

Wildlife Protection Plan

RAINBOW 24-9HZ OIL AND GAS LOCATION **Weld County, Colorado**

May 6, 2022

Prepared for:

Kerr-McGee Oil & Gas Onshore, LP

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Prepared By:

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Apex Job No.: 066.1608.01.0111

1. Introduction

Apex Companies, LLC (Apex) completed a biological assessment of the proposed pad construction and drilling operations at the Rainbow 24-9HZ Oil and Gas Location (Location) for Kerr-McGee Oil and Gas Onshore (KMOG). This effort included a desktop review and site surveys, including an initial site survey performed on October 4, 2021 and follow up surveys in April, 2022, to identify sensitive resources that could be affected by the construction and subsequent operations of the Location. This effort and report provide KMOG with an assessment of potential adverse impacts to sensitive natural resources, including vegetative communities, surface waters, and wildlife. Public-available databases reviewed include the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer, the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) Mapper, the USFWS Information for Planning and Consultation (IPaC) system, the U.S. Geological Survey (USGS) National Hydrography Dataset (NHD), Colorado Parks and Wildlife (CPW) Species Activity Mapping (SAM) data, CPW High Priority Habitat (HPH) data layers, recent and historical aerial imagery, and Apex's proprietary database of over 1,500 mapped raptor nests throughout the Denver-Julesburg (DJ) Basin.

2. Oil and Gas Location Description

The Location is within Section 9, Township 5 North, Range 67 West in the City of Greeley in Weld County, Colorado (Figure 1), consisting of a 26.28-acre overall disturbance area. The Working Pad Surface prior to reclamation encompasses approximately 16.2 acres, with a Well and Facility Pad area after reclamation of approximately 7.4 acres. The existing PDC Energy, Inc. Warner 65N67W #9SWNE facility (Location ID #305224) and associated Warner #42-09D well (API #05-123-22673) are located immediately north of the northern perimeter of the Location. U.S. Highway 34 is approximately 0.43 miles south of the southern perimeter of the Location, and 131st Avenue is approximately 0.17 miles east of the eastern perimeter of the Location. Access to the Location is north from U.S. Highway 34 on 131st Avenue then west to the Location (Figure 2).

The Location lies within dryland wheat crop and appears to have been in agricultural production since at least the late 1990's.

3. COGCC: High Priority Habitats and Other Protected Resources

Findings

The Location does not occur within any High Priority Habitats (HPH) designated by CPW for application in the COGCC's Series 1200 rules. No HPHs are within one (1) mile of the Location. The nearest HPH is a 0.5-mile buffer for a pair of bald eagle nests at 1.47 miles northeast of the Location along the Cache la Poudre River. Also along the Cache la Poudre River are an Aquatic Native Species Conservation Water at 1.57 miles and a mule deer severe winter range HPH at 1.67 miles northeast of the Location (Figure 3). The Location is approximately 3,750 feet from the nearest OHWM, identified within a tributary to the Cache la Poudre River, to the northwest along Weld County Road (WCR) 60 (Figure 4).

Swale 1 drains to the northwest from the northeastern perimeter of the Location (Figure 4). This swale does not support an ordinary high-water mark (OHWM) or hydrophytic vegetation and is dominated by

dryland wheat crop and common sunflower (*Helianthus annuus*). Upland Swale 2 drains to the northwest approximately 100 feet beyond the Location's southwestern perimeter, connecting to Swale 1 approximately 375 feet northwest of the Location. No OHWM or hydrophytic vegetation were observed within Swale 2, which is dominated by dryland wheat crop with patches of curly dock (*Rumex crispus*). Past the confluence of these two swales the gully drains to the northwest; however, no OHWM is present within this feature (Figure 4). Other offsite gullies depicted in Figure 4 were not inspected for the presence of OHWMs due to property ownership restrictions; however, aerial imagery suggests that, like Swales 1 and 2, they also do not support OHWMs (Google Earth 2022).

