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

57—Parachute-Rhone loams, 5 to 30 percent slopes

Map Unit Setting

National map unit symbol: jnw7
Elevation: 7,600 to 8,800 feet
Mean annual precipitation: 18 to 22 inches
Mean annual air temperature: 36 to 40 degrees F
Frost-free period: 60 to 70 days
Farmland classification: Not prime farmland

Map Unit Composition

Parachute and similar soils: 55 percent
Rhone and similar soils: 35 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Parachute

Setting

Landform: Mountain slopes
Landform position (three-dimensional): Mountaintop
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Colluvium over residuum weathered from sandstone and shale

Typical profile

A - 0 to 10 inches: loam
Bw - 10 to 25 inches: very channery loam
R - 25 to 59 inches: bedrock

Properties and qualities

Slope: 5 to 30 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high (0.01 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C

Ecological site: R048AY228CO - Mountain Loam
Hydric soil rating: No

Description of Rhone

Setting

Landform: Mountain slopes
Landform position (three-dimensional): Mountaintop
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Colluvium over residuum weathered from sandstone and shale

Typical profile

A1 - 0 to 10 inches: loam
A2 - 10 to 39 inches: channery loam
C - 39 to 55 inches: very channery loam
R - 55 to 60 inches: bedrock

Properties and qualities

Slope: 5 to 30 percent
Depth to restrictive feature: 40 to 60 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high (0.01 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 8.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Ecological site: R048AY228CO - Mountain Loam
Hydric soil rating: No

Minor Components

Irigul

Percent of map unit: 5 percent
Landform: Mountain slopes
Landform position (three-dimensional): Mountaintop
Down-slope shape: Linear
Across-slope shape: Convex
Ecological site: R048AY303CO - Loamy Slopes
Hydric soil rating: No

Adel

Percent of map unit: 5 percent
Landform: Swales
Landform position (three-dimensional): Mountaintop

Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R048AY250CO - Subalpine Loam
Hydric soil rating: No

Data Source Information

Soil Survey Area: Douglas-Plateau Area, Colorado, Parts of Garfield and Mesa Counties
Survey Area Data: Version 14, Sep 2, 2021

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

52—Northwater-Adel complex, 5 to 50 percent slopes

Map Unit Setting

National map unit symbol: 2w4zk
Elevation: 7,710 to 8,600 feet
Mean annual precipitation: 18 to 25 inches
Mean annual air temperature: 36 to 40 degrees F
Frost-free period: 45 to 75 days
Farmland classification: Not prime farmland

Map Unit Composition

Northwater and similar soils: 50 percent
Adel and similar soils: 40 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Northwater

Setting

Landform: Mountain slopes
Landform position (three-dimensional): Mountainflank
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Colluvium over residuum weathered from sedimentary rock

Typical profile

A - 0 to 28 inches: loam
Bt - 28 to 48 inches: very channery loam
R - 48 to 60 inches: bedrock

Properties and qualities

Slope: 5 to 50 percent
Depth to restrictive feature: 39 to 59 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high (0.01 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline (0.0 to 1.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 7.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B

Ecological site: F048AY449CO - Aspen Woodland
Other vegetative classification: Quaking aspen/mountain snowberry (POTR5/SYOR2) (D0511)
Hydric soil rating: No

Description of Adel

Setting

Landform: Mountain slopes
Landform position (three-dimensional): Mountainbase
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Alluvium and/or colluvium derived from sedimentary rock

Typical profile

A1 - 0 to 20 inches: clay loam
A2 - 20 to 31 inches: loam
C - 31 to 60 inches: loam

Properties and qualities

Slope: 5 to 30 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.21 to 0.71 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 5 percent
Maximum salinity: Nonsaline (0.0 to 1.0 mmhos/cm)
Available water supply, 0 to 60 inches: High (about 10.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: F048AY449CO - Aspen Woodland
Other vegetative classification: Engelmann spruce/grouse whortleberry (PIEN/VASC) (C0414)
Hydric soil rating: No

