Table C7-a. Soil Contaminant Screening Process for OU 10-04, WMO-703, EBR-08 Soil (1990).

| | | Step 1 | | Step 2 | Step 3 | | Step 4 | | Site COPC? | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Detected Contaminants | Max Source Concentration (mg/kg or pCi/g) | INEEL Background Concentration (mg/kg or pCi/g) | Max Concentration >Background? | Nontoxic Metal? | Region 9/3 RBC (mg/kg or pCi/g) | Max Concentration > RBC? | INEEL EBSL (mg/kg or pCi/g) | Max Concentration > EBSL? | HHRA | ERA | HHRA[a] |
| Benzene | 2.00E+00 | NA | NA | No | 6.72E-01 | Yes | 5.50E+00 | No | Yes | No | Yes |
| Ethylbenzene | 8.00E+00 | NA | NA | No | 2.30E+02 | No | 5.52E+01 | No | No | No | No |
| Toluene | 2.30E+01 | NA | NA | No | 5.20E+02 | No | 6.04E+01 | No | No | No | No |
| TPH-Diesel | 5.20E+04 | NA | NA | No | 1.00E+03 | Yes | No EBSL | No EBSL | Yes | Yes | Yes |
| Xylene | 7.20E+01 | NA | NA | No | 2.10E+02 | No | 2.78E-01 | Yes | No | Yes | Yes[b] |

Source: WAG 10, OU 10-04 Database.
"NA" in Step 1 indicates that a background value is not available.
"No RBC" indicates that an EPA Region 9 or 3 risk-based concentration based on residential soil ingestion is not available.
"No EBSL" indicates that an INEEL EBSL is not available.
a. HHRA screening using 1/10th of the RBC (see Section C-1.4.1.3).
b. Xylene was identified as a possible COPC during a preliminary screen of contaminants to 1/10th of the RBC. However, the maximum concentration for xylene is only slightly above 1/3 of its RBC and would not show risk if assessed.

Table C7-b. Summary Statistics for the EBR-08 Soils.

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| Benzene | 5 | 5 | 100 | 0.8 | 2.0 | 1.26 | 0.488 | mg/kg |
| Ethylbenzene | 5 | 5 | 100 | 0.4 | 7.5 | 4.18 | 3.08 | mg/kg |
| Toluene | 5 | 5 | 100 | 3.0 | 21.0 | 10.4 | 7.13 | mg/kg |
| Xylene (total) | 5 | 5 | 100 | 17.0 | 65.0 | 33.4 | 19.3 | mg/kg |
| TPH-Diesel | 10 | 10 | 100 | 35,000 | 51,000 | 41,800 | 5,940 | mg/kg |

Table C7-c. Summary Exposure Point Concentrations for EBR-08 by Bin Depths.

| COPC | 0-0.5 | 0-4 | 0-10 | 0-18 |
|---|---|---|---|---|
| Benzene | NA | 1.75E+00 | 1.90E+00 | 1.94E+00 |
| TPH-Diesel | NA | 3.99E+04 | 4.33E+04 | 4.43E+04 |
| Xylene | NA | 5.69E+01 | 6.18E+01 | 6.32E+01 |

EPC units are mg/kg or pCi/g; bin depths are in feet

NA – Not applicable, no samples were taken at this soil depth.

Table C8-a. Soil Contaminant Screening Process for OU 10-04, WMO-704 EBR-09 Soil (1992).

| | | Step 1 | | Step 2 | Step 3 | | Step 4 | | Site COPC? | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Detected Contaminants | Max Source Concentration (mg/kg or pCi/g) | INEEL Background Concentration (mg/kg or pCi/g) | Max Concentration >Background? | Nontoxic Metal? | Region 9/3 RBC (mg/kg) | Max Concentration > RBC? | INEEL EBSL (mg/kg) | Max Concentration >EBSL? | HHRA | ERA | HHRA[a] |
| TPH-Diesel | 3.62E+01 | NA | NA | No | 1.00E+03 | No | No EBSL | No EBSL | No | Yes | No |

Source: WAG 10, OU 10-04, Database and T1DD.

"NA" in Step 1 indicates that a background value is not available.

"No RBC" indicates that an EPA Region 9 or 3 risk-based concentration based on residential soil ingestion is not available.

"No EBSL" indicates that an INEEL EBSL is not available.

a. HHRA screening using 1/10th of the RBC (see Section C-1.4.1.3).

Table C8-b. Summary statistics for the EBR-09 Soils.

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| Benzene | 0 | 3 | 0.0 | 0.0U | 0.0U | NA | NA | mg/kg |
| Ethylbenzene | 0 | 3 | 0.0 | 0.001U | 0.001U | NA | NA | mg/kg |
| Toluene | 0 | 3 | 0.0 | 0.0U | 0.001U | NA | NA | mg/kg |
| Xylene (total) | 0 | 3 | 0.0 | 0.002U | 0.002U | NA | NA | mg/kg |
| TPH-Diesel | 1 | 3 | 33.3 | 6.0U | 36.2 | NA | NA | mg/kg |

U = non detect; value represents ½ the detection limit.
NA = not applicable; not calculated

Table C8-c. Summary Exposure Point Concentrations for EBR-09 by Bin Depths.

| COPC | 0-0.5 | 0-4 | 0-10 |
|---|---|---|---|
| TPH-Diesel | 3.62E+01 | 3.62E+01 | 1.81E+01 |

EPC units are mg/kg or pCi/g, bin depths are in feet.

Table C9-a. Soil Contaminant Screening Process for OU 10-04, EBR-10 (WMO-705) (1990).

| | | Step 1 | | Step 2 | Step 3 | | Step 4 | | Site COPC? | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Detected Contaminants | Max Source Concentration (mg/kg or pCi/g) | INEEL Background Concentration (mg/kg or pCi/g) | Max Concentration >Background? | Nontoxic Metal? | Region 9/3 RBC (mg/kg or pCi/g) | Max Concentration > RBC? | INEEL EBSL (mg/kg or pCi/g) | Max Concentration > EBSL? | HHRA | ERA | HHRA[a] |
| Ethylbenzene | 2.00E+00 | NA | NA | No | 2.30E+02 | No | 5.52E+01 | No | No | No | No |
| TPH-Diesel | 1.90E+04 | NA | NA | No | 1.00E+03 | Yes | No EBSL | No EBSL | Yes | Yes | Yes |
| Xylene | 1.00E+01 | NA | NA | No | 2.10E+02 | No | 2.78E-01 | Yes | No | Yes | No |

Source: WAG 10, OU 10-04 Database and T1 DD.

"NA" in Step 1 indicates that a background value is not available.

"No RBC" indicates that an EPA Region 9 or 3 risk-based concentration based on residential soil ingestion is not available.

"No EBSL" indicates that an INEEL EBSL is not available.

a. HHRA screening using 1/10th of the RBC (see Section C-1.4.1.3).

Table C9-b. Summary Statistics for the EBR-10 Soils.

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| Benzene | 0 | 5 | 0 | 0.025U | 0.025U | NA | NA | mg/kg |
| Ethylbenzene | 2 | 5 | 40 | 0.025U | 2.0 | NA | NA | mg/kg |
| Toluene | 0 | 5 | 0 | 0.025U | 0.025U | NA | NA | mg/kg |
| Xylene (total) | 2 | 5 | 40 | 0.05U | 10.0 | NA | NA | mg/kg |
| TPH – Diesel | 4 | 5 | 80 | 5.0U | 15,000 | 5,000 | 6,800 | mg/kg |
| TPH – Gasoline | 0 | 5 | 0 | 5.0U | 5.0U | NA | NA | mg/kg |

U = non detect; value represents ½ the detection limit.
NA = not applicable; not calculated

Table C9-c. Summary Exposure Point Concentrations for EBR-10 by Bin Depths.

| COPC | 0-0.5 | 0-4 | 0-10 | 0-12 |
|---|---|---|---|---|
| TPH-Diesel | NA | NA | 9.00E+03 | 1.00E+04 |
| Xylene | NA | NA | 6.00E+00 | 6.67E+00 |

EPC units are mg/kg or pCi/g; bin depths are in feet.

NA – Not applicable, no samples were taken at this soil depth.

Table C10-a. Soil Contaminant Screening Process for OU 10-04, EBR-11 (EBR-706).

| | | Step 1 | | Step 2 | Step 3 | | Step 4 | | Site COPC? | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Detected Contaminants | Max Source Concentration (mg/kg) | INEEL Background Concentration (mg/kg) | Max Concentration >Background? | Nontoxic Metal? | Region IX/II RBC (mg/kg) | Max Concentration > RBC? | INEEL EBSL (mg/kg) | Max Concentration > EBSL? | HHRA | ERA | HHRA[a] |
| TPH-Diesel | 3.50E+02 | NA | NA | No | 1.00E+03 | No | No EBSL | No EBSL | No | Yes | Not applica ble |

Source: WAG 10, OU 10-04 Database and T1DD

"NA" in Step 1 indicates that a background value is not available.

"No RBC" indicates that an EPA Region 9 or 3 risk-based concentration based on residential soil ingestion is not available.

"No EBSL" indicates that an INEEL EBSL is not available.

a. HHRA screening using 1/10th of the RBC is not applicable to one contaminant.(see Section C-1.4.1.3).

Table C10-b. Summary Statistics for the EBR-11 Soils.

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| Benzene | 0 | 3 | 0 | 0.025U | 0.025U | NA | NA | mg/kg |
| Ethylbenzene | 0 | 3 | 0 | 0.025U | 0.025U | NA | NA | mg/kg |
| Toluene | 0 | 3 | 0 | 0.025U | 0.025U | NA | NA | mg/kg |
| Xylene (total) | 0 | 3 | 0 | 0.05U | 0.05U | NA | NA | mg/kg |
| TPH-Diesel | 1 | 3 | 33 | 5.0U | 250 | NA | NA | mg/kg |

U = non detect; value represents ½ the detection limit.
NA = not applicable; not calculated

Table C10-c. Summary Exposure Point Concentrations for EBR-11 by Bin Depths.

| COPC | 0-0.5 | 0-4 | 0-10 |
|---|---|---|---|
| TPH-Diesel | NA | NA | 1.50E+02 |

EPC units are mg/kg or pCi/g; bin depths are in feet
NA – Not applicable, no samples were taken at this soil depth.

Table C11-a. Soil Contaminant Screening Process for OU 10-04, EBR-12 (EBR-707)(1990).

| | | Step 1 | | Step 2 | Step 3 | | Step 4 | | Site COPC? | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Detected Contaminants | Max Source Concentration (mg/kg | INEEL Background Concentration (mg/kg) | Max Concentration >Background? | Nontoxic Metal? | Region 9/3 RBC (mg/kg) | Is Max Concentration > RBC? | INEEL EBSL (mg/kg | Is Max Concentration> EBSL? | HHRA | ERA | HHRA[a] |
| TPH-Diesel | 3.00E+01 | NA | NA | No | 1.00E+03 | No | No EBSL | No EBSL | No | Yes | No |

Source: WAG 10, OU 10-04 Database and T1DD

"NA" in Step 1 indicates that a background value is not available.

"No RBC" indicates that an EPA Region 9 or 3 risk-based concentration based on residential soil ingestion is not available.

"No EBSL" indicates that an INEEL EBSL is not available.

a. HHRA screening using 1/10th of the RBC (see Section C-1.4.1.3).

Table C11-b. Summary Statistics for the EBR-12 Soils.

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| Benzene | 0 | 3 | 0 | 0.025U | 0.025U | NA | NA | mg/kg |
| Ethylbenzene | 0 | 3 | 0 | 0.025U | 0.025U | NA | NA | mg/kg |
| Toluene | 0 | 3 | 0 | 0.025U | 0.025U | NA | NA | mg/kg |
| Xylene (total) | 0 | 3 | 0 | 0.05U | 0.05U | NA | NA | mg/kg |
| TPH-Diesel | 1 | 3 | 33 | 5.0U | 30.0 | NA | NA | mg/kg |

U = non detect; value represents ½ the detection limit.
NA = not applicable; not calculated

Table C11-c. Summary Exposure Point Concentrations for EBR-12 by Bin Depths.

| COPC | 0-0.5 | 0-4 | 0-10 |
|---|---|---|---|
| TPH-Diesel | NA | 2.63E+01 | 2.85E+01 |

EPC units are mg/kg or pCi/g; bin depths are in feet.
NA – Not applicable, no samples were taken at this soil depth.

