

DUST MITIGATION PLAN

Date: January 13, 2022

Location: WR OGDP 4 / Wells Ranch CDP / AB32-01

Legal Description: NENE Section 32, Township 7 North, Range 64 West, Weld County, Colorado



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## **Article I.        Introduction**

### *Location Information*

This document provides site-specific information for the AB32-01 Pad within the WR OGD 4 of the Wells Ranch CDP. The information in this document relates specifically to the time during the construction, drilling, completion, and production of the five (5) proposed horizontal wells on this location.

The proposed location is rangeland southwest of the intersection of WCR 53 and WCR 76. The Pad will be in NENE Section 32, Township 7 North, Range 64 West, zoned agricultural within the Weld County Near-Urban Planning Area. A 1041 WOGLA was filed for the CDP as 1041WOGLA19-0042 on 12/10/2019 and recorded at reception #4556398 on 1/8/2020. Site-specific supplemental information will be filed with Weld County prior to commencement of operations.

The proposed AB32-01 Pad oil and gas location disturbance will be 9.8 acres, reduced to 2.4 after interim reclamation. The proposed working pad surface will be 5.6 acres. The Pad is on Parcel 071132100003 owned by Dean B and Tuesday L Westerman. The location is currently used for farming.

The AB32-01 Pad will produce to the proposed AB28-13 Multi. Equipment at the AB32-01 Pad will include injection pumps, meter buildings, multi-phase flow meters, communication towers, flowline manifolds, a temporary minion tank, and solar skids.

Phase	Duration (days)	Estimated Start Date
Construction	60 days	2nd Quarter, 2025
Drilling	25 days	3rd Quarter, 2025
Completion	25 days	4th Quarter, 2025
Flowback	N/A	Flowing back to production facility
Production	30 years	1st Quarter, 2026
Interim Reclamation	60 days	3rd Quarter, 2026

## **Article II.        Dust Mitigation Plan Specific Data**

Pad Soil type(s): 56 - Renohill clay loam, 0 to 3 percent slopes; 4 – Aquolls and Aquepts, flooded

Access Soil type(s)\*: 56 – Renohill clay loam, 0 to 3 percent slopes

Flowline Soil types(s)\*: 56 - Renohill clay loam, 0 to 3 percent slopes; 4 – Aquolls and Aquepts, flooded; 37 – Nelson fine sandy loam, 0 to 3 percent slopes

*\*NRCS data is not accurate at scale for access roads and flowline corridor.*

Pad, access, and flowline corridor soil disturbance in acres: 15.2 acres

Haul route is not paved for 0.01 acres from existing access onto WCR 76 and 2.9 acres (4140' W X 30' width) from WCR 76 to WCR 51 as depicted on the Access Road Map.

### *Truck Traffic*

During the 60 days of construction operations, the expected number of roundtrips will be approximately 60 Semi-Truck/Trailer trips. During the first two days and last two days of drilling operations, the expected number of per day roundtrips will be approximately 30 Passenger Car/Pickups and 50 Semi-Truck/Trailer. For the remaining 21 days, Passenger Car/Pickups will be reduced to 20 trips per day and Semi-Truck/Trailer and Tandem Trucks to 20 trips per day.

During the first two days and last two days of completion operations, the expected number of per day roundtrips will be approximately 20 Passenger Car/Pickups and 50 Semi-Truck/Trailer. During the actual hydraulic fracturing activity which will begin after the initial two days described above and consist of the next 13 days, there will be approximately 30 Passenger Car/Pickups and 70 Semi-Truck/Trailer round trips per day. During the mill-out and tube up phase which will begin after the hydraulic fracturing activity described above and consist of the next 8 days, there will be approximately 3 Passenger Car/Pickups and 6 Semi-Truck/Trailer round trips per day.

During the production phase of operations, there will be no heavy truck trips. There will be approximately 23,760 pickup trips estimated for 30 years of production for the two wells pads and associated facility. During the interim reclamation phase of 60 days, there will be 800 heavy truck roundtrips.

The expected travel route for the proposed oil and gas location is indicated on the attached Access Road Map. The travel distribution from the proposed oil and gas location will be primarily on County Road 76 and County Road 53. The highest traffic volumes are expected during the first two days and the last two days of both the drilling and completions operations (50 days).

