipitators and Reclaim Sump | B-14 | | Y |
| | Process Seal Pots | B-15 | | Y |
| | Coal Tar Decanters (5) | B-16 | | Y |

Table 2
List of Solid Waste Management Units,
Steubenville East Coke Plant,
Wheeling-Pittsburgh Steel Corporation,
Follansbee, West Virginia

| RFI Sector | SWMU Description | SWMU I.D. | COCs by Area | Existing Structure |
|---|---|---|---|---|
| B Byproducts (continued) | Tar Decanter Sump | B-17 | metals inorganics VOCs SVOCs | Y |
| | Acid Cooler and Acid Cooler Sump | B-18 | | Y |
| | Caustic Storage ASTs | B-19 | | Y |
| | Tar Storage, Ammonia Liquor Tank and Phenol Sump Area | B-20 | | Y |
| | Sulfuric Acid Tanks | B-21 | | Y |
| | Liquor Strainer Cleaning Area | B-22 | | Y |
| | Former/Current Offloading Station for COG Drip Leg Condensate | B-23 | | Y |
| | Substation No. 1 | B-24 | | Y |
| | Substation No. 19 | B-25 | | Y |
| | Substation No. 35 | B-26 | | Y |
| | Substation No. 15 | B-27 | | Y |
| | Substation No. 34 | B-28 | | Y |
| | Precipitator Transformer | B-29 | | Y |
| | Byproducts COG Drip Legs (10) | B-30 | | Y |
| C Batteries | Batteries 1, 2, and 3 | C-1 | metals inorganics VOCs SVOCs | Y |
| | Battery 3 Fuel Gas Condensate Tank | C-2 | | Y |
| | Hydraulic Oil AST | C-3 | | Y |
| | Gasoline AST | C-4 | | Y |
| | Waste Oil ASTs (Battery 6) | C-5 | | Y |
| | Hydraulic Oil AST (Battery 8 north) | C-6 | | Y |
| | Battery 8 Fuel Gas Condensate Tank (north) | C-7 | | Y |
| | Battery 8 Fuel Gas Condensate Tank (south) | C-8 | | Y |
| | Hydraulic Oil AST (Battery 8 south) | C-9 | | Y |
| | 20% Caustic Soda AST | C-10 | | Y |
| | Former Batteries 4, 5, and 6 with COG Drip Legs | C-11 | | N |
| | Battery 8 | C-12 | | Y |
| | Quench Tower/Quench Sump for Battery 8 | C-13 | | Y |
| | Current Diesel AST and Former Diesel UST | C-14 | | Y/N |
| | Substation No. 18 | C-15 | | Y |
| | Substation No. 14 | C-16 | | Y |

Table 2
List of Solid Waste Management Units,
Steubenville East Coke Plant,
Wheeling-Pittsburgh Steel Corporation,
Follansbee, West Virginia

| RFI Sector | SWMU Description | SWMU I.D. | COCs by Area | Existing Structure |
|---|---|---|---|---|
| **C Batteries** (continued) | Substation No. 31 | C-17 | | Y |
| | Substation No. 32 | C-18 | | Y |
| | Substation No. 16 | C-19 | | Y |
| | Batteries COG Drip Leg (1) | C-20 | | Y |
| **D Pits** | Coal Spray Oil Tank Area | D-1 | metals inorganics VOCs SVOCs | Y |
| | Former Coal Tar Decanter Sludge Staging Area (Hatcher's Pad) | D-2 | | Y |
| | Former Sulfuric Acid ASTs (three, 120,000 gallon) | D-3 | | N |
| | AKJ Proprietary Process Tank/Substation No. 17 | D-4 | | Y |
| | North Coal Pit | D-5 | | Y |
| | South Coal Pit | D-6 | | Y |
| | South Coke Storage Pit | D-7 | | Y |
| | Coal Tar Pipeline Release Site | D-8 | | Y |
| | Substation No. 17 | D-9 | | Y |
| | Substation No. 2 | D-10 | | Y |
| | Substation No. 33 | D-11 | | Y |
| **E Storage/ Disposal Area** | BOF Residuals Storage Area | E-1 | metals inorganics VOCs SVOCs | Y |
| | Plant Debris Area | E-2 | | Y |
| | Former Ash Screening Area | E-3 | | N |
| | Storage/Disposal Area COG Drip Legs (5) | E-4 | | Y |
| **F Sinter Plant** | 20% Caustic Soda AST | F-1 | metals inorganics VOCs SVOCs | Y |
| | Sinter Plant Ore Yard Raw Materials Storage Piles | F-2 | | Y |
| | Sinter Stockpile/Quench Area | F-3 | | Y |
| | Sinter Plant COG Drip Legs (3) | F-4 | | Y |
| | Substation No. 11 | F-5 | | Y |
| | Substation No. 12 | F-6 | | Y |
| **G South End** | Former AST Tank Farm/Closed Sludge Drying Beds (2) | G-1 | metals inorganics VOCs SVOCs | N |
| | Raw Materials Storage Piles | G-2 | | Y |
| | Murphy Consolidated Industries (leased) | | | |
| | - Diesel Fuel ASTs (2) | G-3 | | Y |

Table 2
List of Solid Waste Management Units,
Steubenville East Coke Plant,
Wheeling-Pittsburgh Steel Corporation,
Follansbee, West Virginia

| RFI Sector | SWMU Description | SWMU I.D. | COCs by Area | Existing Structure |
|---|---|---|---|---|
| | Former Hillside Disposal Area | H-1 | | Y |
| | Closed Sludge Drying Bed | H-2 | | N |
| | Wastewater Treatment Plant | | | |
| | - Tar/Oil Sump | H-3 | | Y |
| | - Bioplant Process Sump | H-4 | | Y |
| | - Caustic Soda and Phosphoric Acid ASTs | H-5 | | Y |
| | - Ferric Chloride AST | H-6 | | Y |
| | - Scum Sump | H-7 | | Y |
| **H** | Provenzano Trucking (leased) | H-8 | metals | Y |
| | - Former Coal Company ASTs (2) | | inorganics | Y |
| **Hillside** | - Abandoned Fuel USTs (2) | | VOCs | N |
| | - Parts Washer | | SVOCs | Y |
| | - Oil/Water Trench | | | Y |
| | - Miscellaneous Debris (fuel tanks, drums, grease kegs, | | | Y |
| | batteries, scrap tires, used oil filters/parts, solvent spray, etc.) | | | Y |
| | Chem Lab Transformer | H-9 | | Y |
| | PGP Trucking (leased) | H-10 | | Y |
| | Murphy Consolidated Industries (leased) | H-11 | | Y |
| | COG Drip Leg (1) | H-12 | | Y |

*COCs Constituents of Concern*

WPSC\FOLLANS\DOCC\TABLES\SWMULST.XLS

Table 3
List of Existing ASTs, USTs, Substations and Sumps,
Steubenville East Coke Plant,
Wheeling-Pittsburgh Steel Corporation,
Follansbee, West Virginia

| RFI Sector | Tank/Sump/Substation Description | Tank/Sump Capacity | Tank/Sump/Substation Location | SWMU I.D. |
|---|---|---|---|---|
| A North | Fuel Gas Condensate Tank | 5,000 | West Side of Bridge | A-2 |
| | Fuel Gas Condensate Tank | 500 | East Side of Bridge | A-3 |
| | Light Oil AST | 600,000 | North End of Byproducts | A-4 |
| | Wash Oil AST | 20,000 | North End of Byproducts | A-5 |
| | Light Oil Sump | Unknown | North End of Byproducts | A-6 |
| | Quench Sump for Batteries #1, 2, and 3 | Unknown | North End of Battery #1 | A-8 |
| | Muck Tank | 22,000 | North End of Byproducts | A-9 |
| | Hydraulic Oil AST | 250 | North End of Battery #1 | A-10 |
| | Fuel Gas Condensate Tank | 500 | North End of Battery #1 | A-11 |
| | Still Tank | Unknown | North of Benzol Building | A-13 |
| B Byproducts | Flush Tank | Unknown | South Side Benzol Building | B-1 |
| | Final Cooler Pump Tank | 15,000 | South Side Benzol Building | B-2 |
| | Light Oil Running Tank | 20,000 | South Side Benzol Building | B-3 |
| | Old Muck Tank | Unknown | West Side Benzol Building | B-4 |
| | Wash Oil Decanter Tank | 19,780 | West Side Benzol Building | B-5 |
| | Wash Oil Circulation Tank | 17,777 | West Side Benzol Building | B-6 |
| | Process Sump | Unknown | South Side Benzol Building | B-7 |
| | Saturator Sump | Unknown | South Side #2 Saturator | B-10 |
| | Flushing Liquor AST | 20,000 | West Side Engine Room | B-13 |
| | Reclaim Sump | Unknown | South of Benzol Washers/Final Coolers | B-14 |
| | Tar Decanter Sump | Unknown | West Side of #4 Decanter | B-17 |
| | Acid Cooler Sump | Unknown | West Side of Acid Coolers | B-18 |
| | Caustic (50%) Storage AST | 20,000 | North Side Main Office Building | B-19 |
| | Caustic (50%) Storage AST | 20,000 | North Side Main Office Building | B-19 |
| | Ammonia Liquor Tank #1 | 120,000 | South End of Byproducts | B-20 |
| | Ammonia Liquor Tank #2 | 259,000 | South End of Byproducts | B-20 |

Table 3
List of Existing ASTs, USTs, Substations and Sumps,
Steubenville East Coke Plant,
Wheeling-Pittsburgh Steel Corporation,
Follansbee, West Virginia

| RFI Sector | Tank/Sump/Substation Description | Tank/Sump Capacity | Tank/Sump/Substation Location | SWMU I.D. |
|---|---|---|---|---|
| **B Byproducts** (continued) | Ammonia Liquor/Tar Tank #2B | 259,000 | South End of Byproducts | B-20 |
| | Phenol Sump | Unknown | South End of Byproducts | B-20 |
| | Sulfuric Acid Tanks (3, two are out-of-service) | 20,000 | South Side Phenol Building | B-21 |
| | Substation No. 1 | NA | West of Office Building | B-24 |
| | Substation No. 19 | NA | Northeast of Gas Holder | B-25 |
| | Substation No. 35 | NA | Northeast of Gas Holder | B-26 |
| | Substation No. 15 | NA | West of WWTP | B-27 |
| | Substation No. 34 | NA | Electrical Equipment Control Room | B-28 |
| **C Batteries** | Battery 3 Fuel Gas Condensate Tank | 500 | South End Battery #3 | C-2 |
| | Hydraulic Oil AST | 250 | South End Battery #3 | C-3 |
| | Gasoline AST | Unknown | Near Plant Storeroom | C-4 |
| | Waste Oil AST (Battery 6) | 1,000 | Battery #6 Wall | C-5 |
| | Waste Hydraulic Oil AST (Battery 6) | 1,000 | Battery #6 Wall | C-5 |
| | Hydraulic Oil AST (Battery 8 north) | 250 | North End Battery #8 | C-6 |
| | Battery 8 Fuel Gas Condensate Tank (north) | 500 | North End Battery #8 | C-7 |
| | Battery 8 Fuel Gas Condensate Tank (south) | 500 | South End Battery #8 | C-8 |
| | Hydraulic Oil AST (Battery 8 south) | 250? | South End Battery #8 | C-9 |
| | 20% Caustic Soda AST | 4,000 | Pushing Emissions | C-10 |
| | Quench Sump for Battery 8 | Unknown | South End Battery #8 | C-13 |
| | Diesel AST | 12,000 | Southeast of Battery #8 | C-14 |
| | Substation No. 18 | NA | East of South Coal Pit/Coke Storage | C-15 |
| | Substation No. 14 | NA | Near Former Diesel UST | C-16 |
| | Substation No. 31 | NA | Northeast of Battery #8 | C-17 |
| | Substation No. 32 | NA | North of Battery #8 | C-18 |
| | Substation No. 16 | NA | Near Former Battery #4 | C-19 |

