



## **E&P WASTE MANAGEMENT PLAN**

### **For all waste streams**

To maintain compliance with rule 907.a, Great Western Oil & Gas Company (GWOG) adheres to the rule in regards to identifying all waste streams and outlines the manner in which they are handled.

#### **Water-Based Bentonitic or Fresh-Water Drilling Fluids and Drill Cuttings**

Water-based bentonitic drilling fluids (WBBDF) and drill cuttings will be handled as described in the GWOG E&P Waste Management Plan for off-site land application of water-based bentonitic drilling fluids and cuttings. This plan is submitted as a separate document to comply with rule 307.d(3). Cuttings will be spread at a COGCC approved spread field, or properly disposed of as noted in the GWOG WBBDF Waste Management Plan.

#### **Oil-Based Drilling Fluids and Drill Cuttings**

Oil-based drilling fluids (OBDF) will be separated from the cuttings at surface. At the end of its use on a particular well, the liquid oil-based mud will be reused for additional drilling operations or it will be returned to the vendor who originally supplied the mud. Transportation will occur on a daily basis as required to facilitate ongoing drilling operations.

Oil-based drill cuttings (OBDC) will be separated from liquid mud onsite and the cuttings will be temporarily stored onsite in steel bins. Accumulated cuttings will be transported for permanent disposal to a licensed solid waste disposal facility. The actual solid waste disposal facility that is used will depend on geographic proximity to the well being drilled. Transportation will occur on a daily basis as required to facilitate ongoing drilling operations.

#### **Frac Flowback Water**

Water generated during flowback operations is stored in flowback tanks and hauled to High Sierra Water Services, LLC's (High Sierra) approved disposal facility.

#### **Produced Water**

Formation water produced by the well and temporarily stored onsite in produced water tanks is hauled to High Sierra's approved disposal facility.

**Tank Bottoms**

Oil waste in the form of tank bottoms is stored in production tanks and treated on-site if possible. Waste will be hauled to High Sierra's approved disposal facility if untreatable.

**Solid Waste/Soil Impacted with Hydrocarbons**

In the case of hydrocarbons impacting solids/soil, the resulting E&P waste will be handled in the following manner. Hydrocarbons spilled on the ground will be treated, and if it is untreatable, the waste will be hauled to Waste Management landfill with the appropriate manifest.

Hydrocarbon impacted solids resulting from flowback operations are contained in flowback tanks. Resulting waste from flowback operations is properly handled by the owners of the flowback tanks.