# APPENDIX G
# SUMMARY OF SCREENING LEVELS

# APPENDIX G: SUMMARY OF SCREENING LEVELS

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## TABLES

# G.1 SOIL SCREENING LEVELS

## G.1.1 Leaching-Based Soil Screening Level Hierarchy

The leaching-based soil screening levels (LSSLs) were obtained via the following hierarchy:

- NDEP Leaching-based Basic Comparison Levels (LBCLs) (NDEP 2023). The NDEP LBCL for 4,4'-DDE was used as a surrogate LSSL for 2,4'-DDE.
- United States Environmental Protection Agency (USEPA) Regional Screening Levels of soil for protection of groundwater, based on Maximum Contaminant Levels (MCL) in groundwater (RSL(M)) (USEPA 2023).
- USEPA Regional Screening Levels of soil for protection of groundwater, based on non-MCL groundwater screening levels (RSL) (USEPA 2023).
- Calculated by Ramboll (Table G-1). Ramboll calculated the LSSLs in accordance with NDEP methodology (2023) using the following equation:

$$LSSL = DAF * RBGC * \left(K_d + \frac{\theta_w}{\rho_b} + \frac{K'_H * \theta_A}{\rho_b}\right)$$

Where:

LSSL = Leaching-based soil screening level (mg/kg)

DAF = Dilution attenuation factor (unitless, generally 1 or 20)

RBGC = Risk-based Groundwater Concentration (e.g., MCL or tap water BCL, mg/L)

$K_d$ = Soil-water partition coefficient (chemical-specific, $L_W/kg$)

$\theta_w$ = Moisture content (0.3 $L_W/L_T$)

$\rho_b$ = Soil dry bulk density (1.5 $kg/L_T$)

$K'_H$ = Henry's law constant (chemical-specific, $L_W/L_A$)

$\theta_A$ = Air-filled porosity (0.13 $L_A/L_T$)

The chemical-specific physical parameters (i.e., $K_d$ and $K'_H$) were obtained from the NDEP Basic Comparison Level (BCL) table, the USEPA Regional Screening Level (RSL) table, or other recommended sources (NDEP 2023 and USEPA 2023).

All NDEP-derived LBCLs (Table D1, NDEP 2023) are also presented in Table G-1. The LBCL for perchlorate in this table was recalculated using the federal Preliminary Remediation Goal (PRG) of 15 µg/L, and the LBCL for uranium was recalculated using the Primary MCL of 0.03 mg/L. The LBCL for delta-Hexachlorocyclohexane was recalculated to include the default fraction of organic carbon in soil of 0.002.

LSSLs for the potential COPCs within OU-1 are compiled in Table G-2. These LSSLs conservatively assume a dilution attenuation factor (DAF) of 1. Dilution-attenuation processes are physical, chemical, and biological processes that tend to reduce the eventual contaminant concentration at the receptor point and are expressed by a DAF (USEPA 1996). To be conservative, the LSSLs presented in Table G-2 assume no dilution or attenuation between the source and the receptor (i.e., a DAF of 1). USEPA guidance indicates that a DAF of 1 is to be used at sites where little or no dilution or attenuation of soil leachate concentrations is expected, such as sites with shallow water tables, fractured media, karst

topography, or source size greater than 30 acres (USEPA 1996). Within OU-1, groundwater is not shallow and fractured media or karst topography is not present. Source sizes are anticipated to be small for many potential COPCs, therefore a higher DAF may be appropriate for these potential COPCs within OU-1. The updated Phase 5 Groundwater Model was used to estimate a site-specific DAF for OU-1 using horizontal and vertical flow data. The DAF can be estimated (USEPA 1996) by:

$$DAF = 1 + \frac{Kid}{IL}$$

Where:

K = Aquifer hydraulic conductivity (m/year)

i = Hydraulic gradient (m/m)

I = Infiltration rate (m/year)

d = Mixing zone depth (m)

L = Source length parallel to water flow (m)

The ratio $^{Kid}/_{IL}$ in the formula above is regarded as the ratio of the horizontal flow to the recharge rate. Layer 2 of the model is the first widely saturated layer and the DAF was calculated for every cell in the model in layer 2. By using the cell-by-cell flow from the model, a DAF was calculated assuming a source length of 50 feet (ft) and a mixing zone depth of 10 ft. Cells with zero recharge in the model were not considered. The average DAF in OU-1 is calculated to be 70.

The relationship between the LSSL and the DAF is linear, so that an LSSL with a DAF of 20 is 20 times higher than the LSSL with a DAF of 1.

### G.1.2 Human Health-Based Soil Screening Level Hierarchy

The human health-based soil screening levels (HSSLs) were obtained via the following hierarchy:

1. Site-specific values were used for Arsenic and Dioxin/Furan Toxicity Equivalence (TEQ). For Arsenic, in response to Tronox's August 13, 2010 errata to the Removal Action Work Plan (Northgate 2010b), a target remediation goal of 7.2 milligrams per kilogram (mg/kg) was approved by NDEP on August 20, 2010 (NDEP 2010c). For the Dioxin/Furan TEQ, based on a bioaccessibility study performed in 2010 (Northgate 2010a), NDEP approved a Site-specific soil screening level of 2,700 picograms per gram (pg/g) (NDEP 2010a, b).
2. NDEP BCL table (NDEP 2023). The lowest level among the indoor and outdoor worker BCLs was used. If both cancer and non-cancer endpoint comparison levels were available, the minimum level was taken.
3. USEPA RSL table for industrial soil (USEPA 2023).

### G.1.3 Soil Screening Level Summary

All soil screening levels have been compiled according to the above hierarchies and are presented in Table G-2.

## G.2 GROUNDWATER SCREENING LEVELS

The groundwater screening levels (GWSLs) were obtained via the following hierarchy:

1. Primary Maximum Contaminant Levels (MCL) (USEPA)
2. Maximum Contaminant Level Goal (MCLG) (USEPA), if goal is greater than zero.
3. Preliminary Remediation Goal (PRG) for perchlorate (USEPA 2008 and USEPA 2009).
4. NDEP BCL table (NDEP 2023) for residential water.
5. USEPA RSL table for tap water (USEPA 2023).
6. Screening levels for dioxins were obtained by dividing the primary MCL of 2,3,7,8-TCDD by the congener toxic equivalency factor (TEF) (Van den Berg et al. 2006).

All groundwater screening levels have been compiled according to the above hierarchy and are presented in Table G-3.

## G.3 SOIL GAS SCREENING LEVELS

The soil gas screening levels (SGSLs) were the lower of the human health risk-based target concentrations (RBTCs) derived for cancer and noncancer end-points, representing the concentration of a chemical in soil gas protective of human health for the current and potential future populations present in the Operations Area in OU-1 and in the Off-Site Study Area in OU-2.

As a conservative measure, the soil gas RBTCs for the cancer end-point were calculated to correspond to a target cancer risk of 1 x $10^{-6}$ (the lower end of the target risk range),[1] and the noncancer soil gas RBTCs were calculated to correspond to a target hazard quotient (HQ) of one.[2] Based on the current and potential future land use and exposure populations in OU-1 and OU-2, the vapor inhalation of indoor air pathway represents the most conservative exposure scenario as the exposures to VOCs in outdoor air (for the outdoor commercial/industrial workers) and trench air (for the construction workers) are expected to be much lower than the exposures to VOCs in indoor air. Therefore, the soil gas screening levels were developed to evaluate the vapor intrusion pathways for the following scenarios:

- Inhalation of VOCs migrating from soil gas (at 5 and 10 ft below ground surface [bgs]) to indoor air in a slab-on-grade building for indoor commercial/industrial workers in the Operations Area in OU-1.
- Inhalation of VOCs migrating from soil gas (at 5, 10 and 15 ft bgs) to indoor air in a slab-on-grade building for indoor commercial/industrial workers and residents in the Off-Site Study Area in OU-2.

The equation used to calculate soil gas cancer RBTCs for vapor migration to indoor air is as follows:

$$RBTC_{SG.c} = \frac{TR}{IF_{inh} \times \alpha \times IUR}$$

where:

| | | |
|---|---|---|
| $RBTC_{SG.c}$ | = | Risk-Based Concentration, soil gas, carcinogenic endpoint ($\mu g/m^3$) |
| TR | = | Target Risk (unitless) |
| $IF_{inh}$ | = | Inhalation Intake Factor (unitless) |
| α | = | Transfer Factor for soil gas migrating to indoor air ($\mu g/m^3$ per $\mu g/m^3$) |
| IUR | = | Inhalation Unit Risk $(\mu g/m^3)^{-1}$ |

[1] The National Contingency Plan (NCP) (40 Code of Federal Regulations [CFR] § 300) is cited as the basis for the target cancer risk range established by NDEP (2023). According to the NCP, lifetime incremental cancer risks posed by a site should not exceed of one in a million (1 x $10^{-6}$) to one hundred in a million (1 x $10^{-4}$).

[2] According to the NCP and NDEP (2023), noncarcinogenic chemicals should not be present at levels expected to cause adverse health effects (i.e., a hazard index [HI] greater than one).

The equation used to calculate soil gas noncancer RBTCs for vapor migration to indoor air is as follows:

$$RBTC_{SG.nc} = \frac{THQ}{IF_{inh} \times \alpha / RfC_{inh}}$$

where:

| | | |
|---|---|---|
| $RBTC_{SG.nc}$ | = | Risk-Based Concentration, soil gas, noncarcinogenic endpoint (µg/m$^3$) |
| THQ | = | Target Hazard Quotient (unitless) |
| $IF_{inh}$ | = | Inhalation Intake Factor (unitless) |
| α | = | Transfer Factor for soil gas migrating to indoor air (µg/m$^3$ per µg/m$^3$) |
| $RfC_{inh}$ | = | Inhalation Reference Concentration (µg/m$^3$) |

The intake factors for inhalation of volatile compounds migrating from soil gas to indoor air were calculated using the default exposure assumptions for commercial/industrial workers and residents recommended by NDEP (NDEP 2023) and USEPA (USEPA 2023), as shown in Table G-4. The transfer factors were estimated using the screening-level model described by Johnson and Ettinger (1991). Specifically, the USEPA Spreadsheet Modeling Subsurface Vapor Intrusion, version 6.0 (USEPA 2017) was used. The calculation of transfer factors was based on parameters describing the properties of the chemicals evaluated, the vadose zone, the surface barrier, and the air dispersion zone. The modeling parameters used for OU-1 and OU-2 are presented in Tables G-5 and G-6, respectively. The physical/chemical properties and toxicity values for all analytes in the soil gas were selected in accordance with NDEP's recommendation (NDEP 2023); the details will be discussed and presented in the forthcoming revised soil gas and groundwater baseline health risk assessment (BHRA) reports for OU-1 and OU-2. The site-specific soil properties used in the vapor intrusion modeling for OU-1 and OU-2 are presented in Tables G-7 and G-8, respectively.

The soil gas screening levels for soil gas for indoor commercial/industrial workers in OU-1 are presented in Table G-9. The soil gas screening levels for indoor commercial/industrial workers and residents in OU-2 are presented in Tables G-10 and G-11, respectively.

## G.4 REFERENCES


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# TABLES

**TABLE G-1. Calculation of Leaching-Based Soil Screening Levels by NDEP and Ramboll**
**Nevada Environmental Response Trust Site**
**Henderson, Nevada**