Table 3
List of Existing ASTs, USTs, Substations and Sumps,
Steubenville East Coke Plant,
Wheeling-Pittsburgh Steel Corporation,
Follansbee, West Virginia

| RFI Sector | Tank/Sump/Substation Description | Tank/Sump Capacity | Tank/Sump/Substation Location | SWMU I.D. |
|---|---|---|---|---|
| | Coal Spray Oil AST | 20,000 | North Side Hatcher's Pad | D-1 |
| D | Coal Spray Oil AST | 20,000 | North Side Hatcher's Pad | D-1 |
| | Substation No. 17 | NA | West of Battery #3 | D-9 |
| Pits | Substation No. 2 | NA | West of Battery #1 | D-10 |
| | Substation No. 33 | NA | West of Former Batteries #4 and 5 | D-11 |
| F | 20% Caustic Soda AST | 5,000 | Sinter Plant | F-1 |
| | Substation No. 11 | NA | Sinter Plant | F-5 |
| Sinter Plant | Substation No. 12 | NA | Sinter Plant | F-6 |
| G | Murphy Consolidated Industries | | | |
| | - Diesel Fuel AST (Off Road Grade) | 12-1500? | Murphy Consolidated Industries | G-3 |
| South End | - Diesel Fuel AST | 12-1500? | Murphy Consolidated Industries | G-3 |
| | Wastewater Treatment Plant | | | |
| | - Tar/Oil Sump | Unknown | West Side C-E Tanks | H-3 |
| | - Bioplant Process Sump | Unknown | West of North Bioplant Pump Room | H-4 |
| | - Caustic (50%) Soda AST | 10,000 | WWTP - Pad above West Basin | H-5 |
| H | - Phosphoric Acid AST | 10,000 | WWTP - Pad above West Basin | H-5 |
| | - Ferric Chloride AST | 5,000 | WWTP - Southeast Corner East Basin | H-6 |
| Hillside | - Scum Sump | Unknown | West of Pump Tank | H-7 |
| | Provenzano Trucking | | | |
| | - Former Coal Company ASTs (2) | 2,000 | Provenzano Trucking | H-8 |
| | - Abandoned Fuel USTs (2) | 8,000 | Provenzano Trucking | H-8 |

*WWTP Wastewater Treatment Plant*
*AST Aboveground storage tank*
*UST Underground storage tank*
*NA Not applicable*

Table 4
List of Existing Monitoring Locations,
Steubenville East Coke Plant,
Wheeling-Pittsburgh Steel Corporation,
Follansbee, West Virginia

| Monitoring Point ID | Ground Surface Elevation* (feet above datum) | Monitoring Point Elevation* (feet above datum) | Screened Interval | Remarks |
|---|---|---|---|---|
| VA-1 | 440.62 | 440.67 | Upper Portion Alluvial Aquifer | Variance Well |
| VA-1A | 422.08 | 422.15 | Lower Portion Alluvial Aquifer | Perimeter Well |
| VA-2 | 441.46 | 442.00 | Upper Portion Alluvial Aquifer | Variance Well |
| VP-2 | 441.44 | 441.94 | Perched Zone, Fill | Variance Well |
| VA-3 | 453.48 | 453.66 | Upper Portion Alluvial Aquifer | Variance Well |
| MW-1 | 419.01 | 419.32 | Upper Portion Alluvial Aquifer | Perimeter Well |
| MW-1A | 418.88 | 419.02 | Lower Portion Alluvial Aquifer | Perimeter Well |
| MW-2A | 440.61 | 442.39 | Lower Portion Alluvial Aquifer | Perimeter Well |
| P-1 | 449.56 | 451.08 | Upper Portion Alluvial Aquifer | Perimeter Well |
| P-2 | 454.44 | 456.15 | Upper Portion Alluvial Aquifer | Perimeter Well |
| R-210 | 446.28 | 446.00 | Lower Portion Alluvial Aquifer | Variance Well |
| R-310 | 446.18 | 446.12 | Bedrock | |
| RW-1 | 440.23 | 442.98 | Perched Zone, Fill | Byproducts Area Recovery Well |
| RW-2 | 440.43 | 441.56 | Perched Zone, Fill | Byproducts Area Recovery Well |
| GM-2T | Not surveyed | Not surveyed | Perched Zone, Fill | Former Diesel UST Well |
| GM-3T | Not surveyed | Not surveyed | Perched Zone, Fill | Former Diesel UST Well |
| RSA-1 | 493.8 | 496.04 | Upper Portion Alluvial Aquifer | BOF Residuals Storage Area Well |
| RSA-2 | 441.71 | 443.81 | Upper Portion Alluvial Aquifer | BOF Residuals Storage Area Well |
| RSA-3 | 439.96 | 442.00 | Upper Portion Alluvial Aquifer | BOF Residuals Storage Area Well |
| PDA-1 | 493.75 | 495.32 | Upper Portion Alluvial Aquifer | Plant Debris Area Well |
| PDA-2 | 440.94 | 442.39 | Upper Portion Alluvial Aquifer | Plant Debris Area Well |

Table 4
List of Existing Monitoring Locations,
Steubenville East Coke Plant,
Wheeling-Pittsburgh Steel Corporation,
Follansbee, West Virginia

| Monitoring Point ID | Ground Surface Elevation* (feet above datum) | Monitoring Point Elevation* (feet above datum) | Screened Interval | Remarks |
|---|---|---|---|---|
| PDA-3 | 440.50 | 441.95 | Upper Portion Alluvial Aquifer | Plant Debris Area Well |
| PDA-4 | 441.28 | 442.96 | Upper Portion Alluvial Aquifer | Plant Debris Area Well |
| V3 | | 434.29 | Perched Zone, Fill | Former CTDSI Piezometer |
| TDI-1D | | 441.39 | Lower Portion Alluvial Aquifer | Former CTDSI Well |
| TDI-1S | | 441.4 | Upper Portion Alluvial Aquifer | Former CTDSI Well |
| TDI-1P | | 441.75 | Perched Zone, Fill | Former CTDSI Well |
| TDI-2D | | 441.75 | Lower Portion Alluvial Aquifer | Former CTDSI Well |
| TDI-2S | | 442.17 | Upper Portion Alluvial Aquifer | Former CTDSI Well |
| TD-2P | | 441.62 | Perched Zone, Silty Sand. | Former CTDSI Well |
| TDI-3S | | 442.04 | Upper Portion Alluvial Aquifer | Former CTDSI Well |
| TDI-3P | | 441.86 | Perched Zone, Silty Sand | Former CTDSI Well |
| TDI-4S | | 441.59 | Upper Portion Alluvial Aquifer | Former CTDSI Well |
| TDI-5P | | 442.32 | Perched Zone, Silty Sand | Former CTDSI Well |
| TDI-6P | | 441.94 | Perched Zone, Silty Sand | Former CTDSI Well |
| SDB-1 | | 490.20 | Soil & Rock Rubble/Rock | Sludge Drying Bed Area Well |
| SDB-2 | | 488.18 | Soil & Rock Rubble/Rock | Sludge Drying Bed Area Well |
| SDB-3 | | 488.94 | Soil & Rock Rubble/Rock | Sludge Drying Bed Area Well |
| SDB-4 | | 488.58 | Soil & Rock Rubble/Rock | Sludge Drying Bed Area Well |
| SDB-5 | | 488.67 | Soil & Rock Rubble/Rock | Sludge Drying Bed Area Well |
| RN | | Not surveyed | Perched Zone, Fill | Coal Tar Pipeline Release Recovery Well |
| RS | | Not surveyed | Perched Zone, Fill | Coal Tar Pipeline Release Recovery Well |

Table 4
List of Existing Monitoring Locations,
Steubenville East Coke Plant,
Wheeling-Pittsburgh Steel Corporation,
Follansbee, West Virginia

| Monitoring Point ID | Ground Surface Elevation* (feet above datum) | Monitoring Point Elevation* (feet above datum) | Screened Interval | Remarks |
|---|---|---|---|---|
| PN | | Not surveyed | Perched Zone, Fill | Coal Tar Pipeline Release Recovery Well |
| PS | | Not surveyed | Perched Zone, Fill | Coal Tar Pipeline Release Recovery Well |
| KN | | Not surveyed | Perched Zone, Fill | Coal Tar Pipeline Release Recovery Well |
| KS | | Not surveyed | Perched Zone, Fill | Coal Tar Pipeline Release Recovery Well |
| OR-1 | | 419.55 | Not Applicable | Ohio River Monitoring Point |
| OR-2 | | 442.94 | Not Applicable | Ohio River Monitoring Point |

** Elevation referenced to plant datum*
*UST Underground storage tank*
*BOF Basic oxygen furnace*
*CTDSI Coal Tar Decanter Sludge Impoundment*

Table 5
Groundwater Analytical Results Exceeding Tap Water RBCs, and/or MCLs
Steubenville East Coke Plant
Wheeling-Pittsburgh Steel Corporation
Follansbee, West VirginiaSheet1

