

## Amended Form 2A – RWF 44-18 Pad (Dry Cuttings Trench / Drilling Pit) Doc #401705291

**TEP Rocky Mountain LLC requests approval to manage drill cuttings produced from the DOE 1-M-18 pad (COGCC Location ID 335744, Amended Form 2A Doc #401655680) at the locations as described below.**

Drilling activities will commence at the DOE 1-M-18 well pad in March 2019, where 15 new wells are planned to be drilled. Due to the size and physical constraints / limitations of the proposed DOE 1-M-18 well pad, there will be no permanent disposal of drill cuttings on the well pad itself. The drill cuttings from these new wells will need to be transported to, and managed in separate off-site drill cuttings management areas. The primary drill cuttings management area for the drill cuttings will be located approximately 0.5 miles south of the actual DOE 1-M-18 well pad at the DOE 1-M-18 Cuttings Management Area (Form 2A Doc #401671641). This primary cuttings management area will accommodate approximately 4000 cubic yards of cuttings. However, the total volume of drill cuttings expected to be produced from these 15 new wells is expected to be between 8000 – 9000 cubic yards; therefore a secondary cuttings management area will be needed, and is proposed to be constructed at the RWF 44-18 well pad (COGCC Location ID 335146), which is located approximately 1.25 miles from the DOE 1-M-18 well pad (and 0.75 miles below the primary cuttings management area).

Primary Cuttings Management Area: Due to size and physical constraints of the DOE 1-M-18 well pad, drill cuttings will be hauled by truck to the newly constructed DOE 1-M-18 Cuttings Management Area located immediately adjacent to the off-site DOE 1-M-18 production pad. Drill cuttings will be hauled to this primary cuttings management area first, until that facility has reached its full design capacity (+/- 4000 cubic yards). After the design capacity for the primary cuttings management area has been reached, drill cuttings will then be transported by truck to the secondary cuttings management area to be constructed at the RWF 44-18 well pad. Topsoil will be stripped from the proposed from the primary cuttings management area and will be stockpiled along the south side of the pad. Storm water BMPs will be installed around the perimeter of the cuttings management area to protect against storm water run-on/runoff.

Secondary Cuttings Management Area: The existing RWF 44-18 pad (COGCC Location ID 335146) will be re-constructed within the boundaries of the previously disturbed area of the pad and will accommodate the remaining volume of drill cuttings from the DOE 1-M-18 well pad. Excavated material from the trench will be used to expand the pad to the south to support drill cuttings management operations at this location. Excess material excavated from the trench will be stockpiled north of the pad. Topsoil will also be stripped and stockpiled separately until it is needed for reclamation.

The general protocol for managing cuttings at these locations is as follows: Cuttings from each new well will be segregated and placed into the cuttings trench(s) and periodically sampled to determine if the drill cuttings meet COGCC 910-1 standards. Additional treatment / amendment of the cuttings may be occasionally needed to ensure that COGCC 910-1 standards are met prior to reclamation. If needed, clean fill material may be mixed with the cuttings to ensure that cleanup standards are met. Confirmation samples of the blended material will be collected and submitted to an approved analytical laboratory and analyzed for the full COGCC 910-1 list of organic, inorganic, and metal compounds (in soils) to ensure that these materials comply with COGCC cleanup standards. If sample results indicate that any of the inorganic parameters (i.e., Sodium Absorption Ratio, Electrical Conductivity, etc.) exceed their respective cleanup standards / background concentrations, these materials must be covered with a minimum cap of 3-ft of clean material (i.e., soils meeting 910-1 cleanup standards). Representative samples from the entire volume of the drill cuttings trench will be collected and analyzed to ensure compliance with COGCC 910-1 cleanup standards prior to reclaiming the cuttings trench. If the composition of the cuttings is verified to comply with the entire list of 910-1 cleanup standards (including the inorganic parameters), these materials may be either buried in-situ within the cuttings trench, or they may be re-used on the fill slope as needed to help shape and contour the pad in preparation for interim reclamation activities as outlined in COGCC's Interim

Reclamation requirements of COGCC Rule 1003. In addition, storm water BMPs will be installed and maintained as per the site-specific Storm Water Management Plan that has been prepared for each location. Both pads are included in TEP's storm water management program and will be inspected and maintained per COGCC

**Site Stabilization and Storm Water Management requirements of COGCC Rule 1002(f).**

TEP Rocky Mountain LLC is requesting authorization and approval to relocate drill cuttings from the DOE 1-M-18 well pad and manage them for permanent disposal and stabilization at the primary and secondary off-site locations as described above. The Primary cuttings management area is on Federal surface (Naval Oil Shale Reserve) and is managed by BLM, whereas, the Secondary cuttings management area is located on Fee surface (Clough Sheep Company). After consultation with all appropriate agencies and surface owners, all parties are in agreement that this is an acceptable and reasonable plan for safely managing the drill cuttings from the DOE 1-M-18 well pad.