# Appendix D
# Crowley Marine Services Historical Data

# Appendix D

D-1 Table D-1: Chemicals Detected in Soil, Crowley Marine Services
Table D-2: Chemicals Detected in Groundwater, Crowley Marine Services

D-2 Hart Crowser 1989a: Report of Environmental Assessment—Parcel F, Soil and Groundwater Conditions, Evergreen Marine Leasing Property

D-3 Hart Crowser 1989b: Report of Environmental Assessment—Parcel D, Soil and Groundwater Conditions, Evergreen Marine Leasing Property

D-4 Landau 1990: Environmental Site Assessment, First Interstate Bank of Washington Property

D-5 Hart Crowser 1990b: Report of Supplemental Site Characterization—Parcel D, Evergreen Marine Leasing Property

D-6 SAIC 2006b: Technical Memorandum, Crowley and First South Properties, Potential for Slip 4 Sediment Recontamination via Groundwater Discharge

# Appendix D-1

## Table D-1: Chemicals Detected in Soil, Crowley Marine Services

## Table D-2: Chemicals Detected in Groundwater, Crowley Marine Services

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | FB5 | 11 | 1,1-DCA | 0.0011 | J | 8,000 | | 0.0 |
| **Landau 1990** | **1990** | **DB12** | **11.5** | **1,4-Dichlorobenzene** | **0.79** | **M** | **42** | **0.015** | **53** |
| Landau 1990 | 1990 | DB6 | 7 | 2,3,4,6-Tetrachlorophenol | 0.027 | | 2,400 | | 0.0 |
| Landau 1990 | 1990 | DB6 | 2 | 2,3,4,6-Tetrachlorophenol | 0.02 | | 2,400 | | 0.0 |
| Landau 1990 | 1990 | DB2 | 7 | 2,3,4,6-Tetrachlorophenol | 0.02 | | 2,400 | | 0.0 |
| Landau 1990 | 1990 | DB5 | 2 | 2,3,4,6-Tetrachlorophenol | 0.0089 | | 2,400 | | 0.0 |
| Landau 1990 | 1990 | DB6 | 2 | 2,3,5,6-Tetrachlorophenol | 0.024 | | | | |
| Landau 1990 | 1990 | DB6 | 7 | 2,3,5,6-Tetrachlorophenol | 0.0077 | | | | |
| Landau 1990 | 1990 | DB5 | 2 | 2,3,5,6-Tetrachlorophenol | 0.005 | | | | |
| Landau 1990 | 1990 | DB7 | 11.5 | 2,3,5,6-Tetrachlorophenol | 0.0043 | J | | | |
| Landau 1990 | 1990 | FB5 | 8 | 2-Butanone | 0.043 | | 48,000 | | 0.0 |
| Landau 1990 | 1990 | DB9 | 8 | 2-Butanone | 0.016 | | 48,000 | | 0.0 |
| Landau 1990 | 1990 | DB3 | 9 | 2-Butanone | 0.016 | | 48,000 | | 0.0 |
| Landau 1990 | 1990 | DB10 | 5 | 2-Butanone | 0.013 | | 48,000 | | 0.0 |
| Landau 1990 | 1990 | DB8 | 8 | 2-Butanone | 0.013 | | 48,000 | | 0.0 |
| Landau 1990 | 1990 | DB6 | 10 | 2-Butanone | 0.0096 | | 48,000 | | 0.0 |
| Landau 1990 | 1990 | DB2 | 4.5 | 2-Butanone | 0.0083 | | 48,000 | | 0.0 |
| Landau 1990 | 1990 | DB5 | 2 | 2-Butanone | 0.0075 | J | 48,000 | | 0.0 |
| Landau 1990 | 1990 | DB9 | 5 | 2-Butanone | 0.0064 | J | 48,000 | | 0.0 |
| Landau 1990 | 1990 | DB2 | 7 | 2-Butanone | 0.0063 | J | 48,000 | | 0.0 |
| Landau 1990 | 1990 | DB9 | 11 | 2-Butanone | 0.005 | M | 48,000 | | 0.0 |
| Landau 1990 | 1990 | DB12 | 11.5 | 2-Butanone | 0.0047 | M | 48,000 | | 0.0 |
| Landau 1990 | 1990 | DB14 | 9.5 | 2-Butanone | 0.0045 | M | 48,000 | | 0.0 |
| Landau 1990 | 1990 | DB8 | 11 | 2-Butanone | 0.0044 | J | 48,000 | | 0.0 |
| Landau 1990 | 1990 | DB3 | 3.5 | 2-Butanone | 0.0036 | J | 48,000 | | 0.0 |
| Landau 1990 | 1990 | DB8 | 5 | 2-Butanone | 0.0032 | M | 48,000 | | 0.0 |
| Landau 1990 | 1990 | FB4 | 8 | 2-Butanone | 0.0031 | M | 48,000 | | 0.0 |
| Landau 1990 | 1990 | DB12 | 5 | 2-Butanone | 0.0029 | M | 48,000 | | 0.0 |
| Landau 1990 | 1990 | DB7 | 8.5 | 2-Butanone | 0.0029 | J | 48,000 | | 0.0 |
| Landau 1990 | 1990 | DB6 | 4.5 | 2-Dimethylphenol | 9.3 | | | | |
| Landau 1990 | 1990 | DB6 | 7 | 2-Dimethylphenol | 2.5 | | | | |
| Landau 1990 | 1990 | DB11 | 8 | 2-Dimethylphenol | 2.2 | M | | | |
| Landau 1990 | 1990 | DB11 | 9.5 | 2-Dimethylphenol | 0.34 | J | | | |
| Landau 1990 | 1990 | DB9 | 5 | 2-Dimethylphenol | 0.13 | | | | |
| Landau 1990 | 1990 | DB6 | 13 | 2-Dimethylphenol | 0.073 | J | | | |
| Landau 1990 | 1990 | DB7 | 6 | 2-Hexanone | 0.0011 | J | | | |
| **Landau 1990** | **1990** | **DB11** | **8** | **2-Methylnaphthalene** | **640** | | **320** | **0.073** | **8,767** |
| **Landau 1990** | **1990** | **DB6** | **4.5** | **2-Methylnaphthalene** | **540** | | **320** | **1.4** | **386** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **9.8** | **2-Methylnaphthalene** | **200** | | **320** | **0.073** | **2,740** |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| **Landau 1990** | **1990** | **DB11** | **9.5** | **2-Methylnaphthalene** | **120** | | **320** | **0.073** | **1,644** |
| **Landau 1990** | **1990** | **DB6** | **7** | **2-Methylnaphthalene** | **51** | | **320** | **0.073** | **699** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **8.5** | **2-Methylnaphthalene** | **19** | | **320** | **0.073** | **260** |
| Hart Crowser 1990b | Aug-90 | HC-106 | 5.3 | 2-Methylnaphthalene | 11 | | 320 | 1.4 | 7.9 |
| **Landau 1990** | **1990** | **DB6** | **13** | **2-Methylnaphthalene** | **6.4** | | **320** | **0.073** | **88** |
| **Landau 1990** | **1990** | **DB2** | **7** | **2-Methylnaphthalene** | **4.6** | | **320** | **0.073** | **63** |
| Landau 1990 | 1990 | DB6 | 2 | 2-Methylnaphthalene | 3 | | 320 | 1.4 | 2.1 |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **10.8** | **2-Methylnaphthalene** | **1.9** | | **320** | **0.073** | **26** |
| **Landau 1990** | **1990** | **DB3** | **17** | **2-Methylnaphthalene** | **1.6** | | **320** | **0.073** | **22** |
| **Landau 1990** | **1990** | **DB2** | **9.5** | **2-Methylnaphthalene** | **1.4** | | **320** | **0.073** | **19** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103 DUP** | **10.8** | **2-Methylnaphthalene** | **1.4** | | **320** | **0.073** | **19** |
| **Landau 1990** | **1990** | **DB12** | **11.5** | **2-Methylnaphthalene** | **1.2** | **J** | **320** | **0.073** | **16** |
| **Landau 1990** | **1990** | **DB6** | **16** | **2-Methylnaphthalene** | **1** | | **320** | **0.073** | **14** |
| Landau 1990 | 1990 | DB5 | 2 | 2-Methylnaphthalene | 0.93 | | 320 | 1.4 | 0.7 |
| **Landau 1990** | **1990** | **DB7** | **11.5** | **2-Methylnaphthalene** | **0.73** | | **320** | **0.073** | **10** |
| Landau 1990 | 1990 | DB3 | 13.5 | 2-Methylnaphthalene | 0.67 | | 320 | 0.073 | 9.2 |
| Landau 1990 | 1990 | DB7 | 8.5 | 2-Methylnaphthalene | 0.25 | | 320 | 0.073 | 3.4 |
| Landau 1990 | 1990 | DB3 | 3.5 | 2-Methylnaphthalene | 0.17 | M | 320 | 1.4 | 0.1 |
| Landau 1990 | 1990 | DB6 | 10 | 2-Methylnaphthalene | 0.16 | | 320 | 0.073 | 2.2 |
| Hart Crowser 1990b | Aug-90 | HC-110 | 8.9 | 2-Methylnaphthalene | 0.15 | | 320 | 0.073 | 2.1 |
| Landau 1990 | 1990 | DB2 | 4.5 | 2-Methylnaphthalene | 0.1 | J | 320 | 1.4 | 0.1 |
| Landau 1990 | 1990 | DB9 | 5 | 2-Methylnaphthalene | 0.062 | | 320 | 1.4 | 0.0 |
| Landau 1990 | 1990 | DB8 | 5 | 2-Methylnaphthalene | 0.057 | J | 320 | 1.4 | 0.0 |
| Landau 1990 | 1990 | DB12 | 5 | 2-Methylnaphthalene | 0.055 | J | 320 | 1.4 | 0.0 |
| Landau 1990 | 1990 | DB13 | 11 | 2-Methylnaphthalene | 0.024 | J | 320 | 0.073 | 0.3 |
| **Landau 1990** | **1990** | **DB6** | **4.5** | **2-Methylphenol** | **6** | | | **0.091** | **66** |
| **Landau 1990** | **1990** | **DB6** | **7** | **2-Methylphenol** | **0.86** | | | **0.0052** | **165** |
| **Landau 1990** | **1990** | **DB11** | **8** | **2-Methylphenol** | **0.44** | **M** | | **0.0052** | **85** |
| **Landau 1990** | **1990** | **DB6** | **13** | **2-Methylphenol** | **0.099** | | | **0.0052** | **19** |
| Landau 1990 | 1990 | DB9 | 5 | 2-Methylphenol | 0.066 | | | 0.091 | 0.7 |
| Landau 1990 | 1990 | DB2 | 7 | 3,4,5-Trichlorophenol | 0.046 | | | | |
| Landau 1990 | 1990 | FSS2 | 0-0.5 | 4-Chloro-3-Methylphenol | 63 | | | | |
| Landau 1990 | 1990 | DB6 | 4.5 | 4-Methyl-pentanone | 0.66 | J | | | |
| Landau 1990 | 1990 | DB6 | 7 | 4-Methyl-pentanone | 0.29 | | | | |
| Landau 1990 | 1990 | DB2 | 9.5 | 4-Methyl-pentanone | 0.0022 | M | | | |
| Landau 1990 | 1990 | DB7 | 11.5 | 4-Methyl-pentanone | 0.0021 | J | | | |
| Landau 1990 | 1990 | DB7 | 6 | 4-Methyl-pentanone | 0.0008 | M | | | |
| **Landau 1990** | **1990** | **DB6** | **4.5** | **4-Methylphenol** | **15** | | | **0.98** | **15** |
| **Landau 1990** | **1990** | **DB6** | **7** | **4-Methylphenol** | **2.7** | | | **0.056** | **48** |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| **Landau 1990** | **1990** | **DB6** | **13** | **4-Methylphenol** | **0.33** | | | **0.056** | **5.9** |
| Landau 1990 | 1990 | DB9 | 5 | 4-Methylphenol | 0.066 | | | 0.98 | 0.1 |
| **Landau 1990** | **1990** | **DB11** | **8** | **Acenaphthene** | **860** | **B** | **4,800** | **0.060** | **14,333** |
| **Landau 1990** | **1990** | **DB6** | **4.5** | **Acenaphthene** | **570** | **B** | **4,800** | **1.2** | **475** |
| **Landau 1990** | **1990** | **DB11** | **9.5** | **Acenaphthene** | **190** | **B** | **4,800** | **0.060** | **3,167** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **9.8** | **Acenaphthene** | **130** | | **4,800** | **0.060** | **2,167** |
| **Landau 1990** | **1990** | **DB6** | **7** | **Acenaphthene** | **43** | **B** | **4,800** | **0.060** | **717** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **8.5** | **Acenaphthene** | **30** | | **4,800** | **0.060** | **500** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-106** | **5.3** | **Acenaphthene** | **17** | | **4,800** | **1.2** | **14** |
| Landau 1990 | 1990 | DB5 | 2 | Acenaphthene | 8.6 | B | 4,800 | 1.2 | 7.2 |
| **Landau 1990** | **1990** | **DB6** | **13** | **Acenaphthene** | **8.5** | | **4,800** | **0.060** | **142** |
| Landau 1990 | 1990 | DB6 | 2 | Acenaphthene | 4.9 | B | 4,800 | 1.2 | 4.1 |
| **Landau 1990** | **1990** | **DB2** | **7** | **Acenaphthene** | **4** | **B** | **4,800** | **0.060** | **67** |
| **Landau 1990** | **1990** | **DB3** | **17** | **Acenaphthene** | **3.5** | | **4,800** | **0.060** | **58** |
| **Landau 1990** | **1990** | **DB2** | **9.5** | **Acenaphthene** | **2.7** | | **4,800** | **0.060** | **45** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **10.8** | **Acenaphthene** | **1.5** | | **4,800** | **0.060** | **25** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103 DUP** | **10.8** | **Acenaphthene** | **1.5** | | **4,800** | **0.060** | **25** |
| Landau 1990 | 1990 | DB4 | 6 | Acenaphthene | 1.4 | B | 4,800 | 1.2 | 1.2 |
| **Landau 1990** | **1990** | **DB3** | **13.5** | **Acenaphthene** | **1.3** | | **4,800** | **0.060** | **22** |
| **Landau 1990** | **1990** | **DB6** | **16** | **Acenaphthene** | **1.2** | | **4,800** | **0.060** | **20** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-110** | **8.9** | **Acenaphthene** | **1.1** | | **4,800** | **0.060** | **18** |
| **Landau 1990** | **1990** | **DB7** | **11.5** | **Acenaphthene** | **0.96** | **B** | **4,800** | **0.060** | **16** |
| Hart Crowser 1990b | Aug-90 | HC-107 | 3.1 | Acenaphthene | 0.67 | | 4,800 | 1.2 | 0.6 |
| Landau 1990 | 1990 | DB3 | 3.5 | Acenaphthene | 0.42 | B | 4,800 | 1.2 | 0.4 |
| Landau 1990 | 1990 | DB12 | 5 | Acenaphthene | 0.39 | | 4,800 | 1.2 | 0.3 |
| Landau 1990 | 1990 | DB7 | 8.5 | Acenaphthene | 0.31 | B | 4,800 | 0.060 | 5.2 |
| Landau 1990 | 1990 | DB4 | 8.5 | Acenaphthene | 0.29 | B | 4,800 | 0.060 | 4.8 |
| Landau 1990 | 1990 | DB6 | 10 | Acenaphthene | 0.23 | | 4,800 | 0.060 | 3.8 |
| Landau 1990 | 1990 | DB2 | 4.5 | Acenaphthene | 0.2 | JB | 4,800 | 1.2 | 0.2 |
| Hart Crowser 1990b | Aug-90 | HC-106 | 3.5 | Acenaphthene | 0.17 | | 4,800 | 1.2 | 0.1 |
| Landau 1990 | 1990 | DB6 | 18.5 | Acenaphthene | 0.11 | | 4,800 | 0.060 | 1.8 |
| Landau 1990 | 1990 | DB8 | 5 | Acenaphthene | 0.061 | JB | 4,800 | 1.2 | 0.1 |
| Landau 1990 | 1990 | DB10 | 5 | Acenaphthene | 0.058 | J | 4,800 | 1.2 | 0.0 |
| Landau 1990 | 1990 | DB9 | 5 | Acenaphthene | 0.053 | | 4,800 | 1.2 | 0.0 |
| Landau 1990 | 1990 | DB13 | 11 | Acenaphthene | 0.041 | J | 4,800 | 0.060 | 0.7 |
| **Landau 1990** | **1990** | **DB11** | **8** | **Acenaphthylene** | **24** | | | **0.069** | **348** |
| Landau 1990 | 1990 | DB6 | 4.5 | Acenaphthylene | 13 | | | 1.4 | 9.3 |
| **Landau 1990** | **1990** | **DB11** | **9.5** | **Acenaphthylene** | **2.6** | | | **0.069** | **38** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **9.8** | **Acenaphthylene** | **2.2** | | | **0.069** | **32** |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | DB3 | 3.5 | Acenaphthylene | 1.4 | | | 1.4 | 1.0 |
| **Landau 1990** | **1990** | **DB6** | **7** | **Acenaphthylene** | **1.3** | | | **0.069** | **19** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-110** | **8.9** | **Acenaphthylene** | **0.87** | | | **0.069** | **13** |
| Landau 1990 | 1990 | DB2 | 4.5 | Acenaphthylene | 0.52 | | | 1.4 | 0.4 |
| Hart Crowser 1990b | Aug-90 | HC-103 | 8.5 | Acenaphthylene | 0.5 | | | 0.069 | 7.2 |
| Hart Crowser 1990b | Aug-90 | HC-106 | 5.3 | Acenaphthylene | 0.32 | | | 1.4 | 0.2 |
| Landau 1990 | 1990 | DB2 | 7 | Acenaphthylene | 0.25 | | | 0.069 | 3.6 |
| Landau 1990 | 1990 | DB6 | 13 | Acenaphthylene | 0.19 | | | 0.069 | 2.8 |
| Landau 1990 | 1990 | DB8 | 5 | Acenaphthylene | 0.1 | | | 1.4 | 0.1 |
| Landau 1990 | 1990 | DB9 | 5 | Acenaphthylene | 0.033 | | | 1.4 | 0.0 |
| Landau 1990 | 1990 | DB7 | 8.5 | Acenaphthylene | 0.027 | J | | 0.069 | 0.4 |
| Landau 1990 | 1990 | DB6 | 4.5 | Acetone | 4 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | FB5 | 8 | Acetone | 0.24 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB11 | 9.5 | Acetone | 0.14 | B | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB2 | 7 | Acetone | 0.086 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB9 | 8 | Acetone | 0.083 | | 8,000 | | 0.0 |
| Hart Crowser 1989a | Nov-88 | SS-2 | 0-0.5 | Acetone | 0.077 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB10 | 5 | Acetone | 0.075 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB3 | 9 | Acetone | 0.073 | B | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB8 | 8 | Acetone | 0.07 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB5 | 2 | Acetone | 0.052 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB9 | 5 | Acetone | 0.051 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB5 | 8 | Acetone | 0.049 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB2 | 9.5 | Acetone | 0.041 | | 8,000 | | 0.0 |
| Hart Crowser 1989a | Nov-88 | SS-3 | 0-0.5 | Acetone | 0.041 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB12 | 5 | Acetone | 0.038 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB12 | 11.5 | Acetone | 0.035 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB10 | 8 | Acetone | 0.03 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB8 | 5 | Acetone | 0.029 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB7 | 8.5 | Acetone | 0.029 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB14 | 9.5 | Acetone | 0.029 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB9 | 11 | Acetone | 0.029 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB3 | 3.5 | Acetone | 0.027 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB8 | 11 | Acetone | 0.027 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | FB5 | 2 | Acetone | 0.025 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | FB4 | 8 | Acetone | 0.025 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB3 | 7.5 | Acetone | 0.024 | B | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB7 | 11.5 | Acetone | 0.023 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB3 | 17 | Acetone | 0.023 | B | 8,000 | | 0.0 |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | DB2 | 4.5 | Acetone | 0.022 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB10 | 11 | Acetone | 0.022 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | FB5 | 11 | Acetone | 0.022 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB3 | 13.5 | Acetone | 0.021 | B | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB6 | 18.5 | Acetone | 0.021 | J | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB1 | 6.5 | Acetone | 0.017 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | FB3 | 13.5 | Acetone | 0.017 | B | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB2 | 12 | Acetone | 0.016 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | FB2 | 18.5 | Acetone | 0.016 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | FB4 | 11 | Acetone | 0.015 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | FB1 | 13 | Acetone | 0.015 | B | 8,000 | | 0.0 |
| Landau 1990 | 1990 | FB2 | 2 | Acetone | 0.014 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB6 | 16 | Acetone | 0.014 | J | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB2 | 18 | Acetone | 0.014 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB6 | 13 | Acetone | 0.013 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB5 | 11 | Acetone | 0.012 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | FB4 | 2 | Acetone | 0.011 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | FB2 | 8 | Acetone | 0.011 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB6 | 10 | Acetone | 0.011 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB13 | 11 | Acetone | 0.01 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB7 | 6 | Acetone | 0.009 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | FB2 | 5.5 | Acetone | 0.0072 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB4 | 11 | Acetone | 0.007 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB4 | 8.5 | Acetone | 0.0063 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB11 | 6.5 | Acetone | 0.005 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB1 | 5 | Acetone | 0.0042 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB2 | 3.5 | Acetone | 0.0036 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | FB3 | 5.5 | Acetone | 0.0025 | JB | 8,000 | | 0.0 |
| **Landau 1990** | **1990** | **DB6** | **4.5** | **Anthracene** | **910** | **B** | **2,400** | **24** | **38** |
| **Landau 1990** | **1990** | **DB11** | **8** | **Anthracene** | **420** | **B** | **2,400** | **1.2** | **350** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **9.8** | **Anthracene** | **360** | | **2,400** | **1.2** | **300** |
| **Landau 1990** | **1990** | **DB6** | **7** | **Anthracene** | **110** | **B** | **2,400** | **1.2** | **92** |
| **Landau 1990** | **1990** | **DB11** | **9.5** | **Anthracene** | **97** | **B** | **2,400** | **1.2** | **81** |
| Hart Crowser 1990b | Aug-90 | HC-106 | 5.3 | Anthracene | 33 | | 2,400 | 24 | 1.4 |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **8.5** | **Anthracene** | **28** | | **2,400** | **1.2** | **23** |
| Landau 1990 | 1990 | DB6 | 2 | Anthracene | 16 | B | 2,400 | 24 | 0.7 |
| Landau 1990 | 1990 | DB5 | 2 | Anthracene | 13 | B | 2,400 | 24 | 0.5 |
| Landau 1990 | 1990 | DB6 | 13 | Anthracene | 11 | | 2,400 | 1.2 | 9.2 |
| Landau 1990 | 1990 | DB3 | 3.5 | Anthracene | 8.1 | B | 2,400 | 24 | 0.3 |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | DB2 | 7 | Anthracene | 6.2 | B | 2,400 | 1.2 | 5.2 |
| Landau 1990 | 1990 | DB4 | 6 | Anthracene | 5.1 | B | 2,400 | 24 | 0.2 |
| Hart Crowser 1990b | Aug-90 | HC-110 | 8.9 | Anthracene | 4.8 | | 2,400 | 1.2 | 4.0 |
| Hart Crowser 1990b | Aug-90 | HC-107 | 3.1 | Anthracene | 4.5 | | 2,400 | 24 | 0.2 |
| Landau 1990 | 1990 | DB2 | 4.5 | Anthracene | 3.7 | B | 2,400 | 24 | 0.2 |
| Landau 1990 | 1990 | DB6 | 16 | Anthracene | 2.5 | | 2,400 | 1.2 | 2.1 |
| Landau 1990 | 1990 | DB7 | 11.5 | Anthracene | 2.1 | B | 2,400 | 1.2 | 1.8 |
| Hart Crowser 1990b | Aug-90 | HC-103 DUP | 10.8 | Anthracene | 1.4 | | 2,400 | 1.2 | 1.2 |
| Landau 1990 | 1990 | DB3 | 17 | Anthracene | 1.2 | | 2,400 | 1.2 | 1.0 |
| Landau 1990 | 1990 | DB12 | 5 | Anthracene | 1 | | 2,400 | 24 | 0.0 |
| Landau 1990 | 1990 | DB4 | 8.5 | Anthracene | 0.93 | B | 2,400 | 1.2 | 0.8 |
| Landau 1990 | 1990 | DB2 | 9.5 | Anthracene | 0.87 | | 2,400 | 1.2 | 0.7 |
| Hart Crowser 1990b | Aug-90 | HC-103 | 10.8 | Anthracene | 0.78 | | 2,400 | 1.2 | 0.7 |
| Landau 1990 | 1990 | DB8 | 5 | Anthracene | 0.7 | B | 2,400 | 24 | 0.0 |
