

CCR 0994-23-02 Well Pad

NRCS Map Unit Description ECMC Rule 304.b.(10)



Laramie Energy, LLC
3199 D Rd. Bldg A2
Grand Junction, CO 81504

**CCR 0994-23-02 Well Pad
NRCS Map Unit Description
ECMC Rule 304.b.(10).**



1. INTRODUCTION – ECMC RULE 304.b.(10)

The following Soils Report addresses the requirements for Colorado Energy Carbon Management Commission (referred to hereinafter as ECMC or the Commission) Rule 304.b.(10) NRCS Map Unit Description under 300 Series of the Commission’s rules as required for a Form 2A Location Assessment. The CCR 0994-23-02 NRCS Map Unit Description includes NRCS soil reports and soil maps.

2. CCR 0994-23-02 WELL PAD

Laramie Energy, LLC (Laramie) (Operator # 10433) is pursuing a Form 2A for an Oil and Gas Location Assessment permit in Mesa County, Colorado. The Colorado Canyon Ranch (CCR) 0994-23-02 well pad (CCR Pad) is a proposed, new location. Laramie is proposing to drill two (2) new horizontal wells at the CCR Pad in Section 23 of Township 9 South, Range 94 West, 6th P.M. The CCR will develop fee and federal minerals.

OGDP Title: 2024 CCR 0994-23-02 OGD

Location Name: CCR 0994-23-02

Location ID: New Location

Legal Description: NWNE of Section 23, Township 9 South, Range 94 West, 6th P.M.

Location Coordinates: Latitude: 39.268132°; Longitude: -107.847692°

Elevation: 7142 feet

County: Mesa

General Location: 6 mapped miles east of Collbran, Colorado.

Zone District: Agricultural, Forestry, Transitional District (AFT)

Surface Owner: Colorado Canyon Ranch LLC

Nearest Public Crossroads: HWY 330 & 64 3-10 Road (Mesa County Public Roads)

Table 1. Disturbance Acreage

Well Pad	Disturbance in Acres	
Area of Disturbance	7.5	
Working Pad Surface	4.3	
Area to be Interim Reclaimed	5.2	
Production Pad Surface (after Interim Reclamation)	2.3	
Access Road	Disturbance in Acres	
Proposed Access Road Acreage (2,542 feet length)	1.9	
Pipeline	Disturbance in Acres	
Proposed Pipeline (703 feet length)	0.8	
Disturbance Totals - Acres		
TOTAL DISTURBANCE	Short-term	Long Term
10.2	6.1	4.2

**CCR 0994-23-02 Well Pad
NRCS Map Unit Description
ECMC Rule 304.b.(10).**



Operations will be conducted in the following phases at the CCR Pad: construction, production equipment installation, drill rig mobilization, drilling, completions and flowback (including equipment mobilization, staging, and demobilization), production, interim reclamation, inspections, and final grading/reclamation of the site. Inspection activities will occur during the lifespan of the site. Laramie anticipates that the well pad will remain in production for approximately 30 years, based on the average lifespan of wells within the area.

3. SOILS – NRCS MAP UNIT DESCRIPTION

A soils report from the Natural Resource Conservation Service (NRCS) indicates the CCR Area of Disturbance, Working Pad Surface, buried pipeline segment, and access road are situated within one NRCS Map Unit as described below in **Table 2**.

Table 2. NRCS Map Unit and Disturbance

Disturbance	Map Unit	NRCS Soil Description	Disturbance Per NRCS Soil Map Unit (Acres)
Well Pad Access Road & Pipeline	37	Fughes clay loam, 2 to 6 percent slopes	10.2

