**COLUMBIA ANALYTICAL SERVICES**

**VOLATILE ORGANICS**
METHOD 8260B
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB6CA

**Date Sampled :** 12/14/05 10:12 **Order #:** 855822 **Sample Matrix:** SOIL/SEDIMEN
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 86.1

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE ANALYZED : 12/24/05 | | | |
| ANALYTICAL DILUTION: 0.83 | | | Dry Weight |
| ACETONE | 20 | 52 | UG/KG |
| BENZENE | 5.0 | 1.1 J | UG/KG |
| BROMODICHLOROMETHANE | 5.0 | 4.8 U | UG/KG |
| BROMOFORM | 5.0 | 4.8 U | UG/KG |
| BROMOMETHANE | 5.0 | 4.8 U | UG/KG |
| 2-BUTANONE (MEK) | 10 | 9.1 J | UG/KG |
| METHYL-TERT-BUTYL ETHER | 5.0 | 4.8 U | UG/KG |
| CARBON DISULFIDE | 10 | 3.6 J | UG/KG |
| CARBON TETRACHLORIDE | 5.0 | 4.8 U | UG/KG |
| CHLOROBENZENE | 5.0 | 4.8 U | UG/KG |
| CHLOROETHANE | 10 | 9.7 U | UG/KG |
| CHLOROFORM | 5.0 | 4.8 U | UG/KG |
| CHLOROMETHANE | 5.0 | 4.8 U | UG/KG |
| 1,2-DIBROMO-3-CHLOROPROPANE | 5.0 | 4.8 U | UG/KG |
| YCLOHEXANE | 5.0 | 1.9 J | UG/KG |
| IBROMOCHLOROMETHANE | 5.0 | 4.8 U | UG/KG |
| 1,2-DIBROMOETHANE | 5.0 | 4.8 U | UG/KG |
| 1,3-DICHLOROBENZENE | 5.0 | 4.8 U | UG/KG |
| 1,4-DICHLOROBENZENE | 5.0 | 4.8 U | UG/KG |
| 1,2-DICHLOROBENZENE | 5.0 | 4.8 U | UG/KG |
| DICHLORODIFLUOROMETHANE | 5.0 | 4.8 U | UG/KG |
| 1,1-DICHLOROETHANE | 5.0 | 4.8 U | UG/KG |
| 1,2-DICHLOROETHANE | 5.0 | 4.8 U | UG/KG |
| 1,1-DICHLOROETHENE | 5.0 | 4.8 U | UG/KG |
| CIS-1,2-DICHLOROETHENE | 5.0 | 4.8 U | UG/KG |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 4.8 U | UG/KG |
| 1,2-DICHLOROPROPANE | 5.0 | 4.8 U | UG/KG |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 4.8 U | UG/KG |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 4.8 U | UG/KG |
| ETHYLBENZENE | 5.0 | 4.8 U | UG/KG |
| 2-HEXANONE | 10 | 9.7 U | UG/KG |
| ISOPROPYLBENZENE | 5.0 | 4.8 U | UG/KG |
| METHYL ACETATE | 10 | 9.7 U | UG/KG |
| METHYLCYCLOHEXANE | 5.0 | 2.8 J | UG/KG |
| METHYLENE CHLORIDE | 5.0 | 0.39 J | UG/KG |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 9.7 U | UG/KG |
| STYRENE | 5.0 | 4.8 U | UG/KG |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 4.8 U | UG/KG |
| TETRACHLOROETHENE | 5.0 | 4.8 U | UG/KG |
| TOLUENE | 5.0 | 1.9 J | UG/KG |
| ,4-TRICHLOROBENZENE | 5.0 | 4.8 U | UG/KG |
| ,1,1-TRICHLOROETHANE | 5.0 | 4.8 U | UG/KG |
| ,1,2-TRICHLOROETHANE | 5.0 | 4.8 U | UG/KG |
| TRICHLOROETHENE | 5.0 | 4.8 U | UG/KG |

COLUMBIA ANALYTICAL SERVICES

**VOLATILE ORGANICS**
METHOD 8260B
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB6CA

**Date Sampled :** 12/14/05 10:12 **Order #:** 855822 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 86.1

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE ANALYZED : 12/24/05 | | | |
| ANALYTICAL DILUTION: 0.83 | | | Dry Weight |
| TRICHLOROFLUOROMETHANE | 5.0 | 4.8 U | UG/KG |
| 1,1,2-TRICHLORO1,2,2-TRIFLUOROETHA | 5.0 | 4.8 U | UG/KG |
| VINYL CHLORIDE | 5.0 | 4.8 U | UG/KG |
| O-XYLENE | 5.0 | 0.49 J | UG/KG |
| M+P-XYLENE | 5.0 | 0.72 J | UG/KG |

| SURROGATE RECOVERIES | QC LIMITS | | |
|---|---|---|---|
| 4-BROMOFLUOROBENZENE | (65 - 129 %) | 96 | % |
| TOLUENE-D8 | (75 - 128 %) | 96 | % |
| DIBROMOFLUOROMETHANE | (62 - 133 %) | 93 | % |

COLUMBIA ANALYTICAL SERVICES

**VOLATILE ORGANICS**
METHOD 8260B
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB5AA

**Date Sampled :** 12/14/05 09:00 **Order #:** 855817 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 87.8

DATE ANALYZED : 12/24/05
ANALYTICAL DILUTION: 1.01

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| | | | Dry Weight |
| ACETONE | 20 | 35 | UG/KG |
| BENZENE | 5.0 | 1.3 J | UG/KG |
| BROMODICHLOROMETHANE | 5.0 | 5.8 U | UG/KG |
| BROMOFORM | 5.0 | 5.8 U | UG/KG |
| BROMOMETHANE | 5.0 | 5.8 U | UG/KG |
| 2-BUTANONE (MEK) | 10 | 3.8 J | UG/KG |
| METHYL-TERT-BUTYL ETHER | 5.0 | 5.8 U | UG/KG |
| CARBON DISULFIDE | 10 | 3.0 J | UG/KG |
| CARBON TETRACHLORIDE | 5.0 | 5.8 U | UG/KG |
| CHLOROBENZENE | 5.0 | 5.8 U | UG/KG |
| CHLOROETHANE | 10 | 12 U | UG/KG |
| CHLOROFORM | 5.0 | 5.8 U | UG/KG |
| CHLOROMETHANE | 5.0 | 5.8 U | UG/KG |
| 1,2-DIBROMO-3-CHLOROPROPANE | 5.0 | 5.8 U | UG/KG |
| YCLOHEXANE | 5.0 | 0.92 J | UG/KG |
| DIBROMOCHLOROMETHANE | 5.0 | 5.8 U | UG/KG |
| 1,2-DIBROMOETHANE | 5.0 | 5.8 U | UG/KG |
| 1,3-DICHLOROBENZENE | 5.0 | 5.8 U | UG/KG |
| 1,4-DICHLOROBENZENE | 5.0 | 5.8 U | UG/KG |
| 1,2-DICHLOROBENZENE | 5.0 | 5.8 U | UG/KG |
| DICHLORODIFLUOROMETHANE | 5.0 | 5.8 U | UG/KG |
| 1,1-DICHLOROETHANE | 5.0 | 5.8 U | UG/KG |
| 1,2-DICHLOROETHANE | 5.0 | 5.8 U | UG/KG |
| 1,1-DICHLOROETHENE | 5.0 | 5.8 U | UG/KG |
| CIS-1,2-DICHLOROETHENE | 5.0 | 5.8 U | UG/KG |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.8 U | UG/KG |
| 1,2-DICHLOROPROPANE | 5.0 | 5.8 U | UG/KG |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 5.8 U | UG/KG |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 5.8 U | UG/KG |
| ETHYLBENZENE | 5.0 | 0.43 J | UG/KG |
| 2-HEXANONE | 10 | 12 U | UG/KG |
| ISOPROPYLBENZENE | 5.0 | 5.8 U | UG/KG |
| METHYL ACETATE | 10 | 1.5 J | UG/KG |
| METHYLCYCLOHEXANE | 5.0 | 1.5 J | UG/KG |
| METHYLENE CHLORIDE | 5.0 | 0.97 J | UG/KG |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 12 U | UG/KG |
| STYRENE | 5.0 | 5.8 U | UG/KG |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.8 U | UG/KG |
| TETRACHLOROETHENE | 5.0 | 5.8 U | UG/KG |
| LUENE | 5.0 | 1.4 J | UG/KG |
| .2,4-TRICHLOROBENZENE | 5.0 | 5.8 U | UG/KG |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.8 U | UG/KG |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.8 U | UG/KG |
| TRICHLOROETHENE | 5.0 | 5.8 U | UG/KG |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB5AA

**Date Sampled :** 12/14/05 09:00 **Order #:** 855817 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 87.8

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE ANALYZED : 12/24/05 | | | |
| ANALYTICAL DILUTION: 1.01 | | | Dry Weight |
| TRICHLOROFLUOROMETHANE | 5.0 | 5.8 U | UG/KG |
| 1,1,2-TRICHLORO1,2,2-TRIFLUOROETHA | 5.0 | 5.8 U | UG/KG |
| VINYL CHLORIDE | 5.0 | 5.8 U | UG/KG |
| O-XYLENE | 5.0 | 0.35 J | UG/KG |
| M+P-XYLENE | 5.0 | 5.8 U | UG/KG |

| SURROGATE RECOVERIES | QC LIMITS | | |
|---|---|---|---|
| 4-BROMOFLUOROBENZENE | (65 - 129 %) | 92 | % |
| TOLUENE-D8 | (75 - 128 %) | 96 | % |
| DIBROMOFLUOROMETHANE | (62 - 133 %) | 99 | % |

**COLUMBIA ANALYTICAL SERVICES**

**VOLATILE ORGANICS**
METHOD 8260B
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB5CA

**Date Sampled :** 12/14/05 09:27 **Order #:** 855819 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 86.7

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE ANALYZED : 12/24/05 | | | |
| ANALYTICAL DILUTION: 1.27 | | | Dry Weight |
| ACETONE | 20 | 18 J | UG/KG |
| BENZENE | 5.0 | 0.61 J | UG/KG |
| BROMODICHLOROMETHANE | 5.0 | 7.3 U | UG/KG |
| BROMOFORM | 5.0 | 7.3 U | UG/KG |
| BROMOMETHANE | 5.0 | 7.3 U | UG/KG |
| 2-BUTANONE (MEK) | 10 | 4.7 J | UG/KG |
| METHYL-TERT-BUTYL ETHER | 5.0 | 7.3 U | UG/KG |
| CARBON DISULFIDE | 10 | 14 J | UG/KG |
| CARBON TETRACHLORIDE | 5.0 | 7.3 U | UG/KG |
| CHLOROBENZENE | 5.0 | 7.3 U | UG/KG |
| CHLOROETHANE | 10 | 15 U | UG/KG |
| CHLOROFORM | 5.0 | 7.3 U | UG/KG |
| CHLOROMETHANE | 5.0 | 7.3 U | UG/KG |
| 1,2-DIBROMO-3-CHLOROPROPANE | 5.0 | 7.3 U | UG/KG |
| YCLOHEXANE | 5.0 | 7.3 U | UG/KG |
| DIBROMOCHLOROMETHANE | 5.0 | 7.3 U | UG/KG |
| 1,2-DIBROMOETHANE | 5.0 | 7.3 U | UG/KG |
| 1,3-DICHLOROBENZENE | 5.0 | 7.3 U | UG/KG |
| 1,4-DICHLOROBENZENE | 5.0 | 7.3 U | UG/KG |
| 1,2-DICHLOROBENZENE | 5.0 | 7.3 U | UG/KG |
| DICHLORODIFLUOROMETHANE | 5.0 | 7.3 U | UG/KG |
| 1,1-DICHLOROETHANE | 5.0 | 7.3 U | UG/KG |
| 1,2-DICHLOROETHANE | 5.0 | 7.3 U | UG/KG |
| 1,1-DICHLOROETHENE | 5.0 | 7.3 U | UG/KG |
| CIS-1,2-DICHLOROETHENE | 5.0 | 7.3 U | UG/KG |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 7.3 U | UG/KG |
| 1,2-DICHLOROPROPANE | 5.0 | 7.3 U | UG/KG |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 7.3 U | UG/KG |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 7.3 U | UG/KG |
| ETHYLBENZENE | 5.0 | 0.67 J | UG/KG |
| 2-HEXANONE | 10 | 15 U | UG/KG |
| ISOPROPYLBENZENE | 5.0 | 7.3 U | UG/KG |
| METHYL ACETATE | 10 | 15 U | UG/KG |
| METHYLCYCLOHEXANE | 5.0 | 7.3 U | UG/KG |
| METHYLENE CHLORIDE | 5.0 | 1.2 J | UG/KG |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 15 U | UG/KG |
| STYRENE | 5.0 | 7.3 U | UG/KG |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 7.3 U | UG/KG |
| TETRACHLOROETHENE | 5.0 | 7.3 U | UG/KG |
| LUENE | 5.0 | 0.74 J | UG/KG |
| 2,4-TRICHLOROBENZENE | 5.0 | 7.3 U | UG/KG |
| 1,1,1-TRICHLOROETHANE | 5.0 | 7.3 U | UG/KG |
| 1,1,2-TRICHLOROETHANE | 5.0 | 7.3 U | UG/KG |
| TRICHLOROETHENE | 5.0 | 7.3 U | UG/KG |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB5CA

**Date Sampled :** 12/14/05 09:27 **Order #:** 855819 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 86.7

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE ANALYZED : 12/24/05 | | | |
| ANALYTICAL DILUTION: 1.27 | | | Dry Weight |
| TRICHLOROFLUOROMETHANE | 5.0 | 7.3 U | UG/KG |
| 1,1,2-TRICHLORO1,2,2-TRIFLUOROETHA | 5.0 | 7.3 U | UG/KG |
| VINYL CHLORIDE | 5.0 | 7.3 U | UG/KG |
| O-XYLENE | 5.0 | 7.3 U | UG/KG |
| M+P-XYLENE | 5.0 | 7.3 U | UG/KG |

| SURROGATE RECOVERIES | QC LIMITS | | |
|---|---|---|---|
| 4-BROMOFLUOROBENZENE | (65 - 129 %) | 92 | % |
| TOLUENE-D8 | (75 - 128 %) | 94 | % |
| DIBROMOFLUOROMETHANE | (62 - 133 %) | 97 | % |

**COLUMBIA ANALYTICAL SERVICES**

**VOLATILE ORGANICS**
METHOD 8260B
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB1AA

**Date Sampled :** 12/14/05 07:58 **Order #:** 855793 **Sample Matrix:** SOIL/SEDIMEN
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 83.7

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE ANALYZED : 12/23/05 | | | |
| ANALYTICAL DILUTION: 1.17 | | | Dry Weight |
| ACETONE | 20 | 31 | UG/KG |
| BENZENE | 5.0 | 1.2 J | UG/KG |
| BROMODICHLOROMETHANE | 5.0 | 7.0 U | UG/KG |
| BROMOFORM | 5.0 | 7.0 U | UG/KG |
| BROMOMETHANE | 5.0 | 7.0 U | UG/KG |
| 2-BUTANONE (MEK) | 10 | 4.2 J | UG/KG |
| METHYL-TERT-BUTYL ETHER | 5.0 | 7.0 U | UG/KG |
| CARBON DISULFIDE | 10 | 6.0 J | UG/KG |
| CARBON TETRACHLORIDE | 5.0 | 7.0 U | UG/KG |
| CHLOROBENZENE | 5.0 | 7.0 U | UG/KG |
| CHLOROETHANE | 10 | 14 U | UG/KG |
| CHLOROFORM | 5.0 | 7.0 U | UG/KG |
| CHLOROMETHANE | 5.0 | 1.1 J | UG/KG |
| 1,2-DIBROMO-3-CHLOROPROPANE | 5.0 | 7.0 U | UG/KG |
| YCLOHEXANE | 5.0 | 0.97 J | UG/KG |
| JIBROMOCHLOROMETHANE | 5.0 | 7.0 U | UG/KG |
| 1,2-DIBROMOETHANE | 5.0 | 7.0 U | UG/KG |
| 1,3-DICHLOROBENZENE | 5.0 | 7.0 U | UG/KG |
| 1,4-DICHLOROBENZENE | 5.0 | 7.0 U | UG/KG |
| 1,2-DICHLOROBENZENE | 5.0 | 7.0 U | UG/KG |
| DICHLORODIFLUOROMETHANE | 5.0 | 7.0 U | UG/KG |
| 1,1-DICHLOROETHANE | 5.0 | 7.0 U | UG/KG |
| 1,2-DICHLOROETHANE | 5.0 | 7.0 U | UG/KG |
| 1,1-DICHLOROETHENE | 5.0 | 7.0 U | UG/KG |
| CIS-1,2-DICHLOROETHENE | 5.0 | 7.0 U | UG/KG |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 7.0 U | UG/KG |
| 1,2-DICHLOROPROPANE | 5.0 | 7.0 U | UG/KG |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 7.0 U | UG/KG |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 7.0 U | UG/KG |
| ETHYLBENZENE | 5.0 | 1.1 J | UG/KG |
| 2-HEXANONE | 10 | 14 U | UG/KG |
| ISOPROPYLBENZENE | 5.0 | 7.0 U | UG/KG |
| METHYL ACETATE | 10 | 2.4 J | UG/KG |
| METHYLCYCLOHEXANE | 5.0 | 1.6 J | UG/KG |
| METHYLENE CHLORIDE | 5.0 | 0.69 J | UG/KG |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 14 U | UG/KG |
| STYRENE | 5.0 | 7.0 U | UG/KG |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 7.0 U | UG/KG |
| TETRACHLOROETHENE | 5.0 | 7.0 U | UG/KG |
| TOLUENE | 5.0 | 2.5 J | UG/KG |
| 2,4-TRICHLOROBENZENE | 5.0 | 7.0 U | UG/KG |
| 1,1,1-TRICHLOROETHANE | 5.0 | 7.0 U | UG/KG |
| 1,1,2-TRICHLOROETHANE | 5.0 | 7.0 U | UG/KG |
| TRICHLOROETHENE | 5.0 | 7.0 U | UG/KG |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB1AA

**Date Sampled :** 12/14/05 07:58 **Order #:** 855793 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 83.7

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE ANALYZED : 12/23/05 | | | |
| ANALYTICAL DILUTION: 1.17 | | | Dry Weight |
| TRICHLOROFLUOROMETHANE | 5.0 | 7.0 U | UG/KG |
| 1,1,2-TRICHLORO1,2,2-TRIFLUOROETHA | 5.0 | 7.0 U | UG/KG |
| VINYL CHLORIDE | 5.0 | 7.0 U | UG/KG |
| O-XYLENE | 5.0 | 0.93 J | UG/KG |
| M+P-XYLENE | 5.0 | 1.9 J | UG/KG |

| SURROGATE RECOVERIES | QC LIMITS | | |
|---|---|---|---|
| 4-BROMOFLUOROBENZENE | (65 - 129 %) | 91 | % |
| TOLUENE-D8 | (75 - 128 %) | 96 | % |
| DIBROMOFLUOROMETHANE | (62 - 133 %) | 92 | % |

COLUMBIA ANALYTICAL SERVICES

**VOLATILE ORGANICS**
METHOD 8260B
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB1CA

**Date Sampled :** 12/14/05 08:39 **Order #:** 855795 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 87.9

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE ANALYZED : 12/23/05 | | | |
| ANALYTICAL DILUTION: 1.32 | | | Dry Weight |
| ACETONE | 20 | 33 | UG/KG |
| BENZENE | 5.0 | 1.3 J | UG/KG |
| BROMODICHLOROMETHANE | 5.0 | 7.5 U | UG/KG |
| BROMOFORM | 5.0 | 7.5 U | UG/KG |
| BROMOMETHANE | 5.0 | 7.5 U | UG/KG |
| 2-BUTANONE (MEK) | 10 | 7.8 J | UG/KG |
| METHYL-TERT-BUTYL ETHER | 5.0 | 7.5 U | UG/KG |
| CARBON DISULFIDE | 10 | 9.6 J | UG/KG |
| CARBON TETRACHLORIDE | 5.0 | 7.5 U | UG/KG |
| CHLOROBENZENE | 5.0 | 7.5 U | UG/KG |
| CHLOROETHANE | 10 | 15 U | UG/KG |
| CHLOROFORM | 5.0 | 7.5 U | UG/KG |
| CHLOROMETHANE | 5.0 | 7.5 U | UG/KG |
| ,2-DIBROMO-3-CHLOROPROPANE | 5.0 | 7.5 U | UG/KG |
| YCLOHEXANE | 5.0 | 7.5 U | UG/KG |
| DIBROMOCHLOROMETHANE | 5.0 | 7.5 U | UG/KG |
| 1,2-DIBROMOETHANE | 5.0 | 7.5 U | UG/KG |
| 1,3-DICHLOROBENZENE | 5.0 | 7.5 U | UG/KG |
| 1,4-DICHLOROBENZENE | 5.0 | 7.5 U | UG/KG |
| 1,2-DICHLOROBENZENE | 5.0 | 7.5 U | UG/KG |
| DICHLORODIFLUOROMETHANE | 5.0 | 7.5 U | UG/KG |
| 1,1-DICHLOROETHANE | 5.0 | 7.5 U | UG/KG |
| 1,2-DICHLOROETHANE | 5.0 | 7.5 U | UG/KG |
| 1,1-DICHLOROETHENE | 5.0 | 7.5 U | UG/KG |
| CIS-1,2-DICHLOROETHENE | 5.0 | 7.5 U | UG/KG |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 7.5 U | UG/KG |
| 1,2-DICHLOROPROPANE | 5.0 | 7.5 U | UG/KG |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 7.5 U | UG/KG |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 7.5 U | UG/KG |
| ETHYLBENZENE | 5.0 | 0.67 J | UG/KG |
| 2-HEXANONE | 10 | 15 U | UG/KG |
| ISOPROPYLBENZENE | 5.0 | 7.5 U | UG/KG |
| METHYL ACETATE | 10 | 15 U | UG/KG |
| METHYLCYCLOHEXANE | 5.0 | 0.80 J | UG/KG |
| METHYLENE CHLORIDE | 5.0 | 0.89 J | UG/KG |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 15 U | UG/KG |
| STYRENE | 5.0 | 7.5 U | UG/KG |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 7.5 U | UG/KG |
| TETRACHLOROETHENE | 5.0 | 7.5 U | UG/KG |
| OLUENE | 5.0 | 1.7 J | UG/KG |
| ,2,4-TRICHLOROBENZENE | 5.0 | 7.5 U | UG/KG |
| 1,1,1-TRICHLOROETHANE | 5.0 | 7.5 U | UG/KG |
| 1,1,2-TRICHLOROETHANE | 5.0 | 7.5 U | UG/KG |
| TRICHLOROETHENE | 5.0 | 7.5 U | UG/KG |

COLUMBIA ANALYTICAL SERVICES

**VOLATILE ORGANICS**
METHOD 8260B
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB1CA

**Date Sampled :** 12/14/05 08:39 **Order #:** 855795 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 87.9

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE ANALYZED : 12/23/05 | | | |
| ANALYTICAL DILUTION: 1.32 | | | Dry Weight |
| TRICHLOROFLUOROMETHANE | 5.0 | 7.5 U | UG/KG |
| 1,1,2-TRICHLORO1,2,2-TRIFLUOROETHA | 5.0 | 7.5 U | UG/KG |
| VINYL CHLORIDE | 5.0 | 7.5 U | UG/KG |
| O-XYLENE | 5.0 | 7.5 U | UG/KG |
| M+P-XYLENE | 5.0 | 7.5 U | UG/KG |

| SURROGATE RECOVERIES | QC LIMITS | | |
|---|---|---|---|
| 4-BROMOFLUOROBENZENE | (65 - 129 %) | 92 | % |
| TOLUENE-D8 | (75 - 128 %) | 99 | % |
| DIBROMOFLUOROMETHANE | (62 - 133 %) | 92 | % |

COLUMBIA ANALYTICAL SERVICES

**VOLATILE ORGANICS**
METHOD 8260B
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB6AA

**Date Sampled :** 12/14/05 09:56 **Order #:** 855820 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 87.7

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE ANALYZED : 12/24/05 | | | |
| ANALYTICAL DILUTION: 0.92 | | | Dry Weight |
| ACETONE | 20 | 25 | UG/KG |
| BENZENE | 5.0 | 1.6 J | UG/KG |
| BROMODICHLOROMETHANE | 5.0 | 5.3 U | UG/KG |
| BROMOFORM | 5.0 | 5.3 U | UG/KG |
| BROMOMETHANE | 5.0 | 5.3 U | UG/KG |
| 2-BUTANONE (MEK) | 10 | 5.1 J | UG/KG |
| METHYL-TERT-BUTYL ETHER | 5.0 | 5.3 U | UG/KG |
| CARBON DISULFIDE | 10 | 4.0 J | UG/KG |
| CARBON TETRACHLORIDE | 5.0 | 5.3 U | UG/KG |
| CHLOROBENZENE | 5.0 | 23 | UG/KG |
| CHLOROETHANE | 10 | 11 U | UG/KG |
| CHLOROFORM | 5.0 | 5.3 U | UG/KG |
| CHLOROMETHANE | 5.0 | 5.3 U | UG/KG |
| 2-DIBROMO-3-CHLOROPROPANE | 5.0 | 5.3 U | UG/KG |
| CYCLOHEXANE | 5.0 | 2.1 J | UG/KG |
| DIBROMOCHLOROMETHANE | 5.0 | 5.3 U | UG/KG |
| 1,2-DIBROMOETHANE | 5.0 | 5.3 U | UG/KG |
| 1,3-DICHLOROBENZENE | 5.0 | 5.3 U | UG/KG |
| 1,4-DICHLOROBENZENE | 5.0 | 5.3 U | UG/KG |
| 1,2-DICHLOROBENZENE | 5.0 | 5.3 U | UG/KG |
| DICHLORODIFLUOROMETHANE | 5.0 | 5.3 U | UG/KG |
| 1,1-DICHLOROETHANE | 5.0 | 5.3 U | UG/KG |
| 1,2-DICHLOROETHANE | 5.0 | 5.3 U | UG/KG |
| 1,1-DICHLOROETHENE | 5.0 | 5.3 U | UG/KG |
| CIS-1,2-DICHLOROETHENE | 5.0 | 5.3 U | UG/KG |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 5.3 U | UG/KG |
| 1,2-DICHLOROPROPANE | 5.0 | 5.3 U | UG/KG |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 5.3 U | UG/KG |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 5.3 U | UG/KG |
| ETHYLBENZENE | 5.0 | 0.41 J | UG/KG |
| 2-HEXANONE | 10 | 11 U | UG/KG |
| ISOPROPYLBENZENE | 5.0 | 5.3 U | UG/KG |
| METHYL ACETATE | 10 | 11 U | UG/KG |
| METHYLCYCLOHEXANE | 5.0 | 3.1 J | UG/KG |
| METHYLENE CHLORIDE | 5.0 | 0.57 J | UG/KG |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 11 U | UG/KG |
| STYRENE | 5.0 | 5.3 U | UG/KG |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 5.3 U | UG/KG |
| TETRACHLOROETHENE | 5.0 | 5.3 U | UG/KG |
| TOLUENE | 5.0 | 1.6 J | UG/KG |
| 1,2,4-TRICHLOROBENZENE | 5.0 | 5.3 U | UG/KG |
| 1,1,1-TRICHLOROETHANE | 5.0 | 5.3 U | UG/KG |
| 1,1,2-TRICHLOROETHANE | 5.0 | 5.3 U | UG/KG |
| TRICHLOROETHENE | 5.0 | 5.3 U | UG/KG |

COLUMBIA ANALYTICAL SERVICES

**VOLATILE ORGANICS**
METHOD 8260B
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB6AA

**Date Sampled :** 12/14/05 09:56 **Order #:** 855820 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 87.7

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE ANALYZED : 12/24/05 | | | |
| ANALYTICAL DILUTION: 0.92 | | | Dry Weight |
| TRICHLOROFLUOROMETHANE | 5.0 | 5.3 U | UG/KG |
| 1,1,2-TRICHLORO1,2,2-TRIFLUOROETHA | 5.0 | 5.3 U | UG/KG |
| VINYL CHLORIDE | 5.0 | 5.3 U | UG/KG |
| O-XYLENE | 5.0 | 0.57 J | UG/KG |
| M+P-XYLENE | 5.0 | 1.1 J | UG/KG |

| SURROGATE RECOVERIES | QC LIMITS | | |
|---|---|---|---|
| 4-BROMOFLUOROBENZENE | (65 - 129 %) | 94 | % |
| TOLUENE-D8 | (75 - 128 %) | 98 | % |
| DIBROMOFLUOROMETHANE | (62 - 133 %) | 96 | % |

COLUMBIA ANALYTICAL SERVICES

**VOLATILE ORGANICS**
METHOD 8260B
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB6BA

**Date Sampled :** 12/14/05 10:06 **Order #:** 855821 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 85.1

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE ANALYZED : 12/24/05 | | | |
| ANALYTICAL DILUTION: 1.08 | | | Dry Weight |
| ACETONE | 20 | 96 | UG/KG |
| BENZENE | 5.0 | 1.3 J | UG/KG |
| BROMODICHLOROMETHANE | 5.0 | 6.3 U | UG/KG |
| BROMOFORM | 5.0 | 6.3 U | UG/KG |
| BROMOMETHANE | 5.0 | 6.3 U | UG/KG |
| 2-BUTANONE (MEK) | 10 | 19 | UG/KG |
| METHYL-TERT-BUTYL ETHER | 5.0 | 6.3 U | UG/KG |
| CARBON DISULFIDE | 10 | 3.9 J | UG/KG |
| CARBON TETRACHLORIDE | 5.0 | 6.3 U | UG/KG |
| CHLOROBENZENE | 5.0 | 6.3 U | UG/KG |
| CHLOROETHANE | 10 | 13 U | UG/KG |
| CHLOROFORM | 5.0 | 6.3 U | UG/KG |
| CHLOROMETHANE | 5.0 | 6.3 U | UG/KG |
| 2-DIBROMO-3-CHLOROPROPANE | 5.0 | 6.3 U | UG/KG |
| YCLOHEXANE | 5.0 | 2.1 J | UG/KG |
| DIBROMOCHLOROMETHANE | 5.0 | 6.3 U | UG/KG |
| 1,2-DIBROMOETHANE | 5.0 | 6.3 U | UG/KG |
| 1,3-DICHLOROBENZENE | 5.0 | 6.3 U | UG/KG |
| 1,4-DICHLOROBENZENE | 5.0 | 6.3 U | UG/KG |
| 1,2-DICHLOROBENZENE | 5.0 | 6.3 U | UG/KG |
| DICHLORODIFLUOROMETHANE | 5.0 | 6.3 U | UG/KG |
| 1,1-DICHLOROETHANE | 5.0 | 6.3 U | UG/KG |
| 1,2-DICHLOROETHANE | 5.0 | 6.3 U | UG/KG |
| 1,1-DICHLOROETHENE | 5.0 | 6.3 U | UG/KG |
| CIS-1,2-DICHLOROETHENE | 5.0 | 6.3 U | UG/KG |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 6.3 U | UG/KG |
| 1,2-DICHLOROPROPANE | 5.0 | 6.3 U | UG/KG |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 6.3 U | UG/KG |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 6.3 U | UG/KG |
| ETHYLBENZENE | 5.0 | 0.53 J | UG/KG |
| 2-HEXANONE | 10 | 13 U | UG/KG |
| ISOPROPYLBENZENE | 5.0 | 6.3 U | UG/KG |
| METHYL ACETATE | 10 | 13 U | UG/KG |
| METHYLCYCLOHEXANE | 5.0 | 2.5 J | UG/KG |
| METHYLENE CHLORIDE | 5.0 | 0.86 J | UG/KG |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 13 U | UG/KG |
| STYRENE | 5.0 | 6.3 U | UG/KG |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 6.3 U | UG/KG |
| TETRACHLOROETHENE | 5.0 | 6.3 U | UG/KG |
| OLUENE | 5.0 | 1.9 J | UG/KG |
| 1,2,4-TRICHLOROBENZENE | 5.0 | 6.3 U | UG/KG |
| 1,1,1-TRICHLOROETHANE | 5.0 | 6.3 U | UG/KG |
| 1,1,2-TRICHLOROETHANE | 5.0 | 6.3 U | UG/KG |
| TRICHLOROETHENE | 5.0 | 6.3 U | UG/KG |

COLUMBIA ANALYTICAL SERVICES

**VOLATILE ORGANICS**
METHOD 8260B
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB6BA

**Date Sampled :** 12/14/05 10:06 **Order #:** 855821 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 85.1

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE ANALYZED : 12/24/05 | | | |
| ANALYTICAL DILUTION: 1.08 | | | Dry Weight |
| TRICHLOROFLUOROMETHANE | 5.0 | 6.3 U | UG/KG |
| 1,1,2-TRICHLORO1,2,2-TRIFLUOROETHA | 5.0 | 6.3 U | UG/KG |
| VINYL CHLORIDE | 5.0 | 6.3 U | UG/KG |
| O-XYLENE | 5.0 | 0.48 J | UG/KG |
| M+P-XYLENE | 5.0 | 6.3 U | UG/KG |

| SURROGATE RECOVERIES | QC LIMITS | | |
|---|---|---|---|
| 4-BROMOFLUOROBENZENE | (65 - 129 %) | 92 | % |
| TOLUENE-D8 | (75 - 128 %) | 100 | % |
| DIBROMOFLUOROMETHANE | (62 - 133 %) | 89 | % |

COLUMBIA ANALYTICAL SERVICES

**VOLATILE ORGANICS**
METHOD 8260B
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB1BA

**Date Sampled :** 12/14/05 08:29 **Order #:** 855794 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 91.7

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE ANALYZED : 12/23/05 | | | |
| ANALYTICAL DILUTION: 1.40 | | | Dry Weight |
| ACETONE | 20 | 22 J | UG/KG |
| BENZENE | 5.0 | 7.6 UJ | UG/KG |
| BROMODICHLOROMETHANE | 5.0 | 7.6 U | UG/KG |
| BROMOFORM | 5.0 | 7.6 UJ | UG/KG |
| BROMOMETHANE | 5.0 | 7.6 UJ | UG/KG |
| 2-BUTANONE (MEK) | 10 | 4.7 J | UG/KG |
| METHYL-TERT-BUTYL ETHER | 5.0 | 7.6 U | UG/KG |
| CARBON DISULFIDE | 10 | 6.0 J | UG/KG |
| CARBON TETRACHLORIDE | 5.0 | 7.6 U | UG/KG |
| CHLOROBENZENE | 5.0 | 7.6 UJ | UG/KG |
| CHLOROETHANE | 10 | 15 U | UG/KG |
| CHLOROFORM | 5.0 | 7.6 U | UG/KG |
| CHLOROMETHANE | 5.0 | 7.6 U | UG/KG |
| ,2-DIBROMO-3-CHLOROPROPANE | 5.0 | 7.6 UJ | UG/KG |
| YCLOHEXANE | 5.0 | 7.6 U | UG/KG |
| DIBROMOCHLOROMETHANE | 5.0 | 7.6 U | UG/KG |
| 1,2-DIBROMOETHANE | 5.0 | 7.6 U | UG/KG |
| 1,3-DICHLOROBENZENE | 5.0 | 7.6 U | UG/KG |
| 1,4-DICHLOROBENZENE | 5.0 | 7.6 U | UG/KG |
| 1,2-DICHLOROBENZENE | 5.0 | 7.6 U | UG/KG |
| DICHLORODIFLUOROMETHANE | 5.0 | 7.6 U | UG/KG |
| 1,1-DICHLOROETHANE | 5.0 | 7.6 U | UG/KG |
| 1,2-DICHLOROETHANE | 5.0 | 7.6 U | UG/KG |
| 1,1-DICHLOROETHENE | 5.0 | 7.6 U | UG/KG |
| CIS-1,2-DICHLOROETHENE | 5.0 | 7.6 U | UG/KG |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 7.6 U | UG/KG |
| 1,2-DICHLOROPROPANE | 5.0 | 7.6 U | UG/KG |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 7.6 UJ | UG/KG |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 7.6 U | UG/KG |
| ETHYLBENZENE | 5.0 | 7.6 UJ | UG/KG |
| 2-HEXANONE | 10 | 15 U | UG/KG |
| ISOPROPYLBENZENE | 5.0 | 7.6 U | UG/KG |
| METHYL ACETATE | 10 | 15 U | UG/KG |
| METHYLCYCLOHEXANE | 5.0 | 7.6 UJ | UG/KG |
| METHYLENE CHLORIDE | 5.0 | 0.68 J | UG/KG |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 15 UJ | UG/KG |
| STYRENE | 5.0 | 7.6 U | UG/KG |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 7.6 U | UG/KG |
| TETRACHLOROETHENE | 5.0 | 7.6 UJ | UG/KG |
| OLUENE | 5.0 | 7.6 U | UG/KG |
| 1,2,4-TRICHLOROBENZENE | 5.0 | 7.6 U | UG/KG |
| 1,1,1-TRICHLOROETHANE | 5.0 | 7.6 U | UG/KG |
| 1,1,2-TRICHLOROETHANE | 5.0 | 7.6 UJ | UG/KG |
| TRICHLOROETHENE | 5.0 | 7.6 U | UG/KG |