| Landau 1990 | 1990 | DB6 | 10 | Anthracene | 0.67 | | 2,400 | 1.2 | 0.6 |
| Landau 1990 | 1990 | DB6 | 18.5 | Anthracene | 0.63 | | 2,400 | 1.2 | 0.5 |
| Landau 1990 | 1990 | DB7 | 8.5 | Anthracene | 0.57 | B | 2,400 | 1.2 | 0.5 |
| Hart Crowser 1990b | Aug-90 | HC-106 | 3.5 | Anthracene | 0.46 | | 2,400 | 24 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-102 | 8.5 | Anthracene | 0.33 | | 2,400 | 1.2 | 0.3 |
| Landau 1990 | 1990 | DB9 | 5 | Anthracene | 0.2 | | 2,400 | 24 | 0.0 |
| Landau 1990 | 1990 | DB10 | 5 | Anthracene | 0.13 | | 2,400 | 24 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-105 | 6.0 | Anthracene | 0.13 | | 2,400 | 24 | 0.0 |
| Landau 1990 | 1990 | DB13 | 11 | Anthracene | 0.087 | | 2,400 | 1.2 | 0.1 |
| Landau 1990 | 1990 | DB11 | 6.5 | Anthracene | 0.084 | | 2,400 | 24 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-110 | 3.5 | Anthracene | 0.082 | J | 2,400 | 24 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-110 | 6.8 | Anthracene | 0.065 | J | 2,400 | 24 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-103 | 6.5 | Anthracene | 0.06 | J | 2,400 | 24 | 0.0 |
| Landau 1990 | 1990 | DB2 | 3.5 | Anthracene | 0.039 | J | 2,400 | 24 | 0.0 |
| Hart Crowser 1989a | Nov-88 | SS-5 | 0-0.5 | Aroclor 1248 | 0.89 | | | 1.3 | 0.7 |
| Landau 1990 | 1990 | DB6 | 4.5 | Aroclor 1254 | 2.5 | | | 1.3 | 1.9 |
| Landau 1990 | 1990 | DB6 | 2 | Aroclor 1254 | 0.32 | | | 1.3 | 0.2 |
| Landau 1990 | 1990 | DB7 | 11.5 | Aroclor 1254 | 0.21 | | | 0.065 | 3.2 |
| Landau 1990 | 1990 | DB11 | 6.5 | Aroclor 1254 | 0.13 | | | 1.3 | 0.1 |
| Hart Crowser 1989a | Nov-88 | SS-4 | 0-0.5 | Aroclor 1254 | 0.12 | | | 1.3 | 0.1 |
| Landau 1990 | 1990 | DB7 | 8.5 | Aroclor 1254 | 0.076 | | | 0.065 | 1.2 |
| Landau 1990 | 1990 | DB9 | 5 | Aroclor 1254 | 0.07 | | | 1.3 | 0.1 |
| Landau 1990 | 1990 | DB10 | 5 | Aroclor 1260 | 0.13 | | | 1.3 | 0.1 |
| Landau 1990 | 1990 | DB9 | 5 | Aroclor 1260 | 0.05 | | | 1.3 | 0.0 |
| **Landau 1990** | **1990** | **DB6** | **4.5** | **Arsenic** | **1,760** | | **20** | **12,000** | **88** |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| **Landau 1990** | **1990** | **DB6** | **7** | **Arsenic** | **1,220** | | **20** | **590** | **61** |
| **Landau 1990** | **1990** | **DB7** | **11.5** | **Arsenic** | **1,090** | | **20** | **590** | **55** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-106** | **5.3** | **Arsenic** | **860** | | **20** | **12,000** | **43** |
| **Landau 1990** | **1990** | **DB6** | **2** | **Arsenic** | **590** | | **20** | **12,000** | **30** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-106** | **3.5** | **Arsenic** | **330** | | **20** | **12,000** | **17** |
| **Landau 1990** | **1990** | **DB2** | **7** | **Arsenic** | **241** | | **20** | **590** | **12** |
| **Landau 1990** | **1990** | **DB5** | **2** | **Arsenic** | **205** | | **20** | **12,000** | **10** |
| Landau 1990 | 1990 | DB2 | 4.5 | Arsenic | 144 | | 20 | 12,000 | 7.2 |
| Landau 1990 | 1990 | DB10 | 5 | Arsenic | 133 | | 20 | 12,000 | 6.7 |
| Landau 1990 | 1990 | DB7 | 8.5 | Arsenic | 107 | | 20 | 590 | 5.4 |
| Hart Crowser 1990b | Aug-90 | HC-103 | 8.5 | Arsenic | 75 | | 20 | 590 | 3.8 |
| Hart Crowser 1990b | Aug-90 | HC-107 | 3.1 | Arsenic | 74 | | 20 | 12,000 | 3.7 |
| Hart Crowser 1990b | Aug-90 | HC-109 | 6.5 | Arsenic | 53 | | 20 | 12,000 | 2.7 |
| Landau 1990 | 1990 | DB6 | 13 | Arsenic | 38 | | 20 | 590 | 1.9 |
| Hart Crowser 1990b | Aug-90 | HC-104 | 5.2 | Arsenic | 26 | | 20 | 12,000 | 1.3 |
| Landau 1990 | 1990 | DB2 | 3.5 | Arsenic | 25 | | 20 | 12,000 | 1.3 |
| Landau 1990 | 1990 | DB3 | 3.5 | Arsenic | 21.0 | | 20 | 12,000 | 1.1 |
| Landau 1990 | 1990 | DB8 | 5 | Arsenic | 18.0 | | 20 | 12,000 | 0.9 |
| Hart Crowser 1990b | Aug-90 | HC-110 | 3.5 | Arsenic | 17 | | 20 | 12,000 | 0.9 |
| Landau 1990 | 1990 | FB2 | 2 | Arsenic | 14.8 | | 20 | 12,000 | 0.7 |
| Landau 1990 | 1990 | DB6 | 16 | Arsenic | 14.2 | | 20 | 590 | 0.7 |
| Landau 1990 | 1990 | DB4 | 8.5 | Arsenic | 13.9 | | 20 | 590 | 0.7 |
| Landau 1990 | 1990 | DB1 | 6.5 | Arsenic | 13.1 | | 20 | 12,000 | 0.7 |
| Landau 1990 | 1990 | DB9 | 5 | Arsenic | 9.7 | | 20 | 12,000 | 0.5 |
| Landau 1990 | 1990 | FB4 | 11 | Arsenic | 9.7 | | 20 | 590 | 0.5 |
| Landau 1990 | 1990 | DB10 | 11 | Arsenic | 9.1 | | 20 | 590 | 0.5 |
| Landau 1990 | 1990 | DB2 | 18 | Arsenic | 9.10 | | 20 | 590 | 0.5 |
| Hart Crowser 1990b | Aug-90 | HC-104 | 8.5 | Arsenic | 8.6 | | 20 | 590 | 0.4 |
| Landau 1990 | 1990 | DB4 | 6 | Arsenic | 8.5 | | 20 | 12,000 | 0.4 |
| Landau 1990 | 1990 | DB11 | 8 | Arsenic | 6.8 | | 20 | 590 | 0.3 |
| Landau 1990 | 1990 | DB1 | 5 | Arsenic | 6.57 | | 20 | 12,000 | 0.3 |
| Landau 1990 | 1990 | DB3 | 2 | Arsenic | 6.5 | | 20 | 12,000 | 0.3 |
| Landau 1990 | 1990 | DB2 | 12 | Arsenic | 6.50 | | 20 | 590 | 0.3 |
| Landau 1990 | 1990 | DB3 | 17 | Arsenic | 5.51 | | 20 | 590 | 0.3 |
| Hart Crowser 1990b | Aug-90 | HC-106 DUP | 7.5 | Arsenic | 5.5 | | 20 | 590 | 0.3 |
| Landau 1990 | 1990 | DB13 | 11 | Arsenic | 5.30 | | 20 | 590 | 0.3 |
| Landau 1990 | 1990 | FB1 | 7 | Arsenic | 4.7 | | 20 | 590 | 0.2 |
| Landau 1990 | 1990 | DB11 | 6.5 | Arsenic | 4.66 | | 20 | 12,000 | 0.2 |
| Landau 1990 | 1990 | DB2 | 9.5 | Arsenic | 4.0 | | 20 | 590 | 0.2 |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | DB4 | 11 | Arsenic | 4.0 | | 20 | 590 | 0.2 |
| Landau 1990 | 1990 | FB2 | 18.5 | Arsenic | 3.9 | | 20 | 590 | 0.2 |
| Landau 1990 | 1990 | DB7 | 6 | Arsenic | 4 | | 20 | 12,000 | 0.2 |
| Landau 1990 | 1990 | DB9 | 8 | Arsenic | 3.30 | | 20 | 590 | 0.2 |
| Landau 1990 | 1990 | DB6 | 10 | Arsenic | 3.3 | | 20 | 590 | 0.2 |
| Landau 1990 | 1990 | FB1 | 13 | Arsenic | 3.2 | | 20 | 590 | 0.2 |
| Landau 1990 | 1990 | FB4 | 8 | Arsenic | 3.10 | | 20 | 590 | 0.2 |
| Landau 1990 | 1990 | DB1 | 9.5 | Arsenic | 3.1 | | 20 | 590 | 0.2 |
| Landau 1990 | 1990 | FB5 | 2 | Arsenic | 3.02 | | 20 | 12,000 | 0.2 |
| Landau 1990 | 1990 | DB8 | 8 | Arsenic | 2.8 | | 20 | 590 | 0.1 |
| Landau 1990 | 1990 | DB3 | 7.5 | Arsenic | 2.79 | | 20 | 590 | 0.1 |
| Landau 1990 | 1990 | DB3 | 9 | Arsenic | 2.5 | | 20 | 590 | 0.1 |
| Landau 1990 | 1990 | DB12 | 5 | Arsenic | 2.35 | | 20 | 12,000 | 0.1 |
| Landau 1990 | 1990 | DB5 | 11 | Arsenic | 2.33 | | 20 | 590 | 0.1 |
| Landau 1990 | 1990 | FB3 | 5.5 | Arsenic | 2.28 | | 20 | 12,000 | 0.1 |
| Landau 1990 | 1990 | DB8 | 11 | Arsenic | 2.22 | | 20 | 590 | 0.1 |
| Landau 1990 | 1990 | DB14 | 9.5 | Arsenic | 2.1 | | 20 | 590 | 0.1 |
| Landau 1990 | 1990 | DB11 | 9.5 | Arsenic | 2.06 | | 20 | 590 | 0.1 |
| Landau 1990 | 1990 | DB9 | 11 | Arsenic | 2.03 | | 20 | 590 | 0.1 |
| Landau 1990 | 1990 | DB12 | 11.5 | Arsenic | 1.99 | | 20 | 590 | 0.1 |
| Landau 1990 | 1990 | FB3 | 3 | Arsenic | 1.98 | | 20 | 12,000 | 0.1 |
| Landau 1990 | 1990 | FB3 | 13.5 | Arsenic | 1.91 | | 20 | 590 | 0.1 |
| Landau 1990 | 1990 | DB10 | 8 | Arsenic | 1.82 | | 20 | 590 | 0.1 |
| Landau 1990 | 1990 | FB5 | 8 | Arsenic | 1.82 | | 20 | 590 | 0.1 |
| Landau 1990 | 1990 | DB3 | 13.5 | Arsenic | 1.78 | | 20 | 590 | 0.1 |
| Landau 1990 | 1990 | FB2 | 8 | Arsenic | 1.64 | | 20 | 590 | 0.1 |
| Landau 1990 | 1990 | DB6 | 18.5 | Arsenic | 1.57 | | 20 | 590 | 0.1 |
| Landau 1990 | 1990 | FB4 | 2 | Arsenic | 1.5 | | 20 | 12,000 | 0.1 |
| Landau 1990 | 1990 | DB3 | 6 | Arsenic | 1.5 | | 20 | 12,000 | 0.1 |
| Landau 1990 | 1990 | FB1 | 2 | Arsenic | 1.34 | | 20 | 12,000 | 0.1 |
| Landau 1990 | 1990 | FB2 | 5.5 | Arsenic | 1.33 | | 20 | 12,000 | 0.1 |
| Landau 1990 | 1990 | FB5 | 11 | Arsenic | 1.31 | | 20 | 590 | 0.1 |
| Landau 1990 | 1990 | DB5 | 8 | Arsenic | 1.16 | | 20 | 590 | 0.1 |
| **Hart Crowser 1989b** | **Feb-89** | **HC-14** | **3.4-4.0** | **Arsenic (total)** | **2,800** | | **20** | **12,000** | **140** |
| **Hart Crowser 1989b** | **Jan-89** | **HC-13** | **3.7-4.1** | **Arsenic (total)** | **2,200** | | **20** | **12,000** | **110** |
| **Hart Crowser 1989b** | **Nov-88** | **HC-1** | **2.5-3.75** | **Arsenic (total)** | **1,600** | | **20** | **12,000** | **80** |
| **Hart Crowser 1989b** | **Feb-89** | **HC-16** | **3.5-3.7** | **Arsenic (total)** | **770** | | **20** | **12,000** | **39** |
| Hart Crowser 1989b | Jan-89 | HC-10 | 2.5-4.0 | Arsenic (total) | 82 | | 20 | 12,000 | 4.1 |
| Hart Crowser 1989b | Feb-89 | HC-17 | 4.0-4.33 | Arsenic (total) | 68 | | 20 | 12,000 | 3.4 |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Hart Crowser 1989b | Jan-89 | HC-13 | 4.1-5.5 | Arsenic (total) | 35 | | 20 | 12,000 | 1.8 |
| Hart Crowser 1989b | Nov-88 | HC-1A | 15.0-16.5 | Arsenic (total) | 23 | | 20 | 590 | 1.2 |
| Hart Crowser 1989b | Jan-89 | HC-11 | 2.5-4.0 | Arsenic (total) | 19 | | 20 | 12,000 | 1.0 |
| Hart Crowser 1989b | Jan-89 | HC-9 | 2.5-4.0 | Arsenic (total) | 17 | | 20 | 12,000 | 0.9 |
| Hart Crowser 1989b | Jun-89 | HC-19 | 3.0-4.0 | Arsenic (total) | 16 | | 20 | 12,000 | 0.8 |
| Hart Crowser 1989b | Nov-88 | HC-1 | 5.0-6.5 | Arsenic (total) | 16 | | 20 | 12,000 | 0.8 |
| Hart Crowser 1989b | Jan-89 | HC-8 | 2.5-4.0 | Arsenic (total) | 14 | | 20 | 12,000 | 0.7 |
| Hart Crowser 1989b | Jan-89 | HC-5 | 0.5-1.0 | Arsenic (total) | 11 | | 20 | 12,000 | 0.6 |
| Hart Crowser 1989b | Nov-88 | HC-1A | 7.5-9.0 | Arsenic (total) | 9.5 | | 20 | 590 | 0.5 |
| Hart Crowser 1989b | Jan-89 | HC-13 | 6.5-8.0 | Arsenic (total) | 7.8 | | 20 | 590 | 0.4 |
| Hart Crowser 1989b | Jan-89 | HC-12 | 2.5-4.0 | Arsenic (total) | 6.8 | | 20 | 12,000 | 0.3 |
| Hart Crowser 1989b | Feb-89 | HC-17 | 3.1-4.0 | Arsenic (total) | 6.0 | | 20 | 12,000 | 0.3 |
| Hart Crowser 1989b | Jan-89 | HC-6 | 2.5-4.0 | Arsenic (total) | 5.4 | | 20 | 12,000 | 0.3 |
| Hart Crowser 1989b | Feb-89 | HC-15A | 4.15-5.15 | Arsenic (total) | 4.5 | | 20 | 12,000 | 0.2 |
| Hart Crowser 1989b | Jun-89 | HC-20 | 5.5-6.5 | Arsenic (total) | 4.3 | | 20 | 12,000 | 0.2 |
| Hart Crowser 1989b | Jun-89 | HC-19 | 5.5-6.5 | Arsenic (total) | 3.8 | | 20 | 12,000 | 0.2 |
| Hart Crowser 1989b | Feb-89 | HC-18 | 4.25-5.5 | Arsenic (total) | 3.4 | | 20 | 12,000 | 0.2 |
| Hart Crowser 1989b | Jun-89 | HC-20 | 3.0-4.0 | Arsenic (total) | 3.0 | | 20 | 12,000 | 0.2 |
| Hart Crowser 1989b | Jan-89 | HC-11 | 4.0-5.5 | Arsenic (total) | 3.0 | | 20 | 12,000 | 0.2 |
| Hart Crowser 1989b | Jan-89 | HC-13 | 2.5-4.0 | Arsenic (total) | 2.9 | | 20 | 12,000 | 0.1 |
| Hart Crowser 1989b | Jan-89 | HC-8 | 6.5-7.75 | Arsenic (total) | 2.5 | | 20 | 590 | 0.1 |
| Hart Crowser 1989b | Jan-89 | HC-11 | 6.5-8.0 | Arsenic (total) | 2.5 | | 20 | 590 | 0.1 |
| Hart Crowser 1989b | Jan-89 | HC-6 | 4.0-5.5 | Arsenic (total) | 2.2 | | 20 | 12,000 | 0.1 |
| Hart Crowser 1989b | Jan-89 | HC-8 | 4.0-5.5 | Arsenic (total) | 2.2 | | 20 | 12,000 | 0.1 |
| Hart Crowser 1989b | Jan-89 | HC-7 | 4.0-5.5 | Arsenic (total) | 2.0 | | 20 | 12,000 | 0.1 |
| Hart Crowser 1989b | Jan-89 | HC-6 | 8.5-9.5 | Arsenic (total) | 2.0 | | 20 | 590 | 0.1 |
| Hart Crowser 1989b | Jan-89 | HC-5 | 3.0-3.75 | Arsenic (total) | 1.9 | | 20 | 12,000 | 0.1 |
| Hart Crowser 1989b | Jan-89 | HC-10 | 6.5-8.0 | Arsenic (total) | 1.9 | | 20 | 590 | 0.1 |
| Hart Crowser 1989b | Jan-89 | HC-9 | 4.0-5.5 | Arsenic (total) | 1.8 | | 20 | 12,000 | 0.1 |
| Hart Crowser 1989b | Jan-89 | HC-12 | 4.0-5.5 | Arsenic (total) | 1.8 | | 20 | 12,000 | 0.1 |
| Hart Crowser 1989b | Jan-89 | HC-7 | 6.5-8.0 | Arsenic (total) | 1.8 | | 20 | 590 | 0.1 |
| Hart Crowser 1989b | Jan-89 | HC-12 | 6.5-8.0 | Arsenic (total) | 1.8 | | 20 | 590 | 0.1 |
| Hart Crowser 1989b | Jan-89 | HC-7 | 2.5-4.0 | Arsenic (total) | 1.6 | | 20 | 12,000 | 0.1 |
| Hart Crowser 1989b | Jan-89 | HC-10 | 4.0-5.5 | Arsenic (total) | 1.6 | | 20 | 12,000 | 0.1 |
| Hart Crowser 1989b | Jan-89 | HC-6 | 6.5-8.0 | Arsenic (total) | 1.6 | | 20 | 590 | 0.1 |
| Landau 1990 | 1990 | DB12 | 11.5 | Benzene | 0.0021 | M | 0.03 | | 0.1 |
| Landau 1990 | 1990 | DB10 | 5 | Benzene | 0.0016 | | 0.03 | | 0.1 |
| Landau 1990 | 1990 | DB7 | 11.5 | Benzene | 0.0011 | J | 0.03 | | 0.0 |
| Landau 1990 | 1990 | DB4 | 6 | Benzene | 0.0007 | J | 0.03 | | 0.0 |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | DB6 | 13 | Benzene | 0.0005 | M | 0.03 | | 0.0 |
| Landau 1990 | 1990 | DB9 | 5 | Benzene | 0.0004 | J | 0.03 | | 0.0 |
| Landau 1990 | 1990 | DB7 | 8.5 | Benzene | 0.0003 | M | 0.03 | | 0.0 |
| **Landau 1990** | **1990** | **DB11** | **8** | **Benzo(a)anthracene** | **280** | | | **0.27** | **1,037** |
| **Landau 1990** | **1990** | **DB6** | **4.5** | **Benzo(a)anthracene** | **120** | | | **5.4** | **22** |
| **Landau 1990** | **1990** | **DB11** | **9.5** | **Benzo(a)anthracene** | **86** | | | **0.27** | **319** |
| **Landau 1990** | **1990** | **DB6** | **7** | **Benzo(a)anthracene** | **25** | | | **0.27** | **93** |
| Landau 1990 | 1990 | DB3 | 3.5 | Benzo(a)anthracene | 19 | | | 5.4 | 3.5 |
| Landau 1990 | 1990 | DB5 | 2 | Benzo(a)anthracene | 18 | | | 5.4 | 3.3 |
| Hart Crowser 1990b | Aug-90 | HC-106 | 5.3 | Benzo(a)anthracene | 18 | | | 5.4 | 3.3 |
| **Hart Crowser 1990b** | **Aug-90** | **HC-110** | **8.9** | **Benzo(a)anthracene** | **14** | | | **0.27** | **52** |
| Hart Crowser 1990b | Aug-90 | HC-107 | 3.1 | Benzo(a)anthracene | 14 | | | 5.4 | 2.6 |
| Landau 1990 | 1990 | DB4 | 6 | Benzo(a)anthracene | 13 | | | 5.4 | 2.4 |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **8.5** | **Benzo(a)anthracene** | **11** | | | **0.27** | **41** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **9.8** | **Benzo(a)anthracene** | **9.9** | | | **0.27** | **37** |
| Landau 1990 | 1990 | DB2 | 4.5 | Benzo(a)anthracene | 7.3 | | | 5.4 | 1.4 |
| Landau 1990 | 1990 | DB6 | 2 | Benzo(a)anthracene | 4.8 | | | 5.4 | 0.9 |
| **Landau 1990** | **1990** | **DB6** | **13** | **Benzo(a)anthracene** | **3.1** | | | **0.27** | **11** |
| **Landau 1990** | **1990** | **DB2** | **7** | **Benzo(a)anthracene** | **2.8** | | | **0.27** | **10** |
| Landau 1990 | 1990 | DB4 | 8.5 | Benzo(a)anthracene | 2.6 | | | 0.27 | 9.6 |
| Hart Crowser 1990b | Aug-90 | HC-102 | 8.5 | Benzo(a)anthracene | 1.7 | | | 0.27 | 6.3 |
| Landau 1990 | 1990 | DB8 | 5 | Benzo(a)anthracene | 1.6 | | | 5.4 | 0.3 |
| Hart Crowser 1990b | Aug-90 | HC-106 | 3.5 | Benzo(a)anthracene | 1.4 | | | 5.4 | 0.3 |
| Landau 1990 | 1990 | DB7 | 11.5 | Benzo(a)anthracene | 1.3 | | | 0.27 | 4.8 |
| Landau 1990 | 1990 | DB12 | 5 | Benzo(a)anthracene | 1.2 | | | 5.4 | 0.2 |
| Landau 1990 | 1990 | DB2 | 9.5 | Benzo(a)anthracene | 0.92 | | | 0.27 | 3.4 |
| Landau 1990 | 1990 | DB10 | 5 | Benzo(a)anthracene | 0.8 | | | 5.4 | 0.1 |
| Hart Crowser 1990b | Aug-90 | HC-106 | 7.5 | Benzo(a)anthracene | 0.53 | | | 0.27 | 2.0 |
| Hart Crowser 1990b | Aug-90 | HC-105 | 6.0 | Benzo(a)anthracene | 0.53 | | | 5.4 | 0.1 |
| Landau 1990 | 1990 | DB7 | 8.5 | Benzo(a)anthracene | 0.5 | | | 0.27 | 1.9 |
| Landau 1990 | 1990 | DB9 | 5 | Benzo(a)anthracene | 0.5 | | | 5.4 | 0.1 |
| Landau 1990 | 1990 | DB6 | 16 | Benzo(a)anthracene | 0.39 | | | 0.27 | 1.4 |
| Hart Crowser 1990b | Aug-90 | HC-110 | 6.8 | Benzo(a)anthracene | 0.38 | | | 5.4 | 0.1 |
| Hart Crowser 1990b | Aug-90 | HC-110 | 3.5 | Benzo(a)anthracene | 0.25 | | | 5.4 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-103 DUP | 10.8 | Benzo(a)anthracene | 0.24 | | | 0.27 | 0.9 |
| Hart Crowser 1990b | Aug-90 | HC-103 | 6.5 | Benzo(a)anthracene | 0.23 | | | 5.4 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-103 | 10.8 | Benzo(a)anthracene | 0.15 | | | 0.27 | 0.6 |
| Landau 1990 | 1990 | DB11 | 6.5 | Benzo(a)anthracene | 0.12 | | | 5.4 | 0.0 |
| Landau 1990 | 1990 | DB6 | 10 | Benzo(a)anthracene | 0.1 | M | | 0.27 | 0.4 |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | DB6 | 18.5 | Benzo(a)anthracene | 0.08 | M | | 0.27 | 0.3 |
| Landau 1990 | 1990 | DB13 | 11 | Benzo(a)anthracene | 0.041 | M | | 0.27 | 0.2 |
| Landau 1990 | 1990 | DB2 | 3.5 | Benzo(a)anthracene | 0.027 | J | | 5.4 | 0.0 |
| **Landau 1990** | **1990** | **DB11** | **8** | **Benzo(a)pyrene** | **140** | | **0.1** | **0.21** | **1,400** |
| **Landau 1990** | **1990** | **DB6** | **4.5** | **Benzo(a)pyrene** | **53** | | **0.1** | **4.2** | **530** |
| **Landau 1990** | **1990** | **DB11** | **9.5** | **Benzo(a)pyrene** | **26** | | **0.1** | **0.21** | **260** |
| **Landau 1990** | **1990** | **DB3** | **3.5** | **Benzo(a)pyrene** | **25** | | **0.1** | **4.2** | **250** |
| **Landau 1990** | **1990** | **DB2** | **4.5** | **Benzo(a)pyrene** | **18** | | **0.1** | **4.2** | **180** |
| **Landau 1990** | **1990** | **DB6** | **7** | **Benzo(a)pyrene** | **13** | | **0.1** | **0.21** | **130** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-110** | **8.9** | **Benzo(a)pyrene** | **12** | | **0.1** | **0.21** | **120** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-107** | **3.1** | **Benzo(a)pyrene** | **8.6** | | **0.1** | **4.2** | **86** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-106** | **5.3** | **Benzo(a)pyrene** | **8.6** | | **0.1** | **4.2** | **86** |
| **Landau 1990** | **1990** | **DB5** | **2** | **Benzo(a)pyrene** | **7.7** | | **0.1** | **4.2** | **77** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **9.8** | **Benzo(a)pyrene** | **7.2** | | **0.1** | **0.21** | **72** |
| **Landau 1990** | **1990** | **DB4** | **6** | **Benzo(a)pyrene** | **5.2** | | **0.1** | **4.2** | **52** |
| **Landau 1990** | **1990** | **DB2** | **7** | **Benzo(a)pyrene** | **4.6** | | **0.1** | **0.21** | **46** |
| **Landau 1990** | **1990** | **DB8** | **5** | **Benzo(a)pyrene** | **3.2** | | **0.1** | **4.2** | **32** |
| **Landau 1990** | **1990** | **DB6** | **2** | **Benzo(a)pyrene** | **2.6** | | **0.1** | **4.2** | **26** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **8.5** | **Benzo(a)pyrene** | **2.5** | | **0.1** | **0.21** | **25** |
| **Landau 1990** | **1990** | **DB6** | **13** | **Benzo(a)pyrene** | **1.8** | | **0.1** | **0.21** | **18** |
| **Landau 1990** | **1990** | **DB10** | **5** | **Benzo(a)pyrene** | **1.2** | | **0.1** | **4.2** | **12** |
| **Landau 1990** | **1990** | **DB7** | **8.5** | **Benzo(a)pyrene** | **1.2** | | **0.1** | **0.21** | **12** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-106** | **3.5** | **Benzo(a)pyrene** | **1.1** | | **0.1** | **4.2** | **11** |
| **Landau 1990** | **1990** | **DB4** | **8.5** | **Benzo(a)pyrene** | **1.1** | | **0.1** | **0.21** | **11** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-102** | **8.5** | **Benzo(a)pyrene** | **1.1** | | **0.1** | **0.21** | **11** |
| Landau 1990 | 1990 | DB9 | 5 | Benzo(a)pyrene | 0.99 | | 0.1 | 4.2 | 9.9 |
| Landau 1990 | 1990 | DB2 | 9.5 | Benzo(a)pyrene | 0.74 | | 0.1 | 0.21 | 7.4 |
| Landau 1990 | 1990 | DB7 | 11.5 | Benzo(a)pyrene | 0.71 | | 0.1 | 0.21 | 7.1 |
| Landau 1990 | 1990 | DB12 | 5 | Benzo(a)pyrene | 0.54 | | 0.1 | 4.2 | 5.4 |
| Hart Crowser 1990b | Aug-90 | HC-110 | 6.8 | Benzo(a)pyrene | 0.32 | | 0.1 | 4.2 | 3.2 |
| Hart Crowser 1990b | Aug-90 | HC-105 | 6.0 | Benzo(a)pyrene | 0.26 | | 0.1 | 4.2 | 2.6 |
| Hart Crowser 1990b | Aug-90 | HC-103 | 6.5 | Benzo(a)pyrene | 0.22 | | 0.1 | 4.2 | 2.2 |
| Landau 1990 | 1990 | DB6 | 16 | Benzo(a)pyrene | 0.2 | | 0.1 | 0.21 | 2.0 |
| Landau 1990 | 1990 | DB11 | 6.5 | Benzo(a)pyrene | 0.17 | | 0.1 | 4.2 | 1.7 |
| Hart Crowser 1990b | Aug-90 | HC-110 | 3.5 | Benzo(a)pyrene | 0.16 | | 0.1 | 4.2 | 1.6 |
| Hart Crowser 1990b | Aug-90 | HC-103 DUP | 10.8 | Benzo(a)pyrene | 0.065 | J | 0.1 | 0.21 | 0.7 |
| Landau 1990 | 1990 | DB2 | 3.5 | Benzo(a)pyrene | 0.038 | J | 0.1 | 4.2 | 0.4 |
| **Hart Crowser 1990b** | **Aug-90** | **HC-110** | **8.9** | **Benzo(b)fluoranthene** | **17** | | | **0.45** | **38** |
| Hart Crowser 1990b | Aug-90 | HC-107 | 3.1 | Benzo(b)fluoranthene | 17 | | | 9.0 | 1.9 |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Hart Crowser 1990b | Aug-90 | HC-106 | 5.3 | Benzo(b)fluoranthene | 16 | | | 9.0 | 1.8 |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **9.8** | **Benzo(b)fluoranthene** | **14** | | | **0.45** | **31** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **8.5** | **Benzo(b)fluoranthene** | **5.2** | | | **0.45** | **12** |