Table C12-a. Soil Contaminant Screening Process for OU 10-04, EBR-15, Radionuclide Contaminated Soils (1988, 1989, 1993,1994,1995).

| | | Step 1 | | Step 2 | Step 3 | | Step 4 | | Site COPC? | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Detected Contaminants | Max Source Concentration (mg/kg or pCi/g) | INEEL Background Concentration (mg/kg or pCi/g) | Max Concentration >Background? | Nontoxic Metal? | Region 9/3 RBC (mg/kg or pCi/g) | Is Max Concentration > RBC? | INEEL EBSL (mg/kg or pCi/g) | Is Max Concentration > EBSL? | HHRA | ERA | HHRA[a] |
| 2-Butanone | 2.20E-02 | NA | NA | No | 7.30E+03 | No | 3.83E+01 | No | No | No | No |
| Acetic Acid, Methyl Ester | 1.80E-02 | NA | NA | No | 2.20E+04 | No | No EBSL | No EBSL | No | No[b] | No |
| Acetone | 4.30E-02 | NA | NA | No | 1.57E+03 | No | 5.53E-01 | No | No | No | No |
| Ag-110m | 4.92E-02 | NA | NA | No | 8.90E+42 | No | 1.08E+03 | No | No | No | No |
| Am-241 | 4.51E-01 | 1.10E-02 | Yes | No | 2.90E+00 | No | 1.78E+01 | No | No | No | Yes[c] |
| Carbon Disulfide | 3.30E-03 | NA | NA | No | 3.55E+02 | No | 5.91E-01 | No | No | No | No |
| Ce-141 | 4.83E-02 | NA | NA | No | No RBC | No RBC | 1.18E+04 | No | No[d] | No | No[d] |
| Ce-144 | 2.74E-01 | NA | NA | No | 2.90E+39 | No | 2.27E+04 | No | No | No | No |
| Co-58 | 2.82E-02 | NA | NA | No | No RBC | No RBC | 3.66E+03 | No | No[d] | No | No[d] |
| Co-60 | 1.70E-01 | NA | NA | No | 7.40E+03 | No | 1.18E+03 | No | No | No | No |
| Cr-51 | 3.77E-02 | NA | NA | No | No RBC | No RBC | 9.39E+04 | No | No[d] | No | No[d] |
| Cs-134 | 1.43E-02 | NA | NA | No | 2.40E+13 | No | 1.90E+03 | No | No | No | No |
| Cs-137 | 2.09E+03 | 8.20E-01 | Yes | No | 2.30E-01 | Yes | 4.95E+03 | No | No[f] | No | No[f] |
| Dimethyl Disulfide | 1.10E-01 | NA | NA | No | No RBC | No RBC | No EBSL | No EBSL | No[e] | No[e] | No[e] |
| Eu-152 | 9.10E-02 | NA | NA | No | 2.70E+00 | No | 2.18E+03 | No | No | No | No |
| Eu-154 | 3.05E-01 | NA | NA | No | 5.20E+01 | No | 2.48E+03 | No | No | No | No |
| Eu-155 | 2.43E-01 | NA | NA | No | 2.90E+06 | No | 3.25E+04 | No | No | No | No |
| Fe-59 | 7.35E-02 | NA | NA | No | No RBC | No RBC | 2.48E+03 | No | No[d] | No | No[d] |
| Hf-181 | 4.68E-02 | NA | NA | No | No RBC | No RBC | 5.69E+03 | No | No[d] | No | No[d] |
| Hg-203 | 2.88E-02 | NA | NA | No | No RBC | No RBC | No EBSL | No EBSL | No[g] | No[g] | No[g] |
| K-40 | 1.90E+01 | 2.40E+01 | No | No | 5.70E-02 | Yes | No EBSL | No EBSL | No[d] | No | No[d] |
| Methylene Chloride | 9.70E-03 | NA | NA | No | 8.88E+00 | No | 1.00E+00 | No | No | No | No |
| Mn-54 | 3.77E-02 | NA | NA | No | No RBC | No RBC | 3.53E+03 | No | No[d] | No | No[d] |
| Nb-95 | 5.85E-02 | NA | NA | No | No RBC | No RBC | 3.56E+03 | No | No[d] | No | No[d] |

**Table C12-a.** (continued)

| Detected Contaminants | Max Source Concentration (mg/kg or pCi/g) | Step 1: INEEL Background Concentration (mg/kg or pCi/g) | Step 1: Max Concentration >Background? | Step 2: Nontoxic Metal? | Step 3: Region 9/3 RBC (mg/kg or pCi/g) | Step 3: Is Max Concentration > RBC? | Step 4: INEEL EBSL (mg/kg or pCi/g) | Step 4: Is Max Concentration > EBSL? | Site COPC? HHRA | Site COPC? ERA | Site COPC? HHRA[a] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Rh-106 | 5.99E-01 | NA | NA | No | No RBC | No RBC | 1.33E+03 | No | No[d] | No | No[d] |
| Ru-103 | 2.47E-02 | NA | NA | No | No RBC | No RBC | 6.38E+03 | No | No[d] | No | No[d] |
| Sb-124 | 7.05E-03 | NA | NA | No | No RBC | No RBC | 1.38E+03 | No | No[d] | No | No[d] |
| Sb-125 | 1.50E+00 | NA | NA | No | 1.40E+10 | No | 6.02E+03 | No | No | No | No |
| Sc-46 | 8.56E-02 | NA | NA | No | No RBC | No RBC | 1.47E+03 | No | No[d] | No | No[d] |
| Ta-182 | 6.83E-02 | NA | NA | No | No RBC | No RBC | 2.31E+03 | No | No[d] | No | No[d] |
| Tetrachloroethene | 8.90E-03 | NA | NA | No | 5.69E+00 | No | 3.33E+00 | No | No | No | No |
| Zn-65 | 7.73E-02 | NA | NA | No | No RBC | No RBC | 5.21E+03 | No | No[d] | No | No[d] |
| Zr-95 | 7.51E-02 | NA | NA | No | No RBC | No RBC | 3.69E+03 | No | No[d] | No | No[d] |

Source: WAG 10, OU 10-04 Database-T1DD

"NA" in Step 1 indicates that a background value is not available.

"No RBC" indicates that an EPA Region 9 or 3 risk-based concentration based on residential soil ingestion is not available.

"No EBSL" indicates that an INEEL EBSL is not available.

a. HHRA screening using 1/10th of the RBC (see Section C-1.4.1.3).

b. Acetic Acid was removed from the ERA because the maximum concentration was only 0.02 mg/kg, and this contaminant has undergone considerable decomposition since being sampled in 1990. According to the material safety data sheet (A0326) for acetic acid, it readily biodegrades when released into soil and it is not persistent in the environment.

c. Am-241 was the only COPC identified during the additional 1/10 RBC evaluation.. If brought forward, this COPC would not show risk.

d. Removed the following radionuclides from the Human Health Risk Assessment COPC list since they have half lives less than 5 years: Ce-141, Co-58, Cr-51, Fe-59, Hf-181, K-40, Mn-54, Nb-95, Rh-106, Ru-103, Sb-124, Sc-46, Ta-182, Zn-65, and Zr-95.

e. Dimethyl Disulfide was removed from the HHRA and ERA COPC list ssince the maximum concentration was only 0.11 mg/kg. Dimethyl disulfide was not a target compound, and consequently, the detection instrumentation was not calibrated to quantitatively measure the abundance of the compound. It is unlikely that this compound is still present at the site in any detectable quantities, due to the extremely volatile nature of dimethyl disulfide and the length of time (11 years) since the samples were collected.

f. Cs-137 was removed from the HHRA COPC list because the detected concentrations of this radionuclide are in compliance with removal action PRGs (see Section 9.3).

g. Hg-203 was removed from the HHRA and ERACOPC lists because of the low concentration this contaminant was detected at, 0.025 mg/kg. The half-life for Hg-203 is 46.6 days and has undergone considerable radioactive decay since sampled in 1989. No significant risk is expected to occur from exposure to this COPC.

Table C12-b. Summary Statistics for the EBR-15 Soils.

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| Am-241 | 4 | 4 | 100 | 0.043 | 0.451 | 0.173 | 0.189 | pCi/g |
| Cs-137 | 36 | 36 | 100 | 0.029 | 2090 | 73.1 | 350 | pCi/g |
| Co-60 | 19 | 19 | 100 | 0.003 | 0.17 | 0.045 | 0.043 | pCi/g |
| Eu-152 | 8 | 8 | 100 | 0.004 | 0.091 | 0.03 | 0.028 | pCi/g |
| Acetone | 6 | 7 | 86 | 0.005U | 0.043 | 0.025 | 0.012 | mg/kg |
| Carbon Disulfide | 2 | 7 | 29 | 0.003U | 0.003 | NA | NA | mg/kg |
| Methylene Chloride | 5 | 7 | 71 | 0.003U | 0.01 | 0.005 | 0.003 | mg/kg |
| Tetrachloroethene | 7 | 7 | 100 | 0.004 | 0.009 | 0.005 | 0.002 | mg/kg |
| 2-Butanone(MEK) | 7 | 7 | 100 | 0.01 | 0.022 | 0.017 | 0.004 | mg/kg |
| Acetic acid, methyl ester | 2 | 7 | 29 | 0.005U | 0.018 | NA | NA | mg/kg |
| Ag-110m | 9 | 9 | 100 | 0.004 | 0.049 | 0.019 | 0.014 | pCi/g |
| Ce-141 | 7 | 7 | 100 | 0.002 | 0.048 | 0.017 | 0.017 | pCi/g |
| Ce-144 | 8 | 8 | 100 | 0.002 | 0.274 | 0.087 | 0.088 | pCi/g |
| Co-58 | 7 | 7 | 100 | 0.001 | 0.028 | 0.017 | 0.01 | pCi/g |
| Cr-51 | 8 | 8 | 100 | 0.006 | 0.038 | 0.019 | 0.01 | pCi/g |
| Cs-134 | 6 | 6 | 100 | 0.001 | 0.014 | 0.006 | 0.005 | pCi/g |
| Dimethyl Disulfide | 3 | 7 | 43 | 0.001U | 0.11 | 0.021 | 0.039 | mg/kg |
| Eu-154 | 9 | 9 | 100 | 0.001 | 0.305 | 0.057 | 0.094 | pCi/g |
| Eu-155 | 18 | 18 | 100 | 0.018 | 0.243 | 0.094 | 0.064 | pCi/g |
| Fe-59 | 8 | 8 | 100 | 0.003 | 0.074 | 0.029 | 0.031 | pCi/g |
| Hf-181 | 8 | 8 | 100 | 0.003 | 0.047 | 0.02 | 0.017 | pCi/g |

**Table C12-b.** (continued).

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| Hg-203 | 7 | 7 | 100 | 0.002 | 0.029 | 0.01 | 0.009 | pCi/g |
| K-40 | 7 | 7 | 100 | 10.0 | 19.0 | 16.0 | 3.06 | pCi/g |
| Mn-54 | 8 | 8 | 100 | 0.006 | 0.038 | 0.019 | 0.01 | mg/kg |
| Nb-95 | 6 | 6 | 100 | 0.006 | 0.059 | 0.021 | 0.02 | pCi/g |
| Rh-106 | 9 | 9 | 100 | 0.046 | 0.599 | 0.205 | 0.18 | pCi/g |
| Ru-103 | 13 | 13 | 100 | 0.001 | 0.025 | 0.012 | 0.008 | pCi/g |
| Sb-124 | 4 | 4 | 100 | 0.001 | 0.007 | 0.004 | 0.003 | pCi/g |
| Sb-125 | 16 | 16 | 100 | 0.001 | 1.5 | 0.281 | 0.475 | pCi/g |
| Sc-46 | 9 | 9 | 100 | 0.0 | 0.086 | 0.037 | 0.03 | pCi/g |
| Ta-182 | 6 | 6 | 100 | 0.002 | 0.068 | 0.027 | 0.031 | pCi/g |
| Zn-65 | 11 | 11 | 100 | 0.001 | 0.077 | 0.039 | 0.022 | pCi/g |
| Zr-95 | 9 | 9 | 100 | 0.001 | 0.075 | 0.03 | 0.024 | pCi/g |

U = non detect; value represents ½ the detection limit.
NA = not applicable; not calculated

Table C12-c. Summary Exposure Point Concentrations for EBR-15 by Bin Depths.

| COPC | 0-0.5 | 0-4 | 0-10 |
|---|---|---|---|
| Acetic Acid, Methyl Ester | NA | 1.16E-02 | 4.63E-03 |
| Dimethyl Disulfide | NA | 9.63E-02 | 3.85E-02 |

EPC units are mg/kg or pCi/g; bin depths are in feet.

NA – Not applicable, no samples were taken at this soil depth.

Table C13-a. Soil Contaminant Screening Process for the Fly Ash Pit (2000).

| | | Step 1 | | Step 2 | Step 3 | | Step 4 | | Site COPC? | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Detected Contaminants | Source Concentration (mg/kg or pCi/g) | INEEL Background Concentration (mg/kg or pCi/g) | Max Concentration > background? | Nontoxic Metal? | Region 9/3 RBC (mg/kg or pCi/g) | Max Concentration > RBC? | INEEL EBSL (mg/kg or pCi/g) | Max Concentration > EBSL? | HHRA | ERA | HHRA[a] |
| Antimony | 1.30E-01 | 4.80E+00 | No | No | 3.13E+01 | No | 4.67E+00 | No | No | No | No |
| Arsenic | 6.70E+00 | 5.80E+00 | Yes | No | 3.90E-01 | Yes | 1.66E-01 | Yes | No[b] | No[b] | No[b] |
| Barium | 2.53E+02 | 3.00E+02 | No | No | 5.48E+03 | No | 1.10E+01 | Yes | No | No | No |
| Beryllium | 7.30E-01 | 1.80E+00 | No | No | 1.56E+02 | No | 7.14E-01 | Yes | No | No | No |
| Boron | 6.77E+01 | 1.73E+01[c] | Yes | No | 5.50E+03 | No | 5.00E-01 | Yes | No | Yes | No |
| Cadmium | 5.60E-01 | 2.20E+00 | No | No | 3.90E+01 | No | 2.36E-03 | Yes | No | No | No |
| Chromium | 2.27E+01 | 3.30E+01 | No | No | 2.10E+02 | No | 1.00E+00 | Yes | No | No | No |
| Cobalt | 8.60E+00 | 1.10E+01 | No | No | 4.69E+02 | No | 2.45E+01 | Yes | No | No | No |
| Copper | 2.31E+01 | 2.20E+01 | Yes | No | 2.90E+03 | No | 2.11E+00 | Yes | No | Yes | No |
| Lead | 1.54E+01 | 1.70E+01 | No | No | 1.00E+02 | No | 9.94E-01 | Yes | No | No | No |
| Manganese | 4.86E+02 | 4.90E+02 | No | No | 1.60E+03 | No | 1.05E+01 | Yes | No | No | No |
| Molybdenum | 9.70E-01 | NA | NA | No | 3.91E+02 | No | 2.00E+00 | No | No | No | No |
| Nickel | 3.08E+01 | 3.50E+01 | No | No | 1.56E+03 | No | 3.00E+01 | Yes | No | No | No |
| Selenium | 4.60E-01 | 2.20E-01 | Yes | No | 3.91E+02 | No | No EBSL | No EBSL | No | Yes | No |
| Silver | 2.00E-01 | NA | NA | No | 3.91E+02 | No | 1.47E+03 | No | No | No | No |
| Strontium | 2.00E+02 | NA | NA | No | 4.69E+04 | No | No EBSL | No EBSL | No | Yes | No |
| Thallium | 1.30E-01 | 4.30E-01 | No | No | 5.48E+00 | No | 1.01E-01 | Yes | No | No | No |
| Vanadium | 2.87E+01 | 4.50E+01 | No | No | 5.48E+02 | No | 2.27E+02 | Yes | No | No | No |
| Zinc | 1.10E+02 | 1.50E+02 | No | No | 2.35E+04 | No | 2.78E-01 | Yes | No | No | No |