| Data Source - Appendix | Well ID | Sample Date | Analyte (mg/L) | Concentration (mg/L) | Tap Water RBC (mg/L) | MCL (mg/L) |
|---|---|---|---|---|---|---|
| F-1 | PDA-1 | 9/21/1995 | Arsenic (Dissolved) | 0.001 | **0.000045** | 0.05 |
| F-1 | PDA-1 | 12/16/1996 | Benzo (a) pyrene | 0.00012 | **0.0000092** | 0.0002 |
| F-1 | PDA-1 | 8/15/1996 | Beryllium (Dissolved) | 0.005 | 0.073 | **0.004** |
| F-1 | PDA-2 | 12/16/1996 | Benzo (a) pyrene | 0.00018 | **0.0000092** | 0.0002 |
| F-1 | PDA-2 | 12/20/1995 | Cadium (Dissolved) | 0.008 | 0.018 | **0.005** |
| F-1 | PDA-3 | 9/21/1995 | Arsenic (Dissolved) | 0.001 | **0.000045** | 0.05 |
| F-1 | PDA-3 | 9/21/1995 | Arsenic (Dissolved) DUP | 0.001 | **0.000045** | 0.05 |
| F-1 | PDA-3 | 12/20/1995 | Cadium (Dissolved) | 0.006 | 0.018 | **0.005** |
| F-1 | PDA-4 | 9/21/1995 | Arsenic (Dissolved) | 0.02 | **0.000045** | 0.05 |
| F-1 | PDA-4 | 12/20/1995 | Arsenic (Dissolved) | 0.02 | **0.000045** | 0.05 |
| F-1 | PDA-4 | 6/18/1996 | Arsenic (Dissolved) | 0.008 | **0.000045** | 0.05 |
| F-1 | PDA-4 | 8/14/1996 | Arsenic (Dissolved) | 0.001 | **0.000045** | 0.05 |
| F-1 | PDA-4 | 12/16/1996 | Arsenic (Dissolved) | 0.004 | **0.000045** | 0.05 |
| F-1 | PDA-4 | 12/17/1996 | Arsenic (Dissolved) DUP | 0.004 | **0.000045** | 0.05 |
| F-1 | PDA-4 | 2/12/1997 | Arsenic (Dissolved) | 0.005 | **0.000045** | 0.05 |
| F-1 | PDA-4 | 9/22/1997 | Arsenic (Dissolved) | 0.004 | **0.000045** | 0.05 |
| F-1 | PDA-4 | 6/25/1991 | Arsenic (Total) | 0.006 | **0.000045** | 0.05 |
| F-1 | PDA-4 | 8/27/1991 | Arsenic (Total) | 0.007 | **0.000045** | 0.05 |
| F-1 | PDA-4 | 12/20/1995 | Cadium (Dissolved) | 0.006 | 0.018 | **0.005** |
| F-1 | RSA-1 | 9/21/1995 | Ammonia | [9.1] | **0.21** | -- |
| F-1 | RSA-1 | 2/10/1997 | Ammonia | 0.49 | **0.21** | -- |
| F-1 | RSA-1 | 2/10/1997 | Ammonia | 0.26 | **0.21** | -- |
| F-1 | RSA-1 | 9/22/1997 | Ammonia | 0.24 | **0.21** | -- |
| F-1 | RSA-1 | 9/21/1995 | Arsenic (Dissolved) | 0.002 | **0.000045** | 0.05 |
| F-1 | RSA-1 | 6/18/1996 | Arsenic (Dissolved) | 0.001 | **0.000045** | 0.05 |
| F-1 | RSA-1 | 12/16/1996 | Arsenic (Dissolved) | 0.001 | **0.000045** | 0.05 |
| F-1 | RSA-1 | 12/21/1995 | Benzo (a)pyrene | 0.000031 | **0.0000092** | 0.0002 |
| F-1 | RSA-1 | 6/18/1996 | Beryllium (Dissolved) | 0.005 | 0.073 | **0.004** |
| F-1 | RSA-1 | 8/15/1996 | Beryllium (Dissolved) | 0.006 | 0.073 | **0.004** |
| F-1 | RSA-1 | 8/15/1996 | Cadium (Dissolved) | 0.007 | 0.018 | **0.005** |
| F-1 | RSA-2 | 6/25/1991 | Ammonia | 10.1 | **0.21** | -- |
| F-1 | RSA-2 | 6/25/1991 | Ammonia | 10.3 | **0.21** | -- |
| F-1 | RSA-2 | 8/27/1991 | Ammonia | 6.7 | **0.21** | -- |
| F-1 | RSA-2 | 9/21/1995 | Ammonia | 1.8 | **0.21** | -- |
| F-1 | RSA-2 | 12/20/1995 | Ammonia | 2.2 | **0.21** | -- |
| F-1 | RSA-2 | 2/28/1996 | Ammonia | 3.1 | **0.21** | -- |
| F-1 | RSA-2 | 2/28/1996 | Ammonia | 2.7 | **0.21** | -- |
| F-1 | RSA-2 | 6/18/1996 | Ammonia | 1.2 | **0.21** | -- |

Table 5
Groundwater Analytical Results Exceeding Tap Water RBCs, and/or MCLs
Steubenville East Coke Plant
Wheeling-Pittsburgh Steel Corporation
Follansbee, West VirginiaSheet1

| Data Source - Appendix | Well ID | Sample Date | Analyte (mg/L) | Concentration (mg/L) | Tap Water RBC (mg/L) | MCL (mg/L) |
|---|---|---|---|---|---|---|
| F-1 | RSA-2 | 8/14/1996 | Ammonia | 2.7 | **0.21** | -- |
| F-1 | RSA-2 | 8/14/1996 | Ammonia | 3.0 | **0.21** | -- |
| F-1 | RSA-2 | 12/17/1996 | Ammonia | 2.0 | **0.21** | -- |
| F-1 | RSA-2 | 2/11/1997 | Ammonia | 3.4 | **0.21** | -- |
| F-1 | RSA-2 | 9/22/1997 | Ammonia | 4.7 | **0.21** | -- |
| F-1 | RSA-2 | 9/21/1995 | Arsenic (Dissolved) | 0.006 | **0.000045** | 0.05 |
| F-1 | RSA-2 | 12/20/1995 | Arsenic (Dissolved) | 0.003 | **0.000045** | 0.05 |
| F-1 | RSA-2 | 2/28/1996 | Arsenic (Dissolved) | 0.002 | **0.000045** | 0.05 |
| F-1 | RSA-2 | 2/28/1996 | Arsenic (Dissolved) | 0.002 | **0.000045** | 0.05 |
| F-1 | RSA-2 | 6/18/1996 | Arsenic (Dissolved) | 0.003 | **0.000045** | 0.05 |
| F-1 | RSA-2 | 8/14/1996 | Arsenic (Dissolved) | 0.001 | **0.000045** | 0.05 |
| F-1 | RSA-2 | 12/17/1996 | Arsenic (Dissolved) | 0.002 | **0.000045** | 0.05 |
| F-1 | RSA-2 | 2/11/1997 | Arsenic (Dissolved) | 0.003 | **0.000045** | 0.05 |
| F-1 | RSA-2 | 9/22/1997 | Arsenic (Dissolved) | 0.005 | **0.000045** | 0.05 |
| F-1 | RSA-2 | 6/25/1991 | Arsenic (Total)) | 0.009 | **0.000045** | 0.05 |
| F-1 | RSA-2 | 9/21/1995 | Benzo(a)pyrene | 0.00006 | **0.0000092** | 0.0002 |
| F-1 | RSA-2 | 12/20/1995 | Benzo(a)pyrene | 0.000038 | **0.0000092** | 0.0002 |
| F-1 | RSA-2 | 12/20/1995 | Cadmium (Dissolved) | 0.012 | 0.018 | **0.005** |
| F-1 | RSA-3 | 6/25/1991 | Ammonia | 20.7 | **0.21** | -- |
| F-1 | RSA-3 | 8/27/1991 | Ammonia | 15.3 | **0.21** | -- |
| F-1 | RSA-3 | 9/21/1995 | Ammonia | 12 | **0.21** | -- |
| F-1 | RSA-3 | 12/20/1995 | Ammonia | 10 | **0.21** | -- |
| F-1 | RSA-3 | 12/20/1995 | Ammonia | 10 | **0.21** | -- |
| F-1 | RSA-3 | 2/28/1996 | Ammonia | 8.3 | **0.21** | -- |
| F-1 | RSA-3 | 6/18/1996 | Ammonia | 7.5 | **0.21** | -- |
| F-1 | RSA-3 | 6/18/1996 | Ammonia | 7.4 | **0.21** | -- |
| F-1 | RSA-3 | 8/14/1996 | Ammonia | 9.6 | **0.21** | -- |
| F-1 | RSA-3 | 12/17/1996 | Ammonia | 9.8 | **0.21** | -- |
| F-1 | RSA-3 | 12/17/1996 | Ammonia | 2.6 | **0.21** | -- |
| F-1 | RSA-3 | 2/11/1997 | Ammonia | 14 | **0.21** | -- |
| F-1 | RSA-3 | 9/22/1997 | Ammonia | 11 | **0.21** | -- |
| F-1 | RSA-3 | 9/22/1997 | Ammonia | 11 | **0.21** | -- |
| F-1 | RSA-3 | 9/21/1995 | Arsenic (Dissolved) | 0.023 | **0.000045** | 0.05 |
| F-1 | RSA-3 | 12/20/1995 | Arsenic (Dissolved) | 0.011 | **0.000045** | 0.05 |
| F-1 | RSA-3 | 12/20/1995 | Arsenic (Dissolved) | 0.01 | **0.000045** | 0.05 |
| F-1 | RSA-3 | 2/28/1996 | Arsenic (Dissolved) | 0.003 | **0.000045** | 0.05 |
| F-1 | RSA-3 | 6/18/1996 | Arsenic (Dissolved) | 0.006 | **0.000045** | 0.05 |
| F-1 | RSA-3 | 6/18/1996 | Arsenic (Dissolved) | 0.007 | **0.000045** | 0.05 |

Table 5
Groundwater Analytical Results Exceeding Tap Water RBCs, and/or MCLs
Steubenville East Coke Plant
Wheeling-Pittsburgh Steel Corporation
Follansbee, West VirginiaSheet1

| Data Source - Appendix | Well ID | Sample Date | Analyte (mg/L) | Concentration (mg/L) | Tap Water RBC (mg/L) | MCL (mg/L) |
|---|---|---|---|---|---|---|
| F-1 | RSA-3 | 8/14/1996 | Arsenic (Dissolved) | 0.003 | **0.000045** | 0.05 |
| F-1 | RSA-3 | 12/17/1996 | Arsenic (Dissolved) | 0.008 | **0.000045** | 0.05 |
| F-1 | RSA-3 | 12/17/1996 | Arsenic (Dissolved) | 0.008 | **0.000045** | 0.05 |
| F-1 | RSA-3 | 2/11/1997 | Arsenic (Dissolved) | 0.007 | **0.000045** | 0.05 |
| F-1 | RSA-3 | 9/22/1997 | Arsenic (Dissolved) | 0.021 | **0.000045** | 0.05 |
| F-1 | RSA-3 | 9/22/1997 | Arsenic (Dissolved) | 0.02 | **0.000045** | 0.05 |
| F-1 | RSA-3 | 9/21/1995 | Benzo(a)pyrene | 0.000042 | **0.0000092** | 0.0002 |
| F-1 | RSA-3 | 12/20/1995 | Cadium (Dissolved) | 0.007 | 0.018 | **0.005** |
| F-1 | RSA-3 | 12/20/1995 | Cadium (Dissolved) | 0.008 | 0.018 | **0.005** |
| F-1 | SDB-1 | 6/24/1991 | Ammonia | 8.2 | **0.21** | -- |
| F-1 | SDB-1 | 6/24/1991 | Ammonia DUP | 10.7 | **0.21** | -- |
| F-1 | SDB-1 | 8/7/1991 | Ammonia | 7.5 | **0.21** | -- |
| F-1 | SDB-1 | 9/21/1995 | Ammonia | 0.79 | **0.21** | -- |
| F-1 | SDB-1 | 9/21/1995 | Ammonia DUP | 2.9 | **0.21** | -- |
| F-1 | SDB-1 | 12/20/1995 | Ammonia | 4.7 | **0.21** | -- |
| F-1 | SDB-1 | 12/20/1995 | Ammonia DUP | 3.8 | **0.21** | -- |
| F-1 | SDB-1 | 2/27/1996 | Ammonia | 4.4 | **0.21** | -- |
| F-1 | SDB-1 | 2/27/1996 | Ammonia DUP | 4.2 | **0.21** | -- |
| F-1 | SDB-1 | 6/18/1996 | Ammonia | 0.86 | **0.21** | -- |
| F-1 | SDB-1 | 6/18/1996 | Ammonia DUP | 1.1 | **0.21** | -- |
| F-1 | SDB-1 | 8/15/1996 | Ammonia | 0.7 | **0.21** | -- |
| F-1 | SDB-1 | 8/15/1996 | Ammonia DUP | 0.71 | **0.21** | -- |
| F-1 | SDB-1 | 2/10/1997 | Ammonia | 1.5 | **0.21** | -- |
| F-1 | SDB-1 | 2/10/1997 | Ammonia DUP | 1.6 | **0.21** | -- |
| F-1 | SDB-1 | 9/19/1997 | Ammonia | 2.4 | **0.21** | -- |
| F-1 | SDB-1 | 9/19/1997 | Ammonia DUP | 2.5 | **0.21** | -- |
| F-1 | SDB-1 | 6/24/1991 | Nitrate | 22.1 | 58 | **10** |
| F-1 | SDB-1 | 6/24/1991 | Nitrate DUP | 17 | 58 | **10** |
| F-1 | SDB-1 | 8/7/1991 | Nitrate | 36.7 | 58 | **10** |
| F-1 | SDB-2 | 6/24/1991 | Ammonia | 63 | **0.21** | -- |
| F-1 | SDB-2 | 8/7/1991 | Ammonia | 80.9 | **0.21** | -- |
| F-1 | SDB-2 | 9/21/1995 | Ammonia | 13 | **0.21** | -- |
| F-1 | SDB-2 | 9/19/1997 | Ammonia | 4.6 | **0.21** | -- |
| F-1 | SDB-2 | 6/24/1991 | Cyanide (Amenable) | 0.09 | **0.073** | -- |
| F-1 | SDB-2 | 9/19/1997 | Cyanide (Amenable) | 0.16 | **0.073** | -- |
| F-1 | SDB-2 | 6/24/1991 | Cyanide (Total) | 0.13 | **0.073** | -- |
| F-1 | SDB-2 | 8/7/1991 | Cyanide (Total) | 0.15 | **0.073** | -- |
| F-1 | SDB-2 | 9/21/1995 | Cyanide (Total) | 0.085 | **0.073** | -- |