| Chemical | RBGC ($mg/L_w$) | $K_d$ ($L_w/kg_s$) | $\theta_w$ ($L_w/L_T$) | $\rho_b$ ($kg_s/L_T$) | $\theta_a$ ($L_a/L_T$) | $K'_H$ ($L_w/L_a$) | LSSL ($mg/kg_s$) DAF = 1 | LSSL ($mg/kg_s$) DAF = 20 | RBGC Note | $K_d$ Note | $K'_H$ Note |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Developed by NDEP** | | | | | | | | | | | |
| Aluminum | 3.3E+01 | 1.5E+03 | 0.30 | 1.5 | 0.13 | 0.0E+00 | 5.0E+04 | 1.0E+06 | a | Kd a | - |
| Bromide | 1.3E+01 | 7.5E+00 | 0.30 | 1.5 | 0.13 | 0.0E+00 | 1.0E+02 | 2.1E+03 | a | Kd a | - |
| Boron | 6.7E+00 | 3.0E+00 | 0.30 | 1.5 | 0.13 | 0.0E+00 | 2.1E+01 | 4.3E+02 | a | Kd a | - |
| Chlorate | 1.0E+00 | 8.3E-01 | 0.30 | 1.5 | 0.13 | 0.0E+00 | 1.0E+00 | 2.1E+01 | a | Kd a | - |
| Cobalt | 1.0E-02 | 4.5E+01 | 0.30 | 1.5 | 0.13 | 0.0E+00 | 4.5E-01 | 9.1E+00 | a | Kd a | - |
| Copper | 1.3E+00 | 3.5E+01 | 0.30 | 1.5 | 0.13 | 0.0E+00 | 4.6E+01 | 9.2E+02 | b | Kd a | - |
| Iron | 2.3E+01 | 2.5E+01 | 0.30 | 1.5 | 0.13 | 0.0E+00 | 5.9E+02 | 1.2E+04 | a | Kd a | - |
| alpha-Hexachlorocyclohexane | 1.0E-02 | 2.5E+00 | 0.30 | 1.5 | 0.13 | 4.4E-04 | 2.7E-02 | 5.3E-01 | a | Kd c | KH a |
| beta-Hexachlorocyclohexane | 2.0E-03 | 2.5E+00 | 0.30 | 1.5 | 0.13 | 3.1E-05 | 5.4E-03 | 1.1E-01 | a | Kd c | KH a |
| delta-Hexachlorocyclohexane | 1.0E-02 | 5.6E+00 | 0.30 | 1.5 | 0.13 | 2.1E-04 | 5.8E-02 | 1.2E+00 | a | Kd f | KH a |
| Lithium | 6.7E-02 | 3.0E+02 | 0.30 | 1.5 | 0.13 | 0.0E+00 | 2.0E+01 | 4.0E+02 | a | Kd a | - |
| Magnesium | 1.9E+02 | 4.5E+00 | 0.30 | 1.5 | 0.13 | 0.0E+00 | 8.9E+02 | 1.8E+04 | a | Kd a | - |
| Manganese | 4.7E+00 | 6.5E+01 | 0.30 | 1.5 | 0.13 | 0.0E+00 | 3.0E+02 | 6.1E+03 | a | Kd a | - |
| Mercury | 2.0E-03 | 5.2E+01 | 0.30 | 1.5 | 0.13 | 3.5E-01 | 1.0E-01 | 2.1E+00 | b | Kd b | KH b |
| Molybdenum | 1.7E-01 | 2.0E+01 | 0.30 | 1.5 | 0.13 | 0.0E+00 | 3.4E+00 | 6.7E+01 | a | Kd a | - |
| Niobium | 3.3E-03 | 3.5E+02 | 0.30 | 1.5 | 0.13 | 0.0E+00 | 1.2E+00 | 2.3E+01 | a | Kd a | - |
| Nitrate (as N) | 1.0E+01 | 5.0E-01 | 0.30 | 1.5 | 0.13 | 0.0E+00 | 7.0E+00 | 1.4E+02 | b | Kd d | - |
| Nitrate (as $NO_3$) | 4.4E+01 | 5.0E-01 | 0.30 | 1.5 | 0.13 | 0.0E+00 | 3.1E+01 | 6.2E+02 | c | Kd d | - |
| Perchlorate | 1.5E-02 | 8.3E-01 | 0.30 | 1.5 | 0.13 | 0.0E+00 | 1.5E-02 | 3.1E-01 | f | Kd e | - |
| Platinum | 1.3E-01 | 9.0E+01 | 0.30 | 1.5 | 0.13 | 0.0E+00 | 1.2E+01 | 2.4E+02 | b | Kd a | - |
| Silver | 1.7E-01 | 8.3E+00 | 0.30 | 1.5 | 0.13 | 0.0E+00 | 1.4E+00 | 2.8E+01 | a | Kd b | - |
| Titanium | 1.3E+02 | 1.0E+03 | 0.30 | 1.5 | 0.13 | 0.0E+00 | 1.3E+05 | 2.7E+06 | a | Kd a | - |
| Tungsten | 2.7E-02 | 1.5E+02 | 0.30 | 1.5 | 0.13 | 0.0E+00 | 4.0E+00 | 8.0E+01 | a | Kd a | - |
| Uranium | 3.0E-02 | 4.5E+02 | 0.30 | 1.5 | 0.13 | 0.0E+00 | 1.4E+01 | 2.7E+02 | b | Kd a | - |
| **Developed by Ramboll** | | | | | | | | | | | |
| 1,2,3,4,6,7,8-Heptachlorodibenzofuran | 3.0E-06 | 1.3E+03 | 0.30 | 1.5 | 0.13 | 5.8E-04 | 3.9E-03 | 7.8E-02 | d | Kd g | KH c |
| 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin | 3.0E-06 | 2.3E+03 | 0.30 | 1.5 | 0.13 | 7.2E-03 | 7.0E-03 | 1.4E-01 | d | Kd g | KH c |
| 1,2,3,4,7,8,9-Heptachlorodibenzofuran | 3.0E-06 | 1.3E+03 | 0.30 | 1.5 | 0.13 | 5.8E-04 | 3.9E-03 | 7.8E-02 | d | Kd g | KH c |
| 1,2,3,4,7,8-Hexachlorodibenzofuran | 3.0E-07 | 7.8E+02 | 0.30 | 1.5 | 0.13 | 1.6E-03 | 2.3E-04 | 4.7E-03 | d | Kd g | KH c |
| 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin | 3.0E-07 | 1.4E+03 | 0.30 | 1.5 | 0.13 | 1.6E-04 | 4.2E-04 | 8.3E-03 | d | Kd g | KH c |
| 1,2,3,6,7,8-Hexachlorodibenzofuran | 3.0E-07 | 7.8E+02 | 0.30 | 1.5 | 0.13 | 1.6E-03 | 2.3E-04 | 4.7E-03 | d | Kd g | KH c |
| 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin | 3.0E-07 | 1.4E+03 | 0.30 | 1.5 | 0.13 | 7.9E-05 | 4.2E-04 | 8.3E-03 | d | Kd g | KH c |
| 1,2,3,7,8,9-Hexachlorodibenzofuran | 3.0E-07 | 7.8E+02 | 0.30 | 1.5 | 0.13 | 3.5E-04 | 2.3E-04 | 4.7E-03 | d | Kd g | KH c |
| 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin | 3.0E-07 | 1.4E+03 | 0.30 | 1.5 | 0.13 | 7.9E-05 | 4.2E-04 | 8.3E-03 | d | Kd g | KH c |
| 1,2,3,7,8-Pentachlorodibenzofuran | 1.0E-06 | 4.7E+02 | 0.30 | 1.5 | 0.13 | 2.1E-04 | 4.7E-04 | 9.3E-03 | d | Kd g | KH c |
| 1,2,3,7,8-Pentachlorodibenzo-p-dioxin | 3.0E-08 | 8.3E+02 | 0.30 | 1.5 | 0.13 | 1.1E-04 | 2.5E-05 | 5.0E-04 | d | Kd g | KH c |
| 2,3,4,6,7,8-Hexachlorodibenzofuran | 3.0E-07 | 7.8E+02 | 0.30 | 1.5 | 0.13 | 2.8E-04 | 2.3E-04 | 4.7E-03 | d | Kd g | KH c |
| 2,3,4,7,8-Pentachlorodibenzofuran | 1.0E-07 | 4.7E+02 | 0.30 | 1.5 | 0.13 | 2.1E-04 | 4.7E-05 | 9.3E-04 | d | Kd g | KH c |
| 2,3,7,8-Tetrachlorodibenzofuran | 3.0E-07 | 2.8E+02 | 0.30 | 1.5 | 0.13 | 6.8E-04 | 8.4E-05 | 1.7E-03 | d | Kd g | KH c |
| 2,3,7,8-Tetrachlorodibenzo-p-dioxin | 3.0E-08 | 1.5E+03 | 0.30 | 1.5 | 0.13 | 2.0E-03 | 4.5E-05 | 9.0E-04 | b | Kd h | KH d |
| Octachlorodibenzofuran | 1.0E-04 | 2.2E+03 | 0.30 | 1.5 | 0.13 | 7.7E-05 | 2.2E-01 | 4.4E+00 | d | Kd g | KH c |
| Octachlorodibenzo-p-dioxin | 1.0E-04 | 3.9E+03 | 0.30 | 1.5 | 0.13 | 2.8E-04 | 3.9E-01 | 7.8E+00 | d | Kd g | KH c |
| Benzo[ghi]perylene | 1.0E+00 | 3.9E+03 | 0.30 | 1.5 | 0.13 | 1.4E-05 | 3.9E+03 | 7.8E+04 | a | Kd g | KH c |
| Dimethylphthalate | 3.3E+02 | 6.3E-02 | 0.30 | 1.5 | 0.13 | 8.1E-06 | 8.8E+01 | 1.8E+03 | a | Kd g | KH c |
| Phenanthrene | 6.2E-03 | 2.2E+01 | 0.30 | 1.5 | 0.13 | 9.4E-04 | 1.4E-01 | 2.8E+00 | a | Kd h | KH d |
| Phosphorus | 1.6E+03 | 3.5E+00 | 0.30 | 1.5 | 0.13 | 0.0E+00 | 6.1E+03 | 1.2E+05 | e | Kd h | - |

**Notes:**

- = Not applicable
$kg_s$ = kilogram of soil
$L_A$ = liter of air
$L_T$ = liter of total bulk soil (soil air, soil water, and soil)
$L_W$ = liter of water
mg = milligram
USEPA = United States Environmental Protection Agency
NDEP = Nevada Division of Environmental Protection
LSSL = Leaching-based Soil Screening Level
RBGC = Risk-Based Groundwater Concentration
MCL = Maximum Contaminant Level
BCL = Basic Comparison Level (NDEP 2023)
DAF = Dilution-Attenuation Factor
PRG = Preliminary Remediation Goal
RAIS = Risk Assessment Information System
TEF = Toxic Equivalency Factor

**TABLE G-1. Calculation of Leaching-Based Soil Screening Levels by NDEP and Ramboll**
**Nevada Environmental Response Trust Site**
**Henderson, Nevada**

**Notes (continued):**

$K'_H$ = Henry's Constant
$K_d$ = Soil-Water Partition Coefficient
$\theta_a$ = Air-filled porosity (default value from USEPA 1996)
$\theta_w$ = moisture content (default value from USEPA 1996)
$\rho_b$ = Dry bulk density (default value from USEPA 1996)

Hierarchy of values used for RBGCs as follows: 1) Federal Primary MCL or PRG (USEPA), and 2) NDEP tap water BCLs (NDEP 2023).

a - NDEP tap water BCL.
b - Primary MCL.
c - Primary MCL of Nitrate as N converted to Nitrate as $NO_3$
d - Primary MCL of 2,3,7,8-tetrachlorodibenzo-p-dioxin divided by TEF (Van den Berg et al. 2006).
e - NDEP tap water BCL for phosphoric acid as a surrogate.
f - Federal PRG for perchlorate (USEPA 2008 and USEPA 2009).

Kd a - Value from Figure 2.31 of Baes et al. 1984.
Kd b - Value from Table 46 of USEPA 1996 (at default pH value of 6.8).
Kd c - Value is Koc from Appendix C, Table C-3 of USEPA 1996 multiplied by the default fraction of organic carbon in soil of 0.002.
Kd d - Value is from Serne 2007.
Kd e - Value is from Clausen et al. 2007.
Kd f - Value is Koc from RAIS online database multiplied by the default fraction of organic carbon in soil of 0.002. This calculation is consistent with the NDEP calculations of Kd for alpha-Hexachlorocyclohexane and beta-Hexachlorocyclohexane.
Kd g - Value is Koc from RAIS online database multiplied by the default fraction of organic carbon in soil of 0.002.
Kd h - Value is from NDEP BCL table (NDEP 2023).

KH a - Value is from Appendix C, Table C-3 of USEPA 1996.
KH b - Value is from NDEP BCL table (NDEP 2023) for elemental mercury.
KH c - Value is from RAIS online database: http://rais.ornl.gov/
KH d - Value is from NDEP BCL table (NDEP 2023).

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**TABLE G-2. Soil Screening Level Compilation**
**Nevada Environmental Response Trust Site**
**Henderson, Nevada**

| Chemical Group | Chemical | Unit | Leaching-based Soil Screening Levels[1] | | Health-based Soil Screening Levels[2] | |
|---|---|---|---|---|---|---|
| | | | Level (DAF = 1) | Source[1,2] | Level | Source[1,2] |
| General Chemistry | Ammonia | mg/kg | -- | -- | 27,900 | BCL |
| | Bromide | mg/kg | 103 | LBCL | -- | -- |
| | Chlorate | mg/kg | 1.03 | LBCL | 38,900 | BCL |
| | Chlorite | mg/kg | -- | -- | 38,900 | BCL |
| | Cyanide (total) | mg/kg | 2 | LBCL | 164 | BCL |
| | Fluoride | mg/kg | 600 | RSL(M) | 51,900 | BCL |
| | Nitrate (as $NO_3$) | mg/kg | 31 | LBCL | 100,000 | BCL |
| | Nitrite | mg/kg | -- | -- | 120,000 | RSL |
| | Perchlorate | mg/kg | 0.0155 | LBCL* | 908 | BCL |
| Metals | Aluminum | mg/kg | 50,100 | LBCL | 100,000 | BCL |
| | Antimony | mg/kg | 0.3 | LBCL | 3,450 | BCL |
| | Arsenic | mg/kg | 1 | LBCL | 7.2 | SS |
| | Barium | mg/kg | 82 | LBCL | 100,000 | BCL |
| | Beryllium | mg/kg | 3 | LBCL | 6,130 | BCL |
| | Boron | mg/kg | 21.4 | LBCL | 100,000 | BCL |
| | Cadmium | mg/kg | 0.4 | LBCL | 8,180 | BCL |
| | Chromium (total) | mg/kg | 180,000 | RSL(M) | -- | -- |
| | Chromium VI | mg/kg | 2 | LBCL | 117 | BCL |
| | Cobalt | mg/kg | 0.453 | LBCL | 385 | BCL |
| | Copper | mg/kg | 45.8 | LBCL | 51,900 | BCL |
| | Iron | mg/kg | 589 | LBCL | 100,000 | BCL |
| | Lead | mg/kg | 14 | RSL(M) | 800 | BCL |
| | Lithium | mg/kg | 20 | LBCL | 2,600 | BCL |
| | Magnesium | mg/kg | 889 | LBCL | 100,000 | BCL |
| | Manganese | mg/kg | 305 | LBCL | 100,000 | BCL |
| | Mercury | mg/kg | 0.104 | LBCL | 3.13 | BCL |
| | Molybdenum | mg/kg | 3.37 | LBCL | 6,490 | BCL |
| | Nickel | mg/kg | 7 | LBCL | 56,600 | BCL |
| | Niobium | mg/kg | 1.17 | LBCL | 130 | BCL |
| | Phosphorus (total) | mg/kg | 6,050 | CAL | 100,000 | BCL |
| | Platinum | mg/kg | 12 | LBCL | 5,190 | BCL |
| | Selenium | mg/kg | 0.3 | LBCL | 6,490 | BCL |
| | Silver | mg/kg | 1.42 | LBCL | 100,000 | BCL |
| | Strontium | mg/kg | 420 | RSL | 100,000 | BCL |
| | Thallium | mg/kg | 0.4 | LBCL | 13 | BCL |
| | Tin | mg/kg | 3,000 | RSL | 100,000 | BCL |
| | Titanium | mg/kg | 134,000 | LBCL | 100,000 | BCL |
| | Tungsten | mg/kg | 4.01 | LBCL | 1,040 | BCL |
| | Uranium (total) | mg/kg | 13.5 | LBCL | 3,830 | BCL |
| | Vanadium | mg/kg | 300 | LBCL | 100,000 | BCL |
| | Zinc | mg/kg | 620 | LBCL | 100,000 | BCL |
| | Zirconium | mg/kg | 4.8 | RSL | 104 | BCL |
| Radionuclides | Radium-226 | pCi/g | -- | -- | 0.023 | BCL |
| | Radium-228 | pCi/g | -- | -- | 0.046 | BCL |
| | Thorium-228 | pCi/g | 0.0027 | LBCL | 0.026 | BCL |
| | Thorium-230 | pCi/g | 0.001 | LBCL | 14 | BCL |

