



U.S. Department of the Interior  
Bureau of Land Management



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# Production Operations



**Best Management Practices for Fluid Minerals**

The following BMPs address operations, maintenance, and the proper storage, handling, and treatment of industrial materials and wastes and the treatment of noxious weeds that may be associated with day-to-day oil and gas operations.

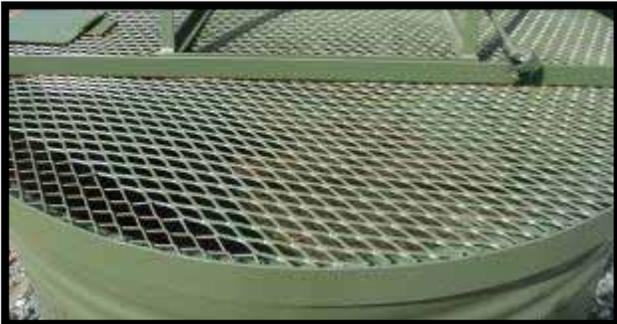
# Secondary Containment

Sufficiently impervious secondary containment, such as containment dikes, containment walls, and drip pans, should be constructed and maintained around all qualifying petroleum facilities, including tank batteries and separation and treating areas consistent with the Environmental Protection Agency's Spill Prevention, Control, and Countermeasure (SPCC) regulation (40 CFR 112).



Covered, load-out drip pan.

Screen to exclude wildlife.



Steel Containment dike.

# Storage of Hazardous Chemicals

Chemical containers should not be stored on bare ground, exposed to the sun and moisture. Containers and labels are subject to degradation and punctured drums could leak contents on the ground.



Chemicals containers should be maintained in good condition and placed within secondary containment in case of a spill or high velocity puncture.



# Bioremediation of Oil Field Wastes and Spills

On-site Bioremediation destroys oil field wastes & spills and reduces costs and potential liability associated with landfill disposal.

Refer to BLM Headquarters Instruction Memorandum: WO-IM-99-061

Preparing to suction-off free oil, excavate the contaminated soil, and bioremediate the soil on site.

Composting oily tank bottoms with wood chips.



# Housekeeping

Maintain a clean well location. remove trash, junk, and other materials not in current use.



Geothermal Well Location – Ownership Unknown



# Erosion Control: Culvert Rip-rap Installation



Use culvert outlet erosion control techniques, such as rip-rap, to slow water velocity and prevent soil erosion.

← Use this

To help prevent this →

Without culvert outlet erosion control, storm water can move massive quantities of soil.



Refer to EPA Storm Water BMPs:

<http://cfpub.epa.gov/npdes/stormwater/menuofbmps/menu.cfm>

# Noxious and Invasive Weed Prevention

The **Number 1** tool in the fight against noxious and invasive weeds is the prompt reapplication of topsoil and reseeded and revegetation of all disturbed soils with weed-free seed. Use weed-free mulch for erosion control. Avoid unnecessarily creating or maintaining bare ground.



# Noxious and Invasive Weed Prevention

When moving vehicles and machinery from areas containing noxious and invasive weeds, wash or air spray to remove weed seed.



Power-Washing



Air Spraying

# Control of Noxious and Invasive Weeds

Control noxious and invasive weeds during construction, production, and reclamation using an **integrated** approach: Cultural; Chemical; Biological; Physical.

