



## **Waste Management Plan Black Powder #2 Pad**

### **CUTTINGS MANAGEMENT**

Solids control equipment consisting of shale shakers will be utilized to separate drill cutting solids from liquid (water). Gulf Exploration will segment cuttings between surface and production drilling intervals in addition to different drilling intervals within the production drilling interval and sample for full COGCC Table 910-1 standards per 1000'. Samples collected from cuttings produced during the drilling of the surface casing hole typically do not exhibit exceedances of the total petroleum hydrocarbons, benzene, toluene, ethylbenzene, or total xylenes concentration Levels listed in COGCC Table 910-1 while samples produced during the production casing hole generally do. Mixing the cuttings from various intervals will typically reduce the exceedances of COGCC Table 910-1 criteria to acceptable levels. If cuttings meet Table 910-1 standards, they will be incorporated and treated as structural fill and beneficially re-used on location. They could also be used at another location as prior approved by COGCC Sundry Form 4.

Any excess cuttings may potentially be transported to an authorized waste facility. The moisture content of any cuttings shall be as low as practicable to prevent accumulation of liquids greater than de minimis amounts. In the event that a certain volume of drill cuttings analytically demonstrate constituents above Table 910-1 standards, the cuttings will be blended with native material and the COGCC will be notified prior to blending. At the time of interim reclamation, if the remediated drill cuttings are to be beneficially reused onsite, they will be adequately remediated to be below all applicable standards of Table 910-1.

The anticipated volume of cuttings is approximately 5,068 cubic feet or 188 cubic yards. Cuttings to be beneficially reused will be utilized as fill for pad reclamation, or as secondary containment, stormwater BMPS, etc.

### **DRILLING FLUIDS MANAGEMENT**

Closed loop system will be used to separate solids from liquid. The majority of water based mud drilling fluids are anticipated to be clean. Any water based mud drilling fluids that are deemed to be unusable, will be transported to an approved off-site disposal facility.

### **COMPLETIONS**

Flowback from completions will be treated at a COGCC approved facility. MSDS sheets will be maintained for any additives used in stimulation. Tanks will be labeled in accordance with COGCC regulations.

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## **PRODUCTION**

Flowback and stimulation fluids will be sent to tanks, separators, or other containment/filtering equipment before the fluids will be placed into any pipeline, storage vessel located on the well pad, or into tanker trucks for offsite disposal. The flowback and stimulation fluid tanks, separators, or other containment/filtering equipment will be placed on the well pad in an area with additional down gradient perimeter berming.

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