| Hart Crowser 1990b | Aug-90 | HC-106 | 3.5 | Benzo(b)fluoranthene | 2.3 | | | 9.0 | 0.3 |
| Hart Crowser 1990b | Aug-90 | HC-102 | 8.5 | Benzo(b)fluoranthene | 2 | | | 0.45 | 4.4 |
| Hart Crowser 1990b | Aug-90 | HC-105 | 6.0 | Benzo(b)fluoranthene | 0.63 | | | 9.0 | 0.1 |
| Hart Crowser 1990b | Aug-90 | HC-110 | 6.8 | Benzo(b)fluoranthene | 0.58 | | | 9.0 | 0.1 |
| Hart Crowser 1990b | Aug-90 | HC-103 | 6.5 | Benzo(b)fluoranthene | 0.43 | | | 9.0 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-110 | 3.5 | Benzo(b)fluoranthene | 0.34 | | | 9.0 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-103 DUP | 10.8 | Benzo(b)fluoranthene | 0.13 | | | 0.45 | 0.3 |
| Hart Crowser 1990b | Aug-90 | HC-103 | 10.8 | Benzo(b)fluoranthene | 0.085 | J | | 0.45 | 0.2 |
| **Landau 1990** | **1990** | **DB11** | **8** | **Benzo(g,h,i)perylene** | **20** | | | **0.078** | **256** |
| Landau 1990 | 1990 | DB6 | 4.5 | Benzo(g,h,i)perylene | 9.2 | | | 1.6 | 5.8 |
| **Hart Crowser 1990b** | **Aug-90** | **HC-110** | **8.9** | **Benzo(g,h,i)perylene** | **6.5** | | | **0.078** | **83** |
| **Landau 1990** | **1990** | **DB6** | **7** | **Benzo(g,h,i)perylene** | **6.3** | | | **0.078** | **81** |
| **Landau 1990** | **1990** | **DB11** | **9.5** | **Benzo(g,h,i)perylene** | **5.3** | | | **0.078** | **68** |
| Landau 1990 | 1990 | DB3 | 3.5 | Benzo(g,h,i)perylene | 4.1 | | | 1.6 | 2.6 |
| Hart Crowser 1990b | Aug-90 | HC-107 | 3.1 | Benzo(g,h,i)perylene | 3.5 | | | 1.6 | 2.2 |
| Hart Crowser 1990b | Aug-90 | HC-106 | 5.3 | Benzo(g,h,i)perylene | 3.4 | | | 1.6 | 2.1 |
| Landau 1990 | 1990 | DB2 | 4.5 | Benzo(g,h,i)perylene | 2.8 | | | 1.6 | 1.8 |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **9.8** | **Benzo(g,h,i)perylene** | **1.8** | | | **0.078** | **23** |
| **Landau 1990** | **1990** | **DB2** | **7** | **Benzo(g,h,i)perylene** | **0.88** | | | **0.078** | **11** |
| Landau 1990 | 1990 | DB9 | 5 | Benzo(g,h,i)perylene | 0.86 | | | 1.6 | 0.5 |
| Landau 1990 | 1990 | DB7 | 8.5 | Benzo(g,h,i)perylene | 0.76 | | | 0.078 | 9.7 |
| Hart Crowser 1990b | Aug-90 | HC-106 | 3.5 | Benzo(g,h,i)perylene | 0.62 | | | 1.6 | 0.4 |
| Hart Crowser 1990b | Aug-90 | HC-102 | 8.5 | Benzo(g,h,i)perylene | 0.59 | | | 0.078 | 7.6 |
| Landau 1990 | 1990 | DB6 | 13 | Benzo(g,h,i)perylene | 0.59 | | | 0.078 | 7.6 |
| Landau 1990 | 1990 | DB8 | 5 | Benzo(g,h,i)perylene | 0.57 | | | 1.6 | 0.4 |
| Hart Crowser 1990b | Aug-90 | HC-103 | 8.5 | Benzo(g,h,i)perylene | 0.51 | | | 0.078 | 6.5 |
| Landau 1990 | 1990 | DB6 | 2 | Benzo(g,h,i)perylene | 0.44 | | | 1.6 | 0.3 |
| Landau 1990 | 1990 | DB5 | 2 | Benzo(g,h,i)perylene | 0.26 | J | | 1.6 | 0.2 |
| Landau 1990 | 1990 | DB2 | 9.5 | Benzo(g,h,i)perylene | 0.25 | | | 0.078 | 3.2 |
| Landau 1990 | 1990 | DB10 | 5 | Benzo(g,h,i)perylene | 0.25 | | | 1.6 | 0.2 |
| Landau 1990 | 1990 | DB11 | 6.5 | Benzo(g,h,i)perylene | 0.23 | | | 1.6 | 0.1 |
| Hart Crowser 1990b | Aug-90 | HC-110 | 6.8 | Benzo(g,h,i)perylene | 0.18 | | | 1.6 | 0.1 |
| Landau 1990 | 1990 | DB4 | 6 | Benzo(g,h,i)perylene | 0.15 | M | | 1.6 | 0.1 |
| Hart Crowser 1990b | Aug-90 | HC-103 | 6.5 | Benzo(g,h,i)perylene | 0.15 | | | 1.6 | 0.1 |
| Hart Crowser 1990b | Aug-90 | HC-105 | 6.0 | Benzo(g,h,i)perylene | 0.097 | J | | 1.6 | 0.1 |
| Hart Crowser 1990b | Aug-90 | HC-110 | 3.5 | Benzo(g,h,i)perylene | 0.083 | J | | 1.6 | 0.1 |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | DB4 | 8.5 | Benzo(g,h,i)perylene | 0.076 | M | | 0.078 | 1.0 |
| Landau 1990 | 1990 | DB2 | 3.5 | Benzo(g,h,i)perylene | 0.054 | J | | 1.6 | 0.0 |
| **Hart Crowser 1990b** | **Aug-90** | **HC-110** | **8.9** | **Benzo(k)fluoranthene** | **18** | | | **0.45** | **40** |
| Hart Crowser 1990b | Aug-90 | HC-107 | 3.1 | Benzo(k)fluoranthene | 18 | | | 9.0 | 2.0 |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **9.8** | **Benzo(k)fluoranthene** | **17** | | | **0.45** | **38** |
| Hart Crowser 1990b | Aug-90 | HC-106 | 5.3 | Benzo(k)fluoranthene | 16 | | | 9.0 | 1.8 |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **8.5** | **Benzo(k)fluoranthene** | **6.5** | | | **0.45** | **14** |
| Hart Crowser 1990b | Aug-90 | HC-102 | 8.5 | Benzo(k)fluoranthene | 2.5 | | | 0.45 | 5.6 |
| Hart Crowser 1990b | Aug-90 | HC-106 | 3.5 | Benzo(k)fluoranthene | 2.3 | | | 9.0 | 0.3 |
| Hart Crowser 1990b | Aug-90 | HC-105 | 6.0 | Benzo(k)fluoranthene | 0.65 | | | 9.0 | 0.1 |
| Hart Crowser 1990b | Aug-90 | HC-110 | 6.8 | Benzo(k)fluoranthene | 0.60 | | | 9.0 | 0.1 |
| Hart Crowser 1990b | Aug-90 | HC-103 | 6.5 | Benzo(k)fluoranthene | 0.53 | | | 9.0 | 0.1 |
| Hart Crowser 1990b | Aug-90 | HC-110 | 3.5 | Benzo(k)fluoranthene | 0.34 | | | 9.0 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-103 DUP | 10.8 | Benzo(k)fluoranthene | 0.13 | | | 0.45 | 0.3 |
| Hart Crowser 1990b | Aug-90 | HC-103 | 10.8 | Benzo(k)fluoranthene | 0.11 | | | 0.45 | 0.2 |
| **Landau 1990** | **1990** | **DB11** | **8** | **Benzofluoranthenes** | **510** | | | **0.45** | **1,133** |
| **Landau 1990** | **1990** | **DB11** | **9.5** | **Benzofluoranthenes** | **159** | | | **0.45** | **353** |
| Landau 1990 | 1990 | DB6 | 4.5 | Benzofluoranthenes | 65 | | | 9.0 | 7.2 |
| Landau 1990 | 1990 | DB3 | 3.5 | Benzofluoranthenes | 64 | | | 9.0 | 7.1 |
| Landau 1990 | 1990 | DB2 | 4.5 | Benzofluoranthenes | 36 | | | 9.0 | 4.0 |
| Landau 1990 | 1990 | DB5 | 2 | Benzofluoranthenes | 19 | | | 9.0 | 2.1 |
| **Landau 1990** | **1990** | **DB6** | **7** | **Benzofluoranthenes** | **16** | | | **0.45** | **36** |
| Landau 1990 | 1990 | DB4 | 6 | Benzofluoranthenes | 16 | | | 9.0 | 1.8 |
| **Landau 1990** | **1990** | **DB2** | **7** | **Benzofluoranthenes** | **9.3** | | | **0.45** | **21** |
| Landau 1990 | 1990 | DB8 | 5 | Benzofluoranthenes | 8.1 | | | 9.0 | 0.9 |
| Landau 1990 | 1990 | DB6 | 2 | Benzofluoranthenes | 6.9 | | | 9.0 | 0.8 |
| Landau 1990 | 1990 | DB10 | 5 | Benzofluoranthenes | 3.2 | | | 9.0 | 0.4 |
| Landau 1990 | 1990 | DB6 | 13 | Benzofluoranthenes | 3 | | | 0.45 | 6.7 |
| Landau 1990 | 1990 | DB4 | 8.5 | Benzofluoranthenes | 2.90 | | | 0.45 | 6.4 |
| Landau 1990 | 1990 | DB9 | 5 | Benzofluoranthenes | 2.9 | | | 9.0 | 0.3 |
| Landau 1990 | 1990 | DB7 | 11.5 | Benzofluoranthenes | 2.3 | | | 0.45 | 5.1 |
| Landau 1990 | 1990 | DB12 | 5 | Benzofluoranthenes | 1.7 | | | 9.0 | 0.2 |
| Landau 1990 | 1990 | DB7 | 8.5 | Benzofluoranthenes | 1.2 | | | 0.45 | 2.7 |
| Landau 1990 | 1990 | DB2 | 9.5 | Benzofluoranthenes | 1.2 | | | 0.45 | 2.7 |
| Landau 1990 | 1990 | DB6 | 16 | Benzofluoranthenes | 0.4 | | | 0.45 | 0.9 |
| Landau 1990 | 1990 | DB11 | 6.5 | Benzofluoranthenes | 0.33 | | | 9.0 | 0.0 |
| Landau 1990 | 1990 | DB1 | 5 | Benzofluoranthenes | 0.086 | | | 9.0 | 0.0 |
| Landau 1990 | 1990 | DB13 | 11 | Benzofluoranthenes | 0.061 | | | 0.45 | 0.1 |
| Landau 1990 | 1990 | DB2 | 3.5 | Benzofluoranthenes | 0.032 | J | | 9.0 | 0.0 |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | DB6 | 4.5 | Bis(2-Ethylhexyl)phthalate | 3.2 | MB | 71 | 1.6 | 2.0 |
| **Landau 1990** | **1990** | **DB11** | **8** | **Bis(2-Ethylhexyl)phthalate** | **2.6** | **B** | **71** | **0.078** | **33** |
| Landau 1990 | 1990 | DB1 | 6.5 | Bis(2-Ethylhexyl)phthalate | 1 | B | 71 | 1.6 | 0.6 |
| Landau 1990 | 1990 | DB1 | 5 | Bis(2-Ethylhexyl)phthalate | 0.99 | B | 71 | 1.6 | 0.6 |
| **Landau 1990** | **1990** | **DB11** | **9.5** | **Bis(2-Ethylhexyl)phthalate** | **0.87** | **B** | **71** | **0.078** | **11** |
| Landau 1990 | 1990 | DB3 | 3.5 | Bis(2-Ethylhexyl)phthalate | 0.85 | B | 71 | 1.6 | 0.5 |
| Landau 1990 | 1990 | DB11 | 6.5 | Bis(2-Ethylhexyl)phthalate | 0.79 | B | 71 | 1.6 | 0.5 |
| Landau 1990 | 1990 | DB2 | 4.5 | Bis(2-Ethylhexyl)phthalate | 0.76 | B | 71 | 1.6 | 0.5 |
| Landau 1990 | 1990 | DB7 | 11.5 | Bis(2-Ethylhexyl)phthalate | 0.62 | B | 71 | 0.078 | 7.9 |
| Landau 1990 | 1990 | DB3 | 2 | Bis(2-Ethylhexyl)phthalate | 0.62 | B | 71 | 1.6 | 0.4 |
| Landau 1990 | 1990 | DB3 | 7.5 | Bis(2-Ethylhexyl)phthalate | 0.51 | B | 71 | 0.078 | 6.5 |
| Landau 1990 | 1990 | DB7 | 8.5 | Bis(2-Ethylhexyl)phthalate | 0.49 | B | 71 | 0.078 | 6.3 |
| Landau 1990 | 1990 | DB1 | 9.5 | Bis(2-Ethylhexyl)phthalate | 0.49 | B | 71 | 0.078 | 6.3 |
| Landau 1990 | 1990 | DB2 | 18 | Bis(2-Ethylhexyl)phthalate | 0.45 | | 71 | 0.078 | 5.8 |
| Landau 1990 | 1990 | DB5 | 2 | Bis(2-Ethylhexyl)phthalate | 0.45 | B | 71 | 1.6 | 0.3 |
| Landau 1990 | 1990 | DB3 | 13.5 | Bis(2-Ethylhexyl)phthalate | 0.41 | B | 71 | 0.078 | 5.3 |
| Landau 1990 | 1990 | DB6 | 2 | Bis(2-Ethylhexyl)phthalate | 0.39 | B | 71 | 1.6 | 0.2 |
| Landau 1990 | 1990 | DB3 | 9 | Bis(2-Ethylhexyl)phthalate | 0.38 | B | 71 | 0.078 | 4.9 |
| Landau 1990 | 1990 | DB2 | 9.5 | Bis(2-Ethylhexyl)phthalate | 0.37 | B | 71 | 0.078 | 4.7 |
| Landau 1990 | 1990 | DB3 | 17 | Bis(2-Ethylhexyl)phthalate | 0.37 | B | 71 | 0.078 | 4.7 |
| Landau 1990 | 1990 | DB2 | 3.5 | Bis(2-Ethylhexyl)phthalate | 0.34 | B | 71 | 1.6 | 0.2 |
| Landau 1990 | 1990 | DB5 | 8 | Bis(2-Ethylhexyl)phthalate | 0.28 | B | 71 | 0.078 | 3.6 |
| Landau 1990 | 1990 | DB2 | 12 | Bis(2-Ethylhexyl)phthalate | 0.27 | B | 71 | 0.078 | 3.5 |
| Landau 1990 | 1990 | DB3 | 6 | Bis(2-Ethylhexyl)phthalate | 0.16 | B | 71 | 1.6 | 0.1 |
| Landau 1990 | 1990 | FB4 | 11 | Bis(2-Ethylhexyl)phthalate | 0.15 | | 71 | 0.078 | 1.9 |
| Landau 1990 | 1990 | DB7 | 6 | Bis(2-Ethylhexyl)phthalate | 0.13 | B | 71 | 1.6 | 0.1 |
| Landau 1990 | 1990 | DB5 | 11 | Bis(2-Ethylhexyl)phthalate | 0.11 | B | 71 | 0.078 | 1.4 |
| Landau 1990 | 1990 | DB9 | 5 | Bis(2-Ethylhexyl)phthalate | 0.06 | | 71 | 1.6 | 0.0 |
| Landau 1990 | 1990 | DB8 | 5 | Bis(2-Ethylhexyl)phthalate | 0.043 | MB | 71 | 1.6 | 0.0 |
| Landau 1990 | 1990 | DB6 | 4.5 | Cadmium | 4.9 | | 2 | 34 | 2.5 |
| Landau 1990 | 1990 | DB6 | 7 | Cadmium | 4.1 | | 2 | 1.7 | 2.1 |
| Landau 1990 | 1990 | DB7 | 11.5 | Cadmium | 3.6 | | 2 | 1.7 | 1.8 |
| Landau 1990 | 1990 | DB6 | 2 | Cadmium | 2.1 | | 2 | 34 | 1.1 |
| Landau 1990 | 1990 | FB2 | 2 | Cadmium | 1.4 | | 2 | 34 | 0.7 |
| Landau 1990 | 1990 | DB5 | 2 | Cadmium | 1.2 | | 2 | 34 | 0.6 |
| Landau 1990 | 1990 | DB2 | 4.5 | Cadmium | 1.2 | | 2 | 34 | 0.6 |
| Landau 1990 | 1990 | DB2 | 7 | Cadmium | 1.0 | | 2 | 1.7 | 0.5 |
| Landau 1990 | 1990 | DB10 | 5 | Cadmium | 0.8 | | 2 | 34 | 0.4 |
| Landau 1990 | 1990 | DB3 | 3.5 | Cadmium | 0.6 | | 2 | 34 | 0.3 |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | DB2 | 9.5 | Cadmium | 0.6 | | 2 | 1.7 | 0.3 |
| Landau 1990 | 1990 | DB8 | 5 | Cadmium | 0.5 | | 2 | 34 | 0.3 |
| Landau 1990 | 1990 | DB9 | 5 | Cadmium | 0.5 | | 2 | 34 | 0.3 |
| Landau 1990 | 1990 | DB6 | 13 | Cadmium | 0.5 | | 2 | 1.7 | 0.3 |
| Landau 1990 | 1990 | DB2 | 3.5 | Cadmium | 0.4 | | 2 | 34 | 0.2 |
| Landau 1990 | 1990 | FB3 | 5.5 | Cadmium | 0.4 | | 2 | 34 | 0.2 |
| Landau 1990 | 1990 | DB7 | 6 | Cadmium | 0.4 | | 2 | 34 | 0.2 |
| Landau 1990 | 1990 | DB11 | 8 | Cadmium | 0.4 | | 2 | 1.7 | 0.2 |
| Landau 1990 | 1990 | DB7 | 8.5 | Cadmium | 0.4 | | 2 | 1.7 | 0.2 |
| Landau 1990 | 1990 | DB14 | 9.5 | Cadmium | 0.4 | | 2 | 1.7 | 0.2 |
| Landau 1990 | 1990 | DB6 | 10 | Cadmium | 0.4 | | 2 | 1.7 | 0.2 |
| Landau 1990 | 1990 | DB3 | 2 | Cadmium | 0.3 | | 2 | 34 | 0.2 |
| Landau 1990 | 1990 | DB1 | 5 | Cadmium | 0.3 | | 2 | 34 | 0.2 |
| Landau 1990 | 1990 | DB12 | 5 | Cadmium | 0.3 | | 2 | 34 | 0.2 |
| Landau 1990 | 1990 | DB4 | 6 | Cadmium | 0.3 | | 2 | 34 | 0.2 |
| Landau 1990 | 1990 | DB1 | 6.5 | Cadmium | 0.3 | | 2 | 34 | 0.2 |
| Landau 1990 | 1990 | DB5 | 8 | Cadmium | 0.3 | | 2 | 1.7 | 0.2 |
| Landau 1990 | 1990 | DB4 | 8.5 | Cadmium | 0.3 | | 2 | 1.7 | 0.2 |
| Landau 1990 | 1990 | DB3 | 9 | Cadmium | 0.3 | | 2 | 1.7 | 0.2 |
| Landau 1990 | 1990 | DB2 | 12 | Cadmium | 0.3 | | 2 | 1.7 | 0.2 |
| Landau 1990 | 1990 | DB11 | 6.5 | Cadmium | 0.2 | | 2 | 34 | 0.1 |
| Landau 1990 | 1990 | DB1 | 9.5 | Cadmium | 0.2 | | 2 | 1.7 | 0.1 |
| Landau 1990 | 1990 | DB3 | 17 | Cadmium | 0.2 | | 2 | 1.7 | 0.1 |
| Landau 1990 | 1990 | DB2 | 18 | Cadmium | 0.2 | | 2 | 1.7 | 0.1 |
| Hart Crowser 1989a | Nov-88 | SS-5 | 0-0.5 | Cadmium | 0.01 | | 2 | 1.7 | 0.0 |
| Landau 1990 | 1990 | DB6 | 2 | Carbon Disulfide | 0.0061 | J | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB7 | 11.5 | Carbon Disulfide | 0.0033 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB6 | 10 | Carbon Disulfide | 0.0026 | | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB10 | 5 | Carbon Disulfide | 0.0016 | J | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB12 | 5 | Carbon Disulfide | 0.0016 | J | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB5 | 2 | Carbon Disulfide | 0.001 | M | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB9 | 8 | Carbon Disulfide | 0.0007 | J | 8,000 | | 0.0 |
| Landau 1990 | 1990 | FB2 | 18.5 | Carbon Disulfide | 0.0007 | J | 8,000 | | 0.0 |
| Landau 1990 | 1990 | DB6 | 7 | Chlorobenzene | 0.097 | M | 1,600 | | 0.0 |
| Landau 1990 | 1990 | DB12 | 11.5 | Chlorobenzene | 0.0087 | | 1,600 | | 0.0 |
| Landau 1990 | 1990 | DB7 | 11.5 | Chlorobenzene | 0.0033 | M | 1,600 | | 0.0 |
| Landau 1990 | 1990 | DB6 | 4.5 | Chromium | 109 | | 19 | 5,400 | 5.7 |
| Landau 1990 | 1990 | DB5 | 2 | Chromium | 70.7 | | 19 | 5,400 | 3.7 |
| Landau 1990 | 1990 | DB6 | 7 | Chromium | 58.3 | | 19 | 270 | 3.1 |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | DB11 | 8 | Chromium | 50.2 | | 19 | 270 | 2.6 |
| Landau 1990 | 1990 | DB7 | 11.5 | Chromium | 48.3 | | 19 | 270 | 2.5 |
| Landau 1990 | 1990 | DB6 | 2 | Chromium | 38.4 | | 19 | 5,400 | 2.0 |
| Landau 1990 | 1990 | DB7 | 8.5 | Chromium | 29.7 | | 19 | 270 | 1.6 |
| Landau 1990 | 1990 | DB7 | 6 | Chromium | 27.2 | | 19 | 5,400 | 1.4 |
| Landau 1990 | 1990 | DB2 | 3.5 | Chromium | 25.3 | | 19 | 5,400 | 1.3 |
| Landau 1990 | 1990 | DB3 | 2 | Chromium | 23.1 | | 19 | 5,400 | 1.2 |
| Landau 1990 | 1990 | FB5 | 2 | Chromium | 21.4 | | 19 | 5,400 | 1.1 |
| Landau 1990 | 1990 | DB8 | 5 | Chromium | 19.0 | | 19 | 5,400 | 1.0 |
| Landau 1990 | 1990 | DB4 | 6 | Chromium | 18.5 | | 19 | 5,400 | 1.0 |
| Landau 1990 | 1990 | DB2 | 7 | Chromium | 17.5 | | 19 | 270 | 0.9 |
| Landau 1990 | 1990 | FB1 | 7 | Chromium | 17.4 | | 19 | 270 | 0.9 |
| Landau 1990 | 1990 | DB9 | 11 | Chromium | 17.4 | | 19 | 270 | 0.9 |
| Landau 1990 | 1990 | DB10 | 5 | Chromium | 17.2 | | 19 | 5,400 | 0.9 |
| Landau 1990 | 1990 | DB4 | 8.5 | Chromium | 16.8 | | 19 | 270 | 0.9 |
| Landau 1990 | 1990 | DB3 | 9 | Chromium | 16.6 | | 19 | 270 | 0.9 |
| Landau 1990 | 1990 | FB1 | 13 | Chromium | 16.1 | | 19 | 270 | 0.8 |
| Landau 1990 | 1990 | FB2 | 2 | Chromium | 16.0 | | 19 | 5,400 | 0.8 |
| Landau 1990 | 1990 | FB4 | 8 | Chromium | 16.0 | | 19 | 270 | 0.8 |
| Landau 1990 | 1990 | DB3 | 3.5 | Chromium | 15.3 | | 19 | 5,400 | 0.8 |
| Landau 1990 | 1990 | DB4 | 11 | Chromium | 15.2 | | 19 | 270 | 0.8 |
| Landau 1990 | 1990 | DB13 | 11 | Chromium | 15.0 | | 19 | 270 | 0.8 |
| Landau 1990 | 1990 | DB2 | 12 | Chromium | 14.9 | | 19 | 270 | 0.8 |
| Landau 1990 | 1990 | DB2 | 9.5 | Chromium | 14.8 | | 19 | 270 | 0.8 |
| Landau 1990 | 1990 | DB10 | 11 | Chromium | 14.7 | | 19 | 270 | 0.8 |
| Landau 1990 | 1990 | DB6 | 13 | Chromium | 14.6 | | 19 | 270 | 0.8 |
| Landau 1990 | 1990 | DB6 | 10 | Chromium | 15 | | 19 | 270 | 0.8 |
| Landau 1990 | 1990 | DB2 | 4.5 | Chromium | 14.3 | | 19 | 5,400 | 0.8 |
| Landau 1990 | 1990 | DB3 | 7.5 | Chromium | 13.7 | | 19 | 270 | 0.7 |
| Landau 1990 | 1990 | DB14 | 9.5 | Chromium | 13.5 | | 19 | 270 | 0.7 |
| Landau 1990 | 1990 | FB4 | 11 | Chromium | 13.3 | | 19 | 270 | 0.7 |
| Landau 1990 | 1990 | DB3 | 13.5 | Chromium | 13.2 | | 19 | 270 | 0.7 |
| Landau 1990 | 1990 | DB10 | 8 | Chromium | 12.9 | | 19 | 270 | 0.7 |
| Landau 1990 | 1990 | DB11 | 9.5 | Chromium | 12.8 | | 19 | 270 | 0.7 |
| Landau 1990 | 1990 | DB8 | 8 | Chromium | 12.6 | | 19 | 270 | 0.7 |
| Landau 1990 | 1990 | DB1 | 9.5 | Chromium | 12.6 | | 19 | 270 | 0.7 |
| Landau 1990 | 1990 | FB5 | 11 | Chromium | 12.2 | | 19 | 270 | 0.6 |
| Landau 1990 | 1990 | DB8 | 11 | Chromium | 12.1 | | 19 | 270 | 0.6 |
| Landau 1990 | 1990 | DB5 | 11 | Chromium | 11.5 | | 19 | 270 | 0.6 |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | DB6 | 18.5 | Chromium | 12 | | 19 | 270 | 0.6 |
| Landau 1990 | 1990 | DB1 | 5 | Chromium | 11.4 | | 19 | 5,400 | 0.6 |
| Landau 1990 | 1990 | DB9 | 5 | Chromium | 11.3 | | 19 | 5,400 | 0.6 |
| Landau 1990 | 1990 | FB3 | 5.5 | Chromium | 11.3 | | 19 | 5,400 | 0.6 |
| Landau 1990 | 1990 | FB5 | 8 | Chromium | 11.3 | | 19 | 270 | 0.6 |
| Landau 1990 | 1990 | FB3 | 13.5 | Chromium | 11.2 | | 19 | 270 | 0.6 |
| Landau 1990 | 1990 | DB3 | 17 | Chromium | 11.2 | | 19 | 270 | 0.6 |
| Landau 1990 | 1990 | DB12 | 11.5 | Chromium | 11.0 | | 19 | 270 | 0.6 |
| Landau 1990 | 1990 | DB9 | 8 | Chromium | 10.9 | | 19 | 270 | 0.6 |
| Landau 1990 | 1990 | FB3 | 3 | Chromium | 10.8 | | 19 | 5,400 | 0.6 |
| Landau 1990 | 1990 | FB2 | 5.5 | Chromium | 10.6 | | 19 | 5,400 | 0.6 |
| Landau 1990 | 1990 | FB2 | 8 | Chromium | 10.4 | | 19 | 270 | 0.5 |
| Landau 1990 | 1990 | DB6 | 16 | Chromium | 10.4 | | 19 | 270 | 0.5 |
| Landau 1990 | 1990 | FB2 | 18.5 | Chromium | 10.4 | | 19 | 270 | 0.5 |
| Landau 1990 | 1990 | DB1 | 6.5 | Chromium | 10.3 | | 19 | 5,400 | 0.5 |
| Landau 1990 | 1990 | DB5 | 8 | Chromium | 10.1 | | 19 | 270 | 0.5 |
| Landau 1990 | 1990 | FB1 | 2 | Chromium | 10.0 | | 19 | 5,400 | 0.5 |
| Landau 1990 | 1990 | DB12 | 5 | Chromium | 10.0 | | 19 | 5,400 | 0.5 |
| Landau 1990 | 1990 | DB11 | 6.5 | Chromium | 10.0 | | 19 | 5,400 | 0.5 |
| Landau 1990 | 1990 | DB2 | 18 | Chromium | 10.0 | | 19 | 270 | 0.5 |
| Landau 1990 | 1990 | DB3 | 6 | Chromium | 9.0 | | 19 | 5,400 | 0.5 |
| Landau 1990 | 1990 | FB4 | 2 | Chromium | 8.6 | | 19 | 5,400 | 0.5 |
| **Landau 1990** | **1990** | **DB6** | **4.5** | **Chrysene** | **380** | **B** | | **9.2** | **41** |
| **Landau 1990** | **1990** | **DB11** | **8** | **Chrysene** | **320** | **B** | | **0.46** | **696** |
| **Landau 1990** | **1990** | **DB11** | **9.5** | **Chrysene** | **97** | **B** | | **0.46** | **211** |
| **Landau 1990** | **1990** | **DB6** | **7** | **Chrysene** | **40** | **B** | | **0.46** | **87** |
| Landau 1990 | 1990 | DB3 | 3.5 | Chrysene | 37 | B | | 9.2 | 4.0 |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **9.8** | **Chrysene** | **25** | | | **0.46** | **54** |
| Landau 1990 | 1990 | DB5 | 2 | Chrysene | 20 | B | | 9.2 | 2.2 |
| Hart Crowser 1990b | Aug-90 | HC-106 | 5.3 | Chrysene | 20 | | | 9.2 | 2.2 |
| Landau 1990 | 1990 | DB2 | 4.5 | Chrysene | 19 | B | | 9.2 | 2.1 |
| Landau 1990 | 1990 | DB4 | 6 | Chrysene | 13 | B | | 9.2 | 1.4 |
| **Hart Crowser 1990b** | **Aug-90** | **HC-110** | **8.9** | **Chrysene** | **12** | | | **0.46** | **26** |
| Hart Crowser 1990b | Aug-90 | HC-107 | 3.1 | Chrysene | 12 | | | 9.2 | 1.3 |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **8.5** | **Chrysene** | **11** | | | **0.46** | **24** |
| Landau 1990 | 1990 | DB6 | 2 | Chrysene | 9.9 | B | | 9.2 | 1.1 |
| **Landau 1990** | **1990** | **DB2** | **7** | **Chrysene** | **7.3** | **B** | | **0.46** | **16** |
| **Landau 1990** | **1990** | **DB6** | **13** | **Chrysene** | **6.7** | | | **0.46** | **15** |
| Landau 1990 | 1990 | DB8 | 5 | Chrysene | 3.6 | B | | 9.2 | 0.4 |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | DB4 | 8.5 | Chrysene | 2.6 | B | | 0.46 | 5.7 |
| Landau 1990 | 1990 | DB7 | 11.5 | Chrysene | 1.9 | B | | 0.46 | 4.1 |
| Hart Crowser 1990b | Aug-90 | HC-102 | 8.5 | Chrysene | 1.7 | | | 0.46 | 3.7 |
| Landau 1990 | 1990 | DB9 | 5 | Chrysene | 1.5 | | | 9.2 | 0.2 |
| Landau 1990 | 1990 | DB12 | 5 | Chrysene | 1.4 | | | 9.2 | 0.2 |
| Hart Crowser 1990b | Aug-90 | HC-106 | 3.5 | Chrysene | 1.3 | | | 9.2 | 0.1 |