**TABLE G-2. Soil Screening Level Compilation**
**Nevada Environmental Response Trust Site**
**Henderson, Nevada**

| Chemical Group | Chemical | Unit | Leaching-based Soil Screening Levels[1] | | Health-based Soil Screening Levels[2] | |
|---|---|---|---|---|---|---|
| | | | Level (DAF = 1) | Source[1,2] | Level | Source[1,2] |
| Radionuclides | Thorium-232 | pCi/g | 0.0035 | LBCL | 13 | BCL |
| | Uranium-234 | pCi/g | -- | -- | 18 | BCL |
| | Uranium-235 | pCi/g | -- | -- | 0.33 | BCL |
| | Uranium-238 | pCi/g | -- | -- | 1.5 | BCL |
| VOCs | Acetone | µg/kg | 800 | LBCL | 100,000,000 | BCL |
| | Acetonitrile | µg/kg | 26 | RSL | 3,410,000 | BCL |
| | Benzene | µg/kg | 2 | LBCL | 5,310 | BCL |
| | Bromobenzene | µg/kg | 42 | RSL | 679,000 | BCL |
| | Bromochloromethane | µg/kg | 21 | RSL | 628,000 | BCL |
| | Bromodichloromethane | µg/kg | 30 | LBCL | 1,300 | BCL |
| | Bromoform | µg/kg | 40 | LBCL | 95,300 | BCL |
| | Bromomethane | µg/kg | 10 | LBCL | 30,300 | BCL |
| | 2-Butanone | µg/kg | 1,200 | RSL | 28,400,000 | BCL |
| | n-Butylbenzene | µg/kg | 3,200 | RSL | 108,000 | BCL |
| | sec-Butylbenzene | µg/kg | 5,900 | RSL | 145,000 | BCL |
| | tert-Butylbenzene | µg/kg | 1,600 | RSL | 183,000 | BCL |
| | Carbon disulfide | µg/kg | 2,000 | LBCL | 738,000 | BCL |
| | Carbon tetrachloride | µg/kg | 3 | LBCL | 2,960 | BCL |
| | Chlorobenzene | µg/kg | 70 | LBCL | 1,370,000 | BCL |
| | Chloroethane | µg/kg | 2,400 | RSL | 2,120,000 | BCL |
| | Chloroform | µg/kg | 30 | LBCL | 1,390 | BCL |
| | Chloromethane | µg/kg | 49 | RSL | 464,000 | BCL |
| | 2-Chlorotoluene | µg/kg | 230 | RSL | 907,000 | BCL |
| | 4-Chlorotoluene | µg/kg | 240 | RSL | 26,000,000 | BCL |
| | Cumene | µg/kg | 740 | RSL | 10,400,000 | BCL |
| | p-Cymene | µg/kg | -- | -- | 655,000 | BCL |
| | 1,2-Dibromo-3-chloropropane | µg/kg | 0.086 | RSL(M) | 64.9 | BCL |
| | Dibromochloromethane | µg/kg | 20 | LBCL | 43,300 | BCL |
| | 1,2-Dibromoethane | µg/kg | 0.014 | RSL(M) | 168 | BCL |
| | Dibromomethane | µg/kg | 2.1 | RSL | 98,900 | BCL |
| | 1,2-Dichlorobenzene | µg/kg | 900 | LBCL | 376,000 | BCL |
| | 1,3-Dichlorobenzene | µg/kg | -- | -- | 373,000 | BCL |
| | 1,4-Dichlorobenzene | µg/kg | 100 | LBCL | 11,500 | BCL |
| | Dichlorodifluoromethane | µg/kg | 300 | RSL | 368,000 | BCL |
| | 1,1-Dichloroethane | µg/kg | 1,000 | LBCL | 15,800 | BCL |
| | 1,2-Dichloroethane | µg/kg | 1 | LBCL | 2,100 | BCL |
| | 1,1-Dichloroethene | µg/kg | 3 | LBCL | 1,000,000 | BCL |
| | cis-1,2-Dichloroethene | µg/kg | 20 | LBCL | 400,000 | BCL |
| | trans-1,2-Dichloroethene | µg/kg | 30 | LBCL | 304,000 | BCL |
| | 1,2-Dichloropropane | µg/kg | 1 | LBCL | 11,700 | BCL |
| | 1,3-Dichloropropane | µg/kg | 1 | LBCL | 26,000,000 | BCL |
| | Diisopropyl ether | µg/kg | 370 | RSL | 2,260,000 | BCL |
| | 1,4-Dioxane | µg/kg | 0.094 | RSL | 27,200 | BCL |
| | Ethanol | mg/kg | -- | -- | 100,000 | BCL |
| | Ethyl benzene | µg/kg | 700 | LBCL | 26,600 | BCL |
| | Ethyl tert-butyl ether | µg/kg | 17 | RSL | 560,000 | RSL |

**TABLE G-2. Soil Screening Level Compilation**
**Nevada Environmental Response Trust Site**
**Henderson, Nevada**

| Chemical Group | Chemical | Unit | Leaching-based Soil Screening Levels[1] | | Health-based Soil Screening Levels[2] | |
|---|---|---|---|---|---|---|
| | | | Level (DAF = 1) | Source[1,2] | Level | Source[1,2] |
| VOCs | Freon 113 | µg/kg | 26,000 | RSL | 910,000 | BCL |
| | n-Heptane | µg/kg | 30 | LBCL | 220,000 | BCL |
| | Hexachlorobutadiene | µg/kg | 100 | LBCL | 5,610 | BCL |
| | 2-Hexanone | µg/kg | 8.8 | RSL | 1,490,000 | BCL |
| | Iodomethane | µg/kg | -- | -- | 1,370,000 | BCL |
| | Methyl tert-butyl ether | µg/kg | 3.2 | RSL | 217,000 | BCL |
| | Methylene Chloride | µg/kg | 1 | LBCL | 1,130,000 | BCL |
| | Naphthalene | µg/kg | 4,000 | LBCL | 11,300 | BCL |
| | 2-Nitropropane | µg/kg | 0.0025 | RSL | 278 | BCL |
| | 4-Methyl-2-pentanone | µg/kg | 1,400 | RSL | 3,360,000 | BCL |
| | n-Propylbenzene | µg/kg | 1,200 | RSL | 264,000 | BCL |
| | Styrene | µg/kg | 200 | LBCL | 867,000 | BCL |
| | 1,1,1,2-Tetrachloroethane | µg/kg | 0.22 | RSL | 9,070 | BCL |
| | 1,1,2,2-Tetrachloroethane | µg/kg | 0.2 | LBCL | 2,910 | BCL |
| | Tetrachloroethene | µg/kg | 3 | LBCL | 107,000 | BCL |
| | Toluene | µg/kg | 600 | LBCL | 818,000 | BCL |
| | 1,2,3-Trichlorobenzene | µg/kg | 21 | RSL | 151,000 | BCL |
| | 1,2,4-Trichlorobenzene | µg/kg | 300 | LBCL | 125,000 | BCL |
| | 1,1,1-Trichloroethane | µg/kg | 100 | LBCL | 640,000 | BCL |
| | 1,1,2-Trichloroethane | µg/kg | 0.9 | LBCL | 5,280 | BCL |
| | Trichloroethene | µg/kg | 3 | LBCL | 6,310 | BCL |
| | Trichlorofluoromethane | µg/kg | 3,300 | RSL | 1,230,000 | BCL |
| | 1,2,3-Trichloropropane | µg/kg | 0.00032 | RSL | 121 | BCL |
| | 1,2,4-Trimethylbenzene | µg/kg | 81 | RSL | 219,000 | BCL |
| | 1,3,5-Trimethylbenzene | µg/kg | 87 | RSL | 182,000 | BCL |
| | Vinyl acetate | µg/kg | 8,000 | LBCL | 2,750,000 | BCL |
| | Vinyl chloride | µg/kg | 0.7 | LBCL | 1,870 | BCL |
| | o-Xylene | µg/kg | 9,000 | LBCL | 434,000 | BCL |
| | Xylenes (total) | µg/kg | 10,000 | LBCL | 260,000 | BCL |
| | tert Butyl alcohol | µg/kg | 32 | RSL | 7,270,000 | BCL |
| SVOCs | Acenaphthene | µg/kg | 29,000 | LBCL | 118,000 | BCL |
| | Acenaphthylene | µg/kg | -- | -- | 44,000 | BCL |
| | Acetophenone | µg/kg | 580 | RSL | 2,520,000 | BCL |
| | Aniline | µg/kg | 4.6 | RSL | 619,000 | BCL |
| | Anthracene | µg/kg | 590,000 | LBCL | 4,260 | BCL |
| | Azobenzene | µg/kg | 0.93 | RSL | 28,900 | BCL |
| | Benzenethiol | µg/kg | 11 | RSL | 1,260,000 | BCL |
| | Benzidine | µg/kg | 0.00028 | RSL | 15.3 | BCL |
| | Benzo(a)anthracene | µg/kg | 80 | LBCL | 9,980 | BCL |
| | Benzo(a)pyrene | µg/kg | 400 | LBCL | 3,500 | BCL |
| | Benzo(b)fluoranthene | µg/kg | 200 | LBCL | 35,000 | BCL |
| | Benzo(g,h,i)perylene | µg/kg | 3,900,000 | CAL | 25,100,000 | BCL |
| | Benzo(k)fluoranthene | µg/kg | 2,000 | LBCL | 350,000 | BCL |
| | Benzoic acid | µg/kg | 20,000 | LBCL | 100,000,000 | BCL |
| | Benzyl alcohol | µg/kg | 480 | RSL | 91,200,000 | BCL |
| | Butylbenzylphthalate | µg/kg | 810,000 | LBCL | 1,860,000 | BCL |

**TABLE G-2. Soil Screening Level Compilation**
**Nevada Environmental Response Trust Site**
**Henderson, Nevada**

| Chemical Group | Chemical | Unit | Leaching-based Soil Screening Levels[1] | | Health-based Soil Screening Levels[2] | |
|---|---|---|---|---|---|---|
| | | | Level (DAF = 1) | Source[1,2] | Level | Source[1,2] |
| SVOCs | Carbazole | µg/kg | 30 | LBCL | 176,000 | BCL |
| | 4-Chloroaniline | µg/kg | 30 | LBCL | 17,600 | BCL |
| | 2-Chloronaphthalene | µg/kg | 3,900 | RSL | 175,000 | BCL |
| | 2-Chlorophenol | µg/kg | 200 | LBCL | 6,490,000 | BCL |
| | Chrysene | µg/kg | 8,000 | LBCL | 3,500,000 | BCL |
| | Di-n-butylphthalate | µg/kg | 270,000 | LBCL | 91,200,000 | BCL |
| | Di-n-octylphthalate | µg/kg | 57,000 | RSL | 9,120,000 | BCL |
| | Dibenz(a,h)anthracene | µg/kg | 80 | LBCL | 3,500 | BCL |
| | Dibenzofuran | µg/kg | 150 | RSL | 171,000 | BCL |
| | 1,2-Dichlorobenzene | µg/kg | 900 | LBCL | 376,000 | BCL |
| | 1,3-Dichlorobenzene | µg/kg | -- | -- | 373,000 | BCL |
| | 1,4-Dichlorobenzene | µg/kg | 100 | LBCL | 11,500 | BCL |
| | 3,3'-Dichlorobenzidine | µg/kg | 0.3 | LBCL | 7,840 | BCL |
| | 2,4-Dichlorophenol | µg/kg | 50 | LBCL | 2,740,000 | BCL |
| | Diethylphthalate | µg/kg | 6,100 | RSL | 100,000,000 | BCL |
| | 2,4-Dimethylphenol | µg/kg | 400 | LBCL | 18,200,000 | BCL |
| | Dimethylphthalate | µg/kg | 87,800 | CAL | 100,000,000 | BCL |
| | 2,4-Dinitrophenol | µg/kg | 10 | LBCL | 1,820,000 | BCL |
| | 2,4-Dinitrotoluene | µg/kg | 0.04 | LBCL | 11,400 | BCL |
| | 2,6-Dinitrotoluene | µg/kg | 0.03 | LBCL | 2,350 | BCL |
| | 1,4-Dioxane | µg/kg | 0.094 | RSL | 27,200 | BCL |
| | Diphenyl sulfone | µg/kg | 36 | RSL | 729,000 | BCL |
| | 1,2-Diphenylhydrazine | µg/kg | 0.25 | RSL | 4,410 | BCL |
| | Fluoranthene | µg/kg | 210,000 | LBCL | 33,500,000 | BCL |
| | Fluorene | µg/kg | 28,000 | LBCL | 93,100 | BCL |
| | Hexachlorobenzene | µg/kg | 100 | LBCL | 231 | BCL |
| | Hexachlorobutadiene | µg/kg | 100 | LBCL | 5,610 | BCL |
| | Hexachlorocyclopentadiene | µg/kg | 20,000 | LBCL | 7,460 | BCL |
| | Hexachloroethane | µg/kg | 20 | LBCL | 8,470 | BCL |
| | Indeno(1,2,3-cd)pyrene | µg/kg | 700 | LBCL | 35,000 | BCL |
| | Isophorone | µg/kg | 30 | LBCL | 3,710,000 | BCL |
| | 1-Methylnaphthalene | µg/kg | 6 | RSL | 121,000 | BCL |
| | 2-Methylnaphthalene | µg/kg | 190 | RSL | 368,000 | BCL |
| | 2-Methylphenol | µg/kg | 800 | LBCL | 45,600,000 | BCL |
| | 3&4-Methylphenol | µg/kg | 300 | RSL | 16,000,000 | RSL |
| | 4-Methylphenol | µg/kg | -- | -- | 18,200,000 | BCL |
| | Naphthalene | µg/kg | 4,000 | LBCL | 11,300 | BCL |
| | 2-Nitroaniline | µg/kg | 80 | RSL | 8,840,000 | BCL |
| | 4-Nitroaniline | µg/kg | 1.6 | RSL | 176,000 | BCL |
| | Nitrobenzene | µg/kg | 7 | LBCL | 22,500 | BCL |
| | 4-Nitrophenol | µg/kg | -- | -- | 7,290,000 | BCL |
| | n-Nitrosodiphenylamine | µg/kg | 60 | LBCL | 720,000 | BCL |
| | Pentachlorobenzene | µg/kg | 24 | RSL | 18,600 | BCL |
| | Pentachlorophenol | µg/kg | 1 | LBCL | 8,450 | BCL |
| | Phenanthrene | µg/kg | 139 | CAL | 24,500 | BCL |
| | Phenol | µg/kg | 5,000 | LBCL | 100,000,000 | BCL |