Table 5
Groundwater Analytical Results Exceeding Tap Water RBCs, and/or MCLs
Steubenville East Coke Plant
Wheeling-Pittsburgh Steel Corporation
Follansbee, West VirginiaSheet1

| Data Source - Appendix | Well ID | Sample Date | Analyte (mg/L) | Concentration (mg/L) | Tap Water RBC (mg/L) | MCL (mg/L) |
|---|---|---|---|---|---|---|
| F-1 | SDB-2 | 9/21/1995 | Manganese (Dissolved) | 4.2 | **0.73** | -- |
| F-1 | SDB-2 | 9/19/1997 | Manganese (Dissolved) | 4.4 | **0.73** | -- |
| F-1 | SDB-2 | 6/24/1991 | Manganese (Total) | 14 | **0.73** | -- |
| F-1 | SDB-2 | 8/7/1991 | Manganese (Total) | 9.63 | **0.73** | -- |
| F-1 | SDB-2 | 6/24/1991 | Nitrate | 96.5 | **58** | **10** |
| F-1 | SDB-2 | 8/7/1991 | Nitrate | 165 | **58** | **10** |
| F-1 | SDB-2 | 9/21/1995 | Nitrate | 64 | **58** | **10** |
| F-1 | SDB-2 | 9/19/1997 | Nitrate | 88 | **58** | **10** |
| F-1 | SDB-4 | 6/24/1991 | Ammonia | 1.3 | **0.21** | -- |
| F-1 | SDB-4 | 8/7/1991 | Ammonia | 0.6 | **0.21** | -- |
| F-1 | SDB-4 | 9/21/1995 | Ammonia | 0.69 | **0.21** | -- |
| F-1 | SDB-4 | 12/20/1995 | Ammonia | 0.3 | **0.21** | -- |
| F-1 | SDB-4 | 2/10/1997 | Ammonia | 0.23 | **0.21** | -- |
| F-1 | SDB-4 | 2/10/1997 | Cyanide (Amenable) | 0.16 | **0.073** | -- |
| F-1 | SDB-4 | 9/19/1997 | Cyanide (Amenable) | 0.18 | **0.073** | -- |
| F-1 | SDB-4 | 8/7/1991 | Cyanide (Total) | 0.13 | **0.073** | -- |
| F-1 | SDB-4 | 9/21/1995 | Cyanide (Amenable) | 0.13 | **0.073** | -- |
| F-1 | SDB-4 | 12/20/1995 | Cyanide (Total) | 0.12 | **0.073** | -- |
| F-1 | SDB-4 | 2/27/1996 | Cyanide (Total) | 0.2 | **0.073** | -- |
| F-1 | SDB-4 | 12/17/1996 | Cyanide (Total) | 0.076 | **0.073** | -- |
| F-1 | SDB-4 | 2/10/1997 | Cyanide (Total) | 0.36 | **0.073** | -- |
| F-1 | SDB-4 | 6/24/1991 | Nitrate | 11.6 | 58 | **10** |
| F-1 | SDB-4 | 8/7/1991 | Nitrate | 16.6 | 58 | **10** |
| F-1 | SDB-4 | 9/21/1995 | Nitrate | 26 | 58 | **10** |
| F-1 | SDB-4 | 12/20/1995 | Nitrate | 30 | 58 | **10** |
| F-1 | SDB-4 | 2/27/1996 | Nitrate | 43 | 58 | **10** |
| F-1 | SDB-4 | 6/18/1996 | Nitrate | 34 | 58 | **10** |
| F-1 | SDB-4 | 8/15/1996 | Nitrate | 40 | 58 | **10** |
| F-1 | SDB-4 | 12/17/1996 | Nitrate | 67 | **58** | **10** |
| F-1 | SDB-4 | 2/10/1997 | Nitrate | 58 | 58 | **10** |
| F-1 | SDB-4 | 9/19/1997 | Nitrate | 42 | 58 | **10** |
| F-1 | CP-1 | 4/11/1995 | Antimony (dissolved) | 0.021 | **0.015** | **0.006** |
| F-1 | CP-1 | 4/11/1995 | Benzo(a)pyrene | 0.0016 | **0.0000092** | **0.0002** |
| F-1 | CP-1 | 9/27/1995 | Benzo(a)pyrene | 0.0017 | **0.0000092** | **0.0002** |
| F-1 | CP-1 | 6/19/1996 | Benzo(a)pyrene | 0.002 | **0.0000092** | **0.0002** |
| F-1 | CP-1 | 4/11/1995 | Cadmium (Dissolved) | 0.006 | 0.018 | **0.005** |
| F-1 | CP-1 | 2/27/1996 | Cadmium (Dissolved) | 0.006 | 0.018 | **0.005** |
| F-1 | CP-2 | 4/11/1995 | Benzo(a)pyrene | 0.000055 | **0.0000092** | 0.0002 |

Table 5
Groundwater Analytical Results Exceeding Tap Water RBCs, and/or MCLs
Steubenville East Coke Plant
Wheeling-Pittsburgh Steel Corporation
Follansbee, West VirginiaSheet1

| Data Source - Appendix | Well ID | Sample Date | Analyte (mg/L) | Concentration (mg/L) | Tap Water RBC (mg/L) | MCL (mg/L) |
|---|---|---|---|---|---|---|
| F-1 | CP-2 | 2/27/1996 | Benzo(a)pyrene | 0.00065 | **0.0000092** | **0.0002** |
| F-1 | CP-2 | 6/19/1996 | Benzo(a)pyrene | 0.00039 | **0.0000092** | **0.0002** |
| F-1 | CP-2 | 4/11/1995 | Beryllium (Dissolved) | 0.006 | 0.073 | **0.004** |
| F-1 | CP-2 | 4/11/1995 | Cadmium (Dissolved) | 0.019 | **0.018** | **0.005** |
| F-1 | R-210 | 4/12/1995 | Antimony (dissolved) | 0.012 | **0.015** | **0.006** |
| F-1 | R-210 | 2/27/1996 | Antimony (dissolved) | [0.049] | **0.015** | **0.006** |
| F-1 | R-210 | 12/19/1995 | Benzo(a)pyrene | 0.00011 | **0.0000092** | 0.0002 |
| F-1 | R-210 | 2/27/1996 | Benzo(a)pyrene | 0.000041 | **0.0000092** | 0.0002 |
| F-1 | R-210 | 12/17/1996 | Benzo(a)pyrene | 0.000066 | **0.0000092** | 0.0002 |
| F-1 | R-210 | 2/11/1997 | Benzo(a)pyrene | 0.000051 | **0.0000092** | 0.0002 |
| F-1 | R-210 | 12/19/1995 | Cadmium (Dissolved) | 0.009 | 0.018 | **0.005** |
| F-1 | R-210 | 2/27/1996 | Cadmium (Dissolved) | 0.006 | 0.018 | **0.005** |
| F-1 | VA-1 | 4/11/1995 | Antimony (dissolved) | 0.007 | 0.015 | **0.006** |
| F-1 | VA-1 | 2/27/1996 | Benzo(a)pyrene | 0.000034 | **0.0000092** | 0.0002 |
| F-1 | VA-1 | 9/25/1997 | Benzo(a)pyrene | 0.00024 | **0.0000092** | **0.0002** |
| F-1 | VA-1 | 12/20/1995 | Beryllium (Dissolved) | 0.005 | 0.073 | **0.004** |
| F-1 | VA-1 | 8/13/1996 | Beryllium (Dissolved) | 0.005 | 0.073 | **0.004** |
| F-1 | VA-1 | 4/11/1995 | Cadmium (Dissolved) | 0.037 | 0.018 | **0.005** |
| F-1 | VA-1 | 12/20/1995 | Cadmium (Dissolved) | 0.008 | 0.018 | **0.005** |
| F-1 | VA-1 | 2/27/1996 | Cadmium (Dissolved) | 0.008 | 0.018 | **0.005** |
| F-1 | VA-2 | 4/12/1995 | Antimony (dissolved) | 0.007 | 0.015 | **0.006** |
| F-1 | VA-2 | 9/13/1995 | Benzo(a)pyrene | 0.00034 | **0.0000092** | **0.0002** |
| F-1 | VA-2 | 12/19/1995 | Benzo(a)pyrene | 0.000057 | **0.0000092** | 0.0002 |
| F-1 | VA-2 | 2/28/1996 | Benzo(a)pyrene | 0.000084 | **0.0000092** | 0.0002 |
| F-1 | VA-2 | 6/19/1996 | Benzo(a)pyrene | 0.00011 | **0.0000092** | 0.0002 |
| F-1 | VA-2 | 8/13/1996 | Benzo(a)pyrene | 0.00013 | **0.0000092** | 0.0002 |
| F-1 | VA-2 | 12/17/1996 | Benzo(a)pyrene | 0.00015 | **0.0000092** | 0.0002 |
| F-1 | VA-2 | 2/11/1997 | Benzo(a)pyrene | 0.0003 | **0.0000092** | **0.0002** |
| F-1 | VA-2 | 9/24/1997 | Benzo(a)pyrene | 0.000063 | **0.0000092** | 0.0002 |
| F-1 | VA-2 | 4/12/1995 | Beryllium (Dissolved) | 0.007 | 0.073 | **0.004** |
| F-1 | VA-2 | 12/19/1995 | Beryllium (Dissolved) | 0.005 | 0.073 | **0.004** |
| F-1 | VA-2 | 2/28/1996 | Beryllium (Dissolved) | 0.005 | 0.073 | **0.004** |
| F-1 | VA-2 | 4/12/1995 | Beryllium (Dissolved) | 0.005 | 0.073 | **0.004** |
| F-1 | VA-2 | 4/12/1995 | Cadmium (Dissolved) | 0.008 | 0.018 | **0.005** |
| F-1 | VA-2 | 12/19/1995 | Cadmium (Dissolved) | 0.009 | 0.018 | **0.005** |
| F-1 | VA-2 | 4/12/1995 | Cadmium (Dissolved) | 0.008 | 0.018 | **0.005** |
| F-1 | VA-3 | 4/12/1995 | Antimony (dissolved) | 0.007 | 0.015 | **0.006** |
| F-1 | VA-3 | 9/12/1995 | Benzo(a)pyrene | 0.000021 | **0.0000092** | 0.0002 |