| Landau 1990 | 1990 | DB10 | 5 | Chrysene | 1.1 | | | 9.2 | 0.1 |
| Landau 1990 | 1990 | DB6 | 16 | Chrysene | 0.92 | | | 0.46 | 2.0 |
| Landau 1990 | 1990 | DB7 | 8.5 | Chrysene | 0.85 | B | | 0.46 | 1.8 |
| Landau 1990 | 1990 | DB2 | 9.5 | Chrysene | 0.75 | | | 0.46 | 1.6 |
| Landau 1990 | 1990 | DB12 | 11.5 | Chrysene | 0.53 | M | | 0.46 | 1.2 |
| Hart Crowser 1990b | Aug-90 | HC-106 | 7.5 | Chrysene | 0.51 | | | 0.46 | 1.1 |
| Hart Crowser 1990b | Aug-90 | HC-105 | 6.0 | Chrysene | 0.50 | | | 9.2 | 0.1 |
| Landau 1990 | 1990 | DB11 | 6.5 | Chrysene | 0.47 | | | 9.2 | 0.1 |
| Hart Crowser 1990b | Aug-90 | HC-110 | 6.8 | Chrysene | 0.41 | | | 9.2 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-103 | 6.5 | Chrysene | 0.28 | | | 9.2 | 0.0 |
| Landau 1990 | 1990 | DB6 | 10 | Chrysene | 0.26 | | | 0.46 | 0.6 |
| Hart Crowser 1990b | Aug-90 | HC-110 | 3.5 | Chrysene | 0.24 | | | 9.2 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-103 DUP | 10.8 | Chrysene | 0.23 | | | 0.46 | 0.5 |
| Landau 1990 | 1990 | DB6 | 18.5 | Chrysene | 0.23 | | | 0.46 | 0.5 |
| Hart Crowser 1990b | Aug-90 | HC-103 | 10.8 | Chrysene | 0.20 | | | 0.46 | 0.4 |
| Landau 1990 | 1990 | DB1 | 5 | Chrysene | 0.12 | | | 9.2 | 0.0 |
| Landau 1990 | 1990 | FB2 | 2 | Chrysene | 0.11 | | | 9.2 | 0.0 |
| Landau 1990 | 1990 | DB1 | 6.5 | Chrysene | 0.081 | M | | 9.2 | 0.0 |
| Landau 1990 | 1990 | DB13 | 11 | Chrysene | 0.076 | | | 0.46 | 0.2 |
| Landau 1990 | 1990 | DB2 | 3.5 | Chrysene | 0.038 | J | | 9.2 | 0.0 |
| Landau 1990 | 1990 | FB5 | 11 | cis-1,2-DCE | 0.031 | | 800 | | 0.0 |
| Landau 1990 | 1990 | FB5 | 8 | cis-1,2-DCE | 0.023 | | 800 | | 0.0 |
| Landau 1990 | 1990 | DB6 | 4.5 | Copper | 1,400 | | 3,000 | 780 | 1.8 |
| **Landau 1990** | **1990** | **DB6** | **7** | **Copper** | **946** | | **3,000** | **39** | **24** |
| **Landau 1990** | **1990** | **DB7** | **11.5** | **Copper** | **782** | | **3,000** | **39** | **20** |
| Landau 1990 | 1990 | DB6 | 2 | Copper | 498 | | 3,000 | 780 | 0.6 |
| Landau 1990 | 1990 | DB2 | 4.5 | Copper | 263 | | 3,000 | 780 | 0.3 |
| Landau 1990 | 1990 | DB5 | 2 | Copper | 195 | | 3,000 | 780 | 0.3 |
| Landau 1990 | 1990 | DB2 | 7 | Copper | 179 | | 3,000 | 39 | 4.6 |
| Landau 1990 | 1990 | DB10 | 5 | Copper | 101 | | 3,000 | 780 | 0.1 |
| Landau 1990 | 1990 | DB7 | 8.5 | Copper | 91.2 | | 3,000 | 39 | 2.3 |
| Landau 1990 | 1990 | DB8 | 5 | Copper | 83.0 | | 3,000 | 780 | 0.1 |
| Landau 1990 | 1990 | DB3 | 3.5 | Copper | 70.9 | | 3,000 | 780 | 0.1 |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | DB4 | 6 | Copper | 49.2 | | 3,000 | 780 | 0.1 |
| Landau 1990 | 1990 | DB6 | 13 | Copper | 48.9 | | 3,000 | 39 | 1.3 |
| Landau 1990 | 1990 | DB2 | 3.5 | Copper | 40.1 | | 3,000 | 780 | 0.1 |
| Landau 1990 | 1990 | DB9 | 5 | Copper | 30.7 | | 3,000 | 780 | 0.0 |
| Landau 1990 | 1990 | FB2 | 2 | Copper | 27.7 | | 3,000 | 780 | 0.0 |
| Landau 1990 | 1990 | DB4 | 8.5 | Copper | 27.2 | | 3,000 | 39 | 0.7 |
| Landau 1990 | 1990 | DB1 | 6.5 | Copper | 26.9 | | 3,000 | 780 | 0.0 |
| Landau 1990 | 1990 | DB11 | 8 | Copper | 26.4 | | 3,000 | 39 | 0.7 |
| Landau 1990 | 1990 | DB9 | 11 | Copper | 25.3 | | 3,000 | 39 | 0.6 |
| Landau 1990 | 1990 | DB6 | 10 | Copper | 24.6 | | 3,000 | 39 | 0.6 |
| Landau 1990 | 1990 | FB1 | 7 | Copper | 24.0 | | 3,000 | 39 | 0.6 |
| Landau 1990 | 1990 | DB3 | 9 | Copper | 23.2 | | 3,000 | 39 | 0.6 |
| Landau 1990 | 1990 | DB2 | 9.5 | Copper | 22.6 | | 3,000 | 39 | 0.6 |
| Landau 1990 | 1990 | DB2 | 12 | Copper | 22.1 | | 3,000 | 39 | 0.6 |
| Landau 1990 | 1990 | DB4 | 11 | Copper | 21.2 | | 3,000 | 39 | 0.5 |
| Landau 1990 | 1990 | DB11 | 6.5 | Copper | 20.4 | | 3,000 | 780 | 0.0 |
| Landau 1990 | 1990 | FB4 | 8 | Copper | 19.7 | | 3,000 | 39 | 0.5 |
| Landau 1990 | 1990 | FB4 | 11 | Copper | 19.6 | | 3,000 | 39 | 0.5 |
| Landau 1990 | 1990 | FB1 | 13 | Copper | 19.6 | | 3,000 | 39 | 0.5 |
| Landau 1990 | 1990 | DB10 | 11 | Copper | 19.4 | | 3,000 | 39 | 0.5 |
| Landau 1990 | 1990 | DB13 | 11 | Copper | 19.4 | | 3,000 | 39 | 0.5 |
| Landau 1990 | 1990 | DB1 | 9.5 | Copper | 19.3 | | 3,000 | 39 | 0.5 |
| Landau 1990 | 1990 | DB9 | 8 | Copper | 17.9 | | 3,000 | 39 | 0.5 |
| Landau 1990 | 1990 | DB14 | 9.5 | Copper | 17.6 | | 3,000 | 39 | 0.5 |
| Landau 1990 | 1990 | DB3 | 2 | Copper | 17.3 | | 3,000 | 780 | 0.0 |
| Landau 1990 | 1990 | DB11 | 9.5 | Copper | 17.2 | | 3,000 | 39 | 0.4 |
| Landau 1990 | 1990 | DB7 | 6 | Copper | 16.9 | | 3,000 | 780 | 0.0 |
| Landau 1990 | 1990 | DB3 | 7.5 | Copper | 16.8 | | 3,000 | 39 | 0.4 |
| Landau 1990 | 1990 | DB10 | 8 | Copper | 16.3 | | 3,000 | 39 | 0.4 |
| Landau 1990 | 1990 | DB2 | 18 | Copper | 16.3 | | 3,000 | 39 | 0.4 |
| Landau 1990 | 1990 | DB8 | 8 | Copper | 15.9 | | 3,000 | 39 | 0.4 |
| Landau 1990 | 1990 | DB8 | 11 | Copper | 15.9 | | 3,000 | 39 | 0.4 |
| Landau 1990 | 1990 | DB6 | 16 | Copper | 14.9 | | 3,000 | 39 | 0.4 |
| Landau 1990 | 1990 | DB1 | 5 | Copper | 14.9 | | 3,000 | 780 | 0.0 |
| Landau 1990 | 1990 | FB5 | 11 | Copper | 14.6 | | 3,000 | 39 | 0.4 |
| Landau 1990 | 1990 | FB5 | 8 | Copper | 14.4 | | 3,000 | 39 | 0.4 |
| Landau 1990 | 1990 | DB5 | 11 | Copper | 14.2 | | 3,000 | 39 | 0.4 |
| Landau 1990 | 1990 | DB3 | 13.5 | Copper | 14.2 | | 3,000 | 39 | 0.4 |
| Landau 1990 | 1990 | FB3 | 13.5 | Copper | 13.7 | | 3,000 | 39 | 0.4 |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | DB5 | 8 | Copper | 13.4 | | 3,000 | 39 | 0.3 |
| Landau 1990 | 1990 | DB3 | 17 | Copper | 13.1 | | 3,000 | 39 | 0.3 |
| Landau 1990 | 1990 | DB12 | 11.5 | Copper | 13.0 | | 3,000 | 39 | 0.3 |
| Landau 1990 | 1990 | FB3 | 5.5 | Copper | 13.0 | | 3,000 | 780 | 0.0 |
| Landau 1990 | 1990 | DB12 | 5 | Copper | 12.7 | | 3,000 | 780 | 0.0 |
| Landau 1990 | 1990 | FB5 | 2 | Copper | 12.0 | | 3,000 | 780 | 0.0 |
| Landau 1990 | 1990 | FB3 | 3 | Copper | 11.7 | | 3,000 | 780 | 0.0 |
| Landau 1990 | 1990 | FB2 | 8 | Copper | 11.5 | | 3,000 | 39 | 0.3 |
| Landau 1990 | 1990 | DB6 | 18.5 | Copper | 11.0 | | 3,000 | 39 | 0.3 |
| Landau 1990 | 1990 | DB3 | 6 | Copper | 11.0 | | 3,000 | 780 | 0.0 |
| Landau 1990 | 1990 | FB1 | 2 | Copper | 10.7 | | 3,000 | 780 | 0.0 |
| Landau 1990 | 1990 | FB2 | 18.5 | Copper | 9.8 | | 3,000 | 39 | 0.3 |
| Landau 1990 | 1990 | FB2 | 5.5 | Copper | 9.3 | | 3,000 | 780 | 0.0 |
| Landau 1990 | 1990 | FB4 | 2 | Copper | 8.6 | | 3,000 | 780 | 0.0 |
| **Landau 1990** | **1990** | **DB11** | **8** | **Dibenz(a,h)anthracene** | **46** | | | **0.033** | **1,394** |
| **Landau 1990** | **1990** | **DB6** | **4.5** | **Dibenz(a,h)anthracene** | **23** | | | **0.66** | **35** |
| **Landau 1990** | **1990** | **DB3** | **3.5** | **Dibenz(a,h)anthracene** | **11** | | | **0.66** | **17** |
| **Landau 1990** | **1990** | **DB11** | **9.5** | **Dibenz(a,h)anthracene** | **8** | | | **0.033** | **242** |
| **Landau 1990** | **1990** | **DB2** | **4.5** | **Dibenz(a,h)anthracene** | **6.8** | | | **0.66** | **10** |
| **Landau 1990** | **1990** | **DB6** | **7** | **Dibenz(a,h)anthracene** | **3.5** | | | **0.033** | **106** |
| **Landau 1990** | **1990** | **DB2** | **7** | **Dibenz(a,h)anthracene** | **1.8** | | | **0.033** | **55** |
| Landau 1990 | 1990 | DB5 | 2 | Dibenz(a,h)anthracene | 1.8 | | | 0.66 | 2.7 |
| Landau 1990 | 1990 | DB8 | 5 | Dibenz(a,h)anthracene | 1.3 | | | 0.66 | 2.0 |
| Landau 1990 | 1990 | DB4 | 6 | Dibenz(a,h)anthracene | 1.3 | | | 0.66 | 2.0 |
| Hart Crowser 1990b | Aug-90 | HC-106 | 5.3 | Dibenz(a,h)anthracene | 1.1 | | | 0.66 | 1.7 |
| Hart Crowser 1990b | Aug-90 | HC-107 | 3.1 | Dibenz(a,h)anthracene | 1.0 | | | 0.66 | 1.5 |
| Landau 1990 | 1990 | DB6 | 2 | Dibenz(a,h)anthracene | 0.92 | | | 0.66 | 1.4 |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **9.8** | **Dibenz(a,h)anthracene** | **0.52** | | | **0.033** | **16** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-110** | **8.9** | **Dibenz(a,h)anthracene** | **0.46** | | | **0.033** | **14** |
| Landau 1990 | 1990 | DB10 | 5 | Dibenz(a,h)anthracene | 0.37 | | | 0.66 | 0.6 |
| **Landau 1990** | **1990** | **DB6** | **13** | **Dibenz(a,h)anthracene** | **0.36** | | | **0.033** | **11** |
| **Landau 1990** | **1990** | **DB4** | **8.5** | **Dibenz(a,h)anthracene** | **0.33** | | | **0.033** | **10** |
| Landau 1990 | 1990 | DB9 | 5 | Dibenz(a,h)anthracene | 0.33 | | | 0.66 | 0.5 |
| Hart Crowser 1990b | Aug-90 | HC-103 | 8.5 | Dibenz(a,h)anthracene | 0.23 | J | | 0.033 | 7.0 |
| Landau 1990 | 1990 | DB12 | 5 | Dibenz(a,h)anthracene | 0.18 | | | 0.66 | 0.3 |
| Landau 1990 | 1990 | DB7 | 11.5 | Dibenz(a,h)anthracene | 0.17 | M | | 0.033 | 5.2 |
| Hart Crowser 1990b | Aug-90 | HC-106 | 3.5 | Dibenz(a,h)anthracene | 0.15 | | | 0.66 | 0.2 |
| Landau 1990 | 1990 | DB7 | 8.5 | Dibenz(a,h)anthracene | 0.13 | | | 0.033 | 3.9 |
| Landau 1990 | 1990 | DB11 | 6.5 | Dibenz(a,h)anthracene | 0.054 | M | | 0.66 | 0.1 |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| **Landau 1990** | **1990** | **DB11** | **8** | **Dibenzofuran** | **390** | | **160** | **0.059** | **6,610** |
| **Landau 1990** | **1990** | **DB6** | **4.5** | **Dibenzofuran** | **210** | | **160** | **1.2** | **175** |
| **Landau 1990** | **1990** | **DB11** | **9.5** | **Dibenzofuran** | **29** | | **160** | **0.059** | **492** |
| **Landau 1990** | **1990** | **DB6** | **7** | **Dibenzofuran** | **21** | | **160** | **0.059** | **356** |
| **Landau 1990** | **1990** | **DB6** | **13** | **Dibenzofuran** | **4.1** | | **160** | **0.059** | **69** |
| Landau 1990 | 1990 | DB5 | 2 | Dibenzofuran | 3.2 | | 160 | 1.2 | 2.7 |
| **Landau 1990** | **1990** | **DB3** | **17** | **Dibenzofuran** | **2.5** | | **160** | **0.059** | **42** |
| Landau 1990 | 1990 | DB6 | 2 | Dibenzofuran | 2.2 | | 160 | 1.2 | 1.8 |
| **Landau 1990** | **1990** | **DB2** | **7** | **Dibenzofuran** | **2** | | **160** | **0.059** | **34** |
| **Landau 1990** | **1990** | **DB2** | **9.5** | **Dibenzofuran** | **1.2** | | **160** | **0.059** | **20** |
| **Landau 1990** | **1990** | **DB7** | **11.5** | **Dibenzofuran** | **0.6** | | **160** | **0.059** | **10** |
| Landau 1990 | 1990 | DB4 | 6 | Dibenzofuran | 0.54 | | 160 | 1.2 | 0.5 |
| Landau 1990 | 1990 | DB6 | 16 | Dibenzofuran | 0.51 | | 160 | 0.059 | 8.6 |
| Landau 1990 | 1990 | DB3 | 13.5 | Dibenzofuran | 0.44 | | 160 | 0.059 | 7.5 |
| Landau 1990 | 1990 | DB3 | 3.5 | Dibenzofuran | 0.32 | J | 160 | 1.2 | 0.3 |
| Landau 1990 | 1990 | DB12 | 5 | Dibenzofuran | 0.23 | | 160 | 1.2 | 0.2 |
| Landau 1990 | 1990 | DB2 | 4.5 | Dibenzofuran | 0.15 | J | 160 | 1.2 | 0.1 |
| Landau 1990 | 1990 | DB4 | 8.5 | Dibenzofuran | 0.11 | J | 160 | 0.059 | 1.9 |
| Landau 1990 | 1990 | DB6 | 10 | Dibenzofuran | 0.092 | | 160 | 0.059 | 1.6 |
| Landau 1990 | 1990 | DB8 | 5 | Dibenzofuran | 0.042 | J | 160 | 1.2 | 0.0 |
| Landau 1990 | 1990 | DB9 | 5 | Dibenzofuran | 0.032 | | 160 | 1.2 | 0.0 |
| Landau 1990 | 1990 | DB13 | 11 | Dibenzofuran | 0.02 | M | 160 | 0.059 | 0.3 |
| Hart Crowser 1990b | Aug-90 | HC-106 | 5.3 | Diesel-Range Hydrocarbons | 1,400 | | 2,000 | | 0.7 |
| Hart Crowser 1990b | Aug-90 | HC-103 | 9.8 | Diesel-Range Hydrocarbons | 940 | | 2,000 | | 0.5 |
| Hart Crowser 1990b | Aug-90 | HC-103 | 10.8 | Diesel-Range Hydrocarbons | 15 | | 2,000 | | 0.0 |
| Landau 1990 | 1990 | DB7 | 6 | Di-n-butylphthalate | 0.08 | | | 39 | 0.0 |
| Landau 1990 | 1990 | DB9 | 5 | Di-n-butylphthalate | 0.066 | | | 39 | 0.0 |
| Landau 1990 | 1990 | DB7 | 8.5 | Di-n-butylphthalate | 0.054 | J | | 2.0 | 0.0 |
| Hart Crowser 1989a | Nov-88 | SS-4 | 0-0.5 | Endosulfan I | 0.0177 | | 480 | | 0.0 |
| Landau 1990 | 1990 | DB6 | 4.5 | Ethylbenzene | 1.3 | | 6 | | 0.2 |
| Landau 1990 | 1990 | DB6 | 7 | Ethylbenzene | 0.74 | | 6 | | 0.1 |
| Landau 1990 | 1990 | DB11 | 8 | Ethylbenzene | 0.48 | | 6 | | 0.1 |
| Hart Crowser 1989a | Nov-88 | SS-2 | 0-0.5 | Ethylbenzene | 0.096 | | 6 | | 0.0 |
| Landau 1990 | 1990 | DB11 | 9.5 | Ethylbenzene | 0.08 | | 6 | | 0.0 |
| Landau 1990 | 1990 | DB7 | 11.5 | Ethylbenzene | 0.0084 | | 6 | | 0.0 |
| Landau 1990 | 1990 | DB2 | 9.5 | Ethylbenzene | 0.0078 | | 6 | | 0.0 |
| Hart Crowser 1989a | Nov-88 | SS-3 | 0-0.5 | Ethylbenzene | 0.005 | J | 6 | | 0.0 |
| Landau 1990 | 1990 | DB3 | 13.5 | Ethylbenzene | 0.0034 | | 6 | | 0.0 |
| Landau 1990 | 1990 | DB6 | 13 | Ethylbenzene | 0.0031 | | 6 | | 0.0 |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | DB7 | 8.5 | Ethylbenzene | 0.0019 | | 6 | | 0.0 |
| Landau 1990 | 1990 | DB2 | 7 | Ethylbenzene | 0.0011 | J | 6 | | 0.0 |
| Landau 1990 | 1990 | DB12 | 5 | Ethylbenzene | 0.0009 | M | 6 | | 0.0 |
| Landau 1990 | 1990 | DB12 | 11.5 | Ethylbenzene | 0.0008 | M | 6 | | 0.0 |
| Landau 1990 | 1990 | DB5 | 2 | Ethylbenzene | 0.0004 | M | 6 | | 0.0 |
| **Landau 1990** | **1990** | **DB11** | **8** | **Fluoranthene** | **1,200** | **B** | **3,200** | **1.2** | **1,000** |
| **Landau 1990** | **1990** | **DB6** | **4.5** | **Fluoranthene** | **640** | **B** | **3,200** | **24** | **27** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **9.8** | **Fluoranthene** | **310** | | **3,200** | **1.2** | **258** |
| **Landau 1990** | **1990** | **DB11** | **9.5** | **Fluoranthene** | **280** | **B** | **3,200** | **1.2** | **233** |
| **Landau 1990** | **1990** | **DB6** | **7** | **Fluoranthene** | **56** | **B** | **3,200** | **1.2** | **47** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **8.5** | **Fluoranthene** | **55** | | **3,200** | **1.2** | **46** |
| Hart Crowser 1990b | Aug-90 | HC-106 | 5.3 | Fluoranthene | 38 | | 3,200 | 24 | 1.6 |
| Landau 1990 | 1990 | DB5 | 2 | Fluoranthene | 35 | B | 3,200 | 24 | 1.5 |
| Hart Crowser 1990b | Aug-90 | HC-107 | 3.1 | Fluoranthene | 29 | | 3,200 | 24 | 1.2 |
| **Hart Crowser 1990b** | **Aug-90** | **HC-110** | **8.9** | **Fluoranthene** | **27** | | **3,200** | **1.2** | **23** |
| Landau 1990 | 1990 | DB4 | 6 | Fluoranthene | 22 | B | 3,200 | 24 | 0.9 |
| Landau 1990 | 1990 | DB6 | 2 | Fluoranthene | 14 | B | 3,200 | 24 | 0.6 |
| Landau 1990 | 1990 | DB3 | 3.5 | Fluoranthene | 14 | B | 3,200 | 24 | 0.6 |
| Landau 1990 | 1990 | DB6 | 13 | Fluoranthene | 9.3 | | 3,200 | 1.2 | 7.8 |
| Landau 1990 | 1990 | DB4 | 8.5 | Fluoranthene | 5 | B | 3,200 | 1.2 | 4.2 |
| Landau 1990 | 1990 | DB2 | 4.5 | Fluoranthene | 4.5 | B | 3,200 | 24 | 0.2 |
| Landau 1990 | 1990 | DB7 | 11.5 | Fluoranthene | 3.8 | B | 3,200 | 1.2 | 3.2 |
| Landau 1990 | 1990 | DB2 | 9.5 | Fluoranthene | 3.3 | | 3,200 | 1.2 | 2.8 |
| Landau 1990 | 1990 | DB2 | 7 | Fluoranthene | 3.2 | B | 3,200 | 1.2 | 2.7 |
| Hart Crowser 1990b | Aug-90 | HC-102 | 8.5 | Fluoranthene | 3.1 | | 3,200 | 1.2 | 2.6 |
| Landau 1990 | 1990 | DB12 | 5 | Fluoranthene | 3 | | 3,200 | 24 | 0.1 |
| Hart Crowser 1990b | Aug-90 | HC-106 | 3.5 | Fluoranthene | 2.9 | | 3,200 | 24 | 0.1 |
| Landau 1990 | 1990 | DB3 | 17 | Fluoranthene | 2.1 | | 3,200 | 1.2 | 1.8 |
| Hart Crowser 1990b | Aug-90 | HC-103 DUP | 10.8 | Fluoranthene | 1.5 | | 3,200 | 1.2 | 1.3 |
| Landau 1990 | 1990 | DB6 | 16 | Fluoranthene | 1.5 | | 3,200 | 1.2 | 1.3 |
| Landau 1990 | 1990 | DB7 | 8.5 | Fluoranthene | 1.3 | B | 3,200 | 1.2 | 1.1 |
| Landau 1990 | 1990 | DB8 | 5 | Fluoranthene | 1.2 | B | 3,200 | 24 | 0.1 |
| Hart Crowser 1990b | Aug-90 | HC-106 | 7.5 | Fluoranthene | 1.0 | | 3,200 | 1.2 | 0.8 |
| Hart Crowser 1990b | Aug-90 | HC-103 | 10.8 | Fluoranthene | 1.0 | | 3,200 | 1.2 | 0.8 |
| Landau 1990 | 1990 | DB10 | 5 | Fluoranthene | 0.92 | | 3,200 | 24 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-105 | 6.0 | Fluoranthene | 0.81 | | 3,200 | 24 | 0.0 |
| Landau 1990 | 1990 | DB9 | 5 | Fluoranthene | 0.77 | | 3,200 | 24 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-110 | 6.8 | Fluoranthene | 0.57 | | 3,200 | 24 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-110 | 3.5 | Fluoranthene | 0.55 | | 3,200 | 24 | 0.0 |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | DB6 | 10 | Fluoranthene | 0.35 | | 3,200 | 1.2 | 0.3 |
| Landau 1990 | 1990 | DB6 | 18.5 | Fluoranthene | 0.27 | | 3,200 | 1.2 | 0.2 |
| Landau 1990 | 1990 | DB1 | 5 | Fluoranthene | 0.14 | | 3,200 | 24 | 0.0 |
| Landau 1990 | 1990 | DB13 | 11 | Fluoranthene | 0.13 | | 3,200 | 1.2 | 0.1 |
| Landau 1990 | 1990 | DB11 | 6.5 | Fluoranthene | 0.13 | | 3,200 | 24 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-103 | 6.5 | Fluoranthene | 0.11 | | 3,200 | 24 | 0.0 |
| Landau 1990 | 1990 | DB1 | 6.5 | Fluoranthene | 0.1 | | 3,200 | 24 | 0.0 |
| Landau 1990 | 1990 | FB2 | 2 | Fluoranthene | 0.099 | J | 3,200 | 24 | 0.0 |
| Landau 1990 | 1990 | DB2 | 18 | Fluoranthene | 0.076 | | 3,200 | 1.2 | 0.1 |
| Landau 1990 | 1990 | DB2 | 12 | Fluoranthene | 0.074 | | 3,200 | 1.2 | 0.1 |
| Landau 1990 | 1990 | DB5 | 11 | Fluoranthene | 0.059 | J | 3,200 | 1.2 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-106 DUP | 7.5 | Fluoranthene | 0.054 | J | 3,200 | 1.2 | 0.0 |
| Landau 1990 | 1990 | DB3 | 13.5 | Fluoranthene | 0.052 | J | 3,200 | 1.2 | 0.0 |
| Landau 1990 | 1990 | DB7 | 6 | Fluoranthene | 0.052 | J | 3,200 | 24 | 0.0 |
| Landau 1990 | 1990 | DB2 | 3.5 | Fluoranthene | 0.041 | J | 3,200 | 24 | 0.0 |
| **Landau 1990** | **1990** | **DB11** | **8** | **Fluorene** | **630** | | **3,200** | **0.081** | **7,778** |
| **Landau 1990** | **1990** | **DB6** | **4.5** | **Fluorene** | **420** | **B** | **3,200** | **1.6** | **263** |
| **Landau 1990** | **1990** | **DB11** | **9.5** | **Fluorene** | **140** | | **3,200** | **0.081** | **1728** |
| **Landau 1990** | **1990** | **DB6** | **7** | **Fluorene** | **32** | **B** | **3,200** | **0.081** | **395** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **8.5** | **Fluorene** | **31** | | **3,200** | **0.081** | **383** |
| Hart Crowser 1990b | Aug-90 | HC-106 | 5.3 | Fluorene | 15 | | 3,200 | 1.6 | 9.4 |
| **Landau 1990** | **1990** | **DB6** | **13** | **Fluorene** | **6.3** | | **3,200** | **0.081** | **78** |
| Landau 1990 | 1990 | DB5 | 2 | Fluorene | 5.9 | | 3,200 | 1.6 | 3.7 |
| Landau 1990 | 1990 | DB6 | 2 | Fluorene | 4 | B | 3,200 | 1.6 | 2.5 |
| Landau 1990 | 1990 | FSS2 | 0-0.5 | Fluorene | 4 | M | 3,200 | 1.6 | 2.5 |
| **Landau 1990** | **1990** | **DB3** | **17** | **Fluorene** | **2.9** | | **3,200** | **0.081** | **36** |
| **Landau 1990** | **1990** | **DB2** | **7** | **Fluorene** | **2.6** | | **3,200** | **0.081** | **32** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-110** | **8.9** | **Fluorene** | **2.2** | | **3,200** | **0.081** | **27** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103 DUP** | **10.8** | **Fluorene** | **1.8** | | **3,200** | **0.081** | **22** |
| **Landau 1990** | **1990** | **DB2** | **9.5** | **Fluorene** | **1.7** | | **3,200** | **0.081** | **21** |
| Hart Crowser 1990b | Aug-90 | HC-106 | 3.5 | Fluorene | 1.7 | | 3,200 | 1.6 | 1.1 |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **10.8** | **Fluorene** | **1.5** | | **3,200** | **0.081** | **19** |
| Landau 1990 | 1990 | DB4 | 6 | Fluorene | 1.4 | B | 3,200 | 1.6 | 0.9 |
| Hart Crowser 1990b | Aug-90 | HC-107 | 3.1 | Fluorene | 0.97 | | 3,200 | 1.6 | 0.6 |
| **Landau 1990** | **1990** | **DB6** | **16** | **Fluorene** | **0.92** | | **3,200** | **0.081** | **11** |
| **Landau 1990** | **1990** | **DB7** | **11.5** | **Fluorene** | **0.88** | | **3,200** | **0.081** | **11** |
| Landau 1990 | 1990 | DB3 | 3.5 | Fluorene | 0.64 | | 3,200 | 1.6 | 0.4 |
| Landau 1990 | 1990 | DB3 | 13.5 | Fluorene | 0.53 | | 3,200 | 0.081 | 6.5 |
| Landau 1990 | 1990 | DB12 | 5 | Fluorene | 0.45 | | 3,200 | 1.6 | 0.3 |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | DB4 | 8.5 | Fluorene | 0.27 | B | 3,200 | 0.081 | 3.3 |
| Landau 1990 | 1990 | DB7 | 8.5 | Fluorene | 0.27 | | 3,200 | 0.081 | 3.3 |
| Landau 1990 | 1990 | DB6 | 10 | Fluorene | 0.19 | | 3,200 | 0.081 | 2.3 |
| Landau 1990 | 1990 | DB6 | 18.5 | Fluorene | 0.1 | | 3,200 | 0.081 | 1.2 |