20

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB1BA

**Date Sampled :** 12/14/05 08:29 **Order #:** 855794 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 91.7

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE ANALYZED : 12/23/05 | | | |
| ANALYTICAL DILUTION: 1.40 | | | Dry Weight |
| TRICHLOROFLUOROMETHANE | 5.0 | 7.6 U | UG/KG |
| 1,1,2-TRICHLORO1,2,2-TRIFLUOROETHA | 5.0 | 7.6 UJ | UG/KG |
| VINYL CHLORIDE | 5.0 | 7.6 U | UG/KG |
| O-XYLENE | 5.0 | 7.6 UJ | UG/KG |
| M+P-XYLENE | 5.0 | 7.6 U↓ | UG/KG |

| SURROGATE RECOVERIES | QC LIMITS | | |
|---|---|---|---|
| 4-BROMOFLUOROBENZENE | (65 - 129 %) | 94 | % |
| TOLUENE-D8 | (75 - 128 %) | 97 | % |
| DIBROMOFLUOROMETHANE | (62 - 133 %) | 94 | % |

**COLUMBIA ANALYTICAL SERVICES**

**VOLATILE ORGANICS**
METHOD 8260B
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB5BA

**Date Sampled :** 12/14/05 09:19 **Order #:** 855818 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 87.7

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE ANALYZED : 12/24/05 | | | |
| ANALYTICAL DILUTION: 1.12 | | | Dry Weight |
| ACETONE | 20 | 36 | UG/KG |
| BENZENE | 5.0 | 0.63 J | UG/KG |
| BROMODICHLOROMETHANE | 5.0 | 6.4 U | UG/KG |
| BROMOFORM | 5.0 | 6.4 U | UG/KG |
| BROMOMETHANE | 5.0 | 6.4 U | UG/KG |
| 2-BUTANONE (MEK) | 10 | 10 J | UG/KG |
| METHYL-TERT-BUTYL ETHER | 5.0 | 6.4 U | UG/KG |
| CARBON DISULFIDE | 10 | 11 J | UG/KG |
| CARBON TETRACHLORIDE | 5.0 | 6.4 U | UG/KG |
| CHLOROBENZENE | 5.0 | 6.4 U | UG/KG |
| CHLOROETHANE | 10 | 13 U | UG/KG |
| CHLOROFORM | 5.0 | 6.4 U | UG/KG |
| CHLOROMETHANE | 5.0 | 6.4 U | UG/KG |
| 2-DIBROMO-3-CHLOROPROPANE | 5.0 | 6.4 U | UG/KG |
| CLOHEXANE | 5.0 | 6.4 U | UG/KG |
| DIBROMOCHLOROMETHANE | 5.0 | 6.4 U | UG/KG |
| 1,2-DIBROMOETHANE | 5.0 | 6.4 U | UG/KG |
| 1,3-DICHLOROBENZENE | 5.0 | 6.4 U | UG/KG |
| 1,4-DICHLOROBENZENE | 5.0 | 6.4 U | UG/KG |
| 1,2-DICHLOROBENZENE | 5.0 | 6.4 U | UG/KG |
| DICHLORODIFLUOROMETHANE | 5.0 | 6.4 U | UG/KG |
| 1,1-DICHLOROETHANE | 5.0 | 6.4 U | UG/KG |
| 1,2-DICHLOROETHANE | 5.0 | 6.4 U | UG/KG |
| 1,1-DICHLOROETHENE | 5.0 | 6.4 U | UG/KG |
| CIS-1,2-DICHLOROETHENE | 5.0 | 6.4 U | UG/KG |
| TRANS-1,2-DICHLOROETHENE | 5.0 | 6.4 U | UG/KG |
| 1,2-DICHLOROPROPANE | 5.0 | 6.4 U | UG/KG |
| CIS-1,3-DICHLOROPROPENE | 5.0 | 6.4 U | UG/KG |
| TRANS-1,3-DICHLOROPROPENE | 5.0 | 6.4 U | UG/KG |
| ETHYLBENZENE | 5.0 | 6.4 U | UG/KG |
| 2-HEXANONE | 10 | 13 U | UG/KG |
| ISOPROPYLBENZENE | 5.0 | 6.4 U | UG/KG |
| METHYL ACETATE | 10 | 13 U | UG/KG |
| METHYLCYCLOHEXANE | 5.0 | 0.48 J | UG/KG |
| METHYLENE CHLORIDE | 5.0 | 0.86 J | UG/KG |
| 4-METHYL-2-PENTANONE (MIBK) | 10 | 13 U | UG/KG |
| STYRENE | 5.0 | 6.4 U | UG/KG |
| 1,1,2,2-TETRACHLOROETHANE | 5.0 | 6.4 U | UG/KG |
| TETRACHLOROETHENE | 5.0 | 6.4 U | UG/KG |
| LUENE | 5.0 | 0.46 J | UG/KG |
| ,2,4-TRICHLOROBENZENE | 5.0 | 6.4 U | UG/KG |
| 1,1,1-TRICHLOROETHANE | 5.0 | 6.4 U | UG/KG |
| 1,1,2-TRICHLOROETHANE | 5.0 | 6.4 U | UG/KG |
| TRICHLOROETHENE | 5.0 | 6.4 U | UG/KG |

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260B
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB5BA

**Date Sampled :** 12/14/05 09:19 **Order #:** 855818 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 87.7

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE ANALYZED : 12/24/05 | | | |
| ANALYTICAL DILUTION: 1.12 | | | Dry Weight |
| TRICHLOROFLUOROMETHANE | 5.0 | 6.4 U | UG/KG |
| 1,1,2-TRICHLORO1,2,2-TRIFLUOROETHA | 5.0 | 6.4 U | UG/KG |
| VINYL CHLORIDE | 5.0 | 6.4 U | UG/KG |
| O-XYLENE | 5.0 | 6.4 U | UG/KG |
| M+P-XYLENE | 5.0 | 6.4 U | UG/KG |

| SURROGATE RECOVERIES | QC LIMITS | | |
|---|---|---|---|
| 4-BROMOFLUOROBENZENE | (65 - 129 %) | 91 | % |
| TOLUENE-D8 | (75 - 128 %) | 96 | % |
| DIBROMOFLUOROMETHANE | (62 - 133 %) | 96 | % |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 03/01/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB4BA

**Date Sampled :** 12/13/05 14:51 **Order #:** 855814 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/14/05 **Submission #:** R2528608 **Percent Solid:** 91.1

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/21/05 | | | |
| DATE ANALYZED : 01/12/06 | | | |
| ANALYTICAL DILUTION: 1.00 | | | Dry Weight |
| ACENAPHTHENE | 330 | 360 U | UG/KG |
| ACENAPHTHYLENE | 330 | 130 J | UG/KG |
| ACETOPHENONE | 330 | 360 U | UG/KG |
| ANTHRACENE | 330 | 120 J | UG/KG |
| ATRAZINE | 330 | 360 U | UG/KG |
| BENZALDEHYDE | 330 | 1400 ~~360~~ U | UG/KG |
| BENZO(A)ANTHRACENE | 330 | 400 | UG/KG |
| BENZO(A)PYRENE | 330 | 440 | UG/KG |
| BENZO(B)FLUORANTHENE | 330 | 500 | UG/KG |
| BENZO(G,H,I)PERYLENE | 330 | 300 J | UG/KG |
| BENZO(K)FLUORANTHENE | 330 | 480 | UG/KG |
| 1,1'-BIPHENYL | 330 | 360 U | UG/KG |
| BUTYL BENZYL PHTHALATE | 330 | 360 U | UG/KG |
| DI-N-BUTYLPHTHALATE | 330 | 360 U | UG/KG |
| APROLACTAM | 330 | 360 U | UG/KG |
| CARBAZOLE | 330 | 360 U | UG/KG |
| INDENO(1,2,3-CD)PYRENE | 330 | 290 J | UG/KG |
| 4-CHLOROANILINE | 330 | 360 U | UG/KG |
| BIS(-2-CHLOROETHOXY)METHANE | 330 | 360 U | UG/KG |
| BIS(2-CHLOROETHYL)ETHER | 330 | 360 U | UG/KG |
| 2-CHLORONAPHTHALENE | 330 | 360 U | UG/KG |
| 2-CHLOROPHENOL | 330 | 360 U | UG/KG |
| 2,2'-OXYBIS(1-CHLOROPROPANE) | 330 | 360 U | UG/KG |
| CHRYSENE | 330 | 500 | UG/KG |
| DIBENZO(A,H)ANTHRACENE | 330 | 100 J | UG/KG |
| DIBENZOFURAN | 330 | 37 J | UG/KG |
| 3,3'-DICHLOROBENZIDINE | 330 | 360 U | UG/KG |
| 2,4-DICHLOROPHENOL | 330 | 360 U | UG/KG |
| DIETHYLPHTHALATE | 330 | 360 U | UG/KG |
| DIMETHYL PHTHALATE | 330 | 360 U | UG/KG |
| 2,4-DIMETHYLPHENOL | 330 | 360 U | UG/KG |
| 2,4-DINITROPHENOL | 1700 | 1900 U | UG/KG |
| 2,4-DINITROTOLUENE | 330 | 360 U | UG/KG |
| 2,6-DINITROTOLUENE | 330 | 360 U | UG/KG |
| BIS(2-ETHYLHEXYL)PHTHALATE | 330 | 360 U | UG/KG |
| FLUORANTHENE | 330 | 530 | UG/KG |
| FLUORENE | 330 | 360 U | UG/KG |
| HEXACHLOROBENZENE | 330 | 360 U | UG/KG |
| HEXACHLOROBUTADIENE | 330 | 360 U | UG/KG |
| EXACHLOROCYCLOPENTADIENE | 330 | 360 U | UG/KG |
| EXACHLOROETHANE | 330 | 360 U | UG/KG |
| ISOPHORONE | 330 | 360 U | UG/KG |
| 2-METHYLNAPHTHALENE | 330 | 100 J | UG/KG |

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C SEMIVOLATILES
Reported: 03/01/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB4BA

**Date Sampled :** 12/13/05 14:51 **Order #:** 855814 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/14/05 **Submission #:** R2528608 **Percent Solid:** 91.1

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/21/05 | | | |
| DATE ANALYZED : 01/12/06 | | | |
| ANALYTICAL DILUTION: 1.00 | | | Dry Weight |
| 4,6-DINITRO-2-METHYLPHENOL | 1700 | 1900 U | UG/KG |
| 4-CHLORO-3-METHYLPHENOL | 330 | 360 U | UG/KG |
| 2-METHYLPHENOL | 330 | 360 U | UG/KG |
| 4-METHYLPHENOL | 330 | 360 U | UG/KG |
| NAPHTHALENE | 330 | 360 U ~~110 JB~~ | UG/KG |
| 2-NITROANILINE | 1700 | 1900 U | UG/KG |
| 3-NITROANILINE | 1700 | 1900 U | UG/KG |
| 4-NITROANILINE | 1700 | 1900 U | UG/KG |
| NITROBENZENE | 330 | 360 U | UG/KG |
| 2-NITROPHENOL | 330 | 360 U | UG/KG |
| 4-NITROPHENOL | 1700 | 1900 U | UG/KG |
| N-NITROSODIPHENYLAMINE | 330 | 360 U | UG/KG |
| DI-N-OCTYL PHTHALATE | 330 | 360 U | UG/KG |
| PENTACHLOROPHENOL | 1700 | 1900 U | UG/KG |
| PHENANTHRENE | 330 | 210 J | UG/KG |
| PHENOL | 330 | 360 U | UG/KG |
| 4-BROMOPHENYL-PHENYLETHER | 330 | 360 U | UG/KG |
| 4-CHLOROPHENYL-PHENYLETHER | 330 | 360 U | UG/KG |
| N-NITROSO-DI-N-PROPYLAMINE | 330 | 360 U | UG/KG |
| PYRENE | 330 | 500 | UG/KG |
| 2,4,6-TRICHLOROPHENOL | 330 | 360 U | UG/KG |
| 2,4,5-TRICHLOROPHENOL | 330 | 360 U | UG/KG |

| SURROGATE RECOVERIES | QC LIMITS | | |
|---|---|---|---|
| TERPHENYL-d14 | (48 - 131 %) | 86 | % |
| NITROBENZENE-d5 | (27 - 130 %) | 75 | % |
| PHENOL-d6 | (10 - 133 %) | 70 | % |
| 2-FLUOROBIPHENYL | (32 - 130 %) | 82 | % |
| 2-FLUOROPHENOL | (10 - 130 %) | 62 | % |
| 2,4,6-TRIBROMOPHENOL | (33 - 139 %) | 75 | % |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB4CA

**Date Sampled :** 12/13/05 15:22 **Order #:** 855816 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/14/05 **Submission #:** R2528608 **Percent Solid:** 92.9

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/21/05 | | | |
| DATE ANALYZED : 01/12/06 | | | |
| ANALYTICAL DILUTION: 1.00 | | | Dry Weight |
| ACENAPHTHENE | 330 | 360 U | UG/KG |
| ACENAPHTHYLENE | 330 | 360 U | UG/KG |
| ACETOPHENONE | 330 | 360 U | UG/KG |
| ANTHRACENE | 330 | 360 U | UG/KG |
| ATRAZINE | 330 | 360 U | UG/KG |
| BENZALDEHYDE | 330 | 1560 ~~360~~ U | UG/KG |
| BENZO(A)ANTHRACENE | 330 | 360 U | UG/KG |
| BENZO(A)PYRENE | 330 | 360 U | UG/KG |
| BENZO(B)FLUORANTHENE | 330 | 360 U | UG/KG |
| BENZO(G,H,I)PERYLENE | 330 | 360 U | UG/KG |
| BENZO(K)FLUORANTHENE | 330 | 360 U | UG/KG |
| 1,1'-BIPHENYL | 330 | 360 U | UG/KG |
| BUTYL BENZYL PHTHALATE | 330 | 360 U | UG/KG |
| DI-N-BUTYLPHTHALATE | 330 | 360 U | UG/KG |
| CAPROLACTAM | 330 | 360 U | UG/KG |
| CARBAZOLE | 330 | 360 U | UG/KG |
| INDENO(1,2,3-CD)PYRENE | 330 | 360 U | UG/KG |
| 4-CHLOROANILINE | 330 | 360 U | UG/KG |
| BIS(-2-CHLOROETHOXY)METHANE | 330 | 360 U | UG/KG |
| BIS(2-CHLOROETHYL)ETHER | 330 | 360 U | UG/KG |
| 2-CHLORONAPHTHALENE | 330 | 360 U | UG/KG |
| 2-CHLOROPHENOL | 330 | 360 U | UG/KG |
| 2,2'-OXYBIS(1-CHLOROPROPANE) | 330 | 360 U | UG/KG |
| CHRYSENE | 330 | 360 U | UG/KG |
| DIBENZO(A,H)ANTHRACENE | 330 | 360 U | UG/KG |
| DIBENZOFURAN | 330 | 360 U | UG/KG |
| 3,3'-DICHLOROBENZIDINE | 330 | 360 U | UG/KG |
| 2,4-DICHLOROPHENOL | 330 | 360 U | UG/KG |
| DIETHYLPHTHALATE | 330 | 360 U | UG/KG |
| DIMETHYL PHTHALATE | 330 | 360 U | UG/KG |
| 2,4-DIMETHYLPHENOL | 330 | 360 U | UG/KG |
| 2,4-DINITROPHENOL | 1700 | 1800 U | UG/KG |
| 2,4-DINITROTOLUENE | 330 | 360 U | UG/KG |
| 2,6-DINITROTOLUENE | 330 | 360 U | UG/KG |
| BIS(2-ETHYLHEXYL)PHTHALATE | 330 | 360 U | UG/KG |
| FLUORANTHENE | 330 | 360 U | UG/KG |
| FLUORENE | 330 | 360 U | UG/KG |
| HEXACHLOROBENZENE | 330 | 360 U | UG/KG |
| HEXACHLOROBUTADIENE | 330 | 360 U | UG/KG |
| HEXACHLOROCYCLOPENTADIENE | 330 | 360 U | UG/KG |
| HEXACHLOROETHANE | 330 | 360 U | UG/KG |
| ISOPHORONE | 330 | 360 U | UG/KG |
| 2-METHYLNAPHTHALENE | 330 | 360 U | UG/KG |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB4CA

**Date Sampled :** 12/13/05 15:22 **Order #:** 855816 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/14/05 **Submission #:** R2528608 **Percent Solid:** 92.9

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/21/05 | | | |
| DATE ANALYZED : 01/12/06 | | | |
| ANALYTICAL DILUTION: 1.00 | | | Dry Weight |
| 4,6-DINITRO-2-METHYLPHENOL | 1700 | 1800 U | UG/KG |
| 4-CHLORO-3-METHYLPHENOL | 330 | 360 U | UG/KG |
| 2-METHYLPHENOL | 330 | 360 U | UG/KG |
| 4-METHYLPHENOL | 330 | 360 U | UG/KG |
| NAPHTHALENE | 330 | 360 U | UG/KG |
| 2-NITROANILINE | 1700 | 1800 U | UG/KG |
| 3-NITROANILINE | 1700 | 1800 U | UG/KG |
| 4-NITROANILINE | 1700 | 1800 U | UG/KG |
| NITROBENZENE | 330 | 360 U | UG/KG |
| 2-NITROPHENOL | 330 | 360 U | UG/KG |
| 4-NITROPHENOL | 1700 | 1800 U | UG/KG |
| N-NITROSODIPHENYLAMINE | 330 | 360 U | UG/KG |
| DI-N-OCTYL PHTHALATE | 330 | 360 U | UG/KG |
| PENTACHLOROPHENOL | 1700 | 1800 U | UG/KG |
| PHENANTHRENE | 330 | 360 U | UG/KG |
| PHENOL | 330 | 360 U | UG/KG |
| 4-BROMOPHENYL-PHENYLETHER | 330 | 360 U | UG/KG |
| 4-CHLOROPHENYL-PHENYLETHER | 330 | 360 U | UG/KG |
| N-NITROSO-DI-N-PROPYLAMINE | 330 | 360 U | UG/KG |
| PYRENE | 330 | 360 U | UG/KG |
| 2,4,6-TRICHLOROPHENOL | 330 | 360 U | UG/KG |
| 2,4,5-TRICHLOROPHENOL | 330 | 360 U | UG/KG |

| SURROGATE RECOVERIES | QC LIMITS | | |
|---|---|---|---|
| TERPHENYL-d14 | (48 - 131 %) | 81 | % |
| NITROBENZENE-d5 | (27 - 130 %) | 64 | % |
| PHENOL-d6 | (10 - 133 %) | 61 | % |
| 2-FLUOROBIPHENYL | (32 - 130 %) | 73 | % |
| 2-FLUOROPHENOL | (10 - 130 %) | 52 | % |
| 2,4,6-TRIBROMOPHENOL | (33 - 139 %) | 62 | % |

COLUMBIA ANALYTICAL SERVICES

EXTRACTABLE ORGANICS
METHOD 8270C SEMIVOLATILES
Reported: 03/01/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB4AA

**Date Sampled :** 12/13/05 14:44 **Order #:** 855813 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/14/05 **Submission #:** R2528608 **Percent Solid:** 90.3

DATE EXTRACTED : 12/21/05
DATE ANALYZED : 01/16/06
ANALYTICAL DILUTION: 1.00

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| | | | Dry Weight |
| ACENAPHTHENE | 330 | 370 U | UG/KG |
| ACENAPHTHYLENE | 330 | 640 | UG/KG |
| ACETOPHENONE | 330 | 370 U | UG/KG |
| ANTHRACENE | 330 | 470 | UG/KG |
| ATRAZINE | 330 | 370 U | UG/KG |
| BENZALDEHYDE | 330 | 1900 ~~370~~ U | UG/KG |
| BENZO(A)ANTHRACENE | 330 | 1700 | UG/KG |
| BENZO(A)PYRENE | 330 | 1900 | UG/KG |
| BENZO(B)FLUORANTHENE | 330 | 1700 | UG/KG |
| BENZO(G,H,I)PERYLENE | 330 | 1300 | UG/KG |
| BENZO(K)FLUORANTHENE | 330 | 1600 | UG/KG |
| 1,1'-BIPHENYL | 330 | 39 J | UG/KG |
| BUTYL BENZYL PHTHALATE | 330 | 370 U | UG/KG |
| DI-N-BUTYLPHTHALATE | 330 | 370 U | UG/KG |
| CAPROLACTAM | 330 | 370 U | UG/KG |
| CARBAZOLE | 330 | 130 J | UG/KG |
| INDENO(1,2,3-CD)PYRENE | 330 | 1200 | UG/KG |
| 4-CHLOROANILINE | 330 | 370 U | UG/KG |
| BIS(-2-CHLOROETHOXY)METHANE | 330 | 370 U | UG/KG |
| BIS(2-CHLOROETHYL)ETHER | 330 | 370 U | UG/KG |
| 2-CHLORONAPHTHALENE | 330 | 370 U | UG/KG |
| 2-CHLOROPHENOL | 330 | 370 U | UG/KG |
| 2,2'-OXYBIS(1-CHLOROPROPANE) | 330 | 370 U | UG/KG |
| CHRYSENE | 330 | 1900 | UG/KG |
| DIBENZO(A,H)ANTHRACENE | 330 | 410 | UG/KG |
| DIBENZOFURAN | 330 | 120 J | UG/KG |
| 3,3'-DICHLOROBENZIDINE | 330 | 370 U | UG/KG |
| 2,4-DICHLOROPHENOL | 330 | 370 U | UG/KG |
| DIETHYLPHTHALATE | 330 | 370 U | UG/KG |
| DIMETHYL PHTHALATE | 330 | 370 U | UG/KG |
| 2,4-DIMETHYLPHENOL | 330 | 370 U | UG/KG |
| 2,4-DINITROPHENOL | 1700 | 1900 U | UG/KG |
| 2,4-DINITROTOLUENE | 330 | 370 U | UG/KG |
| 2,6-DINITROTOLUENE | 330 | 370 U | UG/KG |
| BIS(2-ETHYLHEXYL)PHTHALATE | 330 | 370 U | UG/KG |
| FLUORANTHENE | 330 | 2900 | UG/KG |
| FLUORENE | 330 | 110 J | UG/KG |
| HEXACHLOROBENZENE | 330 | 370 U | UG/KG |
| HEXACHLOROBUTADIENE | 330 | 370 U | UG/KG |
| HEXACHLOROCYCLOPENTADIENE | 330 | 370 U | UG/KG |
| HEXACHLOROETHANE | 330 | 370 U | UG/KG |
| ISOPHORONE | 330 | 370 U | UG/KG |
| 2-METHYLNAPHTHALENE | 330 | 210 J | UG/KG |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 03/01/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB4AA

**Date Sampled :** 12/13/05 14:44 **Order #:** 855813 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/14/05 **Submission #:** R2528608 **Percent Solid:** 90.3

DATE EXTRACTED : 12/21/05
DATE ANALYZED : 01/16/06
ANALYTICAL DILUTION: 1.00

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| | | | Dry Weight |
| 4,6-DINITRO-2-METHYLPHENOL | 1700 | 1900 U | UG/KG |
| 4-CHLORO-3-METHYLPHENOL | 330 | 370 U | UG/KG |
| 2-METHYLPHENOL | 330 | 370 U | UG/KG |
| 4-METHYLPHENOL | 330 | 370 U | UG/KG |
| NAPHTHALENE | 330 | 830 ~~B~~u | UG/KG |
| 2-NITROANILINE | 1700 | 1900 U | UG/KG |
| 3-NITROANILINE | 1700 | 1900 U | UG/KG |
| 4-NITROANILINE | 1700 | 1900 U | UG/KG |
| NITROBENZENE | 330 | 370 U | UG/KG |
| 2-NITROPHENOL | 330 | 370 U | UG/KG |
| 4-NITROPHENOL | 1700 | 1900 U | UG/KG |
| N-NITROSODIPHENYLAMINE | 330 | 370 U | UG/KG |
| DI-N-OCTYL PHTHALATE | 330 | 370 U | UG/KG |
| PENTACHLOROPHENOL | 1700 | 1900 U | UG/KG |
| PHENANTHRENE | 330 | 1300 | UG/KG |
| PHENOL | 330 | 370 U | UG/KG |
| 4-BROMOPHENYL-PHENYLETHER | 330 | 370 U | UG/KG |
| 4-CHLOROPHENYL-PHENYLETHER | 330 | 370 U | UG/KG |
| N-NITROSO-DI-N-PROPYLAMINE | 330 | 370 U | UG/KG |
| PYRENE | 330 | 2300 | UG/KG |
| 2,4,6-TRICHLOROPHENOL | 330 | 370 U | UG/KG |
| 2,4,5-TRICHLOROPHENOL | 330 | 370 U | UG/KG |

| SURROGATE RECOVERIES | QC LIMITS | | |
|---|---|---|---|
| TERPHENYL-d14 | (48 - 131 %) | 78 | % |
| NITROBENZENE-d5 | (27 - 130 %) | 71 | % |
| PHENOL-d6 | (10 - 133 %) | 64 | % |
| 2-FLUOROBIPHENYL | (32 - 130 %) | 79 | % |
| 2-FLUOROPHENOL | (10 - 130 %) | 53 | % |
| 2,4,6-TRIBROMOPHENOL | (33 - 139 %) | 72 | % |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB2AA

**Date Sampled :** 12/14/05 14:06 **Order #:** 855807 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 85.0

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/27/05 | | | |
| DATE ANALYZED : 01/18/06 | | | |
| ANALYTICAL DILUTION: 5.00 | | | Dry Weight |
| ACENAPHTHENE | 330 | 1900 U | UG/KG |
| ACENAPHTHYLENE | 330 | 4500 | UG/KG |
| ACETOPHENONE | 330 | 1900 U | UG/KG |
| ANTHRACENE | 330 | 4700 | UG/KG |
| ATRAZINE | 330 | 1900 U | UG/KG |
| BENZALDEHYDE | 330 | 1900 ~~1900~~ U | UG/KG |
| BENZO(A)ANTHRACENE | 330 | 10000 | UG/KG |
| BENZO(A)PYRENE | 330 | 10000 | UG/KG |
| BENZO(B)FLUORANTHENE | 330 | 8200 | UG/KG |
| BENZO(G,H,I)PERYLENE | 330 | 6000 | UG/KG |
| BENZO(K)FLUORANTHENE | 330 | 8400 | UG/KG |
| 1,1'-BIPHENYL | 330 | 1900 U | UG/KG |
| BUTYL BENZYL PHTHALATE | 330 | 1900 U | UG/KG |
| DI-N-BUTYLPHTHALATE | 330 | 1900 U | UG/KG |
| CAPROLACTAM | 330 | 1900 U | UG/KG |
| CARBAZOLE | 330 | 890 J | UG/KG |
| INDENO(1,2,3-CD)PYRENE | 330 | 5600 | UG/KG |
| 4-CHLOROANILINE | 330 | 1900 U | UG/KG |
| BIS(-2-CHLOROETHOXY)METHANE | 330 | 1900 U | UG/KG |
| BIS(2-CHLOROETHYL)ETHER | 330 | 1900 U | UG/KG |
| 2-CHLORONAPHTHALENE | 330 | 1900 U | UG/KG |
| 2-CHLOROPHENOL | 330 | 1900 U | UG/KG |
| 2,2'-OXYBIS(1-CHLOROPROPANE) | 330 | 1900 U | UG/KG |
| CHRYSENE | 330 | 10000 | UG/KG |
| DIBENZO(A,H)ANTHRACENE | 330 | 1900 J | UG/KG |
| DIBENZOFURAN | 330 | 780 J | UG/KG |
| 3,3'-DICHLOROBENZIDINE | 330 | 1900 U | UG/KG |
| 2,4-DICHLOROPHENOL | 330 | 1900 U | UG/KG |
| DIETHYLPHTHALATE | 330 | 1900 U | UG/KG |
| DIMETHYL PHTHALATE | 330 | 1900 U | UG/KG |
| 2,4-DIMETHYLPHENOL | 330 | 1900 U | UG/KG |
| 2,4-DINITROPHENOL | 1700 | 10000 U | UG/KG |
| 2,4-DINITROTOLUENE | 330 | 1900 U | UG/KG |
| 2,6-DINITROTOLUENE | 330 | 1900 U | UG/KG |
| BIS(2-ETHYLHEXYL)PHTHALATE | 330 | 1900 U | UG/KG |
| FLUORANTHENE | 330 | 20000 | UG/KG |
| FLUORENE | 330 | 1600 J | UG/KG |
| HEXACHLOROBENZENE | 330 | 1900 U | UG/KG |
| HEXACHLOROBUTADIENE | 330 | 1900 U | UG/KG |
| HEXACHLOROCYCLOPENTADIENE | 330 | 1900 U | UG/KG |
| HEXACHLOROETHANE | 330 | 1900 U | UG/KG |
| ISOPHORONE | 330 | 1900 U | UG/KG |
| 2-METHYLNAPHTHALENE | 330 | 260 J | UG/KG |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB2AA

**Date Sampled :** 12/14/05 14:06 **Order #:** 855807 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 85.0

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/27/05 | | | |
| DATE ANALYZED : 01/18/06 | | | |
| ANALYTICAL DILUTION: 5.00 | | | Dry Weight |
| 4,6-DINITRO-2-METHYLPHENOL | 1700 | 10000 U | UG/KG |
| 4-CHLORO-3-METHYLPHENOL | 330 | 1900 U | UG/KG |
| 2-METHYLPHENOL | 330 | 1900 U | UG/KG |
| 4-METHYLPHENOL | 330 | 1900 U | UG/KG |
| NAPHTHALENE | 330 | 840 J | UG/KG |
| 2-NITROANILINE | 1700 | 10000 U | UG/KG |
| 3-NITROANILINE | 1700 | 10000 U | UG/KG |
| 4-NITROANILINE | 1700 | 10000 U | UG/KG |
| NITROBENZENE | 330 | 1900 U | UG/KG |
| 2-NITROPHENOL | 330 | 1900 U | UG/KG |
| 4-NITROPHENOL | 1700 | 10000 U | UG/KG |
| N-NITROSODIPHENYLAMINE | 330 | 1900 U | UG/KG |
| DI-N-OCTYL PHTHALATE | 330 | 1900 U | UG/KG |
| PENTACHLOROPHENOL | 1700 | 10000 U | UG/KG |
| PHENANTHRENE | 330 | 12000 | UG/KG |
| PHENOL | 330 | 1900 U | UG/KG |
| 4-BROMOPHENYL-PHENYLETHER | 330 | 1900 U | UG/KG |
| 4-CHLOROPHENYL-PHENYLETHER | 330 | 1900 U | UG/KG |
| N-NITROSO-DI-N-PROPYLAMINE | 330 | 1900 U | UG/KG |
| PYRENE | 330 | 16000 | UG/KG |
| 2,4,6-TRICHLOROPHENOL | 330 | 1900 U | UG/KG |
| 2,4,5-TRICHLOROPHENOL | 330 | 1900 U | UG/KG |

| SURROGATE RECOVERIES | QC LIMITS | | |
|---|---|---|---|
| TERPHENYL-d14 | (48 - 131 %) | 92 | % |
| NITROBENZENE-d5 | (27 - 130 %) | 72 | % |
| PHENOL-d6 | (10 - 133 %) | 76 | % |
| 2-FLUOROBIPHENYL | (32 - 130 %) | 86 | % |
| 2-FLUOROPHENOL | (10 - 130 %) | 60 | % |
| 2,4,6-TRIBROMOPHENOL | (33 - 139 %) | 70 | % |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB2BA

**Date Sampled :** 12/14/05 14:14 **Order #:** 855808 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 88.1

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/27/05 | | | |
| DATE ANALYZED : 01/18/06 | | | |
| ANALYTICAL DILUTION: 1.00 | | | Dry Weight |
| ACENAPHTHENE | 330 | 370 U | UG/KG |
| ACENAPHTHYLENE | 330 | 56 J | UG/KG |
| ACETOPHENONE | 330 | 370 U | UG/KG |
| ANTHRACENE | 330 | 81 J | UG/KG |
| ATRAZINE | 330 | 370 U | UG/KG |
| BENZALDEHYDE | 330 | 1900 ~~370~~ U | UG/KG |
| BENZO(A)ANTHRACENE | 330 | 200 J | UG/KG |
| BENZO(A)PYRENE | 330 | 190 J | UG/KG |
| BENZO(B)FLUORANTHENE | 330 | 190 J | UG/KG |
| BENZO(G,H,I)PERYLENE | 330 | 120 J | UG/KG |
| BENZO(K)FLUORANTHENE | 330 | 190 J | UG/KG |
| 1,1'-BIPHENYL | 330 | 370 U | UG/KG |
| TTYL BENZYL PHTHALATE | 330 | 370 U | UG/KG |
| I-N-BUTYLPHTHALATE | 330 | 66 J | UG/KG |
| CAPROLACTAM | 330 | 370 U | UG/KG |
| CARBAZOLE | 330 | 370 U | UG/KG |
| INDENO(1,2,3-CD)PYRENE | 330 | 120 J | UG/KG |
| 4-CHLOROANILINE | 330 | 370 U | UG/KG |
| BIS(-2-CHLOROETHOXY)METHANE | 330 | 370 U | UG/KG |
| BIS(2-CHLOROETHYL)ETHER | 330 | 370 U | UG/KG |
| 2-CHLORONAPHTHALENE | 330 | 370 U | UG/KG |
| 2-CHLOROPHENOL | 330 | 370 U | UG/KG |
| 2,2'-OXYBIS(1-CHLOROPROPANE) | 330 | 370 U | UG/KG |
| CHRYSENE | 330 | 230 J | UG/KG |
| DIBENZO(A,H)ANTHRACENE | 330 | 370 U | UG/KG |
| DIBENZOFURAN | 330 | 370 U | UG/KG |
| 3,3'-DICHLOROBENZIDINE | 330 | 370 U | UG/KG |
| 2,4-DICHLOROPHENOL | 330 | 370 U | UG/KG |
| DIETHYLPHTHALATE | 330 | 370 U | UG/KG |
| DIMETHYL PHTHALATE | 330 | 370 U | UG/KG |
| 2,4-DIMETHYLPHENOL | 330 | 370 U | UG/KG |
| 2,4-DINITROPHENOL | 1700 | 1900 U | UG/KG |
| 2,4-DINITROTOLUENE | 330 | 370 U | UG/KG |
| 2,6-DINITROTOLUENE | 330 | 370 U | UG/KG |
| BIS(2-ETHYLHEXYL)PHTHALATE | 330 | 370 U | UG/KG |
| FLUORANTHENE | 330 | 420 | UG/KG |
| FLUORENE | 330 | 370 U | UG/KG |
| HEXACHLOROBENZENE | 330 | 370 U | UG/KG |
| XACHLOROBUTADIENE | 330 | 370 U | UG/KG |
| HEXACHLOROCYCLOPENTADIENE | 330 | 370 U | UG/KG |
| HEXACHLOROETHANE | 330 | 370 U | UG/KG |
| ISOPHORONE | 330 | 370 U | UG/KG |
| 2-METHYLNAPHTHALENE | 330 | 370 U | UG/KG |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB2BA

