



SHELDUCK SOUTH PAD DUST MITIGATION PLAN

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Article I. Introduction

Location Information

This document provides site-specific information for the Shelduck South Pad within the Shelduck South OGD. The information in this document relates specifically to the time during the construction, drilling, completion, and production of the eight (8) proposed horizontal wells on this location. This project is a refile of the approved Location ID 455769.

The proposed location is rangeland approximately 4,000 feet south of Weld County Road 97, south of Highway 14. The Pad will be in Lot 6, Section 6, Township 7 North, Range 60 West, zoned Agricultural within the Ag-Rural Planning Area of Weld County. A WOGLA application for the Shelduck South Pad was approved as WOGLA20-0059 on August 27, 2020.

The proposed Pad will be 11.0 acres, reduced to 5.6 after interim reclamation. The Pad is on Parcel 071906000001 owned by Edith L West, Donald James West, Neil Stewart West, Terrance O Bolton, and Alice M Jones. The location is currently used for farming.

The proposed production facility equipment for the Shelduck South Pad will be located within the Working Pad Surface adjacent to the wells and will consist of oil tanks, water tanks, separators, vapor recovery towers (VRT), vapor recovery units (VRU), VOC Combustors, gas compressors, combustors, meter skid(s), Instrument Air skid(s), gas lift(s), sump(s), LACT Unit(s), Pigging Stations, a temporary MLVT, and proposed electrical and/or solar equipment.

Phase	Duration (days)	Estimated Start Date
Pad Construction	20	2 nd Quarter (April) 2022
Facility Construction	60	2 nd Quarter (April) 2022
Drilling	52	3 rd Quarter (July) 2022
Completion	56	4 th Quarter (October) 2022
Flowback	10	4 th Quarter (December) 2022
Production	9125 (25 Years)	1 st Quarter (January) 2023
Interim Reclamation	20	2 nd Quarter (April) 2023*

**or the first favorable growing season.*

Article II. Dust Mitigation Plan Specific Data

Soil type(s): 40 - Nunn loam, 0 to 6 percent slopes, 44 - Olney fine sandy loam, 0 to 6 percent slopes

The Access Road is not paved. Unpaved access road travel 4000' North (2.75 acres) from location to unpaved County Road 97, then North two miles to paved Highway 14 as depicted on the Access Road Map.

Total area of soil disturbance in acres including accesses: 13.75 acres.

Truck Traffic

Proposed vehicle speed limit on location and on access road: 15 MPH. If vehicle speeds become an issue, Mallard will install speed limit signs.



The traffic associated with the proposed location will depend on the phase of the project. The average daily traffic (average number of roundtrips per day) associated with each phase of development is estimated below. It is anticipated that the majority of trucks accessing the site will be Combo Units (class 8-13), however some Single Units (class 4-7) are also expected. For employee traffic, it is assumed supervisors will be driving pickup trucks and contract employees will be driving personal vehicles.

	Pad Construction	Facility Construction	Drilling	Completions	Flowback
Duration (Days)	20	60	52	56	10
Operating Hours	Daylight Hours	Daylight Hours	24 hours	24 hours	24 hours
Truck Traffic	8	2	10	84	6
Employee Traffic	5	8	18	21	4

The number of vehicle trips on or off the Oil and Gas Location for an average year during the production phase of the Oil and Gas Location is anticipated to be 548.

Article III. Mitigation Measures and Best Management Practices

Operator shall employ practices for control of fugitive dust caused by their operations. Dust control measures shall be employed as necessary during high traffic periods for both on-site and off-site haul roads. Such control measures shall include but are not limited to the use of speed restrictions, regular road maintenance, restriction of construction activity during high wind days, and silica dust controls when handling sand used in hydraulic fracturing operations.

Through the life of this location Mallard will utilize watering, via water trucks, to control fugitive dust on the location and the access road. Additionally, the access road and high traffic areas of the pad will be plated with 6 inches of aggregate road base material compacted to 4 inches to further minimize fugitive dust.

Operator will use soil stockpile stabilization measures to suppress fugitive dust caused solely by wind. Measures will include, but are not limited to, the use of surface roughening and tracking, seeding with crimped straw mulching or hydroseeding, and if necessary, erosion control logs installed along the toe slopes.