Resource Management Recommendations

The Location is greater than 500 feet from the nearest potential OHWM within the Cache la Poudre River, therefore it is not subject to restrictions described in COGCC 1200 Series Rule 1202.c(1)R regarding proximity to Aquatic Native Species Conservation Waters. As well, the Location is more than 1,000 feet from the Cache la Poudre, therefore mitigation measures described in COGCC 1200 Series Rule 1202.a(10)R do not apply. Neither of the swales adjacent to the Location exhibit an OHWM, so the Location is not subject to restrictions described in COGCC 1200 Series Rule 1202.a(3) regarding proximity to rivers, perennial or intermittent streams, lakes, ponds, or wetlands.

No part of the Location lies within 0.5 miles of the bald eagle active nest site along the Cache la Poudre River; therefore, restrictions per 1200 Series Rule 1202.c(1)G do not pertain to the Location. There are no other HPHs or similar protected resources within proximity to the Location; no further action is recommended.

4. Raptors

Findings

There are minimal trees suitable for nesting bald eagles (*Haliaeetus leucocephalus*) or golden eagles (*Aquila chrysaetos*) within 0.5 miles of the Location. The nearest CPW-mapped bald eagle nest is greater than 1.9 miles to the northeast (Figure 3). The Location is approximately 2.38 miles south of the nearest CPW-mapped bald eagle winter night roost area.

There are minimal trees suitable for nesting non-eagle raptors within 0.5 miles of the Location, and additional habitats suitable for non-eagle raptor nesting within 0.5 miles. These additional habitats include but are not limited to utility poles, oil and gas equipment, and other miscellaneous structures. An active red-tailed hawk (*Buteo jamaicensis*) nest was observed at 0.32 miles northeast of the east end of the access road and an active great horned owl (*Bubo virginianus*) nest was observed at 0.28 miles southeast of the east end of the access road and 0.36 miles southeast of the Location (Figure 3). No other raptor nests have been recorded within 0.5 miles of the Location.

Resource Management Recommendations

If project activities start between December 1 and August 15, CPW recommends repeating surveys for nesting raptors, including eagles, with final pre-project surveys occurring no more than 7 days prior to start of project activities.

5. Western Burrowing Owls

Findings

Three (3) potential burrowing owl nesting habitats (BUOW_A128, BUOW_A497, and BUOW_A498) are within 0.25 miles of the Location at approximately 400 feet northeast, 240 feet southwest, and 0.18 miles south of the Location, respectively (Figures 2 & 3). CPW protocol burrowing owl surveys were performed on April 15, 22, and 29: no burrowing owls were observed during the surveys.

Resource Management Recommendations

As a Colorado state-threatened species, the harming or killing of burrowing owls or destruction of active nests is prohibited. If construction activities will begin between March 15 and October 31, CPW recommends a three-survey protocol for determining the presence or absence of the western burrowing owl. The CPW-protocol recommends that the surveys occur seven days apart, meaning that the first survey should be performed at least 14 or 15 days before the proposed start of activities at the Location. The final survey must be performed no more than 7 days prior to the start of work.

6. Agriculture

Findings

The Location is within the City of Greeley within Weld County on property zoned as Holding Agricultural (H-A) (City of Greeley 2021). Aerial imagery suggests that this property has been farmed, likely as dryland wheat cropland, since at least the late-1990s (Google Earth 2021).

Resource Management Recommendations

None.

7. Summary of Findings

Following a review of sensitive resources with potential to be affected by proposed pad construction and drilling operations at the Rainbow 24-9HZ oil and gas location by KMOG, potential adverse impacts to the ecosystem are anticipated to be minimal. Potential disturbances include to existing agriculture operations within and surrounding the Location, and potential impacts to ground or structure nesting birds, including potential nesting habitat for the western burrowing owl. Construction at the Location would not impact surface waters, federally threatened or endangered species, or CPW High Priority Habitats.