	Construction			
	Duration		Round Trips	
<u>Vehicle Type</u>	Setup/Breakdown	Rest of Phase	Setup/Breakdown	Rest of Phase
Passenger Car/Pickup	0	60 days	0	0
Tandem Trucks			0	0
Semi-Truck/Trailer/RV			0	60

	Drilling			
	Duration		Round Trips	
<u>Vehicle Type</u>	Setup/Breakdown	Rest of Phase	Setup/Breakdown	Rest of Phase
Passenger Car/Pickup	4	21 days	30	20
Tandem Trucks			0	0
Semi-Truck/Trailer/RV			50	20

	Completions					
	Duration			Round Trips		
<u>Vehicle Type</u>	Setup/Breakdown	Hydraulic Fracturing	Mill out/Tube Up	Setup/Breakdown	Hydraulic Fracturing	Mill out/Tube Up
Passenger Car/Pickup	4 days	13 days	8 days	20	30	3
Tandem Trucks				0	0	0
Semi-Truck/Trailer/RV				50	70	6

### **Article III. Mitigation Measures and Best Management Practices (BMP)**

Operator shall employ practices for control of fugitive dust caused by their operations. Such practices shall include but are not limited to the use of speed restrictions, regular road maintenance, pipeline infrastructure to provide takeaway for oil, gas, and produced water (reducing number of trips from heavy trucks), restriction of construction activity during high-wind days, and silica dust controls\* when handling sand used in hydraulic fracturing operations. Operator additionally has implemented the use of traffic signs when leaving the location to remind drivers of specific routes to utilize.

*\*Silica dust control will include dust suppression with non-potable water, well-ventilated work site, pre-planned personnel rotation of work site, as well as other recommended measures included in OSHA Standard 29 CFR 1926.1153 Respirable Crystalline Silica.*

- When Noble Energy is required to suppress dust, its selected vendor will be reminded of the following:
  - Use only fresh water sources (non-potable) when watering areas within 300 feet of the ordinary high-water mark of any water body.
  - Maintain a current Safety Data Sheet (SDS) in their company vehicle when using a dust suppressor containing chemicals, in accordance with OSHA Standard 29 CFR 1910.1200 (Hazard Communication) as well as local and State requirements.
  - Ensure watering practices are not creating additional hazards on access roads (slick roads, muddy conditions, etc.)
- All soil piles created by construction activities will be managed utilizing Hydro-mulch, straw crimping, and/or tracking methods to prevent dust from exiting location and creating a hazard during pre-production activities. Soil piles will be graded and/or seeded to prevent erosion and the generation of dust post-production.
- Noble Energy will minimize the amount of fugitive dust using speed restrictions. All vehicles will be subject to a speed limit of 20 MPH on all lease roads to minimize dust.
- Noble Energy will mitigate the creation of fugitive dust through regular road maintenance as coordinated through agreements with Relevant Local Governments or Agencies with road jurisdiction.
- Noble Energy will use methods including wind breaks and barriers, road or facility surfacing, and soil stockpile stabilization measures to suppress fugitive dust caused solely by wind.
- Noble Energy will avoid the creation of fugitive dust by restricting or limiting construction activity during high wind days.

- Noble Energy will minimize fugitive dust caused by their operations, or dust originating from areas disturbed by their Oil and Gas Operations that becomes windborne by ceasing all ongoing truck traffic and ensure all previously listed BMP are implemented.
- Noble Energy will not use any of the following fluids for dust suppression:
  - Produced water
  - E&P waste or hazardous waste
  - Crude oil or any oil specifically designed for road maintenance
  - Chemical solvents
  - Process fluids
- Access road(s) will be watered or treated with one of the following commercial dust suppressants, as needed:
  - Roadsaver
  - Roadsaver Compaction Aid
  - DuraBlend
- Prior to the application of dust suppressant to any county or public roads, coordination will be conducted with Weld County Department of Public Works by Noble Energy and any relevant vendors.
- Noble Energy will maintain safety data sheets (“SDS”) for any chemical-based dust suppressant and make the SDS immediately available upon request to the COGCC Director and to the Local Government. Safety Data Sheet(s) for any chemical-based dust suppressant will be archived and maintained until the site passes final site Reclamation and transfer the records upon transfer of property ownership.
- All secondary roads created for this project (non-public roadways) will be finished with ½” – ¾” crushed stone road base.
- Prior to the commencement of Production Operations, Noble will take all necessary and reasonable precautions to ensure that lighting, dust, noise and odor from the Oil and Gas Location does not unnecessarily impact the health, safety, and welfare of Wildlife occupying any High Priority Habitat within 2,000 feet of the Oil and Gas Location. For permanent facilities this includes:
  - Identify permanent and temporary housing of resident wildlife and ensure locations are recorded in wildlife reports kept in-house by HSE
  - Ensure the workday is limited to sunrise to sunset to avoid unnecessary nighttime lighting of big game habitat, nests and/or burrows.
  - Conduct a daily walkthrough of the location to ensure no wildlife have built nest(s) in/around lighting or noise sources. If nest(s) are found, HSE reporting will be issued to appropriate personnel to either remove the nest and/or temporarily abandon the lighting source until nest is abandoned.