**Table C13-a.** (continued).

| Detected Contaminants | Source Concentration (mg/kg or pCi/g) | Step 1: INEEL Background Concentration (mg/kg or pCi/g) | Step 1: Max Concentration > background? | Step 2: Nontoxic Metal? | Step 3: Region 9/3 RBC (mg/kg or pCi/g) | Step 3: Max Concentration > RBC? | Step 4: INEEL EBSL (mg/kg or pCi/g) | Step 4: Max Concentration > EBSL? | Site COPC? HHRA | Site COPC? ERA | Site COPC? HHRA[a] |
|---|---|---|---|---|---|---|---|---|---|---|---|

Source: WAG 10, OU 10-04 Database
"NA" in Step 1 indicate that a background value is not available.
"No RBC" indicates that an EPA Region 9 or 3 risk-based concentration based on residential soil ingestion is not available.
"No EBSL" indicates that an INEEL EBSL is not available.

a. HHRA screening using 1/10th of the RBC (see Section C-1.4.1.3).
b. Arsenic was removed from the ERA & HHRA COPC lists because detected levels are within the arsenic regional background ranges discussed in Appendix K.
c. This is the maximum concentration for boron in the Reference Study Area (RSA).

Table C13-b. Summary Statistics for the Fly Ash Pit Soils.

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| Antimony | 10 | 10 | 100 | 0.06 | 0.13 | 0.07 | 0.022 | mg/kg |
| Arsenic | 10 | 10 | 100 | 4.2 | 6.7 | 5.31 | 0.844 | mg/kg |
| Barium | 10 | 10 | 100 | 104 | 253 | 180 | 57.4 | mg/kg |
| Beryllium | 10 | 10 | 100 | 0.39 | 0.73 | 0.536 | 0.131 | mg/kg |
| Cadmium | 10 | 10 | 100 | 0.22 | 0.56 | 0.376 | 0.127 | mg/kg |
| Chromium | 10 | 10 | 100 | 13.2 | 22.7 | 18.4 | 3.52 | mg/kg |
| Cobalt | 10 | 10 | 100 | 4.1 | 8.6 | 6.17 | 1.85 | mg/kg |
| Copper | 10 | 10 | 100 | 12.5 | 23.1 | 16.9 | 4.04 | mg/kg |
| Lead | 10 | 10 | 100 | 7.6 | 15.4 | 11.1 | 3.1 | mg/kg |
| Manganese | 10 | 10 | 100 | 173.0 | 486.0 | 299.0 | 115.0 | mg/kg |
| Nickel | 10 | 10 | 100 | 16.4 | 30.8 | 22.6 | 5.38 | mg/kg |
| Selenium | 8 | 10 | 80 | 0.02U | 0.37 | 0.152 | 0.116 | mg/kg |
| Silver | 10 | 10 | 100 | 0.08 | 0.2 | 0.128 | 0.033 | mg/kg |
| Thallium | 10 | 10 | 100 | 0.08 | 0.13 | 0.102 | 0.016 | mg/kg |
| Vanadium | 10 | 10 | 100 | 17.9 | 28.7 | 24.1 | 3.91 | mg/kg |
| Zinc | 10 | 10 | 100 | 45.3 | 110.0 | 75.1 | 25.6 | mg/kg |
| Boron | 10 | 10 | 100 | 5.2 | 51.1 | 14.4 | 14.8 | mg/kg |
| Mercury | 0 | 10 | 0 | 0.035U | 0.045U | NA | NA | mg/kg |
| Molybdenum | 10 | 10 | 100 | 0.45 | 0.97 | 0.638 | 0.163 | mg/kg |
| Strontium | 10 | 10 | 100 | 46.6 | 163.0 | 82.1 | 30.4 | mg/kg |
| Tin | 0 | 10 | 0 | 1.0 | 1.2 | 1.09 | 0.071 | mg/kg |

Table C13-c. Summary Exposure Point Concentrations for the Fly Ash Pit by Bin Depths.

| COPC | 0–0.5 | 0–4 | 0–10 |
|---|---|---|---|
| Boron | 5.11E+01 | 3.28E+01 | 1.31E+01 |
| Copper | 2.31E+01 | 2.18E+01 | 8.72E+00 |
| Selenium | 3.70E-01 | 3.00E-01 | 1.20E-01 |
| Strontium | 1.63E+02 | 9.45E+01 | 3.78E+01 |

EPC units are mg/kg or pCi/g; bin depths are in feet.

Table C14-a. Soil Contaminant Screening Process for OU 10-04, LCCDA-01 (1988, 1993, 1997).

| | | Step 1 | | Step 2 | Step 3 | | Step 4 | | Site COPC? | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Detected Contaminants | Max Source Concentration (mg/kg or pCi/g) | INEEL Background Concentration (mg/kg or pCi/g) | Max Concentration >Background? | Nontoxic Metal? | Region 9/3 RBC (mg/kg or pCi/g) | Max Concentration > RBC? | INEEL EBSL (mg/kg or pCi/g) | Max Concentration > EBSL? | HHRA | ERA | HHRA[a] |
| 1,1,2-Trichloroethane | 9.00E-03 | NA | NA | No | 8.43E-01 | No | No EBSL | No EBSL | No | Yes | No |
| Acetone | 4.60E-02 | NA | NA | No | 1.57E+03 | No | 5.53E-01 | No | No | No | No |
| Aluminum | 1.95E+04 | 1.60E+04 | Yes | Yes | 7.61E+04 | No | 8.50E+00 | Yes | No | No | Yes[b] |
| Arsenic | 8.50E+00 | 5.80E+00 | Yes | No | 3.90E-01 | Yes | 8.44E-01 | Yes | No[c] | No[c] | No[c] |
| Barium | 4.03E+02 | 3.00E+02 | Yes | No | 5.48E+03 | No | 1.10E+01 | Yes | No | Yes | No |
| Beryllium | 3.30E+00 | 1.80E+00 | Yes | No | 1.56E+02 | No | 7.14E-01 | Yes | No | Yes | No |
| Calcium | 9.19E+04 | 2.40E+04 | Yes | Yes | NO RBC | No RBC | No EBSL | No EBSL | No | No | No |
| Chromium | 3.00E+01 | 3.30E+01 | No | No | 2.10E+02 | No | 1.00E+00 | Yes | No | No | No |
| Cobalt | 1.17E+01 | 1.10E+01 | Yes | No | 4.69E+03 | No | 4.27E-01 | Yes | No | Yes | No |
| Copper | 2.40E+01 | 2.20E+01 | Yes | No | 2.90E+03 | No | 2.11E+00 | Yes | No | Yes | No |
| Cs-137 | 9.20E+00 | 8.20E-01 | Yes | No | 2.30E-01 | Yes | 4.95E+03 | No | Yes | No | Yes |
| Iron | 2.77E+04 | 2.40E+04 | Yes | Yes | 2.35E+04 | Yes | No EBSL | No EBSL | No | No | No[d] |
| Magnesium | 1.28E+04 | 1.20E+04 | Yes | Yes | NO RBC | No RBC | No EBSL | No EBSL | No | No | Yes[b] |
| Manganese | 6.83E+02 | 4.90E+02 | Yes | No | 1.60E+03 | No | 1.05E+01 | Yes | No | Yes | No |
| Mercury | 6.00E-02 | 5.00E-02 | Yes | No | 6.10E+00 | No | 3.00E-01 | No | No | No | No |
| Methylene Chloride | 6.00E-03 | NA | NA | No | 8.88E+00 | No | 1.00E+00 | No | No | No | No |
| Nickel | 3.24E+01 | 3.50E+01 | No | No | 1.56E+03 | No | 3.00E+01 | Yes | No | No | No |
| Potassium | 4.72E+03 | 4.30E+03 | Yes | Yes | NO RBC | No RBC | No EBSL | No EBSL | No | No | No |
| Ra-226 | 6.99E+00 | NA | NA | No | 5.50E-03 | Yes | 2.04E+01 | No | Yes | No | Yes |
| Silver | 3.20E-01 | ND | No | No | 3.91E+02 | No | 2.00E+00 | No | No | No | No |

**Table C14-a.** (continued)

| Detected Contaminants | Max Source Concentration (mg/kg or pCi/g) | Step 1 INEEL Background Concentration (mg/kg or pCi/g) | Step 1 Max Concentration >Background? | Step 2 Nontoxic Metal? | Step 3 Region 9/3 RBC (mg/kg or pCi/g) | Step 3 Max Concentration > RBC? | Step 4 INEEL EBSL (mg/kg or pCi/g) | Step 4 Max Concentration > EBSL? | Site COPC? HHRA | Site COPC? ERA | Site COPC? HHRA[a] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Sodium | 2.25E+03 | 3.20E+02 | Yes | Yes | NO RBC | No RBC | No EBSL | No EBSL | No | No | No |
| Sr-89 | 1.81E+00 | NA | NA | No | NO RBC | No RBC | 3.34E+03 | No | No[e] | No | No[e] |
| Sr-90 | 1.00E+01 | 4.90E-01 | Yes | No | 2.30E+02 | No | 3.34E+03 | No | No | No | No |
| U-234 | 5.57E+00 | 1.44E+00 | Yes | No | 1.80E+01 | No | 2.05E+01 | No | No | No | Yes[f] |
| U-235 | 2.39E-01 | NA | NA | No | 1.30E-01 | Yes | 2.27E+01 | No | Yes | No | Yes |
| U-238 | 5.53E+00 | 1.40E+00 | Yes | No | 6.70E-01 | Yes | 2.32E+01 | No | Yes | No | Yes |
| Vanadium | 4.50E+01 | 4.50E+01 | Yes | No | 5.48E+02 | No | 1.49E+00 | Yes | No | Yes | No |
| Zinc | 7.66E+01 | 1.50E+02 | No | No | 2.35E+04 | No | 3.29E+00 | Yes | No | No | No |

Source: WAG 10, OU 10-04 Database.

"NA" in Step 1 indicates that a background value is not available.

"No RBC" indicates that an EPA Region 9 or 3 risk-based concentration based on residential soil ingestion is not available.

"No EBSL" indicates that an INEEL EBSL is not available.

a. HHRA screening using 1/10th of the RBC (see Section C-1.4.1.3).

b. Aluminum and manganese were identified as possible COPC during a preliminary screen of contaminants to 1/10th of the RBC. However, these contaminants were not retained in the HHRA because their maximum detected concentrations were close to background levels.

c. Arsenic was removed from the ERA & HHRA COPC lists because detected levels are within the arsenic regional background ranges discussed in Appendix K.

d. Iron was not retained for the HHRA. Iron is an essentail metal, and the maximum conentration is close to background levels.

e. Sr-89 was removed from the HHRA COPC list since it has a half-life of less than five years.

f. U-234 was evaluated in the HHRA spreadsheets for this site, but the results confirmed that no additional risk was presented from this COPC. Total risk, from the external radiation exposure pathway, at LCCDA-01remained the same as presented in the original HHRA.

Table C14-b. Summary Statistics for the LCCDA-01 Soils.