Table 5
Groundwater Analytical Results Exceeding Tap Water RBCs, and/or MCLs
Steubenville East Coke Plant
Wheeling-Pittsburgh Steel Corporation
Follansbee, West VirginiaSheet1

| Data Source - Appendix | Well ID | Sample Date | Analyte (mg/L) | Concentration (mg/L) | Tap Water RBC (mg/L) | MCL (mg/L) |
|---|---|---|---|---|---|---|
| F-1 | VA-3 | 12/17/1996 | Benzo(a)pyrene | 0.000065 | **0.0000092** | 0.0002 |
| F-1 | VA-3 | 4/12/1995 | Beryllium (Dissolved) | 0.008 | 0.073 | **0.004** |
| F-1 | VA-3 | 12/19/1995 | Beryllium (Dissolved) | 0.005 | 0.073 | **0.004** |
| F-1 | VA-3 | 12/19/1995 | Cadmium (Dissolved) | 0.02 | **0.018** | **0.005** |
| F-1 | VA-3 | 2/27/1996 | Cadmium (Dissolved) | 0.014 | **0.0000092** | **0.005** |
| F-1 | VA-3 | 6/18/1996 | Cadmium (Dissolved) | 0.007 | **0.0000092** | **0.005** |
| F-1 | VA-3 | 8/13/1996 | Cadmium (Dissolved) | 0.005 | **0.0000092** | 0.005 |
| F-1 | VA-3 | 12/17/1996 | Cadmium (Dissolved) | 0.005 | **0.0000092** | 0.005 |
| F-1 | VP-2 | 6/19/1996 | Benzo(a)pyrene | 0.000079 | **0.0000092** | 0.0002 |
| F-1 | VP-2 | 8/13/1996 | Benzo(a)pyrene | 0.000056 | **0.0000092** | 0.0002 |
| F-1 | VP-2 | 12/17/1996 | Benzo(a)pyrene | 0.0017 | **0.0000092** | 0.0002 |
| F-1 | VP-2 | 2/11/1996 | Benzo(a)pyrene | 0.00044 | **0.0000092** | 0.0002 |
| F-1 | VP-2 | 9/24/1996 | Benzo(a)pyrene | 0.0019 | **0.0000092** | 0.0002 |
| F-2 | VA-1 | 4/11/1995 | Cadmium | 0.037 | **0.0000092** | 0.0002 |
| F-2 | VA-1 | 4/11/1995 | Antimony | 0.007 | 0.015 | **0.006** |
| F-2 | VA-2 | 4/12/1995 | Beryllium | 0.007 | 0.073 | **0.004** |
| F-2 | VA-2 | 4/12/1995 | Cadmium | 0.008 | **0.0000092** | 0.0002 |
| F-2 | VA-2 | 4/12/1995 | Antimony | 0.007 | 0.015 | **0.006** |
| F-2 | VA-3 | 4/12/1995 | Beryllium | 0.008 | 0.073 | **0.004** |
| F-2 | VA-3 | 4/12/1995 | Antimony | 0.007 | 0.015 | **0.006** |
| F-2 | VA-3 | 4/12/1995 | Beryllium DUP | 0.007 | 0.073 | **0.004** |
| F-2 | VA-3 | 4/12/1995 | Lead DUP | 0.028 | -- | **0.015** |
| F-2 | R-210 | 4/12/1995 | Antimony | 0.012 | 0.015 | **0.006** |
| F-2 | R-210 | 4/12/1995 | Benzene | 0.013 | 0.0003 | **0.005** |
| F-3 | R-210 | 10/5/1993 | Arsenic (Dissolved) | 3 | **0.000045** | **0.05** |
| F-3 | R-210 | 10/5/1993 | Arsenic (Total) | 3 | **0.000045** | **0.05** |
| F-3 | R-210 | 10/5/1993 | Benzene | 21 | **0.0003** | **0.005** |
| F-3 | R-210 | 10/5/1993 | Naphthalene | 1000 | **0.0065** | -- |
| F-3 | R-310 | 10/5/1993 | Arsenic (Dissolved) | 4 | **0.000045** | **0.05** |
| F-3 | R-310 | 10/5/1993 | Arsenic (Total) | 6 | **0.000045** | **0.05** |
| F-3 | R-210 | 10/5/1993 | Arsenic (Dissolved) DUP | 2 | **0.000045** | **0.05** |
| F-3 | R-210 | 10/5/1993 | Arsenic (Total) DUP | 2 | **0.000045** | **0.05** |
| F-3 | R-210 | 10/5/1993 | Benzene DUP | 21 | **0.0003** | **0.005** |
| F-3 | R-210 | 10/5/1993 | Naphthalene | 1100 | **0.0065** | -- |
| F-4 | MW-1 | 9/12/1995 | Ammonia | 18 | **0.21** | -- |
| F-4 | MW-1 | 9/12/1995 | Arsenic (Dissolved) | 0.011 | **0.000045** | 0.05 |
| F-4 | MW1A | 9/12/1995 | Ammonia | 110 | **0.21** | -- |
| F-4 | MW1A | 9/12/1995 | Arsenic (Dissolved) | 0.052 | **0.000045** | **0.05** |

Table 5
Groundwater Analytical Results Exceeding Tap Water RBCs, and/or MCLs
Steubenville East Coke Plant
Wheeling-Pittsburgh Steel Corporation
Follansbee, West VirginiaSheet1

| Data Source - Appendix | Well ID | Sample Date | Analyte (mg/L) | Concentration (mg/L) | Tap Water RBC (mg/L) | MCL (mg/L) |
|---|---|---|---|---|---|---|
| F-4 | MW1A | 9/12/1995 | Beryllium (Dissolved) | 0.005 | 0.073 | **0.004** |
| F-4 | MW1A | 9/12/1995 | Ammonia DUP | 140 | **0.21** | -- |
| F-4 | MW1A | 9/12/1995 | Arsenic (Dissolved) DUP | 0.053 | **0.000045** | **0.05** |
| F-4 | MW1A | 9/12/1995 | Beryllium (Dissolved) DUP | 0.005 | 0.21 | **0.004** |
| F-4 | MW-2A | 9/12/1995 | Ammonia | 9.6 | **0.21** | -- |
| F-4 | MW-2A | 9/12/1995 | Nitrate | 15 | 58 | **10** |
| F-4 | MW-2A | 9/12/1995 | Antimony (dissolved) | 0.007 | 0.015 | **0.006** |
| F-4 | MW-2A | 9/12/1995 | Arsenic (Dissolved) | 0.001 | **0.000045** | 0.05 |
| F-4 | MW-2A | 9/12/1995 | Beryllium (Dissolved) | 0.006 | 0.073 | **0.004** |
| F-4 | VA-1 | 9/12/1995 | Ammonia | 10 | **0.21** | -- |
| F-4 | VA-1 | 9/12/1995 | Arsenic (Dissolved) | 0.036 | **0.000045** | 0.05 |
| F-4 | VA-1A | 9/12/1995 | Ammonia | 11 | **0.21** | -- |
| F-4 | VA-1A | 9/12/1995 | Arsenic (Dissolved) | 0.016 | **0.000045** | 0.05 |
| F-4 | VA-2 | 9/13/1995 | Benzo(a)pyrene | 0.00034 | **0.0000092** | **0.0002** |
| F-4 | VA-2 | 9/13/1995 | Benzo(a)anthracene | 0.00056 | **0.000092** | -- |
| F-4 | VA-2 | 9/13/1995 | Dibenz(a,h)anthracene | 0.0012 | **0.0000092** | -- |
| F-4 | VA-2 | 9/13/1995 | ideno(1,2,3)pyrene | 0.00074 | **0.000092** | -- |
| F-4 | VP-2 | 9/27/1995 | Ammonia | 0.29 | **0.21** | -- |
| F-4 | VP-2 | 9/27/1995 | Arsenic (Dissolved) | 0.002 | **0.000045** | 0.05 |
| F-4 | VP-2 | 9/28/1995 | Dibenzofuran | 0.084 | **0.024** | -- |
| F-4 | VP-2 | 9/28/1995 | Naphthalene | 1.5 | **0.0065** | -- |
| F-4 | VP-2 | 9/28/1995 | ideno(1,2,3)pyrene | 0.002 | **0.000092** | -- |
| F-4 | VP-2 | 9/28/1995 | Benzo(a)anthracene | 0.0018 | **0.000092** | -- |
| F-4 | VA-3 | 9/12/1995 | Ammonia | 11 | **0.21** | -- |
| F-4 | VA-3 | 9/12/1995 | Arsenic (Dissolved) | 0.015 | **0.000045** | 0.05 |
| F-4 | VA-3 | 9/12/1995 | Benzo(a)pyrene | 0.000021 | **0.0000092** | 0.0002 |
| F-6 | RW-1 | 10/29/1997 | Ammonia | 47 | **0.21** | -- |
| F-6 | RW-2 | 10/29/1997 | Cyanide (total) | 0.39 | **0.073** | -- |
| F-6 | RW-2 | 10/29/1997 | Ammonia | 51 | **0.21** | -- |
| F-6 | OLD RW-1 | 7/27/1995 | Cyanide (amen.) | 79 | **0.073** | -- |
| F-6 | OLD RW-1 | 7/27/1995 | Cyanide (total) | 170 | **0.073** | -- |
| F-6 | OLD RW-1 | 7/27/1995 | Ammonia | 43 | **0.21** | -- |
| F-6 | OLD RW-1 | 7/27/1995 | Arsenic (Dissolved) | 0.003 | **0.000045** | 0.05 |
| F-6 | OLD RW-1 | 7/27/1995 | Beryllium (Dissolved) | 0.005 | 0.073 | **0.004** |
| F-6 | OLD RW-2 | 7/27/1995 | Cyanide (total) | 2.5 | **0.073** | -- |
| F-6 | OLD RW-2 | 7/27/1995 | Ammonia | 50 | **0.21** | -- |
| F-6 | OLD RW-2 | 7/27/1995 | Arsenic (Dissolved) | 0.005 | **0.000045** | 0.05 |
| F-6 | OLD RW-2 | 7/27/1995 | Cadmium | 0.006 | **0.0000092** | **0.0002** |