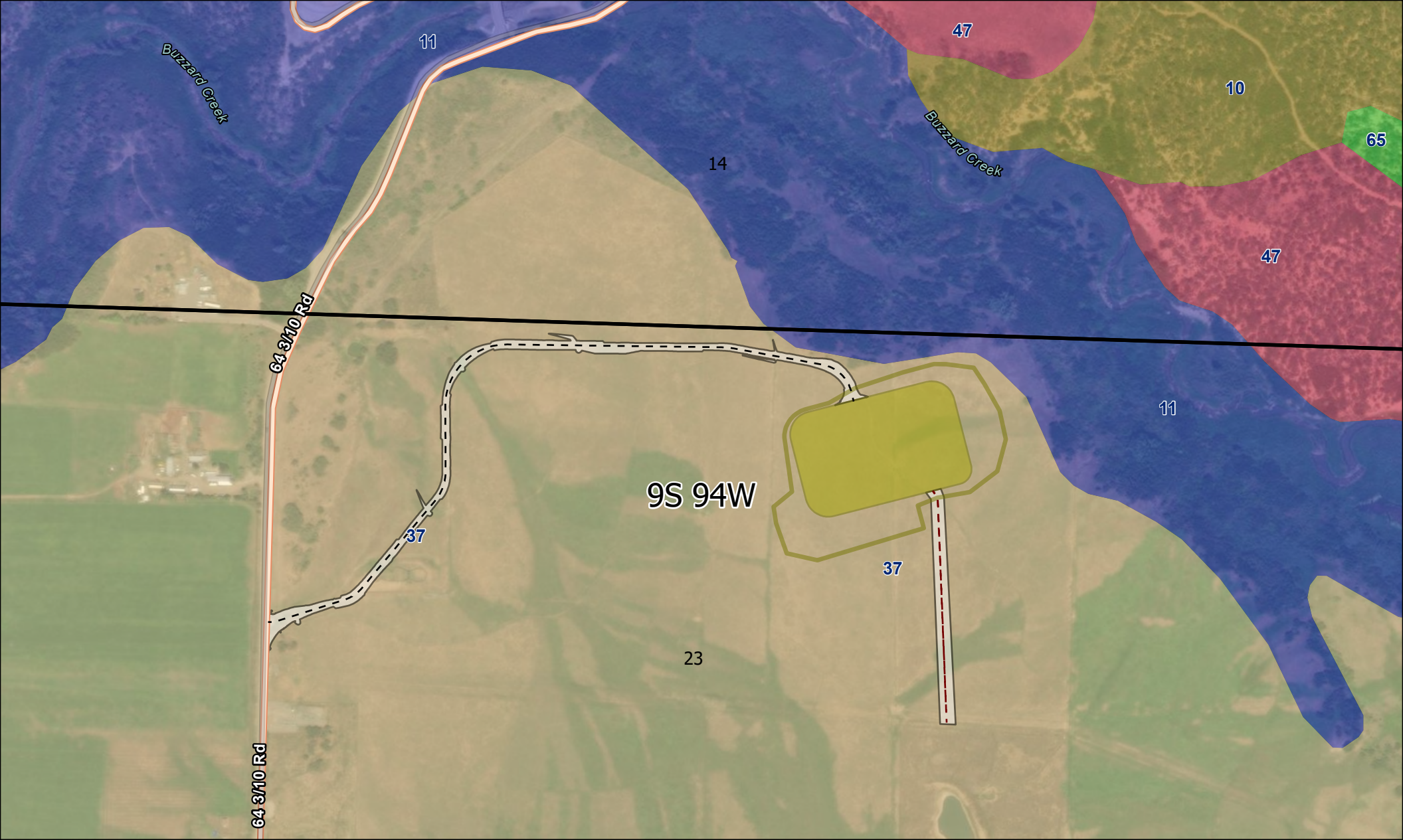
4. FUGHES CLAY LOAM: NRCS MAP UNIT 37






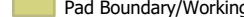
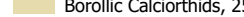

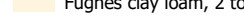
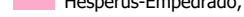
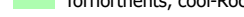
The Fughes Clay Loam is composed of Fughes and similar soils (90%) and minor components (10%). The Fughes clay loam occurs in elevation of 6,800 to 7,400 feet and is classified prime farmland if irrigated. Classified as hydrologic soil group C with a high runoff class. The depth to water table is more than 80 inches.

The Fughes is a well drained clay loam with a high available water supply. The setting landform is terraces and mesas. Fughes parent material is mixed rock alluvium derived from sedimentary rock and/or mixed rock colluvium derived from sedimentary rock.

Table 3. Fughes Clay Loam (Map Unit 37) Profile

Location	Composition	Typical Profile
Area of Disturbance, Working Pad Surface, Buried Pipeline and Access Road	Fughes	A- 0 to 7 inches: clay loam
		H2 - 7 to 18 inches: clay loam
		H3 - 18 to 50 inches: clay loam
		H4 - 50 to 60 inches: silty clay loam



-  Existing Access Roads
-  Proposed Pipeline
-  Proposed Access Road
-  Proposed Disturbance
-  Pad Disturbance
-  Pad Boundary/Working Surface
-  Borollic Calciorthids, 25 to 50 percent slopes (Map Unit 10)
-  Borpark stony loam, 40 to 75 percent slopes (Map Unit 11)
-  Fughes clay loam, 2 to 6 percent slopes (Map Unit 37)
-  Hesperus-Empedrado, moist-Pagoda complex 5 to 35 percent slopes (47)
-  Torriorthents, cool-Rock outcrop complex, 35 to 90 percent slopes (65)



**NRCS MAP- Soils Map
ECMC Rule 304.b(10)**

**CCR 0994-23-02 Pad
NWNE, SECTION 23,
T9S, R94W, 6th P.M.
MESA COUNTY, CO**

Douglas-Plateau Area, Colorado, Parts of Garfield and Mesa Counties

37—Fughes clay loam, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: jnvj
Elevation: 6,800 to 7,400 feet
Mean annual precipitation: 15 to 20 inches
Mean annual air temperature: 40 to 45 degrees F
Frost-free period: 85 to 105 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Fughes and similar soils: 90 percent
Minor components: 10 percent
*Estimates are based on observations, descriptions, and transects of
the mapunit.*

Description of Fughes

Setting

Landform: Terraces, mesas
Landform position (three-dimensional): Tread
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mixed rock alluvium derived from sedimentary rock
and/or mixed rock colluvium derived from sedimentary rock

Typical profile

H1 - 0 to 7 inches: clay loam
H2 - 7 to 18 inches: clay loam
H3 - 18 to 50 inches: clay loam
H4 - 50 to 60 inches: silty clay loam

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: High
*Capacity of the most limiting layer to transmit water
(Ksat):* Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 11.4 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 4c
Hydrologic Soil Group: C
Ecological site: R048AY238CO - Brushy Loam

Hydric soil rating: No

Minor Components

Pagoda

Percent of map unit: 5 percent

Hydric soil rating: No

Empedrado

Percent of map unit: 5 percent

Hydric soil rating: No

Data Source Information

Soil Survey Area: Douglas-Plateau Area, Colorado, Parts of Garfield and Mesa
Counties

Survey Area Data: Version 16, Aug 22, 2023