8. Implementation of Rule 1202.a. and 1202.b. Operating Requirements

Yes	No	NA	
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p><u>Rule 1202.a.(1):</u> Operators will install and utilize bear-proof dumpsters in black bear habitat Comment: <i>Location is not within black bear range.</i></p>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p><u>Rule 1202.a.(2).A. and B.:</u> Operators will disinfect water suction hoses and water tanks withdrawing from or discharging into natural surface waters using a CPW-approved disinfectant or with water greater than 140° F for at least 10 minutes. Comment: <i>No Location operations will withdraw from or discharge into natural surface waters.</i></p>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p><u>Rule 1202.a.(3):</u> Operators will not situate new staging, refueling, or chemical storage areas at new and existing locations; within 500 feet of the OHWM of any river, perennial or intermittent stream, lake, pond, or wetland Comment: <i>No OHWM of any river, perennial or intermittent stream, lake, pond, or wetland is within 500 feet of the Location.</i></p>
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<p><u>Rule 1202.a.(4).A., B., and C.:</u> Operators will fence and net or install other CPW-approved exclusion devices on new or existing (if COGCC determines it's necessary to protect Wildlife Resources) drilling pits, production pits, and other pits associated with Oil and Gas Operations that are intended to contain Fluids. Comment: <i>KMOG does not utilize pits in the DJ Basin.</i></p>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p><u>Rule 1202.a.(5):</u> Operators will install wildlife escape ramps for trenches that are left open for more than 5 consecutive days. Comment: <i>KMOG will comply with this directive.</i></p>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p><u>Rule 1202.a.(6):</u> Operators will use CPW-recommended seed mixes for Reclamation and use CPW-recommended fence designs when consistent with the Surface Owner's approval and any local soil conservation district requirements. Comment: <i>KMOG will comply with this directive.</i></p>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p><u>Rule 1202.a.(7):</u> Operators will use CPW-recommended fence designs when consistent with the Surface Owner's approval and any Relevant Local Government requirements. Comment: <i>KMOG will comply with this directive.</i></p>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<p><u>Rule 1202.a.(7):</u> Operators will use CPW-recommended fence designs when consistent with the Surface Owner's approval and any Relevant Local Government requirements. Comment: <i>KMOG will comply with this directive.</i></p>

Yes No NA

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Rule 1202.a.(8): Operators will conduct all vegetation removal necessary for operations outside of the nesting season for migratory birds (April 1 to August 31) or will need to conduct pre-construction nesting migratory bird surveys within the approved disturbance area prior to any vegetation removal during the nesting if hazing or exclusion devices were not installed prior to April 1.

Comment: *KMOG will comply with this directive. Pre-construction nesting bird surveys will be performed no more than 7 days prior to the start of site disturbing activities.*

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Rule 1202.a.(9): Operators will treat drilling pits, production pits, and any other pits containing water that provides a medium for breeding mosquitoes to control mosquito larvae that may spread West Nile virus to Wildlife Resources season.

Comment: *KMOG does not utilize pits in the DJ Basin.*

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Rule 1202.a.(10).A. thru E.: Operators will employ the following minimum BMPs on new locations with a Working Pad Surface located between 500 feet and 1000 feet hydraulically upgradient from a High Priority Habitat identified in Rule 1202.c.(1).Q–S:

- A. contain flowback and stimulation fluids in tanks with downgradient perimeter berming;
- B. construct lined berms or other lined containment devices pursuant to Rule 603.0 around any new crude oil, condensate, and produced water storage tanks that are installed after Jan. 15, 2021;
- C. inspect locations on a daily basis, unless the approved Form 2A provides for different inspection frequency or alternative method of compliance;
- D. maintain adequate spill response equipment at the location during drilling and completion operations; and
- E. not construct or utilize any pits, except existing previously approved pits that were operated and maintained in compliance prior to January 15, 2021.

Comment: *The Location is greater than 1,000 feet of an HPH identified in Rule 1202.c.(1).Q–S. The nearest aquatic HPH is approximately 1.57 miles to the northeast from the eastern edge of the Location (Figure 3).*

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Rule 1202.b.: Operators will bore, rather than trench, pipeline/utility crossings of perennial streams identified as aquatic High Priority Habitat, unless the Operator obtains a signed waiver from CPW and an approved Form 4 Sundry Notice from COGCC.