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Am-241 | 0 | 4 | 0 | 0.025U | 0.15U | NA | NA | pCi/g |
| Cs-137 | 6 | 6 | 100 | 0.157 | 9.2 | 3.33 | 3.34 | pCi/g |
| Pu-238 | 0 | 1 | 0 | 0.001U | 0.001U | NA | NA | pCi/g |
| Pu-239 | 0 | 2 | 0 | 0.003U | 0.003U | NA | NA | pCi/g |
| Sr-90 | 5 | 6 | 83 | 0.062U | 10.0 | 3.7 | 3.98 | pCi/g |
| U-234 | 6 | 6 | 100 | 0.823 | 5.57 | 3.28 | 2.01 | pCi/g |
| U-238 | 6 | 6 | 100 | 0.816 | 5.53 | 3.27 | 2.07 | pCi/g |
| U-235 | 4 | 7 | 57 | 0.050U | 0.239 | 0.107 | 0.069 | pCi/g |
| Aluminum | 9 | 9 | 100 | 7,930 | 19,500 | 14,500 | 3,620 | mg/kg |
| Antimony | 0 | 6 | 0 | 1.20U | 1.45U | NA | NA | mg/kg |
| Arsenic | 6 | 6 | 100 | 5.30 | 8.50 | 7.00 | 1.37 | mg/kg |
| Barium | 9 | 9 | 100 | 233. | 403. | 294.0 | 61.2 | mg/kg |
| Beryllium | 9 | 9 | 100 | 1.70 | 3.30 | 2.36 | 0.536 | mg/kg |
| Cadmium | 0 | 9 | 0 | 0.075U | 0.65U | NA | NA | mg/kg |
| Calcium | 9 | 9 | 100 | 31,700 | 91,900 | 57,800 | 19,100 | mg/kg |
| Chromium | 9 | 9 | 100 | 17.6U | 30.0 | 24.1 | 3.78 | mg/kg |
| Co-60 | 0 | 1 | 0 | 0.002U | 0.002 | NA | NA | pCi/g |
| Cobalt | 8 | 9 | 89 | 3.95U | 11.7 | 8.47 | 2.27 | mg/kg |
| Copper | 9 | 9 | 100 | 17.0 | 24.0 | 21.8 | 2.23 | mg/kg |
| Iron | 9 | 9 | 100 | 14,500 | 27,700 | 20,800 | 4,380 | mg/kg |
| Lead | 0 | 9 | 0 | 3.15U | 11.0U | NA | NA | mg/kg |
| Magnesium | 9 | 9 | 100 | 5,720 | 12,800 | 10,600 | 2,050 | mg/kg |

**Table C14-b.** (continued).

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| Manganese | 9 | 9 | 100 | 398. | 683 | 504 | 110 | mg/kg |
| Nickel | 8 | 8 | 100 | 22.0 | 32.4 | 27.5 | 3.16 | mg/kg |
| Potassium | 8 | 8 | 100 | 1,780 | 4,720 | 3,070 | 914 | mg/kg |
| Silver | 1 | 3 | 33 | 0.475U | 0.32 | NA | NA | mg/kg |
| Sodium | 7 | 8 | 88 | 160U | 2,250 | 1,030 | 702 | mg/kg |
| Thallium | 0 | 6 | 0 | 0.11U | 0.13U | NA | NA | mg/kg |
| Vanadium | 9 | 9 | 100 | 29.9 | 45 | 36.1 | 4.83 | mg/kg |
| Zinc | 9 | 9 | 100 | 50.8 | 76.6 | 64.0 | 8.63 | mg/kg |
| Eu-152 | 0 | 2 | 0 | 0.006U | 0.017U | NA | NA | pCi/g |
| Mercury | 1 | 9 | 11 | 0.015U | 0.06 | NA | NA | mg/kg |
| 1,1,2-Trichloroethane | 3 | 3 | 100 | 0.007 | 0.009 | 0.008 | 0.001 | mg/kg |
| 1,2,4-Trichlorobenzene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| 1,2-Dichlorobenzene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| 1,4-Dichlorobenzene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| 2,4,5-Trichlorophenol | 0 | 6 | 0 | 0.46U | 0.55U | NA | NA | mg/kg |
| 2,4,6-Trichlorophenol | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| 2,4-Dichlorophenol | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| 2,4-Dinitrophenol | 0 | 6 | 0 | 0.46 | 0.55U | NA | NA | mg/kg |
| 2,4-Dinitrotoluene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| 2,6-Dinitrotoluene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| 2-Chloronaphthalene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| 2-Chlorophenol | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| 2-Methylnaphthalene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |

**Table C14-b.** (continued).

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| 2-Methylphenol | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| 2-Nitroaniline | 0 | 6 | 0 | 0.46U | 0.55U | NA | NA | mg/kg |
| 2-Nitrophenol | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| 3-Nitroaniline | 0 | 6 | 0 | 0.46U | 0.55U | NA | NA | mg/kg |
| 4,6-Dinitro-2-methylphenol | 0 | 6 | 0 | 0.46U | 0.55U | NA | NA | mg/kg |
| 4-Bromophenyl-phenylether | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| 4-Chloro-3-methylphenol | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| 4-Chloroaniline | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| 4-Chlorophenyl-phenylether | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| 4-Methylphenol | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| 4-Nitroaniline | 0 | 6 | 0 | 0.46U | 0.55U | NA | NA | mg/kg |
| 4-Nitrophenol | 0 | 6 | 0 | 0.46U | 0.55U | NA | NA | mg/kg |
| Acenaphthene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Acenaphthylene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Acetone | 3 | 3 | 100 | 0.019 | 0.046 | 0.033 | 0.014 | mg/kg |
| Anthracene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Benzo(a)anthracene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Benzo(a)pyrene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Benzo(b)fluoranthene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Benzo(g,h,i)perylene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Benzo(k)fluoranthene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| bis(2-Chloroethoxy)methane | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| bis(2-Chloroethyl)ether | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |

**Table C14-b.** (continued).

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| bis(2-Chloroisopropyl)ether | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| bis(2-Ethylhexyl)phthalate | 0 | 6 | 0 | 0.03U | 0.22U | NA | NA | mg/kg |
| Butylbenzylphthalate | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Chrysene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Dibenz(a,h)anthracene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Dibenzofuran | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Diethylphthalate | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Dimethylphthalate | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Di-n-butylphthalate | 0 | 6 | 0 | 0.023U | 0.033U | NA | NA | mg/kg |
| Di-n-octylphthalate | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Fluoranthene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Fluorene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Hexachlorobenzene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Hexachlorobutadiene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Hexachlorocyclopentadiene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Hexachloroethane | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Indeno(1,2,3-cd)pyrene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Isophorone | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Methylene Chloride | 3 | 3 | 100 | 0.003 | 0.006 | 0.004 | 0.002 | mg/kg |
| Naphthalene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Nitrobenzene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| N-Nitroso-di-n-propylamine | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| N-Nitrosodiphenylamine | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |

**Table C14-b.** (continued).

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| Pentachlorophenol | 0 | 6 | 0 | 0.46U | 0.55U | NA | NA | mg/kg |
| Phenanthrene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Phenol | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Pyrene | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| 3,3'-Dichlorobenzidine | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| 2,4-Dimethylphenol | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Carbazole | 0 | 6 | 0 | 0.18U | 0.22U | NA | NA | mg/kg |
| Ce-144 | 0 | 1 | 0 | 0.017U | 0.017U | NA | NA | pCi/g |
| Cs-134 | 0 | 1 | 0 | 0.017U | 0.017U | NA | NA | pCi/g |
| Cyanide | 0 | 6 | 0 | 0.14U | 0.165U | NA | NA | mg/kg |
| Eu-154 | 0 | 1 | 0 | 0.057U | 0.057U | NA | NA | pCi/g |
| Eu-155 | 0 | 1 | 0 | 0.065U | 0.065U | NA | NA | pCi/g |
| Mn-54 | 0 | 2 | 0 | 0.016U | 0.03U | NA | NA | pCi/g |
| pH | 6 | 6 | 100 | 7.09 | 8.38 | 8.0 | 0.463 | unitless |
| Ra-226 | 2 | 2 | 100 | 3.15 | 6.99 | 5.07 | 2.72 | pCi/g |
| Ru-106 | 0 | 1 | 0 | 0.11U | 0.11U | NA | NA | pCi/g |
| Sb-125 | 0 | 1 | 0 | 0.008U | 0.008U | NA | NA | pCi/g |
| Sr-89 | 1 | 2 | 50 | 0.132U | 1.81 | NA | NA | pCi/g |
| Zn-65 | 0 | 2 | 0 | 0.032U | 0.04U | NA | NA | pCi/g |

U = non detect; value represents ½ the detection limit.
NA = not applicable; not calculated

Table C14-c. Summary Exposure Point Concentrations for LCCDA-01 by Bin Depths.

| COPC | 0-0.5 | 0-4 | 0-10 | 0-14 |
|---|---|---|---|---|
| 1,1,2-Trichloroethane | NA | NA | 5.40E-03 | NA |
| Barium | 4.03E+02 | 4.03E+02 | 3.55E+02 | NA |
| Beryllium | 3.30E+00 | 3.30E+00 | 2.92E+00 | NA |
| Cobalt | 8.70E+00 | 8.70E+00 | 9.88E+00 | NA |
| Copper | 2.26E+01 | 2.26E+01 | 2.34E+01 | NA |
| Cs-137 | 5.00E+00 | 8.68E+00 | 3.47E+00 | 5.1E+00 |
| Manganese | 4.00E+02 | 4.68E+02 | 5.69E+02 | NA |
| Ra-226 | 6.99E+00 | 8.74E-01 | 3.50E-01 | 2.25E+00 |
| Sr-89 | 1.81E+00 | 2.26E-01 | 9.05E-02 | 5.82E-01 |
| U-235 | 1.25E-01 | 2.25E-01 | 8.99E-02 | 1.33E-01 |
| U-238 | 5.10E+00 | 5.48E+00 | 2.19E+00 | 3.14E+00 |
| Vanadium | 3.46E+01 | 3.46E+01 | 3.82E+01 | NA |

EPC units are mg/kg or pCi/g; b in depths are in feet.

NA – Not applicable, no samples were taken at this soil depth.

Table C15-a. Soil Contaminant Screening Process for OU 10-04, LCCDA-02 (1988, 1997).

| | | Step 1 | | Step 2 | Step 3 | | Step 4 | | Site COPC? | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Detected Contaminants | Max Source Concentration (mg/kg or pCi/g) | INEEL Background Concentration (mg/kg or pCi/g) | Max Concentration >Background? | Nontoxic Metal? | Region 9/3 RBC (mg/kg or pCi/g) | Max Concentration > RBC? | INEEL EBSL (mg/kg or pCi/g) | Max Concentration > EBSL? | HHRA | ERA | HHRA[a] |
| 1,1,2-Trichloroethane | 8.00E-03 | NA | NA | No | 8.43E-01 | No | No EBSL | No EBSL | No | Yes | No |
| Aluminum | 1.65E+04 | 1.60E+04 | Yes | Yes | 7.61E+04 | No | 8.50E+00 | Yes | No | No | Yes[b] |
| Barium | 2.31E+02 | 3.00E+02 | No | No | 5.48E+03 | No | 1.10E+01 | Yes | No | No | No |
| Beryllium | 1.80E+00 | 1.80E+00 | Yes | No | 1.56E+02 | No | 7.14E-01 | Yes | No | Yes | No |
| Calcium | 4.40E+04 | 2.40E+04 | Yes | Yes | No RBC | No RBC | No EBSL | No EBSL | No | No | No |
| Chromium | 2.70E+01 | 3.30E+01 | No | No | 2.10E+02 | No | 1.00E+00 | Yes | No | No | No |
| Cobalt | 8.50E+00 | 1.10E+01 | No | No | 4.69E+03 | No | 4.27E-01 | Yes | No | No | No |
| Copper | 2.70E+01 | 2.20E+01 | Yes | No | 2.90E+03 | No | 2.11E+00 | Yes | No | Yes | No |
| Cs-137 | 7.65E-01 | 8.20E-01 | No | No | 2.30E-01 | Yes | 4.95E+03 | No | No | No | No |
| Iron | 2.46E+04 | 2.40E+04 | Yes | Yes | 2.35E+04 | Yes | No EBSL | No EBSL | No | No | No[c] |
| Magnesium | 1.21E+04 | 1.20E+04 | Yes | Yes | No RBC | No RBC | No EBSL | No EBSL | No | No | No |
| Manganese | 5.45E+02 | 4.90E+02 | Yes | No | 1.60E+03 | No | 1.05E+01 | Yes | No | Yes | Yes[b] |
| Methylene Chloride | 3.00E-03 | NA | NA | No | 8.88E+00 | No | 1.00E+00 | No | No | No | No |
| Nickel | 2.60E+01 | 3.50E+01 | No | No | 1.56E+03 | No | 3.00E+01 | No | No | No | No |
| Potassium | 4.40E+03 | 4.30E+03 | Yes | Yes | No RBC | No RBC | No EBSL | No EBSL | No | No | No |
| Pu-239 | 3.40E-02 | 1.00E-01 | No | No | 2.50E+00 | No | 1.89E+01 | No | No | No | No |
| Ra-226 | 2.60E+00 | NA | NA | No | 5.50E-03 | Yes | 2.04E+01 | No | Yes | No | Yes |
| Sodium | 1.71E+03 | 3.20E+02 | Yes | Yes | No RBC | No RBC | No EBSL | No EBSL | No | No | No |
| U-234 | 7.07E-01 | 1.44E+00 | No | No | 1.80E+01 | No | 2.05E+01 | No | No | No | No |
| U-235 | 4.43E-02 | NA | NA | No | 1.30E-01 | No | 2.27E+01 | No | No | No | Yes[d] |
| U-238 | 8.13E-01 | 1.40E+00 | No | No | 6.70E-01 | Yes | 2.32E+01 | No | No | No | No |
| Vanadium | 4.10E+01 | 4.50E+01 | No | No | 5.48E+02 | No | 1.49E+00 | Yes | No | No | No |
| Zinc | 7.80E+01 | 1.50E+02 | No | No | 2.35E+04 | No | 3.29E+00 | Yes | No | No | No |

| Detected Contaminants | Max Source Concentration (mg/kg or pCi/g) | Step 1: INEEL Background Concentration (mg/kg or pCi/g) | Step 1: Max Concentration >Background? | Step 2: Nontoxic Metal? | Step 3: Region 9/3 RBC (mg/kg or pCi/g) | Step 3: Max Concentration > RBC? | Step 4: INEEL EBSL (mg/kg or pCi/g) | Step 4: Max Concentration > EBSL? | Site COPC? HHRA | Site COPC? ERA | Site COPC? HHRA[a] |
|---|---|---|---|---|---|---|---|---|---|---|---|

Source: WAG 10, OU 10-04 Database.

"NA" in Step 1 indicates that a background value is not available.

"No RBC" indicates that an EPA Region 9 or 3 risk-based concentration based on residential soil ingestion is not available.

"No EBSL" indicates that an INEEL EBSL is not available.

a. HHRA screening using 1/10th of the RBC (see Section C-1.4.1.3).

b. Aluminum and manganese were identified as possible COPC during a preliminary screen of contaminants to 1/10th of the RBC. However, these contaminants were not retained in the HHRA because the maximum detected concentrations were close to background levels.

c. Iron was not retained for the HHRA. Iron is an essentail metal, and the maximum conentration is close to background levels.

d. U-235 was evaluated in the HHRA spreadsheets for this site, but the results confirmed that no additional risk was presented from this COPC. Total risk, from the external radiation exposure pathway, at LCCDA-02 remained the same as presented in the original HHRA.

