



**COLORADO**

Oil & Gas Conservation  
Commission

Department of Natural Resources

# Reclamation Plan for Restoration in a Sensitive Area

**PDC Energy**

**JGH 1-30 Well Production Facility**

Weld County, Colorado

API # 05-123-10942

July 16, 2020

Prepared by:



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## 1.0 INTRODUCTION

On behalf of PDC Energy, this plan outlines the proposed reclamation and earthmoving activities on the JGH 1-30 Well Production Facility (Project Area) located in Weld County, Colorado. It is PDC Energy's intention to restore the well location and pad access to the pre-disturbance land use as much as practicably feasible.

The disturbance area is approximately 0.2 acres and is the result of previous oil and gas production facility development. The Project Area is located just south of County Road (CR) 52.25, approximately 1.80 miles northwest of Johnstown, Colorado in section 30, township 5 north, and range 67 west at an elevation of 4,830 feet (**ATTACHMENT I: Location Map**).

To access the well from the west at the intersection of South County Line Road and Weld County Road 52, head north on South County Line Road approximately 0.2 miles to Weld County Road 52-1/4. Head east on South County Line Road for 0.6 miles and the site is immediately to the south.

On April 20, 2020, Two Dot Consulting conducted an initial site visit to conduct inspections for noxious weeds, wetlands and wildlife as well as excavate groundwater wells to determine water table depth. All surveys were conducted by a qualified field botanist with extensive reclamation and remediation experience.

This reclamation project will restore the surrounding sensitive area to achieve the pre-disturbance land usage and characteristics. The adjacent wetland will be protected throughout the excavation, construction and final stabilization process with the appropriate construction practices and stormwater BMP's to manage all phases of the reclamation and restoration process at the JGH 1-30 facility.

## 2.0 RECLAMATION

### 2.1 Pre-Disturbance Site Characterization

#### *Ecological Site Description*

The project area is semi-agricultural and situated within the Loamy Plains (ID: R067BY002CO) and Shaly Plains (ID: R067BY045CO) Ecological Sites within the Southern part of the Central High Plains Major Land Resource Area (MLRA 67B; U.S. Department of Agriculture, NRCS 2006).

### 2.2 JGH 1-30 Soil Conditions

2DOT and PDC have prepared an application for coverage under the Colorado WQCD's Dewatering General Permit, in the event groundwater is encountered during earthwork. In conjunction with the Dewatering General Permit, a soil analysis was completed on June 26, 2020 to confirm there were no sub surface soil contaminations. Both soil sample analyses came back free of contamination and all oil and gas constituents were below laboratory detection limits.

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2DOT consulted with the CSU Soil Testing Lab on June 17, 2020 for soil classification and amendment recommendations for the Project Area. The soil analysis revealed elevated salt concentrations in some areas of the pad, however normal salt content in other areas. In order to accommodate consistent seeding over the entire pad, the soil amendment protocol suggested in Section 2.5 (of this plan) will allow the soil to be of a more consistent nature throughout the pad, for optimal and overall growth of the native seed application.

### **2.3 JGH 1-30 Groundwater Conditions**

The groundwater depth was measured to understand the water table depth within the Project Area. Based on groundwater analysis results, 2DOT is not anticipating any discovery of contamination during construction activities within the Project Area. 2DOT and PDC have prepared an application for coverage under the Colorado WQCD's Dewatering General Permit, if contamination is found because of construction activities.

### **2.4 Surface Disturbing Activities**

The goal for reclamation is to return the surface to as native a state as possible as soon as is reasonable and achievable, but also that which reflects pre-disturbance or reference area vegetative cover with total coverage of at least eighty percent (80%) of pre-disturbance levels. Considering weather conditions, best season for reseeding, and equipment availability, PDC Energy will work diligently to achieve this goal. Two Dot will inventory soils, vegetation, and noxious weeds to implement site-specific reclamation services and subsequent treatment plans (re-seeding touch-ups, noxious weed treatments, BMP maintenance/removal, and monitoring).

### **2.5 Site Preparation and Seeding**

- Construction stormwater BMP's will be installed prior to earthwork.
- Fill and road base material will be removed.
- Existing soils will be amended and treated following ripping and soil preparation.
- Topsoil will be imported and contoured based on the grading plan.
- The site will be prepared for revegetation, seeding, and erosion control installation.
- Soil amendment protocol will suggest applying pelletized sulfur to bring the pH down and additionally a soil inoculant. This will condition the soil for maximum and efficient growth for native seed. After the seed has sprouted and we have some preliminary coverage, application of a 4-6-4 slow release fertilizer will be a possibility, if needed.

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- The seeding plan is summarized based on location on the pad, for optimal growth and longevity. Below is a summary of each area on the pad and the recommended seed mix:
    - Wetland mix: Western Wheatgrass, Poverty Rush, Woolly sedge, Inland Saltgrass, Alkali sacaton, and Basin Wildrye.
      - The wetland mix contains species that will tolerate periodic flooding, but if it is a drought/dry summer will be fine as they require less precipitation.
    - Transition mix: Western Wheatgrass, Thickspike Wheatgrass, Slender Wheatgrass, Bottlebrush Squirreltail, Inland Saltgrass, Alkali sacaton, and Basin Wildrye
    - Upland Mix: Western Wheatgrass, Thickspike Wheatgrass, Slender Wheatgrass, Bottlebrush Squirreltail, Inland Saltgrass, and Alkali sacaton

## **2.6 Invasive Plant Management**

- Two Dot is responsible for weed control on disturbed areas and weed control measures shall be conducted in compliance with the Colorado Noxious Weed Act of 2003.