Minor Components

Rhone

Percent of map unit: 10 percent
Landform: Mountain slopes
Landform position (three-dimensional): Mountainflank
Down-slope shape: Linear
Across-slope shape: Linear
Ecological site: R048AY238CO - Brushy Loam

Hydric soil rating: No

Data Source Information

Soil Survey Area: Douglas-Plateau Area, Colorado, Parts of Garfield and Mesa Counties
Survey Area Data: Version 14, Sep 2, 2021

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

56—Parachute-Irigul-Rhone association, 25 to 50 percent slopes MLRA 48A

Map Unit Setting

National map unit symbol: 2w4z7
Elevation: 7,600 to 8,800 feet
Mean annual precipitation: 18 to 22 inches
Mean annual air temperature: 36 to 40 degrees F
Frost-free period: 60 to 70 days
Farmland classification: Not prime farmland

Map Unit Composition

Parachute and similar soils: 35 percent
Irigul and similar soils: 30 percent
Rhone and similar soils: 30 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Parachute

Setting

Landform: Mountain slopes
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Colluvium over residuum weathered from sandstone and shale

Typical profile

A - 0 to 10 inches: loam
Bw - 10 to 25 inches: very channery loam
R - 25 to 60 inches: bedrock

Properties and qualities

Slope: 25 to 50 percent
Depth to restrictive feature: 20 to 39 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high (0.01 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: C
Ecological site: R048AY238CO - Brushy Loam
Hydric soil rating: No

Description of Irigul

Setting

Landform: Mountain slopes
Landform position (three-dimensional): Mountainflank
Down-slope shape: Concave
Across-slope shape: Convex
Parent material: Colluvium over residuum weathered from sandstone and shale

Typical profile

A1 - 0 to 6 inches: channery loam
A2 - 6 to 13 inches: very channery loam
R - 13 to 60 inches: bedrock

Properties and qualities

Slope: 25 to 50 percent
Depth to restrictive feature: 10 to 20 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high (0.01 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Very low (about 1.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Ecological site: R048AY303CO - Loamy Slopes
Hydric soil rating: No

Description of Rhone

Setting

Landform: Mountain slopes
Landform position (three-dimensional): Mountainflank
Down-slope shape: Convex
Across-slope shape: Concave
Parent material: Colluvium over residuum weathered from sandstone and shale

Typical profile

A1 - 0 to 10 inches: loam
A2 - 10 to 39 inches: channery loam
C - 39 to 55 inches: very channery loam

R - 55 to 60 inches: bedrock

Properties and qualities

Slope: 25 to 50 percent
Depth to restrictive feature: 39 to 59 inches to lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately high (0.01 to 0.57 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water supply, 0 to 60 inches: Moderate (about 8.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: R048AY238CO - Brushy Loam
Hydric soil rating: No