| Landau 1990 | 1990 | DB8 | 5 | Fluorene | 0.082 | B | 3,200 | 1.6 | 0.1 |
| Landau 1990 | 1990 | DB9 | 5 | Fluorene | 0.041 | | 3,200 | 1.6 | 0.0 |
| Landau 1990 | 1990 | DB10 | 5 | Fluorene | 0.038 | J | 3,200 | 1.6 | 0.0 |
| Landau 1990 | 1990 | DB13 | 11 | Fluorene | 0.033 | J | 3,200 | 0.081 | 0.4 |
| **Landau 1990** | **1990** | **DB11** | **8** | **Indeno(1,2,3-cd)pyrene** | **100** | | | **0.088** | **1,136** |
| **Landau 1990** | **1990** | **DB6** | **4.5** | **Indeno(1,2,3-cd)pyrene** | **37** | | | **1.8** | **21** |
| **Landau 1990** | **1990** | **DB3** | **3.5** | **Indeno(1,2,3-cd)pyrene** | **26** | | | **1.8** | **14** |
| **Landau 1990** | **1990** | **DB11** | **9.5** | **Indeno(1,2,3-cd)pyrene** | **20** | | | **0.088** | **227** |
| Landau 1990 | 1990 | DB2 | 4.5 | Indeno(1,2,3-cd)pyrene | 14 | | | 1.8 | 7.8 |
| **Landau 1990** | **1990** | **DB6** | **7** | **Indeno(1,2,3-cd)pyrene** | **7.2** | | | **0.088** | **82** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-110** | **8.9** | **Indeno(1,2,3-cd)pyrene** | **6.0** | | | **0.088** | **68** |
| **Landau 1990** | **1990** | **DB2** | **7** | **Indeno(1,2,3-cd)pyrene** | **4.3** | | | **0.088** | **49** |
| Hart Crowser 1990b | Aug-90 | HC-107 | 3.1 | Indeno(1,2,3-cd)pyrene | 3.8 | | | 1.8 | 2.1 |
| Hart Crowser 1990b | Aug-90 | HC-106 | 5.3 | Indeno(1,2,3-cd)pyrene | 3.8 | | | 1.8 | 2.1 |
| Landau 1990 | 1990 | DB5 | 2 | Indeno(1,2,3-cd)pyrene | 3.4 | | | 1.8 | 1.9 |
| Landau 1990 | 1990 | DB8 | 5 | Indeno(1,2,3-cd)pyrene | 2.9 | | | 1.8 | 1.6 |
| Landau 1990 | 1990 | DB4 | 6 | Indeno(1,2,3-cd)pyrene | 2.3 | | | 1.8 | 1.3 |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **9.8** | **Indeno(1,2,3-cd)pyrene** | **2.0** | | | **0.088** | **23** |
| Landau 1990 | 1990 | DB6 | 2 | Indeno(1,2,3-cd)pyrene | 1.6 | | | 1.8 | 0.9 |
| Landau 1990 | 1990 | DB10 | 5 | Indeno(1,2,3-cd)pyrene | 1.1 | | | 1.8 | 0.6 |
| Landau 1990 | 1990 | DB9 | 5 | Indeno(1,2,3-cd)pyrene | 0.98 | | | 1.8 | 0.5 |
| **Landau 1990** | **1990** | **DB7** | **8.5** | **Indeno(1,2,3-cd)pyrene** | **0.88** | | | **0.088** | **10** |
| Landau 1990 | 1990 | DB6 | 13 | Indeno(1,2,3-cd)pyrene | 0.82 | | | 0.088 | 9.3 |
| Hart Crowser 1990b | Aug-90 | HC-103 | 8.5 | Indeno(1,2,3-cd)pyrene | 0.64 | | | 0.088 | 7.3 |
| Hart Crowser 1990b | Aug-90 | HC-106 | 3.5 | Indeno(1,2,3-cd)pyrene | 0.63 | | | 1.8 | 0.4 |
| Hart Crowser 1990b | Aug-90 | HC-102 | 8.5 | Indeno(1,2,3-cd)pyrene | 0.58 | | | 0.088 | 6.6 |
| Landau 1990 | 1990 | DB7 | 11.5 | Indeno(1,2,3-cd)pyrene | 0.55 | | | 0.088 | 6.3 |
| Landau 1990 | 1990 | DB4 | 8.5 | Indeno(1,2,3-cd)pyrene | 0.53 | | | 0.088 | 6.0 |
| Landau 1990 | 1990 | DB12 | 5 | Indeno(1,2,3-cd)pyrene | 0.38 | | | 1.8 | 0.2 |
| Landau 1990 | 1990 | DB2 | 9.5 | Indeno(1,2,3-cd)pyrene | 0.26 | | | 0.088 | 3.0 |
| Landau 1990 | 1990 | DB11 | 6.5 | Indeno(1,2,3-cd)pyrene | 0.18 | | | 1.8 | 0.1 |
| Hart Crowser 1990b | Aug-90 | HC-110 | 6.8 | Indeno(1,2,3-cd)pyrene | 0.16 | | | 1.8 | 0.1 |
| Hart Crowser 1990b | Aug-90 | HC-103 | 6.5 | Indeno(1,2,3-cd)pyrene | 0.14 | | | 1.8 | 0.1 |
| Hart Crowser 1990b | Aug-90 | HC-105 | 6.0 | Indeno(1,2,3-cd)pyrene | 0.12 | | | 1.8 | 0.1 |
| Hart Crowser 1990b | Aug-90 | HC-110 | 3.5 | Indeno(1,2,3-cd)pyrene | 0.081 | J | | 1.8 | 0.0 |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | DB2 | 3.5 | Indeno(1,2,3-cd)pyrene | 0.048 | J | | 1.8 | 0.0 |
| Landau 1990 | 1990 | DB6 | 4.5 | Lead | 1,250 | | 250 | 1,300 | 5.0 |
| **Landau 1990** | **1990** | **DB7** | **11.5** | **Lead** | **712** | | **250** | **67** | **11** |
| Landau 1990 | 1990 | DB6 | 2 | Lead | 434 | | 250 | 1,300 | 1.7 |
| Landau 1990 | 1990 | DB4 | 6 | Lead | 319 | | 250 | 1,300 | 1.3 |
| Landau 1990 | 1990 | DB11 | 8 | Lead | 311 | | 250 | 67 | 4.6 |
| Landau 1990 | 1990 | DB2 | 7 | Lead | 226 | | 250 | 67 | 3.4 |
| Landau 1990 | 1990 | DB5 | 2.0 | Lead | 166 | | 250 | 1,300 | 0.7 |
| Landau 1990 | 1990 | DB2 | 4.5 | Lead | 120 | | 250 | 1,300 | 0.5 |
| Landau 1990 | 1990 | DB7 | 8.5 | Lead | 116 | | 250 | 67 | 1.7 |
| Landau 1990 | 1990 | DB10 | 5 | Lead | 104 | | 250 | 1,300 | 0.4 |
| Landau 1990 | 1990 | DB3 | 3.5 | Lead | 68 | | 250 | 1,300 | 0.3 |
| Landau 1990 | 1990 | DB8 | 5 | Lead | 45 | | 250 | 1,300 | 0.2 |
| Landau 1990 | 1990 | DB11 | 6.5 | Lead | 34 | | 250 | 1,300 | 0.1 |
| Landau 1990 | 1990 | DB6 | 13 | Lead | 30 | | 250 | 67 | 0.4 |
| Landau 1990 | 1990 | DB2 | 3.5 | Lead | 30 | | 250 | 1,300 | 0.1 |
| Landau 1990 | 1990 | DB9 | 5 | Lead | 29 | | 250 | 1,300 | 0.1 |
| Landau 1990 | 1990 | DB4 | 8.5 | Lead | 19 | | 250 | 67 | 0.3 |
| Landau 1990 | 1990 | DB1 | 6.5 | Lead | 18 | | 250 | 1,300 | 0.1 |
| Landau 1990 | 1990 | FB2 | 2 | Lead | 15 | | 250 | 1,300 | 0.1 |
| Landau 1990 | 1990 | DB7 | 6 | Lead | 15 | | 250 | 1,300 | 0.1 |
| Landau 1990 | 1990 | DB12 | 5 | Lead | 13 | | 250 | 1,300 | 0.1 |
| Landau 1990 | 1990 | DB2 | 12 | Lead | 9 | | 250 | 67 | 0.1 |
| Landau 1990 | 1990 | DB1 | 5 | Lead | 8 | | 250 | 1,300 | 0.0 |
| Landau 1990 | 1990 | DB1 | 9.5 | Lead | 7 | | 250 | 67 | 0.1 |
| Landau 1990 | 1990 | DB2 | 18 | Lead | 7 | | 250 | 67 | 0.1 |
| Landau 1990 | 1990 | DB6 | 16 | Lead | 6 | | 250 | 67 | 0.1 |
| Landau 1990 | 1990 | DB3 | 2 | Lead | 6 | | 250 | 1,300 | 0.0 |
| Landau 1990 | 1990 | FB1 | 7 | Lead | 4 | | 250 | 67 | 0.1 |
| Landau 1990 | 1990 | DB2 | 9.5 | Lead | 4 | | 250 | 67 | 0.1 |
| Landau 1990 | 1990 | DB11 | 9.5 | Lead | 4 | | 250 | 67 | 0.1 |
| Landau 1990 | 1990 | DB6 | 10 | Lead | 4 | | 250 | 67 | 0.1 |
| Landau 1990 | 1990 | DB9 | 11 | Lead | 4 | | 250 | 67 | 0.1 |
| Landau 1990 | 1990 | DB10 | 11 | Lead | 4 | | 250 | 67 | 0.1 |
| Landau 1990 | 1990 | DB13 | 11 | Lead | 4 | | 250 | 67 | 0.1 |
| Landau 1990 | 1990 | FB3 | 5.5 | Lead | 4 | | 250 | 1,300 | 0.0 |
| Landau 1990 | 1990 | DB5 | 11 | Lead | 3 | | 250 | 67 | 0.0 |
| Landau 1990 | 1990 | FB3 | 3 | Lead | 2 | | 250 | 1,300 | 0.0 |
| **Landau 1990** | **1990** | **DB6** | **4.5** | **Methylene Chloride** | **2** | **B** | **0.02** | | **100** |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| **Landau 1990** | **1990** | **DB6** | **7** | **Methylene Chloride** | **0.53** | **B** | **0.02** | | **27** |
| Landau 1990 | 1990 | DB11 | 8 | Methylene Chloride | 0.066 | JB | 0.02 | | 3.3 |
| Landau 1990 | 1990 | DB6 | 2 | Methylene Chloride | 0.053 | B | 0.02 | | 2.7 |
| Landau 1990 | 1990 | DB11 | 9.5 | Methylene Chloride | 0.041 | B | 0.02 | | 2.1 |
| Landau 1990 | 1990 | DB6 | 16 | Methylene Chloride | 0.036 | B | 0.02 | | 1.8 |
| Landau 1990 | 1990 | DB6 | 18.5 | Methylene Chloride | 0.035 | B | 0.02 | | 1.8 |
| Landau 1990 | 1990 | FB2 | 2 | Methylene Chloride | 0.0085 | B | 0.02 | | 0.4 |
| Hart Crowser 1989a | Nov-88 | SS-3 | 0-0.5 | Methylene Chloride | 0.008 | | 0.02 | | 0.4 |
| Landau 1990 | 1990 | DB10 | 5 | Methylene Chloride | 0.0079 | B | 0.02 | | 0.4 |
| Landau 1990 | 1990 | FB2 | 18.5 | Methylene Chloride | 0.0076 | B | 0.02 | | 0.4 |
| Landau 1990 | 1990 | FB4 | 8 | Methylene Chloride | 0.0064 | B | 0.02 | | 0.3 |
| Landau 1990 | 1990 | DB6 | 10 | Methylene Chloride | 0.006 | B | 0.02 | | 0.3 |
| Landau 1990 | 1990 | DB3 | 7.5 | Methylene Chloride | 0.0059 | B | 0.02 | | 0.3 |
| Landau 1990 | 1990 | DB2 | 9.5 | Methylene Chloride | 0.0059 | B | 0.02 | | 0.3 |
| Landau 1990 | 1990 | DB2 | 18 | Methylene Chloride | 0.0059 | B | 0.02 | | 0.3 |
| Landau 1990 | 1990 | FB5 | 11 | Methylene Chloride | 0.0058 | B | 0.02 | | 0.3 |
| Landau 1990 | 1990 | DB6 | 13 | Methylene Chloride | 0.0058 | B | 0.02 | | 0.3 |
| Landau 1990 | 1990 | DB3 | 17 | Methylene Chloride | 0.0056 | B | 0.02 | | 0.3 |
| Landau 1990 | 1990 | FB4 | 2 | Methylene Chloride | 0.0055 | B | 0.02 | | 0.3 |
| Landau 1990 | 1990 | DB9 | 11 | Methylene Chloride | 0.0054 | B | 0.02 | | 0.3 |
| Landau 1990 | 1990 | DB3 | 13.5 | Methylene Chloride | 0.0054 | B | 0.02 | | 0.3 |
| Landau 1990 | 1990 | DB10 | 8 | Methylene Chloride | 0.0053 | B | 0.02 | | 0.3 |
| Landau 1990 | 1990 | DB2 | 7 | Methylene Chloride | 0.005 | B | 0.02 | | 0.3 |
| Landau 1990 | 1990 | DB3 | 9 | Methylene Chloride | 0.0048 | B | 0.02 | | 0.2 |
| Landau 1990 | 1990 | DB4 | 11 | Methylene Chloride | 0.0048 | B | 0.02 | | 0.2 |
| Landau 1990 | 1990 | DB9 | 8 | Methylene Chloride | 0.0047 | B | 0.02 | | 0.2 |
| Landau 1990 | 1990 | FB3 | 13.5 | Methylene Chloride | 0.0042 | B | 0.02 | | 0.2 |
| Landau 1990 | 1990 | FB1 | 13 | Methylene Chloride | 0.0041 | B | 0.02 | | 0.2 |
| Landau 1990 | 1990 | FB2 | 5.5 | Methylene Chloride | 0.004 | B | 0.02 | | 0.2 |
| Landau 1990 | 1990 | FB2 | 8 | Methylene Chloride | 0.004 | B | 0.02 | | 0.2 |
| Landau 1990 | 1990 | FB5 | 8 | Methylene Chloride | 0.004 | B | 0.02 | | 0.2 |
| Landau 1990 | 1990 | FB3 | 5.5 | Methylene Chloride | 0.0039 | B | 0.02 | | 0.2 |
| Landau 1990 | 1990 | FB4 | 11 | Methylene Chloride | 0.0039 | B | 0.02 | | 0.2 |
| Landau 1990 | 1990 | FB5 | 2 | Methylene Chloride | 0.0038 | B | 0.02 | | 0.2 |
| Landau 1990 | 1990 | DB8 | 11 | Methylene Chloride | 0.0038 | B | 0.02 | | 0.2 |
| Landau 1990 | 1990 | DB10 | 11 | Methylene Chloride | 0.0038 | B | 0.02 | | 0.2 |
| Landau 1990 | 1990 | DB12 | 5 | Methylene Chloride | 0.0037 | B | 0.02 | | 0.2 |
| Landau 1990 | 1990 | DB4 | 8.5 | Methylene Chloride | 0.0036 | B | 0.02 | | 0.2 |
| Landau 1990 | 1990 | DB2 | 12 | Methylene Chloride | 0.0036 | B | 0.02 | | 0.2 |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | DB4 | 6 | Methylene Chloride | 0.0034 | B | 0.02 | | 0.2 |
| Landau 1990 | 1990 | DB12 | 11.5 | Methylene Chloride | 0.0034 | B | 0.02 | | 0.2 |
| Landau 1990 | 1990 | DB9 | 5 | Methylene Chloride | 0.0031 | B | 0.02 | | 0.2 |
| Landau 1990 | 1990 | DB2 | 4.5 | Methylene Chloride | 0.0029 | B | 0.02 | | 0.1 |
| Landau 1990 | 1990 | DB8 | 5 | Methylene Chloride | 0.0029 | B | 0.02 | | 0.1 |
| Landau 1990 | 1990 | FB1 | 7 | Methylene Chloride | 0.0028 | B | 0.02 | | 0.1 |
| Landau 1990 | 1990 | DB5 | 11 | Methylene Chloride | 0.0028 | B | 0.02 | | 0.1 |
| Landau 1990 | 1990 | FB1 | 2 | Methylene Chloride | 0.0026 | B | 0.02 | | 0.1 |
| Landau 1990 | 1990 | DB2 | 3.5 | Methylene Chloride | 0.0025 | B | 0.02 | | 0.1 |
| Landau 1990 | 1990 | DB8 | 8 | Methylene Chloride | 0.0025 | JB | 0.02 | | 0.1 |
| Landau 1990 | 1990 | DB13 | 11 | Methylene Chloride | 0.0024 | JB | 0.02 | | 0.1 |
| Landau 1990 | 1990 | FB3 | 3 | Methylene Chloride | 0.0023 | B | 0.02 | | 0.1 |
| Landau 1990 | 1990 | DB14 | 9.5 | Methylene Chloride | 0.0022 | JB | 0.02 | | 0.1 |
| Landau 1990 | 1990 | DB5 | 8 | Methylene Chloride | 0.0021 | J | 0.02 | | 0.1 |
| Landau 1990 | 1990 | DB1 | 9.5 | Methylene Chloride | 0.0021 | B | 0.02 | | 0.1 |
| Landau 1990 | 1990 | DB7 | 11.5 | Methylene Chloride | 0.0021 | JB | 0.02 | | 0.1 |
| Landau 1990 | 1990 | DB7 | 6 | Methylene Chloride | 0.002 | JB | 0.02 | | 0.1 |
| Landau 1990 | 1990 | DB3 | 3.5 | Methylene Chloride | 0.0019 | B | 0.02 | | 0.1 |
| Landau 1990 | 1990 | DB1 | 6.5 | Methylene Chloride | 0.0019 | B | 0.02 | | 0.1 |
| Landau 1990 | 1990 | DB3 | 2 | Methylene Chloride | 0.0018 | B | 0.02 | | 0.1 |
| Landau 1990 | 1990 | DB5 | 2 | Methylene Chloride | 0.0018 | JB | 0.02 | | 0.1 |
| Landau 1990 | 1990 | DB7 | 8.5 | Methylene Chloride | 0.0017 | JB | 0.02 | | 0.1 |
| Landau 1990 | 1990 | DB1 | 5 | Methylene Chloride | 0.0016 | B | 0.02 | | 0.1 |
| Landau 1990 | 1990 | DB3 | 6 | Methylene Chloride | 0.0016 | B | 0.02 | | 0.1 |
| Landau 1990 | 1990 | DB11 | 6.5 | Methylene Chloride | 0.0016 | B | 0.02 | | 0.1 |
| **Landau 1990** | **1990** | **DB11** | **8** | **Naphthalene** | **2,100** | | **5** | **0.20** | **10,500** |
| **Landau 1990** | **1990** | **DB6** | **4.5** | **Naphthalene** | **1,600** | **B** | **5** | **3.8** | **421** |
| **Landau 1990** | **1990** | **DB11** | **9.5** | **Naphthalene** | **450** | | **5** | **0.20** | **2250** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **9.8** | **Naphthalene** | **210** | | **5** | **0.20** | **1050** |
| **Landau 1990** | **1990** | **DB6** | **7** | **Naphthalene** | **130** | **B** | **5** | **0.20** | **650** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **8.5** | **Naphthalene** | **25** | | **5** | **0.20** | **125** |
| Hart Crowser 1990b | Aug-90 | HC-106 | 5.3 | Naphthalene | 20 | | 5 | 3.8 | 5 |
| **Landau 1990** | **1990** | **DB6** | **13** | **Naphthalene** | **14** | | **5** | **0.20** | **70** |
| **Landau 1990** | **1990** | **DB2** | **7** | **Naphthalene** | **9** | | **5** | **0.20** | **45** |
| Landau 1990 | 1990 | DB6 | 2 | Naphthalene | 7.4 | | 5 | 3.8 | 1.9 |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **10.8** | **Naphthalene** | **5.1** | | **5** | **0.20** | **26** |
| **Landau 1990** | **1990** | **DB2** | **9.5** | **Naphthalene** | **4.2** | | **5** | **0.20** | **21** |
| **Landau 1990** | **1990** | **DB6** | **16** | **Naphthalene** | **3.2** | | **5** | **0.20** | **16** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103 DUP** | **10.8** | **Naphthalene** | **2.8** | | **5** | **0.20** | **14** |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| **Landau 1990** | **1990** | **DB3** | **13.5** | **Naphthalene** | **2.7** | | **5** | **0.20** | **14** |
| Landau 1990 | 1990 | DB5 | 2 | Naphthalene | 2.4 | | 5 | 3.8 | 0.6 |
| **Landau 1990** | **1990** | **DB3** | **17** | **Naphthalene** | **2** | | **5** | **0.20** | **10** |
| Landau 1990 | 1990 | DB7 | 11.5 | Naphthalene | 2 | | 5 | 0.20 | 9.0 |
| Landau 1990 | 1990 | DB3 | 3.5 | Naphthalene | 0.68 | | 5 | 3.8 | 0.2 |
| Landau 1990 | 1990 | DB6 | 10 | Naphthalene | 0.49 | | 5 | 0.20 | 2.5 |
| Hart Crowser 1990b | Aug-90 | HC-104 | 5.2 | Naphthalene | 0.34 | J | 5 | 3.8 | 0.1 |
| Landau 1990 | 1990 | DB4 | 6 | Naphthalene | 0.23 | MB | 5 | 3.8 | 0.1 |
| Landau 1990 | 1990 | DB2 | 4.5 | Naphthalene | 0.22 | J | 5 | 3.8 | 0.1 |
| Landau 1990 | 1990 | DB4 | 8.5 | Naphthalene | 0.18 | B | 5 | 0.20 | 0.9 |
| Landau 1990 | 1990 | DB7 | 8.5 | Naphthalene | 0.18 | | 5 | 0.20 | 0.9 |
| Landau 1990 | 1990 | DB8 | 5 | Naphthalene | 0.18 | B | 5 | 3.8 | 0.0 |
| Landau 1990 | 1990 | DB6 | 18.5 | Naphthalene | 0.14 | M | 5 | 0.20 | 0.7 |
| Landau 1990 | 1990 | DB13 | 11 | Naphthalene | 0.13 | | 5 | 0.20 | 0.7 |
| Hart Crowser 1990b | Aug-90 | HC-110 | 8.9 | Naphthalene | 0.11 | | 5 | 0.20 | 0.6 |
| Landau 1990 | 1990 | DB12 | 5 | Naphthalene | 0.11 | | 5 | 3.8 | 0.0 |
| Landau 1990 | 1990 | DB2 | 18 | Naphthalene | 0.098 | | 5 | 0.20 | 0.5 |
| Landau 1990 | 1990 | DB9 | 5 | Naphthalene | 0.092 | | 5 | 3.8 | 0.0 |
| Landau 1990 | 1990 | DB10 | 5 | Naphthalene | 0.077 | J | 5 | 3.8 | 0.0 |
| Landau 1990 | 1990 | DB11 | 6.5 | Naphthalene | 0.032 | | 5 | 3.8 | 0.0 |
| Landau 1990 | 1990 | DB6 | 4.5 | Nickel | 65 | | | | |
| Landau 1990 | 1990 | DB7 | 6 | Nickel | 38 | | | | |
| Landau 1990 | 1990 | DB5 | 2 | Nickel | 35 | | | | |
| Landau 1990 | 1990 | DB6 | 7 | Nickel | 33 | | | | |
| Landau 1990 | 1990 | DB7 | 11.5 | Nickel | 33 | | | | |
| Landau 1990 | 1990 | DB7 | 8.5 | Nickel | 32 | | | | |
| Landau 1990 | 1990 | DB3 | 2 | Nickel | 30 | | | | |
| Landau 1990 | 1990 | DB6 | 2 | Nickel | 30 | | | | |
| Landau 1990 | 1990 | DB2 | 3.5 | Nickel | 30 | | | | |
| Landau 1990 | 1990 | FB5 | 2 | Nickel | 26 | | | | |
| Landau 1990 | 1990 | DB3 | 3.5 | Nickel | 23 | | | | |
| Landau 1990 | 1990 | DB8 | 5 | Nickel | 18 | | | | |
| Landau 1990 | 1990 | DB11 | 8 | Nickel | 17 | | | | |
| Landau 1990 | 1990 | DB2 | 4.5 | Nickel | 16 | | | | |
| Landau 1990 | 1990 | DB4 | 6 | Nickel | 16 | | | | |
| Landau 1990 | 1990 | FB3 | 3 | Nickel | 14 | | | | |
| Landau 1990 | 1990 | DB10 | 5 | Nickel | 14 | | | | |
| Landau 1990 | 1990 | FB1 | 7 | Nickel | 13 | | | | |
| Landau 1990 | 1990 | DB3 | 7.5 | Nickel | 13 | | | | |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | DB3 | 9 | Nickel | 13 | | | | |
| Landau 1990 | 1990 | FB1 | 13 | Nickel | 13 | | | | |
| Landau 1990 | 1990 | DB2 | 7 | Nickel | 12 | | | | |
| Landau 1990 | 1990 | FB4 | 8 | Nickel | 12 | | | | |
| Landau 1990 | 1990 | DB4 | 8.5 | Nickel | 12 | | | | |
| Landau 1990 | 1990 | DB9 | 11 | Nickel | 12 | | | | |
| Landau 1990 | 1990 | DB9 | 5 | Nickel | 11 | | | | |
| Landau 1990 | 1990 | FB3 | 5.5 | Nickel | 11 | | | | |
| Landau 1990 | 1990 | DB11 | 6.5 | Nickel | 11 | | | | |
| Landau 1990 | 1990 | FB2 | 2 | Nickel | 10 | | | | |
| Landau 1990 | 1990 | DB9 | 8 | Nickel | 10 | | | | |
| Landau 1990 | 1990 | DB1 | 9.5 | Nickel | 10 | | | | |
| Landau 1990 | 1990 | DB2 | 9.5 | Nickel | 10 | | | | |
| Landau 1990 | 1990 | DB11 | 9.5 | Nickel | 10 | | | | |
| Landau 1990 | 1990 | DB14 | 9.5 | Nickel | 10 | | | | |
| Landau 1990 | 1990 | DB6 | 10 | Nickel | 10 | | | | |
| Landau 1990 | 1990 | DB10 | 11 | Nickel | 10 | | | | |
| Landau 1990 | 1990 | DB13 | 11 | Nickel | 10 | | | | |
| Landau 1990 | 1990 | DB8 | 8 | Nickel | 9 | | | | |
| Landau 1990 | 1990 | FB2 | 8 | Nickel | 9 | | | | |
| Landau 1990 | 1990 | DB4 | 11 | Nickel | 9 | | | | |
| Landau 1990 | 1990 | FB4 | 11 | Nickel | 9 | | | | |
| Landau 1990 | 1990 | DB2 | 12 | Nickel | 9 | | | | |
| Landau 1990 | 1990 | DB6 | 13 | Nickel | 9 | | | | |
| Landau 1990 | 1990 | DB3 | 13.5 | Nickel | 9 | | | | |
| Landau 1990 | 1990 | DB6 | 18.5 | Nickel | 9 | | | | |
| Landau 1990 | 1990 | DB1 | 5 | Nickel | 8 | | | | |
| Landau 1990 | 1990 | DB3 | 6 | Nickel | 8 | | | | |
| Landau 1990 | 1990 | DB1 | 6.5 | Nickel | 8 | | | | |
| Landau 1990 | 1990 | DB10 | 8 | Nickel | 8 | | | | |
| Landau 1990 | 1990 | FB5 | 11 | Nickel | 8 | | | | |
| Landau 1990 | 1990 | DB12 | 11.5 | Nickel | 8 | | | | |
| Landau 1990 | 1990 | FB3 | 13.5 | Nickel | 8 | | | | |
| Landau 1990 | 1990 | DB3 | 17 | Nickel | 8 | | | | |
| Landau 1990 | 1990 | DB2 | 18 | Nickel | 8 | | | | |
| Landau 1990 | 1990 | FB2 | 18.5 | Nickel | 8 | | | | |
| Landau 1990 | 1990 | FB1 | 2 | Nickel | 7 | | | | |
| Landau 1990 | 1990 | FB4 | 2 | Nickel | 7 | | | | |
| Landau 1990 | 1990 | DB12 | 5 | Nickel | 7 | | | | |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | FB2 | 5.5 | Nickel | 7 | | | | |
| Landau 1990 | 1990 | DB5 | 8 | Nickel | 7 | | | | |
| Landau 1990 | 1990 | FB5 | 8 | Nickel | 7 | | | | |
| Landau 1990 | 1990 | DB5 | 11 | Nickel | 7 | | | | |
| Landau 1990 | 1990 | DB8 | 11 | Nickel | 7 | | | | |
| Landau 1990 | 1990 | DB6 | 16 | Nickel | 7 | | | | |
| Landau 1990 | 1990 | DB4 | 6 | PCE | 0.0043 | | 0.05 | | 0.1 |
| Landau 1990 | 1990 | DB13 | 11 | PCE | 0.0042 | | 0.05 | | 0.1 |
| Landau 1990 | 1990 | DB4 | 11 | PCE | 0.0033 | | 0.05 | | 0.1 |
| Landau 1990 | 1990 | FB5 | 11 | PCE | 0.0032 | | 0.05 | | 0.1 |
| Landau 1990 | 1990 | DB7 | 11.5 | PCE | 0.0013 | | 0.05 | | 0.0 |
| Landau 1990 | 1990 | DB4 | 8.5 | PCE | 0.0007 | J | 0.05 | | 0.0 |
| Landau 1990 | 1990 | DB6 | 4.5 | Pentachlorophenol | 0.69 | | 8.3 | 0.73 | 0.9 |
| Landau 1990 | 1990 | DB9 | 5 | Pentachlorophenol | 0.33 | | 8.3 | 0.73 | 0.5 |
| Landau 1990 | 1990 | DB6 | 7 | Pentachlorophenol | 0.28 | | 8.3 | 0.037 | 7.6 |
| Landau 1990 | 1990 | DB6 | 2 | Pentachlorophenol | 0.27 | | 8.3 | 0.73 | 0.4 |
| Landau 1990 | 1990 | DB7 | 11.5 | Pentachlorophenol | 0.21 | | 8.3 | 0.037 | 5.7 |
| Landau 1990 | 1990 | DB2 | 7 | Pentachlorophenol | 0.19 | J | 8.3 | 0.037 | 5.1 |
| Landau 1990 | 1990 | DB7 | 8.5 | Pentachlorophenol | 0.18 | | 8.3 | 0.037 | 4.9 |
| Landau 1990 | 1990 | DB8 | 5 | Pentachlorophenol | 0.15 | | 8.3 | 0.73 | 0.2 |
| Landau 1990 | 1990 | DB2 | 7 | Pentachlorophenol | 0.12 | | 8.3 | 0.037 | 3.2 |
| Landau 1990 | 1990 | DB2 | 4.5 | Pentachlorophenol | 0.06 | | 8.3 | 0.73 | 0.1 |
| Landau 1990 | 1990 | DB6 | 18.5 | Pentachlorophenol | 0.042 | J | 8.3 | 0.037 | 1.1 |
| Landau 1990 | 1990 | DB6 | 13 | Pentachlorophenol | 0.026 | | 8.3 | 0.037 | 0.7 |
| Landau 1990 | 1990 | DB5 | 2 | Pentachlorophenol | 0.024 | | 8.3 | 0.73 | 0.0 |
| Landau 1990 | 1990 | DB3 | 3.5 | Pentachlorophenol | 0.02 | | 8.3 | 0.73 | 0.0 |