Operator will minimize the amount of fugitive dust through the use of speed restrictions. All vehicles will be subject to a speed limit of 15 MPH on all lease roads to minimize dust.

Operator 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.

Operator will avoid the creation of fugitive dust by restricting or limiting construction activity during high wind days.

Operator will minimize fugitive dust caused by their operations, or dust originating from areas disturbed by their Oil and Gas Operations that becomes windborne.



If necessary, or if required, or requested by the Relevant Local Governments or Agencies with road jurisdiction Mallard will apply dust control chemical treatments on the access road.

Operators will not use any of the following fluids for dust suppression:

- Produced water
- E&P Waste or hazardous waste
- Crude oil or any oil not specifically designed for road maintenance
- Solvents
- Any process Fluids

Operator will use only fresh water (potable or non-potable) to conduct dust suppression activities within 300 feet of the ordinary high-water mark of any water body.

A vehicle tracking control pad will be installed at the location entrance to minimize off-site tracking of sediment onto public roads.

Operator will maintain safety data sheets (“SDS”) for any chemical-based dust suppressant and make the SDS available immediately upon request to the Director and to the Local Government. Operators will maintain SDS for any chemical-based dust suppressant until the site passes final site Reclamation and transfer the records upon transfer of property ownership.

Article IV. Cumulative Dust Impacts

The estimated number of anticipated truck trips for the Oil and Gas Facility seeking Commission approval combined with the number of anticipated truck trips at any other Oil and Gas Locations within a 1-mile radius during the same time period is below, calculated with as locations with anticipated construction, drilling, and completion dates between 1st Quarter 2022 and 2nd Quarter 2023.

There is one active Oil and Gas Location (Loc ID 428225) consisting of one well (Leggett 1-5H, API: 05-123-35277) currently being produced. This well has undergone interim reclamation. No further construction, drilling, or completion is planned for this location during the construction, drilling, and completion of the Shelduck South Pad.

There are no permitted Oil and Gas Locations anticipated to be constructed, drilled, and/or completed within the prosed time frame.

There are no proposed sites anticipated to possibly be constructed, drilled, and/or completed within the prosed time frame.

Mallard has abandoned plans for one location (Shelduck North Pad, Loc ID 455765) consisting of 8 wells.

No other Oil and Gas Facility seeking Commission approval is anticipated to use any of the same unpaved roads as truck traffic at the same time as the proposed Shelduck South Pad.