Table 5
Groundwater Analytical Results Exceeding Tap Water RBCs, and/or MCLs
Steubenville East Coke Plant
Wheeling-Pittsburgh Steel Corporation
Follansbee, West VirginiaSheet1

| Data Source - Appendix | Well ID | Sample Date | Analyte (mg/L) | Concentration (mg/L) | Tap Water RBC (mg/L) | MCL (mg/L) |
|---|---|---|---|---|---|---|
| F-6 | RW-1 | 10/29/1997 | Benzene | 6500 | **0.0003** | **0.005** |
| F-6 | RW-2 | 10/29/1997 | Benzene | 1300 | **0.0003** | **0.005** |
| F-6 | OLD RW-1 | 7/27/1995 | Benzene | 4600 | **0.0003** | **0.005** |
| F-6 | OLD RW-2 | 7/27/1995 | Benzene | 1100 | **0.0003** | **0.005** |
| F-6 | RW-1 | 10/29/1997 | Dibenzofuran | 83 | **0.024** | -- |
| F-6 | RW-1 | 10/29/1997 | Naphthalene | 2900 | **0.0065** | -- |
| F-6 | RW-2 | 10/29/1997 | Naphthalene | 690 | **0.0065** | -- |
| F-6 | OLD RW-1 | 7/27/1995 | Benzo(a)pyrene | 360 | **0.0000092** | **0.0002** |
| F-6 | OLD RW-1 | 7/27/1995 | Benzo(a)anthracene | 460 | **0.000092** | -- |
| F-6 | OLD RW-1 | 7/27/1995 | Benzo(b)fluoranthene | 440 | **0.000092** | -- |
| F-6 | OLD RW-1 | 7/27/1995 | Benzo(k)fluoranthene | 170 | **0.00092** | -- |
| F-6 | OLD RW-1 | 7/27/1995 | Bis(2-ethylhexyl)phthalate | 110 | | -- |
| F-6 | OLD RW-1 | 7/27/1995 | Dibenzofuran | 170 | **0.024** | -- |
| F-6 | OLD RW-1 | 7/27/1995 | 2-Methylnaphhthalene | 430 | **0.12** | -- |
| F-6 | OLD RW-1 | 7/27/1995 | Naphthalene | 4700 | **0.0065** | -- |
| F-6 | OLD RW-2 | 7/27/1995 | Benzo(a)pyrene | 58 | **0.0000092** | **0.0002** |
| F-6 | OLD RW-2 | 7/27/1995 | Benzo(a)anthracene | 55 | **0.000092** | -- |
| F-6 | OLD RW-2 | 7/27/1995 | Benzo(b)fluoranthene | 83 | **0.000092** | -- |
| F-6 | OLD RW-2 | 7/27/1995 | Benzo(k)fluoranthene | 33 | **0.00092** | -- |
| F-6 | OLD RW-2 | 7/27/1995 | ideno(1,2,3)pyrene | 67 | **0.000092** | -- |
| F-6 | OLD RW-2 | 7/27/1995 | Naphthalene | 23 | **0.0065** | -- |

RBC - Risk-Based Concentration (4/12/99)
MCL - Maximum Contaminant Level-Primary Standard
Bolded numbers reflect RBC or MCL that was exceeded

**Table 6 RFI Field Activities**
**Steubenville East Coke Plant**
**Wheeling-Pittsburgh Steel Corporation**
**Follansbee, West Virginia**

## RCRA Facility Investigation - Proposed Field Activities
Steubenville East Coke Plant - Follansbee, West Virginia

## SECTOR A - NORTH END

| SWMU | Scope | Matrix | Sampling Technique | No. of Samples | Analytes |
|---|---|---|---|---|---|
| **A-1 Former Allied No. 6 Fuel Oil Storage Area** | | | | | |
| **Mahans Run** | Sample Seep<br>Surface Water<br>Sediment | Seep/Soil<br>Water<br>Solid | Grab<br>Grab<br>Grab | 1<br>1<br>1 | Mod. TCL<br>Mod. TCL, SWL<br>Mod. TCL, SDL |
| **Tank Area** | **Phase I** - 4 Geoprobe Soil Borings<br>and Sample Groundwater | Soil<br>Groundwater | Geoprobe<br>Geoprobe | 12**<br>4 | VOCs, SVOCs<br>VOCs, SVOCs, BIOs |
| **A-7 Former Light Oil Refining Area** | | | | | |
| | **Phase I** - 4 Geoprobe Borings<br>and Sample Groundwater | Soil<br>Groundwater | Geoprobe<br>Geoprobe | 12**<br>4 | VOCs<br>VOCs, BIOs |
| **A-12 Former Tank Car Cleaning Area** | | | | | |
| | **Phase I** - 1 Geoprobe Boring<br>and Sample Groundwater | Soil<br>Groundwater | Geoprobe<br>Geoprobe | 3**<br>1 | Mod. TCL<br>Mod. TCL, BIOs |
| **A-14 Cog Drip Legs (2)** | | | | | |
| | **Phase I** - 2 Geoprobe Borings and<br>Sample Groundwater | Soil<br>Groundwater | Geoprobe<br>Geoprobe | 6**<br>2 | Mod. TCL<br>Mod. TCL, BIOs |

## SECTOR B – BYPRODUCTS

| SWMU | Scope | Matrix | Sampling Technique | No. of Samples | Analytes |
|---|---|---|---|---|---|
| **B-1 Through B-30** | | | | | |
| | HSA Soil Borings<br>**Phase I** - Install 8 Groundwater Monitoring Well Clusters – 19 Wells Sample Perched and Upper and Lower Alluvial Aquifers (HSA Cont. SS). Also sample RW-1 and RW-2 | Soil<br>Groundwater | Split Spoon | 32**<br>21 | Mod. TCL<br>Mod. TCL, BIOs |

**Table 6 RFI Field Activities**
**Steubenville East Coke Plant**
**Wheeling-Pittsburgh Steel Corporation**
**Follansbee, West Virginia**

## SECTOR C – BATTERIES

| SWMU | Scope | Matrix | Sampling Technique | No. of Samples | Analytes |
|---|---|---|---|---|---|
| **C-1 Through C-19** | | | | | |
| | HSA Soil Borings<br>Install 4 Groundwater Monitoring Well Clusters - 8 Wells. Sample Perched and Alluvial Aquifers. Also Sample R-210 and R-310. (HSA Cont. SS) | Soil<br>Groundwater | Split Spoon | 16**<br>10 | Mod. TCL<br>Mod. TCL, BIOs |
| **C-20 Machine Shop/ Cog Drip Leg (1)** | | | | | |
| | **Phase I** - 1 Geoprobe Boring and Sample Groundwater | Soil<br>Groundwater | Geoprobe<br>Geoprobe | 3**<br>1 | Mod. TCL<br>Mod. TCL, BIOs |

## SECTOR D – PITS

| SWMU | Scope | Matrix | Sampling Technique | No. of Samples | Analytes |
|---|---|---|---|---|---|
| **D-2 Hatchers Pad** | | | | | |
| | HSA Soil Borings<br>Install 3 Groundwater Monitoring Well Cluster - Sample Perched and Alluvial Aquifer (HSA Cont. SS) | Soil<br>Groundwater | Split Spoon | 12**<br>7 | Mod. TCL<br>Mod. TCL, BIOs |
| **D-4 AKJ Process Tank Area** | | | | | |
| | 1 Geoprobe Boring and Sample Groundwater | Soil<br>Groundwater | Geoprobe<br>Geoprobe | 3**<br>1 | Mod. TCL<br>Mod. TCL, BIOs |
| **D-5, 6 and 7 Coal Pits/Coke Storage** | | | | | |
| | Sample Groundwater From Existing Wells VA-1, VA-1A, VP-2 & VA-2 | Groundwater | | 4 | Mod. TCL, BIOs |
| **D-12 K0087 Supplemental Holding Area** | | | | | |
| | 1 Geoprobe Boring and Sample Groundwater | Soil<br>Groundwater | Geoprobe<br>Geoprobe | 3**<br>1 | Mod. TCL<br>Mod. TCL, BIOs |

**Table 6 RFI Field Activities**
**Steubenville East Coke Plant**
**Wheeling-Pittsburgh Steel Corporation**
**Follansbee, West Virginia**

| SECTOR E - STORAGE / DISPOSAL AREA | | | | | |
|---|---|---|---|---|---|
| SWMU | Scope | Matrix | Sampling Technique | No. of Samples | Analytes |
| **E-1 BOF Residuals Storage Area** | | | | | |
| | Sample Groundwater From Existing Wells RSA-1 thru RSA-3 | Groundwater | | 3 | Mod. TCL, BIOs |
| **E-2 Plant Debris Area** | | | | | |
| | Sample Groundwater From Existing Wells PDA-1 thru PDA-4 | Groundwater | | 4 | Mod. TCL, BIOs |
| **E-3 Former Ash Screening Area** | | | | | |
| | Sample Groundwater From 1 Geoprobe Boring | Groundwater | Geoprobe | 1 | Mod. TCL, BIOs |
| **E-4 Cog Drip Leg (7)** | | | | | |
| | **Phase I** - 7 Geoprobe Borings and Sample Groundwater | Soil<br>Groundwater | Geoprobe<br>Geoprobe | 21**<br>7 | Mod. TCL<br>Mod. TCL, BIOs |

| SECTOR F - SINTER PLANT | | | | | |
|---|---|---|---|---|---|
| SWMU | Scope | Matrix | Sampling Technique | No. of Samples | Analytes |
| **F-4 Cog Drip Leg (1)** | | | | | |
| | **Phase I** - 1 Geoprobe Borings and Sample Groundwater | Soil<br>Groundwater | Geoprobe<br>Geoprobe | 3**<br>1 | Mod. TCL<br>Mod. TCL, BIOs |
| **F-1, -2, -3, -5 and –6** | | | | | |
| | Sample Existing Wells VA-3, P-1, and TDI-1D, S and P | Groundwater | | 5 | Mod. TCL, BIOs |
| **Sector F** | | | | | |
| | Surface Soil Sample | Soil | HSA | 3 | Mod. TCL |