**TABLE G-2. Soil Screening Level Compilation**
**Nevada Environmental Response Trust Site**
**Henderson, Nevada**

| Chemical Group | Chemical | Unit | Leaching-based Soil Screening Levels[1] | | Health-based Soil Screening Levels[2] | |
|---|---|---|---|---|---|---|
| | | | Level (DAF = 1) | Source[1,2] | Level | Source[1,2] |
| SVOCs | Phthalic acid | µg/kg | -- | -- | 100,000,000 | BCL |
| | Pyrene | µg/kg | 210,000 | LBCL | 44,000 | BCL |
| | Pyridine | µg/kg | 6.8 | RSL | 1,300,000 | BCL |
| | 1,2,4,5-Tetrachlorobenzene | µg/kg | 0.79 | RSL | 7,990 | BCL |
| | 2,4,5-Trichlorophenol | µg/kg | 14,000 | LBCL | 91,200,000 | BCL |
| | 2,4,6-Trichlorophenol | µg/kg | 8 | LBCL | 321,000 | BCL |
| | bis(2-Chloro-1-methylethyl) ether | µg/kg | 260 | RSL | 1,020,000 | BCL |
| | bis(2-Chloroethoxy)methane | µg/kg | 13 | RSL | 2,740,000 | BCL |
| | bis(2-Chloroethyl) ether | µg/kg | 0.02 | LBCL | 1,150 | BCL |
| | bis(2-Ethylhexyl)phthalate | µg/kg | 180,000 | LBCL | 252,000 | BCL |
| | bis(4-Chlorophenyl) sulfone | µg/kg | 65 | RSL | 729,000 | BCL |
| | 4,6-Dinitro-2-methylphenol | µg/kg | 2.6 | RSL | 72,900 | BCL |
| | 4-Chloro-3-methylphenol | µg/kg | 1,700 | RSL | 91,200,000 | BCL |
| | n-Nitroso-di-n-propylamine | µg/kg | 0.002 | LBCL | 504 | BCL |
| PAHs | Acenaphthene | µg/kg | 29,000 | LBCL | 118,000 | BCL |
| | Acenaphthylene | µg/kg | -- | -- | 44,000 | BCL |
| | Anthracene | µg/kg | 590,000 | LBCL | 4,260 | BCL |
| | Benzo(a)anthracene | µg/kg | 80 | LBCL | 9,980 | BCL |
| | Benzo(a)pyrene | µg/kg | 400 | LBCL | 3,500 | BCL |
| | Benzo(b)fluoranthene | µg/kg | 200 | LBCL | 35,000 | BCL |
| | Benzo(g,h,i)perylene | µg/kg | 3,900,000 | CAL | 25,100,000 | BCL |
| | Benzo(k)fluoranthene | µg/kg | 2,000 | LBCL | 350,000 | BCL |
| | Chrysene | µg/kg | 8,000 | LBCL | 3,500,000 | BCL |
| | Dibenz(a,h)anthracene | µg/kg | 80 | LBCL | 3,500 | BCL |
| | Fluoranthene | µg/kg | 210,000 | LBCL | 33,500,000 | BCL |
| | Fluorene | µg/kg | 28,000 | LBCL | 93,100 | BCL |
| | Hexachlorobenzene | µg/kg | 100 | LBCL | 231 | BCL |
| | Indeno(1,2,3-cd)pyrene | µg/kg | 700 | LBCL | 35,000 | BCL |
| | 2-Methylnaphthalene | µg/kg | 190 | RSL | 368,000 | BCL |
| | Naphthalene | µg/kg | 4,000 | LBCL | 11,300 | BCL |
| | Pentachlorophenol | µg/kg | 1 | LBCL | 8,450 | BCL |
| | Phenanthrene | µg/kg | 139 | CAL | 24,500 | BCL |
| | Pyrene | µg/kg | 210,000 | LBCL | 44,000 | BCL |
| PCBs | Aroclor-1016 | µg/kg | 21 | RSL | 45,200 | BCL |
| | Aroclor-1221 | µg/kg | 0.08 | RSL | 1,280 | BCL |
| | Aroclor-1232 | µg/kg | 0.08 | RSL | 1,060 | BCL |
| | Aroclor-1242 | µg/kg | 1.2 | RSL | 1,550 | BCL |
| | Aroclor-1248 | µg/kg | 1.2 | RSL | 1,560 | BCL |
| | Aroclor-1254 | µg/kg | 2 | RSL | 1,600 | BCL |
| | Aroclor-1260 | µg/kg | 5.5 | RSL | 1,650 | BCL |
| Dioxins/Furans | 2,3,7,8-Tetrachlorodibenzo-p-dioxin | pg/g | 15 | RSL(M) | 26.7 | BCL |
| | 1,2,3,7,8-Pentachlorodibenzo-p-dioxin | pg/g | 25 | CAL | -- | -- |
| | 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin | pg/g | 417 | CAL | -- | -- |
| | 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin | pg/g | 417 | CAL | -- | -- |
| | 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin | pg/g | 417 | CAL | 581 | BCL |
| | 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin | pg/g | 6,960 | CAL | -- | -- |

**TABLE G-2. Soil Screening Level Compilation**
**Nevada Environmental Response Trust Site**
**Henderson, Nevada**

| Chemical Group | Chemical | Unit | Leaching-based Soil Screening Levels[1] | | Health-based Soil Screening Levels[2] | |
|---|---|---|---|---|---|---|
| | | | Level (DAF = 1) | Source[1,2] | Level | Source[1,2] |
| Dioxins/Furans | 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin | pg/g | 388,000 | CAL | -- | -- |
| | 2,3,7,8-Tetrachlorodibenzofuran | pg/g | 84.1 | CAL | -- | -- |
| | 1,2,3,7,8-Pentachlorodibenzofuran | pg/g | 466 | CAL | -- | -- |
| | 2,3,4,7,8-Pentachlorodibenzofuran | pg/g | 46.6 | CAL | -- | -- |
| | 1,2,3,4,7,8-Hexachlorodibenzofuran | pg/g | 233 | CAL | -- | -- |
| | 1,2,3,6,7,8-Hexachlorodibenzofuran | pg/g | 233 | CAL | -- | -- |
| | 1,2,3,7,8,9-Hexachlorodibenzofuran | pg/g | 233 | CAL | -- | -- |
| | 2,3,4,6,7,8-Hexachlorodibenzofuran | pg/g | 233 | CAL | -- | -- |
| | 1,2,3,4,6,7,8-Heptachlorodibenzofuran | pg/g | 3,900 | CAL | -- | -- |
| | 1,2,3,4,7,8,9-Heptachlorodibenzofuran | pg/g | 3,900 | CAL | -- | -- |
| | 1,2,3,4,6,7,8,9-Octachlorodibenzofuran | pg/g | 218,000 | CAL | -- | -- |
| | Total Dioxin/Furan TEQ (Calculated) | pg/g | -- | -- | 2,700 | SS |
| Pesticides - OCPs | Aldrin | µg/kg | 20 | LBCL | 205 | BCL |
| | alpha-BHC | µg/kg | 26.6 | LBCL | 274,000 | BCL |
| | beta-BHC | µg/kg | 5.45 | LBCL | 54,700 | BCL |
| | delta-BHC | µg/kg | 58.3 | LBCL** | 333,000 | BCL |
| | gamma-BHC | µg/kg | 0.5 | LBCL | 11,100 | BCL |
| | Chlordane (technical) | µg/kg | 500 | LBCL | 9,780 | BCL |
| | alpha-Chlordane | µg/kg | 490 | RSL | 500,000 | RSL |
| | gamma-Chlordane | µg/kg | 1,400 | RSL | 500,000 | RSL |
| | 4,4'-DDD | µg/kg | 800 | LBCL | 14,700 | BCL |
| | 2,4'-DDE | µg/kg | 3,000 | *LBCL | -- | -- |
| | 4,4'-DDE | µg/kg | 3,000 | LBCL | 10,300 | BCL |
| | 4,4'-DDT | µg/kg | 2,000 | LBCL | 10,600 | BCL |
| | Dieldrin | µg/kg | 0.2 | LBCL | 220 | BCL |
| | Endosulfan sulfate | µg/kg | 2,100 | RSL | 4,900,000 | RSL |
| | Endrin | µg/kg | 50 | LBCL | 274,000 | BCL |
| | Heptachlor | µg/kg | 1,000 | LBCL | 696 | BCL |
| | Heptachlor epoxide | µg/kg | 30 | LBCL | 366 | BCL |
| | Hexachlorobenzene | µg/kg | 100 | LBCL | 231 | BCL |
| | Methoxychlor | µg/kg | 8,000 | LBCL | 4,560,000 | BCL |
| | 2,4,5-TP | µg/kg | 28 | RSL(M) | 7,290,000 | BCL |
| | Toxaphene | µg/kg | 2,000 | LBCL | 3,210 | BCL |
| Pesticides - OPPs | Atrazine | µg/kg | 1.9 | RSL(M) | 15,300 | BCL |
| | Chlorpyrifos | µg/kg | 120 | RSL | 912,000 | BCL |
| | Demeton (O + S) | µg/kg | -- | -- | 36,500 | BCL |
| | Diazinon | µg/kg | 65 | RSL | 638,000 | BCL |
| | Dichlorovos | µg/kg | 0.081 | RSL | 12,200 | BCL |
| | Dimethoate | µg/kg | 9.9 | RSL | 2,010,000 | BCL |
| | Disulfoton | µg/kg | 0.94 | RSL | 36,500 | BCL |
| | EPN | µg/kg | 2.8 | RSL | 9,120 | BCL |
| | Guthion | µg/kg | 17 | RSL | 2,740,000 | BCL |
| | Malathion | µg/kg | 100 | RSL | 18,200,000 | BCL |
| | Merphos | µg/kg | 59 | RSL | 1,030 | BCL |
| | Methyl parathion | µg/kg | 7.4 | RSL | 228,000 | BCL |
| | Naled | µg/kg | 18 | RSL | 1,290 | BCL |

**TABLE G-2. Soil Screening Level Compilation**
**Nevada Environmental Response Trust Site**
**Henderson, Nevada**

| Chemical Group | Chemical | Unit | Leaching-based Soil Screening Levels[1] | | Health-based Soil Screening Levels[2] | |
|---|---|---|---|---|---|---|
| | | | Level (DAF = 1) | Source[1,2] | Level | Source[1,2] |
| Pesticides - OPPs | Parathion | µg/kg | 430 | RSL | 5,470,000 | BCL |
| | Phorate | µg/kg | 3.4 | RSL | 182,000 | BCL |
| | Propazine | µg/kg | 300 | RSL | 18,200,000 | BCL |
| | Ronnel | µg/kg | 3,700 | RSL | 26,800 | BCL |
| | Simazine | µg/kg | 2 | RSL(M) | 29,400 | BCL |
| | Stirophos | µg/kg | 8.2 | RSL | 147,000 | BCL |
| | Sulfotepp | µg/kg | 5.2 | RSL | 456,000 | BCL |
| Petroleum Indicators | Ethanol | mg/kg | -- | -- | 100,000 | BCL |
| | Ethylene glycol | mg/kg | 3.2 | RSL | 100,000 | BCL |
| | Methanol | mg/kg | 4.1 | RSL | 100,000 | BCL |
| Other Organics | Benzenesulfonic acid | µg/kg | -- | -- | 100,000,000 | BCL |
| | 4-Chlorobenzenesulfonic acid | µg/kg | 70 | LBCL | 91,200,000 | BCL |
| | Diethylphosphorodithioate | µg/kg | -- | -- | 100,000,000 | BCL |
| | o,o-Dimethyl Phosphorodithioate | µg/kg | -- | -- | 100,000,000 | BCL |
| | Formaldehyde | µg/kg | 0.078 | RSL | 55,400 | BCL |
| | Formic acid | µg/kg | 0.13 | RSL | 122,000 | BCL |
| | Phthalic acid | µg/kg | -- | -- | 100,000,000 | BCL |

**Notes:**

1. Leaching-based soil screening levels (LSSLs) are calculated with a dilution attenutation factor (DAF) of 1.
   LBCL: Leaching-based Basic Comparison Level, NDEP 2023.
   RSL(M): Regional Screening Levels (RSLs) of soil for groundwater protection (Maximum Contaminant Level [MCL]-based), USEPA 2023.
   RSL: Regional Screening Levels (RSLs) of soil for groundwater protection (risk-based), USEPA 2023.
   CAL: Where no other screening level is available, LSSLs were calculated as described in Appendix G.
   LBCL*: The perchlorate LBCL calculated by NDEP has been recalculated using the federal preliminary remediation goal of 15 µg/L.
   LBCL**: The LBCL for delta-BHC calculated by NDEP has been recalculated using a soil-water partition coefficient adjusted for the fraction of organic carbon in soil (See Table G-1).
   *LBCL: The LBCL for 4,4'-DDE was used as a surrogate LSSL for 2,4'-DDE
2. Health-based soil screening levels (HSSLs).
   SS: Site-specific values for Arsenic and Dioxin/Furan Toxicity Equivalence (TEQ) (see Appendix G text).
   BCL: Lowest level among all available indoor and outdoor industrial worker Basic Comparison Levels (BCLs), NDEP 2023.
   RSL: Regional Screening Levels (RSLs) for industrial soil, USEPA 2023.

**Sources:**

[1] NDEP. 2023. User's Guide and Background Technical Document for NDEP Basic Comparison Levels (BCLs) for Human Health for the BMI Complex and Common Areas. Revision 16, June.
[2] USEPA. 2023. Regional Screening Levels (RSL) for Chemical Contaminants at Superfund sites. May.

**TABLE G-3. Groundwater Screening Level Compilation**
**Nevada Environmental Response Trust Site**
**Henderson, Nevada**

| Chemical Group | Chemical | Unit | Groundwater Screening Levels[1] | |
|---|---|---|---|---|
| | | | Level | Source[1-6] |
| General Chemistry | Ammonia | mg/L | 1.04 | BCL |
| | Bromide | mg/L | 13.3 | BCL |
| | Chlorate | mg/L | 1.0 | BCL |
| | Chlorite | mg/L | 1.0 | MCL |
| | Cyanide (total) | mg/L | 0.20 | MCL |
| | Nitrate (as N) | mg/L | 10 | MCL |
| | Nitrate Nitrite as N | mg/L | 10 | MCL |
| | Nitrite (as N) | mg/L | 1.0 | MCL |
| | Perchlorate | mg/L | 0.015 | PRG |
| Metals | Aluminum | mg/L | 33.4 | BCL |
| | Antimony | mg/L | 0.006 | MCL |
| | Arsenic | mg/L | 0.010 | MCL |
| | Barium | mg/L | 2.0 | MCL |
| | Beryllium | mg/L | 0.004 | MCL |
| | Boron | mg/L | 6.67 | BCL |
| | Cadmium | mg/L | 0.0167 | BCL |
| | Chromium (total) | µg/L | 100 | MCL |
| | Chromium VI | µg/L | 0.0501 | BCL |
| | Cobalt | mg/L | 0.010 | BCL |
| | Copper | mg/L | 1.3 | MCL |
| | Iron | mg/L | 23.4 | BCL |
| | Lead | mg/L | 0.015 | MCL |
| | Magnesium | mg/L | 189 | BCL |
| | Manganese | mg/L | 0.801 | BCL |
| | Mercury | mg/L | 0.002 | MCL |
| | Molybdenum | mg/L | 0.167 | BCL |
| | Nickel | mg/L | 0.667 | BCL |
| | Niobium | mg/L | 0.00334 | BCL |
| | Phosphorus (total) | mg/L | 33.4 | BCL |
| | Selenium | mg/L | 0.050 | MCL |
| | Silver | mg/L | 0.167 | BCL |
| | Strontium | mg/L | 20 | BCL |
| | Thallium | mg/L | 0.002 | MCL |
| | Tungsten | mg/L | 0.0267 | BCL |
| | Uranium (total) | mg/L | 0.030 | MCL |
| | Vanadium | mg/L | 0.167 | BCL |
| | Zinc | mg/L | 10 | BCL |
| | Zirconium | mg/L | 0.00267 | BCL |
| Radionuclides | Thorium-228 | pCi/L | 0.14 | BCL |
| | Thorium-230 | pCi/L | 0.05 | BCL |
| | Thorium-232 | pCi/L | 0.17 | BCL |
| VOCs | Acetone | µg/L | 20,500 | BCL |
| | Benzene | µg/L | 5 | MCL |
| | Bromobenzene | µg/L | 85.2 | BCL |
| | Bromochloromethane | µg/L | 83.4 | BCL |
| | Bromodichloromethane | µg/L | 0.135 | BCL |