**Date Sampled :** 12/14/05 14:14 **Order #:** 855808 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 88.1

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/27/05 | | | |
| DATE ANALYZED : 01/18/06 | | | |
| ANALYTICAL DILUTION: 1.00 | | | Dry Weight |
| 4,6-DINITRO-2-METHYLPHENOL | 1700 | 1900 U | UG/KG |
| 4-CHLORO-3-METHYLPHENOL | 330 | 370 U | UG/KG |
| 2-METHYLPHENOL | 330 | 370 U | UG/KG |
| 4-METHYLPHENOL | 330 | 370 U | UG/KG |
| NAPHTHALENE | 330 | 370 U | UG/KG |
| 2-NITROANILINE | 1700 | 1900 U | UG/KG |
| 3-NITROANILINE | 1700 | 1900 U | UG/KG |
| 4-NITROANILINE | 1700 | 1900 U | UG/KG |
| NITROBENZENE | 330 | 370 U | UG/KG |
| 2-NITROPHENOL | 330 | 370 U | UG/KG |
| 4-NITROPHENOL | 1700 | 1900 U | UG/KG |
| N-NITROSODIPHENYLAMINE | 330 | 370 U | UG/KG |
| DI-N-OCTYL PHTHALATE | 330 | 370 U | UG/KG |
| PENTACHLOROPHENOL | 1700 | 1900 U | UG/KG |
| PHENANTHRENE | 330 | 250 J | UG/KG |
| PHENOL | 330 | 370 U | UG/KG |
| 4-BROMOPHENYL-PHENYLETHER | 330 | 370 U | UG/KG |
| 4-CHLOROPHENYL-PHENYLETHER | 330 | 370 U | UG/KG |
| N-NITROSO-DI-N-PROPYLAMINE | 330 | 370 U | UG/KG |
| PYRENE | 330 | 340 J | UG/KG |
| 2,4,6-TRICHLOROPHENOL | 330 | 370 U | UG/KG |
| 2,4,5-TRICHLOROPHENOL | 330 | 370 U | UG/KG |

| SURROGATE RECOVERIES | QC LIMITS | | |
|---|---|---|---|
| TERPHENYL-d14 | (48 - 131 %) | 77 | % |
| NITROBENZENE-d5 | (27 - 130 %) | 66 | % |
| PHENOL-d6 | (10 - 133 %) | 67 | % |
| 2-FLUOROBIPHENYL | (32 - 130 %) | 73 | % |
| 2-FLUOROPHENOL | (10 - 130 %) | 58 | % |
| 2,4,6-TRIBROMOPHENOL | (33 - 139 %) | 70 | % |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB2CA

**Date Sampled :** 12/14/05 14:41 **Order #:** 855809 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 95.9

DATE EXTRACTED : 12/27/05
DATE ANALYZED : 01/18/06
ANALYTICAL DILUTION: 1.00

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| | | | Dry Weight |
| ACENAPHTHENE | 330 | 200 J | UG/KG |
| ACENAPHTHYLENE | 330 | 340 U | UG/KG |
| ACETOPHENONE | 330 | 340 U | UG/KG |
| ANTHRACENE | 330 | 150 J | UG/KG |
| ATRAZINE | 330 | 340 U | UG/KG |
| BENZALDEHYDE | 330 | 1800 ~~340~~ U | UG/KG |
| BENZO(A)ANTHRACENE | 330 | 130 J | UG/KG |
| BENZO(A)PYRENE | 330 | 87 J | UG/KG |
| BENZO(B)FLUORANTHENE | 330 | 100 J | UG/KG |
| BENZO(G,H,I)PERYLENE | 330 | 47 J | UG/KG |
| BENZO(K)FLUORANTHENE | 330 | 86 J | UG/KG |
| 1,1'-BIPHENYL | 330 | 41 J | UG/KG |
| TTYL BENZYL PHTHALATE | 330 | 340 U | UG/KG |
| I-N-BUTYLPHTHALATE | 330 | 56 J | UG/KG |
| CAPROLACTAM | 330 | 340 U | UG/KG |
| CARBAZOLE | 330 | 340 U | UG/KG |
| INDENO(1,2,3-CD)PYRENE | 330 | 46 J | UG/KG |
| 4-CHLOROANILINE | 330 | 340 U | UG/KG |
| BIS(-2-CHLOROETHOXY)METHANE | 330 | 340 U | UG/KG |
| BIS(2-CHLOROETHYL)ETHER | 330 | 340 U | UG/KG |
| 2-CHLORONAPHTHALENE | 330 | 340 U | UG/KG |
| 2-CHLOROPHENOL | 330 | 340 U | UG/KG |
| 2,2'-OXYBIS(1-CHLOROPROPANE) | 330 | 340 U | UG/KG |
| CHRYSENE | 330 | 150 J | UG/KG |
| DIBENZO(A,H)ANTHRACENE | 330 | 340 U | UG/KG |
| DIBENZOFURAN | 330 | 160 J | UG/KG |
| 3,3'-DICHLOROBENZIDINE | 330 | 340 U | UG/KG |
| 2,4-DICHLOROPHENOL | 330 | 340 U | UG/KG |
| DIETHYLPHTHALATE | 330 | 340 U | UG/KG |
| DIMETHYL PHTHALATE | 330 | 340 U | UG/KG |
| 2,4-DIMETHYLPHENOL | 330 | 340 U | UG/KG |
| 2,4-DINITROPHENOL | 1700 | 1800 U | UG/KG |
| 2,4-DINITROTOLUENE | 330 | 340 U | UG/KG |
| 2,6-DINITROTOLUENE | 330 | 340 U | UG/KG |
| BIS(2-ETHYLHEXYL)PHTHALATE | 330 | 340 U | UG/KG |
| FLUORANTHENE | 330 | 450 | UG/KG |
| FLUORENE | 330 | 210 J | UG/KG |
| HEXACHLOROBENZENE | 330 | 340 U | UG/KG |
| XACHLOROBUTADIENE | 330 | 340 U | UG/KG |
| HEXACHLOROCYCLOPENTADIENE | 330 | 340 U | UG/KG |
| HEXACHLOROETHANE | 330 | 340 U | UG/KG |
| ISOPHORONE | 330 | 340 U | UG/KG |
| 2-METHYLNAPHTHALENE | 330 | 76 J | UG/KG |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB2CA

**Date Sampled :** 12/14/05 14:41 **Order #:** 855809 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 95.9

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/27/05 | | | |
| DATE ANALYZED : 01/18/06 | | | |
| ANALYTICAL DILUTION: 1.00 | | | Dry Weight |
| 4,6-DINITRO-2-METHYLPHENOL | 1700 | 1800 U | UG/KG |
| 4-CHLORO-3-METHYLPHENOL | 330 | 340 U | UG/KG |
| 2-METHYLPHENOL | 330 | 340 U | UG/KG |
| 4-METHYLPHENOL | 330 | 340 U | UG/KG |
| NAPHTHALENE | 330 | 97 J | UG/KG |
| 2-NITROANILINE | 1700 | 1800 U | UG/KG |
| 3-NITROANILINE | 1700 | 1800 U | UG/KG |
| 4-NITROANILINE | 1700 | 1800 U | UG/KG |
| NITROBENZENE | 330 | 340 U | UG/KG |
| 2-NITROPHENOL | 330 | 340 U | UG/KG |
| 4-NITROPHENOL | 1700 | 1800 U | UG/KG |
| N-NITROSODIPHENYLAMINE | 330 | 340 U | UG/KG |
| DI-N-OCTYL PHTHALATE | 330 | 340 U | UG/KG |
| PENTACHLOROPHENOL | 1700 | 1800 U | UG/KG |
| PHENANTHRENE | 330 | 600 | UG/KG |
| PHENOL | 330 | 340 U | UG/KG |
| 4-BROMOPHENYL-PHENYLETHER | 330 | 340 U | UG/KG |
| 4-CHLOROPHENYL-PHENYLETHER | 330 | 340 U | UG/KG |
| N-NITROSO-DI-N-PROPYLAMINE | 330 | 340 U | UG/KG |
| PYRENE | 330 | 300 J | UG/KG |
| 2,4,6-TRICHLOROPHENOL | 330 | 340 U | UG/KG |
| 2,4,5-TRICHLOROPHENOL | 330 | 340 U | UG/KG |

| SURROGATE RECOVERIES | QC LIMITS | | |
|---|---|---|---|
| TERPHENYL-d14 | (48 - 131 %) | 80 | % |
| NITROBENZENE-d5 | (27 - 130 %) | 69 | % |
| PHENOL-d6 | (10 - 133 %) | 68 | % |
| 2-FLUOROBIPHENYL | (32 - 130 %) | 77 | % |
| 2-FLUOROPHENOL | (10 - 130 %) | 58 | % |
| 2,4,6-TRIBROMOPHENOL | (33 - 139 %) | 74 | % |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB3AA

**Date Sampled :** 12/14/05 13:00 **Order #:** 855810 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 85.8

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/27/05 | | | |
| DATE ANALYZED : 01/18/06 | | | |
| ANALYTICAL DILUTION: 1.00 | | | Dry Weight |
| ACENAPHTHENE | 330 | 380 U | UG/KG |
| ACENAPHTHYLENE | 330 | 190 J | UG/KG |
| ACETOPHENONE | 330 | 380 U | UG/KG |
| ANTHRACENE | 330 | 140 J | UG/KG |
| ATRAZINE | 330 | 380 U | UG/KG |
| BENZALDEHYDE | 330 | 2000 ~~380~~ U | UG/KG |
| BENZO(A)ANTHRACENE | 330 | 510 | UG/KG |
| BENZO(A)PYRENE | 330 | 540 | UG/KG |
| BENZO(B)FLUORANTHENE | 330 | 440 | UG/KG |
| BENZO(G,H,I)PERYLENE | 330 | 330 J | UG/KG |
| BENZO(K)FLUORANTHENE | 330 | 500 | UG/KG |
| 1,1'-BIPHENYL | 330 | 380 U | UG/KG |
| TYL BENZYL PHTHALATE | 330 | 380 U | UG/KG |
| -N-BUTYLPHTHALATE | 330 | 380 U | UG/KG |
| CAPROLACTAM | 330 | 380 U | UG/KG |
| CARBAZOLE | 330 | 380 U | UG/KG |
| INDENO(1,2,3-CD)PYRENE | 330 | 300 J | UG/KG |
| 4-CHLOROANILINE | 330 | 380 U | UG/KG |
| BIS(-2-CHLOROETHOXY)METHANE | 330 | 380 U | UG/KG |
| BIS(2-CHLOROETHYL)ETHER | 330 | 380 U | UG/KG |
| 2-CHLORONAPHTHALENE | 330 | 380 U | UG/KG |
| 2-CHLOROPHENOL | 330 | 380 U | UG/KG |
| 2,2'-OXYBIS(1-CHLOROPROPANE) | 330 | 380 U | UG/KG |
| CHRYSENE | 330 | 490 | UG/KG |
| DIBENZO(A,H)ANTHRACENE | 330 | 98 J | UG/KG |
| DIBENZOFURAN | 330 | 380 U | UG/KG |
| 3,3'-DICHLOROBENZIDINE | 330 | 380 U | UG/KG |
| 2,4-DICHLOROPHENOL | 330 | 380 U | UG/KG |
| DIETHYLPHTHALATE | 330 | 380 U | UG/KG |
| DIMETHYL PHTHALATE | 330 | 380 U | UG/KG |
| 2,4-DIMETHYLPHENOL | 330 | 380 U | UG/KG |
| 2,4-DINITROPHENOL | 1700 | 2000 U | UG/KG |
| 2,4-DINITROTOLUENE | 330 | 380 U | UG/KG |
| 2,6-DINITROTOLUENE | 330 | 380 U | UG/KG |
| BIS(2-ETHYLHEXYL)PHTHALATE | 330 | 380 U | UG/KG |
| FLUORANTHENE | 330 | 960 | UG/KG |
| FLUORENE | 330 | 380 U | UG/KG |
| HEXACHLOROBENZENE | 330 | 380 U | UG/KG |
| XACHLOROBUTADIENE | 330 | 380 U | UG/KG |
| HEXACHLOROCYCLOPENTADIENE | 330 | 380 U | UG/KG |
| HEXACHLOROETHANE | 330 | 380 U | UG/KG |
| ISOPHORONE | 330 | 380 U | UG/KG |
| 2-METHYLNAPHTHALENE | 330 | 64 J | UG/KG |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB3AA

**Date Sampled :** 12/14/05 13:00 **Order #:** 855810 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 85.8

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/27/05 | | | |
| DATE ANALYZED : 01/18/06 | | | |
| ANALYTICAL DILUTION: 1.00 | | | Dry Weight |
| 4,6-DINITRO-2-METHYLPHENOL | 1700 | 2000 U | UG/KG |
| 4-CHLORO-3-METHYLPHENOL | 330 | 380 U | UG/KG |
| 2-METHYLPHENOL | 330 | 380 U | UG/KG |
| 4-METHYLPHENOL | 330 | 380 U | UG/KG |
| NAPHTHALENE | 330 | 70 J | UG/KG |
| 2-NITROANILINE | 1700 | 2000 U | UG/KG |
| 3-NITROANILINE | 1700 | 2000 U | UG/KG |
| 4-NITROANILINE | 1700 | 2000 U | UG/KG |
| NITROBENZENE | 330 | 380 U | UG/KG |
| 2-NITROPHENOL | 330 | 380 U | UG/KG |
| 4-NITROPHENOL | 1700 | 2000 U | UG/KG |
| N-NITROSODIPHENYLAMINE | 330 | 380 U | UG/KG |
| DI-N-OCTYL PHTHALATE | 330 | 380 U | UG/KG |
| PENTACHLOROPHENOL | 1700 | 2000 U | UG/KG |
| PHENANTHRENE | 330 | 340 J | UG/KG |
| PHENOL | 330 | 380 U | UG/KG |
| 4-BROMOPHENYL-PHENYLETHER | 330 | 380 U | UG/KG |
| 4-CHLOROPHENYL-PHENYLETHER | 330 | 380 U | UG/KG |
| N-NITROSO-DI-N-PROPYLAMINE | 330 | 380 U | UG/KG |
| PYRENE | 330 | 780 | UG/KG |
| 2,4,6-TRICHLOROPHENOL | 330 | 380 U | UG/KG |
| 2,4,5-TRICHLOROPHENOL | 330 | 380 U | UG/KG |

| SURROGATE RECOVERIES | QC LIMITS | | |
|---|---|---|---|
| TERPHENYL-d14 | (48 - 131 %) | 83 | % |
| NITROBENZENE-d5 | (27 - 130 %) | 76 | % |
| PHENOL-d6 | (10 - 133 %) | 73 | % |
| 2-FLUOROBIPHENYL | (32 - 130 %) | 81 | % |
| 2-FLUOROPHENOL | (10 - 130 %) | 62 | % |
| 2,4,6-TRIBROMOPHENOL | (33 - 139 %) | 78 | % |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB3BA

**Date Sampled :** 12/14/05 13:07 **Order #:** 855811 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 84.4

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/27/05 | | | |
| DATE ANALYZED : 01/18/06 | | | |
| ANALYTICAL DILUTION: 1.00 | | | Dry Weight |
| ACENAPHTHENE | 330 | 390 U | UG/KG |
| ACENAPHTHYLENE | 330 | 390 U | UG/KG |
| ACETOPHENONE | 330 | 390 U | UG/KG |
| ANTHRACENE | 330 | 390 U | UG/KG |
| ATRAZINE | 330 | 390 U | UG/KG |
| BENZALDEHYDE | 330 | 2000 ~~390~~ U | UG/KG |
| BENZO(A)ANTHRACENE | 330 | 390 U | UG/KG |
| BENZO(A)PYRENE | 330 | 390 U | UG/KG |
| BENZO(B)FLUORANTHENE | 330 | 390 U | UG/KG |
| BENZO(G,H,I)PERYLENE | 330 | 390 U | UG/KG |
| BENZO(K)FLUORANTHENE | 330 | 390 U | UG/KG |
| 1,1'-BIPHENYL | 330 | 390 U | UG/KG |
| BUTYL BENZYL PHTHALATE | 330 | 390 U | UG/KG |
| DI-N-BUTYLPHTHALATE | 330 | 390 U | UG/KG |
| CAPROLACTAM | 330 | 390 U | UG/KG |
| CARBAZOLE | 330 | 390 U | UG/KG |
| INDENO(1,2,3-CD)PYRENE | 330 | 390 U | UG/KG |
| 4-CHLOROANILINE | 330 | 390 U | UG/KG |
| BIS(-2-CHLOROETHOXY)METHANE | 330 | 390 U | UG/KG |
| BIS(2-CHLOROETHYL)ETHER | 330 | 390 U | UG/KG |
| 2-CHLORONAPHTHALENE | 330 | 390 U | UG/KG |
| 2-CHLOROPHENOL | 330 | 390 U | UG/KG |
| 2,2'-OXYBIS(1-CHLOROPROPANE) | 330 | 390 U | UG/KG |
| CHRYSENE | 330 | 390 U | UG/KG |
| DIBENZO(A,H)ANTHRACENE | 330 | 390 U | UG/KG |
| DIBENZOFURAN | 330 | 390 U | UG/KG |
| 3,3'-DICHLOROBENZIDINE | 330 | 390 U | UG/KG |
| 2,4-DICHLOROPHENOL | 330 | 390 U | UG/KG |
| DIETHYLPHTHALATE | 330 | 390 U | UG/KG |
| DIMETHYL PHTHALATE | 330 | 390 U | UG/KG |
| 2,4-DIMETHYLPHENOL | 330 | 390 U | UG/KG |
| 2,4-DINITROPHENOL | 1700 | 2000 U | UG/KG |
| 2,4-DINITROTOLUENE | 330 | 390 U | UG/KG |
| 2,6-DINITROTOLUENE | 330 | 390 U | UG/KG |
| BIS(2-ETHYLHEXYL)PHTHALATE | 330 | 390 U | UG/KG |
| FLUORANTHENE | 330 | 390 U | UG/KG |
| FLUORENE | 330 | 390 U | UG/KG |
| HEXACHLOROBENZENE | 330 | 390 U | UG/KG |
| HEXACHLOROBUTADIENE | 330 | 390 U | UG/KG |
| HEXACHLOROCYCLOPENTADIENE | 330 | 390 U | UG/KG |
| HEXACHLOROETHANE | 330 | 390 U | UG/KG |
| ISOPHORONE | 330 | 390 U | UG/KG |
| 2-METHYLNAPHTHALENE | 330 | 390 U | UG/KG |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB3BA

**Date Sampled :** 12/14/05 13:07 **Order #:** 855811 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 84.4

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/27/05 | | | |
| DATE ANALYZED : 01/18/06 | | | |
| ANALYTICAL DILUTION: 1.00 | | | Dry Weight |
| 4,6-DINITRO-2-METHYLPHENOL | 1700 | 2000 U | UG/KG |
| 4-CHLORO-3-METHYLPHENOL | 330 | 390 U | UG/KG |
| 2-METHYLPHENOL | 330 | 390 U | UG/KG |
| 4-METHYLPHENOL | 330 | 390 U | UG/KG |
| NAPHTHALENE | 330 | 390 U | UG/KG |
| 2-NITROANILINE | 1700 | 2000 U | UG/KG |
| 3-NITROANILINE | 1700 | 2000 U | UG/KG |
| 4-NITROANILINE | 1700 | 2000 U | UG/KG |
| NITROBENZENE | 330 | 390 U | UG/KG |
| 2-NITROPHENOL | 330 | 390 U | UG/KG |
| 4-NITROPHENOL | 1700 | 2000 U | UG/KG |
| N-NITROSODIPHENYLAMINE | 330 | 390 U | UG/KG |
| DI-N-OCTYL PHTHALATE | 330 | 390 U | UG/KG |
| PENTACHLOROPHENOL | 1700 | 2000 U | UG/KG |
| PHENANTHRENE | 330 | 390 U | UG/KG |
| PHENOL | 330 | 390 U | UG/KG |
| 4-BROMOPHENYL-PHENYLETHER | 330 | 390 U | UG/KG |
| 4-CHLOROPHENYL-PHENYLETHER | 330 | 390 U | UG/KG |
| N-NITROSO-DI-N-PROPYLAMINE | 330 | 390 U | UG/KG |
| PYRENE | 330 | 390 U | UG/KG |
| 2,4,6-TRICHLOROPHENOL | 330 | 390 U | UG/KG |
| 2,4,5-TRICHLOROPHENOL | 330 | 390 U | UG/KG |

| SURROGATE RECOVERIES | QC LIMITS | | |
|---|---|---|---|
| TERPHENYL-d14 | (48 - 131 %) | 86 | % |
| NITROBENZENE-d5 | (27 - 130 %) | 74 | % |
| PHENOL-d6 | (10 - 133 %) | 73 | % |
| 2-FLUOROBIPHENYL | (32 - 130 %) | 81 | % |
| 2-FLUOROPHENOL | (10 - 130 %) | 63 | % |
| 2,4,6-TRIBROMOPHENOL | (33 - 139 %) | 82 | % |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB3CA

**Date Sampled :** 12/14/05 13:45 **Order #:** 855812 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 93.5

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/27/05 | | | |
| DATE ANALYZED : 01/18/06 | | | |
| ANALYTICAL DILUTION: 6.00 | | | Dry Weight |
| ACENAPHTHENE | 330 | 2100 U | UG/KG |
| ACENAPHTHYLENE | 330 | 2100 U | UG/KG |
| ACETOPHENONE | 330 | 2100 U | UG/KG |
| ANTHRACENE | 330 | 2100 U | UG/KG |
| ATRAZINE | 330 | 2100 U | UG/KG |
| BENZALDEHYDE | 330 | 11,000 ~~2100~~ U | UG/KG |
| BENZO(A)ANTHRACENE | 330 | 2100 U | UG/KG |
| BENZO(A)PYRENE | 330 | 2100 U | UG/KG |
| BENZO(B)FLUORANTHENE | 330 | 2100 U | UG/KG |
| BENZO(G,H,I)PERYLENE | 330 | 2100 U | UG/KG |
| BENZO(K)FLUORANTHENE | 330 | 2100 U | UG/KG |
| 1,1'-BIPHENYL | 330 | 2100 U | UG/KG |
| JTYL BENZYL PHTHALATE | 330 | 2100 U | UG/KG |
| DI-N-BUTYLPHTHALATE | 330 | 2100 U | UG/KG |
| CAPROLACTAM | 330 | 2100 U | UG/KG |
| CARBAZOLE | 330 | 2100 U | UG/KG |
| INDENO(1,2,3-CD)PYRENE | 330 | 2100 U | UG/KG |
| 4-CHLOROANILINE | 330 | 2100 U | UG/KG |
| BIS(-2-CHLOROETHOXY)METHANE | 330 | 2100 U | UG/KG |
| BIS(2-CHLOROETHYL)ETHER | 330 | 2100 U | UG/KG |
| 2-CHLORONAPHTHALENE | 330 | 2100 U | UG/KG |
| 2-CHLOROPHENOL | 330 | 2100 U | UG/KG |
| 2,2'-OXYBIS(1-CHLOROPROPANE) | 330 | 2100 U | UG/KG |
| CHRYSENE | 330 | 240 J | UG/KG |
| DIBENZO(A,H)ANTHRACENE | 330 | 2100 U | UG/KG |
| DIBENZOFURAN | 330 | 2100 U | UG/KG |
| 3,3'-DICHLOROBENZIDINE | 330 | 2100 U | UG/KG |
| 2,4-DICHLOROPHENOL | 330 | 2100 U | UG/KG |
| DIETHYLPHTHALATE | 330 | 2100 U | UG/KG |
| DIMETHYL PHTHALATE | 330 | 2100 U | UG/KG |
| 2,4-DIMETHYLPHENOL | 330 | 2100 U | UG/KG |
| 2,4-DINITROPHENOL | 1700 | 11000 U | UG/KG |
| 2,4-DINITROTOLUENE | 330 | 2100 U | UG/KG |
| 2,6-DINITROTOLUENE | 330 | 2100 U | UG/KG |
| BIS(2-ETHYLHEXYL)PHTHALATE | 330 | 2100 U | UG/KG |
| FLUORANTHENE | 330 | 620 J | UG/KG |
| FLUORENE | 330 | 2100 U | UG/KG |
| 'EXACHLOROBENZENE | 330 | 2100 U | UG/KG |
| .EXACHLOROBUTADIENE | 330 | 2100 U | UG/KG |
| HEXACHLOROCYCLOPENTADIENE | 330 | 2100 U | UG/KG |
| HEXACHLOROETHANE | 330 | 2100 U | UG/KG |
| ISOPHORONE | 330 | 2100 U | UG/KG |
| 2-METHYLNAPHTHALENE | 330 | 2100 U | UG/KG |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB3CA

**Date Sampled :** 12/14/05 13:45 **Order #:** 855812 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 93.5

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/27/05 | | | |
| DATE ANALYZED : 01/18/06 | | | |
| ANALYTICAL DILUTION: 6.00 | | | Dry Weight |
| 4,6-DINITRO-2-METHYLPHENOL | 1700 | 11000 U | UG/KG |
| 4-CHLORO-3-METHYLPHENOL | 330 | 2100 U | UG/KG |
| 2-METHYLPHENOL | 330 | 2100 U | UG/KG |
| 4-METHYLPHENOL | 330 | 2100 U | UG/KG |
| NAPHTHALENE | 330 | 2100 U | UG/KG |
| 2-NITROANILINE | 1700 | 11000 U | UG/KG |
| 3-NITROANILINE | 1700 | 11000 U | UG/KG |
| 4-NITROANILINE | 1700 | 11000 U | UG/KG |
| NITROBENZENE | 330 | 2100 U | UG/KG |
| 2-NITROPHENOL | 330 | 2100 U | UG/KG |
| 4-NITROPHENOL | 1700 | 11000 U | UG/KG |
| N-NITROSODIPHENYLAMINE | 330 | 2100 U | UG/KG |
| DI-N-OCTYL PHTHALATE | 330 | 2100 U | UG/KG |
| PENTACHLOROPHENOL | 1700 | 11000 U | UG/KG |
| PHENANTHRENE | 330 | 410 J | UG/KG |
| PHENOL | 330 | 2100 U | UG/KG |
| 4-BROMOPHENYL-PHENYLETHER | 330 | 2100 U | UG/KG |
| 4-CHLOROPHENYL-PHENYLETHER | 330 | 2100 U | UG/KG |
| N-NITROSO-DI-N-PROPYLAMINE | 330 | 2100 U | UG/KG |
| PYRENE | 330 | 460 J | UG/KG |
| 2,4,6-TRICHLOROPHENOL | 330 | 2100 U | UG/KG |
| 2,4,5-TRICHLOROPHENOL | 330 | 2100 U | UG/KG |

| SURROGATE RECOVERIES | QC LIMITS | | |
|---|---|---|---|
| TERPHENYL-d14 | (48 - 131 %) | 90 | % |
| NITROBENZENE-d5 | (27 - 130 %) | 61 | % |
| PHENOL-d6 | (10 - 133 %) | 78 | % |
| 2-FLUOROBIPHENYL | (32 - 130 %) | 65 | % |
| 2-FLUOROPHENOL | (10 - 130 %) | 59 | % |
| 2,4,6-TRIBROMOPHENOL | (33 - 139 %) | 67 | % |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB6CA

**Date Sampled :** 12/14/05 10:12 **Order #:** 855822 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 86.1

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/27/05 | | | |
| DATE ANALYZED : 01/20/06 | | | |
| ANALYTICAL DILUTION: 1.00 | | | Dry Weight |
| ACENAPHTHENE | 330 | 91 J | UG/KG |
| ACENAPHTHYLENE | 330 | 230 J | UG/KG |
| ACETOPHENONE | 330 | 380 U | UG/KG |
| ANTHRACENE | 330 | 370 J | UG/KG |
| ATRAZINE | 330 | 380 U | UG/KG |
| BENZALDEHYDE | 330 | 2000 ~~380~~ U | UG/KG |
| BENZO(A)ANTHRACENE | 330 | 770 | UG/KG |
| BENZO(A)PYRENE | 330 | 720 | UG/KG |
| BENZO(B)FLUORANTHENE | 330 | 660 | UG/KG |
| BENZO(G,H,I)PERYLENE | 330 | 460 | UG/KG |
| BENZO(K)FLUORANTHENE | 330 | 730 | UG/KG |
| 1,1'-BIPHENYL | 330 | 39 J | UG/KG |
| BUTYL BENZYL PHTHALATE | 330 | 380 U | UG/KG |
| DI-N-BUTYLPHTHALATE | 330 | 380 U | UG/KG |
| CAPROLACTAM | 330 | 380 U | UG/KG |
| CARBAZOLE | 330 | 130 J | UG/KG |
| INDENO(1,2,3-CD)PYRENE | 330 | 430 | UG/KG |
| 4-CHLOROANILINE | 330 | 380 U | UG/KG |
| BIS(-2-CHLOROETHOXY)METHANE | 330 | 380 U | UG/KG |
| BIS(2-CHLOROETHYL)ETHER | 330 | 380 U | UG/KG |
| 2-CHLORONAPHTHALENE | 330 | 380 U | UG/KG |
| 2-CHLOROPHENOL | 330 | 380 U | UG/KG |
| 2,2'-OXYBIS(1-CHLOROPROPANE) | 330 | 380 U | UG/KG |
| CHRYSENE | 330 | 810 | UG/KG |
| DIBENZO(A,H)ANTHRACENE | 330 | 140 J | UG/KG |
| DIBENZOFURAN | 330 | 170 J | UG/KG |
| 3,3'-DICHLOROBENZIDINE | 330 | 380 U | UG/KG |
| 2,4-DICHLOROPHENOL | 330 | 380 U | UG/KG |
| DIETHYLPHTHALATE | 330 | 380 U | UG/KG |
| DIMETHYL PHTHALATE | 330 | 380 U | UG/KG |
| 2,4-DIMETHYLPHENOL | 330 | 380 U | UG/KG |
| 2,4-DINITROPHENOL | 1700 | 2000 U | UG/KG |
| 2,4-DINITROTOLUENE | 330 | 380 U | UG/KG |
| 2,6-DINITROTOLUENE | 330 | 380 U | UG/KG |
| BIS(2-ETHYLHEXYL)PHTHALATE | 330 | 380 U | UG/KG |
| FLUORANTHENE | 330 | 1600 | UG/KG |
| FLUORENE | 330 | 230 J | UG/KG |
| HEXACHLOROBENZENE | 330 | 380 U | UG/KG |
| HEXACHLOROBUTADIENE | 330 | 380 U | UG/KG |
| HEXACHLOROCYCLOPENTADIENE | 330 | 380 U | UG/KG |
| HEXACHLOROETHANE | 330 | 380 U | UG/KG |
| ISOPHORONE | 330 | 380 U | UG/KG |
| 2-METHYLNAPHTHALENE | 330 | 210 J | UG/KG |

108

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB6CA

**Date Sampled :** 12/14/05 10:12 **Order #:** 855822 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 86.1

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/27/05 | | | |
| DATE ANALYZED : 01/20/06 | | | |
| ANALYTICAL DILUTION: 1.00 | | | Dry Weight |
| 4,6-DINITRO-2-METHYLPHENOL | 1700 | 2000 U | UG/KG |
| 4-CHLORO-3-METHYLPHENOL | 330 | 380 U | UG/KG |
| 2-METHYLPHENOL | 330 | 380 U | UG/KG |
| 4-METHYLPHENOL | 330 | 380 U | UG/KG |
| NAPHTHALENE | 330 | 370 J | UG/KG |
| 2-NITROANILINE | 1700 | 2000 U | UG/KG |
| 3-NITROANILINE | 1700 | 2000 U | UG/KG |
| 4-NITROANILINE | 1700 | 2000 U | UG/KG |
| NITROBENZENE | 330 | 380 U | UG/KG |
| 2-NITROPHENOL | 330 | 380 U | UG/KG |
| 4-NITROPHENOL | 1700 | 2000 U | UG/KG |
| N-NITROSODIPHENYLAMINE | 330 | 380 U | UG/KG |
| DI-N-OCTYL PHTHALATE | 330 | 380 U | UG/KG |
| PENTACHLOROPHENOL | 1700 | 2000 U | UG/KG |
| PHENANTHRENE | 330 | 1400 | UG/KG |
| PHENOL | 330 | 380 U | UG/KG |
| 4-BROMOPHENYL-PHENYLETHER | 330 | 380 U | UG/KG |
| 4-CHLOROPHENYL-PHENYLETHER | 330 | 380 U | UG/KG |
| N-NITROSO-DI-N-PROPYLAMINE | 330 | 380 U | UG/KG |
| PYRENE | 330 | 1200 | UG/KG |
| 2,4,6-TRICHLOROPHENOL | 330 | 380 U | UG/KG |
| 2,4,5-TRICHLOROPHENOL | 330 | 380 U | UG/KG |

| SURROGATE RECOVERIES | QC LIMITS | | |
|---|---|---|---|
| TERPHENYL-d14 | (48 - 131 %) | 85 | % |
| NITROBENZENE-d5 | (27 - 130 %) | 77 | % |
| PHENOL-d6 | (10 - 133 %) | 73 | % |
| 2-FLUOROBIPHENYL | (32 - 130 %) | 84 | % |
| 2-FLUOROPHENOL | (10 - 130 %) | 64 | % |
| 2,4,6-TRIBROMOPHENOL | (33 - 139 %) | 59 | % |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB2AC

**Date Sampled :** 12/14/05 07:30 **Order #:** 855823 **Sample Matrix:** WATER
**Date Received:** 12/15/05 **Submission #:** R2528608 **Analytical Run** 124914

