



Caerus Oil and Gas, LLC  
Operator # 10456

### **Valley Transfer Facility - Interim Reclamation Plan**

COGCC Location ID # 439130  
NESW, Section 4, T6S, R96W  
Garfield County

#### **Site Description:**

The Unocal 5 Valley Transfer Station was a COGCC Form 28 E&P Waste Management Facility located on the western third of the Unocal-Encana-66S96W 4NESW pad location (COGCC Location ID 335618) known internally as the Unocal 5 pad location. The water transfer portion of the pad was decommissioned, and the Form 28 was closed 3/24/2020. Caerus is now required to have the well pad interim reclaimed by 9/24/20. The reclamation will include burying clean surface cuttings from the O04-696 wells. The location is on Fee surface with Fee minerals. The site elevation is 5,806 feet. Caerus plans to complete the interim reclamation by the COGCC due date 9/24/20.

#### **Soils Description:**

The USDA National Soils Cooperative website was used to identify boundaries of the soils mapping units. The well pad falls within two soil types; 47 – Nihill channery loam, 6 to 25% slopes and 62 – Rock outcrop-Torriorthents complex, very steep. Both soil types are classified as well drained.

#### **Pre-Disturbance Vegetation Composition:**

The vegetation listed under the Nihill Rolling Loam consists of Western wheatgrass 20%, big sagebrush 15%, Bluebunch wheatgrass 15%, Indian Ricegrass 10%, needleandthread 10%, and yellow rabbitbrush 5%. No vegetation is listed for the Rock outcrop. This habitat type matches with the BLM Low Elevation Salt-Desert Shrub seed mix.

#### **Known Weed Infestations:**

There are no known or identified Colorado list A or B weed infestations at this location.

#### **Management of Waste Material:**

This location was a COGCC Form 28 Waste Management Facility . The Form 28 was closed 3/24/20. If impacted material is encountered and a sheen, odor, etc. are observed, the Caerus EHS, Land and Construction departments will be notified. Caerus will assess and determine what steps need to be taken to ensure compliance with COGCC regulations.

All soils which exceed COGCC 910-1 for Inorganic concentrations will be buried at a depth of greater than 3 feet from reclaimed surface to insure proper site revegetation. Any Historic drill cuttings identified during reclamation will also be buried at a depth of 3 feet or greater.

All drill cuttings produced during the drilling of the surface casing holes on the O04-696 complied with COGCC Table 910-1 Concentration Levels, except for SAR and pH. The cuttings will be placed in the southeast cut slope and covered with at least three feet of soil per guidelines set forth under FAQ 32. FAQ 32 was developed by COGCC staff to set guidelines for dealing with soil that is compliant with all COGCC Table 910-1 Concentration Levels except the levels for pH, EC, and SAR. Under these guidelines, the COGCC conditionally allows operators to bury soil exhibiting EC, SAR, and pH measurements that exceed COGCC Table 910-1 Concentration Levels under three feet of soil. This placement of cuttings in the southeast cut slope has been approved by the COGCC via a Beneficial Reuse Plan (COGCC Document 402379629) submitted for this location.

#### **Gathering Lines:**

The appropriate one-calls need to be made prior to digging. There is no pipeline reclamation associated with this project.

#### **Access Road:**

The access road associated with this location will remain as is. No reclamation is required for the access road.

#### **Recontouring:**

Reclaimed topographic conditions should be similar to pre-disturbance conditions as described in the pre-construction, site specific document and the surveyor plats. The reclaimed landscape should blend with the surrounding contours, historic hydrology should be restored and erosion control BMPs should be installed to prevent stormwater discharges from the disturbance. The topsoil should be spread at appropriate depths to the geographic topography. In most cases, to a depth of 4 to 6 inches (or if topsoil is scarce, as deep as possible) across the disturbed areas.

The site specific recontouring or landforming design will be installed at the direction of the construction department.

**Re-establish and Stabilize Drainage Features:**

The goal for stormwater management on this location will be to stabilize soils, prevent excessive erosion, soil instability, subsidence and or slumping. Landforming and successful vegetation will be employed as the best management practices to achieve these goals. Site specific BMPs will be installed at the direction of the construction department.

**Seedbed Preparation and Seeding:**

Seed beds will be prepared by surface roughening prior to seeding activities. Special effort will be made to salvage and transplant shrubs, trees and other available vegetative growth, during the reclamation process. Seeding will take place within 24 hours of completion of the seed bed preparation, weather permitting. Amendments for this reclaim area shall include: 2000 lbs./acre Richlawn 3-6-3™ organics and 3500 lbs./acre Biotic Earth™ topsoil replacement and growth medium. Crimped straw mulch shall be applied for soil moisture retention and stormwater stabilization. A natural, fiber mulch (hydraulically applied) may also be utilized for areas that are too steep to drill seed and crimp.