## **2.7 Monitoring Plan**

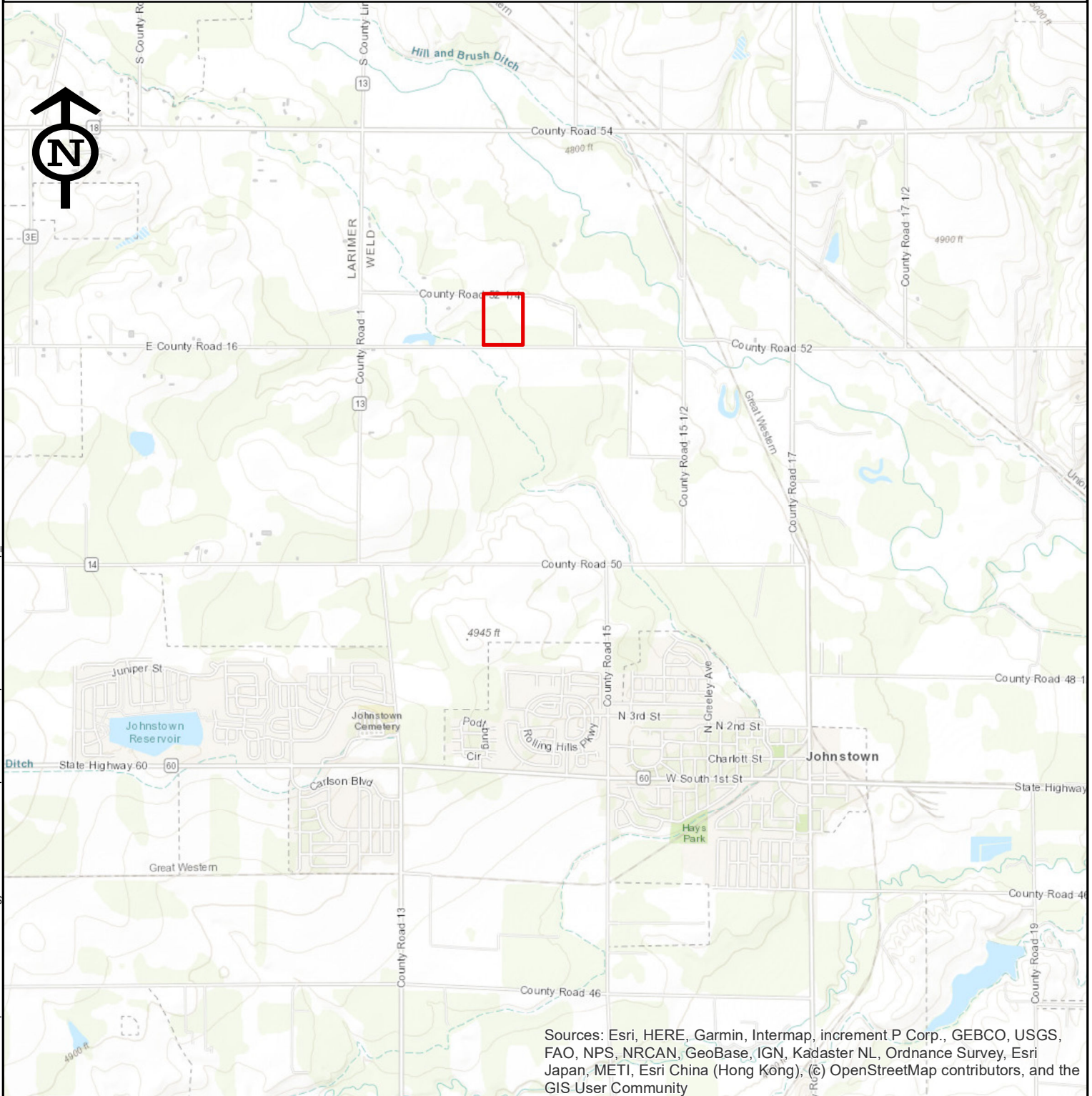
- Two Dot will monitor reclaimed areas, determine if reclamation criteria are being met, develop, and implement remedial actions if success standards are not being met, and provide resulting data to PDC Energy annually.
- Reclaimed sites will be inspected annually until final reclamation criteria are achieved and evaluated the first, second, and third growing seasons post seeding to determine if desirable plants are establishing. PDC will then notify COGCC to conduct the final reclamation inspection for completion.

## **ATTACHMENT 1**

(Site Location Map)

# JGH Production Facility

SECTION 30, TOWNSHIP 5N, RANGE 67W, 6TH P.M. WELD COUNTY, CO



Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community



## Project Area

PREPARED BY:



7674 Grandview Ave., Ste. 210  
Arvada, CO 80002

0 2,500 5,000  
Feet

SOURCES:  
Project Features, 2DOT 2020  
and PDC 2020.

PREPARED FOR:



Projection: Nad83 UTM 13N Date: 4/27/2020  
Drafted By: SM Reviewed By: SR

Location  
Map