**TABLE G-3. Groundwater Screening Level Compilation**
**Nevada Environmental Response Trust Site**
**Henderson, Nevada**

| Chemical Group | Chemical | Unit | Groundwater Screening Levels[1] | |
|---|---|---|---|---|
| | | | Level | Source[1-6] |
| VOCs | Bromoform | µg/L | 3.36 | BCL |
| | Bromomethane | µg/L | 8.53 | BCL |
| | 2-Butanone | µg/L | 6,860 | BCL |
| | n-Butylbenzene | µg/L | 1,670 | BCL |
| | sec-Butylbenzene | µg/L | 3,340 | BCL |
| | tert-Butylbenzene | µg/L | 3,340 | BCL |
| | Carbon tetrachloride | µg/L | 5 | MCL |
| | Chlorobenzene | µg/L | 100 | MCL |
| | Chloroethane | µg/L | 20,900 | BCL |
| | Chloroform | µg/L | 70 | MCLG |
| | Chloromethane | µg/L | 188 | BCL |
| | 2-Chlorotoluene | µg/L | 667 | BCL |
| | 4-Chlorotoluene | µg/L | 667 | BCL |
| | Cumene | µg/L | 667 | BCL |
| | p-Cymene | µg/L | 834 | BCL |
| | 1,2-Dibromo-3-chloropropane | µg/L | 0.2 | MCL |
| | Dibromochloromethane | µg/L | 60 | MCLG |
| | 1,2-Dibromoethane | µg/L | 0.05 | MCL |
| | Dibromomethane | µg/L | 8.34 | BCL |
| | 1,2-Dichlorobenzene | µg/L | 600 | MCL |
| | 1,3-Dichlorobenzene | µg/L | 80.7 | BCL |
| | 1,4-Dichlorobenzene | µg/L | 75 | MCL |
| | Dichlorodifluoromethane | µg/L | 202 | BCL |
| | 1,1-Dichloroethane | µg/L | 2.79 | BCL |
| | 1,2-Dichloroethane | µg/L | 5 | MCL |
| | 1,1-Dichloroethene | µg/L | 7 | MCL |
| | cis-1,2-Dichloroethene | µg/L | 70 | MCL |
| | trans-1,2-Dichloroethene | µg/L | 100 | MCL |
| | 1,2-Dichloropropane | µg/L | 5 | MCL |
| | 1,3-Dichloropropane | µg/L | 667 | BCL |
| | Diisopropyl ether | µg/L | 1,460 | BCL |
| | 1,4-Dioxane | µg/L | 0.46 | BCL |
| | Ethyl benzene | µg/L | 700 | MCL |
| | Ethyl tert-butyl ether | µg/L | 70 | RSL |
| | Freon 113 | µg/L | 10,300 | BCL |
| | Hexachlorobutadiene | µg/L | 0.203 | BCL |
| | 2-Hexanone | µg/L | 45.5 | BCL |
| | Methyl tert-butyl ether | µg/L | 14.4 | BCL |
| | Methylene Chloride | µg/L | 5 | MCL |
| | Naphthalene | µg/L | 0.132 | BCL |
| | 4-Methyl-2-pentanone | µg/L | 6,260 | BCL |
| | n-Propylbenzene | µg/L | 1,280 | BCL |
| | Styrene | µg/L | 100 | MCL |
| | 1,1,1,2-Tetrachloroethane | µg/L | 0.605 | BCL |
| | 1,1,2,2-Tetrachloroethane | µg/L | 0.0775 | BCL |
| | Tetrachloroethene | µg/L | 5 | MCL |

**TABLE G-3. Groundwater Screening Level Compilation**
**Nevada Environmental Response Trust Site**
**Henderson, Nevada**

| Chemical Group | Chemical | Unit | Groundwater Screening Levels[1] | |
|---|---|---|---|---|
| | | | Level | Source[1-6] |
| VOCs | Toluene | µg/L | 1,000 | MCL |
| | 1,2,3-Trichlorobenzene | µg/L | 26.7 | BCL |
| | 1,2,4-Trichlorobenzene | µg/L | 70 | MCL |
| | 1,1,1-Trichloroethane | µg/L | 200 | MCL |
| | 1,1,2-Trichloroethane | µg/L | 5 | MCL |
| | Trichloroethene | µg/L | 5 | MCL |
| | Trichlorofluoromethane | µg/L | 10,000 | BCL |
| | 1,2,3-Trichloropropane | µg/L | 0.000835 | BCL |
| | 1,2,4-Trimethylbenzene | µg/L | 64.6 | BCL |
| | 1,3,5-Trimethylbenzene | µg/L | 2,000 | BCL |
| | Vinyl chloride | µg/L | 2 | MCL |
| | o-Xylene | µg/L | 202 | BCL |
| | Xylenes (total) | µg/L | 10,000 | MCL |
| | tert Butyl alcohol | µg/L | 156 | BCL |
| SVOCs | Acenaphthene | µg/L | 2,000 | BCL |
| | Acenaphthylene | µg/L | 1,000 | BCL |
| | Aniline | µg/L | 13.7 | BCL |
| | Anthracene | µg/L | 10,000 | BCL |
| | Benzidine | µg/L | 0.000109 | BCL |
| | Benzo(a)anthracene | µg/L | 0.0298 | BCL |
| | Benzo(a)pyrene | µg/L | 0.2 | MCL |
| | Benzo(b)fluoranthene | µg/L | 0.251 | BCL |
| | Benzo(g,h,i)perylene | µg/L | 1,000 | BCL |
| | Benzo(k)fluoranthene | µg/L | 2.51 | BCL |
| | Benzoic acid | µg/L | 133,000 | BCL |
| | Benzyl alcohol | µg/L | 3,340 | BCL |
| | Butylbenzylphthalate | µg/L | 41 | BCL |
| | 4-Chloroaniline | µg/L | 0.39 | BCL |
| | 2-Chloronaphthalene | µg/L | 2,670 | BCL |
| | 2-Chlorophenol | µg/L | 167 | BCL |
| | Chrysene | µg/L | 25.1 | BCL |
| | Di-n-butylphthalate | µg/L | 3,340 | BCL |
| | Di-n-octylphthalate | µg/L | 334 | BCL |
| | Dibenz(a,h)anthracene | µg/L | 0.0251 | BCL |
| | Dibenzofuran | µg/L | 33.4 | BCL |
| | 1,2-Dichlorobenzene | µg/L | 600 | MCL |
| | 1,3-Dichlorobenzene | µg/L | 80.7 | BCL |
| | 1,4-Dichlorobenzene | µg/L | 75 | MCL |
| | 3,3'-Dichlorobenzidine | µg/L | 0.173 | BCL |
| | 2,4-Dichlorophenol | µg/L | 100 | BCL |
| | Diethylphthalate | µg/L | 26,700 | BCL |
| | 2,4-Dimethylphenol | µg/L | 667 | BCL |
| | Dimethylphthalate | µg/L | 334,000 | BCL |
| | 2,4-Dinitrophenol | µg/L | 66.7 | BCL |
| | 2,4-Dinitrotoluene | µg/L | 0.251 | BCL |
| | 2,6-Dinitrotoluene | µg/L | 0.0519 | BCL |

**TABLE G-3. Groundwater Screening Level Compilation**
**Nevada Environmental Response Trust Site**
**Henderson, Nevada**

| Chemical Group | Chemical | Unit | Groundwater Screening Levels[1] | |
|---|---|---|---|---|
| | | | Level | Source[1-6] |
| SVOCs | 1,2-Diphenylhydrazine | µg/L | 0.0974 | BCL |
| | Fluoranthene | µg/L | 1,330 | BCL |
| | Fluorene | µg/L | 1,330 | BCL |
| | Hexachlorobenzene | µg/L | 1 | MCL |
| | Hexachlorobutadiene | µg/L | 0.203 | BCL |
| | Hexachlorocyclopentadiene | µg/L | 50 | MCL |
| | Hexachloroethane | µg/L | 0.404 | BCL |
| | Indeno(1,2,3-cd)pyrene | µg/L | 0.251 | BCL |
| | Isophorone | µg/L | 82 | BCL |
| | 1-Methylnaphthalene | µg/L | 2.69 | BCL |
| | 2-Methylnaphthalene | µg/L | 133 | BCL |
| | 2-Methylphenol | µg/L | 1,670 | BCL |
| | 3&4-Methylphenol | µg/L | 370 | RSL |
| | 4-Methylphenol | µg/L | 667 | BCL |
| | Naphthalene | µg/L | 0.132 | BCL |
| | 2-Nitroaniline | µg/L | 334 | BCL |
| | 4-Nitroaniline | µg/L | 3.9 | BCL |
| | Nitrobenzene | µg/L | 0.14 | BCL |
| | 4-Nitrophenol | µg/L | 267 | BCL |
| | n-Nitrosodiphenylamine | µg/L | 15.9 | BCL |
| | Pentachlorophenol | µg/L | 1 | MCL |
| | Phenanthrene | µg/L | 6.22 | BCL |
| | Phenol | µg/L | 10,000 | BCL |
| | Phthalic acid | µg/L | 66,700 | BCL |
| | Pyrene | µg/L | 1,000 | BCL |
| | 1,2,4-Trichlorobenzene | µg/L | 70 | MCL |
| | 2,4,5-Trichlorophenol | µg/L | 3,340 | BCL |
| | 2,4,6-Trichlorophenol | µg/L | 7.08 | BCL |
| | bis(2-Chloro-1-methylethyl) ether | µg/L | 1,330 | BCL |
| | bis(2-Chloroethoxy)methane | µg/L | 100 | BCL |
| | bis(2-Chloroethyl) ether | µg/L | 0.0137 | BCL |
| | bis(2-Ethylhexyl)phthalate | µg/L | 6 | MCL |
| | 4,6-Dinitro-2-methylphenol | µg/L | 2.67 | BCL |
| | 4-Chloro-3-methylphenol | µg/L | 3,340 | BCL |
| | n-Nitroso-di-n-propylamine | µg/L | 0.0111 | BCL |
| PAHs | Acenaphthene | µg/L | 2,000 | BCL |
| | Acenaphthylene | µg/L | 1,000 | BCL |
| | Anthracene | µg/L | 10,000 | BCL |
| | Benzo(a)anthracene | µg/L | 0.0298 | BCL |
| | Benzo(a)pyrene | µg/L | 0.2 | MCL |
| | Benzo(b)fluoranthene | µg/L | 0.251 | BCL |
| | Benzo(g,h,i)perylene | µg/L | 1,000 | BCL |
| | Benzo(k)fluoranthene | µg/L | 2.51 | BCL |
| | Chrysene | µg/L | 25.1 | BCL |
| | Dibenz(a,h)anthracene | µg/L | 0.0251 | BCL |
| | Fluoranthene | µg/L | 1,330 | BCL |

**TABLE G-3. Groundwater Screening Level Compilation**
**Nevada Environmental Response Trust Site**
**Henderson, Nevada**

| Chemical Group | Chemical | Unit | Groundwater Screening Levels[1] | |
|---|---|---|---|---|
| | | | Level | Source[1-6] |
| PAHs | Fluorene | µg/L | 1,330 | BCL |
| | Indeno(1,2,3-cd)pyrene | µg/L | 0.251 | BCL |
| | Naphthalene | µg/L | 0.132 | BCL |
| | Phenanthrene | µg/L | 6.22 | BCL |
| | Pyrene | µg/L | 1,000 | BCL |
| PCBs | Aroclor-1016 | µg/L | 0.224 | BCL |
| | Aroclor-1221 | µg/L | 0.00786 | BCL |
| | Aroclor-1232 | µg/L | 0.00786 | BCL |
| | Aroclor-1242 | µg/L | 0.00786 | BCL |
| | Aroclor-1248 | µg/L | 0.00786 | BCL |
| | Aroclor-1254 | µg/L | 0.00786 | BCL |
| | Aroclor-1260 | µg/L | 0.00786 | BCL |
| Dioxins/Furans | 2,3,7,8-Tetrachlorodibenzo-p-dioxin | pg/L | 30 | MCL |
| | 1,2,3,7,8-Pentachlorodibenzo-p-dioxin | pg/L | 30 | CAL |
| | 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin | pg/L | 300 | CAL |
| | 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin | pg/L | 300 | CAL |
| | 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin | pg/L | 300 | CAL |
| | 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin | pg/L | 3,000 | CAL |
| | 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin | pg/L | 100,000 | CAL |
| | 2,3,7,8-Tetrachlorodibenzofuran | pg/L | 300 | CAL |
| | 1,2,3,7,8-Pentachlorodibenzofuran | pg/L | 1,000 | CAL |
| | 2,3,4,7,8-Pentachlorodibenzofuran | pg/L | 100 | CAL |
| | 1,2,3,4,7,8-Hexachlorodibenzofuran | pg/L | 300 | CAL |
| | 1,2,3,6,7,8-Hexachlorodibenzofuran | pg/L | 300 | CAL |
| | 1,2,3,7,8,9-Hexachlorodibenzofuran | pg/L | 300 | CAL |
| | 2,3,4,6,7,8-Hexachlorodibenzofuran | pg/L | 300 | CAL |
| | 1,2,3,4,6,7,8-Heptachlorodibenzofuran | pg/L | 3,000 | CAL |
| | 1,2,3,4,7,8,9-Heptachlorodibenzofuran | pg/L | 3,000 | CAL |
| | 1,2,3,4,6,7,8,9-Octachlorodibenzofuran | pg/L | 100,000 | CAL |
| Pesticides - OCPs | Aldrin | µg/L | 0.000917 | BCL |
| | alpha-BHC | µg/L | 10 | BCL |
| | beta-BHC | µg/L | 2 | BCL |
| | delta-BHC | µg/L | 10 | BCL |
| | gamma-BHC | µg/L | 0.2 | MCL |
| | gamma-Chlordane | µg/L | 10 | RSL |
| | 4,4'-DDD | µg/L | 0.325 | BCL |
| | 4,4'-DDE | µg/L | 0.0462 | BCL |
| | 4,4'-DDT | µg/L | 0.229 | BCL |
| | Dieldrin | µg/L | 0.00487 | BCL |
| | Endosulfan sulfate | µg/L | 110 | RSL |
| | Endrin | µg/L | 2 | MCL |
| | Heptachlor | µg/L | 0.4 | MCL |
| | Heptachlor epoxide | µg/L | 0.2 | MCL |
| | Methoxychlor | µg/L | 40 | MCL |
| | Toxaphene | µg/L | 3 | MCL |

**TABLE G-3. Groundwater Screening Level Compilation**
**Nevada Environmental Response Trust Site**
**Henderson, Nevada**

| Chemical Group | Chemical | Unit | Groundwater Screening Levels[1] | |
|---|---|---|---|---|
| | | | Level | Source[1-6] |
| Pesticides - OPPs | Atrazine | µg/L | 3 | MCL |
| | Chlorpyrifos | µg/L | 33.4 | BCL |
| | Demeton (O + S) | µg/L | 1.33 | BCL |
| | Diazinon | µg/L | 23.4 | BCL |
| | Dichlorovos | µg/L | 0.269 | BCL |
| | Dimethoate | µg/L | 73.4 | BCL |
| | Disulfoton | µg/L | 1.33 | BCL |
| | EPN | µg/L | 0.334 | BCL |
| | Guthion | µg/L | 100 | BCL |
| | Malathion | µg/L | 667 | BCL |
| | Merphos | µg/L | 1 | BCL |
| | Methyl parathion | µg/L | 8.34 | BCL |
| | Naled | µg/L | 66.7 | BCL |
| | Parathion | µg/L | 200 | BCL |
| | Phorate | µg/L | 6.67 | BCL |
| | Ronnel | µg/L | 1,670 | BCL |
| | Simazine | µg/L | 4 | MCL |
| | Stirophos | µg/L | 3.25 | BCL |
| | Sulfotepp | µg/L | 16.7 | BCL |
| Other Organics | 4-Chlorobenzenesulfonic acid | µg/L | 3,340 | BCL |
| | Formaldehyde | µg/L | 0.387 | BCL |
| | Formic acid | µg/L | 0.626 | BCL |

**Notes:**

1. Groundwater screening levels (GWSLs).

MCL: Maximum Contaminant Level, USEPA.

