
TOPSOIL PROTECTION PLAN



Bigfoot 11

Sec. 11 T4N R63W (SWNW & NWSW)

Weld County, Colorado

Surface: Fee

Submitted as an accompaniment to the Form 2A Application, this Topsoil Protection Plan is consistent with the requirements of Rule 1002.c.

Original Submittal: October 29, 2021



Confluence DJ LLC Weld County, Colorado

Topsoil Protection Plan

Project Summary:

Confluence's proposed Bigfoot 11 location is located in Township 4 North, Range 63 West, Section 11 in Weld County, Colorado. The proposed location is fee surface with a total pad disturbance of 17.67 acres with a working pad surface area of 11.2 acres and a production pad area of 6.9 acres after interim reclamation. The graded site elevation is expected to be approximately 4617 feet. Construction is anticipated to begin no sooner than March 2022.

Purpose:

Topsoil protection and stabilization is key to successful reclamation. The objective of Confluence DJ LLC's ("Confluence's") topsoil protection and stabilization is to ensure as much topsoil can remain intact with minimal erosions caused by wind, storm events, traffic, and other activities that might cause topsoil erosion or degradation. Good topsoil protection and stabilization ensures successful reclamation and the restoration of the natural vegetative community, hydrology, and wildlife habitats. Salvaging and reuse of all topsoil in a timely manner will not only maintain viable topsoil but will allow for successful reclamation. Best Management Practices (BMPs), where applicable, mixed with other protection and stabilization measures ensure topsoil is maintained in its best condition to be used for both interim and final reclamation.

In areas that are disturbed by construction, topsoil will be stripped and stockpiled near the site. All brush, limbs, and other woody material will be stockpiled separately from the topsoil. Soil materials will be managed so that erosion and sediment transport are minimized.

Bigfoot 11:

Topsoil will be monitored throughout all phases of the oil and gas development project, including construction, production, and reclamation. The surrounding topography is relatively flat. As construction progresses, BMPs will be assessed, installed, and/or replaced as needed.

During active construction and development the following BMPs will be implemented on Bigfoot 11:

- A Stormwater Detention Pond will be installed at the entrance to the wellpad. Please see Layout Drawings.
- Filter Logs will be installed on the western side of the wellpad.
- Diversion Channels will be installed around the wellpad directing water to the stormwater detention pond and/or away from the wellpad.
- Rock Rip-Rap will be placed on both sides of the access road to the pad will slow/filter any stormwater runoff from the road itself. Rock rip-rap apron will also be installed on the eastern edge of the topsoil pile.
- During construction, and development topsoil should be piled no higher than 3 to 5 feet high and slopes of the stockpiles should not exceed 2:1 (horizontal:vertical) to minimize erosion potential

and facilitate interim stabilization.

- The construction area is ± 17.67 acres. Please see wellsite diagrams. Topsoil material will be placed south of the cleared pad and will be approximately 11,322 CY.

Volume Estimates			
<i>Description</i>	<i>Value</i>	<i>Units</i>	<i>Notes</i>
Area of topsoil strip	611,389	SF	Estimated based on conceptual grading
	14.04	AC	
Depth of topsoil	6	IN	Estimated based on field samples
	0.50	FT	
Volume of topsoil stockpile	305,694	CF	Area of topsoil strip x depth of topsoil
	11,322	CY	

- Gravel will be installed on the wellpad and access road. Any area not needed for production activities will be interim reclaimed.
- Topsoil stockpiled for more than six months will be seeded and mulched with a temporary grass cover or will be stabilized using structural and/or non-structural control measures.

General Construction Guidelines for Producing Wells

Wellpad and access road construction will be performed using conventional cut and fill construction. Confluence will begin with the clearing of vegetation and removal of available topsoil material to a depth of six inches or maximum available. Basic construction activities conducted during this phase include clearing and grubbing, grading and excavation, compaction, final grading and contouring, and installation of surfacing materials such as gravel or road-base.

To the extent feasible, surface vegetation would be cleared by mowing, raking, and burning in preference to scraping to facilitate topsoil protection and stabilization and reclamation potential. If removed, topsoil will be windrowed on either side of the alignment adjacent to the construction limits as staked. Upon commencement of road construction, the topsoil will be replaced in the borrow ditches. Removed soil and overburden would be stored for reclamation purposes. No removed soil or overburden would be pushed into drainages or stored where transport into drainages could occur.

The wellpad would be constructed of native materials with application of gravel as required to allow all-weather operations, and the topsoil pile will be clearly separated. Topsoil not needed for interim reclamation on wellpads with favorable wells will be seeded and crimped with straw to promote vegetative growth until final reclamation. The seed mix planned to be utilized for the Bigfoot 11 location is Buffalo Brand Sandy Soil Mix.

Following drilling and completion activities, the location will be reduced, thus minimizing the area of disturbance for the production life of the well. The location will be recontoured, topsoil reapplied, and the reduced area stabilized with seed, hydro-seed, bonded fiber matrix, mulch, etc. as deemed appropriate for the site.

- To negate topsoil erosion from storm events, the first site inspection must be completed within seven (7) calendar days of the commencement of construction activities.
- Active construction sites will be inspected at one of the two following frequencies:
 - At least one inspection every 7 calendar days;
 - At least one inspection every 14 calendar days, if post-storm event inspections are conducted within 24 hours after the end of any precipitation or snowmelt event that causes surface erosion. Note that post-storm inspections may be used to fulfill the 14-day routine inspection requirement.

The location may be recontoured, topsoil reapplied, and the reduced area stabilized with seed, hydro-seed, bonded fiber matrix, mulch, etc. as deemed appropriate for the site. The borrow ditches will be reseeded to promote topsoil stabilization and will reduce the area utilized by this location. The seed mix planned to be utilized for the Bigfoot 11 location is Buffalo Brand Sandy Soil Mix.

Topsoil would be segregated from cut areas for use in reclamation.

Salvaging and spreading topsoil will not be performed when the ground or topsoil is frozen or too wet to adequately support construction equipment. If such equipment creates ruts more than four inches deep, the soil will be deemed too wet.

Test pits for topsoil determination will be hand dug to a depth of one-foot or less. Topsoil in this area is not expected to exceed six-inches.

Additional Best Management Practices that may be used for General Topsoil Protection and Stabilization:

- Employee Training
- Seeding
- Mulching
- Mulch Tackifier
- Soil Binder
- Construction Phasing/Sequencing
- Rock Sock
- Rolled Erosion Control Products
- Silt Fence
- Stockpile Management
- Erosion Bale
- Grading Techniques
- Surface Roughening
- Berm/Diversion
- Temporary Drainage Swale
- Temporary and Permanent Seeding
- Terracing

- Vegetative Buffer
- Wind Erosion/Dust Control