| Landau 1990 | 1990 | DB2 | 18 | Pentachlorophenol | 0.011 | | 8.3 | 0.037 | 0.3 |
| Landau 1990 | 1990 | DB2 | 3.5 | Pentachlorophenol | 0.011 | | 8.3 | 0.73 | 0.0 |
| Landau 1990 | 1990 | DB11 | 8 | Pentachlorophenol | 0.008 | | 8.3 | 0.037 | 0.2 |
| Landau 1990 | 1990 | DB9 | 5 | Pentachlorophenol | 0.007 | | 8.3 | 0.73 | 0.0 |
| Landau 1990 | 1990 | DB2 | 12 | Pentachlorophenol | 0.0061 | | 8.3 | 0.037 | 0.2 |
| Landau 1990 | 1990 | DB7 | 8.5 | Pentachlorophenol | 0.0057 | | 8.3 | 0.037 | 0.2 |
| Landau 1990 | 1990 | DB1 | 5 | Pentachlorophenol | 0.0047 | J | 8.3 | 0.73 | 0.0 |
| Landau 1990 | 1990 | DB2 | 9.5 | Pentachlorophenol | 0.0046 | J | 8.3 | 0.037 | 0.1 |
| Landau 1990 | 1990 | DB4 | 6 | Pentachlorophenol | 0.0044 | J | 8.3 | 0.73 | 0.0 |
| **Landau 1990** | **1990** | **DB11** | **8** | **Phenanthrene** | **2,200** | **B** | | **0.49** | **4,490** |
| **Landau 1990** | **1990** | **DB6** | **4.5** | **Phenanthrene** | **1,400** | **B** | | **9.7** | **144** |
| **Landau 1990** | **1990** | **DB11** | **9.5** | **Phenanthrene** | **460** | **B** | | **0.49** | **939** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **9.8** | **Phenanthrene** | **360** | | | **0.49** | **735** |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| **Landau 1990** | **1990** | **DB6** | **7** | **Phenanthrene** | **160** | **B** | | **0.49** | **327** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **8.5** | **Phenanthrene** | **88** | | | **0.49** | **180** |
| Hart Crowser 1990b | Aug-90 | HC-106 | 5.3 | Phenanthrene | 61 | | | 9.7 | 6.3 |
| Landau 1990 | 1990 | DB5 | 2 | Phenanthrene | 33 | B | | 9.7 | 3.4 |
| **Landau 1990** | **1990** | **DB6** | **13** | **Phenanthrene** | **27** | | | **0.49** | **55** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-110** | **8.9** | **Phenanthrene** | **23** | | | **0.49** | **47** |
| Landau 1990 | 1990 | DB6 | 2 | Phenanthrene | 17 | B | | 9.7 | 1.8 |
| Landau 1990 | 1990 | FSS2 | 0-0.5 | Phenanthrene | 17 | | | 9.7 | 1.8 |
| Landau 1990 | 1990 | DB4 | 6 | Phenanthrene | 16 | B | | 9.7 | 1.6 |
| Hart Crowser 1990b | Aug-90 | HC-107 | 3.1 | Phenanthrene | 14 | | | 9.7 | 1.4 |
| **Landau 1990** | **1990** | **DB3** | **17** | **Phenanthrene** | **7.6** | | | **0.49** | **16** |
| **Landau 1990** | **1990** | **DB2** | **7** | **Phenanthrene** | **6.5** | **B** | | **0.49** | **13** |
| **Landau 1990** | **1990** | **DB2** | **9.5** | **Phenanthrene** | **5.6** | | | **0.49** | **11** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103 DUP** | **10.8** | **Phenanthrene** | **4.9** | | | **0.49** | **10** |
| Landau 1990 | 1990 | DB12 | 11.5 | Phenanthrene | 4.8 | | | 0.49 | 9.8 |
| Landau 1990 | 1990 | DB7 | 11.5 | Phenanthrene | 4.4 | B | | 0.49 | 9.0 |
| Landau 1990 | 1990 | DB4 | 8.5 | Phenanthrene | 3.5 | B | | 0.49 | 7.1 |
| Hart Crowser 1990b | Aug-90 | HC-103 | 10.8 | Phenanthrene | 3.5 | | | 0.49 | 7.1 |
| Landau 1990 | 1990 | DB12 | 5 | Phenanthrene | 3.5 | | | 9.7 | 0.4 |
| Landau 1990 | 1990 | DB6 | 16 | Phenanthrene | 3.3 | | | 0.49 | 6.7 |
| Landau 1990 | 1990 | DB3 | 3.5 | Phenanthrene | 3 | B | | 9.7 | 0.3 |
| Landau 1990 | 1990 | DB7 | 8.5 | Phenanthrene | 1.6 | B | | 0.49 | 3.3 |
| Landau 1990 | 1990 | DB2 | 4.5 | Phenanthrene | 1.3 | B | | 9.7 | 0.1 |
| Hart Crowser 1990b | Aug-90 | HC-106 | 7.5 | Phenanthrene | 1.2 | | | 0.49 | 2.4 |
| Hart Crowser 1990b | Aug-90 | HC-102 | 8.5 | Phenanthrene | 1.1 | | | 0.49 | 2.2 |
| Landau 1990 | 1990 | DB6 | 10 | Phenanthrene | 0.91 | | | 0.49 | 1.9 |
| Landau 1990 | 1990 | DB3 | 13.5 | Phenanthrene | 0.86 | | | 0.49 | 1.8 |
| Landau 1990 | 1990 | DB6 | 18.5 | Phenanthrene | 0.59 | | | 0.49 | 1.2 |
| Landau 1990 | 1990 | DB9 | 5 | Phenanthrene | 0.53 | | | 9.7 | 0.1 |
| Landau 1990 | 1990 | DB8 | 5 | Phenanthrene | 0.5 | B | | 9.7 | 0.1 |
| Hart Crowser 1990b | Aug-90 | HC-105 | 6.0 | Phenanthrene | 0.47 | | | 9.7 | 0.0 |
| Landau 1990 | 1990 | DB10 | 5 | Phenanthrene | 0.44 | | | 9.7 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-104 | 5.2 | Phenanthrene | 0.44 | J | | 9.7 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-110 | 3.5 | Phenanthrene | 0.33 | | | 9.7 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-110 | 6.8 | Phenanthrene | 0.25 | | | 9.7 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-106 | 3.5 | Phenanthrene | 0.23 | | | 9.7 | 0.0 |
| Landau 1990 | 1990 | DB13 | 11 | Phenanthrene | 0.19 | | | 0.49 | 0.4 |
| Landau 1990 | 1990 | DB2 | 12 | Phenanthrene | 0.17 | | | 0.49 | 0.3 |
| Landau 1990 | 1990 | DB2 | 18 | Phenanthrene | 0.17 | | | 0.49 | 0.3 |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | DB5 | 11 | Phenanthrene | 0.092 | | | 0.49 | 0.2 |
| Landau 1990 | 1990 | FB3 | 13.5 | Phenanthrene | 0.08 | | | 0.49 | 0.2 |
| Hart Crowser 1990b | Aug-90 | HC-109 | 6.5 | Phenanthrene | 0.077 | J | | 9.7 | 0.0 |
| Landau 1990 | 1990 | DB1 | 6.5 | Phenanthrene | 0.076 | | | 9.7 | 0.0 |
| Landau 1990 | 1990 | FB2 | 2 | Phenanthrene | 0.075 | J | | 9.7 | 0.0 |
| Landau 1990 | 1990 | DB1 | 5 | Phenanthrene | 0.073 | | | 9.7 | 0.0 |
| Landau 1990 | 1990 | DB11 | 6.5 | Phenanthrene | 0.073 | J | | 9.7 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-106 DUP | 7.5 | Phenanthrene | 0.061 | J | | 0.49 | 0.1 |
| Landau 1990 | 1990 | DB7 | 6 | Phenanthrene | 0.058 | J | | 9.7 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-108 | 7.0 | Phenanthrene | 0.054 | J | | 0.49 | 0.1 |
| Landau 1990 | 1990 | DB2 | 3.5 | Phenanthrene | 0.043 | J | | 9.7 | 0.0 |
| Landau 1990 | 1990 | DB6 | 4.5 | Phenol | 4.3 | | 48,000 | 2.1 | 2.0 |
| Landau 1990 | 1990 | DB6 | 7 | Phenol | 0.88 | | 48,000 | 0.12 | 7.3 |
| Landau 1990 | 1990 | DB6 | 13 | Phenol | 0.1 | J | 48,000 | 0.12 | 0.8 |
| Landau 1990 | 1990 | DB9 | 5 | Phenol | 0.038 | | 48,000 | 2.1 | 0.0 |
| **Landau 1990** | **1990** | **DB11** | **8** | **Pyrene** | **840** | **B** | **2,400** | **1.4** | **600** |
| **Landau 1990** | **1990** | **DB6** | **4.5** | **Pyrene** | **470** | **B** | **2,400** | **28** | **17** |
| **Landau 1990** | **1990** | **DB11** | **9.5** | **Pyrene** | **250** | **B** | **2,400** | **1.4** | **179** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **9.8** | **Pyrene** | **86** | | **2,400** | **1.4** | **61** |
| **Landau 1990** | **1990** | **DB6** | **7** | **Pyrene** | **48** | **B** | **2,400** | **1.4** | **34** |
| **Hart Crowser 1990b** | **Aug-90** | **HC-103** | **8.5** | **Pyrene** | **44** | | **2,400** | **1.4** | **31** |
| Hart Crowser 1990b | Aug-90 | HC-106 | 5.3 | Pyrene | 41 | | 2,400 | 28 | 1.5 |
| **Hart Crowser 1990b** | **Aug-90** | **HC-110** | **8.9** | **Pyrene** | **34** | | **2,400** | **1.4** | **24** |
| Landau 1990 | 1990 | DB5 | 2 | Pyrene | 32 | B | 2,400 | 28 | 1.1 |
| Landau 1990 | 1990 | DB3 | 3.5 | Pyrene | 24 | B | 2,400 | 28 | 0.9 |
| Hart Crowser 1990b | Aug-90 | HC-107 | 3.1 | Pyrene | 23 | | 2,400 | 28 | 0.8 |
| Landau 1990 | 1990 | DB4 | 6 | Pyrene | 17 | B | 2,400 | 28 | 0.6 |
| Landau 1990 | 1990 | DB6 | 2 | Pyrene | 14 | B | 2,400 | 28 | 0.5 |
| Landau 1990 | 1990 | DB2 | 4.5 | Pyrene | 12 | B | 2,400 | 28 | 0.4 |
| Landau 1990 | 1990 | DB6 | 13 | Pyrene | 8.7 | | 2,400 | 1.4 | 6.2 |
| Landau 1990 | 1990 | DB2 | 7 | Pyrene | 4.8 | B | 2,400 | 1.4 | 3.4 |
| Landau 1990 | 1990 | DB4 | 8.5 | Pyrene | 4 | B | 2,400 | 1.4 | 2.9 |
| Landau 1990 | 1990 | DB2 | 9.5 | Pyrene | 3.4 | | 2,400 | 1.4 | 2.4 |
| Landau 1990 | 1990 | DB7 | 11.5 | Pyrene | 3.2 | B | 2,400 | 1.4 | 2.3 |
| Hart Crowser 1990b | Aug-90 | HC-106 | 3.5 | Pyrene | 3.2 | | 2,400 | 28 | 0.1 |
| Landau 1990 | 1990 | FSS2 | 0-0.5 | Pyrene | 3 | M | 2,400 | 28 | 0.1 |
| Hart Crowser 1990b | Aug-90 | HC-102 | 8.5 | Pyrene | 2.9 | | 2,400 | 1.4 | 2.1 |
| Landau 1990 | 1990 | DB8 | 5 | Pyrene | 2.6 | B | 2,400 | 28 | 0.1 |
| Landau 1990 | 1990 | DB12 | 5 | Pyrene | 2.2 | | 2,400 | 28 | 0.1 |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | DB6 | 16 | Pyrene | 1.8 | | 2,400 | 1.4 | 1.3 |
| Landau 1990 | 1990 | DB3 | 17 | Pyrene | 1.8 | | 2,400 | 1.4 | 1.3 |
| Landau 1990 | 1990 | DB7 | 8.5 | Pyrene | 1.5 | B | 2,400 | 1.4 | 1.1 |
| Landau 1990 | 1990 | DB10 | 5 | Pyrene | 1.4 | | 2,400 | 28 | 0.1 |
| Hart Crowser 1990b | Aug-90 | HC-103 DUP | 10.8 | Pyrene | 1.1 | | 2,400 | 1.4 | 0.8 |
| Hart Crowser 1990b | Aug-90 | HC-106 | 7.5 | Pyrene | 0.95 | | 2,400 | 1.4 | 0.7 |
| Hart Crowser 1990b | Aug-90 | HC-103 | 10.8 | Pyrene | 0.91 | | 2,400 | 1.4 | 0.7 |
| Landau 1990 | 1990 | DB9 | 5 | Pyrene | 0.72 | | 2,400 | 28 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-105 | 6.0 | Pyrene | 0.70 | | 2,400 | 28 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-110 | 6.8 | Pyrene | 0.69 | | 2,400 | 28 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-110 | 3.5 | Pyrene | 0.47 | | 2,400 | 28 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-103 | 6.5 | Pyrene | 0.37 | | 2,400 | 28 | 0.0 |
| Landau 1990 | 1990 | DB6 | 10 | Pyrene | 0.32 | | 2,400 | 1.4 | 0.2 |
| Landau 1990 | 1990 | DB6 | 18.5 | Pyrene | 0.27 | | 2,400 | 1.4 | 0.2 |
| Landau 1990 | 1990 | DB1 | 5 | Pyrene | 0.14 | | 2,400 | 28 | 0.0 |
| Landau 1990 | 1990 | DB13 | 11 | Pyrene | 0.12 | | 2,400 | 1.4 | 0.1 |
| Landau 1990 | 1990 | DB11 | 6.5 | Pyrene | 0.12 | | 2,400 | 28 | 0.0 |
| Landau 1990 | 1990 | DB2 | 12 | Pyrene | 0.11 | | 2,400 | 1.4 | 0.1 |
| Landau 1990 | 1990 | DB2 | 18 | Pyrene | 0.11 | | 2,400 | 1.4 | 0.1 |
| Landau 1990 | 1990 | DB1 | 6.5 | Pyrene | 0.1 | | 2,400 | 28 | 0.0 |
| Landau 1990 | 1990 | FB2 | 2 | Pyrene | 0.075 | J | 2,400 | 28 | 0.0 |
| Landau 1990 | 1990 | DB7 | 6 | Pyrene | 0.054 | J | 2,400 | 28 | 0.0 |
| Landau 1990 | 1990 | DB5 | 11 | Pyrene | 0.053 | J | 2,400 | 1.4 | 0.0 |
| Hart Crowser 1990b | Aug-90 | HC-106 DUP | 7.5 | Pyrene | 0.051 | J | 2,400 | 1.4 | 0.0 |
| Landau 1990 | 1990 | DB2 | 3.5 | Pyrene | 0.046 | J | 2,400 | 28 | 0.0 |
| Landau 1990 | 1990 | DB3 | 13.5 | Pyrene | 0.044 | M | 2,400 | 1.4 | 0.0 |
| Hart Crowser 1989a | Nov-88 | SS-2 | 0-0.5 | Selenium | 0.3 | | 400 | | 0.0 |
| Landau 1990 | 1990 | DB6 | 4.5 | Styrene | 0.66 | | 33 | | 0.0 |
| Landau 1990 | 1990 | DB6 | 7 | Styrene | 0.3 | | 33 | | 0.0 |
| Landau 1990 | 1990 | DB11 | 8 | Styrene | 0.18 | | 33 | | 0.0 |
| Landau 1990 | 1990 | DB11 | 9.5 | Styrene | 0.028 | M | 33 | | 0.0 |
| Landau 1990 | 1990 | DB6 | 13 | Styrene | 0.0014 | | 33 | | 0.0 |
| Landau 1990 | 1990 | DB2 | 9.5 | Styrene | 0.0013 | M | 33 | | 0.0 |
| Landau 1990 | 1990 | DB2 | 7 | Styrene | 0.0006 | M | 33 | | 0.0 |
| Landau 1990 | 1990 | FB5 | 11 | TCE | 0.0014 | | 0.03 | | 0.0 |
| Landau 1990 | 1990 | FB5 | 8 | TCE | 0.0008 | J | 0.03 | | 0.0 |
| Landau 1990 | 1990 | DB7 | 11.5 | TCE | 0.0005 | M | 0.03 | | 0.0 |
| Landau 1990 | 1990 | DB6 | 4.5 | Toluene | 0.51 | J | 7 | | 0.1 |
| Landau 1990 | 1990 | DB6 | 7 | Toluene | 0.23 | | 7 | | 0.0 |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | DB11 | 8 | Toluene | 0.12 | | 7 | | 0.0 |
| Hart Crowser 1989a | Nov-88 | SS-3 | 0-0.5 | Toluene | 0.12 | | 7 | | 0.0 |
| Hart Crowser 1989a | Nov-88 | SS-2 | 0-0.5 | Toluene | 0.049 | | 7 | | 0.0 |
| Landau 1990 | 1990 | DB11 | 9.5 | Toluene | 0.016 | | 7 | | 0.0 |
| Landau 1990 | 1990 | DB12 | 11.5 | Toluene | 0.0059 | | 7 | | 0.0 |
| Landau 1990 | 1990 | DB7 | 11.5 | Toluene | 0.0019 | M | 7 | | 0.0 |
| Landau 1990 | 1990 | DB6 | 13 | Toluene | 0.0018 | | 7 | | 0.0 |
| Landau 1990 | 1990 | DB2 | 9.5 | Toluene | 0.0017 | | 7 | | 0.0 |
| Landau 1990 | 1990 | DB2 | 7 | Toluene | 0.0015 | | 7 | | 0.0 |
| Landau 1990 | 1990 | DB10 | 5 | Toluene | 0.0013 | | 7 | | 0.0 |
| Landau 1990 | 1990 | DB9 | 8 | Toluene | 0.001 | | 7 | | 0.0 |
| Landau 1990 | 1990 | DB10 | 8 | Toluene | 0.001 | | 7 | | 0.0 |
| Landau 1990 | 1990 | DB12 | 5 | Toluene | 0.0009 | | 7 | | 0.0 |
| Landau 1990 | 1990 | DB8 | 5 | Toluene | 0.0008 | J | 7 | | 0.0 |
| Landau 1990 | 1990 | DB9 | 5 | Toluene | 0.0008 | J | 7 | | 0.0 |
| Landau 1990 | 1990 | DB5 | 8 | Toluene | 0.0008 | | 7 | | 0.0 |
| Landau 1990 | 1990 | DB4 | 6 | Toluene | 0.0007 | J | 7 | | 0.0 |
| Landau 1990 | 1990 | DB5 | 11 | Toluene | 0.0007 | J | 7 | | 0.0 |
| Landau 1990 | 1990 | DB3 | 13.5 | Toluene | 0.0007 | M | 7 | | 0.0 |
| Landau 1990 | 1990 | DB2 | 3.5 | Toluene | 0.0006 | J | 7 | | 0.0 |
| Landau 1990 | 1990 | DB1 | 6.5 | Toluene | 0.0006 | J | 7 | | 0.0 |
| Landau 1990 | 1990 | FB2 | 2 | Toluene | 0.0005 | M | 7 | | 0.0 |
| Landau 1990 | 1990 | DB7 | 8.5 | Toluene | 0.0005 | M | 7 | | 0.0 |
| Landau 1990 | 1990 | DB5 | 2 | Toluene | 0.0004 | M | 7 | | 0.0 |
| Landau 1990 | 1990 | DB4 | 8.5 | Toluene | 0.0004 | M | 7 | | 0.0 |
| Landau 1990 | 1990 | DB8 | 11 | Toluene | 0.0004 | M | 7 | | 0.0 |
| Landau 1990 | 1990 | FB2 | 18.5 | Toluene | 0.0004 | M | 7 | | 0.0 |
| **Landau 1990** | **1990** | **FSS2** | **0-0.5** | **Total Petroleum Hydrocarbons** | **280,000** | | **2,000** | | **140** |
| **Landau 1990** | **1990** | **FSS3** | **0-0.5** | **Total Petroleum Hydrocarbons** | **130,000** | | **2,000** | | **65** |
| **Landau 1990** | **1990** | **DB11** | **8** | **Total Petroleum Hydrocarbons** | **29,000** | | **2,000** | | **15** |
| Landau 1990 | 1990 | DB6 | 4.5 | Total Petroleum Hydrocarbons | 14,000 | | 2,000 | | 7.0 |
| Landau 1990 | 1990 | DB5 | 2 | Total Petroleum Hydrocarbons | 2,600 | | 2,000 | | 1.3 |
| Landau 1990 | 1990 | DB11 | 9.5 | Total Petroleum Hydrocarbons | 2,600 | | 2,000 | | 1.3 |
| Landau 1990 | 1990 | DB6 | 7 | Total Petroleum Hydrocarbons | 1,600 | | 2,000 | | 0.8 |
| Landau 1990 | 1990 | DB12 | 5 | Total Petroleum Hydrocarbons | 1,100 | | 2,000 | | 0.6 |
| Landau 1990 | 1990 | DB12 | 11.5 | Total Petroleum Hydrocarbons | 910 | | 2,000 | | 0.5 |
| Landau 1990 | 1990 | DB6 | 13 | Total Petroleum Hydrocarbons | 600 | | 2,000 | | 0.3 |
| Landau 1990 | 1990 | DB6 | 2 | Total Petroleum Hydrocarbons | 500 | | 2,000 | | 0.3 |
| Landau 1990 | 1990 | DB9 | 5 | Total Petroleum Hydrocarbons | 480 | | 2,000 | | 0.2 |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | DB4 | 6 | Total Petroleum Hydrocarbons | 330 | | 2,000 | | 0.2 |
| Landau 1990 | 1990 | DB13 | 11 | Total Petroleum Hydrocarbons | 140 | | 2,000 | | 0.1 |
| Landau 1990 | 1990 | DB-2 | 7 | Total Petroleum Hydrocarbons | 88 | | 2,000 | | 0.0 |
| Landau 1990 | 1990 | DB10 | 8 | Total Petroleum Hydrocarbons | 43 | | 2,000 | | 0.0 |
| Landau 1990 | 1990 | FB3 | 5.5 | Total Petroleum Hydrocarbons | 27 | | 2,000 | | 0.0 |
| Landau 1990 | 1990 | DB10 | 5 | Total Petroleum Hydrocarbons | 17 | | 2,000 | | 0.0 |
| Landau 1990 | 1990 | FB3 | 13.5 | Total Petroleum Hydrocarbons | 14 | | 2,000 | | 0.0 |
| Landau 1990 | 1990 | FB5 | 11 | Vinyl Chloride | 0.0033 | J | 0.67 | | 0.0 |
| Landau 1990 | 1990 | DB6 | 4.5 | Xylenes (total) | 3.2 | | 9 | | 0.4 |
| Landau 1990 | 1990 | DB6 | 7 | Xylenes (total) | 1.9 | | 9 | | 0.2 |
| Landau 1990 | 1990 | DB11 | 8 | Xylenes (total) | 1.2 | | 9 | | 0.1 |
| Hart Crowser 1989a | Nov-88 | SS-2 | 0-0.5 | Xylenes (total) | 0.64 | | 9 | | 0.1 |
| Landau 1990 | 1990 | DB11 | 9.5 | Xylenes (total) | 0.23 | | 9 | | 0.0 |
| Hart Crowser 1989a | Nov-88 | SS-3 | 0-0.5 | Xylenes (total) | 0.047 | | 9 | | 0.0 |
| Landau 1990 | 1990 | DB7 | 11.5 | Xylenes (total) | 0.043 | | 9 | | 0.0 |
| Landau 1990 | 1990 | DB12 | 11.5 | Xylenes (total) | 0.026 | | 9 | | 0.0 |
| Landau 1990 | 1990 | DB2 | 9.5 | Xylenes (total) | 0.016 | | 9 | | 0.0 |
| Landau 1990 | 1990 | DB7 | 8.5 | Xylenes (total) | 0.01 | | 9 | | 0.0 |
| Landau 1990 | 1990 | DB2 | 7 | Xylenes (total) | 0.0084 | | 9 | | 0.0 |
| Landau 1990 | 1990 | DB6 | 13 | Xylenes (total) | 0.0081 | | 9 | | 0.0 |
| Landau 1990 | 1990 | DB3 | 13.5 | Xylenes (total) | 0.0048 | | 9 | | 0.0 |
| Landau 1990 | 1990 | DB6 | 16 | Xylenes (total) | 0.0031 | J | 9 | | 0.0 |
| Landau 1990 | 1990 | DB12 | 5 | Xylenes (total) | 0.0029 | | 9 | | 0.0 |
| Landau 1990 | 1990 | DB5 | 2 | Xylenes (total) | 0.0026 | M | 9 | | 0.0 |
| Landau 1990 | 1990 | DB7 | 6 | Xylenes (total) | 0.0011 | M | 9 | | 0.0 |
| Landau 1990 | 1990 | DB10 | 8 | Xylenes (total) | 0.001 | J | 9 | | 0.0 |
| Landau 1990 | 1990 | DB5 | 8 | Xylenes (total) | 0.0009 | J | 9 | | 0.0 |
| Landau 1990 | 1990 | DB9 | 8 | Xylenes (total) | 0.0009 | J | 9 | | 0.0 |
| Landau 1990 | 1990 | DB8 | 5 | Xylenes (total) | 0.0008 | J | 9 | | 0.0 |
| Landau 1990 | 1990 | DB9 | 5 | Xylenes (total) | 0.0007 | J | 9 | | 0.0 |
| Landau 1990 | 1990 | DB4 | 6 | Xylenes (total) | 0.0007 | J | 9 | | 0.0 |
| Landau 1990 | 1990 | DB5 | 11 | Xylenes (total) | 0.0007 | J | 9 | | 0.0 |
| Landau 1990 | 1990 | DB2 | 12 | Xylenes (total) | 0.0007 | M | 9 | | 0.0 |
| Landau 1990 | 1990 | DB10 | 5 | Xylenes (total) | 0.0006 | M | 9 | | 0.0 |
| Landau 1990 | 1990 | DB6 | 4.5 | Zinc | 4,180 | | 24,000 | 770 | 5.4 |
| **Landau 1990** | **1990** | **DB6** | **7** | **Zinc** | **3,220** | | **24,000** | **38** | **85** |
| **Landau 1990** | **1990** | **DB7** | **11.5** | **Zinc** | **2,600** | | **24,000** | **38** | **68** |
| Landau 1990 | 1990 | DB6 | 2 | Zinc | 1,640 | | 24,000 | 770 | 2.1 |
| **Landau 1990** | **1990** | **DB2** | **7** | **Zinc** | **716** | | **24,000** | **38** | **19** |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | DB5 | 2 | Zinc | 627 | | 24,000 | 770 | 0.8 |
| Landau 1990 | 1990 | DB2 | 4.5 | Zinc | 500 | | 24,000 | 770 | 0.6 |
| Landau 1990 | 1990 | DB10 | 5 | Zinc | 460 | | 24,000 | 770 | 0.6 |
| Landau 1990 | 1990 | DB7 | 8.5 | Zinc | 332 | | 24,000 | 38 | 8.7 |
| Landau 1990 | 1990 | DB3 | 3.5 | Zinc | 184 | | 24,000 | 770 | 0.2 |
| Landau 1990 | 1990 | DB8 | 5 | Zinc | 160 | | 24,000 | 770 | 0.2 |
| Landau 1990 | 1990 | DB6 | 13 | Zinc | 132 | | 24,000 | 38 | 3.5 |
| Landau 1990 | 1990 | FB2 | 2 | Zinc | 106 | | 24,000 | 770 | 0.1 |
| Landau 1990 | 1990 | DB2 | 3.5 | Zinc | 105 | | 24,000 | 770 | 0.1 |
| Landau 1990 | 1990 | DB9 | 5 | Zinc | 105 | | 24,000 | 770 | 0.1 |
| Landau 1990 | 1990 | DB4 | 6 | Zinc | 86.7 | | 24,000 | 770 | 0.1 |
| Landau 1990 | 1990 | DB11 | 6.5 | Zinc | 85.0 | | 24,000 | 770 | 0.1 |
| Landau 1990 | 1990 | DB1 | 6.5 | Zinc | 67.2 | | 24,000 | 770 | 0.1 |
| Landau 1990 | 1990 | DB7 | 6 | Zinc | 61.6 | | 24,000 | 770 | 0.1 |
| Landau 1990 | 1990 | DB4 | 8.5 | Zinc | 61.4 | | 24,000 | 38 | 1.6 |
| Landau 1990 | 1990 | DB12 | 5 | Zinc | 56.2 | | 24,000 | 770 | 0.1 |
| Landau 1990 | 1990 | DB11 | 8 | Zinc | 50.3 | | 24,000 | 38 | 1.3 |
| Landau 1990 | 1990 | DB6 | 16 | Zinc | 44.8 | | 24,000 | 38 | 1.2 |
| Landau 1990 | 1990 | DB2 | 18 | Zinc | 42.2 | | 24,000 | 38 | 1.1 |
| Landau 1990 | 1990 | DB1 | 9.5 | Zinc | 42.1 | | 24,000 | 38 | 1.1 |
| Landau 1990 | 1990 | DB1 | 5 | Zinc | 42.1 | | 24,000 | 770 | 0.1 |
| Landau 1990 | 1990 | DB3 | 2 | Zinc | 41.5 | | 24,000 | 770 | 0.1 |
| Landau 1990 | 1990 | DB2 | 12 | Zinc | 40.9 | | 24,000 | 38 | 1.1 |
| Landau 1990 | 1990 | DB10 | 11 | Zinc | 35.5 | | 24,000 | 38 | 0.9 |
| Landau 1990 | 1990 | DB3 | 9 | Zinc | 34.8 | | 24,000 | 38 | 0.9 |
| Landau 1990 | 1990 | DB6 | 10 | Zinc | 34.8 | | 24,000 | 38 | 0.9 |
| Landau 1990 | 1990 | DB2 | 9.5 | Zinc | 33.7 | | 24,000 | 38 | 0.9 |
| Landau 1990 | 1990 | DB13 | 11 | Zinc | 33.1 | | 24,000 | 38 | 0.9 |
| Landau 1990 | 1990 | FB1 | 13 | Zinc | 31.7 | | 24,000 | 38 | 0.8 |
| Landau 1990 | 1990 | DB3 | 17 | Zinc | 31.3 | | 24,000 | 38 | 0.8 |
| Landau 1990 | 1990 | FB1 | 7 | Zinc | 30.5 | | 24,000 | 38 | 0.8 |
| Landau 1990 | 1990 | DB11 | 9.5 | Zinc | 30.2 | | 24,000 | 38 | 0.8 |
| Landau 1990 | 1990 | DB3 | 7.5 | Zinc | 29.2 | | 24,000 | 38 | 0.8 |
| Landau 1990 | 1990 | DB9 | 11 | Zinc | 28.6 | | 24,000 | 38 | 0.8 |
| Landau 1990 | 1990 | FB4 | 8 | Zinc | 28.4 | | 24,000 | 38 | 0.7 |
| Landau 1990 | 1990 | FB5 | 2 | Zinc | 28.0 | | 24,000 | 770 | 0.0 |
| Landau 1990 | 1990 | DB8 | 8 | Zinc | 27.3 | | 24,000 | 38 | 0.7 |
| Landau 1990 | 1990 | DB5 | 8 | Zinc | 27.2 | | 24,000 | 38 | 0.7 |
| Landau 1990 | 1990 | DB4 | 11 | Zinc | 26.1 | | 24,000 | 38 | 0.7 |