DATE EXTRACTED : 12/19/05
DATE ANALYZED : 01/06/06
ANALYTICAL DILUTION: 1.00

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| ACENAPHTHENE | 10 | 10 U | UG/L |
| ACENAPHTHYLENE | 10 | 10 U | UG/L |
| ACETOPHENONE | 10 | 10 U | UG/L |
| ANTHRACENE | 10 | 10 U | UG/L |
| ATRAZINE | 10 | 10 U | UG/L |
| BENZALDEHYDE | 10 | 50 ~~10~~ U | UG/L |
| BENZO(A)ANTHRACENE | 10 | 10 U | UG/L |
| BENZO(A)PYRENE | 10 | 10 U | UG/L |
| BENZO(B)FLUORANTHENE | 10 | 10 U | UG/L |
| BENZO(G,H,I)PERYLENE | 10 | 10 U | UG/L |
| BENZO(K)FLUORANTHENE | 10 | 10 U | UG/L |
| 1,1'-BIPHENYL | 10 | 10 U | UG/L |
| BUTYL BENZYL PHTHALATE | 10 | 10 U | UG/L |
| DI-N-BUTYLPHTHALATE | 10 | 10 U | UG/L |
| CAPROLACTAM | 10 | 10 U | UG/L |
| CARBAZOLE | 10 | 10 U | UG/L |
| INDENO(1,2,3-CD)PYRENE | 10 | 10 U | UG/L |
| 4-CHLOROANILINE | 10 | 10 U | UG/L |
| BIS(-2-CHLOROETHOXY)METHANE | 10 | 10 U | UG/L |
| BIS(2-CHLOROETHYL)ETHER | 10 | 10 U | UG/L |
| 2-CHLORONAPHTHALENE | 10 | 10 U | UG/L |
| 2-CHLOROPHENOL | 10 | 10 U | UG/L |
| 2,2'-OXYBIS(1-CHLOROPROPANE) | 10 | 10 U | UG/L |
| CHRYSENE | 10 | 10 U | UG/L |
| DIBENZO(A,H)ANTHRACENE | 10 | 10 U | UG/L |
| DIBENZOFURAN | 10 | 10 U | UG/L |
| 3,3'-DICHLOROBENZIDINE | 10 | 10 U | UG/L |
| 2,4-DICHLOROPHENOL | 10 | 10 U | UG/L |
| DIETHYLPHTHALATE | 10 | 10 U | UG/L |
| DIMETHYL PHTHALATE | 10 | 10 U | UG/L |
| 2,4-DIMETHYLPHENOL | 10 | 10 U | UG/L |
| 2,4-DINITROPHENOL | 50 | 50 U | UG/L |
| 2,4-DINITROTOLUENE | 10 | 10 U | UG/L |
| 2,6-DINITROTOLUENE | 10 | 10 U | UG/L |
| BIS(2-ETHYLHEXYL)PHTHALATE | 10 | 10 U | UG/L |
| FLUORANTHENE | 10 | 10 U | UG/L |
| FLUORENE | 10 | 10 U | UG/L |
| HEXACHLOROBENZENE | 10 | 10 U | UG/L |
| HEXACHLOROBUTADIENE | 10 | 10 U | UG/L |
| HEXACHLOROCYCLOPENTADIENE | 10 | 10 U | UG/L |
| HEXACHLOROETHANE | 10 | 10 U | UG/L |
| ISOPHORONE | 10 | 10 U | UG/L |
| 2-METHYLNAPHTHALENE | 10 | 10 U | UG/L |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB2AC

**Date Sampled :** 12/14/05 07:30 **Order #:** 855823 **Sample Matrix:** WATER
**Date Received:** 12/15/05 **Submission #:** R2528608 **Analytical Run** 124914

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/19/05 | | | |
| DATE ANALYZED : 01/06/06 | | | |
| ANALYTICAL DILUTION: 1.00 | | | |
| 4,6-DINITRO-2-METHYLPHENOL | 50 | 50 U | UG/L |
| 4-CHLORO-3-METHYLPHENOL | 10 | 10 U | UG/L |
| 2-METHYLPHENOL | 10 | 10 U | UG/L |
| 4-METHYLPHENOL | 10 | 10 U | UG/L |
| NAPHTHALENE | 10 | 10 U | UG/L |
| 2-NITROANILINE | 50 | 50 U | UG/L |
| 3-NITROANILINE | 50 | 50 U | UG/L |
| 4-NITROANILINE | 50 | 50 U | UG/L |
| NITROBENZENE | 10 | 10 U | UG/L |
| 2-NITROPHENOL | 10 | 10 U | UG/L |
| 4-NITROPHENOL | 50 | 50 U | UG/L |
| N-NITROSODIPHENYLAMINE | 10 | 10 U | UG/L |
| DI-N-OCTYL PHTHALATE | 10 | 10 U | UG/L |
| PENTACHLOROPHENOL | 50 | 50 U | UG/L |
| PHENANTHRENE | 10 | 10 U | UG/L |
| PHENOL | 10 | 10 U | UG/L |
| 4-BROMOPHENYL-PHENYLETHER | 10 | 10 U | UG/L |
| 4-CHLOROPHENYL-PHENYLETHER | 10 | 10 U | UG/L |
| N-NITROSO-DI-N-PROPYLAMINE | 10 | 10 U | UG/L |
| PYRENE | 10 | 10 U | UG/L |
| 2,4,6-TRICHLOROPHENOL | 10 | 10 U | UG/L |
| 2,4,5-TRICHLOROPHENOL | 10 | 10 U | UG/L |

| SURROGATE RECOVERIES | QC LIMITS | | |
|---|---|---|---|
| TERPHENYL-d14 | (40 - 137 %) | 95 | % |
| NITROBENZENE-d5 | (38 - 105 %) | 87 | % |
| PHENOL-d6 | (10 - 69 %) | 31 | % |
| 2-FLUOROBIPHENYL | (38 - 100 %) | 79 | % |
| 2-FLUOROPHENOL | (17 - 74 %) | 44 | % |
| 2,4,6-TRIBROMOPHENOL | (41 - 135 %) | 78 | % |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB5AA

**Date Sampled :** 12/14/05 09:00 **Order #:** 855817 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 87.8

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/27/05 | | | |
| DATE ANALYZED : 01/20/06 | | | |
| ANALYTICAL DILUTION: 3.00 | | | Dry Weight |
| ACENAPHTHENE | 330 | 1100 U | UG/KG |
| ACENAPHTHYLENE | 330 | 400 J | UG/KG |
| ACETOPHENONE | 330 | 1100 U | UG/KG |
| ANTHRACENE | 330 | 310 J | UG/KG |
| ATRAZINE | 330 | 1100 U | UG/KG |
| BENZALDEHYDE | 330 | 5800 ~~1100~~ U | UG/KG |
| BENZO(A)ANTHRACENE | 330 | 5400 | UG/KG |
| BENZO(A)PYRENE | 330 | 3300 | UG/KG |
| BENZO(B)FLUORANTHENE | 330 | 4200 | UG/KG |
| BENZO(G,H,I)PERYLENE | 330 | 1400 | UG/KG |
| BENZO(K)FLUORANTHENE | 330 | 3900 | UG/KG |
| 1,1'-BIPHENYL | 330 | 1100 U | UG/KG |
| UTYL BENZYL PHTHALATE | 330 | 1100 U | UG/KG |
| I-N-BUTYLPHTHALATE | 330 | 1100 U | UG/KG |
| CAPROLACTAM | 330 | 1100 U | UG/KG |
| CARBAZOLE | 330 | 160 J | UG/KG |
| INDENO(1,2,3-CD)PYRENE | 330 | 1600 | UG/KG |
| 4-CHLOROANILINE | 330 | 1100 U | UG/KG |
| BIS(-2-CHLOROETHOXY)METHANE | 330 | 1100 U | UG/KG |
| BIS(2-CHLOROETHYL)ETHER | 330 | 1100 U | UG/KG |
| 2-CHLORONAPHTHALENE | 330 | 1100 U | UG/KG |
| 2-CHLOROPHENOL | 330 | 1100 U | UG/KG |
| 2,2'-OXYBIS(1-CHLOROPROPANE) | 330 | 1100 U | UG/KG |
| CHRYSENE | 330 | 6400 | UG/KG |
| DIBENZO(A,H)ANTHRACENE | 330 | 590 J | UG/KG |
| DIBENZOFURAN | 330 | 1100 U | UG/KG |
| 3,3'-DICHLOROBENZIDINE | 330 | 1100 U | UG/KG |
| 2,4-DICHLOROPHENOL | 330 | 1100 U | UG/KG |
| DIETHYLPHTHALATE | 330 | 1100 U | UG/KG |
| DIMETHYL PHTHALATE | 330 | 1100 U | UG/KG |
| 2,4-DIMETHYLPHENOL | 330 | 1100 U | UG/KG |
| 2,4-DINITROPHENOL | 1700 | 5800 U | UG/KG |
| 2,4-DINITROTOLUENE | 330 | 1100 U | UG/KG |
| 2,6-DINITROTOLUENE | 330 | 1100 U | UG/KG |
| BIS(2-ETHYLHEXYL)PHTHALATE | 330 | 1100 U | UG/KG |
| FLUORANTHENE | 330 | 11000 | UG/KG |
| FLUORENE | 330 | 1100 U | UG/KG |
| HEXACHLOROBENZENE | 330 | 1100 U | UG/KG |
| EXACHLOROBUTADIENE | 330 | 1100 U | UG/KG |
| HEXACHLOROCYCLOPENTADIENE | 330 | 1100 U | UG/KG |
| HEXACHLOROETHANE | 330 | 1100 U | UG/KG |
| ISOPHORONE | 330 | 1100 U | UG/KG |
| 2-METHYLNAPHTHALENE | 330 | 1100 U | UG/KG |

98

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB5AA

**Date Sampled :** 12/14/05 09:00 **Order #:** 855817 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 87.8

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/27/05 | | | |
| DATE ANALYZED : 01/20/06 | | | |
| ANALYTICAL DILUTION: 3.00 | | | Dry Weight |
| 4,6-DINITRO-2-METHYLPHENOL | 1700 | 5800 U | UG/KG |
| 4-CHLORO-3-METHYLPHENOL | 330 | 1100 U | UG/KG |
| 2-METHYLPHENOL | 330 | 1100 U | UG/KG |
| 4-METHYLPHENOL | 330 | 1100 U | UG/KG |
| NAPHTHALENE | 330 | 1100 U | UG/KG |
| 2-NITROANILINE | 1700 | 5800 U | UG/KG |
| 3-NITROANILINE | 1700 | 5800 U | UG/KG |
| 4-NITROANILINE | 1700 | 5800 U | UG/KG |
| NITROBENZENE | 330 | 1100 U | UG/KG |
| 2-NITROPHENOL | 330 | 1100 U | UG/KG |
| 4-NITROPHENOL | 1700 | 5800 U | UG/KG |
| N-NITROSODIPHENYLAMINE | 330 | 1100 U | UG/KG |
| DI-N-OCTYL PHTHALATE | 330 | 1100 U | UG/KG |
| PENTACHLOROPHENOL | 1700 | 5800 U | UG/KG |
| PHENANTHRENE | 330 | 430 J | UG/KG |
| PHENOL | 330 | 1100 U | UG/KG |
| 4-BROMOPHENYL-PHENYLETHER | 330 | 1100 U | UG/KG |
| 4-CHLOROPHENYL-PHENYLETHER | 330 | 1100 U | UG/KG |
| N-NITROSO-DI-N-PROPYLAMINE | 330 | 1100 U | UG/KG |
| PYRENE | 330 | 10000 | UG/KG |
| 2,4,6-TRICHLOROPHENOL | 330 | 1100 U | UG/KG |
| 2,4,5-TRICHLOROPHENOL | 330 | 1100 U | UG/KG |

| SURROGATE RECOVERIES | QC LIMITS | | |
|---|---|---|---|
| TERPHENYL-d14 | (48 - 131 %) | 81 | % |
| NITROBENZENE-d5 | (27 - 130 %) | 63 | % |
| PHENOL-d6 | (10 - 133 %) | 65 | % |
| 2-FLUOROBIPHENYL | (32 - 130 %) | 74 | % |
| 2-FLUOROPHENOL | (10 - 130 %) | 54 | % |
| 2,4,6-TRIBROMOPHENOL | (33 - 139 %) | 58 | % |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB5CA

**Date Sampled :** 12/14/05 09:27 **Order #:** 855819 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 86.7

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/27/05 | | | |
| DATE ANALYZED : 01/20/06 | | | |
| ANALYTICAL DILUTION: 2.00 | | | Dry Weight |
| ACENAPHTHENE | 330 | 760 U | UG/KG |
| ACENAPHTHYLENE | 330 | 760 U | UG/KG |
| ACETOPHENONE | 330 | 760 U | UG/KG |
| ANTHRACENE | 330 | 360 J | UG/KG |
| ATRAZINE | 330 | 760 U | UG/KG |
| BENZALDEHYDE | 330 | 8900 ~~760~~ U | UG/KG |
| BENZO(A)ANTHRACENE | 330 | 750 J | UG/KG |
| BENZO(A)PYRENE | 330 | 800 | UG/KG |
| BENZO(B)FLUORANTHENE | 330 | 810 | UG/KG |
| BENZO(G,H,I)PERYLENE | 330 | 580 J | UG/KG |
| BENZO(K)FLUORANTHENE | 330 | 610 J | UG/KG |
| 1,1'-BIPHENYL | 330 | 760 U | UG/KG |
| UTYL BENZYL PHTHALATE | 330 | 760 U | UG/KG |
| I-N-BUTYLPHTHALATE | 330 | 760 U | UG/KG |
| CAPROLACTAM | 330 | 760 U | UG/KG |
| CARBAZOLE | 330 | 760 U | UG/KG |
| INDENO(1,2,3-CD)PYRENE | 330 | 390 J | UG/KG |
| 4-CHLOROANILINE | 330 | 760 U | UG/KG |
| BIS(-2-CHLOROETHOXY)METHANE | 330 | 760 U | UG/KG |
| BIS(2-CHLOROETHYL)ETHER | 330 | 760 U | UG/KG |
| 2-CHLORONAPHTHALENE | 330 | 760 U | UG/KG |
| 2-CHLOROPHENOL | 330 | 760 U | UG/KG |
| 2,2'-OXYBIS(1-CHLOROPROPANE) | 330 | 760 U | UG/KG |
| CHRYSENE | 330 | 1000 | UG/KG |
| DIBENZO(A,H)ANTHRACENE | 330 | 220 J | UG/KG |
| DIBENZOFURAN | 330 | 100 J | UG/KG |
| 3,3'-DICHLOROBENZIDINE | 330 | 760 U | UG/KG |
| 2,4-DICHLOROPHENOL | 330 | 760 U | UG/KG |
| DIETHYLPHTHALATE | 330 | 760 U | UG/KG |
| DIMETHYL PHTHALATE | 330 | 760 U | UG/KG |
| 2,4-DIMETHYLPHENOL | 330 | 760 U | UG/KG |
| 2,4-DINITROPHENOL | 1700 | 3900 U | UG/KG |
| 2,4-DINITROTOLUENE | 330 | 760 U | UG/KG |
| 2,6-DINITROTOLUENE | 330 | 760 U | UG/KG |
| BIS(2-ETHYLHEXYL)PHTHALATE | 330 | 160 J | UG/KG |
| FLUORANTHENE | 330 | 1000 | UG/KG |
| FLUORENE | 330 | 160 J | UG/KG |
| HEXACHLOROBENZENE | 330 | 760 U | UG/KG |
| EXACHLOROBUTADIENE | 330 | 760 U | UG/KG |
| HEXACHLOROCYCLOPENTADIENE | 330 | 760 U | UG/KG |
| HEXACHLOROETHANE | 330 | 760 U | UG/KG |
| ISOPHORONE | 330 | 760 U | UG/KG |
| 2-METHYLNAPHTHALENE | 330 | 180 J | UG/KG |

102

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB5CA

**Date Sampled :** 12/14/05 09:27 **Order #:** 855819 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 86.7

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/27/05 | | | |
| DATE ANALYZED : 01/20/06 | | | |
| ANALYTICAL DILUTION: 2.00 | | | Dry Weight |
| 4,6-DINITRO-2-METHYLPHENOL | 1700 | 3900 U | UG/KG |
| 4-CHLORO-3-METHYLPHENOL | 330 | 760 U | UG/KG |
| 2-METHYLPHENOL | 330 | 760 U | UG/KG |
| 4-METHYLPHENOL | 330 | 760 U | UG/KG |
| NAPHTHALENE | 330 | 3100 | UG/KG |
| 2-NITROANILINE | 1700 | 3900 U | UG/KG |
| 3-NITROANILINE | 1700 | 3900 U | UG/KG |
| 4-NITROANILINE | 1700 | 3900 U | UG/KG |
| NITROBENZENE | 330 | 760 U | UG/KG |
| 2-NITROPHENOL | 330 | 760 U | UG/KG |
| 4-NITROPHENOL | 1700 | 3900 U | UG/KG |
| N-NITROSODIPHENYLAMINE | 330 | 760 U | UG/KG |
| DI-N-OCTYL PHTHALATE | 330 | 760 U | UG/KG |
| PENTACHLOROPHENOL | 1700 | 3900 U | UG/KG |
| PHENANTHRENE | 330 | 880 | UG/KG |
| PHENOL | 330 | 760 U | UG/KG |
| 4-BROMOPHENYL-PHENYLETHER | 330 | 760 U | UG/KG |
| 4-CHLOROPHENYL-PHENYLETHER | 330 | 760 U | UG/KG |
| N-NITROSO-DI-N-PROPYLAMINE | 330 | 760 U | UG/KG |
| PYRENE | 330 | 930 | UG/KG |
| 2,4,6-TRICHLOROPHENOL | 330 | 760 U | UG/KG |
| 2,4,5-TRICHLOROPHENOL | 330 | 760 U | UG/KG |

| SURROGATE RECOVERIES | QC LIMITS | | |
|---|---|---|---|
| TERPHENYL-d14 | (48 - 131 %) | 81 | % |
| NITROBENZENE-d5 | (27 - 130 %) | 70 | % |
| PHENOL-d6 | (10 - 133 %) | 67 | % |
| 2-FLUOROBIPHENYL | (32 - 130 %) | 78 | % |
| 2-FLUOROPHENOL | (10 - 130 %) | 57 | % |
| 2,4,6-TRIBROMOPHENOL | (33 - 139 %) | 60 | % |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB1CA

**Date Sampled :** 12/14/05 08:39 **Order #:** 855795 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 87.9

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/27/05 | | | |
| DATE ANALYZED : 01/18/06 | | | |
| ANALYTICAL DILUTION: 3.00 | | | Dry Weight |
| ACENAPHTHENE | 330 | 1100 U | UG/KG |
| ACENAPHTHYLENE | 330 | 1100 U | UG/KG |
| ACETOPHENONE | 330 | 1100 U | UG/KG |
| ANTHRACENE | 330 | 170 J | UG/KG |
| ATRAZINE | 330 | 1100 U | UG/KG |
| BENZALDEHYDE | 330 | 5800 ~~1100~~ U | UG/KG |
| BENZO(A)ANTHRACENE | 330 | 470 J | UG/KG |
| BENZO(A)PYRENE | 330 | 720 J | UG/KG |
| BENZO(B)FLUORANTHENE | 330 | 510 J | UG/KG |
| BENZO(G,H,I)PERYLENE | 330 | 440 J | UG/KG |
| BENZO(K)FLUORANTHENE | 330 | 220 J | UG/KG |
| 1,1'-BIPHENYL | 330 | 1100 U | UG/KG |
| TYL BENZYL PHTHALATE | 330 | 1100 U | UG/KG |
| -N-BUTYLPHTHALATE | 330 | 1100 U | UG/KG |
| CAPROLACTAM | 330 | 1100 U | UG/KG |
| CARBAZOLE | 330 | 1100 U | UG/KG |
| INDENO(1,2,3-CD)PYRENE | 330 | 240 J | UG/KG |
| 4-CHLOROANILINE | 330 | 1100 U | UG/KG |
| BIS(-2-CHLOROETHOXY)METHANE | 330 | 1100 U | UG/KG |
| BIS(2-CHLOROETHYL)ETHER | 330 | 1100 U | UG/KG |
| 2-CHLORONAPHTHALENE | 330 | 1100 U | UG/KG |
| 2-CHLOROPHENOL | 330 | 1100 U | UG/KG |
| 2,2'-OXYBIS(1-CHLOROPROPANE) | 330 | 1100 U | UG/KG |
| CHRYSENE | 330 | 1300 | UG/KG |
| DIBENZO(A,H)ANTHRACENE | 330 | 160 J | UG/KG |
| DIBENZOFURAN | 330 | 1100 U | UG/KG |
| 3,3'-DICHLOROBENZIDINE | 330 | 1100 U | UG/KG |
| 2,4-DICHLOROPHENOL | 330 | 1100 U | UG/KG |
| DIETHYLPHTHALATE | 330 | 1100 U | UG/KG |
| DIMETHYL PHTHALATE | 330 | 1100 U | UG/KG |
| 2,4-DIMETHYLPHENOL | 330 | 1100 U | UG/KG |
| 2,4-DINITROPHENOL | 1700 | 5800 U | UG/KG |
| 2,4-DINITROTOLUENE | 330 | 1100 U | UG/KG |
| 2,6-DINITROTOLUENE | 330 | 1100 U | UG/KG |
| BIS(2-ETHYLHEXYL)PHTHALATE | 330 | 1100 U | UG/KG |
| FLUORANTHENE | 330 | 400 J | UG/KG |
| FLUORENE | 330 | 1100 U | UG/KG |
| EXACHLOROBENZENE | 330 | 1100 U | UG/KG |
| XACHLOROBUTADIENE | 330 | 1100 U | UG/KG |
| HEXACHLOROCYCLOPENTADIENE | 330 | 1100 U | UG/KG |
| HEXACHLOROETHANE | 330 | 1100 U | UG/KG |
| ISOPHORONE | 330 | 1100 U | UG/KG |
| 2-METHYLNAPHTHALENE | 330 | 190 J | UG/KG |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB1CA

**Date Sampled :** 12/14/05 08:39 **Order #:** 855795 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 87.9

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/27/05 | | | |
| DATE ANALYZED : 01/18/06 | | | |
| ANALYTICAL DILUTION: 3.00 | | | Dry Weight |
| 4,6-DINITRO-2-METHYLPHENOL | 1700 | 5800 U | UG/KG |
| 4-CHLORO-3-METHYLPHENOL | 330 | 1100 U | UG/KG |
| 2-METHYLPHENOL | 330 | 1100 U | UG/KG |
| 4-METHYLPHENOL | 330 | 1100 U | UG/KG |
| NAPHTHALENE | 330 | 200 J | UG/KG |
| 2-NITROANILINE | 1700 | 5800 U | UG/KG |
| 3-NITROANILINE | 1700 | 5800 U | UG/KG |
| 4-NITROANILINE | 1700 | 5800 U | UG/KG |
| NITROBENZENE | 330 | 1100 U | UG/KG |
| 2-NITROPHENOL | 330 | 1100 U | UG/KG |
| 4-NITROPHENOL | 1700 | 5800 U | UG/KG |
| N-NITROSODIPHENYLAMINE | 330 | 1100 U | UG/KG |
| DI-N-OCTYL PHTHALATE | 330 | 1100 U | UG/KG |
| PENTACHLOROPHENOL | 1700 | 5800 U | UG/KG |
| PHENANTHRENE | 330 | 400 J | UG/KG |
| PHENOL | 330 | 1100 U | UG/KG |
| 4-BROMOPHENYL-PHENYLETHER | 330 | 1100 U | UG/KG |
| 4-CHLOROPHENYL-PHENYLETHER | 330 | 1100 U | UG/KG |
| N-NITROSO-DI-N-PROPYLAMINE | 330 | 1100 U | UG/KG |
| PYRENE | 330 | 930 J | UG/KG |
| 2,4,6-TRICHLOROPHENOL | 330 | 1100 U | UG/KG |
| 2,4,5-TRICHLOROPHENOL | 330 | 1100 U | UG/KG |

| SURROGATE RECOVERIES | QC LIMITS | | |
|---|---|---|---|
| TERPHENYL-d14 | (48 - 131 %) | 89 | % |
| NITROBENZENE-d5 | (27 - 130 %) | 80 | % |
| PHENOL-d6 | (10 - 133 %) | 78 | % |
| 2-FLUOROBIPHENYL | (32 - 130 %) | 93 | % |
| 2-FLUOROPHENOL | (10 - 130 %) | 65 | % |
| 2,4,6-TRIBROMOPHENOL | (33 - 139 %) | 78 | % |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB6AA

**Date Sampled :** 12/14/05 09:56 **Order #:** 855820 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 87.7

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/27/05 | | | |
| DATE ANALYZED : 01/20/06 | | | |
| ANALYTICAL DILUTION: 1.00 | | | Dry Weight |
| ACENAPHTHENE | 330 | 380 U | UG/KG |
| ACENAPHTHYLENE | 330 | 110 J | UG/KG |
| ACETOPHENONE | 330 | 380 U | UG/KG |
| ANTHRACENE | 330 | 110 J | UG/KG |
| ATRAZINE | 330 | 380 U | UG/KG |
| BENZALDEHYDE | 330 | 1900 ~~380~~ U | UG/KG |
| BENZO(A)ANTHRACENE | 330 | 390 | UG/KG |
| BENZO(A)PYRENE | 330 | 420 | UG/KG |
| BENZO(B)FLUORANTHENE | 330 | 490 | UG/KG |
| BENZO(G,H,I)PERYLENE | 330 | 330 J | UG/KG |
| BENZO(K)FLUORANTHENE | 330 | 440 | UG/KG |
| 1,1'-BIPHENYL | 330 | 380 U | UG/KG |
| BUTYL BENZYL PHTHALATE | 330 | 380 U | UG/KG |
| DI-N-BUTYLPHTHALATE | 330 | 380 U | UG/KG |
| CAPROLACTAM | 330 | 380 U | UG/KG |
| CARBAZOLE | 330 | 380 U | UG/KG |
| INDENO(1,2,3-CD)PYRENE | 330 | 300 J | UG/KG |
| 4-CHLOROANILINE | 330 | 380 U | UG/KG |
| BIS(-2-CHLOROETHOXY)METHANE | 330 | 380 U | UG/KG |
| BIS(2-CHLOROETHYL)ETHER | 330 | 380 U | UG/KG |
| 2-CHLORONAPHTHALENE | 330 | 380 U | UG/KG |
| 2-CHLOROPHENOL | 330 | 380 U | UG/KG |
| 2,2'-OXYBIS(1-CHLOROPROPANE) | 330 | 380 U | UG/KG |
| CHRYSENE | 330 | 440 | UG/KG |
| DIBENZO(A,H)ANTHRACENE | 330 | 100 J | UG/KG |
| DIBENZOFURAN | 330 | 43 J | UG/KG |
| 3,3'-DICHLOROBENZIDINE | 330 | 380 U | UG/KG |
| 2,4-DICHLOROPHENOL | 330 | 380 U | UG/KG |
| DIETHYLPHTHALATE | 330 | 380 U | UG/KG |
| DIMETHYL PHTHALATE | 330 | 380 U | UG/KG |
| 2,4-DIMETHYLPHENOL | 330 | 380 U | UG/KG |
| 2,4-DINITROPHENOL | 1700 | 1900 U | UG/KG |
| 2,4-DINITROTOLUENE | 330 | 380 U | UG/KG |
| 2,6-DINITROTOLUENE | 330 | 380 U | UG/KG |
| BIS(2-ETHYLHEXYL)PHTHALATE | 330 | 380 U | UG/KG |
| FLUORANTHENE | 330 | 640 | UG/KG |
| FLUORENE | 330 | 380 U | UG/KG |
| HEXACHLOROBENZENE | 330 | 380 U | UG/KG |
| HEXACHLOROBUTADIENE | 330 | 380 U | UG/KG |
| HEXACHLOROCYCLOPENTADIENE | 330 | 380 U | UG/KG |
| HEXACHLOROETHANE | 330 | 380 U | UG/KG |
| ISOPHORONE | 330 | 380 U | UG/KG |
| 2-METHYLNAPHTHALENE | 330 | 130 J | UG/KG |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB6AA

**Date Sampled :** 12/14/05 09:56 **Order #:** 855820 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 87.7

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/27/05 | | | |
| DATE ANALYZED : 01/20/06 | | | |
| ANALYTICAL DILUTION: 1.00 | | | Dry Weight |
| 4,6-DINITRO-2-METHYLPHENOL | 1700 | 1900 U | UG/KG |
| 4-CHLORO-3-METHYLPHENOL | 330 | 380 U | UG/KG |
| 2-METHYLPHENOL | 330 | 380 U | UG/KG |
| 4-METHYLPHENOL | 330 | 380 U | UG/KG |
| NAPHTHALENE | 330 | 110 J | UG/KG |
| 2-NITROANILINE | 1700 | 1900 U | UG/KG |
| 3-NITROANILINE | 1700 | 1900 U | UG/KG |
| 4-NITROANILINE | 1700 | 1900 U | UG/KG |
| NITROBENZENE | 330 | 380 U | UG/KG |
| 2-NITROPHENOL | 330 | 380 U | UG/KG |
| 4-NITROPHENOL | 1700 | 1900 U | UG/KG |
| N-NITROSODIPHENYLAMINE | 330 | 380 U | UG/KG |
| DI-N-OCTYL PHTHALATE | 330 | 380 U | UG/KG |
| PENTACHLOROPHENOL | 1700 | 1900 U | UG/KG |
| PHENANTHRENE | 330 | 300 J | UG/KG |
| PHENOL | 330 | 380 U | UG/KG |
| 4-BROMOPHENYL-PHENYLETHER | 330 | 380 U | UG/KG |
| 4-CHLOROPHENYL-PHENYLETHER | 330 | 380 U | UG/KG |
| N-NITROSO-DI-N-PROPYLAMINE | 330 | 380 U | UG/KG |
| PYRENE | 330 | 570 | UG/KG |
| 2,4,6-TRICHLOROPHENOL | 330 | 380 U | UG/KG |
| 2,4,5-TRICHLOROPHENOL | 330 | 380 U | UG/KG |

| SURROGATE RECOVERIES | QC LIMITS | | |
|---|---|---|---|
| TERPHENYL-d14 | (48 - 131 %) | 83 | % |
| NITROBENZENE-d5 | (27 - 130 %) | 71 | % |
| PHENOL-d6 | (10 - 133 %) | 68 | % |
| 2-FLUOROBIPHENYL | (32 - 130 %) | 80 | % |
| 2-FLUOROPHENOL | (10 - 130 %) | 57 | % |
| 2,4,6-TRIBROMOPHENOL | (33 - 139 %) | 70 | % |

**COLUMBIA ANALYTICAL SERVICES**

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB6BA

**Date Sampled :** 12/14/05 10:06 **Order #:** 855821 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 85.1

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/27/05 | | | |
| DATE ANALYZED : 01/20/06 | | | |
| ANALYTICAL DILUTION: 1.00 | | | Dry Weight |
| ACENAPHTHENE | 330 | 390 U | UG/KG |
| ACENAPHTHYLENE | 330 | 140 J | UG/KG |
| ACETOPHENONE | 330 | 390 U | UG/KG |
| ANTHRACENE | 330 | 190 J | UG/KG |
| ATRAZINE | 330 | 390 U | UG/KG |
| BENZALDEHYDE | 330 | 2000 ~~390~~ U | UG/KG |
| BENZO(A)ANTHRACENE | 330 | 630 | UG/KG |
| BENZO(A)PYRENE | 330 | 560 | UG/KG |
| BENZO(B)FLUORANTHENE | 330 | 610 | UG/KG |
| BENZO(G,H,I)PERYLENE | 330 | 350 J | UG/KG |
| BENZO(K)FLUORANTHENE | 330 | 600 | UG/KG |
| 1,1'-BIPHENYL | 330 | 390 U | UG/KG |
| BUTYL BENZYL PHTHALATE | 330 | 390 U | UG/KG |
| DI-N-BUTYLPHTHALATE | 330 | 390 U | UG/KG |
| CAPROLACTAM | 330 | 390 U | UG/KG |
| CARBAZOLE | 330 | 390 U | UG/KG |
| INDENO(1,2,3-CD)PYRENE | 330 | 350 J | UG/KG |
| 4-CHLOROANILINE | 330 | 390 U | UG/KG |
| BIS(-2-CHLOROETHOXY)METHANE | 330 | 390 U | UG/KG |
| BIS(2-CHLOROETHYL)ETHER | 330 | 390 U | UG/KG |
| 2-CHLORONAPHTHALENE | 330 | 390 U | UG/KG |
| 2-CHLOROPHENOL | 330 | 390 U | UG/KG |
| 2,2'-OXYBIS(1-CHLOROPROPANE) | 330 | 390 U | UG/KG |
| CHRYSENE | 330 | 680 | UG/KG |
| DIBENZO(A,H)ANTHRACENE | 330 | 120 J | UG/KG |
| DIBENZOFURAN | 330 | 43 J | UG/KG |
| 3,3'-DICHLOROBENZIDINE | 330 | 390 U | UG/KG |
| 2,4-DICHLOROPHENOL | 330 | 390 U | UG/KG |
| DIETHYLPHTHALATE | 330 | 390 U | UG/KG |
| DIMETHYL PHTHALATE | 330 | 390 U | UG/KG |
| 2,4-DIMETHYLPHENOL | 330 | 390 U | UG/KG |
| 2,4-DINITROPHENOL | 1700 | 2000 U | UG/KG |
| 2,4-DINITROTOLUENE | 330 | 390 U | UG/KG |
| 2,6-DINITROTOLUENE | 330 | 390 U | UG/KG |
| BIS(2-ETHYLHEXYL)PHTHALATE | 330 | 390 U | UG/KG |
| FLUORANTHENE | 330 | 990 | UG/KG |
| FLUORENE | 330 | 41 J | UG/KG |
| HEXACHLOROBENZENE | 330 | 390 U | UG/KG |
| HEXACHLOROBUTADIENE | 330 | 390 U | UG/KG |
| HEXACHLOROCYCLOPENTADIENE | 330 | 390 U | UG/KG |
| HEXACHLOROETHANE | 330 | 390 U | UG/KG |
| ISOPHORONE | 330 | 390 U | UG/KG |
| 2-METHYLNAPHTHALENE | 330 | 74 J | UG/KG |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB6BA

**Date Sampled :** 12/14/05 10:06 **Order #:** 855821 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 85.1

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/27/05 | | | |
| DATE ANALYZED : 01/20/06 | | | |
| ANALYTICAL DILUTION: 1.00 | | | Dry Weight |
| 4,6-DINITRO-2-METHYLPHENOL | 1700 | 2000 U | UG/KG |
| 4-CHLORO-3-METHYLPHENOL | 330 | 390 U | UG/KG |
| 2-METHYLPHENOL | 330 | 390 U | UG/KG |
| 4-METHYLPHENOL | 330 | 390 U | UG/KG |
| NAPHTHALENE | 330 | 94 J | UG/KG |
| 2-NITROANILINE | 1700 | 2000 U | UG/KG |
| 3-NITROANILINE | 1700 | 2000 U | UG/KG |
| 4-NITROANILINE | 1700 | 2000 U | UG/KG |
| NITROBENZENE | 330 | 390 U | UG/KG |
| 2-NITROPHENOL | 330 | 390 U | UG/KG |
| 4-NITROPHENOL | 1700 | 2000 U | UG/KG |
| N-NITROSODIPHENYLAMINE | 330 | 390 U | UG/KG |
| DI-N-OCTYL PHTHALATE | 330 | 390 U | UG/KG |
| PENTACHLOROPHENOL | 1700 | 2000 U | UG/KG |
| PHENANTHRENE | 330 | 340 J | UG/KG |
| PHENOL | 330 | 390 U | UG/KG |
| 4-BROMOPHENYL-PHENYLETHER | 330 | 390 U | UG/KG |
| 4-CHLOROPHENYL-PHENYLETHER | 330 | 390 U | UG/KG |
| N-NITROSO-DI-N-PROPYLAMINE | 330 | 390 U | UG/KG |
| PYRENE | 330 | 830 | UG/KG |
| 2,4,6-TRICHLOROPHENOL | 330 | 390 U | UG/KG |
| 2,4,5-TRICHLOROPHENOL | 330 | 390 U | UG/KG |

| SURROGATE RECOVERIES | QC LIMITS | | |
|---|---|---|---|
| TERPHENYL-d14 | (48 - 131 %) | 82 | % |
| NITROBENZENE-d5 | (27 - 130 %) | 68 | % |
| PHENOL-d6 | (10 - 133 %) | 69 | % |
| 2-FLUOROBIPHENYL | (32 - 130 %) | 75 | % |
| 2-FLUOROPHENOL | (10 - 130 %) | 60 | % |
| 2,4,6-TRIBROMOPHENOL | (33 - 139 %) | 74 | % |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB5BA