Comment: *The Location does not intersect an HPH or perennial streams.*

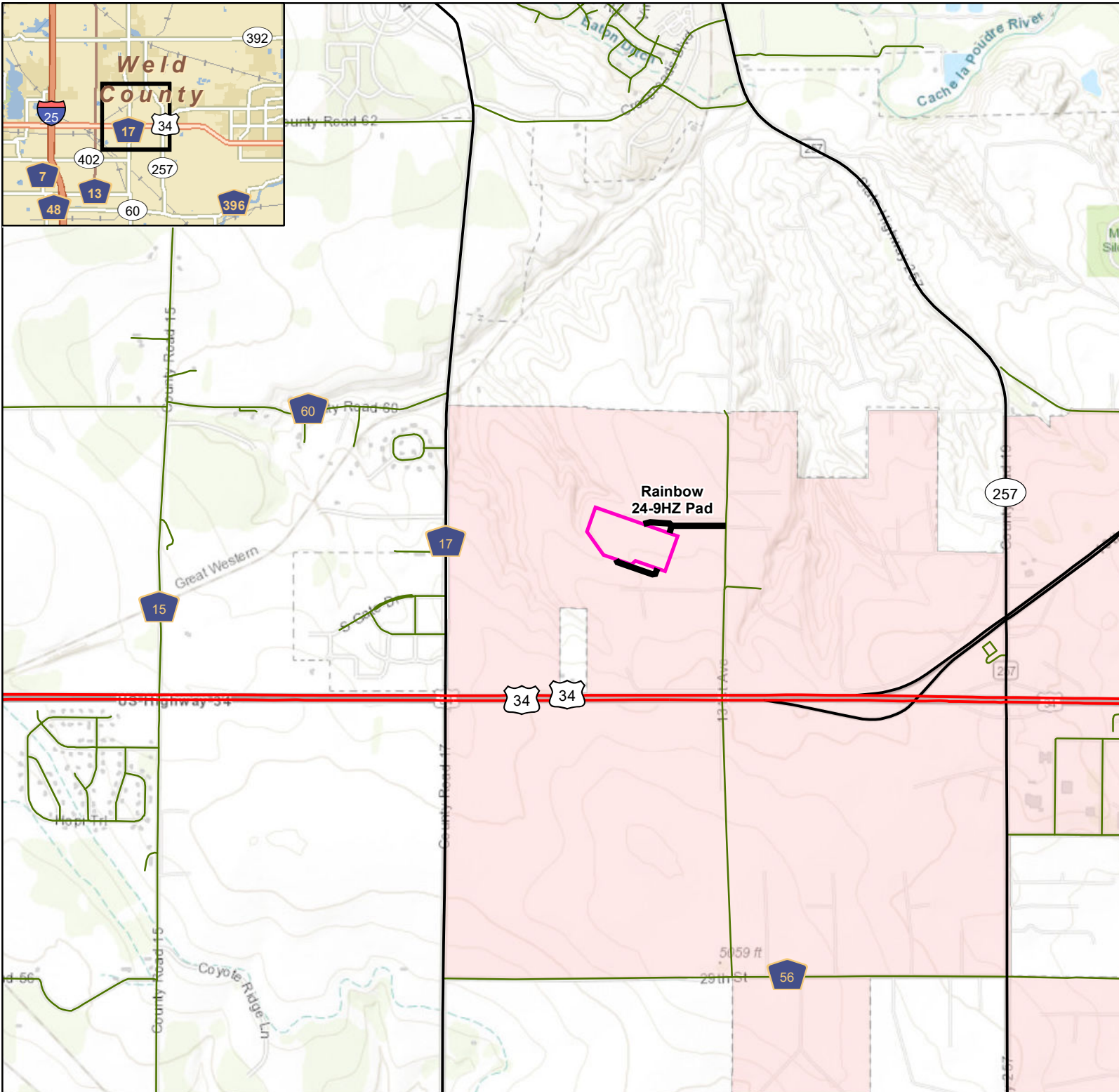
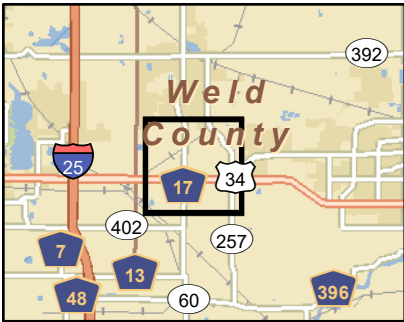
9. Additional General Operating BMPs

