

# Utah Division of Oil, Gas and Mining Guidance Document

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## Cleanup Level Summary Document (re: Utah Oil & Gas Conservation General Rules R649-3 Drilling and Operating Practices R649-9 Waste Management and Disposal)

This document is intended to establish minimum cleanup values for oil and gas exploration and production (E&P) related sites. Utah Administrative Code R649-3 and R649-9 should be used in conjunction with this guidance.

### FOR FURTHER INFORMATION CONTACT:

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### ***Our Mission***

*The Utah Oil and Gas Program within the Division of Oil, Gas and Mining:*

- Promote the exploration, development and conservation of oil and gas resources*
- Foster a fair economic return to the general public for those resources*
- Maintain sound, regulatory oversight to ensure environmentally acceptable activities*

### **Scope and Applicability**

This document depicts minimum cleanup levels for surface abandonment of E&P materials in the State of Utah. Sensitive sites may be required to meet more stringent abandonment levels. For a more complete discussion of required cleanup levels, refer to the Cleanup Level Guidance Document.

### **Cleanup Level Summary**

Recommended abandonment levels:

#### **SALINITY:**

- Electrical Conductivity:  $EC \leq 4$  mmho/cm
- Exchangeable Sodium Percentage:  $ESP \leq 15\%$
- Sodium Adsorption Ratio:  $SAR \leq 12$

#### **HYDROCARBON CONTENT:**

- 1% or 10,000 ppm TPH

TPH will be characterized using the following TRPH fractions:

- $TRPH = GRO + DRO + ORO$
- $GRO_{max} = 1,000$  ppm
- $DRO_{max} = 2,000$  ppm

TPH of 0.01 ppm to 9,999 ppm is required for sensitive sites. Cleanup level will be dependent upon the BTEXN levels in waste; consult with the Division for guidance.

- |                              |                             |
|------------------------------|-----------------------------|
| • Benzene $\leq 0.9$ ppm     | • Xylene $\leq 142$ ppm     |
| • Toluene $\leq 25$ ppm      | • Naphthalene $\leq 51$ ppm |
| • Ethylbenzene $\leq 23$ ppm |                             |

#### **METALS:**

If Toxicity Characteristic Leaching Procedure (TCLP) testing is determined to be required, the following limits for heavy metals will be used.

- |                     |                     |
|---------------------|---------------------|
| • As $\leq 5$ ppm   | • Cr $\leq 5$ ppm   |
| • Ba $\leq 100$ ppm | • Pb $\leq 5$ ppm   |
| • Cd $\leq 1$ ppm   | • Hg $\leq 0.2$ ppm |
| • Se $\leq 1$ ppm   | • Ag $\leq 5$ ppm   |