**Table D-1**
**Chemicals Detected in Soil**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Sample Depth (ft) | Chemical | Soil Conc'n (mg/kg DW) | | MTCA Cleanup Level[a] (mg/kg) | Soil-to-Sediment Screening Level (Based on CSL)[b] (mg/kg) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | FB4 | 11 | Zinc | 26.0 | | 24,000 | 38 | 0.7 |
| Landau 1990 | 1990 | FB2 | 8 | Zinc | 25.4 | | 24,000 | 38 | 0.7 |
| Landau 1990 | 1990 | DB6 | 18.5 | Zinc | 25.4 | | 24,000 | 38 | 0.7 |
| Landau 1990 | 1990 | FB3 | 5.5 | Zinc | 25.4 | | 24,000 | 770 | 0.0 |
| Landau 1990 | 1990 | DB12 | 11.5 | Zinc | 25.1 | | 24,000 | 38 | 0.7 |
| Landau 1990 | 1990 | DB5 | 11 | Zinc | 24.6 | | 24,000 | 38 | 0.6 |
| Landau 1990 | 1990 | DB3 | 13.5 | Zinc | 24.4 | | 24,000 | 38 | 0.6 |
| Landau 1990 | 1990 | FB2 | 18.5 | Zinc | 23.8 | | 24,000 | 38 | 0.6 |
| Landau 1990 | 1990 | FB3 | 3 | Zinc | 23.8 | | 24,000 | 770 | 0.0 |
| Landau 1990 | 1990 | DB10 | 8 | Zinc | 23.7 | | 24,000 | 38 | 0.6 |
| Landau 1990 | 1990 | DB3 | 6 | Zinc | 23.7 | | 24,000 | 770 | 0.0 |
| Landau 1990 | 1990 | FB5 | 8 | Zinc | 23.0 | | 24,000 | 38 | 0.6 |
| Landau 1990 | 1990 | DB8 | 11 | Zinc | 22.6 | | 24,000 | 38 | 0.6 |
| Landau 1990 | 1990 | DB14 | 9.5 | Zinc | 22.5 | | 24,000 | 38 | 0.6 |
| Landau 1990 | 1990 | DB9 | 8 | Zinc | 22.0 | | 24,000 | 38 | 0.6 |
| Landau 1990 | 1990 | FB4 | 2 | Zinc | 21.9 | | 24,000 | 770 | 0.0 |
| Landau 1990 | 1990 | FB3 | 13.5 | Zinc | 21.8 | | 24,000 | 38 | 0.6 |
| Landau 1990 | 1990 | FB2 | 5.5 | Zinc | 21.1 | | 24,000 | 770 | 0.0 |
| Landau 1990 | 1990 | FB5 | 11 | Zinc | 20.8 | | 24,000 | 38 | 0.5 |
| Landau 1990 | 1990 | FB1 | 2 | Zinc | 19.9 | | 24,000 | 770 | 0.0 |
| Hart Crowser 1989a | Nov-88 | SS-1 | 0-0.5 | Zinc | 2 | | 24,000 | 38 | 0.1 |
| Hart Crowser 1989a | Nov-88 | SS-4 | 0-0.5 | Zinc | 1.5 | | 24,000 | 38 | 0.0 |
| Hart Crowser 1989a | Nov-88 | SS-5 | 0-0.5 | Zinc | 1.5 | | 24,000 | 38 | 0.0 |
| Hart Crowser 1989a | Nov-88 | SS-3 | 0-0.5 | Zinc | 0.7 | | 24,000 | 38 | 0.0 |
| Hart Crowser 1989a | Nov-88 | SS-2 | 0-0.5 | Zinc | 0.4 | | 24,000 | 38 | 0.0 |

