

Bernhardt State N36-17 & N36-27D  
T5N, R67W 6<sup>th</sup> P.M.  
Section 36: SENE

## Map Unit Description

Weld County, Colorado, Southern Part

### 32 Kim loam, 1 to 3 percent slopes

#### Setting

Elevation: 4900 to 5250 feet  
Mean annual precipitation: 13 to 17 inches  
Mean annual air temperature: 46 to 52 degrees F  
Frost-free period: 125 to 150 days

#### Composition

Kim and similar soils: 90 percent  
Minor components: 10 percent

#### Description of Kim

##### Setting

Landform: Alluvial fans, plains  
Down-slope shape: Linear  
Across-slope shape: Linear  
Parent material: Mixed eolian deposits derived from sedimentary rock

##### Properties and Qualities

Slope: 1 to 3 percent  
Drainage class: Well drained  
Capacity of the most limiting layer to transmit water (Ksat): Moderately high or high (0.57 to 5.95 in/hr)  
Frequency of flooding: None  
Frequency of ponding: None  
Calcium carbonate maximum: 15 percent  
Gypsum maximum: 0 percent  
Available water capacity: Moderate (about 9.0 inches)

##### Interpretive Groups

Land capability classification (irrigated): 3e  
Land capability (non irrigated): 4e  
Ecological site: Loamy Plains (R067BY002CO)

##### Typical Profile

0 to 12 inches: loam  
12 to 40 inches: loam  
40 to 60 inches: fine sandy loam

#### Minor Components

##### Otero

Percent of map unit: 10 percent

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## Map Unit Description

Weld County, Colorado, Southern Part

### 38 Nelson fine sandy loam, 3 to 9 percent slopes

#### Setting

Elevation: 4800 to 5050 feet  
Mean annual precipitation: 13 to 15 inches  
Mean annual air temperature: 48 to 57 degrees F  
Frost-free period: 145 to 190 days

#### Composition

Nelson and similar soils: 85 percent  
Minor components: 15 percent

#### Description of Nelson

##### Setting

Landform: Plains  
Down-slope shape: Linear  
Across-slope shape: Linear  
Parent material: Residuum weathered from sandstone

##### Properties and Qualities

Slope: 3 to 9 percent  
Depth to restrictive feature: 20 to 40 inches to Paralithic bedrock  
Drainage class: Well drained  
Capacity of the most limiting layer to transmit water (Ksat): Moderately low or high (0.06 to 2.00 in/hr)  
Frequency of flooding: None  
Frequency of ponding: None  
Calcium carbonate maximum: 10 percent  
Gypsum maximum: 0 percent  
Available water capacity: Low (about 3.7 inches)

##### Interpretive Groups

Land capability classification (irrigated): 4e  
Land capability (non irrigated): 6e  
Ecological site: Sandy Plains (R067BY024CO)

##### Typical Profile

0 to 9 inches: fine sandy loam  
9 to 30 inches: fine sandy loam  
30 to 34 inches: weathered bedrock

#### Minor Components

##### Thedalund

Percent of map unit: 10 percent

##### Terry

Percent of map unit: 5 percent