#### **Article IV. Cumulative Dust Impacts**

The estimated number of anticipated truck trips for the Oil and Gas location seeking Commission approval combined with the number of anticipated truck trips at any other Oil and Gas Locations within a 1-mile radius is below, calculated using locations with anticipated construction, drilling, and completions. Construction on AB32-01 location and AB28-13 multi are anticipated to use the same unpaved roads as truck traffic. These locations will comprise the entirety of OGD 4.

- Construction – 60 trips for AB32-01 Pad, 485 cumulative trips for OGD 4
- Drilling – 1,160 trips for AB32-01 Pad, 2,320 cumulative trips for OGD 4
- Completion – 1,652 trips for AB32-01 Pad, 3,304 cumulative trips for OGD 4
- Production – 23,760 cumulative trips over 30 years for OGD 4
- Interim Reclamation – 800 trips for AB32-01, 1,600 cumulative trips for OGD 4

Construction and operational activities for the AB32-01 location and AB28-13 multi are anticipated to overlap.

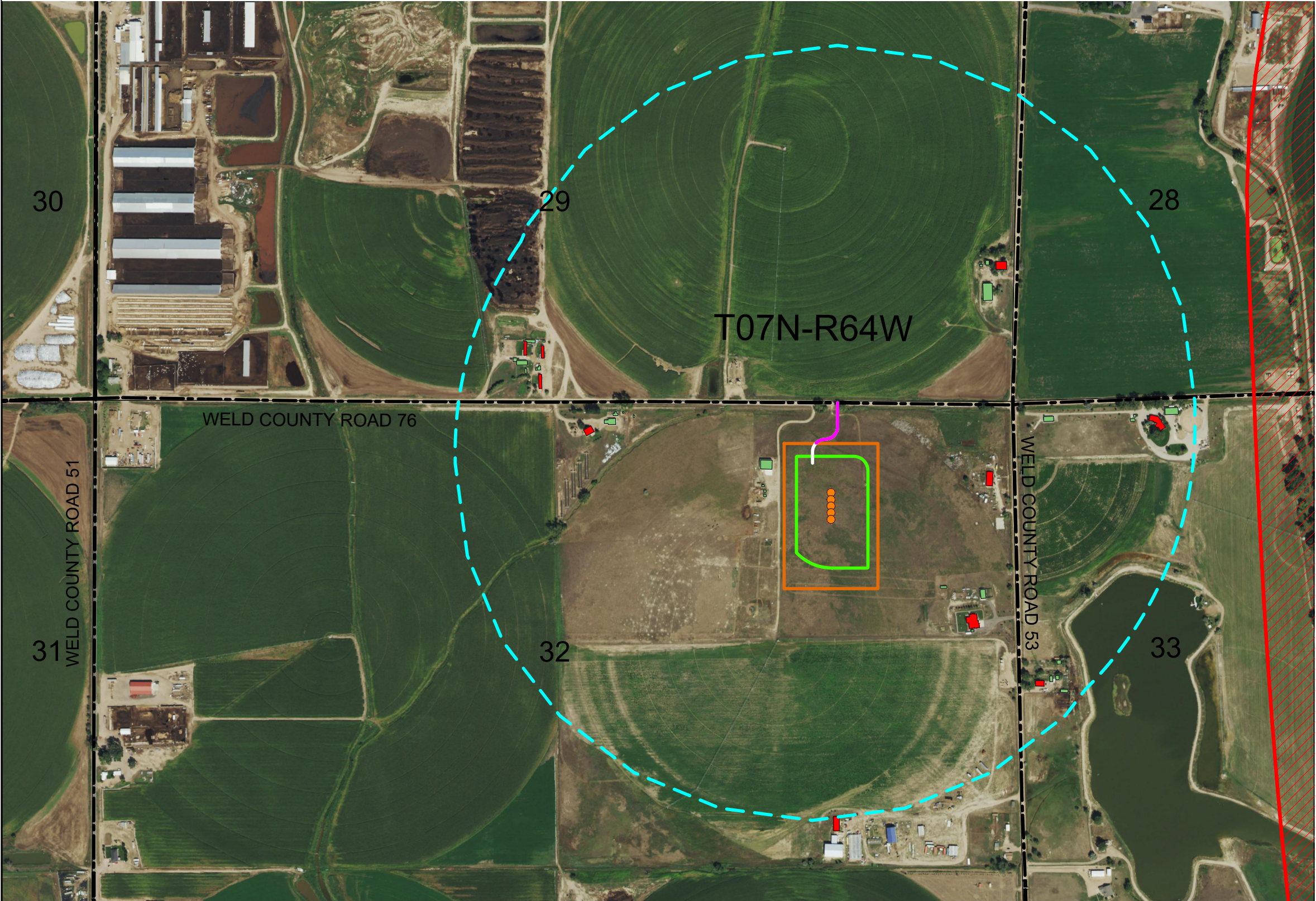
For this location there is an increased potential for dust generated from seasonal agricultural activities to the North/East/West/South. These activities should not negatively impact the public health, wildlife welfare and/or resources.