Seed will be certified weed free. Seed weight will be calculated in pounds per acre. Seed tags need to be submitted with the seed report form. Seeding may need to be repeated until successful. Caerus will monitor and ensure successful vegetation establishment.

**Establish desired self-perpetuating plant community:**

The following seed mix will be used on this location. The estimated total disturbed acreage for the well pad is approximately 2.0 acres. The recommended seed rate will depend on the final seed mix selection and application method. See the seed mix listed below.

**Interim Reclamation – Seed Mix**

**Table 1-4. Low Elevation Salt-Desert Shrub or Basin Big Sagebrush (8 to 10 inches precipitation)**

<i>Common Name</i>	<i>Species Name</i>	<i>Variety</i>	<i>Seeds per Pound</i>	<i>PLS lbs/acre</i>	
<b>Plant All of the Following Grasses (15% of Mix Each, 45% Total)</b>					
Indian Ricegrass	<i>Achnatherum hymenoides</i>	Native Colorado/Utah source or Nezapar, Paloma, Rimrock	141,000	2.8	
Alkali Sacaton	<i>Sporobolus airoides</i>	Native Colorado/Utah source preferred	5,000,000	0.08	
Sand Dropseed	<i>Sporobolus cryptandrus</i>	UP* Dolores or native Colorado/Utah source preferred	1,750,000	0.2	
<b>And Two of the Following Grasses (10% of Mix Each, 20% Total)</b>					
Bottlebrush squirreltail	<i>Elymus elymoides</i>	Fish Creek, Toe Jam Creek, Wapiti	192,000	1.4	
Salina Wildrye	<i>Leymus salinas</i>	UP* Dolores or native Colorado/Utah source preferred	125,000 (estimate)	2.1	
Western Wheatgrass	<i>Pascopyrum smithii</i>	UP* variety or Arriba, Recovery, Rodan, Rosana	110,000	2.4	
<b>And One of the Following Grasses (10% of Mix Each, 10% Total)</b>					
Purple Three-awn	<i>Aristida purpurea</i>	Native Colorado/Utah source preferred	275,000	1.0	
Galleta	<i>Pleuraphis jamesii</i>	Native Colorado/Utah source preferred	159,000	1.6	
<b>And Two of the Following Shrubs (7.5% of Mix Each, 15% Total)</b>					
Fourwing Saltbush	<i>Atriplex canescens</i>	Native Colorado/Utah source preferred	50,000	3.9	
Shadscale Saltbush	<i>Atriplex confertifolia</i>	Native Colorado/Utah source, or Rincon, Snake River, Wytana	60,000	3.3	
Gardner's Saltbush	<i>Atriplex gardneri</i>	Native Colorado/Utah source preferred	111,500	1.8	
<b>And Four of the Following Forbs/Subshrubs (2.5% of Mix Each, 10% Total)**</b>					
<i>Common Name</i>	<i>Scientific Name</i>	<i>PLS lbs/acre</i>	<i>Common Name</i>	<i>Scientific Name</i>	<i>PLS lbs/acre</i>
Broom Snakeweed	<i>Gutierrezia sarothrae</i>	0.04	Scarlet Globemallow	<i>Sphaeralcea coccinea</i>	0.13
Lewis Blue Flax	<i>Linum lewisii</i>	0.4	Western Yarrow	<i>Achillea millefolium</i>	0.02
Scarlet Gilia	<i>Ipomopsis aggregata</i>	0.18	Winterfat	<i>Krascheninnikovia lanata</i>	0.53

\*UP = Uncompahgre Project (UP), Kathy See, nativeplant@upartnership.org, 970-240-9498, 970-901-8247

\*\* From UP if available; otherwise native Colorado/Utah source preferred.

**Fencing:**

A standard wildlife friendly fence will be installed around the reclaimed well pad to ensure that the interim reclaim does not get overgrazed.

**Manage Invasive Plants:**

Through annual site visits, noxious and invasive weeds will be identified, inventoried and treated by licensed contracted herbicide applicators or mechanically removed. Caerus will monitor, control and reduce the spread of noxious and invasive weed species within Caerus' disturbances as determined in the Colorado Noxious Weed Act and rules pertaining to the administration and enforcement of the Colorado Noxious Weed Act.

**Reclamation Monitoring and Reporting:**

State regulations and Caerus' Best Management Practices require routine site visits and active management over construction activities, along with annual reclamation reporting requirements. For compliance with Colorado Department of Public Health and Environment (CDPHE) Stormwater rules, the location will be visited every 14 days during active construction and monthly thereafter until the vegetation has reached 70% cover of pre-disturbance levels, with the focus on stabilizing the site post-construction. Annual inspections (at a minimum), will then take place on the location, for compliance with COGCC, until the location reaches 80% pre-existing vegetative cover. Focus for this phase will be to further stabilize soils, preventing erosion and site degradation, and to monitor for and treat invasive species.

