

# Dust Mitigation Plan

## Red Rocks 35-11

This Dust Mitigation Plan has been prepared by Desert Eagle Operating, LLC (DEO) for its Red Rocks 35-11 helium gas well in Las Animas County, Colorado. The Plan addresses the Colorado Oil & Gas Conservation Commission (COGCC) requirement at Rule 304.c.(5) to prepare a Dust Mitigation Plan and the dust mitigation criteria in Rule 427.

DEO proposes to develop an Oil and Gas Location for a single conventional vertical exploratory helium gas well. The well will be drilled with air using a water well-sized drill rig. Freshwater will be used for dust suppression during site preparation and well drilling. There will be no hydraulic fracturing, stimulation, flowback, or proppant.

### 1.0 Soil Type

The soil type is listed in Table 1. It is shown on the Soil Unit Map submitted with the Form 2A application.

**Table 1. Soil Type**

Disturbance	Soil Type	Description
<b>Oil and Gas Location</b>	VT – Villedry-Travessilla complex, 1 to 8 percent slopes	VT – The A horizon is 0 to 5 inches of silt loam and sandy loam overlaying 4 to 15 inches of silt loam, silty clay loam, and sandy loam. Well drained. The depth to restrictive feature is alternately 20 to 40 inches and 6 to 20 inches.
	DaE – Dalerose-Rock Outcrop complex, 3 to 25 percent slopes	DaE – The A horizon is 0 to 5 inches of gravelly fine sandy loam overlaying 5 to 10 inches of gravelly loam. Well drained. The depth to restrictive features is 10 to 60 inches.
<b>Access Road</b>	VT – Villedry-Travessilla complex	See above
<b>Flowline</b>	DaE – Dalerose-Rock Outcrop complex	See above
	VT – Villedry-Travessilla complex	See above
	WC <sup>1</sup> – Plughat-Villegreen complex, 1 to 4 percent slopes	WC – The A horizon is 0 to 6 inches of silt loam and loam overlaying 3 to 15 inches of silty clay loam. Well drained. The depth to restrictive feature is 30 to 51 inches.

Source: Natural Resources Conservation Service, National Cooperative Soil Survey

<sup>1</sup>Included to represent the entire flowline alignment

### 2.0 Area of Soil Disturbance

The areas of soil disturbance are listed in Table 2.

The Oil and Gas Location will be approximately 1.10 acres with a 1.00 Working Pad Surface. The drill rig is the size typically used to drill a water well. It is self-leveling. This minimizes vegetation clearing and soil disturbance to situate the drill rig. The Interim Reclamation area will be stabilized and revegetated in accordance with COGCC Rule 1003.

DEO will use approximately 1,040 feet of new 12-foot-wide access road.

An off-location flowline trench for an 8-inch polyethylene flowline will be approximately 24 inches wide and 48 inches deep, with 3 feet of soil cover to the tie-in with the existing flowline. The equipment used for trenching minimizes the trench width and disturbance area.

**Table 2. Area of Soil Disturbance**

<b>Disturbance</b>	<b>Disturbance (ac)</b>
Oil and Gas Location	1.10
Working Pad Surface	1.00
Production Pad	0.20
Interim Reclamation	0.90
New Access	0.29
Flowline	0.13

### 3.0 Whether Access Roads are Paved

Access will be provided using unpaved CR 177.9 and unpaved two-track access from CR 177.9 to the Oil and Gas Location.

### 4.0 Anticipated Truck Trips

Table 3 lists anticipated durations by phase and truck trips.

**Table 3. Anticipated Truck Trips**

<b>Phase</b>	<b>Estimated Days</b>	<b>Truck Trips<sup>1</sup></b>
Construction	1	2
Drilling	7	16
Completion	3	4
Interim Reclamation	1	2
Production	10 (years)	192 (annual)

<sup>1</sup>Truck trips are one way.

### 5.0 Best Management Practices

**Table 4. Best Management Practices**

<b>Activity</b>	<b>Best Management Practices</b>
Speed Restrictions	<ul style="list-style-type: none"> <li>Drivers will be instructed to maintain a speed of 20 mph on the access road to minimize fugitive dust, road wear, and erosion.</li> </ul>
Regular Road Maintenance	<ul style="list-style-type: none"> <li>Regular inspection will occur for the access road for evidence of inadequate drainage and formation of potholes.</li> </ul>

Activity	Best Management Practices
	<ul style="list-style-type: none"><li>• Grading, blading, and filling potholes will be performed to maintain the road surface and discourage vehicles from widening the roadway or contributing to erosion.</li></ul>
Restricting Construction Activity During High Wind Days	<ul style="list-style-type: none"><li>• The 1-day well pad construction will be scheduled to avoid high-wind warnings issued for Las Animas County.</li></ul>
Dust Suppression	<ul style="list-style-type: none"><li>• Blowing soil and failure of the soil to stabilize and form a crust on the location during construction and after interim reclamation will indicate that a dust suppression BMP is needed. In that event, a water truck will be used to wet the pad surface.</li></ul>
Interim Reclamation	<ul style="list-style-type: none"><li>• Area not needed for production will be reclaimed in accordance with Rule 1003.</li></ul>
Topsoil Stockpile	<ul style="list-style-type: none"><li>• The stockpile will be mounded to prevent loose soils and promote vegetative growth.</li><li>• Wheel packing, a tackifier, seeding practices, or an erosion control blanket will be used to improve short term stabilization.</li><li>• Vegetation will be allowed to establish to stabilize the stockpile, outcompete weeds, and promote soil microbial activity.</li></ul>