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database
b - From: SAIC 2006. Where two screening levels are listed for a single chemical, the higher screening levels are for soil samples collected from the vadose zone and the lower screening levels are for soil samples collected from the saturated zone.

DW - dry weight
CSL - Contaminant Screening Level from Washington Sediment Management Standards
NA - Not available

**Notes:**
(1) Table presents detected chemicals only.
(2) Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Soil-to-Sediment Screening Value, whichever is lower.
(3) Chemicals with exceedance factors greater than 10 are shown in **Bold**.

**Table D-2**
**Chemicals Detected in Groundwater**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Chemical | GW Conc'n (ug/L) | | MTCA Cleanup Level[a] (ug/L) | GW-to-Sediment Screening Level (Based on CSL)[b] (ug/L) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | DMW-3 | 2-Methylnaphthalene | 55 | | 32 | 31 | 1.8 |
| Landau 1990 | 1990 | DMW-2 | 2-Methylnaphthalene | 3.7 | | 32 | 31 | 0.12 |
| **Landau 1990** | **1990** | **DMW-3** | **Acenaphthene** | **120** | | **960** | **9.3** | **13** |
| Landau 1990 | 1990 | DMW-2 | Acenaphthene | 24 | | 960 | 9.3 | 2.6 |
| Landau 1990 | 1990 | DMW-6 | Acenaphthene | 7.7 | | 960 | 9.3 | 0.83 |
| Landau 1990 | 1990 | DMW-3 | Acenaphthylene | 4.5 | | | 11 | 0.41 |
| Landau 1990 | 1990 | DMW-2 | Acenaphthylene | 0.8 | J | | 11 | 0.07 |
| Landau 1990 | 1990 | DMW-3 | Acetone | 7.0 | | 800 | | 0.01 |
| Landau 1990 | 1990 | DMW-3 | Anthracene | 6.4 | | 4,800 | 59 | 0.11 |
| Landau 1990 | 1990 | DMW-6 | Anthracene | 3.4 | | 4,800 | 59 | 0.06 |
| Landau 1990 | 1990 | DMW-2 | Anthracene | 2.9 | | 4,800 | 59 | 0.05 |
| Hart Crowser 1989a | Nov-88 | MW-1 | Antimony | 10 | | 6.4 | | 1.6 |
| Hart Crowser 1989b | Nov-88 | HC-1 | Antimony | 10 | | 6.4 | | 1.6 |
| **Hart Crowser 1989b** | **Nov-88** | **HC-1** | **Arsenic** | **98** | | **5** | **370** | **20** |
| Landau 1990 | 1990 | DMW-6 | Arsenic | 9 | | 5 | 370 | 1.8 |
| Hart Crowser 1989b | Jun-89 | HC-19 | Arsenic | 7 | | 5 | 370 | 1.4 |
| Landau 1990 | 1990 | DMW-2 | Arsenic | 7 | | 5 | 370 | 1.4 |
| Landau 1990 | 1990 | DMW-3 | Arsenic | 7 | | 5 | 370 | 1.4 |
| Hart Crowser 1989a | Nov-88 | MW-1 | Arsenic | 6 | | 5 | 370 | 1.2 |
| Landau 1990 | 1990 | FMW-2 | Arsenic | 2 | | 5 | 370 | 0.40 |
| Landau 1990 | 1990 | FMW-1 | Arsenic | 1 | | 5 | 370 | 0.20 |
| Hart Crowser 1990b | 9/4/1990 | HC-1 | Arsenic (dissolved) | 25 | | 5 | 370 | 5.0 |
| Hart Crowser 1990b | 9/4/1990 | DMW-3 | Arsenic (dissolved) | 11 | | 5 | 370 | 2.2 |
| Hart Crowser 1990b | 9/4/1990 | DMW-6 | Arsenic (dissolved) | 10 | | 5 | 370 | 2.0 |
| Hart Crowser 1990b | 9/4/1990 | DMW-2 | Arsenic (dissolved) | 6 | | 5 | 370 | 1.2 |
| **Hart Crowser 1990b** | **9/4/1990** | **HC-1** | **Arsenic (total)** | **100** | | **5** | **370** | **20** |
| Hart Crowser 1990b | 9/4/1990 | DMW-6 | Arsenic (total) | 18 | | 5 | 370 | 3.6 |
| Hart Crowser 1990b | 9/4/1990 | FMW-2 | Arsenic (total) | 7 | | 5 | 370 | 1.4 |
| **Hart Crowser 1989a** | **Nov-88** | **MW-1** | **Bis(2-ethylhexyl)phthalate** | **47** | **B** | **6.3** | **0.47** | **100** |
| **Landau 1990** | **1990** | **FMW-1** | **Bis(2-ethylhexyl)phthalate** | **29** | **B** | **6.3** | **0.47** | **62** |
| **Landau 1990** | **1990** | **DMW-3** | **Bis(2-ethylhexyl)phthalate** | **20** | **B** | **6.3** | **0.47** | **43** |
| **Landau 1990** | **1990** | **DMW-6** | **Bis(2-ethylhexyl)phthalate** | **19** | **B** | **6.3** | **0.47** | **40** |
| **Landau 1990** | **1990** | **FMW-3** | **Bis(2-ethylhexyl)phthalate** | **17** | **B** | **6.3** | **0.47** | **36** |
| **Landau 1990** | **1990** | **DMW-2** | **Bis(2-ethylhexyl)phthalate** | **12** | **B** | **6.3** | **0.47** | **26** |

**Table D-2**
**Chemicals Detected in Groundwater**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Chemical | GW Conc'n (ug/L) | | MTCA Cleanup Level[a] (ug/L) | GW-to-Sediment Screening Level (Based on CSL)[b] (ug/L) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|
| **Landau 1990** | **1990** | **FMW-2** | **Bis(2-ethylhexyl)phthalate** | **6.7** | **B** | **6.3** | **0.47** | **14** |
| **Hart Crowser 1989a** | **Nov-88** | **HC-2** | **Bis(2-ethylhexyl)phthalate** | **5** | **B** | **6.3** | **0.47** | **11** |
| Hart Crowser 1989b | Nov-88 | HC-1 | Cadmium | 3 | | 5 | 3.4 | 0.88 |
| Landau 1990 | 1990 | FMW-2 | Chromium | 11 | | 50 | 320 | 0.22 |
| Hart Crowser 1989a | Nov-88 | HC-2 | Chromium | 2 | | 50 | 320 | 0.04 |
| Hart Crowser 1989b | Nov-88 | HC-4 | Chromium | 1 | | 50 | 320 | 0.02 |
| Landau 1990 | 1990 | DMW-6 | Chrysene | 1.4 | | | 1.9 | 0.74 |
| Landau 1990 | 1990 | DMW-6 | cis-1,2-DCE | 1.5 | | 80 | | 0.02 |
| Hart Crowser 1989a | Nov-88 | MW-1 | Copper | 12 | | 590 | 120 | 0.10 |
| Landau 1990 | 1990 | FMW-2 | Copper | 7 | | 590 | 120 | 0.06 |
| Hart Crowser 1989b | Nov-88 | HC-4 | Copper | 5 | | 590 | 120 | 0.04 |
| Hart Crowser 1989a | Nov-88 | HC-2 | Copper | 3 | | 590 | 120 | 0.03 |
| Landau 1990 | 1990 | DMW-6 | Copper | 3 | | 590 | 120 | 0.03 |
| Landau 1990 | 1990 | FMW-1 | Copper | 3 | | 590 | 120 | 0.03 |
| Landau 1990 | 1990 | FMW-3 | Copper | 3 | | 590 | 120 | 0.03 |
| Hart Crowser 1989b | Nov-88 | HC-1 | Copper | 2 | | 590 | 120 | 0.02 |
| Hart Crowser 1990b | 9/4/1990 | DMW-6 | CPAH | 22.6 | | | | |
| Hart Crowser 1990b | 9/4/1990 | DMW-2 | CPAH | 2.0 | | | | |
| Hart Crowser 1990b | 9/4/1990 | DMW-3 | CPAH | 1.0 | J | | | |
| Hart Crowser 1990b | 9/4/1990 | HC-20 | CPAH | 0.7 | J | | | |
| Landau 1990 | 1990 | DMW-3 | Dibenzofuran | 50 | | 32 | 5.1 | 9.8 |
| Landau 1990 | 1990 | DMW-2 | Dibenzofuran | 6.7 | | 32 | 5.1 | 1.3 |
| Landau 1990 | 1990 | DMW-6 | Dibenzofuran | 2.0 | | 32 | 5.1 | 0.39 |
| Landau 1990 | 1990 | DMW-6 | Fluoranthene | 11 | | 640 | 17 | 0.65 |
| Landau 1990 | 1990 | DMW-2 | Fluoranthene | 5.2 | | 640 | 17 | 0.31 |
| Landau 1990 | 1990 | DMW-3 | Fluoranthene | 2.2 | | 640 | 17 | 0.13 |
| Landau 1990 | 1990 | DMW-3 | Fluorene | 58 | | 640 | 7.0 | 8.3 |
| Landau 1990 | 1990 | DMW-2 | Fluorene | 10 | | 640 | 7.0 | 1.4 |
| Landau 1990 | 1990 | DMW-6 | Fluorene | 2.7 | | 640 | 7.0 | 0.39 |
| Landau 1990 | 1990 | DMW-3 | Methylene Chloride | 1.4 | JB | 5 | | 0.28 |
| Landau 1990 | 1990 | FMW-1 | Methylene Chloride | 1.1 | JB | 5 | | 0.22 |
| Landau 1990 | 1990 | FMW-3 | Methylene Chloride | 1.0 | JB | 5 | | 0.20 |
| Landau 1990 | 1990 | FMW-2 | Methylene Chloride | 0.8 | JB | 5 | | 0.16 |
| Landau 1990 | 1990 | DMW-2 | Methylene Chloride | 0.7 | JB | 5 | | 0.14 |

**Table D-2**
**Chemicals Detected in Groundwater**
**Crowley Marine Services**

| Source | Sample Date | Sample Location | Chemical | GW Conc'n (ug/L) | | MTCA Cleanup Level[a] (ug/L) | GW-to-Sediment Screening Level (Based on CSL)[b] (ug/L) | Exceedance Factor |
|---|---|---|---|---|---|---|---|---|
| Landau 1990 | 1990 | DMW-6 | Methylene Chloride | 0.5 | JB | 5 | | 0.10 |
| Hart Crowser 1990b | 9/4/1990 | DMW-3 | Naphthalene | 250 | | 160 | 92 | 2.7 |
| Landau 1990 | 1990 | DMW-3 | Naphthalene | 140 | | 160 | 92 | 1.5 |
| Landau 1990 | 1990 | DMW-2 | Naphthalene | 27 | | 160 | 92 | 0.29 |
| Hart Crowser 1990b | 9/4/1990 | DMW-2 | Naphthalene | 19 | | 160 | 92 | 0.21 |
| Hart Crowser 1989a | Nov-88 | HC-2 | Nickel | 3 | | | | |
| Hart Crowser 1989b | Nov-88 | HC-4 | Nickel | 2 | | | | |
| Landau 1990 | 1990 | FMW-2 | Pentachlorophenol | 1.1 | J | 0.73 | 10 | 1.5 |
| Landau 1990 | 1990 | DMW-3 | Phenanthrene | 44 | | | 23 | 1.9 |
| Landau 1990 | 1990 | DMW-2 | Phenanthrene | 5.1 | | | 23 | 0.22 |
| Landau 1990 | 1990 | DMW-6 | Pyrene | 9.9 | | 480 | 20 | 0.50 |
| Landau 1990 | 1990 | DMW-2 | Pyrene | 4.3 | | 480 | 20 | 0.22 |
| Landau 1990 | 1990 | DMW-3 | Pyrene | 1.6 | | 480 | 20 | 0.08 |
| Hart Crowser 1990b | 9/4/1990 | DMW-3 | Total PAH | 973 | | | | |
| Hart Crowser 1990b | 9/4/1990 | DMW-6 | Total PAH | 44 | | | | |
| Hart Crowser 1990b | 9/4/1990 | DMW-2 | Total PAH | 35 | | | | |
| Hart Crowser 1990b | 9/4/1990 | HC-19 | Total PAH | 3 | | | | |
| Hart Crowser 1990b | 9/4/1990 | HC-20 | Total PAH | 1 | J | | | |
| Landau 1990 | 1990 | DMW-2 | Zinc | 44 | | 4,800 | 76 | 0.58 |
| Hart Crowser 1989b | Nov-88 | HC-1 | Zinc | 28 | | 4,800 | 76 | 0.37 |
| Landau 1990 | 1990 | DMW-6 | Zinc | 23 | | 4,800 | 76 | 0.30 |
| Landau 1990 | 1990 | FMW-1 | Zinc | 17 | | 4,800 | 76 | 0.22 |
| Hart Crowser 1989a | Nov-88 | HC-2 | Zinc | 11 | | 4,800 | 76 | 0.14 |
| Landau 1990 | 1990 | DMW-3 | Zinc | 11 | | 4,800 | 76 | 0.14 |
| Hart Crowser 1989b | Nov-88 | HC-4 | Zinc | 7 | | 4,800 | 76 | 0.09 |
| Landau 1990 | 1990 | FMW-3 | Zinc | 7 | | 4,800 | 76 | 0.09 |
| Landau 1990 | 1990 | FMW-2 | Zinc | 4 | | 4,800 | 76 | 0.05 |
| Hart Crowser 1989a | Nov-88 | MW-1 | Zinc | 3 | | 4,800 | 76 | 0.04 |

a - The lower of MTCA Method A or B cleanup levels was selected, from CLARC database
b - From: SAIC 2006
DW - dry weight
CSL - Contaminant Screening Level from Washington Sediment Management Standards
NA - Not available

**Notes:**
(1) Table presents detected chemicals only.
(2) Exceedance factors are the ratio of the detected concentration to the MTCA Cleanup Level or Soil-to-Sediment Screening Value, whichever is lower.
(3) Chemicals with exceedance factors greater than 10 are shown in **Bold**.