MCLG: Maximum Contaminant Level Goal, USEPA.

PRG: Preliminary Remediation Goal, USEPA 2008 and USEPA 2009.

BCL: Residential Water Basic Comparison Level, NDEP 2023.

RSL: Regional Screening Levels (RSLs) for tapwater, USEPA 2023.

CAL: Primary MCL of 2,3,7,8-tetrachlorodibenzo-p-dioxin divided by Toxic Equivalence Factor (Van den Berg et al. 2006).

**Sources:**


[1] NDEP. 2023. User's Guide and Background Technical Document for NDEP Basic Comparison Levels (BCLs) for Human Health for the BMI Complex and Common Areas. Revision 16, June.

[2] USEPA. 2008. Interim Drinking Water Health Advisory for Perchlorate EPA 822-R-08-025. December.

[3] USEPA. 2009. Memorandum: Revised Assessment Guidance for Perchlorate. January 8.

[4] USEPA. 2023. Regional Screening Levels (RSL) for Chemical Contaminants at Superfund sites. May.

[5] USEPA. National Primary Drinking Water Regulations. Code of Federal Regulations, 40 CFR Part 141.

[6] Van den Berg M et al. 2006. Review: The 2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds. Toxicological Sciences 93 (2): 223-241.

## TABLE G-4. Exposure Assumptions
**Nevada Environmental Response Trust Site**
**Henderson, Nevada**

| Exposure Factors | Units | Symbol | Indoor Commercial/ Industrial Worker | | Resident | |
|---|---|---|---|---|---|---|
| | | | Value | Source | Value | Source |
| **Population-Specific Exposure Assumptions** | | | | | | |
| Exposure Time | hours/day | ET | 8 | NDEP 2023 | 24 | NDEP 2023 |
| Exposure Frequency | days/year | EF | 250 | NDEP 2023 | 350 | NDEP 2023 |
| Exposure Duration | years | ED | 25 | NDEP 2023 | 26 | NDEP 2023 |
| Averaging Time for Carcinogens | days | $AT_c$ | 25,550 | NDEP 2023 | 25,550 | NDEP 2023 |
| Averaging Time for Noncarcinogens | days | $AT_{nc}$ | 9,125 | NDEP 2023 | 9,490 | NDEP 2023 |
| **Inhalation of Vapor Migrating from Soil Gas or Groundwater to Indoor** | | | | | | |
| Conversion Factor | hour/day | CF | 24 | -- | 24 | -- |
| Intake Factor for Vapor Inhalation, cancer | unitless | $IF_{vapor.inh\_c}$ | 8.2E-02 | USEPA 2009 | 3.6E-01 | USEPA 2009 |
| Intake Factor for Vapor Inhalation, noncancer | unitless | $IF_{vapor.inh\_nc}$ | 2.3E-01 | USEPA 2009 | 9.6E-01 | USEPA 2009 |

**Notes:**

-- = Not applicable

NDEP = Nevada Division of Environmental Protection

USEPA = United States Environmental Protection Agency

**Sources:**

NDEP. 2023. User's Guide and Background Technical Document for NDEP Basic Comparison Levels (BCLs) for Human Health for the BMI Complex and Common Areas. December 2008, Revision 16, June.

USEPA. 2009. Risk Assessment Guidance for Superfund. Vol. 1: Part F, Supplemental Guidance for Inhalation Risk Assessment. Final. January.

## TABLE G-5. Vapor Intrusion Modeling Parameters for OU-1
**Nevada Environmental Response Trust Site**
**Henderson, Nevada**

| Parameter | Unit | Value | Source |
|---|---|---|---|
| ***Source/Receptor Parameters - Indoor Scenarios*** | | | |
| Soil gas sampling depth | feet | 5<br>15 | Site-specific estimate based on sampling depth |
| Soil temperature at source | Celsius | 17 | Site-specific measurement |
| ***Soil Parameters*** | | | |
| Bulk density | $g/cm^3$ | 1.722 | Mean of site-specific measurements. |
| Total porosity | unitless | 0.358 | Mean of site-specific measurements. |
| Water-filled porosity | unitless | 0.148 | Mean of site-specific measurements. |
| ***Building Foundation Parameters*** | | | |
| Depth to Bottom of Foundation, Slab-on-grade | cm | 20 | Default value in USEPA Spreadsheet Modeling Vapor Intrusion (USEPA 2017) |
| Foundation crack ratio | unitless | 0.001 | Default value in USEPA Spreadsheet Modeling Vapor Intrusion (USEPA 2017) |
| Average vapor flow rate into building | L/min | 337.5 | Default value in USEPA Spreadsheet Modeling Vapor Intrusion (USEPA 2017) |
| Foundation thickness | cm | 20 | Default value in USEPA Spreadsheet Modeling Vapor Intrusion (USEPA 2017) |
| ***Air Dispersion Parameters*** | | | |
| **Commercial Indoor Air Scenario** | | | |
| Air exchange rate | 1/hour | 1.5 | Default value in USEPA Spreadsheet Modeling Vapor Intrusion (USEPA 2017) |
| Enclosed Floor Space Area | $m^2$ | 1500 | Default value in USEPA Spreadsheet Modeling Vapor Intrusion (USEPA 2017) |
| Mixing height of building, Slab-on-grade | m | 3 | Default value in USEPA Spreadsheet Modeling Vapor Intrusion (USEPA 2017) |

**Notes:**
cm = centimeter
$g/cm^3$ = gram per cubic centimeter
L/min = liter per minute
m = meter
$m^2$ = square meter
OU = Operable Unit
USEPA = United States Environmental Protection Agency

**Sources:**
USEPA. 2017. EPA Spreadsheet Modeling Subsurface Vapor Intrusion. Version 6.0. September.

## TABLE G-6. Vapor Intrusion Modeling Parameters for OU-2

**Nevada Environmental Response Trust Site**

**Henderson, Nevada**

| Parameter | Units | Value | Source |
|---|---|---|---|
| ***Source/Receptor Parameters - Indoor and Outdoor Scenarios*** | | | |
| Soil gas sampling depth | feet | 5 | Site-specific estimate based on sampling depth |
| | | 10 | |
| | | 15 | |
| Soil temperature at source | Celsius | 17 | Site-specific measurement |
| ***Soil Parameters*** | | | |
| **0-5 feet soil** | | | |
| Bulk density | $g/cm^3$ | 1.719 | Mean of site-specific measurements. |
| Total porosity | unitless | 0.359 | Mean of site-specific measurements. |
| Water-filled porosity | unitless | 0.169 | Mean of site-specific measurements. |
| **5 - 15 feet soil** | | | |
| Bulk density | $g/cm^3$ | 1.669 | Mean of site-specific measurements. |
| Total porosity | unitless | 0.376 | Mean of site-specific measurements. |
| Water-filled porosity | unitless | 0.195 | Mean of site-specific measurements. |
| ***Building Foundation Parameters (Slab-on-Grade)*** | | | |
| **Commercial Indoor Air Scenario** | | | |
| Depth to Bottom of Foundation, Slab-on-grade | cm | 20 | Default value in USEPA Spreadsheet Modeling Vapor Intrusion (USEPA 2017) |
| Foundation crack ratio | unitless | 0.001 | Default value in USEPA Spreadsheet Modeling Vapor Intrusion (USEPA 2017) |
| Average vapor flow rate into building | L/min | 337.5 | Default value in USEPA Spreadsheet Modeling Vapor Intrusion (USEPA 2017) |
| Foundation thickness | cm | 20 | Default value in USEPA Spreadsheet Modeling Vapor Intrusion (USEPA 2017) |
| **Residential Indoor Air Scenario** | | | |
| Depth to Bottom of Foundation, Slab-on-grade | cm | 10 | Default value in USEPA Spreadsheet Modeling Vapor Intrusion (USEPA 2017) |
| Foundation crack ratio | unitless | 0.001 | Default value in USEPA Spreadsheet Modeling Vapor Intrusion (USEPA 2017) |
| Average vapor flow rate into building | L/min | 8.2 | Default value in USEPA Spreadsheet Modeling Vapor Intrusion (USEPA 2017) |
| Foundation thickness | cm | 10 | Default value in USEPA Spreadsheet Modeling Vapor Intrusion (USEPA 2017) |

## TABLE G-6. Vapor Intrusion Modeling Parameters for OU-2

**Nevada Environmental Response Trust Site**

**Henderson, Nevada**

| Parameter | Units | Value | Source |
|---|---|---|---|
| ***Air Dispersion Parameters*** | | | |
| **Commercial Indoor Air Scenario** | | | |
| Air exchange rate | 1/hour | 1.5 | Default value in USEPA Spreadsheet Modeling Vapor Intrusion (USEPA 2017) |
| Enclosed Floor Space Area | $m^2$ | 1500 | Default value in USEPA Spreadsheet Modeling Vapor Intrusion (USEPA 2017) |
| Mixing height of building, Slab-on-grade | m | 3 | Default value in USEPA Spreadsheet Modeling Vapor Intrusion (USEPA 2017) |
| **Residential Indoor Air Scenario** | | | |
| Air exchange rate | 1/hour | 0.45 | Default value in USEPA Spreadsheet Modeling Vapor Intrusion (USEPA 2017) |
| Enclosed space floor area | $m^2$ | 150 | Default value in USEPA Spreadsheet Modeling Vapor Intrusion (USEPA 2017) |
| Mixing height of building, Slab-on-grade | m | 2.44 | Default value in USEPA Spreadsheet Modeling Vapor Intrusion (USEPA 2017) |

**Notes:**

cm = centimeter

$cm^2/s$ = square centimeter per second

$g/cm^3$ = gram per cubic centimeter

L/min = liter per minute

m = meter

$m^2$ = square meter

OU = Operable Unit

USEPA = United States Environmental Protection Agency

**Source:**

USEPA. 2017. EPA Spreadsheet Modeling Subsurface Vapor Intrusion. Version 6.0. September.

**TABLE G-7. Soil Properties Data for OU-1**

**Nevada Environmental Response Trust Site**

**Henderson, Nevada**

| Sample ID [1] | Depth (ft) | Water-filled Porosity [2] (%Vb) | Dry Bulk Density [3] ($g/cm^3$) | Grain Density [4] ($g/cm^3$) | Soil Total Porosity [5] (%Vb) | Soil Type |
|---|---|---|---|---|---|---|
| SA56-10BSPLP | 10 | 0.134 | 1.689 | 2.719 | 0.379 | Loamy Sand |
| RSAM3-10BSPLP | 10 | 0.145 | 1.593 | 2.674 | 0.404 | Loamy Sand |
| SA166-10BSPLP | 10 | 0.100 | 1.721 | 2.681 | 0.358 | Loamy Sand |
| SA182-10BSPLP | 10 | 0.182 | 1.740 | 2.601 | 0.331 | Sandy Loam |
| RSAJ3-10BSPLP | 10 | 0.154 | 1.770 | 2.682 | 0.340 | Loamy Sand |
| RSAI7-10B | 10 | 0.138 | 1.661 | 2.682 | 0.381 | Sand |
| SA34-10BSPLP | 10 | 0.169 | 1.738 | 2.696 | 0.355 | Loamy Sand |
| SA52-15BSPLP [6] | 15 | 0.239 | 1.405 | 2.710 | 0.481 | Sand |
| RSAQ8-10BSPLP | 10 | 0.148 | 1.697 | 2.695 | 0.370 | Sand |
| RSAN8-10BSPLP | 10 | 0.189 | 1.679 | 2.683 | 0.374 | Loamy Sand |
| RSAQ4-10BSPLP | 10 | 0.141 | 1.841 | 2.705 | 0.319 | Sand |
| SA148-10BSPLP | 10 | 0.119 | 1.762 | 2.732 | 0.355 | Sand |
| SA30-9BSPLP | 9 | 0.160 | 1.805 | 2.711 | 0.334 | Sand |
| SA128-10BSPLP | 10 | 0.156 | 1.654 | 2.654 | 0.377 | Loamy Sand |
| SA102-10BSPLP | 10 | 0.135 | 1.769 | 2.696 | 0.344 | Sand |
| SA64-10BSPLP | 10 | 0.148 | 1.717 | 2.651 | 0.352 | Sand |
| **Mean [7]** | **9.93** | **0.148** | **1.722** | **2.684** | **0.358** | **Loamy Sand** |
| Minimum | 9 | 0.100 | 1.593 | 2.601 | 0.319 | NA |
| Maximum | 10 | 0.189 | 1.841 | 2.732 | 0.404 | NA |
| Median | 10 | 0.148 | 1.721 | 2.683 | 0.355 | NA |

**Notes:**

ft = feet

$g/cm^3$ = grams per cubic centimeter

ASTM = American Society for Testing and Materials

NA = Not applicable

OU = Operable unit

Vb = Volume-based

[1] The soil properties were reported in Northgate and Exponent (2010).

[2] As measured according to ASTM D 2216 and converted from mass-based water moisture to volumetric water content.

[3] As measured according to ASTM D 2937.

[4] As measured according to ASTM D 854.

[5] Calculated from dry bulk density and grain density.

[6] Sample not included in the evaluation because it represents wetter than average conditions in OU-1.

[7] The mean measurements in OU-1 were used in the vapor intrusion analysis as shown in Table G-5.