Table C15-b. Summary Statistics for the LCCDA-02 Soils.

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| Am-241 | 0 | 1 | 0 | 0.13U | 0.13U | NA | NA | pCi/g |
| Cs-137 | 2 | 2 | 100 | 0.118 | 0.736 | NA | NA | pCi/g |
| Pu-238 | 0 | 2 | 0 | 0.001U | 0.002U | NA | NA | pCi/g |
| Pu-239 | 1 | 2 | 50 | 0.001U | 0.026 | NA | NA | pCi/g |
| Sr-90 | 0 | 2 | 0 | 0.099U | 0.102U | NA | NA | pCi/g |
| U-234 | 2 | 2 | 100 | 0.69 | 0.7 | NA | NA | pCi/g |
| U-238 | 2 | 2 | 100 | 0.76 | 0.79 | NA | NA | pCi/g |
| U-235 | 2 | 4 | 50 | 0.007U | 0.044 | NA | NA | pCi/g |
| Aluminum | 2 | 2 | 100 | 1880 | 16500 | NA | NA | mg/kg |
| Barium | 2 | 2 | 100 | 215 | 231 | NA | NA | mg/kg |
| Beryllium | 2 | 2 | 100 | 1.6 | 1.8 | NA | NA | mg/kg |
| Cadmium | 0 | 2 | 0 | 0.13 | 0.21 | NA | NA | mg/kg |
| Calcium | 2 | 2 | 100 | 33000 | 44000 | NA | NA | mg/kg |
| Chromium | 2 | 2 | 100 | 26.0 | 27.0 | NA | NA | mg/kg |
| Co-60 | 0 | 1 | 0 | 0.022U | 0.022U | NA | NA | pCi/g |
| Cobalt | 2 | 2 | 100 | 8.30 | 8.50 | NA | NA | mg/kg |
| Copper | 2 | 2 | 100 | 23.0 | 27.0 | NA | NA | mg/kg |
| Iron | 2 | 2 | 100 | 22800 | 24600 | NA | NA | mg/kg |
| Lead | 0 | 2 | 0 | 3.25U | 3.35U | NA | NA | mg/kg |
| Magnesium | 2 | 2 | 100 | 9470 | 12100 | NA | NA | mg/kg |
| Manganese | 2 | 2 | 100 | 482 | 545 | NA | NA | mg/kg |
| Nickel | 2 | 2 | 100 | 25.0 | 26.0 | NA | NA | mg/kg |
| Potassium | 2 | 2 | 100 | 3300 | 4400 | NA | NA | mg/kg |

**Table C15-b.** (continued).

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| Silver | 0 | 2 | 0 | 0.445U | 0.48U | NA | NA | mg/kg |
| Sodium | 2 | 2 | 100 | 1520 | 1710 | NA | NA | mg/kg |
| Vanadium | 2 | 2 | 100 | 39.0 | 41.0 | NA | NA | mg/kg |
| Zinc | 2 | 2 | 100 | 67.0 | 78.0 | NA | NA | mg/kg |
| Eu-152 | 0 | 2 | 0 | 0.026U | 0.29U | NA | NA | pCi/g |
| Mercury | 0 | 2 | 0 | 0.01U | 0.01U | NA | NA | mg/kg |
| 1,1,2-Trichloroethane | 1 | 1 | 100 | 0.008 | 0.008 | NA | NA | mg/kg |
| Acetone | 0 | 2 | 0 | 0.006U | 0.006U | NA | NA | mg/kg |
| Methylene Chloride | 1 | 2 | 50 | 0.003U | 0.003 | NA | NA | mg/kg |
| Ag-110m | 0 | 1 | 0 | 0.006U | 0.006U | NA | NA | pCi/g |
| Ce-144 | 0 | 2 | 0 | 0.013U | 0.081U | NA | NA | pCi/g |
| Co-58 | 0 | 2 | 0 | 0.003U | 0.022U | NA | NA | pCi/g |
| Cs-134 | 0 | 1 | 0 | 0.004U | 0.004U | NA | NA | pCi/g |
| Mn-54 | 0 | 2 | 0 | 0.003U | 0.013U | NA | NA | pCi/g |
| Ra-226 | 2 | 2 | 100 | 1.85 | 2.2 | NA | NA | pCi/g |
| Ru-103 | 0 | 1 | 0 | 0.026U | 0.026U | NA | NA | pCi/g |
| Ru-106 | 0 | 2 | 0 | 0.061U | 0.122U | NA | NA | pCi/g |
| Sb-125 | 0 | 2 | 0 | 0.015U | 0.021U | NA | NA | pCi/g |
| Sr-89 | 0 | 1 | 0 | 0.34U | 0.34U | NA | NA | pCi/g |
| Zn-65 | 0 | 1 | 0 | 0.012U | 0.012U | NA | NA | pCi/g |
| Zr-95 | 0 | 2 | 0 | 0.005U | 0.025 | NA | NA | pCi/g |

U = non detect; value represents ½ the detection limit.
NA = not applicable; not calculated

Table C15-c. Summary Exposure Point Concentrations for LCCDA-02 by Bin Depths.

| COPC | 0-0.5 | 0-4 | 0-10 |
|---|---|---|---|
| 1,1,2-Trichloroethane | NA | NA | 4.80E-03 |
| Beryllium | NA | NA | 1.08E+00 |
| Copper | NA | NA | 1.62E+01 |
| Manganese | NA | NA | 3.27E+02 |
| Ra-226 | 2.20E+00 | 2.75E-01 | 1.10E-01 |

EPC units are mg/kg or pCi/g; bin depths are in feet.

NA - Not applicable, no samples were taken at this soil depth.

Table C16-a. Soil Contaminant Screening Process for OU 10-02, OMRE-01 Soils (1997, 1999, 2000).

| | | Step 1 | | Step 2 | Step 3 | | Step 4 | | Site COPC? | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Detected Contaminants | Max Source Concentration (mg/kg) | INEEL Background Concentration (mg/kg) | Max Concentration > Background? | Nontoxic Metal? | Region 9/3 RBC (mg/kg) | Max Concentration > RBC? | INEEL EBSL (mg/kg) | Max Concentration > EBSL? | HHRA | ERA | HHRA[a] |
| 1,1,1-Trichloroethane | 1.30E-02 | NA | NA | No | 7.68E+02 | No | 8.13E+02 | No | No | No | No |
| 2,6-Dinitrotoluene | 3.40E-01 | NA | NA | No | 6.11E+01 | No | 2.18E+00 | No | No | No | No |
| Acetone | 4.40E-02 | NA | NA | No | 1.57E+03 | No | 5.53E-01 | No | No | No | No |
| Aluminum | 1.24E+04 | 1.60E+04 | No | Yes | 7.61E+04 | No | 8.50E+00 | Yes | No | No | No |
| Aroclor-1254 | 6.20E-02 | NA | NA | No | 2.20E-01 | No | 1.66E-01 | No | No | No | Yes[b] |
| Arsenic | 7.20E+00 | 5.80E+00 | Yes | No | 3.90E-01 | Yes | 8.44E-01 | Yes | No[c] | No[c] | No[c] |
| Barium | 4.81E+02 | 3.00E+02 | Yes | No | 5.48E+03 | No | 1.10E+01 | Yes | No | No[d] | No |
| Benzo(a)anthracene | 1.50E-01 | NA | NA | No | 6.20E-01 | No | 3.02E+01 | No | No | No | Yes[b] |
| Benzo(a)pyrene | 2.60E-01 | NA | NA | No | 6.20E-02 | Yes | 2.69E+00 | No | Yes | No | Yes |
| Benzo(b)fluoranthene | 1.00E-01 | NA | NA | No | 6.20E-01 | No | 2.69E+00[e] | No | No | No | Yes[b] |
| Benzo(k)fluoranthene | 9.60E-02 | NA | NA | No | 6.20E+00 | No | 2.69E+00[e] | No | No | No | No |
| Beryllium | 8.40E-01 | 1.80E+00 | No | No | 1.56E+02 | No | 7.14E-01 | Yes | No | No | No |
| bis(2-Ethylhexyl)phthalate | 9.00E-01 | NA | NA | No | 3.50E+01 | No | 2.56E+00[f] | No | No | No | No |
| Butylbenzylphthalate | 2.10E-01 | NA | NA | No | 1.20E+04 | No | 1.43E+01 | No | No | No | No |
| Cadmium | 5.20E+00 | 2.20E+00 | Yes | No | 3.90E+01 | No | 2.36E-03 | Yes | No | No[g] | No[g] |
| Calcium | 1.06E+05 | 2.40E+04 | Yes | Yes | No RBC | No RBC | No EBSL | No EBSL | No | No | No |
| Chromium | 7.19E+01 | 3.30E+01 | Yes | No | 2.10E+02 | No | 1.00E+00 | Yes | No | No[h] | No[h] |
| Chrysene | 2.70E+03 | NA | NA | No | 6.20E+01 | Yes | 2.69E+00[e] | Yes | Yes | Yes | Yes |
| Cobalt | 8.40E+00 | 1.10E+01 | No | No | 4.69E+03 | No | 4.27E-01 | Yes | No | No | No |
| Copper | 2.87E+01 | 2.20E+01 | Yes | No | 2.90E+03 | No | 2.11E+00 | Yes | No | No[i] | No |
| Diethylphthalate | 6.50E-02 | NA | NA | No | 4.90E+04 | No | 1.53E+02 | No | No | No | No |
| Di-n-butylphthalate | 7.50E-01 | NA | NA | No | 6.10E+03 | No | 1.50E+01 | No | No | No | No |
| Di-n-octylphthalate | 1.60E-01 | NA | NA | No | 1.20E+03 | No | 4.71E+01 | No | No | No | No |

**Table C16-a.** (continued).

| Detected Contaminants | Max Source Concentration (mg/kg) | Step 1: INEEL Background Concentration (mg/kg) | Step 1: Max Concentration > Background? | Step 2: Nontoxic Metal? | Step 3: Region 9/3 RBC (mg/kg) | Step 3: Max Concentration > RBC? | Step 4: INEEL EBSL (mg/kg) | Step 4: Max Concentration > EBSL? | Site COPC? HHRA | Site COPC? ERA | Site COPC? HHRA[a] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Ethylbenzene | 1.50E-02 | NA | NA | No | 2.30E+02 | No | 5.52E+01 | No | No | No | No |
| Fluoranthene | 5.20E-02 | NA | NA | No | 2.30E+03 | No | 3.38E+01 | No | No | No | No |
| Iron | 1.96E+04 | 2.40E+04 | No | Yes | 2.35E+04 | No | No EBSL | No EBSL | No | No | No |
| Lead | 2.32E+01 | 1.70E+01 | Yes | No | 4.00E+02 | No | 9.94E-01 | Yes | No | Yes | No |
| Magnesium | 1.66E+04 | 1.20E+04 | Yes | Yes | NO RBC | No RBC | No EBSL | No EBSL | No | No | No |
| Manganese | 5.27E+02 | 4.90E+02 | Yes | No | 1.60E+03 | No | 1.05E+01 | Yes | No | No[j] | No[j] |
| Mercury | 1.40E-01 | 5.00E-02 | Yes | No | 6.10E+00 | No | 3.00E-01 | No | No | No | No |
| Methacrylonitrile | 5.00E-03 | NA | NA | No | 2.06E+00 | No | No EBSL | No EBSL | No | Yes | No |
| Methylene Chloride | 2.30E-02 | NA | NA | No | 8.88E+00 | No | 1.00E+00 | No | No | No | No |
| Nickel | 2.32E+01 | 3.50E+01 | No | No | 1.56E+03 | No | 3.00E+01 | No | No | No | No |
| Potassium | 3.58E+03 | 4.30E+03 | No | Yes | NO RBC | No RBC | No EBSL | No EBSL | No | No | No |
| Pyrene | 9.20E-02 | NA | NA | No | 2.35E+03 | No | 4.22E+01 | No | No | No | No |
| Selenium | 2.90E-01 | 2.20E-01 | Yes | No | 3.91E+02 | No | 1.72E-01 | Yes | No | Yes | No |
| Silver | 5.50E-01 | ND | No | No | 3.91E+02 | No | 2.00E+00 | No | No | No | No |
| Sodium | 2.18E+03 | 3.20E+02 | Yes | Yes | NO RBC | No RBC | No EBSL | No EBSL | No | No | No |
| Thallium | 4.60E-01 | 4.30E-01 | Yes | No | 5.48E+00 | No | 1.01E-01 | Yes | No | No[k] | No |
| Toluene | 2.00E-03 | NA | NA | No | 5.20E+02 | No | 6.04E+01 | No | No | No | No |
| Vanadium | 2.69E+01 | 4.50E+01 | No | No | 5.48E+02 | No | 1.49E+00 | Yes | No | No | No |
| Xylene | 4.60E-02 | NA | NA | No | 2.10E+02 | No | 2.78E-01 | No | No | No | No |
| Zinc | 2.61E+02 | 1.50E+02 | Yes | No | 2.35E+04 | No | 3.29E+00 | Yes | No | No[l] | No |

**Table C16-a.** (continued).

| Detected Contaminants | Max Source Concentration (mg/kg) | Step 1: INEEL Background Concentration (mg/kg) | Step 1: Max Concentration > Background? | Step 2: Nontoxic Metal? | Step 3: Region 9/3 RBC (mg/kg) | Step 3: Max Concentration > RBC? | Step 4: INEEL EBSL (mg/kg) | Step 4: Max Concentration > EBSL? | Site COPC? HHRA | Site COPC? ERA | Site COPC? HHRA[a] |
|---|---|---|---|---|---|---|---|---|---|---|---|