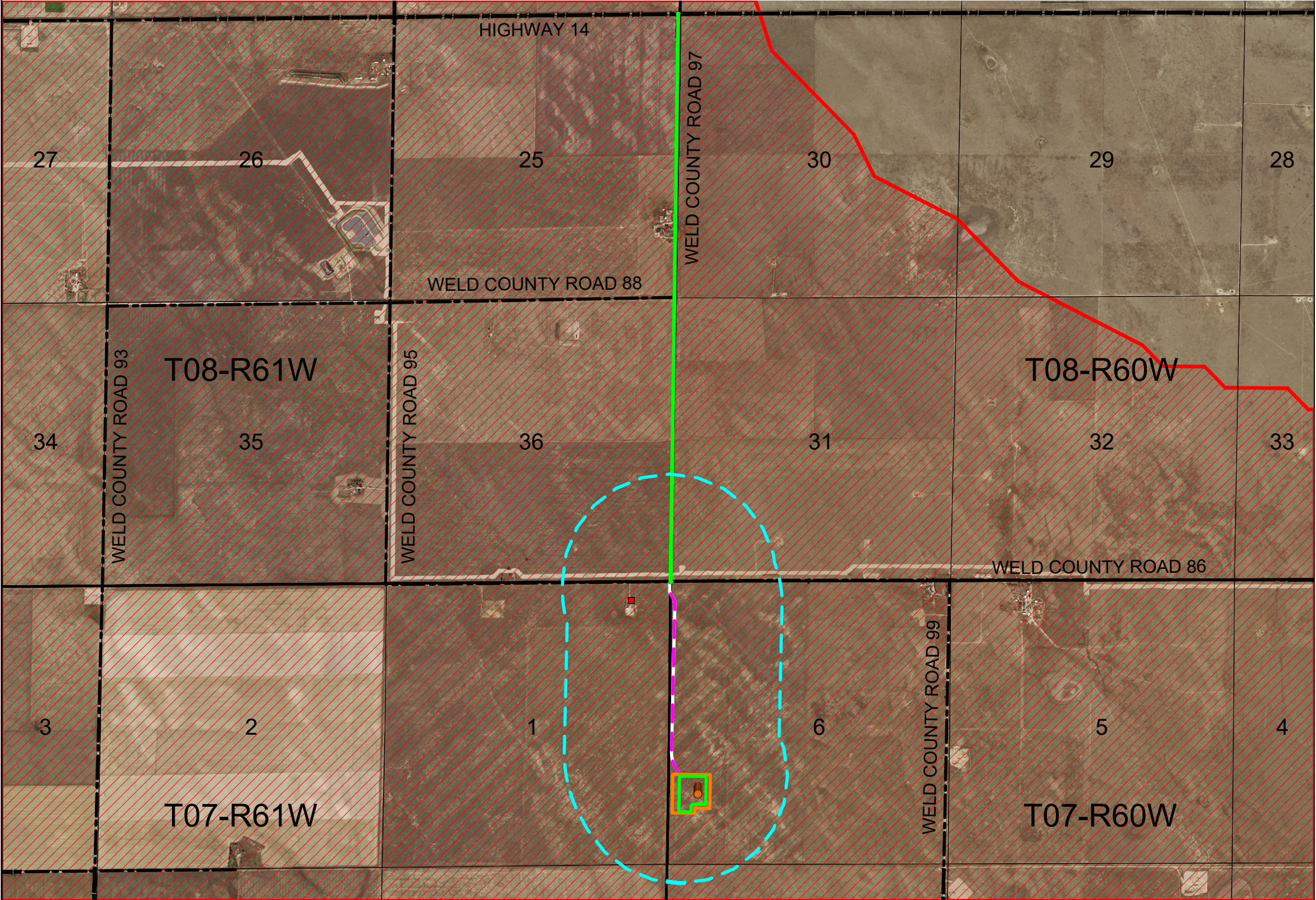
There are no other anticipated major sources of dust in the area which will result in the area bearing a cumulative dust risk that could harm public health, safety, welfare, the environment, or wildlife resources, including impacts to plants, such as burial or significant damage to photosynthetic processes.



Article V. Exhibits/References/Appendices

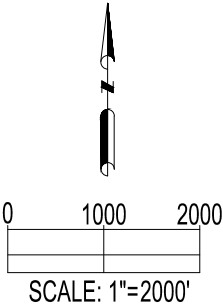
Access Road Map

SHELDUCK SOUTH PAD
ACCESS ROAD MAP



RESIDENTIAL BUILDING UNITS: (WITHIN 2000' ACCESS ROAD BUFFER)	
RESIDENTIAL BUILDING UNITS:	1
HIGH OCCUPANCY BUILDING UNITS:	0
SCHOOLS:	0
CHILD CARE CENTERS:	0

ACCESS ROAD LENGTH:	
PROPOSED ACCESS ROAD LENGTH:	±3694'



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, IF DEPICTED HAVE NOT BEEN FIELD VERIFIED AND MAY BE BASED
UPON PUBLICLY AVAILABLE DATA THAT ALSO HAS NOT BEEN INDEPENDENTLY VERIFIED.



FIELD DATE: 05-12-21	DRAWING DATE: 12-15-21
DRAWN BY: IJM	CHECKED BY: CSG

SITE NAME: SHELDUCK SOUTH PAD
SURFACE LOCATION: LOT 6 SEC. 6, T7N, R60W, 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	= HAUL ROUTE	= EXISTING PUBLIC ROAD	= SECTION LINE	= TOWNSHIP LINE	= RESIDENTIAL BUILDING UNIT	= 2000' BUFFER FROM ACCESS ROAD	= OIL & GAS LOCATION	= WORKING PAD SURFACE	= HIGH PRIORITY HABITAT (PRONGHORN WINTER CONCENTRATION AREA)
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