**Source:**

Northgate and Exponent. 2010. Site-Wide Soil Gas Human Health Risk Assessment, Tronox LLC, Henderson, Nevada, November 22.

**TABLE G-8. Soil Properties Data for OU-2**

**Nevada Environmental Response Trust Site**

**Henderson, Nevada**

| Sample Location | Sample ID [1] | Start Depth (ft) | End Depth (ft) | Water-filled Porosity [2] (%Vb) | Dry Bulk Density [3] ($g/cm^3$) | Soil Total Porosity [4] (%Vb) | Soil Type |
|---|---|---|---|---|---|---|---|
| RISG-1 | PT-RISG1-4.6-5.0-20190226 | 4.6 | 5 | 0.167 | 1.660 | 0.383 | Silty sand |
| RISG-2 | PT-RISG2-4.6-5.0-20190226 | 4.6 | 5 | 0.172 | 1.710 | 0.361 | Poorly graded sand with clay |
| RISG-3 | PT-RISG3-4.6-5.0-20190226 | 4.6 | 5 | 0.129 | 1.830 | 0.325 | Well-graded sand with silt |
| RISG-4 | PT-RISG4-4.6-5.0-20190226 | 4.6 | 5 | 0.121 | 1.770 | 0.342 | Clayey sand |
| RISG-7 | PT-RISG7-4.6-5.0-20190226 | 4.6 | 5 | 0.232 | 1.590 | 0.402 | Silty sand |
| RISG-8 | PT-RISG8-4.6-5.0 | 4.6 | 5 | 0.186 | 1.750 | 0.346 | Poorly graded sand with clay |
| RISG-9 | PT-RISG9-4.6-5.0-20190226 | 4.6 | 5 | 0.177 | 1.720 | 0.353 | Clayey sand |
| RISG-1 | PT-RISG1-9.6-10.0-20190226 | 9.6 | 10 | 0.226 | 1.520 | 0.434 | Poorly graded sand with clay |
| RISG-2 | PT-RISG2-9.6-10.0-20190226 | 9.6 | 10 | 0.195 | 1.710 | 0.357 | Silty sand |
| RISG-3 | PT-RISG3-9.6-10.0-20190226 | 9.6 | 10 | 0.190 | 1.700 | 0.371 | Well-graded sand with silt |
| RISG-4 | PT-RISG4-9.6-10.0-20190226 | 9.6 | 10 | 0.152 | 1.710 | 0.362 | Poorly graded sand with clay |
| RISG-5 | PT-RISG5-9.6-10.0-20190226 | 9.6 | 10 | 0.183 | 1.700 | 0.365 | Well-graded sand with silt |
| RISG-7 | PT-RISG7-9.6-10.0-20190226 [5] | 9.6 | 10 | 0.546 | 1.510 | 0.423 | Silty sand |
| RISG-8 | PT-RISG8-9.6-10.0 | 9.6 | 10 | 0.243 | 1.630 | 0.389 | Poorly graded sand with clay |
| RISG-9 | PT-RISG9-9.6-10.0-20190226 | 9.6 | 10 | 0.227 | 1.800 | 0.323 | Clayey sand |
| RISG-6 | PT-RISG6-12.0-12.5 | 12 | 12.5 | 0.089 | 1.770 | 0.335 | Clayey sand |
| RISG-6 | PT-RISG6-14.5-15 | 14.5 | 15 | 0.079 | 1.420 | 0.475 | Poorly graded sand with clay |
| RISG-1 | PT-RISG1-14.6-15.0-20190226 | 14.6 | 15 | 0.318 | 1.570 | 0.410 | Silty sand |
| RISG-2 | PT-RISG2-14.6-15.0-20190226 | 14.6 | 15 | 0.156 | 1.830 | 0.317 | Clayey sand |
| RISG-3 | PT-RISG3-14.6-15.0-20190226 | 14.6 | 15 | 0.199 | 1.680 | 0.369 | Silty sand |
| RISG-4 | PT-RISG4-14.6-15.0-20190226 | 14.6 | 15 | 0.217 | 1.550 | 0.421 | Silty sand |
| RISG-5 | PT-RISG5-14.6-15.0-20190226 | 14.6 | 15 | 0.112 | 1.770 | 0.338 | Well-graded sand with silt |
| RISG-8 | PT-RISG8-14.6-15.0 | 14.6 | 15 | 0.337 | 1.670 | 0.374 | Silty sand |
| **5 ft Mean [6]** | | **4.6** | **5.0** | **0.169** | **1.719** | **0.359** | **Loamy Sand** |
| 5 ft Minimum | | 4.6 | 5.0 | 0.121 | 1.590 | 0.325 | -- |
| 5 ft Maximum | | 4.6 | 5.0 | 0.232 | 1.830 | 0.402 | -- |
| Median | | 4.6 | 5.0 | 0.172 | 1.720 | 0.353 | -- |
| **10-15 ft Mean [6]** | | **12.1** | **12.5** | **0.195** | **1.669** | **0.376** | **Loamy Sand** |
| 10-15 ft Minimum | | 9.6 | 10.0 | 0.079 | 1.420 | 0.317 | -- |
| 10-15 ft Maximum | | 14.6 | 15.0 | 0.337 | 1.830 | 0.475 | -- |
| Median | | 12.0 | 12.5 | 0.195 | 1.700 | 0.369 | -- |

**Notes:**

ft = feet

$g/cm^3$ = grams per cubic centimeter

API = American Petroleum Institute

ASTM = American Society for Testing and Materials

OU = Operable Unit

Vb = Volume-based

[1] The soil properties were collected as part of the Phase 2 RI Modification #11 sampling in February 2019.

[2] As measured according to ASTM D 2216.

[3] As measured according to ASTM D 2937.

[4] As measured according to API RP40.

[5] Sample not included in the evaluation because it represents wetter than average conditions in OU-2.

[6] The mean measurements in OU-2 were used in the vapor intrusion analysis as shown in Table G-6

**Source:**

Core Laboratories. 2019. Physical Properties Data, NERT RI Phase 2. July 11.

## TABLE G-9. Soil Gas Screening Levels for Indoor Commercial/Industrial Workers - OU-1
**Nevada Environmental Response Trust Site**
**Henderson, Nevada**

| Chemical | 5 ft bgs | 15 ft bgs |
|---|---|---|
| | Minimum RBTC ($\mu g/m^3$) | Minimum RBTC ($\mu g/m^3$) |
| Acetone | 5.1E+08 | 1.6E+09 |
| Acrolein | 3.2E+02 | 9.9E+02 |
| Acrylonitrile | 6.5E+02 | 2.0E+03 |
| tert-Amyl methyl ether | 8.0E+07 | 2.5E+08 |
| Benzene | 7.1E+03 | 2.2E+04 |
| Benzyl chloride | 1.6E+03 | 5.0E+03 |
| Bromodichloromethane | 2.3E+03 | 7.4E+03 |
| Bromoform | 1.2E+05 | 3.9E+05 |
| Bromomethane | 8.9E+04 | 2.8E+05 |
| 2-Butanone | 9.5E+07 | 3.0E+08 |
| tert-Butyl alcohol | 9.1E+07 | 2.8E+08 |
| n-Butylbenzene | 1.3E+07 | 4.2E+07 |
| sec-Butylbenzene | 1.3E+07 | 4.2E+07 |
| tert-Butylbenzene | 1.3E+07 | 4.2E+07 |
| Carbon disulfide | 1.2E+07 | 3.7E+07 |
| Carbon tetrachloride | 1.4E+04 | 4.5E+04 |
| 3-Chloro-1-propene | 8.9E+03 | 2.8E+04 |
| Chlorobenzene | 1.2E+06 | 3.8E+06 |
| Chloroethane | 1.7E+08 | 5.4E+08 |
| Chloroform | 2.8E+03 | 8.8E+03 |
| Chloromethane | 1.3E+06 | 4.1E+06 |
| Cumene | 1.1E+07 | 3.7E+07 |
| Cyclohexane | 1.3E+08 | 4.2E+08 |
| p-Cymene | 9.4E+06 | 3.0E+07 |
| 1,2-Dibromo-3-chloropropane | 2.4E+01 | 7.8E+01 |
| Dibromochloromethane | -- | -- |
| 1,2-Dibromoethane | 1.8E+02 | 5.9E+02 |
| 1,2-Dichlorobenzene | 6.1E+06 | 2.0E+07 |
| 1,3-Dichlorobenzene | 5.1E+06 | 1.6E+07 |
| 1,4-Dichlorobenzene | 8.0E+03 | 2.5E+04 |
| Dichlorodifluoromethane | 2.3E+06 | 7.3E+06 |
| 1,1-Dichloroethane | 3.7E+04 | 1.2E+05 |
| 1,2-Dichloroethane | 2.2E+03 | 7.0E+03 |
| 1,1-Dichloroethene | 4.1E+06 | 1.3E+07 |
| cis-1,2-Dichloroethene | 8.0E+05 | 2.5E+06 |
| trans-1,2-Dichloroethene | 8.1E+05 | 2.5E+06 |
| 1,2-Dichloropropane | 1.8E+04 | 5.7E+04 |
| 1,3-Dichloropropene | 1.6E+04 | 5.1E+04 |
| Diisopropyl ether | 1.9E+07 | 5.9E+07 |
| 1,4-Dioxane | 9.0E+03 | 2.8E+04 |
| Ethanol | 1.3E+09 | 3.9E+09 |
| Ethyl tert-butyl ether | 9.3E+05 | 3.0E+06 |
| Ethyl acetate | 1.5E+06 | 4.7E+06 |
| Ethyl benzene | 2.9E+04 | 9.0E+04 |
| 4-Ethyltoluene | 9.4E+06 | 3.0E+07 |
| Freon 114 | 2.3E+08 | 7.3E+08 |
| n-Heptane | 1.1E+07 | 3.6E+07 |
| Hexachlorobutadiene | 8.0E+03 | 2.6E+04 |

## TABLE G-9. Soil Gas Screening Levels for Indoor Commercial/Industrial Workers - OU-1
**Nevada Environmental Response Trust Site**
**Henderson, Nevada**

| Chemical | 5 ft bgs | 15 ft bgs |
|---|---|---|
| | Minimum RBTC ($\mu g/m^3$) | Minimum RBTC ($\mu g/m^3$) |
| n-Hexane | 1.7E+07 | 5.3E+07 |
| 2-Hexanone | 7.3E+05 | 2.3E+06 |
| alpha-Methyl styrene | 2.8E+07 | 8.8E+07 |
| Methyl tert-butyl ether | 2.5E+05 | 7.9E+05 |
| 4-Methyl-2-pentanone | 7.4E+07 | 2.4E+08 |
| Methylene chloride | 5.0E+06 | 1.6E+07 |
| Methylmethacrylate | 1.6E+07 | 5.1E+07 |
| Naphthalene | 2.3E+03 | 7.5E+03 |
| n-Octane | 5.6E+05 | 1.8E+06 |
| n-Propylbenzene | 2.9E+07 | 9.2E+07 |
| Styrene | 2.5E+07 | 7.8E+07 |
| 1,1,1,2-Tetrachloroethane | 1.3E+04 | 4.3E+04 |
| 1,1,2,2-Tetrachloroethane | 1.7E+03 | 5.4E+03 |
| Tetrachloroethene | 3.7E+05 | 1.2E+06 |
| Tetrahydrofuran | 3.5E+07 | 1.1E+08 |
| Toluene | 1.1E+08 | 3.6E+08 |
| 1,2,4-Trichlorobenzene | 8.6E+04 | 2.8E+05 |
| 1,1,1-Trichloroethane | 1.3E+08 | 4.3E+08 |
| 1,1,2-Trichloroethane | 4.6E+03 | 1.4E+04 |
| Trichloroethene | 1.7E+04 | 5.5E+04 |
| Trichlorofluoromethane | -- | -- |
| 1,2,3-Trichloropropane | 9.0E+03 | 2.9E+04 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 2.3E+08 | 7.3E+08 |
| 1,2,4-Trimethylbenzene | 1.7E+06 | 5.5E+06 |
| 1,3,5-Trimethylbenzene | 1.7E+06 | 5.5E+06 |
| Vinyl acetate | 4.2E+06 | 1.3E+07 |
| Vinyl chloride | 1.1E+04 | 3.3E+04 |
| Xylenes (total) | 2.5E+06 | 8.1E+06 |

**Notes:**
-- = Not calculated due to lack of toxicity information
bgs = below ground surface
ft= feet
$\mu g/m^3$ = microgram per cubic meter
OU = Operable Unit
RBTC = Risk-Based Target Concentration

## TABLE G-10. Soil Gas Screening Levels for Indoor Commercial/Industrial Workers - OU-2
**Nevada Environmental Response Trust Site**
**Henderson, Nevada**