Source: WAG 10, OU 10-04 Database.
"NA" in Step 1 indicates that a background value is not available.
"No RBC" indicates that an EPA Region 9 or 3 risk-based concentration based on residential soil ingestion is not available.
"No EBSL" indicates that an INEEL EBSL is not available.
a. HHRA screening using 1/10th of the RBC (see Section C-1.4.1.3).
b. Aroclor-1254, benzo(a)anthracene, and benzo(b)fluoranthene were identified as possible COPCs during a preliminary screen of contaminants to 1/10th of the RBC. At OMRE-01, only 5 COPCs were identified in this preliminary screening (1/10th of the RBC). Aroclor-1254 and benzo(b)fluoranthene will not be evaluated in the HHRA since both contaminants have maximum concentrations that are less than 1/5 of their RBC and would not show risk if assessed. Benzo(a)anthracene was evaluated in the HHRA spreadsheets for this site, but the results confirmed that no additional risk was presented from this COPC. Total risk, from the dermal absorption of soil pathway (risk driver), at OMRE-01 were very similar to the totals presented in the original HHRA.
c. Arsenic was removed from the ERA & HHRA COPC lists because detected levels are within the arsenic regional background ranges discussed in Appendix K.d. Barium was eliminated as a COPC for the ERA risk assessment because only 1 sample out of 44 exceeded the background value. Next highest detection is 281 mg/kg.
e. The INEEL EBSL for benzo(a)pyrene was used to evaluate benzo(b)fluoranthene, benzo(k)fluoranthene, and chrysene in the ERA because of their similar chemical characteristics. Benzo(a)pyrene is also the most toxic contaminant among the PAHs.
f. The INEEL EBSL for di-2-ethylhexylphthalate was used to evaluate bis(2-ethylhexyl)phthalate because these chemicals are both synonyms of the same contaminant.
g. Cadmium was eliminated as a COPC for the ERA risk assessment because only 1 sample out of 44 exceeded the background value. Next highest detection is 1.1 mg/kg.
h. Chromium was eliminated as a COPC for the ERA risk assessment because only 2 samples out of 44 exceeded the background value. Next highest detection is 32.3 mg/kg.
i. Copper was eliminated as a COPC for the ERA risk assessment because only 2 samples out of 45 exceeded the background value. Next highest detection is 21.6 mg/kg.
j. Manganese was eliminated as a COPC for the ERA risk assessment because only 2 samples out of 44 exceeded the background value. Next highest detection is 441 mg/kg.
k. Thallium was eliminated as a COPC for the ERA risk assessment because only 1 sample out of 44 exceeded the background value. Next highest detection is 0.37 mg/kg.
l. Zinc was eliminated as a COPC for the ERA risk assessment because only 2 samples out of 44 exceeded the background value. Next highest detection is 145 mg/kg.

Table C16-b. Soil Contaminant Screening Process for OU 10-02, OMRE-01 Soils (1997, 1999) Radionuclides Only.

| | | Step 1 | | Step2 | Step 3 | | Step 4 | | Site COPC? | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Detected Contaminants | Max Source Concentration (pCi/g) | INEEL Background Concentration (pCi/g) | Max Concentration >background? | Nontoxic Metal? | Region 9/3 RBC (pCi/g) | Max Concentration >RBC? | INEEL EBSL (pCi/g) | Max Concentration >EBSL? | HHRA | ERA | HHRA[a] |
| Cs-137 | 2.40E+02 | 8.20E-01 | Yes | No | 2.30E-01 | Yes | 4.95E+03 | No | Yes | No | Yes |
| Mn-54 | 1.27E-01 | NA | NA | No | NO RBC | No RBC | 3.53E+03 | No | No[b] | No | No[b] |
| Ra-226 | 4.94E+00 | NA | NA | No | 5.50E-03 | Yes | 2.04E+01 | No | Yes | No | Yes |
| Ru-103 | 1.02E-01 | NA | NA | No | NO RBC | No RBC | 6.38E+03 | No | No[b] | No | No[b] |
| Sr-89 | 2.85E+00 | NA | NA | No | NO RBC | No RBC | 3.34E+03 | No | No[b] | No | No[b] |
| U-235 | 2.74E-01 | NA | NA | No | 1.30E-01 | Yes | 2.27E+01 | No | Yes | No | Yes |

Source: WAG 10, OU 10-04 Database.
"NA" in Step 1 indicates that a background value is not available.
"No RBC" indicates that an EPA Region 9 or 3 risk-based concentration based on residential soil ingestion is not available.
"No EBSL" indicates that an INEEL EBSL is not available.
a. HHRA screening using 1/10th of the RBC (see Section C-1.4.1.3).
b. Mn-54, Ru-103, and Sr-89 removed as COPCs due to short half-lives.

Table C16-c. Summary Statistics for the OMRE Soils—Metals and Organics Only.

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| 1,3-Dichlorobenzene | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| 1,3-Dinitrobenzene | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| Benzene | 0 | 24 | 0 | 0.003U | 0.004U | NA | NA | mg/kg |
| Ethylbenzene | 1 | 24 | 4 | 0.003U | 0.01 | NA | NA | mg/kg |
| Toluene | 1 | 24 | 4 | 0.002U | 0.002 | NA | NA | mg/kg |
| Xylene (total) | 1 | 24 | 4 | 0.003U | 0.027 | NA | NA | mg/kg |
| Aluminum | 41 | 41 | 100 | 7,050 | 12,400 | 9,210 | 1,290 | mg/kg |
| Antimony | 0 | 41 | 0 | 1.85U | 2.85U | NA | NA | mg/kg |
| Arsenic | 39 | 39 | 100 | 2.6 | 7.2 | 4.34 | 1.22 | mg/kg |
| Barium | 41 | 41 | 100 | 146 | 481 | 236.0 | 47.1 | mg/kg |
| Beryllium | 41 | 41 | 100 | 0.52 | 0.84 | 0.675 | 0.08 | mg/kg |
| Cadmium | 13 | 41 | 31.7 | 0.19U | 5.20 | 1.08 | 3.91 | mg/kg |
| Calcium | 41 | 41 | 100 | 13,100 | 106,000 | 54,700 | 22,700 | mg/kg |
| Chromium | 41 | 41 | 100 | 12.6 | 69.3 | 18.0 | 8.9 | mg/kg |
| Cobalt | 41 | 41 | 100 | 5.4 | 8.4 | 6.72 | 0.701 | mg/kg |
| Copper | 41 | 41 | 100 | 10.4 | 28.7 | 16.6 | 3.23 | mg/kg |
| Iron | 41 | 41 | 100 | 9,660 | 19,600 | 14,300 | 2,120 | mg/kg |
| Lead | 41 | 41 | 100 | 2.6 | 23.2 | 13.0 | 4.3 | mg/kg |
| Magnesium | 41 | 41 | 100 | 5,590 | 16,600 | 10,900 | 2,490 | mg/kg |
| Manganese | 41 | 41 | 100 | 244 | 527 | 370 | 59.3 | mg/kg |
| Nickel | 41 | 41 | 100 | 15.7 | 23.2 | 19.7 | 1.79 | mg/kg |
| Potassium | 41 | 41 | 100 | 1110 | 3580 | 2153 | 605 | mg/kg |
| Selenium | 1 | 41 | 2 | 0.095U | 0.29 | NA | NA | mg/kg |

**Table C16-c.** (continued).

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| Silver | 1 | 41 | 2 | 0.185U | 0.55 | NA | NA | mg/kg |
| Sodium | 41 | 41 | 100 | 220 | 2180 | 864 | 516 | mg/kg |
| Thallium | 18 | 41 | 44 | 0.075U | 0.46 | 0.166 | 0.091 | mg/kg |
| Vanadium | 41 | 41 | 100 | 17.8 | 26.9 | 22.7 | 2.25 | mg/kg |
| Zinc | 41 | 41 | 100 | 41.6 | 261 | 71.2 | 39.1 | mg/kg |
| 2,4-Dinitrotoluene | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| 2,6-Dinitrotoluene | 1 | 24 | 4 | 0.165U | .34 | NA | NA | mg/kg |
| Nitrobenzene | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| Acetone | 5 | 23 | 21 | 0.005U | 0.038 | 0.012 | 0.006 | mg/kg |
| 1,1,1,2-Tetrachloroethane | 0 | 2 | 0 | 0.003 | 0.003U | NA | NA | mg/kg |
| 1,1,1-Trichloroethane | 5 | 24 | 21 | 0.003U | 0.013 | 0.003 | 0.002 | mg/kg |
| 1,1,2,2-Tetrachloroethane | 0 | 24 | 0 | 0.003U | 0.004U | NA | NA | mg/kg |
| 1,1,2-Trichloroethane | 0 | 24 | 0 | 0.003U | 0.004U | NA | NA | mg/kg |
| 1,1-Dichloroethane | 0 | 24 | 0 | 0.003U | 0.004U | NA | NA | mg/kg |
| 1,1-Dichloroethene | 0 | 24 | 0 | 0.003U | 0.004U | NA | NA | mg/kg |
| 1,2,3-Trichloropropane | 0 | 2 | 0 | 0.003U | 0.003U | NA | NA | mg/kg |
| 1,2,4,5-Tetrachlorobenzene | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| 1,2,4-Trichlorobenzene | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| 1,2-Dibromo-3-chloropropane | 0 | 2 | 0 | 0.005U | 0.005U | NA | NA | mg/kg |
| 1,2-Dibromoethane | 0 | 2 | 0 | 0.003U | 0.003 | NA | NA | mg/kg |
| 1,2-Dichlorobenzene | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| 1,2-Dichloroethane | 0 | 18 | 0 | 0.003U | 0.004U | NA | NA | mg/kg |
| 1,2-Dichloroethene (total) | 0 | 24 | 0 | 0.003U | 0.004U | NA | NA | mg/kg |
| 1,2-Dichloropropane | 0 | 24 | 0 | 0.003U | 0.004U | NA | NA | mg/kg |

**Table C16-c.** (continued).

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| 1,4-Naphthoquinone | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| 1,4-Phenylenediamine | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| 1-Naphthylamine | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| 2,3,4,6-Tetrachlorophenol | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| 2,4,5-Trichlorophenol | 0 | 25 | 0 | 0.165U | 11,300U | NA | NA | mg/kg |
| 2,4,6-Trichlorophenol | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| 2,4-Dichlorophenol | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| 2,4-Dimethylphenol | 0 | 23 | 0 | 0.165U | 0.22U | NA | NA | mg/kg |
| 2,4-Dinitrophenol | 0 | 25 | 0 | 0.85U | 1,700U | NA | NA | mg/kg |
| 2,6-Dichlorophenol | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| 2-Acetylaminofluorene | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| 2-Butanone(MEK) | 0 | 29 | 0 | 0.003U | 0.014U | NA | NA | mg/kg |
| 2-Chloronaphthalene | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| 2-Chlorophenol | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| 2-Hexanone | 0 | 24 | 0 | 0.01U | 0.014U | NA | NA | mg/kg |
| 2-Methylnaphthalene | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| 2-Methylphenol | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| 2-Naphthylamine | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| 2-Nitroaniline | 0 | 25 | 0 | 0.85U | 1700U | NA | NA | mg/kg |
| 2-Nitrophenol | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| 2-Picoline | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| 3,3'-Dichlorobenzidine | 0 | 25 | 0 | 0.85U | 1700 | NA | NA | mg/kg |
| 3,3'-Dimethylbenzidine | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |

**Table C16-c.** (continued).

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| 3-Nitroaniline | 0 | 25 | 0 | 0.85U | 1,700U | NA | NA | mg/kg |
| 4,6-Dinitro-2-methylphenol | 0 | 25 | 0 | 0.85U | 1,700U | NA | NA | mg/kg |
| 4-Aminobiphenyl | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| 4-Bromophenyl-phenylether | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| 4-Chloro-3-methylphenol | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| 4-Chloroaniline | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| 4-Chlorophenyl-phenylether | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| 4-Methyl-2-Pentanone | 0 | 24 | 0 | 0.01U | 0.014U | NA | NA | mg/kg |
| 4-Methylphenol | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| 4-Nitroaniline | 0 | 25 | 0 | 0.85U | 1,700U | NA | NA | mg/kg |
| 4-Nitrophenol | 0 | 25 | 0 | 0.85U | 1,700U | NA | NA | mg/kg |
| 4-Nitroquinoline-1-oxide | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| 5-Nitro-o-toluidine | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| 7,12-Dimethylbenz(a)anthracene | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| a,a-Dimethylphenethylamine | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| Acenaphthene | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| Acenaphthylene | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| Acetophenone | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| Allyl Chloride | 0 | 2 | 0 | 0.003U | 0.003U | NA | NA | mg/kg |
| Aniline | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| Anthracene | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| Aramite | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| Aroclor-1016 | 0 | 2 | 0 | 0.017U | 0.017U | NA | NA | mg/kg |
| Aroclor-1221 | 0 | 2 | 0 | 0.017U | 0.017U | NA | NA | mg/kg |