**Table 6 RFI Field Activities**
**Steubenville East Coke Plant**
**Wheeling-Pittsburgh Steel Corporation**
**Follansbee, West Virginia**

| SECTOR G - SOUTH END | | | | | |
|---|---|---|---|---|---|
| SWMU | Scope | Matrix | Sampling Technique | No. of Samples | Analytes |
| **G-1, -2, and –3** | | | | | |
| | Sample Groundwater from 2 Geoprobe Locations. Also Sample MW-2A | Soil<br>Groundwater | Geoprobe<br>Geoprobe | 6*<br>3 | Modified TCL<br>Modified TCL, BIOs |
| **Sector G** | | | | | |
| | Surface Soil Sample | Soil | HSA | 2 | Modified TCL |

| SECTOR H – HILLSIDE | | | | | |
|---|---|---|---|---|---|
| SWMU | Scope | Matrix | Sampling Technique | No. of Samples | Analytes |
| **H-1 - Former Hillside Disposal Area** | | | | | |
| | **Phase I -** Define Extent of Tar Seeps and Confirm with Geoprobe | Soil Gas<br>Fill/Coal Tar | Hand Probe<br>Geoprobe | 30<br>20 | VOCs, SVOCs |
| | Assess Depth of Fill/Bedrock with 6 Borings | Fill | HSA/Rotary | | |
| | Install 5 Groundwater Wells | Groundwater | | 5 | Mod. TCL, BIOs |
| | Sample "Tar" Seeps | Semi-Solid | Grab | 2 | Modified TCL, HC. |
| | Treatability Study | Soil/Coal Tar | HSA/Shelby | 4 | GP |
| | Background Surface Soil | Soil | HSA | 5 | Mod. TCL |
| **Mahans Run** | | | | | |
| | Sample Surface Water/Sediment | Surface Water<br>Sediment | Grab<br>Grab | 12<br>12 | Modified TCL, SWL<br>Modified TCL, SDL |

**Table 6 RFI Field Activities**
**Steubenville East Coke Plant**
**Wheeling-Pittsburgh Steel Corporation**
**Follansbee, West Virginia**

| SECTOR H – LEASED PROPERTIES | | | | | |
|---|---|---|---|---|---|
| SWMU | Scope | Matrix | Sampling Technique | No. of Samples | Analytes |
| **H-8 – Provenzano Trucking** | | | | | |
| | Perform Phase I ESA<br>**Phase I** - 4 Geoprobe Borings and Sample Groundwater | Soil<br>Groundwater | Geoprobe<br>Geoprobe | 12**<br>4 | Mod. TCL<br>Mod. TCL, BIOs |
| **H-10 – PGT Trucking** | | | | | |
| | Perform Phase I ESA<br>No Other Action Warranted | | | | |
| **H-11 – Murphys Consolidated Industries** | | | | | |
| | Perform Phase I ESA<br>**Phase I** - 2 Geoprobe Borings and Sample Groundwater | Soil<br>Groundwater | Geoprobe<br>Geoprobe | 6**<br>2 | Mod. TCL<br>Mod. TCL, BIOs |

| SECTOR A, B, C, D, E, F and G – Entire Facility Area | | | | | |
|---|---|---|---|---|---|
| SWMU | Scope | Matrix | Sampling Technique | No. of Samples | Analytes |
| | | | | | |
| | Perched, Upper Alluvial and Lower Alluvial Aquifer Characteristics | Soil | HSA | 6 | AQFPP |
| | Perched Alluvial Aquifer Aquitard Characteristics | Soil | HSA | 2 – Shelby Tube | AQTPP |

# Table 6 RFI Field Activities
# Steubenville East Coke Plant
# Wheeling-Pittsburgh Steel Corporation
# Follansbee, West Virginia

## QUALIFICATIONS AND EXCEPTIONS

1. The proposed field activities for the RCRA Facility Investigation represent Phase I activities only. It is feasible that Phase II activities may be required. The scope of Phase II activities would be determined based on the results of the Phase I activities. Phase II activities could include: additional groundwater monitoring wells; additional groundwater quality analysis (e.g., bioattenuation characterization); and, additional treatability testing. Phase II activities are not anticipated for the following areas:
   - E-1 - BOF Residuals Storage Area;
   - E-2 - Plant Debris Area;
   - E-3 - Former Ash Screening Plant - Removal of coal tar material is documented;
   - D-2 - Hatchers Pad - removal of coal tar material is documented.

2. The proposed Phase I field activities are focused on the perched groundwater aquifer and the alluvial groundwater aquifer. The proposed Phase I field activities do not address surface water (i.e., the Ohio River) or bedrock groundwater. The surface water (i.e., Ohio River) and bedrock groundwater media will be addressed as part of Phase II, only, if determined to be appropriate and necessary.

3. If product is encountered during Phase I field investigations, the lateral extent and zone of greatest saturation will be assessed using geoprobe or other techniques

4. If geoprobe techniques cannot be utilized due to subsurface obstructions, hollow-stem auger techniques will be attempted. Geoprobe borings will extend to the uppermost saturated zone (whether perched or alluvial), but will not penetrate through the perched zone into the alluvial aquifer

## NOTES, ACCRONYMS AND ABBREVIATIONS

* All soil borings both geoprobe and hollow-stem auger will utilize continuous field screening for VOCs. With the exception of the surface soil sample, generally samples from the interval with the highest field PID readings will be submitted for laboratory analysis. If positive PID readings are not detected, samples from the interval above the uppermost water bearing zone will be submitted for laboratory analysis.

** To determine the concentration profile, three samples (near surface, mid-point and above the uppermost water- bearing zone) will be collected and submitted for laboratory analysis. In addition, one sample will be collected in the confining layer that separates the perched and alluvial aquifers at each proposed nested monitoring well location.

HAS: Hollow stem auger
Cont. SS: Continuous Split Spoon

Modified TCL Parameters
VOCs, SVOCs and metals listed on the Target Compound List. Also includes cyanide, ammonia, acetophenone, aniline, acetonitrile, pyridine, bis(2-chloroisopropyl) ether, butyl benzyl phthalate, and n-nitroso-di-n-propylamine.

Biogeochemical Parameters (BP)
Dissolved Gas - Methane, carbon dioxide, carbon monoxide, nitrogen and oxygen
Constituents in Groundwater – chemical oxygen demand, sulfate, sulfide, alkalinity, nitrate, nitrite, ferrous iron, dissolved manganese and dissolved organic carbon.

Geotechnical parameters (GP)
Unit weight, moisture content, soil classification, atterburg limits, Particle size, permeability, and strength.

Surface Water List (SWL)
Total suspended solids, total dissolved solids, biological oxygen demand, Chemical oxygen demand, total organic carbon, alkalinity and hardness

Sediment List (SDL)
Total organic carbon, grain size, percent moisture and percent solids.

Aquifer Physical Properties (AQFPP)
Porosity grain size, moisture content, total organic carbon and bulk density.

Aquitard Physical Properties (AQTPP)
Vertical permeability

Hazardous Characterization (HC)
ignitability, reactivity, and corrosiveness.

Table 7 Proposed Sample Types and Numbers
Steubenville East Coke Plant
Wheeling-Pittsburgh Steel Corporation
Follansbee, West Virginia

## RCRA Facility Investigation - Proposed Sample Types and Numbers
Steubenville East Coke Plant - Follansbee, West Virginia

| SECTOR | SURFACE WATER/ SEDIMENT SAMPLES | MAHANS RUN "TAR" SEEP SAMPLE | PLANT AREA SPLIT-SPOON SOIL SAMPLES | PLANT AREA SURFACE SOIL SAMPLES | WELL CLUSTERS | GROUNDWATER MONITORING WELL SAMPLES | GEOPROBE BORINGS | GEOPROBE SOIL BORING SAMPLES | GEOPROBE GROUNDWATER SAMPLES |
|---|---|---|---|---|---|---|---|---|---|
| A | 1 | 1 | | | | | 11 | 33 | 11 |
| B | | | 32 | | 8 | 21 | | | |
| C | | | 16 | | 4 | 10 | 1 | 3 | 1 |
| D | | | 12 | | 3 | 11 | 2 | 6 | 2 |
| E | | | | | | 7 | 8 | 21 | 8 |
| F | | | | 3 | | 5 | 1 | 3 | 1 |
| G | | | | 2 | | 1 | 2 | 6 | 2 |
| H | 12 | | | | | | 6 | 18 | 6 |
| TOTAL | 13* | 1 | 60 | 5 | 15 | 55* | 31 | 90 | 31 |

## RCRA Facility Investigation - Proposed Sample Types and Numbers
Steubenville East Coke Plant - Follansbee, West Virginia

| SECTOR | HILLSIDE "TAR" SEEP SAMPLES | HILLSIDE GEOTECHNICAL SOIL SAMPLES | HILLSIDE WELLS | HILLSIDE GROUNDWATER MONITORING WELL SAMPLES | HILLSIDE "TAR" SEEP AREA GEOPROBE BORINGS | HILLSIDE SOIL GAS SAMPLES | HILLSIDE BACKGROUND SURFACE SOIL SAMPLES | HILLSIDE "FILL-DEPTH" SOIL BORINGS |
|---|---|---|---|---|---|---|---|---|
| A | | | | | | | | |
| B | | | | | | | | |
| C | | | | | | | | |
| D | | | | | | | | |
| E | | | | | | | | |
| F | | | | | | | | |
| G | | | | | | | | |
| H | 2 | 4 | 5 | 5 | 20 | 30 | 5 | 6 |
| TOTAL | 3 | 4 | 5 | 5 | 20 | 30 | 5 | 6 |

* Total numbers reflect only the 1st sampling event. A second sampling event is proposed.

**TABLE 8**
**DATA QUALITY OBJECTIVES**

**Wheeling-Pittsburgh Steel Corporation**
**Steubenville East Coke Plant**
**Follansbee, West Virginia**

| Data Quality Objective | QA/QC Parameter | Frequency (a) | Method of Evaluation |
|---|---|---|---|
| ***Precision*** | **Replicate Measurements (Field Analyses)** | **5%** | RPD |
| | **Field Duplicates** | **5%** | RPD |
| | **Laboratory Duplicates** | **5%** | RPD |
| | **Matrix Spike/Matrix Spike Duplicate** | **5%** | RPD |
| ***Accuracy*** | Initial Calibration | (b) | %RSD |
| | Continuing Calibration | (b) | %D |
| | Instrument Tuning | (b) | %RSD |
| | Laboratory Control Samples (LCS) | One per matrix batch | %Recovery |
| | Laboratory Spike Samples | (b) | %Recovery |
| | Internal Standards | (b) | %RSD |
| | Surrogate Spikes | (b) | %Recovery |
| | Matrix Spike/Matrix Spike Duplicate | 5% | %Recovery |
| | Method Blank | One per matrix batch | Result Below PQL for each analyte |
| | **Field Rinsate Blanks** | **5%** | Result Below PQL for each analyte |
| | **Trip Blanks** | **One per shipment** | Result Below PQL for each analyte |
| ***Representativeness*** | Holding Times | (c) | (e) |
| | Standardized Sampling Methods | (d) | (e) |
| | Standardized Analytical Methods | (c) | (e) |
| ***Comparability*** | Standardized Sampling Methods | (d) | (e) |
| | Standardized Analytical Methods | (c) | (e) |
| ***Completeness*** | Field Sample Collection | (d) | (e) |
| | Sample Analyses | (c) | (e) |

*(a) Listed frequency is per sample matrix.*
*(b) Laboratory, instrument, and/or method specific. Refer to laboratory SOPs and Quality Assurance Plans included as Appendix D.*
*(c) Specific holding times and analytical methods are summarized in Table 10.*
*(d) Specific sample collection procedures are detailed in the SOPs included as Appendix E.*
*(e) These items will be physically checked to ensure the correct type and number of samples were collected and analyzed according to the proper methods.*
*RPD Relative Percent Difference.*
*%RSD Percent Relative Standard Deviation.*
*%D Percent Difference.*
*SOP Standard Operating Procedure.*
*PQL Practical Quantitation Limit.*