| Chemical | 5 ft bgs | 10 ft bgs | 15 ft bgs |
|---|---|---|---|
| | Minimum RBTC ($\mu g/m^3$) | Minimum RBTC ($\mu g/m^3$) | Minimum RBTC ($\mu g/m^3$) |
| Acetone | 6.8E+08 | 1.6E+09 | 2.4E+09 |
| Acrolein | 4.3E+02 | 1.0E+03 | 1.6E+03 |
| Acrylonitrile | 8.8E+02 | 2.1E+03 | 3.3E+03 |
| tert-Amyl methyl ether | 1.1E+08 | 2.7E+08 | 4.2E+08 |
| Benzene | 9.8E+03 | 2.3E+04 | 3.7E+04 |
| Benzyl chloride | 2.1E+03 | 5.2E+03 | 8.2E+03 |
| Bromodichloromethane | 3.2E+03 | 7.8E+03 | 1.2E+04 |
| Bromoform | 1.7E+05 | 4.0E+05 | 6.4E+05 |
| Bromomethane | 1.2E+05 | 2.9E+05 | 4.6E+05 |
| 1,3-Butadiene | 2.3E+03 | 5.5E+03 | 8.7E+03 |
| 2-Butanone | 1.3E+08 | 3.0E+08 | 4.7E+08 |
| tert-Butyl alcohol | 1.1E+08 | 2.5E+08 | 3.9E+08 |
| n-Butylbenzene | 1.8E+07 | 4.4E+07 | 7.0E+07 |
| sec-Butylbenzene | 1.8E+07 | 4.4E+07 | 7.0E+07 |
| tert-Butylbenzene | 1.8E+07 | 4.4E+07 | 7.0E+07 |
| Carbon disulfide | 1.6E+07 | 3.9E+07 | 6.1E+07 |
| Carbon tetrachloride | 2.0E+04 | 4.8E+04 | 7.5E+04 |
| 3-Chloro-1-propene | 1.2E+04 | 2.9E+04 | 4.6E+04 |
| Chlorobenzene | 1.7E+06 | 4.0E+06 | 6.4E+06 |
| Chloroethane | 2.4E+08 | 5.7E+08 | 9.0E+08 |
| Chloroform | 3.8E+03 | 9.2E+03 | 1.5E+04 |
| Chloromethane | 1.8E+06 | 4.3E+06 | 6.8E+06 |
| Cumene | 1.6E+07 | 3.9E+07 | 6.1E+07 |
| Cyclohexane | 1.8E+08 | 4.4E+08 | 7.0E+08 |
| p-Cymene | 1.3E+07 | 3.1E+07 | 4.9E+07 |
| 1,2-Dibromo-3-chloropropane | 3.2E+01 | 7.8E+01 | 1.2E+02 |
| Dibromochloromethane | -- | -- | -- |
| 1,2-Dibromoethane | 2.5E+02 | 6.2E+02 | 9.8E+02 |
| 1,2-Dichlorobenzene | 8.5E+06 | 2.1E+07 | 3.3E+07 |
| 1,3-Dichlorobenzene | 7.0E+06 | 1.7E+07 | 2.7E+07 |
| 1,4-Dichlorobenzene | 1.1E+04 | 2.7E+04 | 4.3E+04 |
| Dichlorodifluoromethane | 3.2E+06 | 7.7E+06 | 1.2E+07 |
| 1,1-Dichloroethane | 5.1E+04 | 1.2E+05 | 1.9E+05 |
| 1,2-Dichloroethane | 3.0E+03 | 7.3E+03 | 1.2E+04 |
| 1,1-Dichloroethene | 5.6E+06 | 1.4E+07 | 2.2E+07 |
| cis-1,2-Dichloroethene | 1.1E+06 | 2.7E+06 | 4.2E+06 |
| trans-1,2-Dichloroethene | 1.1E+06 | 2.7E+06 | 4.2E+06 |
| 1,2-Dichloropropane | 2.5E+04 | 6.0E+04 | 9.5E+04 |
| 1,3-Dichloropropene | 2.2E+04 | 5.4E+04 | 8.5E+04 |
| Diisopropyl ether | 2.6E+07 | 6.2E+07 | 9.9E+07 |
| 1,4-Dioxane | 9.9E+03 | 2.0E+04 | 3.0E+04 |
| Ethanol | 1.5E+09 | 3.1E+09 | 4.8E+09 |
| Ethyl tert-butyl ether | 1.3E+06 | 3.1E+06 | 4.9E+06 |
| Ethyl acetate | 2.0E+06 | 4.8E+06 | 7.6E+06 |
| Ethyl benzene | 3.9E+04 | 9.5E+04 | 1.5E+05 |
| 4-Ethyltoluene | 1.3E+07 | 3.1E+07 | 4.9E+07 |
| Freon 114 | 3.1E+08 | 7.7E+08 | 1.2E+09 |
| n-Heptane | 1.6E+07 | 3.8E+07 | 6.0E+07 |

## TABLE G-10. Soil Gas Screening Levels for Indoor Commercial/Industrial Workers - OU-2
**Nevada Environmental Response Trust Site**
**Henderson, Nevada**

| Chemical | 5 ft bgs | 10 ft bgs | 15 ft bgs |
|---|---|---|---|
| | Minimum RBTC ($\mu g/m^3$) | Minimum RBTC ($\mu g/m^3$) | Minimum RBTC ($\mu g/m^3$) |
| Hexachlorobutadiene | 1.1E+04 | 2.7E+04 | 4.4E+04 |
| n-Hexane | 2.3E+07 | 5.6E+07 | 8.9E+07 |
| 2-Hexanone | 1.0E+06 | 2.4E+06 | 3.7E+06 |
| alpha-Methyl styrene | 3.8E+07 | 9.2E+07 | 1.5E+08 |
| Methyl tert-butyl ether | 3.4E+05 | 8.3E+05 | 1.3E+06 |
| 4-Methyl-2-pentanone | 1.0E+08 | 2.4E+08 | 3.8E+08 |
| Methylene Chloride | 6.9E+06 | 1.6E+07 | 2.6E+07 |
| Methylmethacrylate | 2.2E+07 | 5.4E+07 | 8.5E+07 |
| Naphthalene | 3.2E+03 | 7.8E+03 | 1.2E+04 |
| n-Octane | 7.8E+05 | 1.9E+06 | 3.0E+06 |
| n-Propylbenzene | 4.0E+07 | 9.7E+07 | 1.5E+08 |
| Propylene | 6.8E+07 | 1.6E+08 | 2.5E+08 |
| Styrene | 3.4E+07 | 8.2E+07 | 1.3E+08 |
| 1,1,1,2-Tetrachloroethane | 1.9E+04 | 4.5E+04 | 7.2E+04 |
| 1,1,2,2-Tetrachloroethane | 2.3E+03 | 5.6E+03 | 8.9E+03 |
| Tetrachloroethene | 5.1E+05 | 1.2E+06 | 2.0E+06 |
| Tetrahydrofuran | 4.8E+07 | 1.1E+08 | 1.8E+08 |
| Toluene | 1.6E+08 | 3.8E+08 | 6.0E+08 |
| 1,2,4-Trichlorobenzene | 1.2E+05 | 2.9E+05 | 4.6E+05 |
| 1,1,1-Trichloroethane | 1.9E+08 | 4.5E+08 | 7.1E+08 |
| 1,1,2-Trichloroethane | 6.3E+03 | 1.5E+04 | 2.4E+04 |
| Trichloroethene | 2.4E+04 | 5.8E+04 | 9.2E+04 |
| Trichlorofluoromethane | -- | -- | -- |
| 1,2,3-Trichloropropane | 1.2E+04 | 3.0E+04 | 4.7E+04 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 3.1E+08 | 7.7E+08 | 1.2E+09 |
| 1,2,4-Trimethylbenzene | 2.4E+06 | 5.8E+06 | 9.1E+06 |
| 1,3,5-Trimethylbenzene | 2.4E+06 | 5.8E+06 | 9.2E+06 |
| Vinyl acetate | 5.7E+06 | 1.4E+07 | 2.2E+07 |
| Vinyl chloride | 1.5E+04 | 3.5E+04 | 5.5E+04 |
| Xylenes (total) | 3.5E+06 | 8.5E+06 | 1.4E+07 |

**Notes:**
-- = Not calculated due to lack of toxicity information
bgs = below ground surface
ft = feet
$\mu g/m^3$ = microgram per cubic meter
COPC = Chemical of potential concern
OU = Operable Unit
RBTC = Risk-Based Target Concentration

## TABLE G-11. Soil Gas Screening Levels for Residents - OU-2
**Nevada Environmental Response Trust Site**
**Henderson, Nevada**

| Chemical | 5 ft bgs | 10 ft bgs | 15 ft bgs |
|---|---|---|---|
| | Minimum RBTC ($\mu g/m^3$) | Minimum RBTC ($\mu g/m^3$) | Minimum RBTC ($\mu g/m^3$) |
| Acetone | 5.0E+07 | 1.0E+08 | 1.5E+08 |
| Acrolein | 3.2E+01 | 6.6E+01 | 1.0E+02 |
| Acrylonitrile | 6.2E+01 | 1.3E+02 | 1.9E+02 |
| tert-Amyl methyl ether | 7.6E+06 | 1.7E+07 | 2.6E+07 |
| Benzene | 6.7E+02 | 1.4E+03 | 2.2E+03 |
| Benzyl chloride | 1.4E+02 | 3.1E+02 | 4.8E+02 |
| Bromodichloromethane | 2.1E+02 | 4.6E+02 | 7.2E+02 |
| Bromoform | 1.0E+04 | 2.4E+04 | 3.7E+04 |
| Bromomethane | 8.8E+03 | 1.9E+04 | 2.8E+04 |
| 1,3-Butadiene | 1.6E+02 | 3.3E+02 | 5.1E+02 |
| 2-Butanone | 9.2E+06 | 1.9E+07 | 2.9E+07 |
| tert-Butyl alcohol | 8.3E+06 | 1.6E+07 | 2.4E+07 |
| n-Butylbenzene | 1.2E+06 | 2.7E+06 | 4.2E+06 |
| sec-Butylbenzene | 1.2E+06 | 2.7E+06 | 4.2E+06 |
| tert-Butylbenzene | 1.2E+06 | 2.7E+06 | 4.2E+06 |
| Carbon disulfide | 1.2E+06 | 2.5E+06 | 3.8E+06 |
| Carbon tetrachloride | 1.3E+03 | 2.8E+03 | 4.4E+03 |
| 3-Chloro-1-propene | 8.4E+02 | 1.8E+03 | 2.7E+03 |
| Chlorobenzene | 1.2E+05 | 2.5E+05 | 3.9E+05 |
| Chloroethane | 1.7E+07 | 3.6E+07 | 5.5E+07 |
| Chloroform | 2.6E+02 | 5.6E+02 | 8.6E+02 |
| Chloromethane | 1.3E+05 | 2.8E+05 | 4.2E+05 |
| Cumene | 1.1E+06 | 2.4E+06 | 3.7E+06 |
| Cyclohexane | 1.3E+07 | 2.8E+07 | 4.2E+07 |
| p-Cymene | 9.0E+05 | 1.9E+06 | 3.0E+06 |
| 1,2-Dibromo-3-chloropropane | 2.0E+00 | 4.5E+00 | 7.0E+00 |
| Dibromochloromethane | -- | -- | -- |
| 1,2-Dibromoethane | 1.6E+01 | 3.6E+01 | 5.7E+01 |
| 1,2-Dichlorobenzene | 5.8E+05 | 1.3E+06 | 2.0E+06 |
| 1,3-Dichlorobenzene | 4.8E+05 | 1.1E+06 | 1.6E+06 |
| 1,4-Dichlorobenzene | 7.2E+02 | 1.6E+03 | 2.5E+03 |
| Dichlorodifluoromethane | 2.2E+05 | 4.8E+05 | 7.4E+05 |
| 1,1-Dichloroethane | 3.5E+03 | 7.4E+03 | 1.1E+04 |
| 1,2-Dichloroethane | 2.1E+02 | 4.4E+02 | 6.8E+02 |
| 1,1-Dichloroethene | 4.0E+05 | 8.6E+05 | 1.3E+06 |
| cis-1,2-Dichloroethene | 7.8E+04 | 1.7E+05 | 2.6E+05 |
| trans-1,2-Dichloroethene | 7.9E+04 | 1.7E+05 | 2.6E+05 |
| 1,2-Dichloropropane | 1.7E+03 | 3.6E+03 | 5.6E+03 |
| 1,3-Dichloropropene | 1.5E+03 | 3.2E+03 | 5.0E+03 |
| Diisopropyl ether | 1.8E+06 | 3.9E+06 | 6.0E+06 |
| 1,4-Dioxane | 7.2E+02 | 1.3E+03 | 1.8E+03 |
| Ethanol | 1.2E+08 | 2.1E+08 | 3.1E+08 |
| Ethyl tert-butyl ether | 8.5E+04 | 1.9E+05 | 2.9E+05 |
| Ethyl acetate | 1.4E+05 | 3.0E+05 | 4.6E+05 |
| Ethyl benzene | 2.6E+03 | 5.7E+03 | 8.8E+03 |
| 4-Ethyltoluene | 9.0E+05 | 1.9E+06 | 3.0E+06 |
| Freon 114 | 2.1E+07 | 4.7E+07 | 7.3E+07 |
| n-Heptane | 1.1E+06 | 2.3E+06 | 3.6E+06 |

## TABLE G-11. Soil Gas Screening Levels for Residents - OU-2
**Nevada Environmental Response Trust Site**
**Henderson, Nevada**

| Chemical | 5 ft bgs | 10 ft bgs | 15 ft bgs |
|---|---|---|---|
| | Minimum RBTC ($\mu g/m^3$) | Minimum RBTC ($\mu g/m^3$) | Minimum RBTC ($\mu g/m^3$) |
| Hexachlorobutadiene | 6.9E+02 | 1.6E+03 | 2.5E+03 |
| n-Hexane | 1.6E+06 | 3.5E+06 | 5.4E+06 |
| 2-Hexanone | 6.9E+04 | 1.5E+05 | 2.3E+05 |
| alpha-Methyl styrene | 2.6E+06 | 5.7E+06 | 8.8E+06 |
| Methyl tert-butyl ether | 2.3E+04 | 5.0E+04 | 7.7E+04 |
| 4-Methyl-2-pentanone | 7.0E+06 | 1.5E+07 | 2.3E+07 |
| Methylene Chloride | 4.8E+05 | 1.0E+06 | 1.5E+06 |
| Methylmethacrylate | 1.6E+06 | 3.4E+06 | 5.2E+06 |
| Naphthalene | 2.1E+02 | 4.7E+02 | 7.2E+02 |
| n-Octane | 5.3E+04 | 1.2E+05 | 1.8E+05 |
| n-Propylbenzene | 2.7E+06 | 6.0E+06 | 9.3E+06 |
| Propylene | 4.9E+06 | 1.0E+07 | 1.6E+07 |
| Styrene | 2.4E+06 | 5.1E+06 | 7.9E+06 |
| 1,1,1,2-Tetrachloroethane | 1.2E+03 | 2.7E+03 | 4.2E+03 |
| 1,1,2,2-Tetrachloroethane | 1.5E+02 | 3.3E+02 | 5.1E+02 |
| Tetrachloroethene | 3.3E+04 | 7.3E+04 | 1.1E+05 |
| Tetrahydrofuran | 3.5E+06 | 7.2E+06 | 1.1E+07 |
| Toluene | 1.1E+07 | 2.4E+07 | 3.6E+07 |
| 1,2,4-Trichlorobenzene | 7.9E+03 | 1.8E+04 | 2.8E+04 |
| 1,1,1-Trichloroethane | 1.3E+07 | 2.8E+07 | 4.3E+07 |
| 1,1,2-Trichloroethane | 4.2E+02 | 9.1E+02 | 1.4E+03 |
| Trichloroethene | 1.6E+03 | 3.5E+03 | 5.4E+03 |
| Trichlorofluoromethane | -- | -- | -- |
| 1,2,3-Trichloropropane | 8.4E+02 | 1.8E+03 | 2.8E+03 |
| 1,1,2-Trichloro-1,2,2-trifluoroethane | 2.1E+07 | 4.7E+07 | 7.3E+07 |
| 1,2,4-Trimethylbenzene | 1.6E+05 | 3.6E+05 | 5.5E+05 |
| 1,3,5-Trimethylbenzene | 1.6E+05 | 3.6E+05 | 5.5E+05 |
| Vinyl acetate | 4.0E+05 | 8.6E+05 | 1.3E+06 |
| Vinyl chloride | 1.0E+03 | 2.2E+03 | 3.3E+03 |
| Xylenes (total) | 2.4E+05 | 5.3E+05 | 8.2E+05 |

**Notes:**
-- = Not calculated due to lack of toxicity information
bgs = below ground surface
ft = feet
$\mu g/m^3$ = microgram per cubic meter
COPC = Chemical of potential concern
OU = Operable Unit
RBTC = Risk-Based Target Concentration