**Table C16-c.** (continued).

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| Aroclor-1232 | 0 | 2 | 0 | 0.017U | 0.017 | NA | NA | mg/kg |
| Aroclor-1242 | 0 | 2 | 0 | 0.017U | 0.017 | NA | NA | mg/kg |
| Aroclor-1248 | 0 | 2 | 0 | 0.017U | 0.017 | NA | NA | mg/kg |
| Aroclor-1254 | 1 | 2 | 50 | 0.017U | 0.040 | NA | NA | mg/kg |
| Aroclor-1260 | 0 | 2 | 0 | 0.017U | 0.017 | NA | NA | mg/kg |
| Aroclor-1262 | 0 | 2 | 0 | 0.017U | 0.017 | NA | NA | mg/kg |
| Aroclor-1268 | 0 | 2 | 0 | 0.017U | 0.017 | NA | NA | mg/kg |
| Benzo(a)anthracene | 2 | 25 | 8 | 0.165U | 0.106 | NA | NA | mg/kg |
| Benzo(a)pyrene | 2 | 25 | 8 | 0.165U | 0.166 | NA | NA | mg/kg |
| Benzo(b)fluoranthene | 2 | 25 | 8 | 0.165U | 0.100 | NA | NA | mg/kg |
| Benzo(g,h,i)perylene | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| Benzo(k)fluoranthene | 1 | 25 | 4 | 0.165U | 0.096 | NA | NA | mg/kg |
| Benzyl alcohol | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| bis(2-Chloroethoxy)methane | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| bis(2-Chloroethyl)ether | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| bis(2-Chloroisopropyl)ether | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| bis(2-Ethylhexyl)phthalate | 1 | 25 | 4 | 0.165U | 0.52 | NA | NA | mg/kg |
| Bromodichloromethane | 0 | 24 | 0 | 0.003U | 0.004U | NA | NA | mg/kg |
| Bromoform | 0 | 24 | 0 | 0.003U | 0.004U | NA | NA | mg/kg |
| Bromomethane | 0 | 23 | 0 | 0.005U | 0.007U | NA | NA | mg/kg |
| Butylbenzylphthalate | 1 | 25 | 4 | 0.165U | 0.153 | NA | NA | mg/kg |
| Carbazole | 0 | 23 | 0 | 0.165U | 0.220U | NA | NA | mg/kg |
| Carbon Disulfide | 0 | 24 | 0 | 0.003U | 0.004U | NA | NA | mg/kg |
| Carbon Tetrachloride | 0 | 24 | 0 | 0.003U | 0.004U | NA | NA | mg/kg |

**Table C16-c.** (continued).

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| Chlorobenzene | 0 | 24 | 0 | 0.003U | 0.004U | NA | NA | mg/kg |
| Chlorobenzilate | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| Chloroethane | 0 | 24 | 0 | 0.005U | 0.007U | NA | NA | mg/kg |
| Chloroform | 0 | 24 | 0 | 0.003U | 0.004U | NA | NA | mg/kg |
| Chloromethane | 0 | 24 | 0 | 0.005U | 0.007U | NA | NA | mg/kg |
| Chloroprene | 0 | 2 | 0 | 0.003U | 0.003U | NA | NA | mg/kg |
| Chrysene | 8 | 25 | 32 | 0.17U | 2,550 | 102 | 510 | mg/kg |
| cis-1,2-Dichloroethene | 0 | 2 | 0 | 0.001U | 0.001U | NA | NA | mg/kg |
| cis-1,3-Dichloropropene | 0 | 24 | 0 | 0.003U | 0.004U | NA | NA | mg/kg |
| Di-allate | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| Dibenz(a,h)anthracene | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| Dibenzofuran | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| Dibromochloromethane | 0 | 24 | 0 | 0.003U | 0.004U | NA | NA | mg/kg |
| Dibromomethane | 0 | 2 | 0 | 0.003U | 0.003U | NA | NA | mg/kg |
| Dichlorodifluoromethane | 0 | 2 | 0 | 0.005U | 0.005U | NA | NA | mg/kg |
| Diethylphthalate | 1 | 25 | 4 | 0.165U | 0.065 | NA | NA | mg/kg |
| Dimethoate | 0 | 2 | 0 | 0.152U | 343U | NA | NA | mg/kg |
| Dimethylphthalate | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| Di-n-butylphthalate | 12 | 25 | 48 | 0.165U | 0.75 | 13.9 | 68.5 | mg/kg |
| Di-n-octylphthalate | 2 | 25 | 8 | 0.165U | 0.182 | NA | NA | mg/kg |
| Dinoseb | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| Disulfoton | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| Ethyl methacrylate | 0 | 2 | 0 | 0.003U | 0.003U | NA | NA | mg/kg |
| Ethyl methanesulfonate | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |

**Table C16-c.** (continued).

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| Famphur | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| Fluoranthene | 1 | 25 | 4 | 0.165U | 0.128 | NA | NA | mg/kg |
| Fluorene | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| Hexachlorobenzene | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| Hexachlorobutadiene | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| Hexachlorocyclopentadiene | 0 | 25 | 0 | 0.85U | 1,700U | NA | NA | mg/kg |
| Hexachloroethane | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| Hexachloropropene | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| Indeno(1,2,3-cd)pyrene | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| Iodomethane | 0 | 2 | 0 | 0.003U | 0.003U | NA | NA | mg/kg |
| Isodrin | 0 | 2 | 0 | 0.152U | 343U | NA | NA | mg/kg |
| Isophorone | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| Isosafrole | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| Kepone | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| Mercury | 39 | 41 | 95 | 0.01U | 0.14 | 0.044 | 0.024 | mg/kg |
| Methacrylonitrile | 1 | 2 | 50 | 0.003U | 0.004 | NA | NA | mg/kg |
| Methapyrilene | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| Methyl methacrylate | 0 | 2 | 0 | 0.003U | 0.003U | NA | NA | mg/kg |
| Methyl Parathion | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| Methylene Chloride | 15 | 23 | 65 | 0.002U | 0.023 | 0.007 | 0.006 | mg/kg |
| Methylmethanesulfonate | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| Naphthalene | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| N-Nitrosodiethylamine | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| N-Nitrosodimethylamine | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |

**Table C16-c.** (continued).

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| N-Nitroso-di-n-butylamine | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| N-Nitroso-di-n-propylamine | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| N-Nitrosodiphenylamine | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| N-Nitrosomethylethylamine | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| N-Nitrosomorpholine | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| N-Nitrosopiperidine | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| N-Nitrosopyrrolidine | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| o,o,o-Triethylphosphorothioate | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| o-Toluidine | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| p-(Dimethylamino)azobenzene | 0 | 2 | 0 | 0.17U | 1,870U | NA | NA | mg/kg |
| Parathion | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| Pentachlorobenzene | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| Pentachloroethane | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| Pentachloronitrobenzene | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| Pentachlorophenol | 0 | 25 | 0 | 0.17U | 1,700U | NA | NA | mg/kg |
| Phenacetin | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| Phenanthrene | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| Phenol | 0 | 25 | 0 | 0.165U | 343U | NA | NA | mg/kg |
| Phorate | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| Pronamide | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| Pyrene | 1 | 25 | 4 | 0.165U | 0.092 | NA | NA | mg/kg |
| Pyridine | 0 | 2 | 0 | 0.345U | 700U | NA | NA | mg/kg |
| Safrole | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| Styrene | 0 | 24 | 0 | 0.003U | 0.004U | NA | NA | mg/kg |

**Table C16-c.** (continued).

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| Sulfotep | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| Tetrachloroethene | 0 | 24 | 0 | 0.003U | 0.004U | NA | NA | mg/kg |
| Thionazin | 0 | 2 | 0 | 0.17U | 343U | NA | NA | mg/kg |
| trans-1,2-Dichloroethene | 0 | 2 | 0 | 0.001U | 0.001U | NA | NA | mg/kg |
| trans-1,3-Dichloropropene | 0 | 24 | 0 | 0.003U | 0.004U | NA | NA | mg/kg |
| trans-1,4-Dichloro-2-butene | 0 | 2 | 0 | 0.003U | 0.003U | NA | NA | mg/kg |
| Trichloroethene | 0 | 24 | 0 | 0.003U | 0.004U | NA | NA | mg/kg |
| Trichlorofluoromethane | 0 | 2 | 0 | 0.005U | 0.005U | NA | NA | mg/kg |
| Vinyl Acetate | 0 | 2 | 0 | 0.005U | 0.005U | NA | NA | mg/kg |
| Vinyl Chloride | 0 | 24 | 0 | 0.005U | 0.007U | NA | NA | mg/kg |

U = non detect; value represents ½ the detection limit.
NA = not applicable; not calculated

Table C16-d. Summary Statistics for the OMRE Soils—Radionuclides Only.

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| Am-241 | 1 | 65 | 2 | 0.001U | 0.394 | NA | NA | pCi/g |
| Cs-137 | 50 | 98 | 51 | 0.001U | 240.0 | 8.32 | 30.8 | pCi/g |
| Pu-238 | 1 | 84 | 1 | 0.0U | 0.025 | NA | NA | pCi/g |
| Pu-239 | 10 | 94 | 11 | 0.0U | 0.740 | 0.018 | 0.09 | pCi/g |
| Sr-90 | 44 | 108 | 41 | 0.002U | 37.0 | 1.81 | 5.29 | pCi/g |
| U-234 | 132 | 132 | 100 | 0.575 | 1.61 | 0.871 | 0.144 | pCi/g |
| U-238 | 132 | 132 | 100 | 0.611 | 1.39 | 0.878 | 0.125 | pCi/g |
| U-235 | 127 | 197 | 64 | 0.001U | 0.191 | 0.056 | 0.032 | pCi/g |
| Co-60 | 24 | 92 | 26 | 0.002U | 17.2 | 0.588 | 2.14 | pCi/g |
| Ag-108m | 0 | 56 | 0 | 0.001U | 0.053 | NA | NA | pCi/g |
| Ag-110m | 0 | 50 | 0 | 0.0U | 0.032 | NA | NA | pCi/g |
| Ce-144 | 1 | 59 | 2 | 0.001U | 0.32 | NA | NA | pCi/g |
| Co-58 | 0 | 74 | 0 | 0.0U | 0.053 | NA | NA | pCi/g |
| Cs-134 | 1 | 63 | 2 | 0.0U | 0.096 | NA | NA | pCi/g |
| Eu-152 | 0 | 72 | 0 | 0.001U | 0.315 | NA | NA | pCi/g |
| Eu-154 | 0 | 74 | 0 | 0.003U | 0.186 | NA | NA | pCi/g |
| Eu-155 | 1 | 53 | 2 | 0.001U | 0.111 | NA | NA | pCi/g |
| Mn-54 | 7 | 74 | 9 | 0.001U | 0.127 | NA | NA | pCi/g |
| Nb-95 | 0 | 31 | 0 | 0.003U | 0.053 | NA | NA | pCi/g |
| Ra-226 | 76 | 125 | 61 | 0.166U | 4.06 | 1.89 | 0.874 | pCi/g |
| Ru-103 | 1 | 58 | 2 | 0.0004U | 0.102 | NA | NA | pCi/g |
| Ru-106 | 0 | 72 | 0 | 0.001U | 0.55 | NA | NA | pCi/g |
| Sb-125 | 0 | 75 | 0 | 0.001U | 0.271 | NA | NA | pCi/g |
| Sr-89 | 6 | 24 | 25 | 0.039U | 2.85 | NA | NA | pCi/g |
| Zn-65 | 0 | 64 | 0 | 0.001U | 0.12 | NA | NA | pCi/g |
| Zr-95 | 0 | 68 | 0 | 0.0U | 0.107 | NA | NA | pCi/g |

U = non detect; value represents ½ the detection limit.
NA = not applicable; not calculated

Table C16-e. Summary Exposure Point Concentrations for OMRE by Bin Depths.

| COPC | 0–0.5 | 0–4 | 0–10 |
|---|---|---|---|
| Benzo(a)pyrene | 1.66E-01 | 2.08E-02 | 8.30E-03 |
| Benzo(b)fluoranthene | 1.00E-01 | 1.25E-02 | 5.00E-03 |
| Benzo(k)fluoranthene | 9.60E-02 | 1.20E-02 | 4.80E-03 |
| Chrysene | 2.55E+03 | 3.19E+02 | 1.28E+02 |
| Lead | 1.85E+01 | 1.56E+01 | 1.45E+01 |
| Methacrylonitrile | 3.75E-03 | ND | ND |
| Selenium | 2.83E-01 | 2.86E-01 | 3.39E-01 |

a. EPC units are mg/kg or pCi/g; bin depths are in feet.

ND - Not detected, there is no detected concentraiton of the contaminat at this soil depth.

Table C16-f. Summary Exposure Point Concentrations for OMRE (radionuclides only) by Bin Depths.

| COPC | 0–0.5 | 0–4 | 0–10 |
|---|---|---|---|
| Cs-137 | 3.63E_01 | 1.22E+01 | 1.43E+01 |
| Ra-226 | 2.21E_00 | 2.19E+00 | 2.20E+00 |
| U-235 | 6.69E-02 | 6.34E-02 | 6.81E-02 |

a. EPC units are mg/kg or pCi/g; bin depths are in feet.

Table C17-a. Screened Chemicals CFA-633.

| | | | Step 1 | | Step 2 | Step 3 | | Step 4 | | Site COPC? | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Detected Contaminants | Site Sampled | Max Source Concentration (mg/kg or pCi/g) | INEEL Background Concentration (mg/kg or pCi/g) | Max Concentration >Background? | Nontoxic Metal? | Region 9/3 RBC (mg/kg or pCi/g) | Max Concentration > RBC? | INEEL EBSL (mg/kg or pCi/g) | Max Concentration > EBSL? | HHRA | ERA | HHRA[a] |
| 1,3,5-Trinitrobenzene | CFA-633 | 4.00E-01 | NA | NA | No | 1.83E+03 | No | No EBSL | No EBSL | No | Yes | No |
| 2,4,6-Trinitrotoluene | CFA-633 | 3.07E+02 | NA | NA | No | 1.62E+01 | Yes | No EBSL | No EBSL | Yes | Yes | Yes |
| HMX | CFA-633 | 2.55E+01 | NA | NA | No | 3.06E+03 | No | No EBSL | No EBSL | No | Yes | No |
| RDX | CFA-633 | 1.30E+02 | NA | NA | No | 4.42E+00 | Yes | No EBSL | No EBSL | Yes | Yes | Yes |

Source: WAG 10, OU 10-04 Database.
"NA" in Step 1 indicates that a background value is not available.
"No RBC" indicates that an EPA Region 9 or 3 risk-based concentration based on residential soil ingestion is not available.
"No EBSL" indicates that an INEEL EBSL is not available.
a. HHRA screening using 1/10th of the RBC (see Section C-1.4.1.3).