**Date Sampled :** 12/14/05 09:19 **Order #:** 855818 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 87.7

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/27/05 | | | |
| DATE ANALYZED : 01/20/06 | | | |
| ANALYTICAL DILUTION: 1.00 | | | Dry Weight |
| ACENAPHTHENE | 330 | 380 U | UG/KG |
| ACENAPHTHYLENE | 330 | 380 U | UG/KG |
| ACETOPHENONE | 330 | 380 U | UG/KG |
| ANTHRACENE | 330 | 47 J | UG/KG |
| ATRAZINE | 330 | 380 U | UG/KG |
| BENZALDEHYDE | 330 | 1900 ~~380~~ U | UG/KG |
| BENZO(A)ANTHRACENE | 330 | 140 J | UG/KG |
| BENZO(A)PYRENE | 330 | 160 J | UG/KG |
| BENZO(B)FLUORANTHENE | 330 | 180 J | UG/KG |
| BENZO(G,H,I)PERYLENE | 330 | 150 J | UG/KG |
| BENZO(K)FLUORANTHENE | 330 | 150 J | UG/KG |
| 1,1'-BIPHENYL | 330 | 380 U | UG/KG |
| TTYL BENZYL PHTHALATE | 330 | 380 U | UG/KG |
| I-N-BUTYLPHTHALATE | 330 | 52 J | UG/KG |
| CAPROLACTAM | 330 | 380 U | UG/KG |
| CARBAZOLE | 330 | 380 U | UG/KG |
| INDENO(1,2,3-CD)PYRENE | 330 | 130 J | UG/KG |
| 4-CHLOROANILINE | 330 | 380 U | UG/KG |
| BIS(-2-CHLOROETHOXY)METHANE | 330 | 380 U | UG/KG |
| BIS(2-CHLOROETHYL)ETHER | 330 | 380 U | UG/KG |
| 2-CHLORONAPHTHALENE | 330 | 380 U | UG/KG |
| 2-CHLOROPHENOL | 330 | 380 U | UG/KG |
| 2,2'-OXYBIS(1-CHLOROPROPANE) | 330 | 380 U | UG/KG |
| CHRYSENE | 330 | 180 J | UG/KG |
| DIBENZO(A,H)ANTHRACENE | 330 | 46 J | UG/KG |
| DIBENZOFURAN | 330 | 380 U | UG/KG |
| 3,3'-DICHLOROBENZIDINE | 330 | 380 U | UG/KG |
| 2,4-DICHLOROPHENOL | 330 | 380 U | UG/KG |
| DIETHYLPHTHALATE | 330 | 380 U | UG/KG |
| DIMETHYL PHTHALATE | 330 | 380 U | UG/KG |
| 2,4-DIMETHYLPHENOL | 330 | 380 U | UG/KG |
| 2,4-DINITROPHENOL | 1700 | 1900 U | UG/KG |
| 2,4-DINITROTOLUENE | 330 | 380 U | UG/KG |
| 2,6-DINITROTOLUENE | 330 | 380 U | UG/KG |
| BIS(2-ETHYLHEXYL)PHTHALATE | 330 | 380 U | UG/KG |
| FLUORANTHENE | 330 | 270 J | UG/KG |
| FLUORENE | 330 | 380 U | UG/KG |
| "EXACHLOROBENZENE | 330 | 380 U | UG/KG |
| XACHLOROBUTADIENE | 330 | 380 U | UG/KG |
| HEXACHLOROCYCLOPENTADIENE | 330 | 380 U | UG/KG |
| EXACHLOROETHANE | 330 | 380 U | UG/KG |
| ISOPHORONE | 330 | 380 U | UG/KG |
| 2-METHYLNAPHTHALENE | 330 | 46 J | UG/KG |

100

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB5BA

**Date Sampled :** 12/14/05 09:19 **Order #:** 855818 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 87.7

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/27/05 | | | |
| DATE ANALYZED : 01/20/06 | | | |
| ANALYTICAL DILUTION: 1.00 | | | Dry Weight |
| 4,6-DINITRO-2-METHYLPHENOL | 1700 | 1900 U | UG/KG |
| 4-CHLORO-3-METHYLPHENOL | 330 | 380 U | UG/KG |
| 2-METHYLPHENOL | 330 | 380 U | UG/KG |
| 4-METHYLPHENOL | 330 | 380 U | UG/KG |
| NAPHTHALENE | 330 | 41 J | UG/KG |
| 2-NITROANILINE | 1700 | 1900 U | UG/KG |
| 3-NITROANILINE | 1700 | 1900 U | UG/KG |
| 4-NITROANILINE | 1700 | 1900 U | UG/KG |
| NITROBENZENE | 330 | 380 U | UG/KG |
| 2-NITROPHENOL | 330 | 380 U | UG/KG |
| 4-NITROPHENOL | 1700 | 1900 U | UG/KG |
| N-NITROSODIPHENYLAMINE | 330 | 380 U | UG/KG |
| DI-N-OCTYL PHTHALATE | 330 | 380 U | UG/KG |
| PENTACHLOROPHENOL | 1700 | 1900 U | UG/KG |
| PHENANTHRENE | 330 | 140 J | UG/KG |
| PHENOL | 330 | 380 U | UG/KG |
| 4-BROMOPHENYL-PHENYLETHER | 330 | 380 U | UG/KG |
| 4-CHLOROPHENYL-PHENYLETHER | 330 | 380 U | UG/KG |
| N-NITROSO-DI-N-PROPYLAMINE | 330 | 380 U | UG/KG |
| PYRENE | 330 | 230 J | UG/KG |
| 2,4,6-TRICHLOROPHENOL | 330 | 380 U | UG/KG |
| 2,4,5-TRICHLOROPHENOL | 330 | 380 U | UG/KG |

| SURROGATE RECOVERIES | QC LIMITS | | |
|---|---|---|---|
| TERPHENYL-d14 | (48 - 131 %) | 85 | % |
| NITROBENZENE-d5 | (27 - 130 %) | 70 | % |
| PHENOL-d6 | (10 - 133 %) | 68 | % |
| 2-FLUOROBIPHENYL | (32 - 130 %) | 78 | % |
| 2-FLUOROPHENOL | (10 - 130 %) | 60 | % |
| 2,4,6-TRIBROMOPHENOL | (33 - 139 %) | 73 | % |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB1BA

**Date Sampled :** 12/14/05 08:29 **Order #:** 855794 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 91.7

| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/27/05 | | | |
| DATE ANALYZED : 01/17/06 | | | |
| ANALYTICAL DILUTION: 1.00 | | | Dry Weight |
| ACENAPHTHENE | 330 | 360 U | UG/KG |
| ACENAPHTHYLENE | 330 | 360 U | UG/KG |
| ACETOPHENONE | 330 | 360 U | UG/KG |
| ANTHRACENE | 330 | 360 U | UG/KG |
| ATRAZINE | 330 | 360 U | UG/KG |
| BENZALDEHYDE | 330 | 1900 ~~360~~ U | UG/KG |
| BENZO(A)ANTHRACENE | 330 | 80 J | UG/KG |
| BENZO(A)PYRENE | 330 | 82 J | UG/KG |
| BENZO(B)FLUORANTHENE | 330 | 71 J | UG/KG |
| BENZO(G,H,I)PERYLENE | 330 | 360 U | UG/KG |
| BENZO(K)FLUORANTHENE | 330 | 73 J | UG/KG |
| 1,1'-BIPHENYL | 330 | 360 U | UG/KG |
| BUTYL BENZYL PHTHALATE | 330 | 360 U | UG/KG |
| DI-N-BUTYLPHTHALATE | 330 | 96 J | UG/KG |
| CAPROLACTAM | 330 | 360 U | UG/KG |
| CARBAZOLE | 330 | 360 U | UG/KG |
| INDENO(1,2,3-CD)PYRENE | 330 | 52 J | UG/KG |
| 4-CHLOROANILINE | 330 | 360 U | UG/KG |
| BIS(-2-CHLOROETHOXY)METHANE | 330 | 360 U | UG/KG |
| BIS(2-CHLOROETHYL)ETHER | 330 | 360 U | UG/KG |
| 2-CHLORONAPHTHALENE | 330 | 360 U | UG/KG |
| 2-CHLOROPHENOL | 330 | 360 U | UG/KG |
| 2,2'-OXYBIS(1-CHLOROPROPANE) | 330 | 360 U | UG/KG |
| CHRYSENE | 330 | 95 J | UG/KG |
| DIBENZO(A,H)ANTHRACENE | 330 | 360 U | UG/KG |
| DIBENZOFURAN | 330 | 360 U | UG/KG |
| 3,3'-DICHLOROBENZIDINE | 330 | 360 U | UG/KG |
| 2,4-DICHLOROPHENOL | 330 | 360 U | UG/KG |
| DIETHYLPHTHALATE | 330 | 360 U | UG/KG |
| DIMETHYL PHTHALATE | 330 | 360 U | UG/KG |
| 2,4-DIMETHYLPHENOL | 330 | 360 U | UG/KG |
| 2,4-DINITROPHENOL | 1700 | ~~1900 U~~ R | UG/KG |
| 2,4-DINITROTOLUENE | 330 | 360 U | UG/KG |
| 2,6-DINITROTOLUENE | 330 | 360 U | UG/KG |
| BIS(2-ETHYLHEXYL)PHTHALATE | 330 | 360 U | UG/KG |
| FLUORANTHENE | 330 | 150 J | UG/KG |
| FLUORENE | 330 | 360 U | UG/KG |
| HEXACHLOROBENZENE | 330 | 360 U | UG/KG |
| HEXACHLOROBUTADIENE | 330 | 360 UJ | UG/KG |
| HEXACHLOROCYCLOPENTADIENE | 330 | 360 U | UG/KG |
| HEXACHLOROETHANE | 330 | 360 U | UG/KG |
| ISOPHORONE | 330 | 360 U | UG/KG |
| 2-METHYLNAPHTHALENE | 330 | 360 U | UG/KG |

COLUMBIA ANALYTICAL SERVICES

**EXTRACTABLE ORGANICS**
METHOD 8270C SEMIVOLATILES
Reported: 02/27/06

ENSR International
**Project Reference:** AK STEEL AOC 12
**Client Sample ID :** AOC12SB1BA

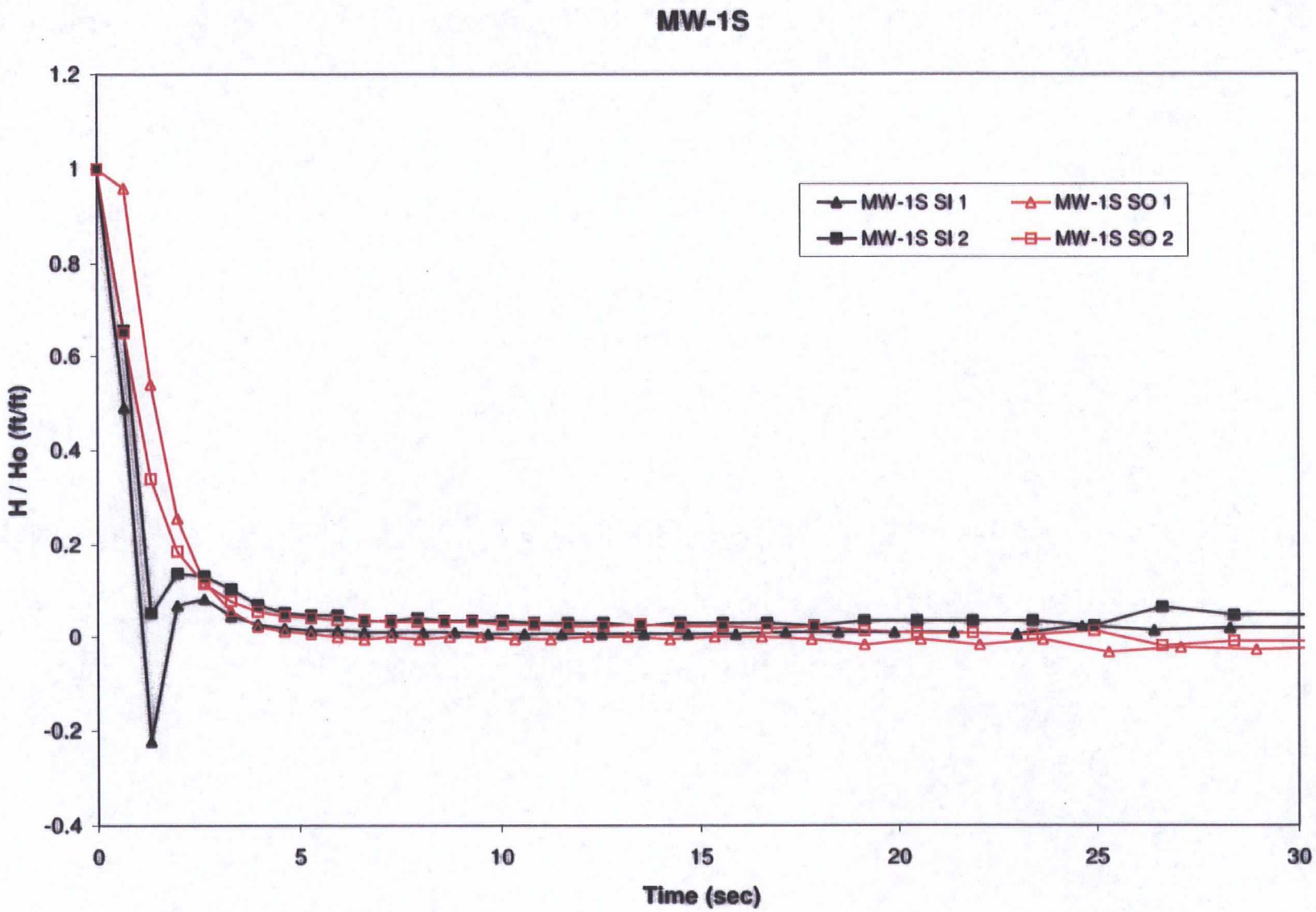
**Date Sampled :** 12/14/05 08:29 **Order #:** 855794 **Sample Matrix:** SOIL/SEDIMENT
**Date Received:** 12/15/05 **Submission #:** R2528608 **Percent Solid:** 91.7

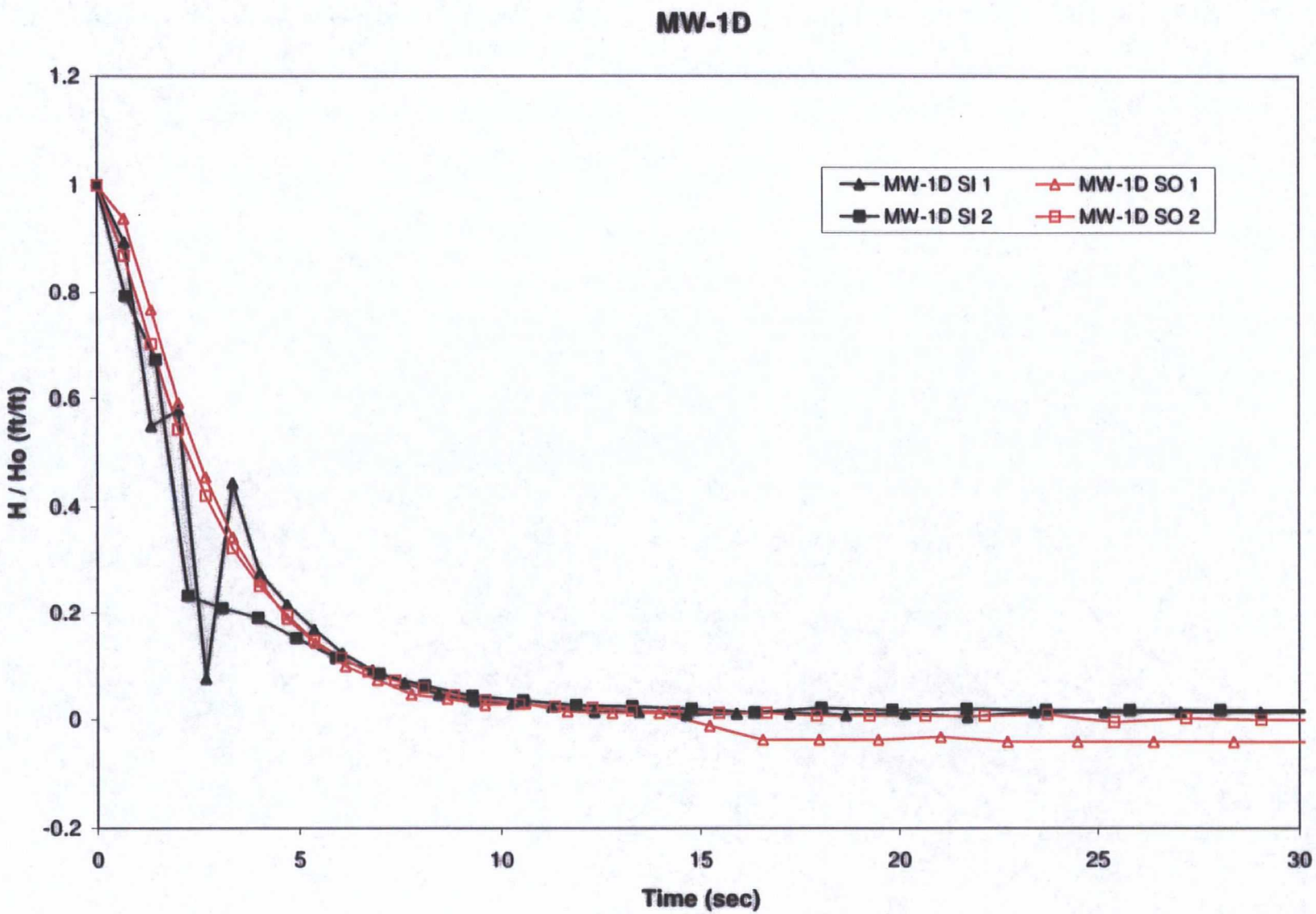
| ANALYTE | PQL | RESULT | UNITS |
|---|---|---|---|
| DATE EXTRACTED : 12/27/05 | | | |
| DATE ANALYZED : 01/17/06 | | | |
| ANALYTICAL DILUTION: 1.00 | | | Dry Weight |
| 4,6-DINITRO-2-METHYLPHENOL | 1700 | 1900 UJ | UG/KG |
| 4-CHLORO-3-METHYLPHENOL | 330 | 360 U | UG/KG |
| 2-METHYLPHENOL | 330 | 360 U | UG/KG |
| 4-METHYLPHENOL | 330 | 360 U | UG/KG |
| NAPHTHALENE | 330 | 360 U | UG/KG |
| 2-NITROANILINE | 1700 | 1900 U | UG/KG |
| 3-NITROANILINE | 1700 | 1900 U | UG/KG |
| 4-NITROANILINE | 1700 | 1900 U | UG/KG |
| NITROBENZENE | 330 | 360 U | UG/KG |
| 2-NITROPHENOL | 330 | 360 U | UG/KG |
| 4-NITROPHENOL | 1700 | 1900 U | UG/KG |
| N-NITROSODIPHENYLAMINE | 330 | 360 U | UG/KG |
| DI-N-OCTYL PHTHALATE | 330 | 360 U | UG/KG |
| PENTACHLOROPHENOL | 1700 | ~~1900 U~~ | UG/KG |
| PHENANTHRENE | 330 | 89 J | UG/KG |
| PHENOL | 330 | 360 U | UG/KG |
| 4-BROMOPHENYL-PHENYLETHER | 330 | 360 U | UG/KG |
| 4-CHLOROPHENYL-PHENYLETHER | 330 | 360 U | UG/KG |
| N-NITROSO-DI-N-PROPYLAMINE | 330 | 360 U | UG/KG |
| PYRENE | 330 | 130 J | UG/KG |
| 2,4,6-TRICHLOROPHENOL | 330 | 360 U | UG/KG |
| 2,4,5-TRICHLOROPHENOL | 330 | 360 U | UG/KG |

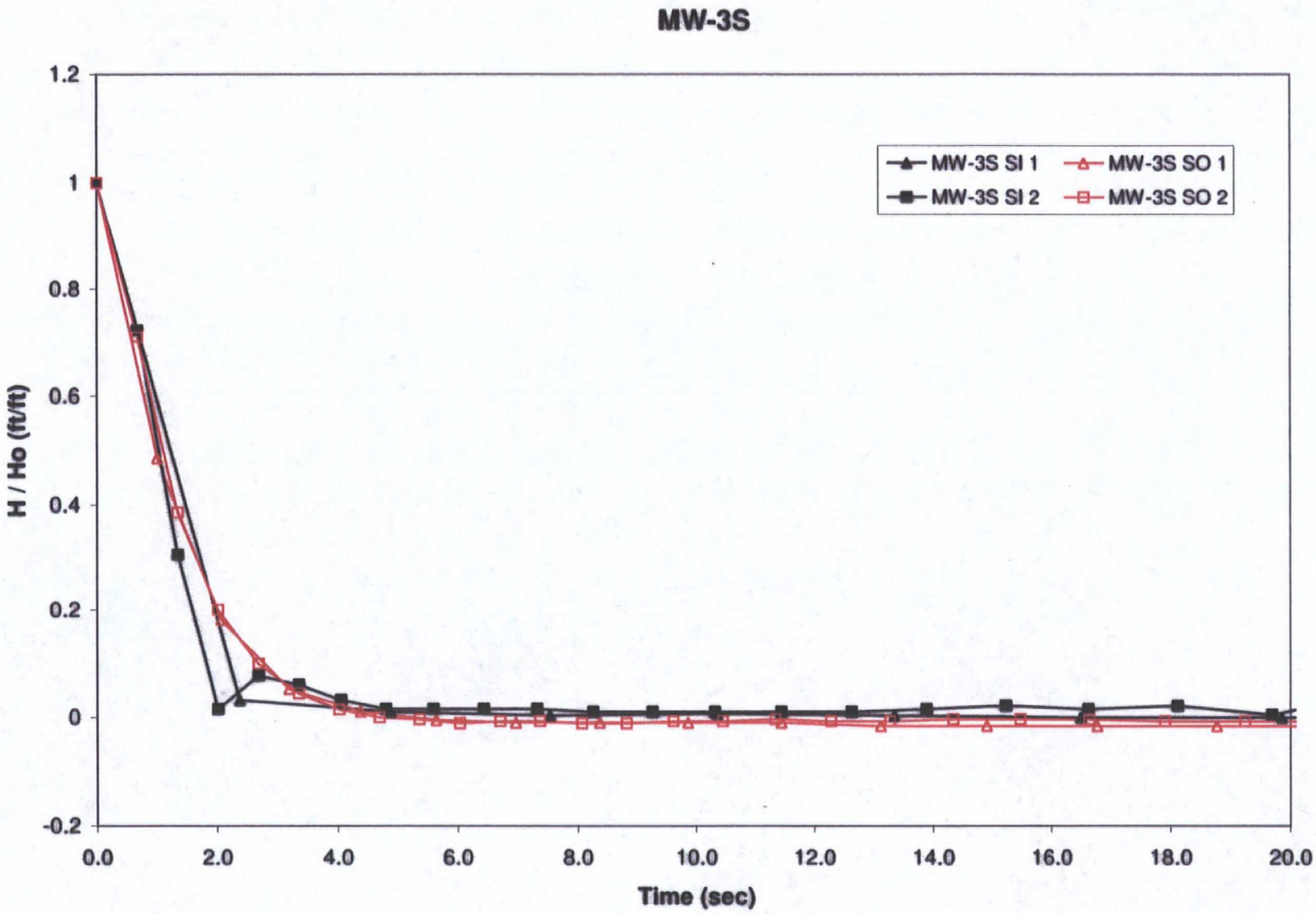
| SURROGATE RECOVERIES | QC LIMITS | | |
|---|---|---|---|
| TERPHENYL-d14 | (48 - 131 %) | 85 | % |
| NITROBENZENE-d5 | (27 - 130 %) | 73 | % |
| PHENOL-d6 | (10 - 133 %) | 69 | % |
| 2-FLUOROBIPHENYL | (32 - 130 %) | 79 | % |
| 2-FLUOROPHENOL | (10 - 130 %) | 60 | % |
| 2,4,6-TRIBROMOPHENOL | (33 - 139 %) | 70 | % |

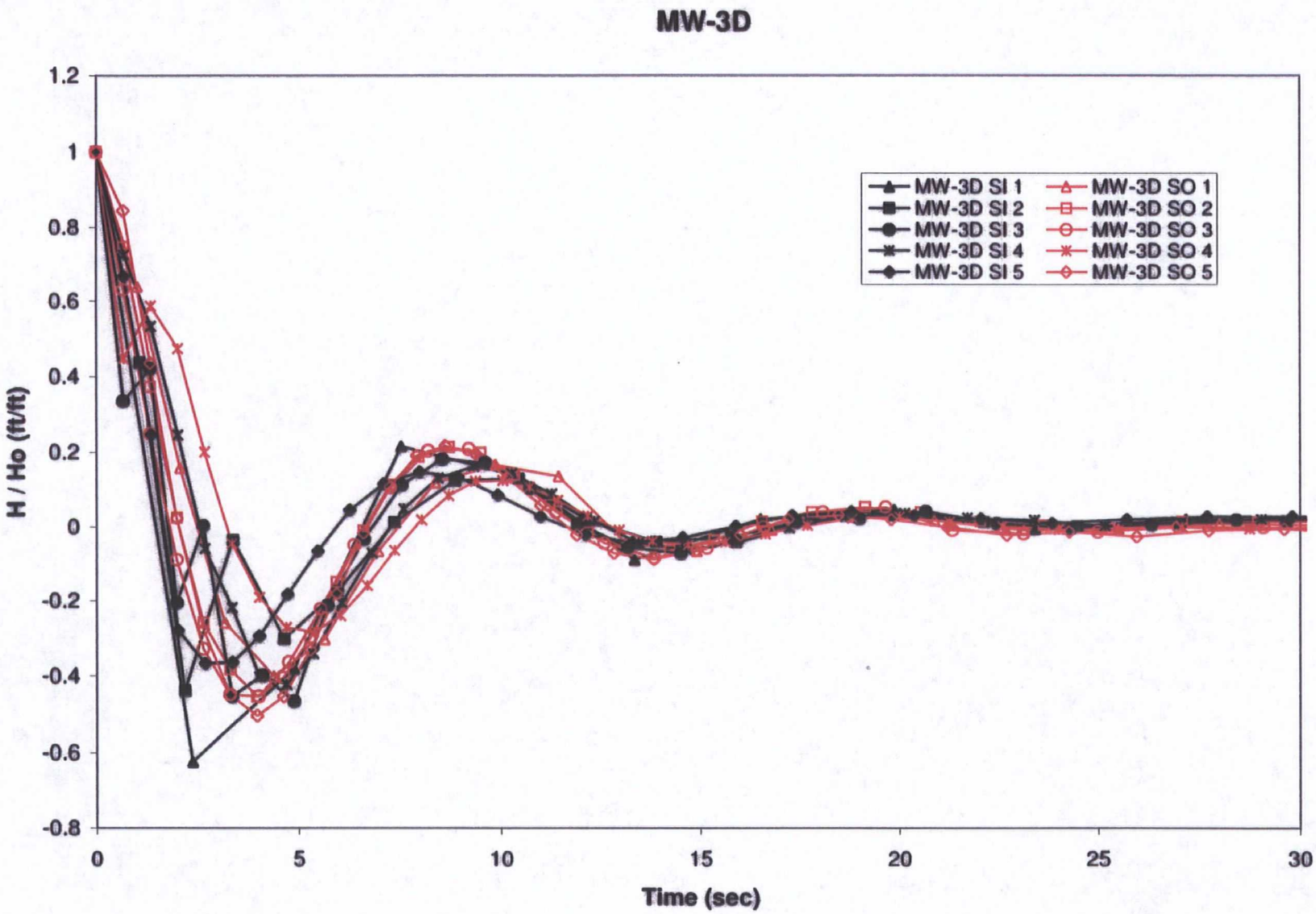
# Appendix F

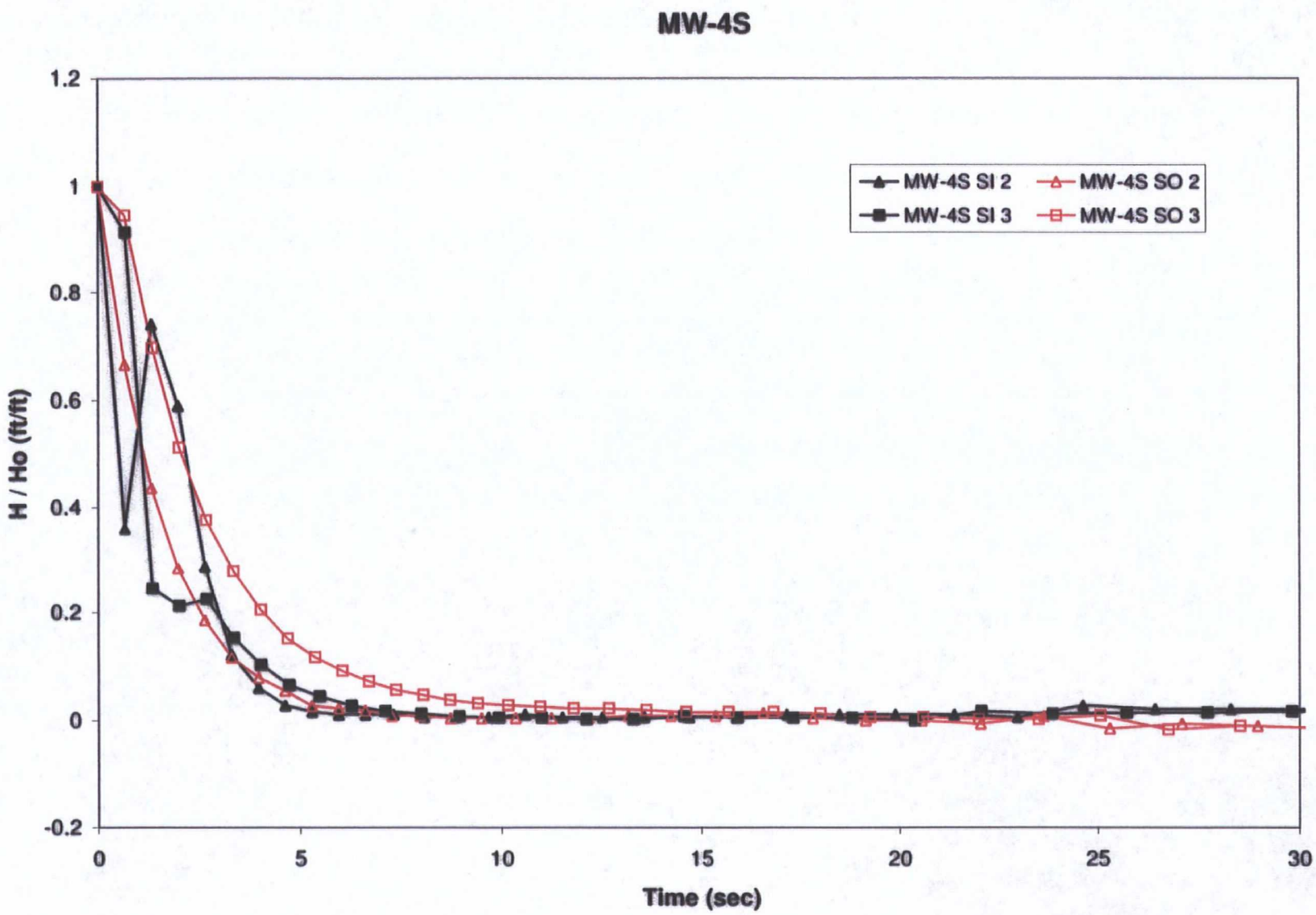
# Hydraulic Conductivity Testing Analysis

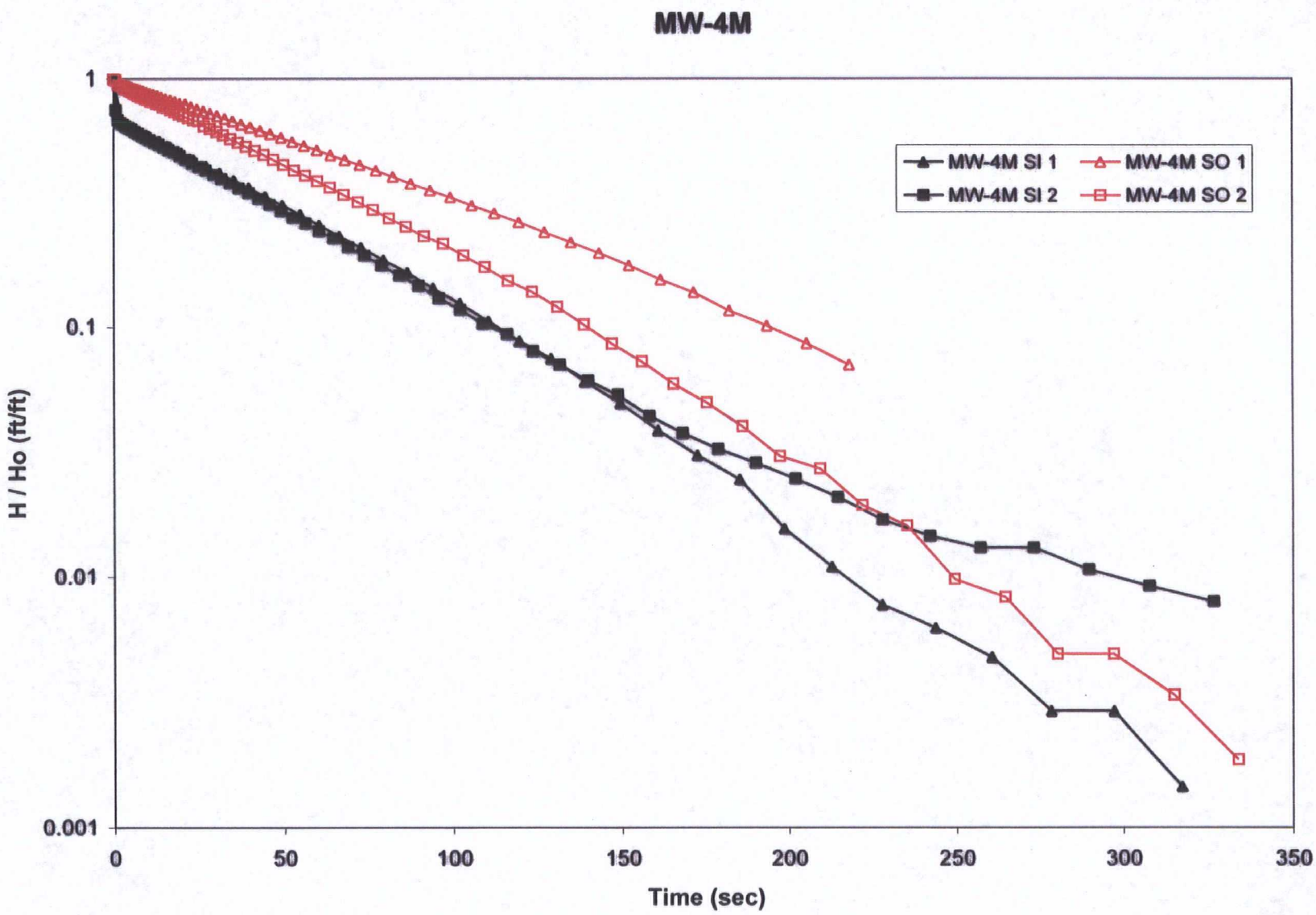

MW-1S
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
-0.4
H / Ho (ft/ft)
0
5
10
15
20
25
30
Time (sec)
MW-1S SI 1
MW-1S SO 1
MW-1S SI 2
MW-1S SO 2