**TABLE 9**
**FIELD DATA COLLECTION**

**Wheeling-Pittsburgh Steel Corporation**
**Steubenville East Coke Plant**
**Follansbee, West Virginia**

| Parameter | Units | Event (a) | | | | Method of Analysis |
|---|---|---|---|---|---|---|
| | | Soil Sampling | Groundwater Sampling | Surface Water Sampling | Well Development | |
| VOCs | ppm | X | | | | Headspace analysis via PID or FID |
| Dissolved Oxygen | mg/L | | X | | | Flow through cell via YSI 3560, 3800, or equal |
| Oxidation/Reduction Potential | mV | | X | | | Flow through cell via YSI 3560, 3800, or equal |
| pH | Standard Units | | X | | | Flow through cell via YSI 3560, 3800, or equal |
| Temperature | C | | X | | | Flow through cell via YSI 3560, 3800, or equal |
| Specific Conductance | umhos/cm | | X | | | Flow through cell via YSI 3560, 3800, or equal |
| Turbidity | NTUs | | X | | | Photo-diode turbidimeter |
| Dissolved Oxygen | mg/L | | | X | X | YSI 3560, 3800, or equal |
| Oxidation/Reduction Potential | mV | | | X | X | YSI 3560, 3800, or equal |
| pH | Standard Units | | | X | X | YSI 3560, 3800, or equal |
| Temperature | C | | | X | X | YSI 3560, 3800, or equal |
| Specific Conductance | umhos/cm | | | X | X | YSI 3560, 3800, or equal |
| Turbidity | NTUs | | | X | X | Photo-diode turbidimeter |

*(a) Specific field sample collection and analysis procedures are detailed in the SOPs included as Appendix E.*

*VOCs Volatile Organic Chemicals*
*PID Photo Ionization Detector*
*FID Flame Ionization Detector*
*PPM Parts Per Million*
*mg/L Milligrams per Liter*
*mV Millivolts*
*C Degrees Celsius*
*mS/cm Millisemens per Centimeter*

TABLE 10

SAMPLE CONTAINER, PRESERVATION, AND HOLDING TIME REQUIREMENTS

Wheeling-Pittsburgh Steel Corporation
Steubenville East Coke Plant
Follansbee, West Virginia

| Parameter | Container Type | | Preservative (a) | Holding Time |
|---|---|---|---|---|
| | Soil | Aqueous | | |
| ***ORGANICS*** | | | | |
| Volatile organic compounds | 4 oz., G, TLC | 3x40 mL, G, TLS | HCl, Cool 4°C | 14 days |
| Acrolein & Acrylonitrile | -- (b) | 2x40 mL, G, TLS | Cool 4°C | 7 days |
| Semivolatile organic compounds | 8 oz., G (c) | 2x1 L, AG | Cool 4°C | 7 days to extract, 40 days after |
| Polynuclear aromatic hydrocarbons | -- (c) | 2x1 L, AG | Cool 4°C | 7 days to extract, 40 days after |
| ***INORGANICS*** | | | | |
| Metals | -- (c) | 500 mL, P (d) | $HNO_3$, Cool 4°C | 6 months |
| Mercury | -- (c) | -- (d) | -- | 28 days |
| Cyanide | -- (c) | 1 L, P | NaOH, Cool 4°C | 14 days |
| Ammonia | NA | 1 L, G | H2SO4, Cool 4°C | 28 days |
| ***BIOGEOCHEMICAL*** | | | | |
| Methane | NA | 3x40 mL, AG (e) | Cool 4°C | 14 days (g) |
| Carbon Dioxide | NA | -- (e) | Cool 4°C | 14 days (g) |
| Carbon Monoxide | NA | -- (e) | Cool 4°C | 14 days (g) |
| Nitrogen | NA | -- (e) | Cool 4°C | 14 days (g) |
| Oxygen | NA | -- (e) | Cool 4°C | 14 days (g) |
| Chemical Oxygen Demand | NA | 250 mL, P | $H_2SO_4$, Cool 4°C | 28 days |
| Dissolved Organic Carbon | NA | 250 mL, P | Cool 4°C | 28 days |
| Sulfate | NA | 500 mL, P (f) | Cool 4°C | 28 days |
| Nitrite | NA | --(f) | Cool 4°C | 48 hours |
| Nitrate-Nitrite | NA | 500 mL P | $H_2SO_4$, Cool 4°C | 28 days |
| Ferrous Iron | NA | 250 mL, P | HCl, Cool 4°C | 24 hours |
| Dissolved Manganese | NA | 250 mL, P | $HNO_3$, Cool 4°C | 6 months |
| Sulfide | NA | 500 mL, P | $Zn(C_2H_3O_2)$+NaOH, Cool 4°C | 7 days |
| ***PHYSICAL PARAMETERS*** | | | | |
| Grain Size | 8 oz G | NA | None | None |
| Bulk density | Shelby tube | NA | None | None |
| Porosity | Shelby tube | NA | None | None |
| Vertical Permeability | Shelby tube | NA | None | None |
| Strength | Shelby tube | NA | None | None |
| Classification | 8 oz G | NA | None | None |
| Atterberg Limits | 8 oz G | NA | None | None |
| ***SURFACE WATER / SEDIMENT INDICATORS*** | | | | |
| Alkalinity | NA | --(f) | Cool 4°C | 14 days |
| Total Organic Carbon | 8 oz G | 250 mL, P | Cool 4°C | 28 days |
| Total Suspended Solids | NA | 250 mL, P | Cool 4°C | 7 days |
| Total Dissolved Solids | NA | 250 mL, P | Cool 4°C | 7 days |
| Biological Oxygen Demand | NA | 1 L, P | Cool 4°C | 48 hours |
| Chemical Oxygen Demand | NA | 250 mL, P | $H_2SO_4$, Cool 4°C | 28 days |
| Hardness | NA | 250 mL, P | $HNO_3$, Cool 4°C | 6 months |
| ***HAZARDOUS CHARACTERISTICS*** | | | | |
| Corrosivity | 4 oz. G, P | NA | Cool 4°C | None |
| Ignitability | 4 oz. G, P | NA | None | None |
| Reactivity | 4 oz. G, P | NA | Cool 4°C | None |

*(a) Soil samples Cool 4°C only. Aqueous samples Cool 4°C and preserve as noted.*
*(b) Parameters from same container set.*
*(c) Parameters from same container set.*
*(d) Parameters from same container set.*
*(e) Parameters from same container set.*
*(f) Non-regulated method; however, 14 day target holding time.*

*HCl - hydrochloric acid*
*NaOH - sodium hydroxide*
*$HNO_3$ - nitric acid*
*$H_2SO_4$ - sulfuric acid*
*$Zn(C_2H_3O_2)$ - zinc acetate*

*AG Amber Glass.*
*G Glass.*
*P Polyethylene.*
*NA Not analyzed*
*TLC/S Teflon-lined cap/septum*

**TABLE 11**
**SAMPLE PREPARATION AND ANALYTICAL METHODS**

**Wheeling-Pittsburgh Steel Corporation**
**Steubenville East Coke Plant**
**Follansbee, West Virginia**

| Parameter | Matrix | Preparation Method | Analytical Method | Source |
|---|---|---|---|---|
| ***ORGANICS*** | | | | |
| Volatile organic compounds | Solid<br>Aqueous | 5032, 5035<br>5030B, 5032 | 8260B<br>8260B | USEPA, 1995 |
| Semivolatile organic compounds | Solid<br>Aqueous | 3540C, 3550B<br>3510C, 3520C | 8270C<br>8270C | USEPA, 1995 |
| Polycyclic aromatic hydrocarbons (a) | Aqueous | 3510C, 3520C | 8310 | 1995 |
| ***INORGANICS*** | | | | |
| Metals (with exceptions below) | Solid<br>Aqueous | 3050B, 3051A<br>3005A, 3010A | 6010B<br>6010B | USEPA, 1995 |
| Arsenic | Aqueous | 7060 | 7060A | 1995 |
| Lead | Aqueous | 7421 | 7421 | USEPA, 1995 |
| Mercury | Solid<br>Aqueous | 7471B<br>7470A | 7471B<br>7470A | USEPA, 1995 |
| Cyanide | Solid<br>Aqueous | --<br>-- | 9010B<br>9010B | USEPA, 1995 |
| Ammonia | Aqueous | -- | 305.2 | USEPA, 1983 |
| ***BIOGEOCHEMICAL PARAMETERS*** | | | | |
| Methane, carbon dioxide, carbon monoxide, nitrogen, oxygen | Solid<br>Aqueous | --<br>-- | AM15.02<br>AM15.02 | Microseeps, 1999 |
| Chemical oxygen demand | Aqueous | -- | 8000 | HACH |
| Dissolved organic carbon | Aqueous | -- | 415.1 | USEPA, 1983 |
| *Sulfate* | Aqueous | -- | 375.4 | USEPA, 1983 |
| Sulfide | Aqueous | -- | 376.2 | USEPA, 1983 |
| Nitrate-Nitrite | Aqueous | -- | 353.3 | USEPA, 1983 |
| Nitrite | Aqueous | -- | 353.3 | USEPA, 1983 |
| Ferrous Iron | Solid<br>Aqueous | --<br>-- | 3500<br>3500 | APHA, 1998<br>1998 |
| ***PHYSICAL PARAMETERS*** | | | | |
| Grain size (with hydrometer) | Solid | -- | D422 | ASTM, 1995 |
| Bulk density | Solid | -- | D4531 | ASTM, 1995 |
| Porosity by COE method (b) | Solid | -- | D854 | ASTM, 1995 |
| Vertical permeability | Solid | -- | D5084 | ASTM, 1995 |
| Strength | Solid | -- | D2850 | ASTM, 1995 |
| Classification | Solid | -- | D2487 | ASTM, 1995 |
| Atterberg Limits | Solid | -- | D4318 | ASTM, 1995 |
| ***SURFACE WATER / SEDIMENT INDICATORS*** | | | | |
| Alkalinity | Aqueous | -- | 310.1 | USEPA, 1983 |
| Total Organic Carbon | Solid<br>Aqueous | --<br>-- | 415.1M<br>415.1 | USEPA, 1993 |
| Total suspended solids | Aqueous | -- | 160.2 | USEPA, 1983 |
| Total dissolved solids | Aqueous | -- | 160.1 | USEPA, 1983 |
| Biological oxygen demand | Aqueous | -- | 405.1 | USEPA, 1983 |
| Chemical oxygen demand | Aqueous | -- | 410.4 | USEPA, 1983 |
| Hardness | Aqueous | -- | 2340-B | APHA, 1998 |
| ***HAZARDOUS CHARACTERISTICS*** | | | | |
| Corrosivity | Solid | -- | 9040/9045 | USEPA, 1995 |
| Ignitability | Solid | -- | 1010 | USEPA, 1995 |
| Reactivity | Solid | -- | 7.3.3.2, 7.3.3.4 | USEPA, 1995 |

(a) Method 8270C will be used for analysis of semivolatile organic compounds in groundwater during the first sampling event. Method 8310 may be used during subsequent sampling rounds to achieve lower detection limits if deemed necessary by CEC and USEPA.

(b) Porosity is calculated using the percent moisture and specific gravity of an undisturbed sample. Method number presented is for specific gravity.