Table C17-b. Summary Statistics for the CFA-633 IA Post Soils.

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 3 | 6 | 50 | 0.075U | 0.400 | 0.171 | 0.128 | mg/kg |
| 2,4,6-Trinitrotoluene | 48 | 68 | 71 | 0.10U | 307 | 10.5 | 46 | mg/kg |
| HMX | 3 | 6 | 50 | 0.10U | 25.5 | 4.65 | 10.2 | mg/kg |
| RDX | 54 | 68 | 79 | 0.20U | 130 | 13.3 | 30.3 | mg/kg |

U = non detect; value represents ½ the detection limit.

Table C17-c. CFA-633 Exposure Point Concentration Calculations by Bin Depths.

| COPC | 0–0.5 | 0–4 | 0–10 |
|---|---|---|---|
| 2,4,6-Trinitrotoluene | 6.43E+00 | 8.03E-01 | 3.21E-01 |
| RDX[a] | 1.89E+01 | 2.37E+00 | 9.46E-01 |
| 1,3,5-trinitrobenzene | 4.00E-01 | 5.00E-02 | 2.00E-02 |
| HMX | 2.55E+01 | 3.19E+00 | 1.28E+00 |

EPC units are mg/kg or pCi/g, bin depths are in feet.

a. Before the EPCs were clacualted for the ERA, six samples were removed from the data set, because they were considered "hot spots." See discussion in Appendix F under the results summary for CFA-633. These new EPCs for the ERA are as follows: 6.30E+00 (for 0-0.5 ft), 7.87-01 (for 0-4 ft), and 3.15E-01 (for 0-10 ft).

Table C18-a. Screened Chemicals Experimental Field Station.

| Detected Contaminants | Site Sampled | Max Source Concentration (mg/kg or pCi/g) | Step 1: INEEL Background Concentration (mg/kg or pCi/g) | Step 1: Max Concentration > background? | Step 2: Nontoxic Metal? | Step 3: Region 9/3 RBC (mg/kg or pCi/g) | Step 3: Max Concentration > RBC? | Step 4: INEEL EBSL (mg/kg or pCi/g) | Step 4: Max Concentration > EBSL? | Site COPC? HHRA | Site COPC? ERA | Site COPC? HHRA[a] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | Field Station Area #1 | 8.00E+01 | NA | NA | No | 1.83E+03 | No | No EBSL | No EBSL | No | Yes | No |
| 1,3-Dinitrobenzene | Field Station Area #1 | 8.80E-01 | NA | NA | No | 6.11E+00 | No | 7.82E-02 | Yes | No | Yes | Yes[b] |
| 2,4,6-Trinitrotoluene | Field Station Area #1 | 1.10E+03 | NA | NA | No | 1.62E+01 | Yes | No EBSL | No EBSL | Yes | Yes | Yes |
| 2,4-Dinitrotoluene | Field Station Area #1 | 3.20E-01 | NA | NA | No | 1.22E+02 | No | 1.54E+00 | No | No | No | No |
| 4-Amino-2,6-Dinitrotoluene | Field Station Area #1 | 8.00E+00 | NA | NA | No | 4.70E+00 | Yes | No EBSL | No EBSL | Yes | Yes | Yes |
| Chloride | Field Station Area #1 | 1.80E+02 | NA | NA | No | No RBC | No RBC | 9.35E+00 | Yes | No[c] | No[c] | No |
| Fluoride | Field Station Area #1 | 2.20E+02 | NA | NA | No | 3.67E+03 | No | 2.69E+00 | Yes | No | No[d] | No |
| Nitrate | Field Station Area #1 | 5.30E+02 | NA | NA | No | 1.25E+05 | No | 1.84E+01 | Yes | No | Yes | No |
| Nitrite | Field Station Area #1 | 8.80E+01 | NA | NA | No | 7.82E+03 | No | No EBSL | No EBSL | No | Yes | No |
| Sulfate | Field Station Area #1 | 3.10E+02 | NA | NA | No | No RBC | No RBC | 1.72E+01 | Yes | No | No[e] | No |

**Table C18-a.** (continued).

| Detected Contaminants | Site Sampled | Max Source Concentration (mg/kg or pCi/g) | Step 1: INEEL Background Concentration (mg/kg or pCi/g) | Step 1: Max Concentration > background? | Step 2: Nontoxic Metal? | Step 3: Region 9/3 RBC (mg/kg or pCi/g) | Step 3: Max Concentration > RBC? | Step 4: INEEL EBSL (mg/kg or pCi/g) | Step 4: Max Concentration > EBSL? | Site COPC? HHRA | Site COPC? ERA | Site COPC? HHRA[a] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fluoride | Field Station Area #2 | 2.40E+02 | NA | NA | No | 3.67E+03 | No | 2.69E+00 | Yes | No | No[d] | No |
| Nitrate | Field Station Area #2 | 2.60E+02 | NA | NA | No | 1.25E+05 | No | 1.84E+01 | Yes | No | Yes | No |
| Nitrite | Field Station Area #2 | 9.20E+01 | NA | NA | No | 7.82E+03 | No | No EBSL | No EBSL | No | Yes | No |
| Sulfate | Field Station Area #2 | 3.60E+02 | NA | NA | No | No RBC | No RBC | 1.72E+01 | Yes | No[e] | No[e] | No |

Source: WAG 10, OU 10-04 Database.
"NA" in Step 1 indicates that a background value is not available.
"No RBC" indicates that an EPA Region 9 or 3 risk-based Concentration based on residential soil ingestion is not available.
"No EBSL" indicates that an INEEL EBSL is not available.
a. HHRA screening using 1/10th of the RBC (see Section C-1.4.1.3).
b. 1,3-Dinitrobenzene was identified as a possible COPC during a preliminary screen of contaminants to 1/10th of the RBC. At the Experimental Field Station, only 3 COPCs were identified in this preliminary screening (1/10th of the RBC). 1,3-dinitrobenzene will not be evaluated in the HHRA since the maximum concentration of this contaminant is less than 1/3 of its RBC and would not show risk if assessed.
c. Chloride was removed from the ERA and HHRA COPC list because this compound is essential for all receptors and is not considered toxic except at extremely high concentrations (Bodek et al. 1988). See Appendix F.
d. Fluoride was removed from the ERA COPC list since the maximum detected concentration was within background levels (see Appendix F).
e. Sulfate was removed from the ERA and HH RA COPC list because this compound is essential for all receptors and is not considered toxic except at extremely high concentrations (Bodek et al. 1988). See Appendix F.

Table C18-b. Summary Statistics for the Experimental Field Station Soils-Area #1.

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 10 | 11 | 91 | 0.14U | 80.0 | 37.9 | 31.2 | mg/kg |
| 1,3-Dinitrobenzene | 1 | 11 | 9 | 0.11U | 0.88 | NA | NA | mg/kg |
| 2,4,6-Trinitrotoluene | 10 | 11 | 91 | 0.14U | 1100 | 261 | 370 | mg/kg |
| 2-Amino-4,6-Dinitrotoluene | 0 | 9 | 0 | 0.135U | 14U | NA | NA | mg/kg |
| 4-Amino-2,6-Dinitrotoluene | 2 | 11 | 18 | 0.135U | 8.0 | NA | NA | mg/kg |
| Chloride | 4 | 9 | 44 | 37.5U | 180 | 80.8 | 47.7 | mg/kg |
| Fluoride | 7 | 9 | 78 | 80.0U | 220 | 176 | 59.4 | mg/kg |
| Nitrate | 9 | 9 | 100 | 140 | 530 | 296 | 115 | mg/kg |
| Sulfate | 9 | 9 | 100 | 210 | 310 | 280 | 32.8 | mg/kg |
| 2,4-Dinitrotoluene | 2 | 11 | 18 | 0.135U | 0.32 | NA | NA | mg/kg |
| 2,6-Dinitrotoluene | 0 | 11 | 0 | 0.115U | 14U | NA | NA | mg/kg |
| 2-Nitrotoluene | 0 | 11 | 0 | 0.135U | 14U | NA | NA | mg/kg |
| 3-Nitrotoluene | 0 | 11 | 0 | 0.135U | 14U | NA | NA | mg/kg |
| 4-Nitrotoluene | 0 | 11 | 0 | 0.135U | 14U | NA | NA | mg/kg |
| HMX | 0 | 11 | 0 | 0.135U | 14U | NA | NA | mg/kg |
| Nitrobenzene | 0 | 11 | 0 | 0.115U | 14U | NA | NA | mg/kg |
| RDX | 0 | 11 | 0 | 0.135U | 14U | NA | NA | mg/kg |
| Tetryl | 0 | 11 | 0 | 0.135U | 14U | NA | NA | mg/kg |
| Bromide | 0 | 9 | 0 | 110U | 115U | NA | NA | mg/kg |
| Nitrite | 9 | 9 | 100 | 41.0 | 88 | 67.8 | 17.2 | mg/kg |
| Orthophosphate | 0 | 9 | 0 | 110U | 115U | NA | NA | mg/kg |

U = non detect; value represents ½ the detection limit.
NA = not applicable; not calculated

Table C18-c. Summary Statistics for the Experimental Field Station Soils-Area #2.

| Analyte | Number of Detects | Number of Samples | % Detects | Minimum | Maximum | Average | Std. Deviation | Units |
|---|---|---|---|---|---|---|---|---|
| 1,3,5-Trinitrobenzene | 0 | 8 | 0 | 0.14U | 0.14U | NA | NA | mg/kg |
| 1,3-Dinitrobenzene | 0 | 8 | 0 | 0.14U | 0.14U | NA | NA | mg/kg |
| 2,4,6-Trinitrotoluene | 0 | 8 | 0 | 0.14U | 0.14U | NA | NA | mg/kg |
| 2-Amino-4,6-Dinitrotoluene | 0 | 8 | 0 | 0.14U | 0.14U | NA | NA | mg/kg |
| 4-Amino-2,6-Dinitrotoluene | 0 | 8 | 0 | 0.14U | 0.14U | NA | NA | mg/kg |
| Chloride | 0 | 8 | 0 | 39.0U | 135U | NA | NA | mg/kg |
| Fluoride | 4 | 8 | 50 | 70.0U | 240 | 154 | 74.0 | mg/kg |
| Nitrate | 8 | 8 | 100 | 110 | 260 | 201 | 44.2 | mg/kg |
| Sulfate | 8 | 8 | 100 | 230 | 360 | 298 | 47.7 | mg/kg |
| 2,4-Dinitrotoluene | 0 | 8 | 0 | 0.14U | 0.14U | NA | NA | mg/kg |
| 2,6-Dinitrotoluene | 0 | 8 | 0 | 0.14U | 0.14U | NA | NA | mg/kg |
| 2-Nitrotoluene | 0 | 8 | 0 | 0.14U | 0.14U | NA | NA | mg/kg |
| 3-Nitrotoluene | 0 | 8 | 0 | 0.14U | 0.14U | NA | NA | mg/kg |
| 4-Nitrotoluene | 0 | 8 | 0 | 0.14U | 0.14U | NA | NA | mg/kg |
| HMX | 0 | 8 | 0 | 0.14U | 0.14U | NA | NA | mg/kg |
| Nitrobenzene | 0 | 8 | 0 | 0.14U | 0.14U | NA | NA | mg/kg |
| RDX | 0 | 8 | 0 | 0.14U | 0.14U | NA | NA | mg/kg |
| Tetryl | 0 | 8 | 0 | 0.14U | 0.14U | NA | NA | mg/kg |
| Bromide | 0 | 8 | 0 | 110U | 115U | NA | NA | mg/kg |
| Nitrite | 8 | 8 | 100 | 30.0 | 92.0 | 61.3 | 18.5 | mg/kg |
| Orthophosphate | 0 | 8 | 0 | 110U | 115U | NA | NA | mg/kg |

U = non detect; value represents 1/2 the detection limit.

NA = not applicable, not calcualted.

Table C18-d. Experimental Field Station Exposure Point Concentrations Area #1 by Bin Depths.

| COPC | 0-0.5 | 0-4 | 0-10 |
|---|---|---|---|
| 1,3,5-Trinitrobenzene | 8.00E+01 | 1.53E+01 | 6.10E+00 |
| 1,3-Dinitrobenzene | 1.40E+01 | 2.52E+00 | 1.01E+00 |
| 2,4,6-Trinitrotoluene | 1.10E+03 | 1.42E+02 | 5.67E+01 |
| 4-Amino-2,6-Dinitrotoluene | 1.40E+01 | 1.88E+00 | 7.51E-01 |
| Nitrate | 4.06E+02 | 2.96E+02 | 1.18E+02 |
| Nitrite | 8.27E+01 | 6.46E+01 | 2.58E+01 |

EPC units are mg/kg or pCi/g; bin depths are in feet.

Table C18-e. Experimental Field Station Exposure Point Concentrations Area #2 by Bin Depths.

| COPC | 0-0.5 | 0-4 | 0-10 |
|---|---|---|---|
| Nitrate | 2.46E+02 | 2.23E+02 | 8.93E+01 |
| Nitrite | 8.14E+01 | 7.40E+01 | 2.96E+01 |

EPC units are mg/kg or pCi/g; bin depths are in feet.