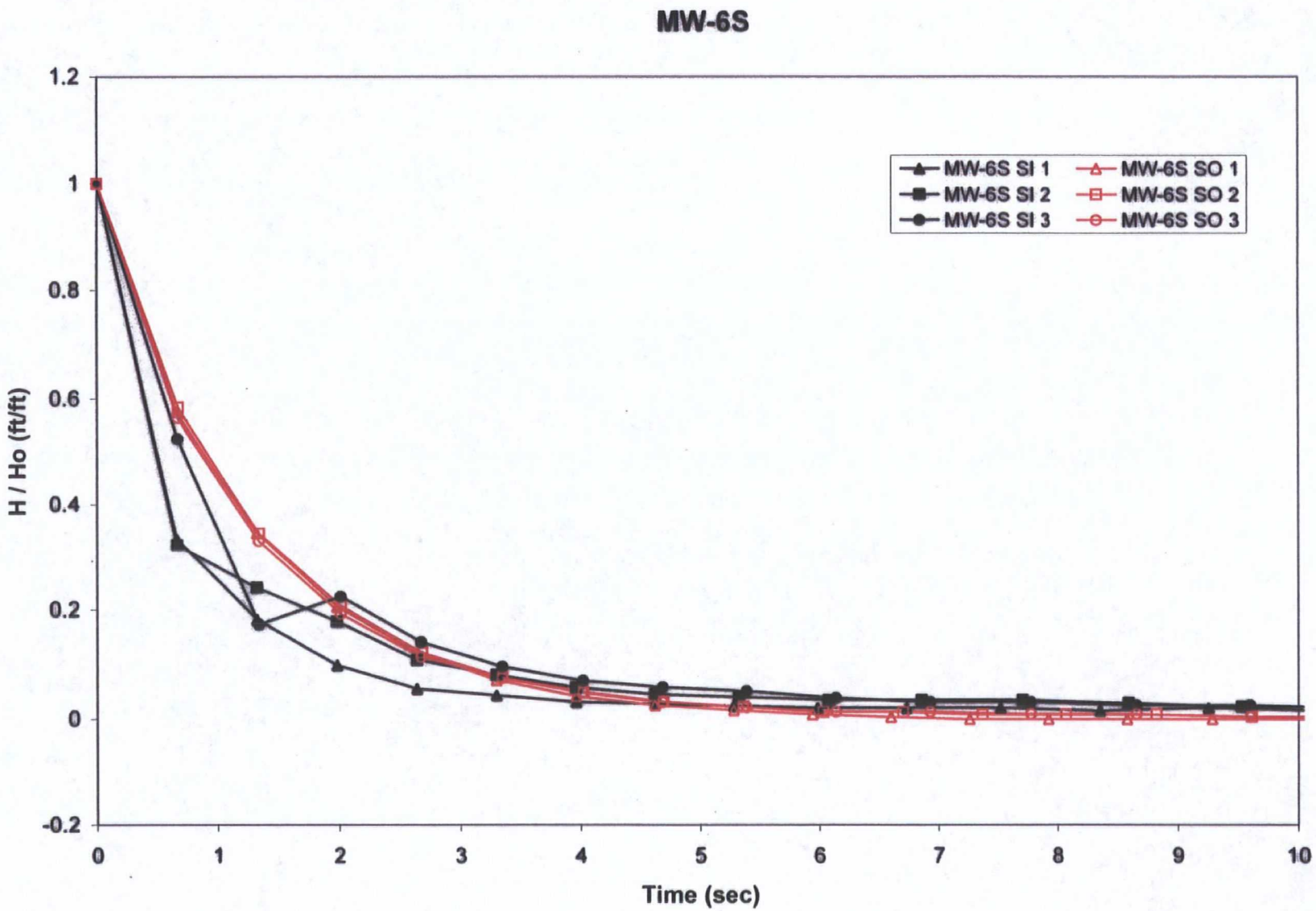

MW-1D
MW-1D SI 1
MW-1D SO 1
MW-1D SI 2
MW-1D SO 2
H / Ho (ft/ft)
Time (sec)
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0
5
10
15
20
25
30

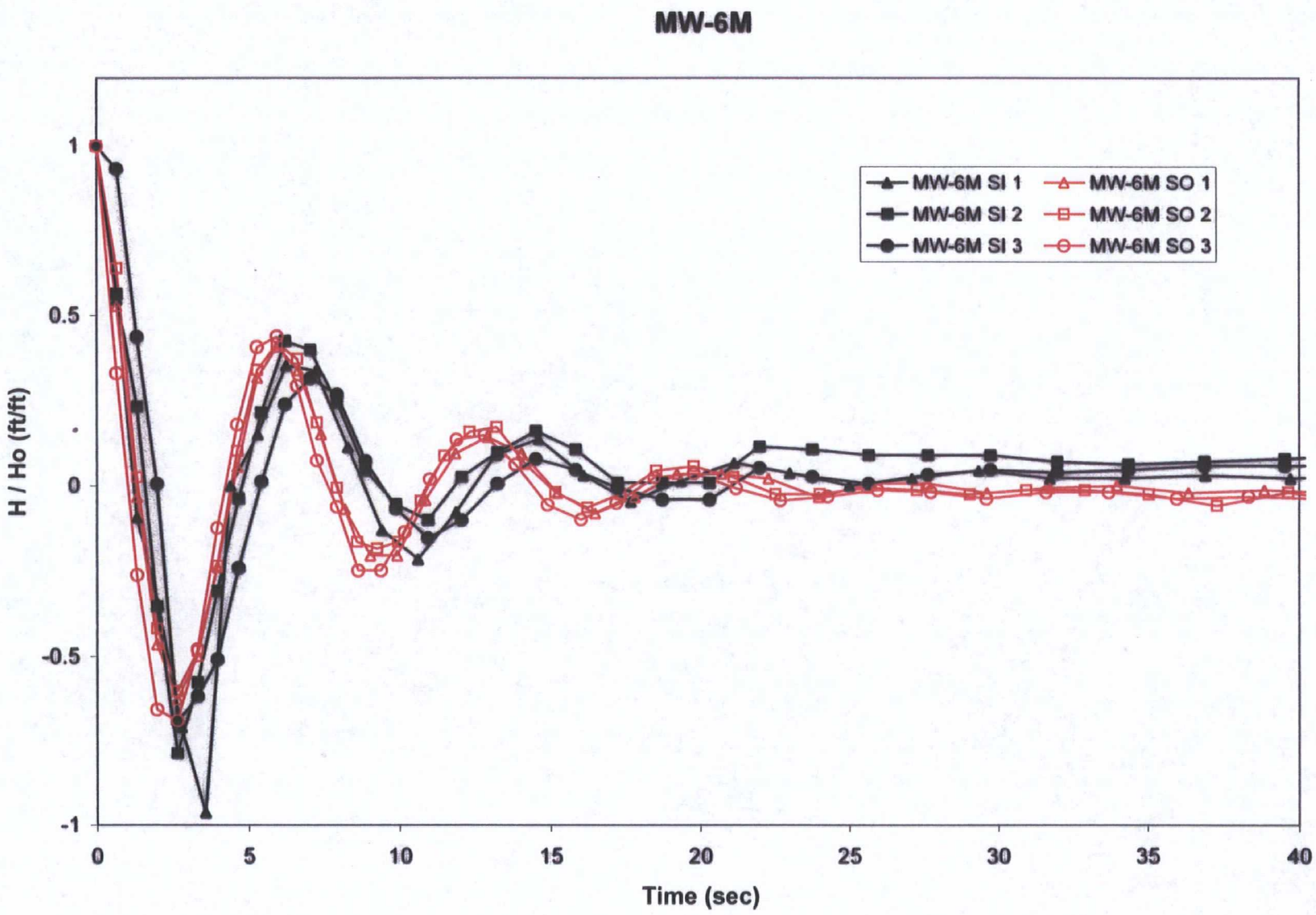

MW-3S
MW-3S SI 1
MW-3S SO 1
MW-3S SI 2
MW-3S SO 2
H / Ho (ft/ft)
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0.0
2.0
4.0
6.0
8.0
10.0
12.0
14.0
16.0
18.0
20.0
Time (sec)

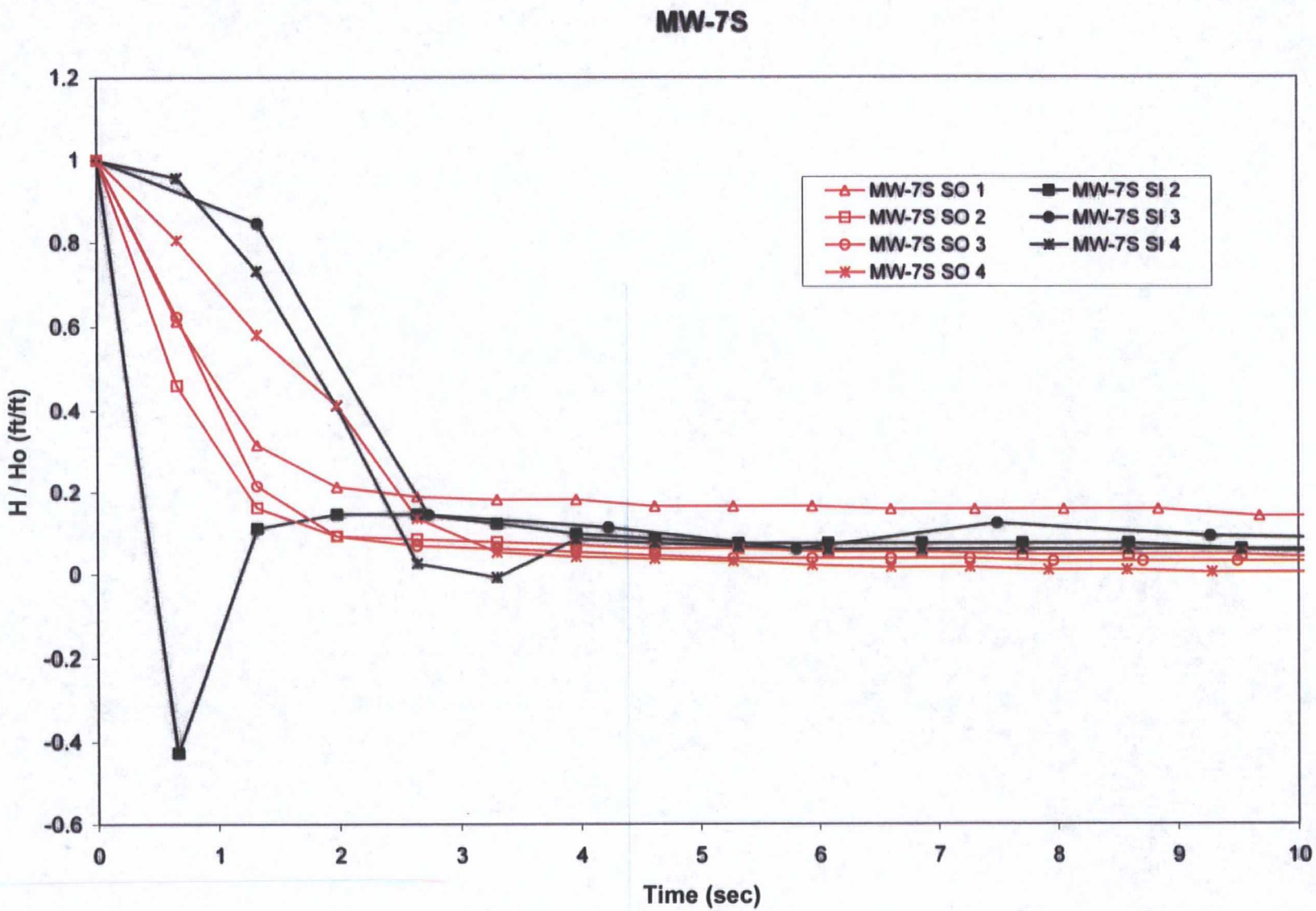

MW-3D
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
-0.8
H / Ho (ft/ft)
0
5
10
15
20
25
30
Time (sec)
MW-3D SI 1
MW-3D SI 2
MW-3D SI 3
MW-3D SI 4
MW-3D SI 5
MW-3D SO 1
MW-3D SO 2
MW-3D SO 3
MW-3D SO 4
MW-3D SO 5

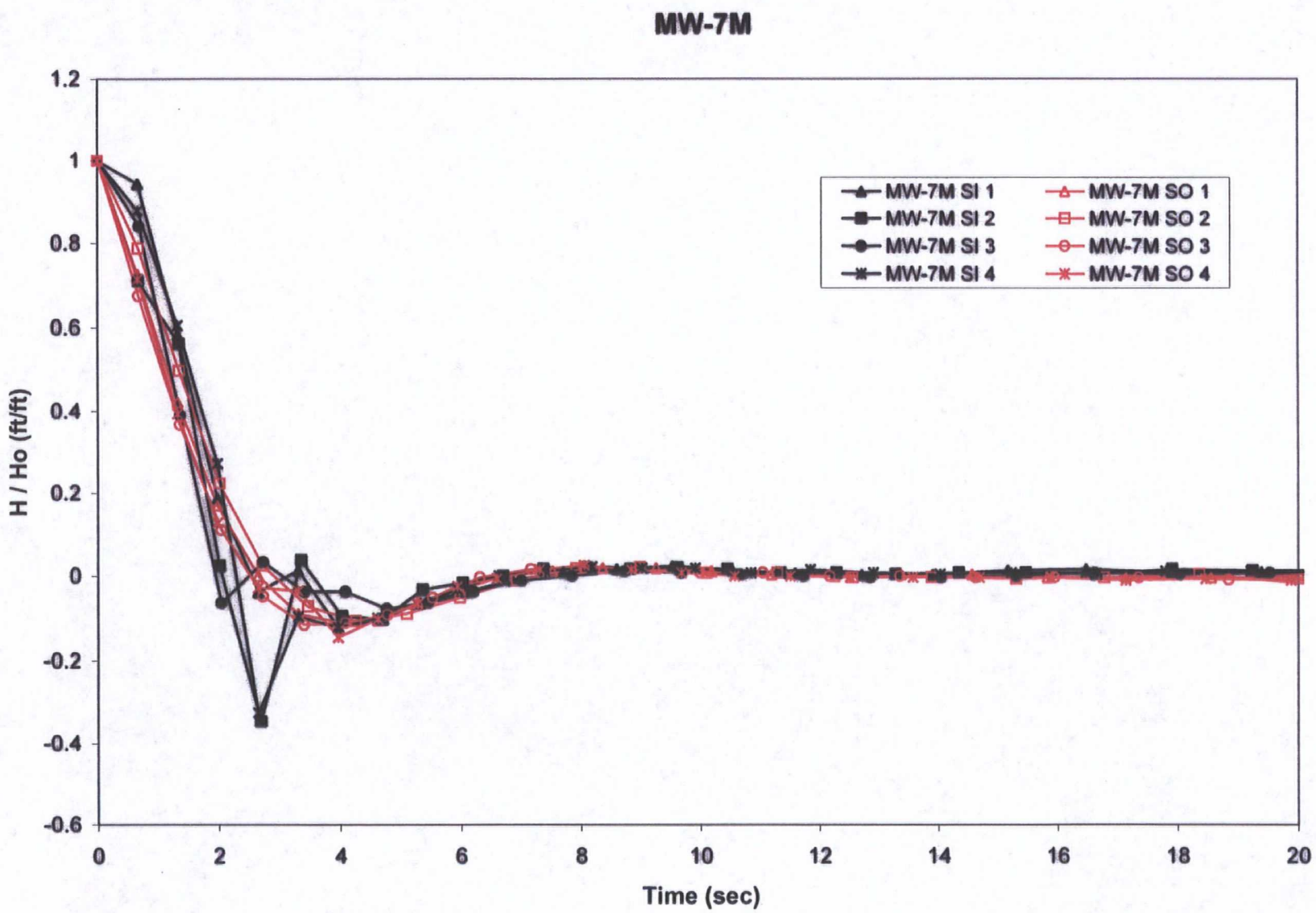

MW-4S
MW-4S SI 2
MW-4S SO 2
MW-4S SI 3
MW-4S SO 3
H / Ho (ft/ft)
Time (sec)
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0
5
10
15
20
25
30

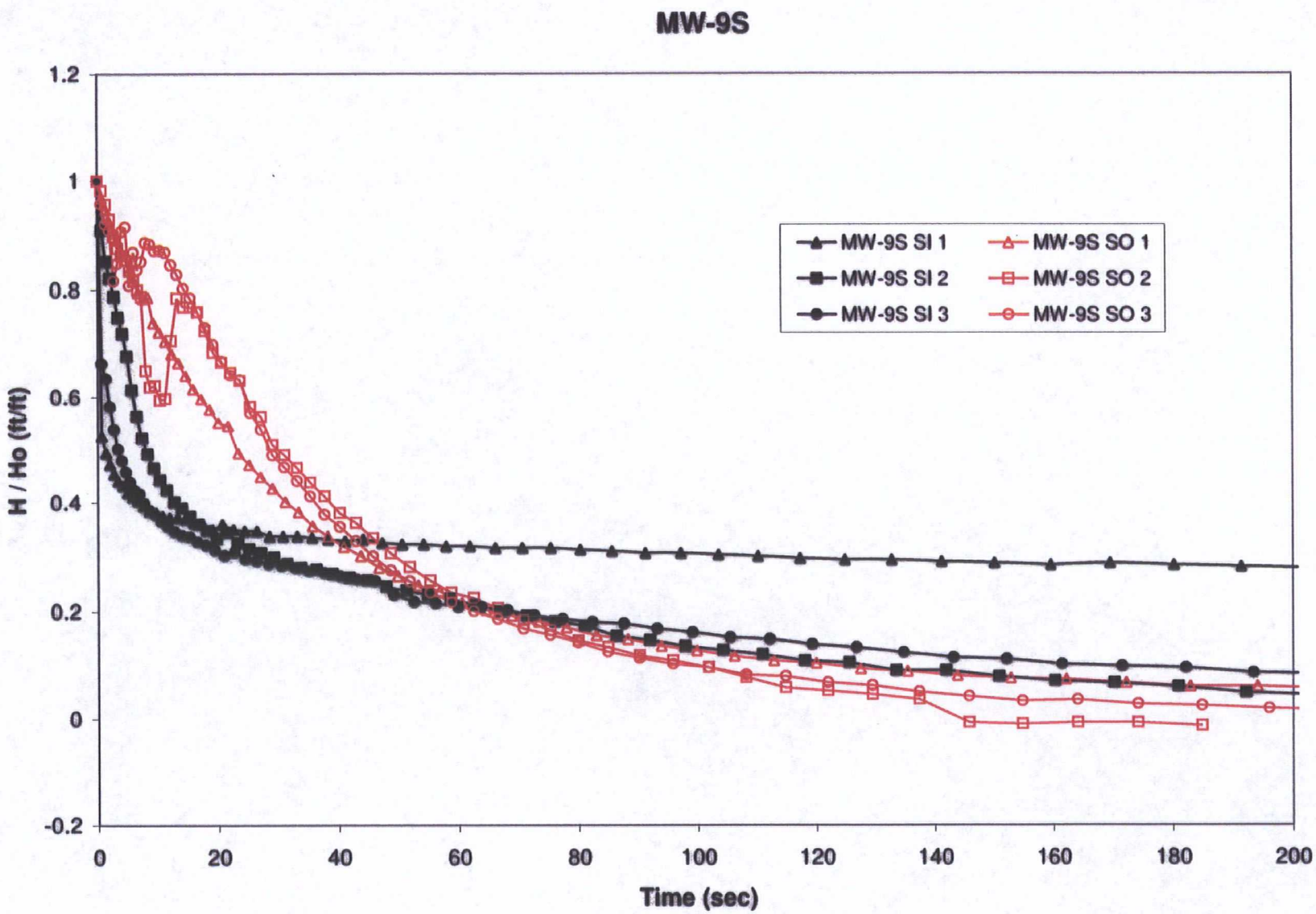

MW-4M
MW-4M SI 1
MW-4M SO 1
MW-4M SI 2
MW-4M SO 2
H / Ho (ft/ft)
1
0.1
0.01
0.001
0
50
100
150
200
250
300
350
Time (sec)

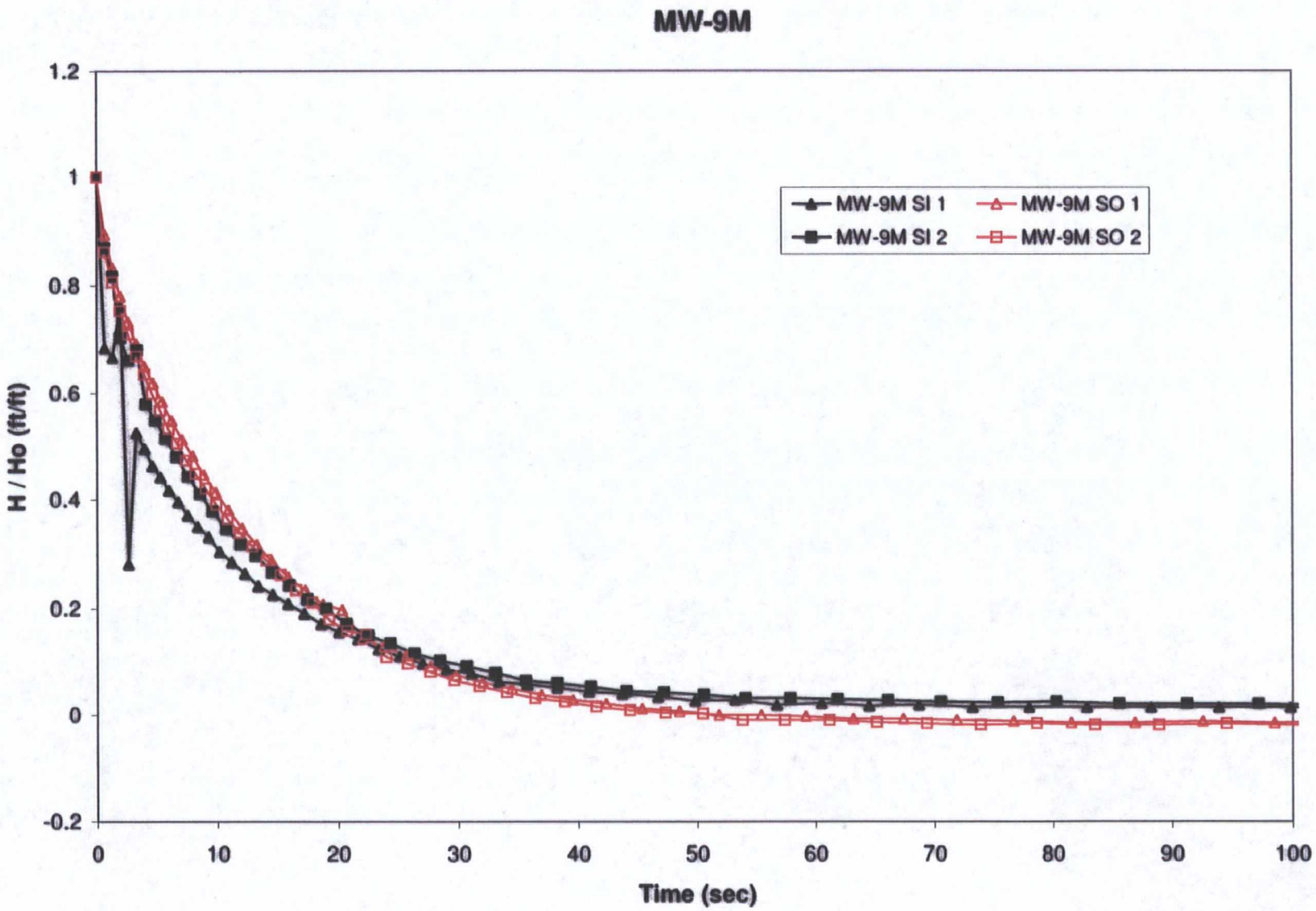

MW-6S
MW-6S SI 1
MW-6S SI 2
MW-6S SI 3
MW-6S SO 1
MW-6S SO 2
MW-6S SO 3
H / Ho (ft/ft)
Time (sec)
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0
1
2
3
4
5
6
7
8
9
10

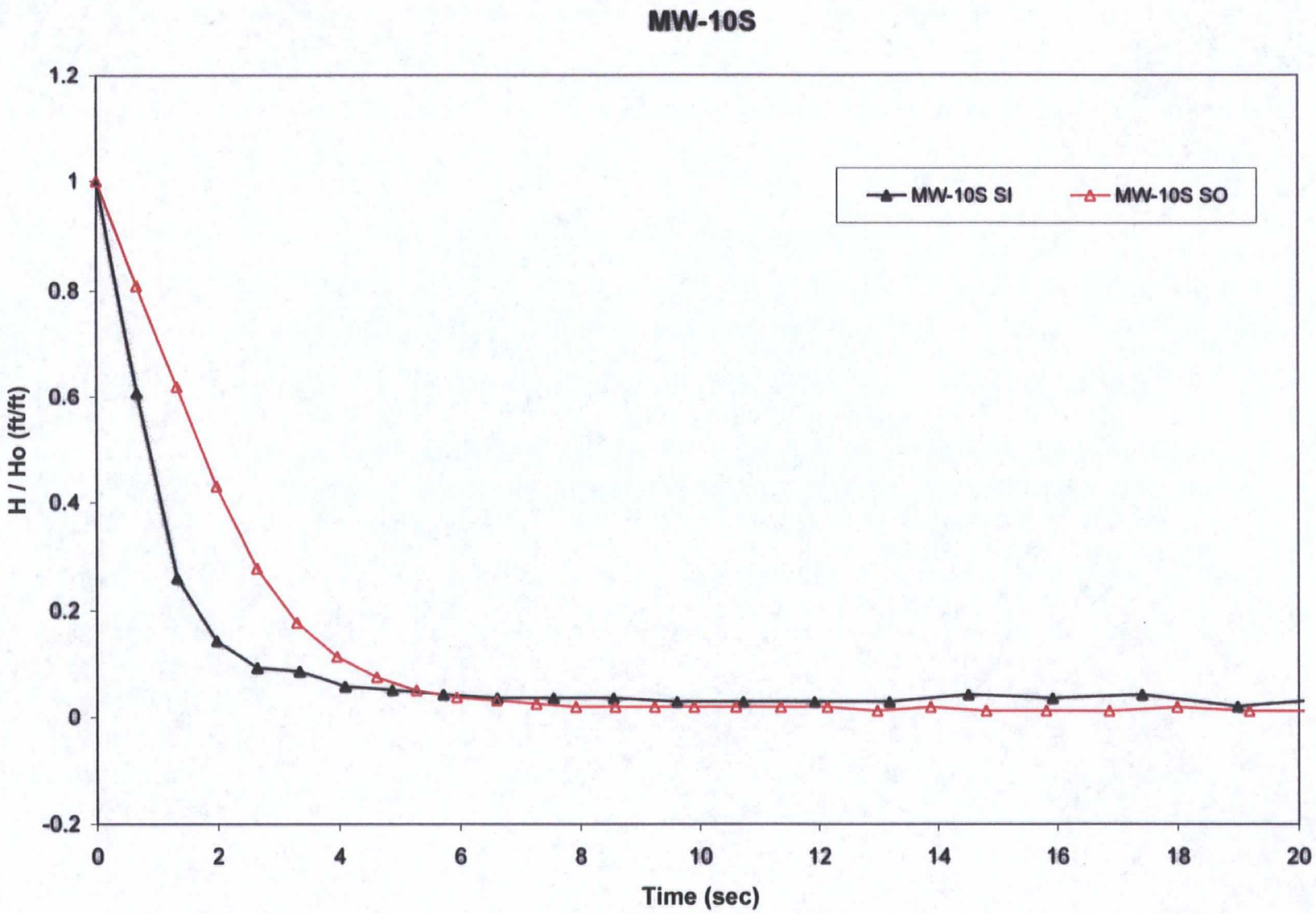

MW-6M
MW-6M SI 1
MW-6M SI 2
MW-6M SI 3
MW-6M SO 1
MW-6M SO 2
MW-6M SO 3
H / Ho (ft/ft)
1
0.5
0
-0.5
-1
0
5
10
15
20
25
30
35
40
Time (sec)

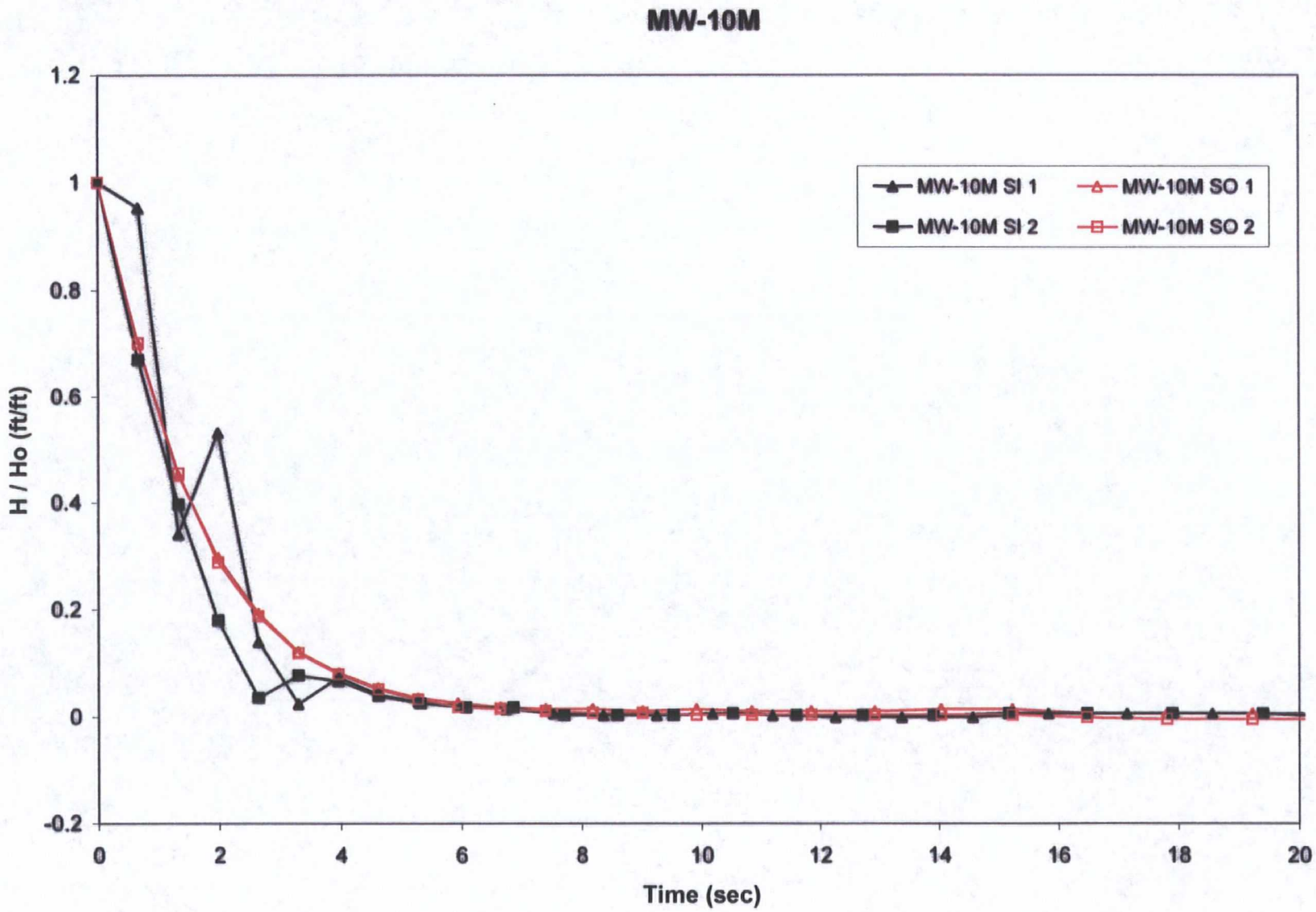

MW-7S
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
H / Ho (ft/ft)
0
1
2
3
4
5
6
7
8
9
10
Time (sec)
MW-7S SO 1
MW-7S SO 2
MW-7S SO 3
MW-7S SO 4
MW-7S SI 2
MW-7S SI 3
MW-7S SI 4

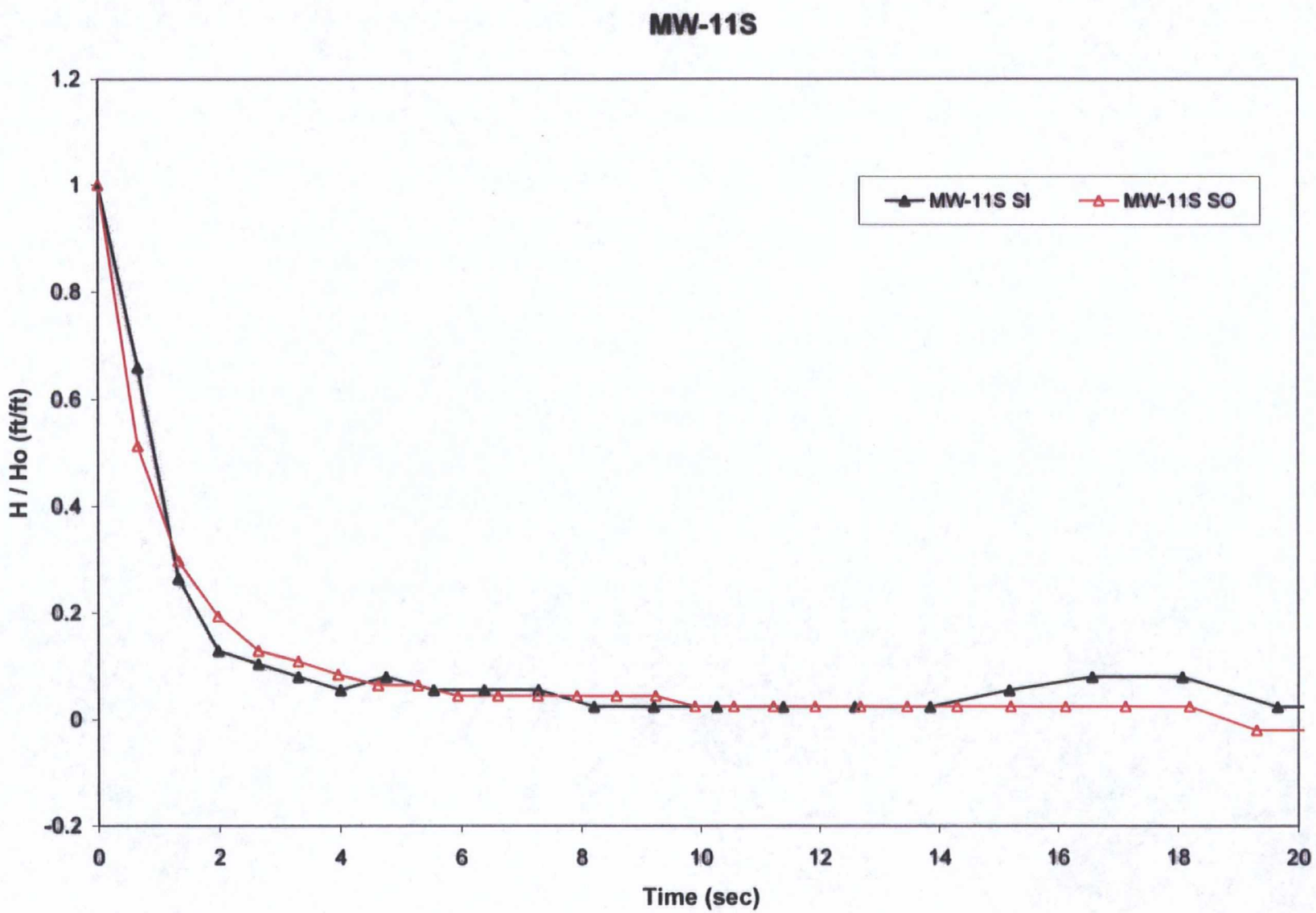

MW-7M
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
H / Ho (ft/ft)
0
2
4
6
8
10
12
14
16
18
20
Time (sec)
MW-7M SI 1
MW-7M SI 2
MW-7M SI 3
MW-7M SI 4
MW-7M SO 1
MW-7M SO 2
MW-7M SO 3
MW-7M SO 4