The following site-specific wildlife BMPs will be implemented at the Location:

1. Inform and educate employees and contractors on wildlife conservation practices, including no hunting, harassment or feeding of wildlife.
2. Consolidate and centralize fluid collection and distribution facilities to minimize impact to wildlife.
3. Adequately size infrastructure and facilities to accommodate both current and future gas production.
4. Protect culvert inlets from erosion and sedimentation and install energy dissipation structures at outfalls.
5. Implement fugitive dust control measures.
6. Install screening or other devices on the stacks and on other openings of heater treaters or fired vessels to prevent entry by migratory birds.
7. Minimize rig mobilization and demobilization by completing or re-completing all wells from a given well pad before moving rigs to a new location.
8. To the extent practicable, share and consolidate new corridors for pipeline rights-of-way and roads to minimize surface disturbance.
9. Engineer new pipelines to reduce field fitting and reduce excessive right-of-way widths and reclamation.
10. Mow or brush hog vegetation where appropriate, leaving root structure intact, instead of scraping the surface, where allowed by the surface owner.
11. Limit access to oil and gas access roads where approved by surface owners, surface managing agencies, or local government.
12. Post speed limits and caution signs to the extent allowed by surface owners, Federal and state regulations, local government, and land use policies.
13. Use wildlife-appropriate fencing where acceptable to the surface owner.
14. Use topographic features and vegetative screening to create seclusion areas, where acceptable to the surface owner.
15. Use remote monitoring of well production to the extent practicable.
16. Reduce traffic associated with transporting drilling water and produced liquids through the use of pipelines, large tanks, or other measures.
17. Install automated emergency response systems (e.g., high tank alarms, emergency shutdown systems).

10. References

- City of Greeley. 2021. City of Greeley Official 2021 Zoning Map. Available online at: http://greeleygov.com/docs/default-source/gis/pdfs/zoningofficial.pdf?sfvrsn=f84c2dc_12. Accessed February 2022.
- Google Earth V 7.3. February 28, 2022. City of Greeley in Weld County, Colorado. 40.414601° north, -104.894709° west, eye altitude at 5,000 feet. Accessed February 2022.