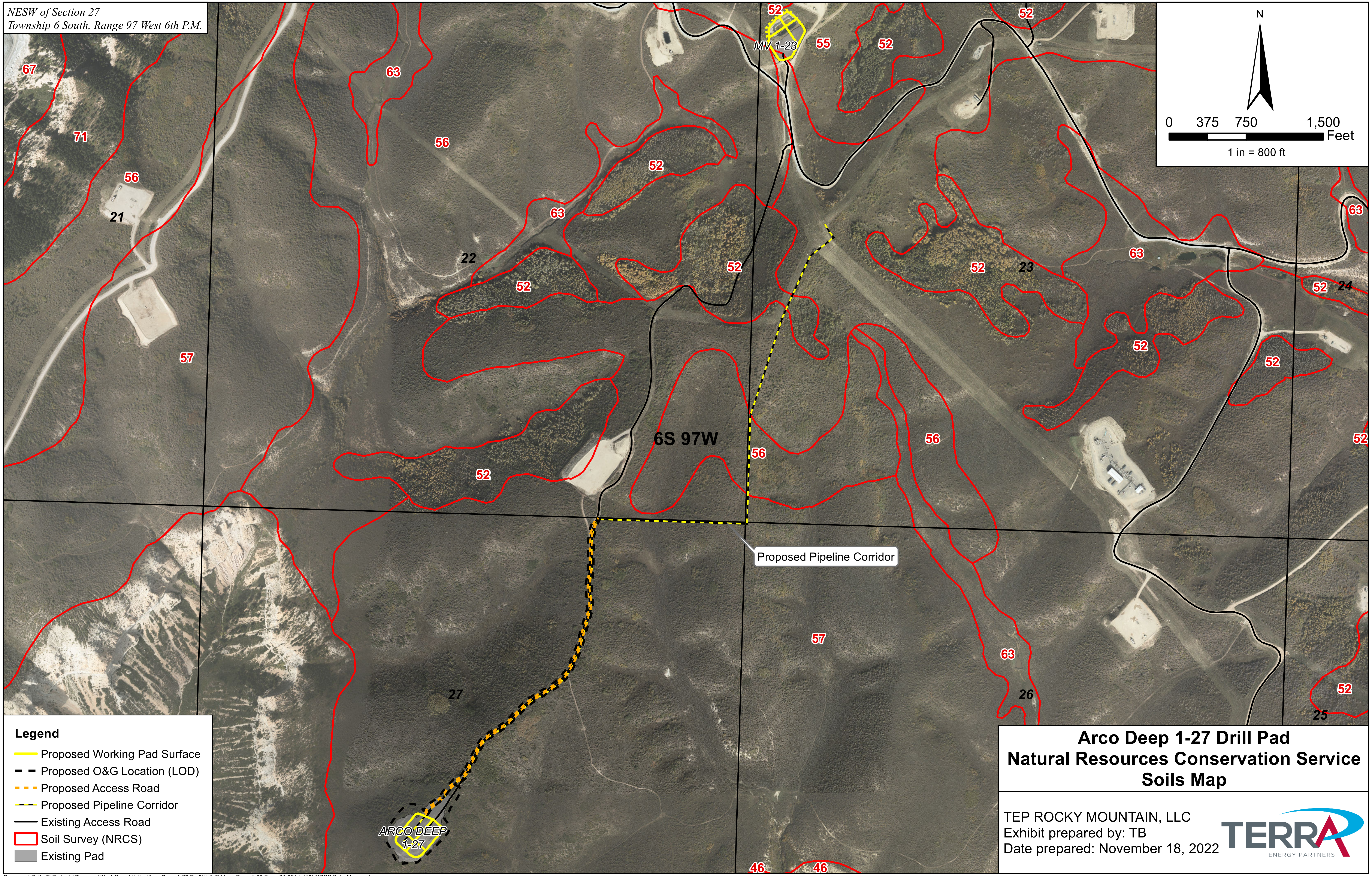
Minor Components

Starman

Percent of map unit: 5 percent
Landform: Mountain slopes
Landform position (three-dimensional): Mountainflank
Down-slope shape: Linear
Across-slope shape: Concave
Ecological site: R048AY235CO - Dry Exposure
Hydric soil rating: No

Data Source Information

Soil Survey Area: Douglas-Plateau Area, Colorado, Parts of Garfield and Mesa Counties
Survey Area Data: Version 14, Sep 2, 2021



NESW of Section 27
Township 6 South, Range 97 West 6th P.M.
N
0 375 750 1,500
Feet
1 in = 800 ft
MV 1-23
6S 97W
21
22
23
24
25
26
27
Proposed Pipeline Corridor
ARCO DEEP 1-27
Legend
Proposed Working Pad Surface
Proposed O&G Location (LOD)
Proposed Access Road
Proposed Pipeline Corridor
Existing Access Road
Soil Survey (NRCS)
Existing Pad
Arco Deep 1-27 Drill Pad
Natural Resources Conservation Service
Soils Map
TEP ROCKY MOUNTAIN, LLC
Exhibit prepared by: TB
Date prepared: November 18, 2022

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