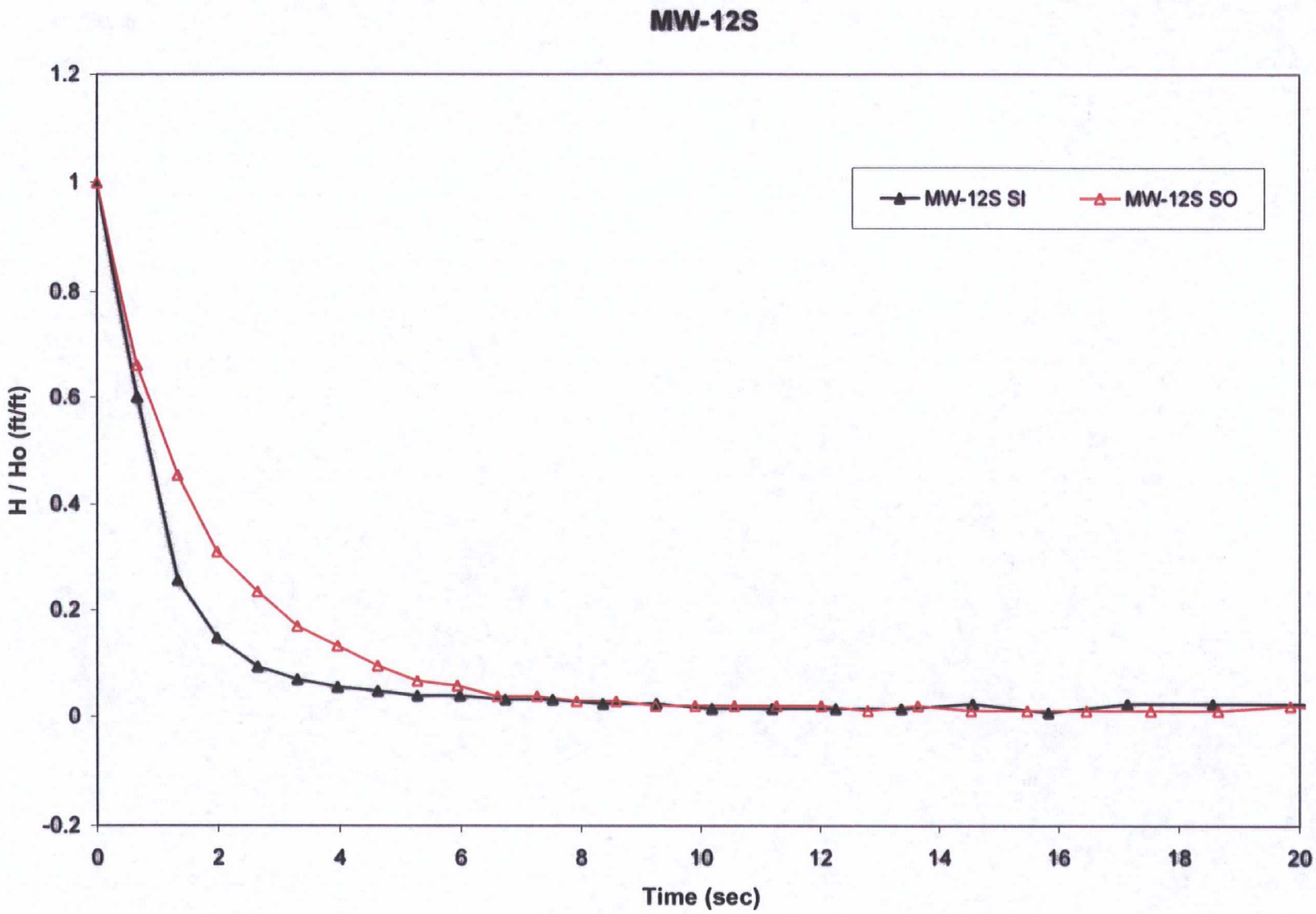

MW-9S
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
H / Ho (ft/ft)
0
20
40
60
80
100
120
140
160
180
200
Time (sec)
MW-9S SI 1
MW-9S SI 2
MW-9S SI 3
MW-9S SO 1
MW-9S SO 2
MW-9S SO 3

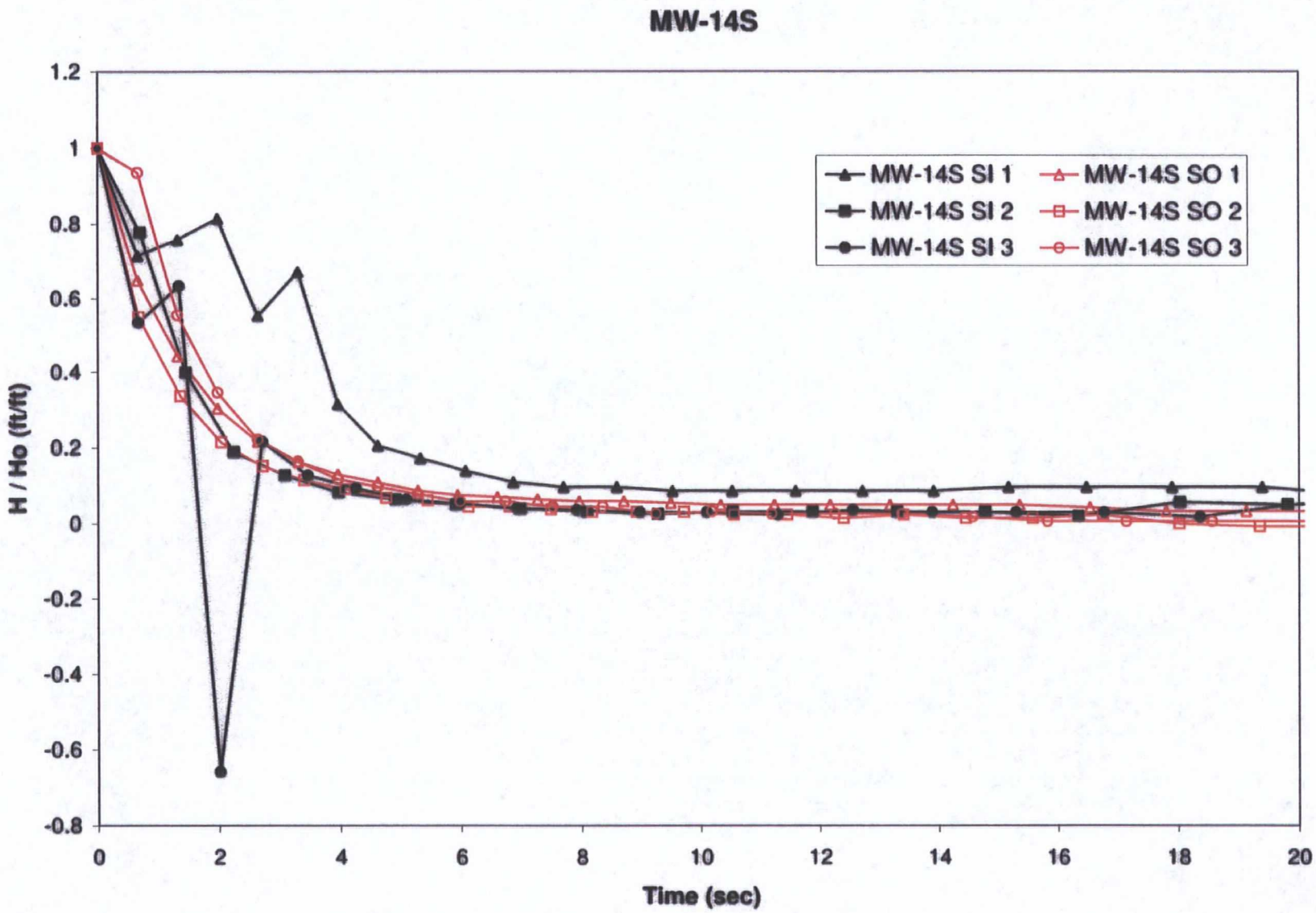

MW-9M
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
H / Ho (ft/ft)
0
10
20
30
40
50
60
70
80
90
100
Time (sec)
MW-9M SI 1
MW-9M SO 1
MW-9M SI 2
MW-9M SO 2

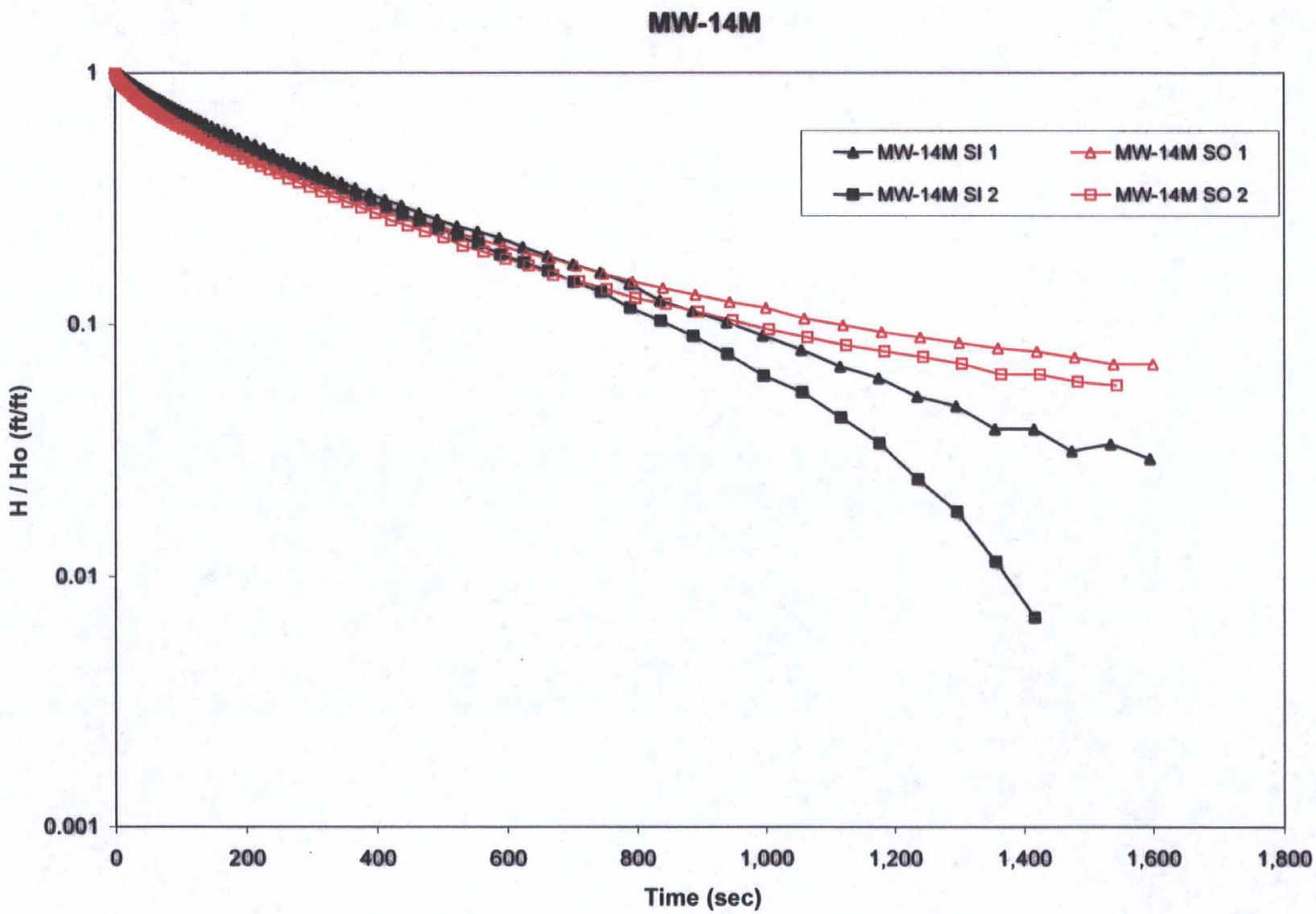

MW-10S
MW-10S SI
MW-10S SO
H / Ho (ft/ft)
Time (sec)
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0
2
4
6
8
10
12
14
16
18
20

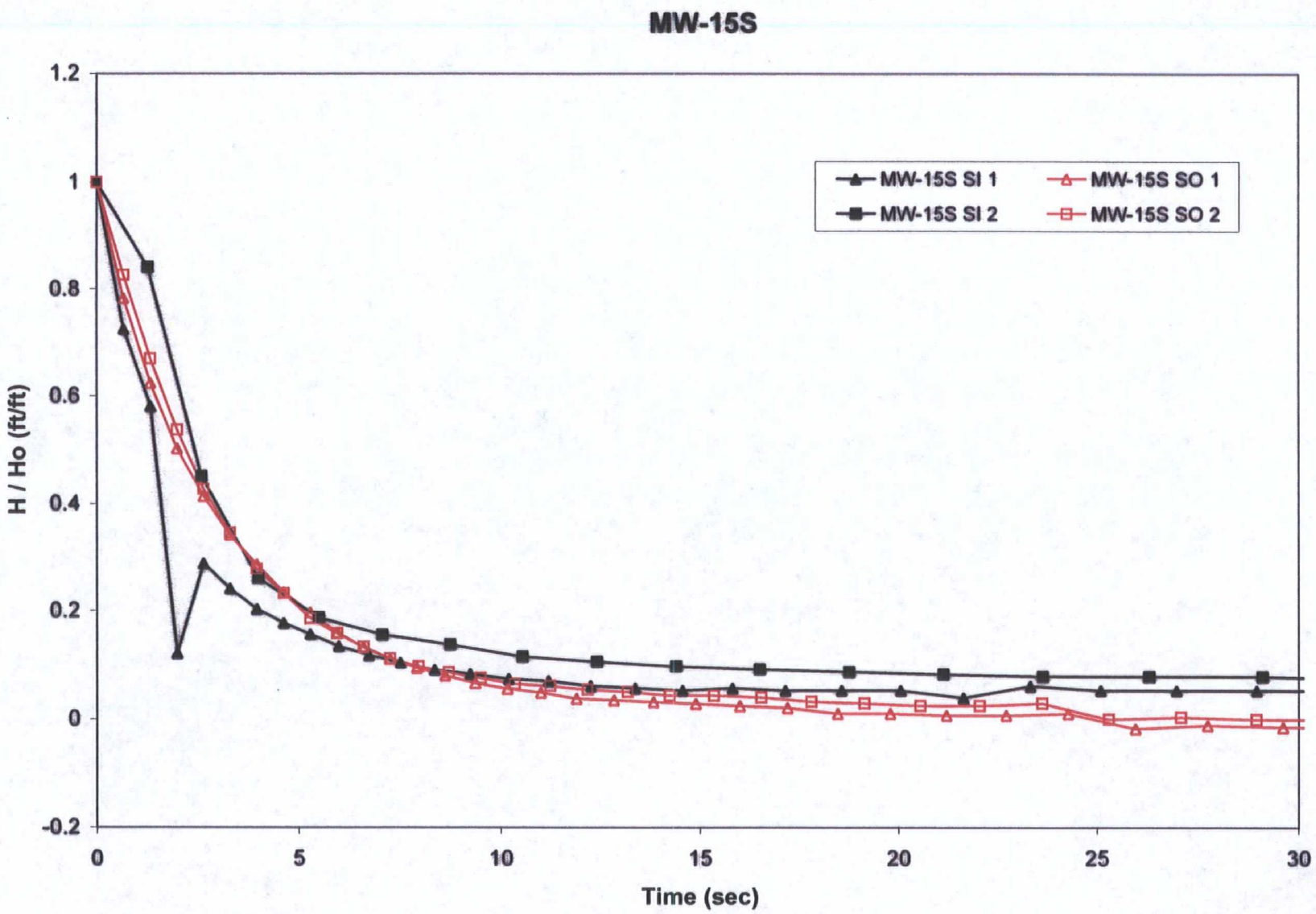

MW-10M
MW-10M SI 1
MW-10M SO 1
MW-10M SI 2
MW-10M SO 2
H / Ho (ft/ft)
Time (sec)
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0
2
4
6
8
10
12
14
16
18
20

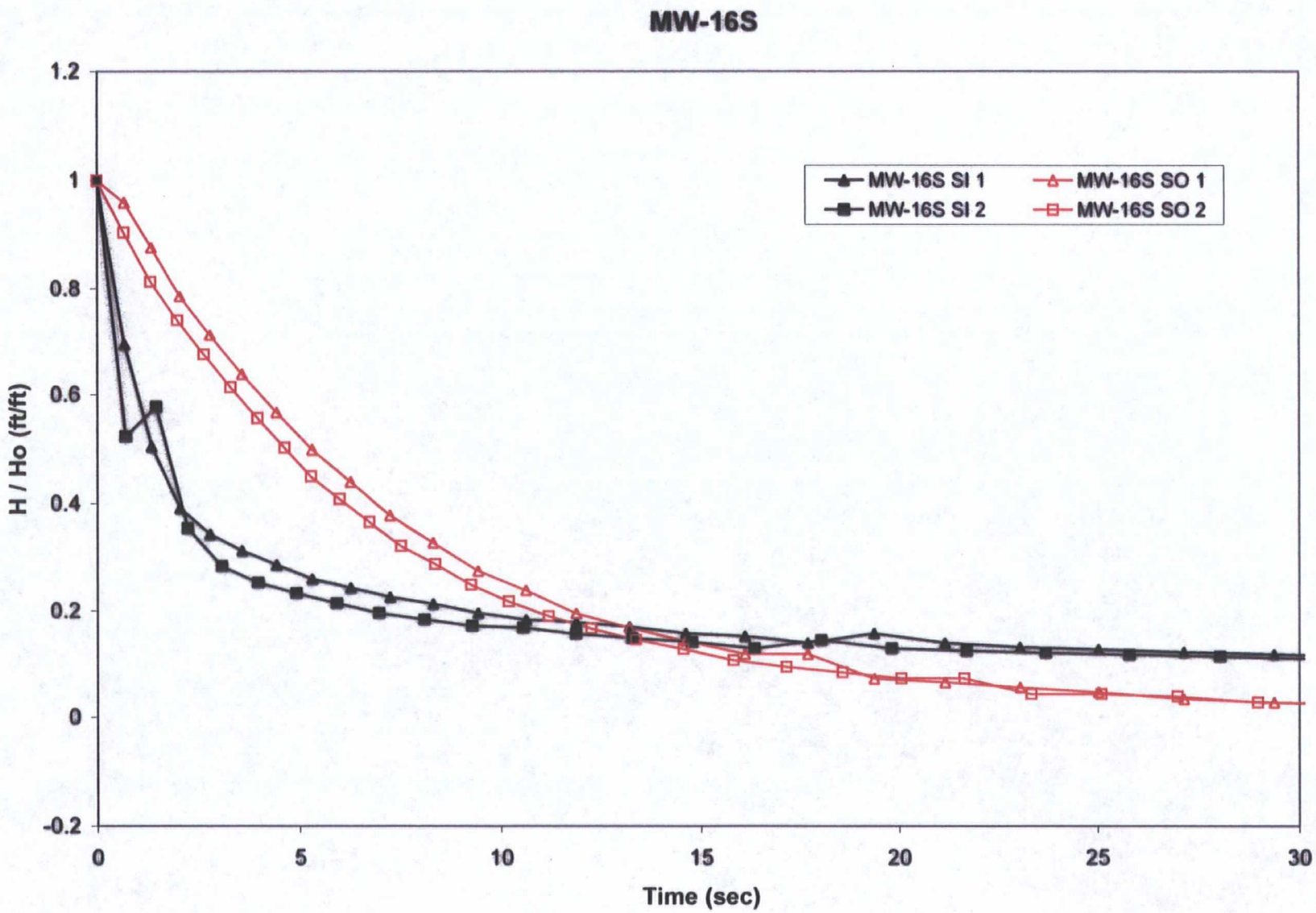

MW-11S
MW-11S SI
MW-11S SO
H / Ho (ft/ft)
Time (sec)
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0
2
4
6
8
10
12
14
16
18
20

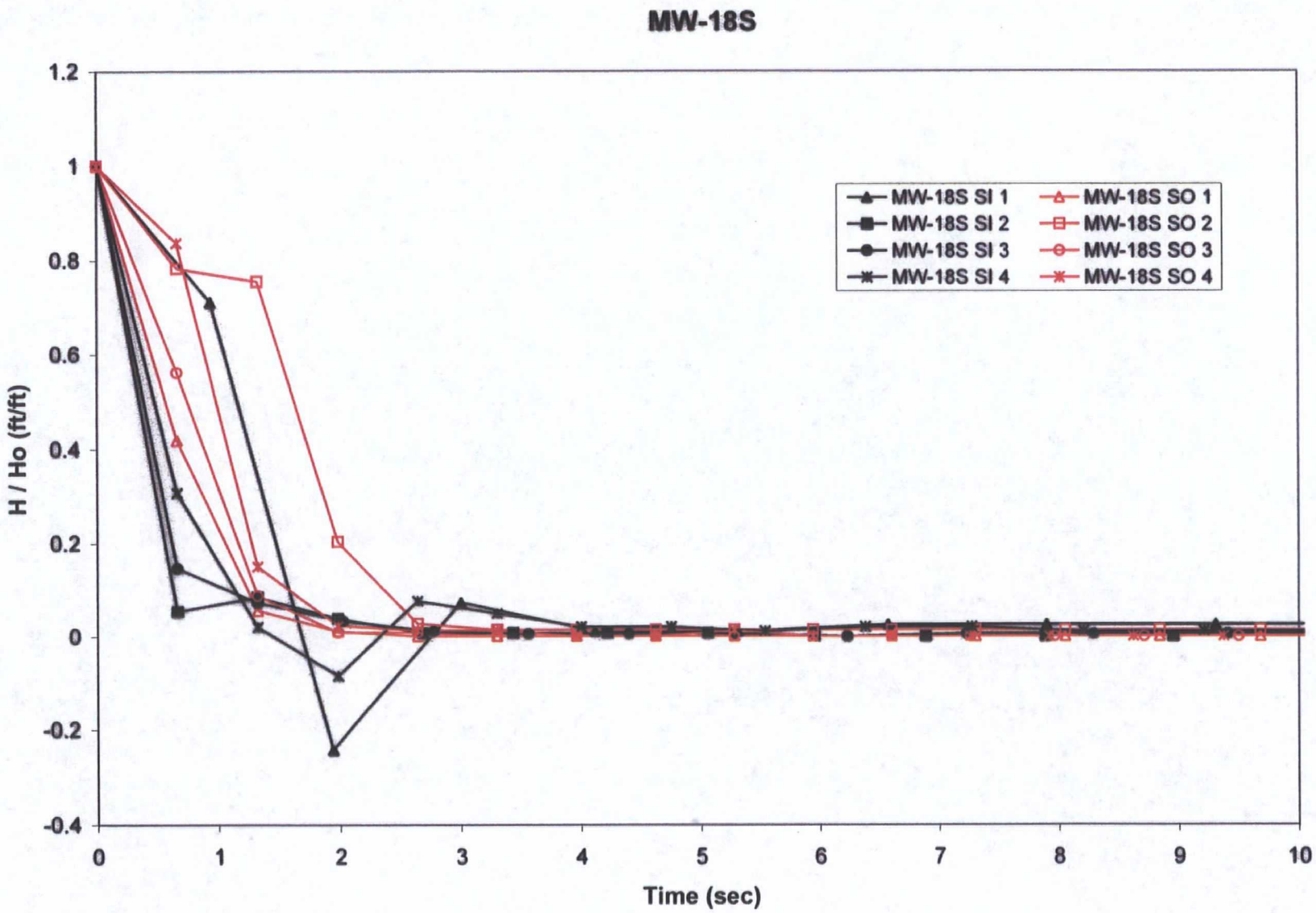

MW-12S
MW-12S SI
MW-12S SO
H / Ho (ft/ft)
Time (sec)
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0
2
4
6
8
10
12
14
16
18
20

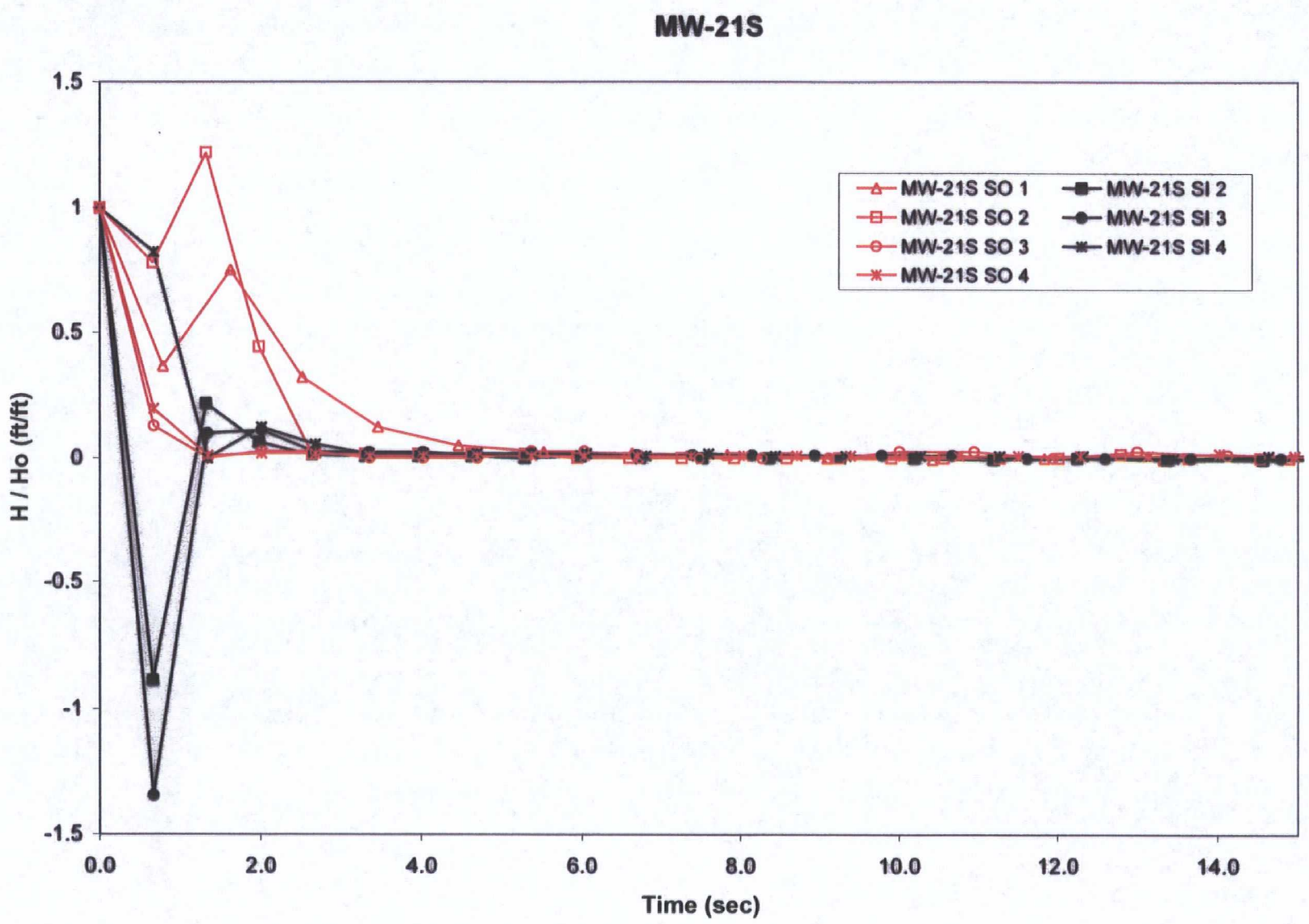

MW-14S
MW-14S SI 1
MW-14S SI 2
MW-14S SI 3
MW-14S SO 1
MW-14S SO 2
MW-14S SO 3
H / Ho (ft/ft)
Time (sec)
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
-0.4
-0.6
-0.8
0
2
4
6
8
10
12
14
16
18
20

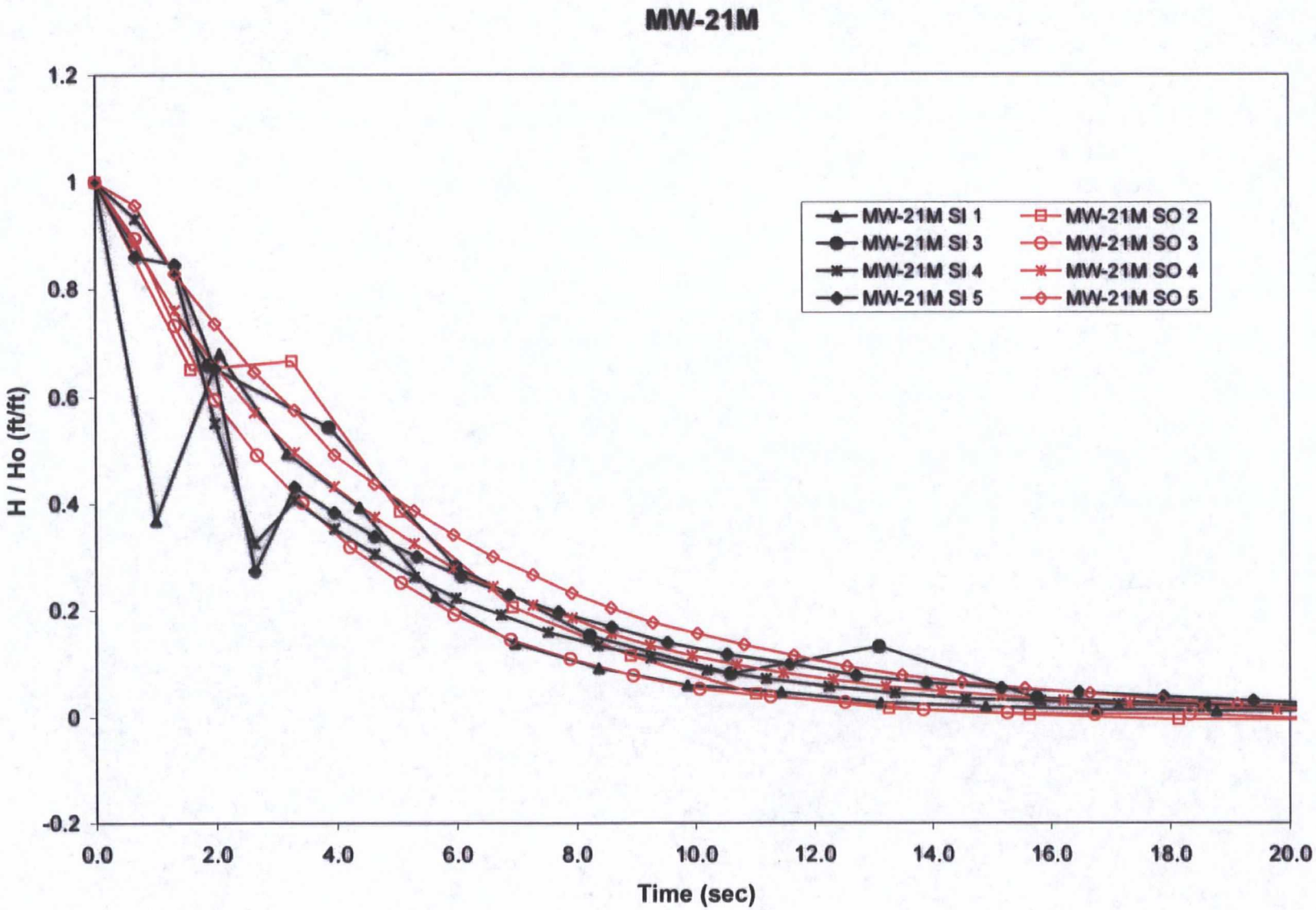

MW-14M
MW-14M SI 1
MW-14M SO 1
MW-14M SI 2
MW-14M SO 2
H / Ho (ft/ft)
1
0.1
0.01
0.001
0
200
400
600
800
1,000
1,200
1,400
1,600
1,800
Time (sec)

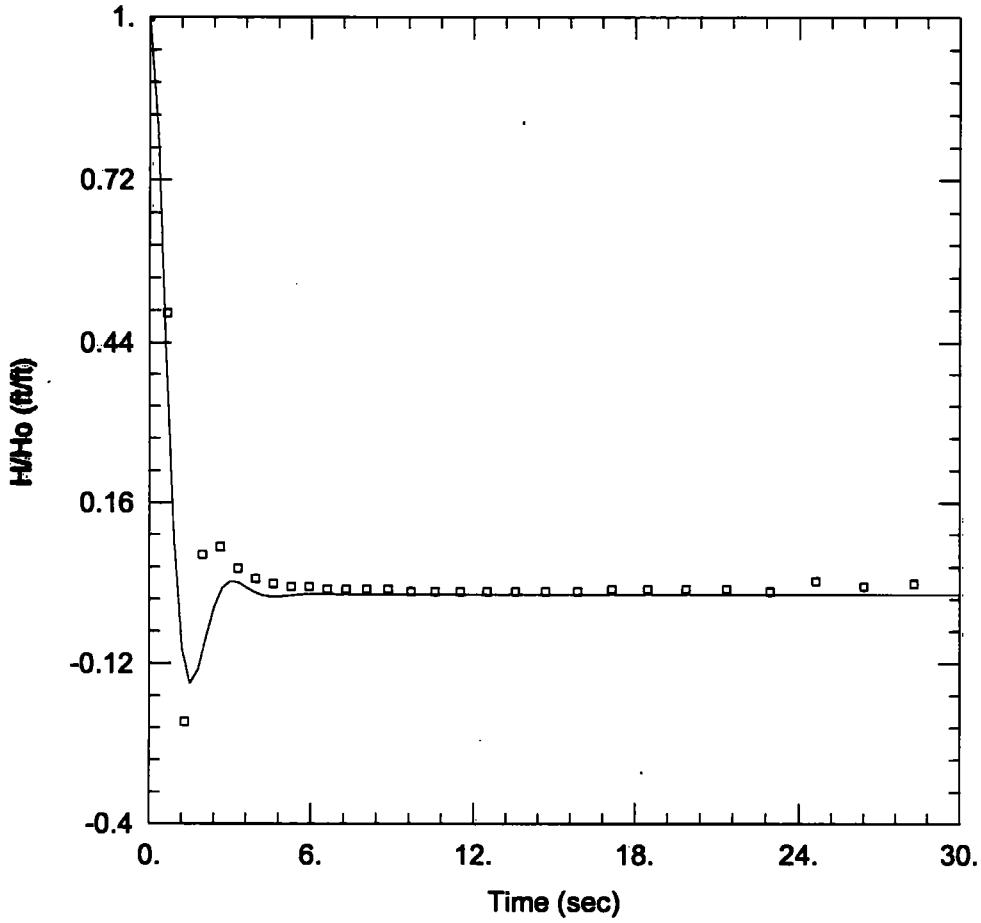

MW-15S
MW-15S SI 1
MW-15S SO 1
MW-15S SI 2
MW-15S SO 2
H / Ho (ft/ft)
Time (sec)
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0
5
10
15
20
25
30


MW-16S
MW-16S SI 1
MW-16S SI 2
MW-16S SO 1
MW-16S SO 2
H / Ho (ft/ft)
Time (sec)
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0
5
10
15
20
25
30


MW-18S
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
-0.4
H / Ho (ft/ft)
0
1
2
3
4
5
6
7
8
9
10
Time (sec)
MW-18S SI 1
MW-18S SI 2
MW-18S SI 3
MW-18S SI 4
MW-18S SO 1
MW-18S SO 2
MW-18S SO 3
MW-18S SO 4


MW-21S
1.5
1
0.5
0
-0.5
-1
-1.5
H / Ho (ft/ft)
0.0
2.0
4.0
6.0
8.0
10.0
12.0
14.0
Time (sec)
MW-21S SO 1
MW-21S SO 2
MW-21S SO 3
MW-21S SO 4
MW-21S SI 2
MW-21S SI 3
MW-21S SI 4


MW-21M
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
H / Ho (ft/ft)
0.0
2.0
4.0
6.0
8.0
10.0
12.0
14.0
16.0
18.0
20.0
Time (sec)
MW-21M SI 1
MW-21M SI 3
MW-21M SI 4
MW-21M SI 5
MW-21M SO 2
MW-21M SO 3
MW-21M SO 4
MW-21M SO 5




## WELL TEST ANALYSIS

Data Set: J:\...\MW-1S SI 1.aqt
Date: 07/17/06 Time: 14:40:49

## PROJECT INFORMATION

Company: ENSR
Client: AK Steel
Project: 00076-069
Location: New Miami, OH
Test Well: MW-1S SI 1
Test Date: 4/7/2006

## AQUIFER DATA

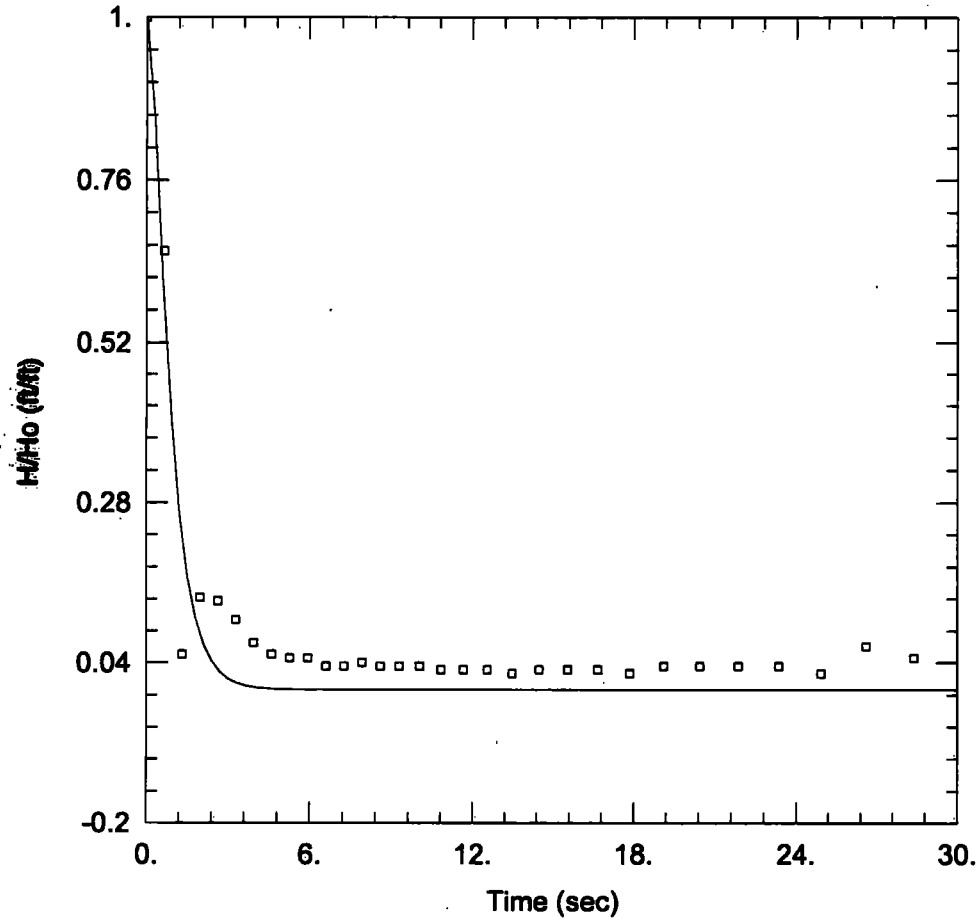
Saturated Thickness: 10.5 ft
Anisotropy Ratio (Kz/Kr): 1.