**Article V.      Exhibits/References/Appendices**

Please see Access Road Map

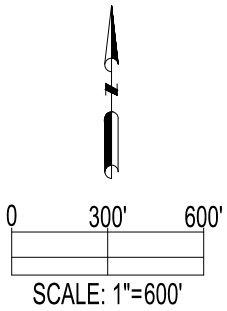


AB32-01 PAD  
ACCESS ROAD MAP



RESIDENTIAL BUILDING UNITS: (WITHIN 2000' ACCESS ROAD BUFFER)	
RESIDENTIAL BUILDING UNITS:	10
HIGH OCCUPANCY BUILDING UNITS:	0
SCHOOLS:	0
CHILD CARE CENTERS:	0

ACCESS ROAD LENGTH:	
PROPOSED ACCESS ROAD LENGTH:	±418'



DISCLAIMER:  
THIS PLOT DOES NOT REPRESENT A MONUMENTED LAND SURVEY AND SHOULD NOT BE RELIED UPON TO DETERMINE BOUNDARY LINES.  
PROPERTY OWNERSHIP OR OTHER PROPERTY INTERESTS, PARCEL LINES, IF DEPICTED HAVE NOT BEEN FIELD VERIFIED AND MAY BE BASED  
UPON PUBLICLY AVAILABLE DATA THAT ALSO HAS NOT BEEN INDEPENDENTLY VERIFIED.



FIELD  
DATE:  
05-21-21

DRAWN BY:  
LNJ

DRAWING  
DATE:  
06-07-21

CHECKED BY:  
CSG

SITE NAME:  
AB32-01 PAD

SURFACE LOCATION:  
NE 1/4 NE 1/4 SEC. 32, T7N, R64W, 6TH P.M.  
WELD COUNTY, COLORADO

DATA SOURCE:  
AERIAL IMAGERY: NAIP 2019

PUBLICLY AVAILABLE DATA SOURCES HAVE NOT  
BEEN INDEPENDENTLY VERIFIED BY ASCENT.

LEGEND: ● = PROPOSED WELL

— = PROPOSED ACCESS ROAD  
— = SECTION LINE  
— = PUBLIC ROAD

— = 2000' RADIUS FROM ACCESS ROAD  
— = OIL & GAS LOCATION  
— = WORKING PAD SURFACE  
— = RESIDENTIAL BUILDING UNIT  
— = BUILDING

— = HIGH PRIORITY HABITAT

PREPARED FOR:

**noble energy**