## WELL DATA (MW-1S SI 1)

Initial Displacement: 0.943 ft
Total Well Penetration Depth: 15. ft
Casing Radius: 0.0833 ft
Static Water Column Height: 8.96 ft
Screen Length: 15. ft
Well Radius: 0.177 ft
Gravel Pack Porosity: 0.3

## SOLUTION

Aquifer Model: Unconfined
Solution Method: Springer-Gelhar
K = 158.1 ft/day
Le = 5.676 ft




## WELL TEST ANALYSIS

Data Set: J:\...\MW-1S SI 2.aqt
Date: 07/17/06 Time: 16:42:11

## PROJECT INFORMATION

Company: ENSR
Client: AK Steel
Project: 00076-069
Location: New Miami, OH
Test Well: MW-1S SI 2
Test Date: 4/11/2006

## AQUIFER DATA

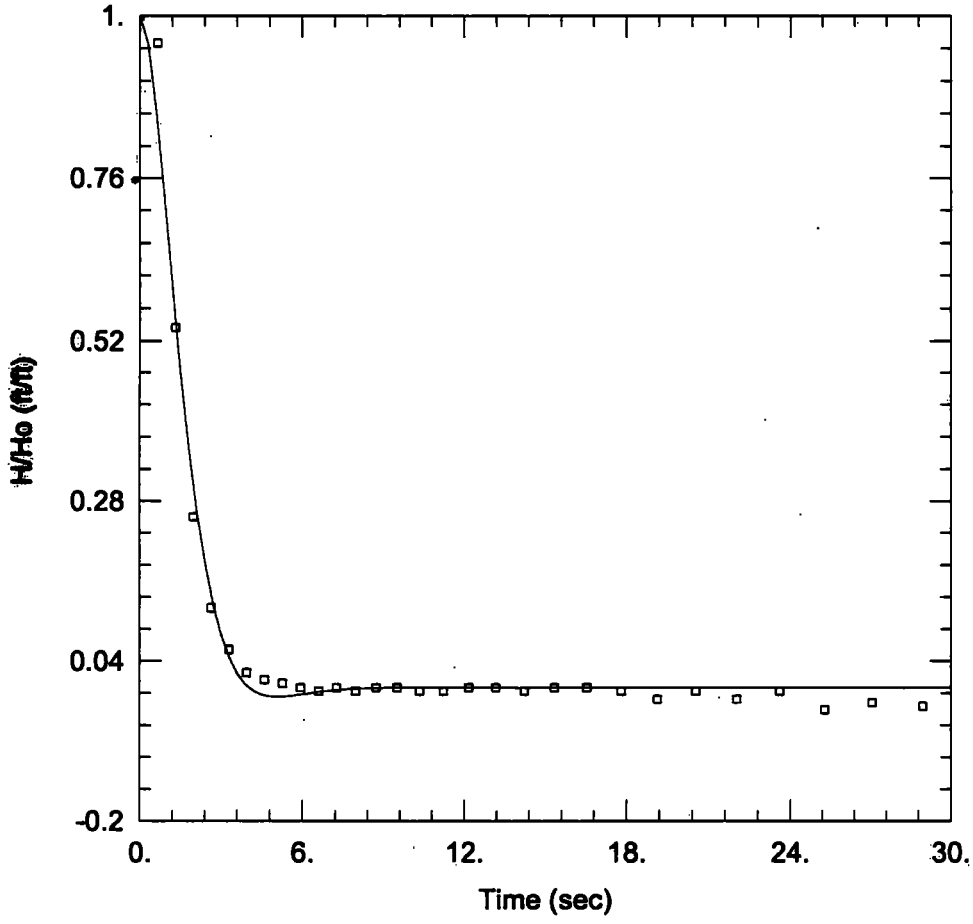
Saturated Thickness: 10.5 ft
Anisotropy Ratio (Kz/Kr): 1.

## WELL DATA (MW-1S SI 2)

Initial Displacement: 0.746 ft
Total Well Penetration Depth: 8.87 ft
Casing Radius: 0.0833 ft
Static Water Column Height: 8.87 ft
Screen Length: 8.87 ft
Well Radius: 0.177 ft
Gravel Pack Porosity: 0.3

## SOLUTION

Aquifer Model: Unconfined
Solution Method: Springer-Gelhar
K = 99.81 ft/day
Le = 6.016 ft




## WELL TEST ANALYSIS

Data Set: J:\...\MW-1S SO 1.aqt
Date: 07/17/06 Time: 14:43:23

## PROJECT INFORMATION

Company: ENSR
Client: AK Steel
Project: 00076-069
Location: New Miami, OH
Test Well: MW-1S SO 1
Test Date: 4/7/2006

## AQUIFER DATA

Saturated Thickness: 10.5 ft
Anisotropy Ratio (Kz/Kr): 1.

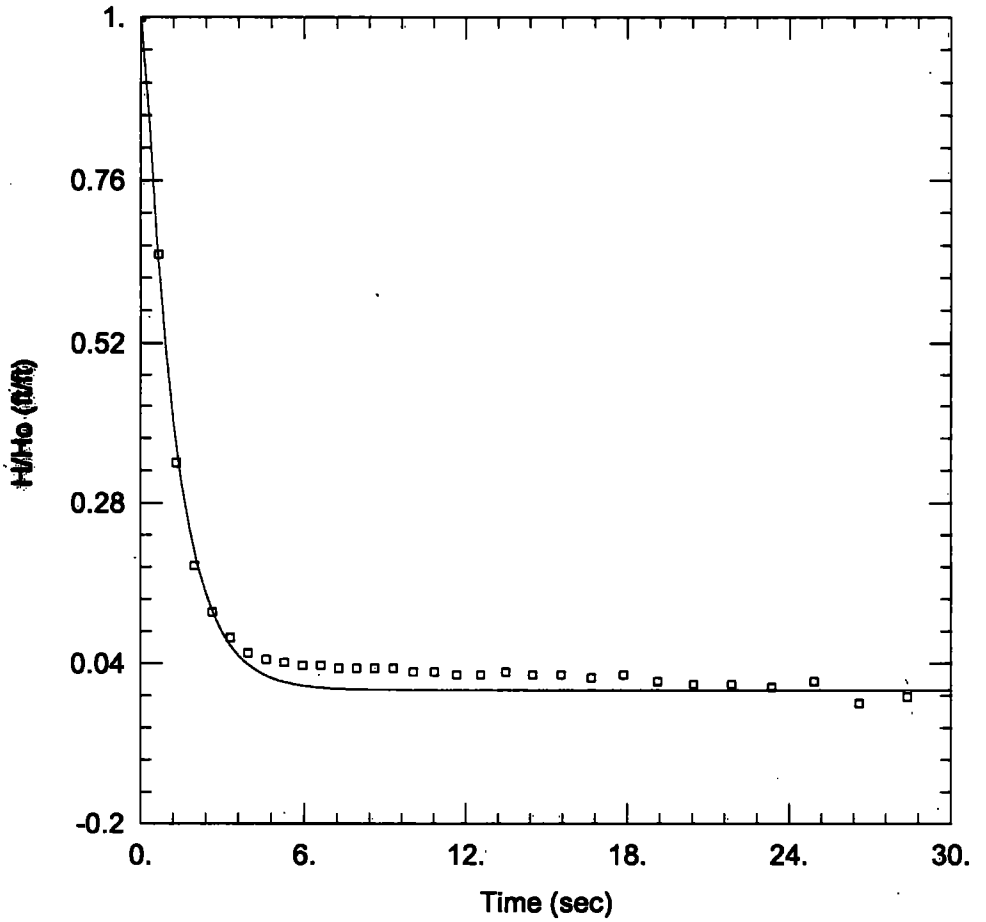
## WELL DATA (MW-1S SO 1)

Initial Displacement: 0.754 ft
Total Well Penetration Depth: 8.96 ft
Casing Radius: 0.0833 ft
Static Water Column Height: 8.96 ft
Screen Length: 8.96 ft
Well Radius: 0.177 ft
Gravel Pack Porosity: 0.3

## SOLUTION

Aquifer Model: Unconfined
Solution Method: Springer-Gelhar

K = 60.21 ft/day
Le = 28.96 ft




## WELL TEST ANALYSIS

Data Set: J:\...\MW-1S SO 2.aqt
Date: 07/17/06 Time: 16:43:57

## PROJECT INFORMATION

Company: ENSR
Client: AK Steel
Project: 00076-069
Location: New Miami, OH
Test Well: MW-1S SO 2
Test Date: 4/11/2006

## AQUIFER DATA

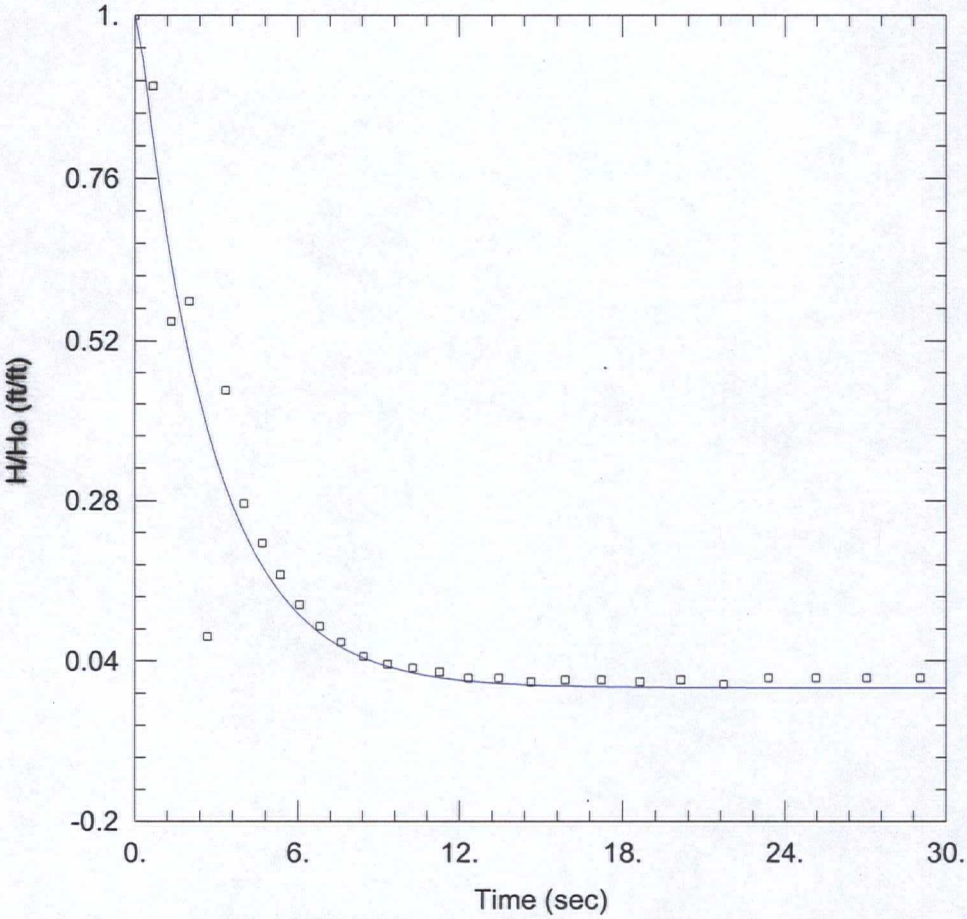
Saturated Thickness: 10.5 ft
Anisotropy Ratio (Kz/Kr): 1.

## WELL DATA (MW-1S SO 2)

Initial Displacement: 0.92 ft
Total Well Penetration Depth: 8.87 ft
Casing Radius: 0.0833 ft
Static Water Column Height: 8.87 ft
Screen Length: 8.87 ft
Well Radius: 0.177 ft
Gravel Pack Porosity: 0.3

## SOLUTION

Aquifer Model: Unconfined
Solution Method: Springer-Gelhar
K = 71.69 ft/day
Le = 4.587 ft




## WELL TEST ANALYSIS

Data Set: J:\...\MW-1D SI 1.aqt
Date: 07/17/06 Time: 16:44:52

## PROJECT INFORMATION

Company: ENSR
Client: AK Steel
Project: 00076-069
Location: New Miami, OH
Test Well: MW-1D SI 1
Test Date: 4/7/2006

## AQUIFER DATA

Saturated Thickness: 100. ft
Anisotropy Ratio (Kz/Kr): 1.

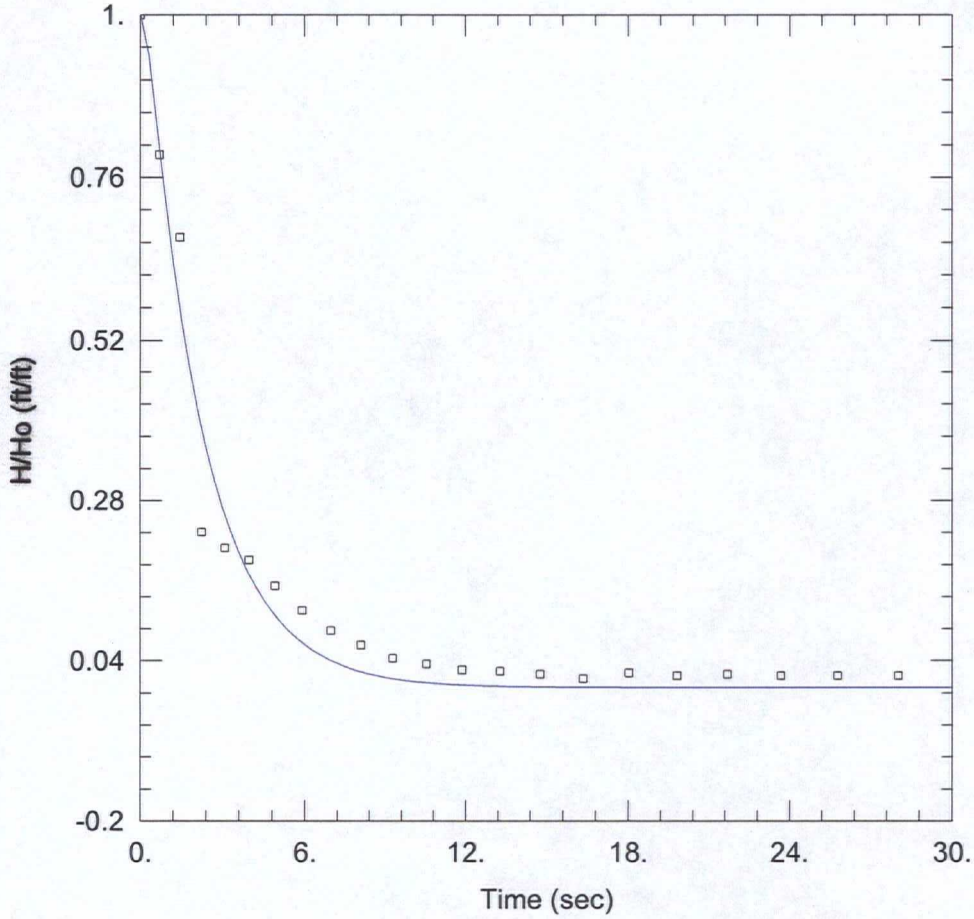
## WELL DATA (MW-1D SI 1)

Initial Displacement: 1.448 ft
Total Well Penetration Depth: 72.31 ft
Casing Radius: 0.0833 ft
Static Water Column Height: 72.31 ft
Screen Length: 20. ft
Well Radius: 0.427 ft
Gravel Pack Porosity: 0.3

## SOLUTION

Aquifer Model: Unconfined
Solution Method: Springer-Gelhar

K = 16.86 ft/day
Le = 10.49 ft




## WELL TEST ANALYSIS

Data Set: J:\...\MW-1D SI 2.aqt
Date: 07/17/06 Time: 16:45:37

## PROJECT INFORMATION

Company: ENSR
Client: AK Steel
Project: 00076-069
Location: New Miami, OH
Test Well: MW-1D SI 2
Test Date: 4/12/2006

## AQUIFER DATA

Saturated Thickness: 100. ft
Anisotropy Ratio (Kz/Kr): 1.

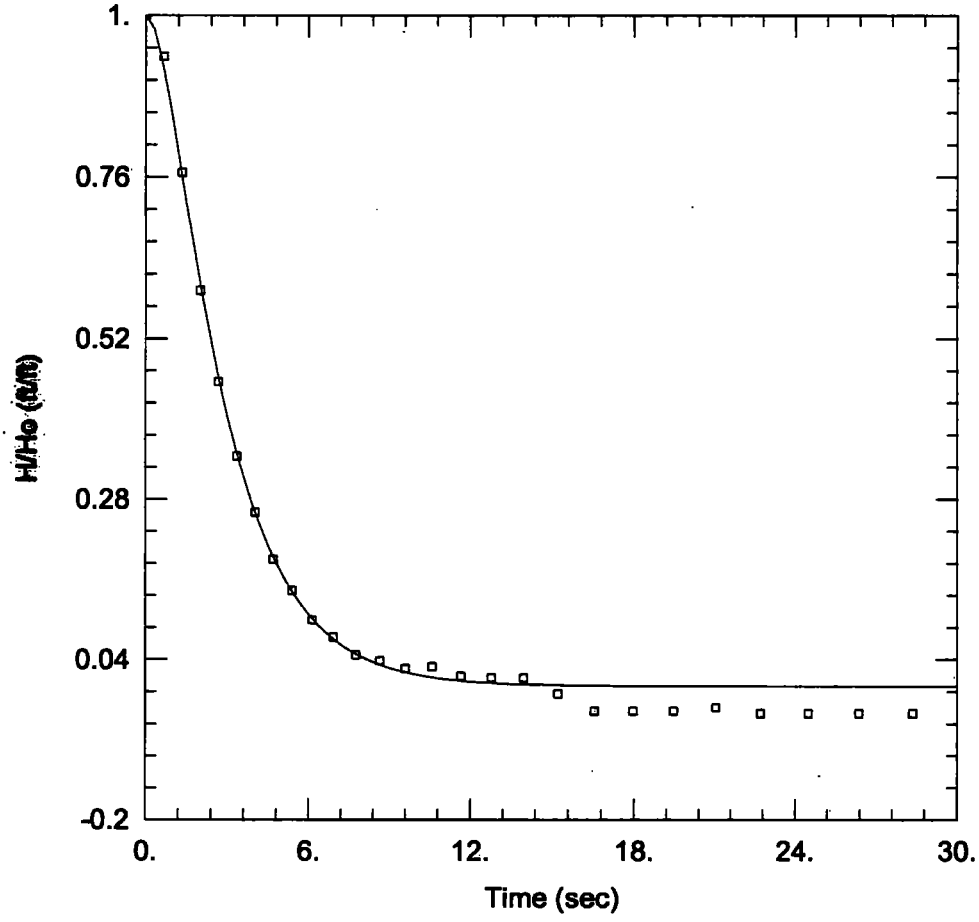
## WELL DATA (MW-1D SI 2)

Initial Displacement: 1.976 ft
Total Well Penetration Depth: 72.34 ft
Casing Radius: 0.0833 ft
Static Water Column Height: 72.34 ft
Screen Length: 20. ft
Well Radius: 0.427 ft
Gravel Pack Porosity: 0.3

## SOLUTION

Aquifer Model: Unconfined
Solution Method: Springer-Gelhar

K = 20.3 ft/day
Le = 15.83 ft




## WELL TEST ANALYSIS

Data Set: J:\...\MW-1D SO 1.aqt
Date: 07/17/06 Time: 16:46:35

## PROJECT INFORMATION

Company: ENSR
Client: AK Steel
Project: 00076-069
Location: New Miami, OH
Test Well: MW-1D SO 1
Test Date: 4/7/2006

## AQUIFER DATA

Saturated Thickness: 100. ft
Anisotropy Ratio (Kz/Kr): 1.

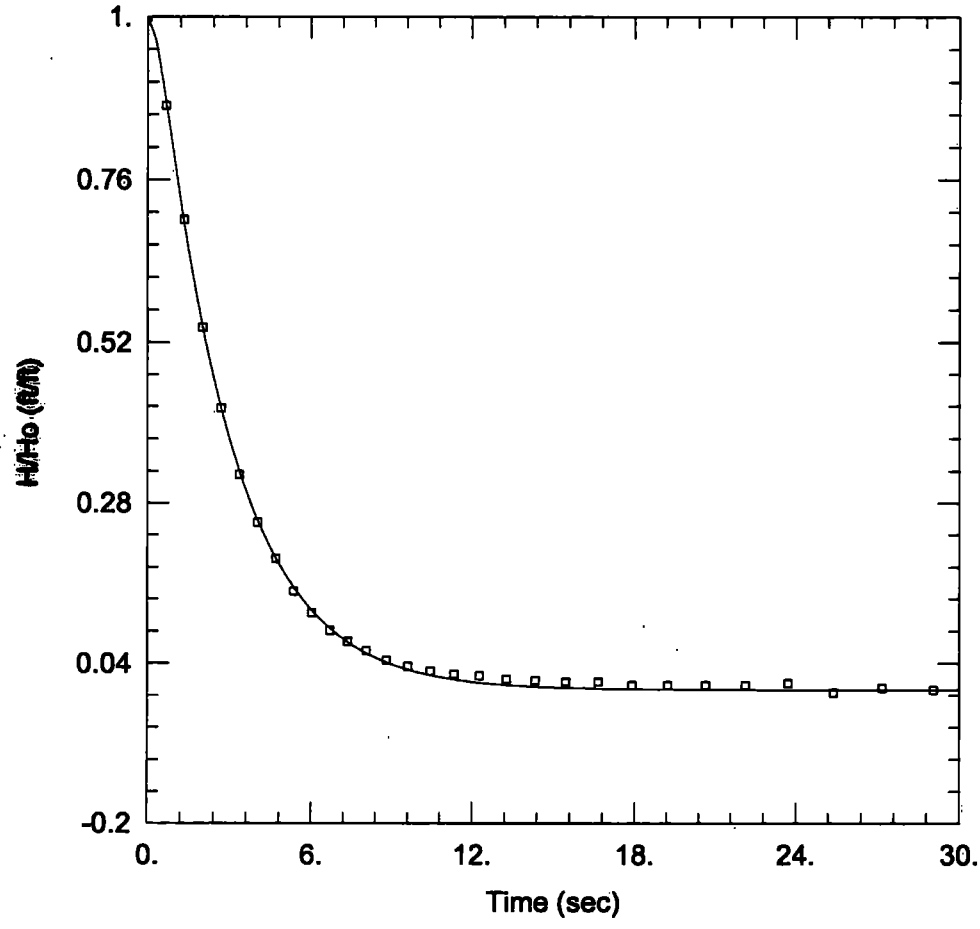
## WELL DATA (MW-1D SO 1)

Initial Displacement: 1.474 ft
Total Well Penetration Depth: 72.31 ft
Casing Radius: 0.0833 ft
Static Water Column Height: 72.31 ft
Screen Length: 20. ft
Well Radius: 0.427 ft
Gravel Pack Porosity: 0.3

## SOLUTION

Aquifer Model: Unconfined
Solution Method: Springer-Gelhar

K = 15.36 ft/day
Le = 61.63 ft




## WELL TEST ANALYSIS

Data Set: J:\...\MW-1D SO 2.aqt
Date: 07/17/06 Time: 16:47:15

## PROJECT INFORMATION

Company: ENSR
Client: AK Steel
Project: 00076-069
Location: New Miami, OH
Test Well: MW-1D SO 2
Test Date: 4/12/2006

## AQUIFER DATA

Saturated Thickness: 100. ft
Anisotropy Ratio (Kz/Kr): 1.

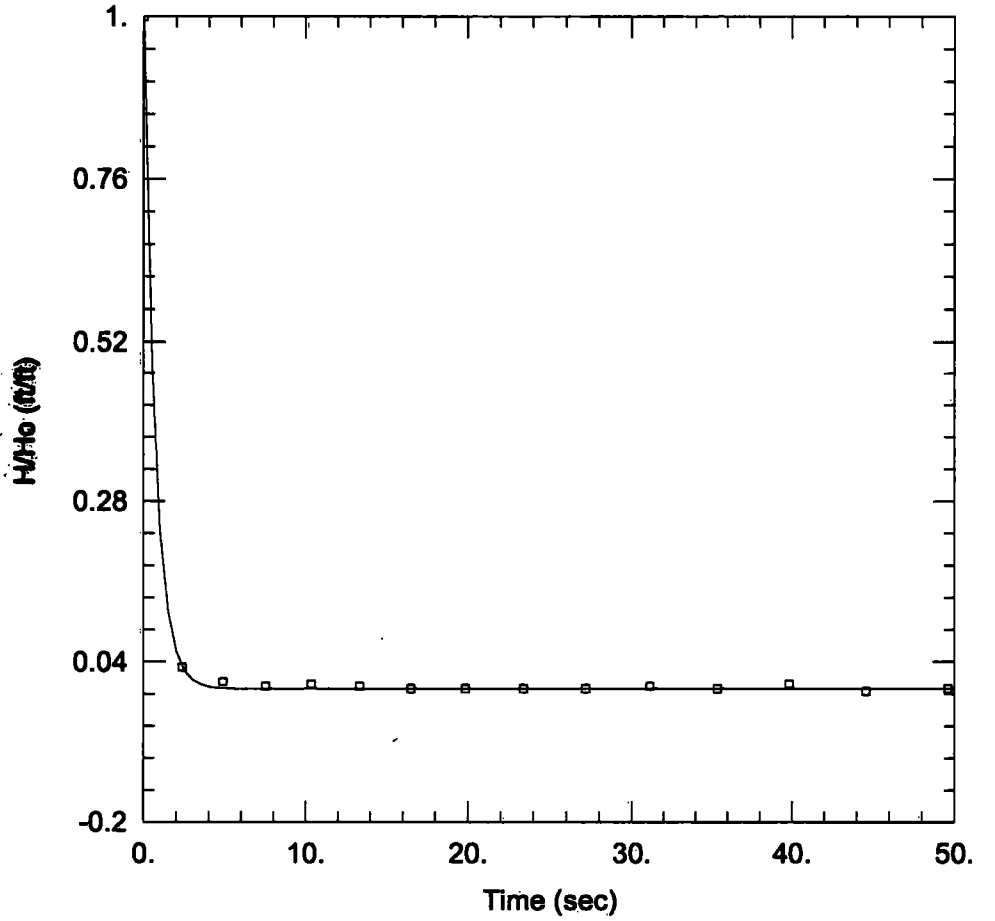
## WELL DATA (MW-1D SO 2)

Initial Displacement: 1.837 ft
Total Well Penetration Depth: 72.34 ft
Casing Radius: 0.0833 ft
Static Water Column Height: 72.34 ft
Screen Length: 20. ft
Well Radius: 0.427 ft
Gravel Pack Porosity: 0.3

## SOLUTION

Aquifer Model: Unconfined
Solution Method: Springer-Gelhar

K = 15.67 ft/day
Le = 30.74 ft




## WELL TEST ANALYSIS

Data Set: J:\...\MW-3S SI 1.aqt
Date: 07/17/06 Time: 14:44:19

## PROJECT INFORMATION

Company: ENSR
Client: AK Steel
Project: 00076-069
Location: New Miami, OH
Test Well: MW-3S SI 1
Test Date: 4/5/2006

## AQUIFER DATA

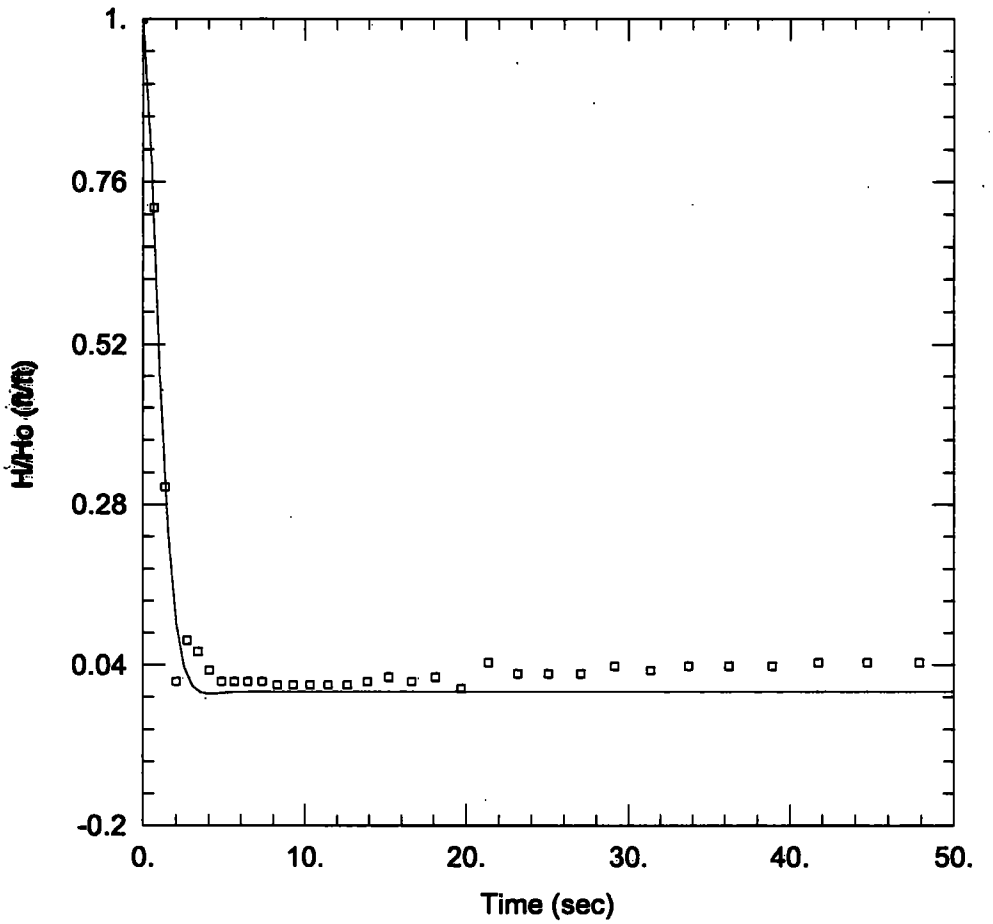
Saturated Thickness: 34.5 ft
Anisotropy Ratio (Kz/Kr): 1.

## WELL DATA (MW-3S SI 1)

Initial Displacement: 1.193 ft
Total Well Penetration Depth: 13.35 ft
Casing Radius: 0.0833 ft
Static Water Column Height: 13.35 ft
Screen Length: 10. ft
Well Radius: 0.177 ft
Gravel Pack Porosity: 0.3

## SOLUTION

Aquifer Model: Unconfined
Solution Method: Springer-Gelhar
K = 121.5 ft/day
Le = 0.1 ft




## WELL TEST ANALYSIS

Data Set: J:\...\MW-3S SI 2.aqt
Date: 07/17/06 Time: 14:45:07

## PROJECT INFORMATION

Company: ENSR
Client: AK Steel
Project: 00076-069
Location: New Miami, OH
Test Well: MW-3S SI 2
Test Date: 4/13/2006

## AQUIFER DATA

Saturated Thickness: 34.5 ft Anisotropy Ratio (Kz/Kr): 1.

## WELL DATA (MW-3S SI 2)

Initial Displacement: 0.784 ft
Total Well Penetration Depth: 13.14 ft
Casing Radius: 0.0833 ft
Static Water Column Height: 13.14 ft
Screen Length: 10. ft
Well Radius: 0.177 ft
Gravel Pack Porosity: 0.3

## SOLUTION

Aquifer Model: Unconfined Solution Method: Springer-Gelhar

K = 78.43 ft/day Le = 11.86 ft