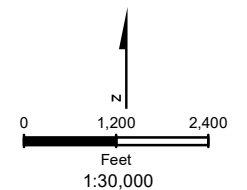


Rainbow 24-9HZ Pad

Figure 1 - Vicinity Map

Legend

- Access Road
- Oil and Gas Location
- City of Greeley Limits

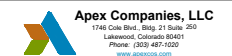


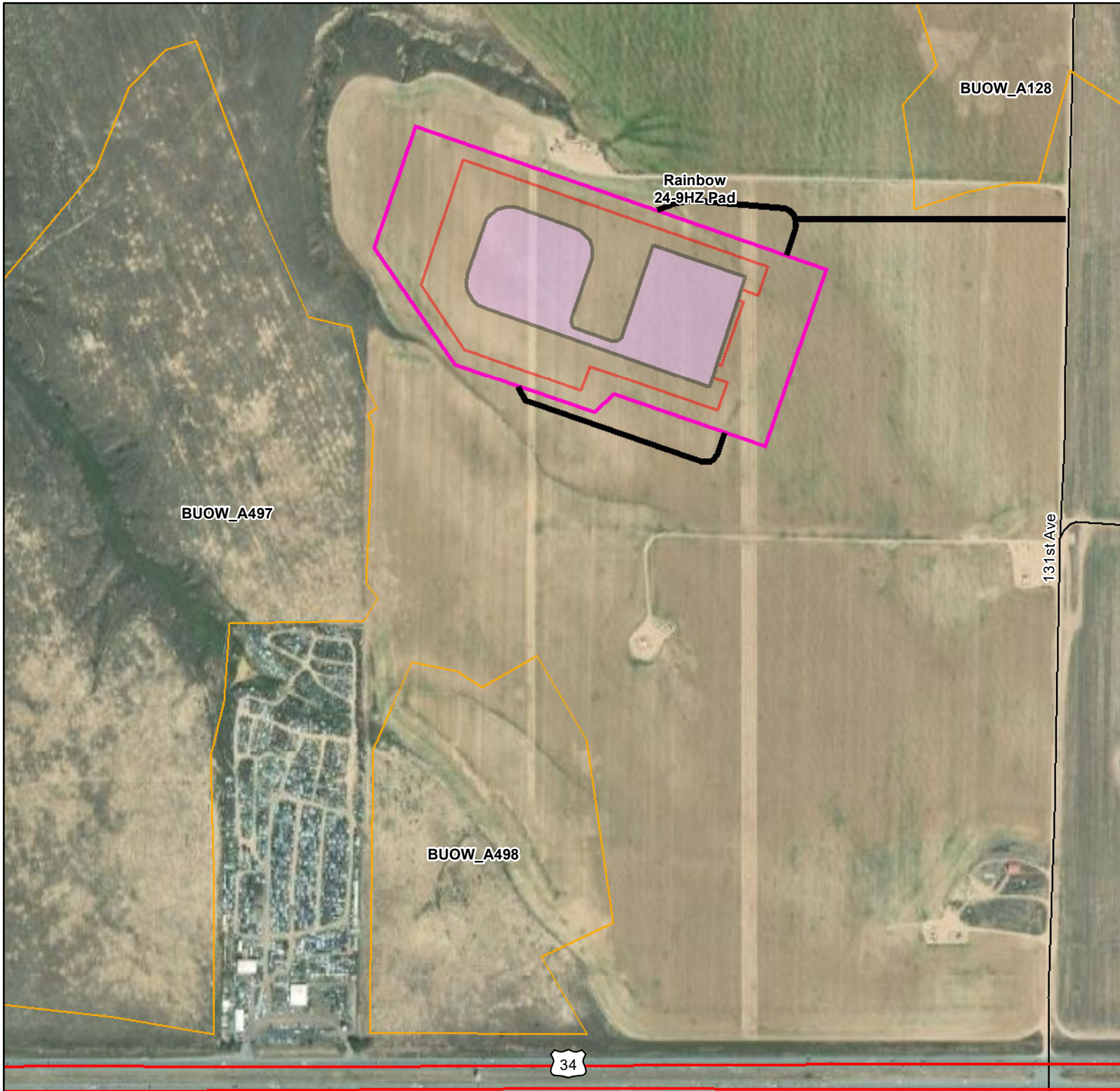
Site Characteristics

Legal Location: Sec 9, T5N R67W
County: Weld

Feature symbols not to scale

REVISED	BY	COMMENT
4/29/2022	AD	WPP Vicinity Map



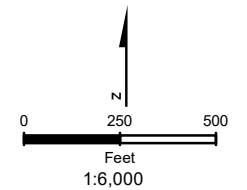


Rainbow 24-9HZ Pad

**Figure 2 -
Site Map**

Legend

- Well and Facility Pad
- Working Pad Surface
- Oil and Gas Location
- Potential BUOW Habitat
- Access Road

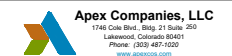


Site Characteristics

Legal Location: Sec 9, T5N R67W
County: Weld

Feature symbols not to scale

REVISED	BY	COMMENT
4/29/2022	AD	WPP Site Map

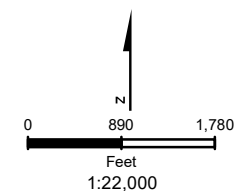


Rainbow 24-9HZ Pad

**Figure 3 -
High Priority Habitats**

Legend

- Oil and Gas Location
- One Mile HPH Buffer
- Raptor Nest - Active
- Raptor Nest - Inactive or Unknown Status
- Potential BUOW Habitat
- Access Road
- CPW-Mapped Bald Eagle Active Nest Site w/ Half Mile Buffer - 1202.c.(1)G
- Aquatic Native Species Conservation Water - 1202.a.(10) & 1202.c.(1)R
- Mule Deer Severe Winter Range - 1202.d.(3)

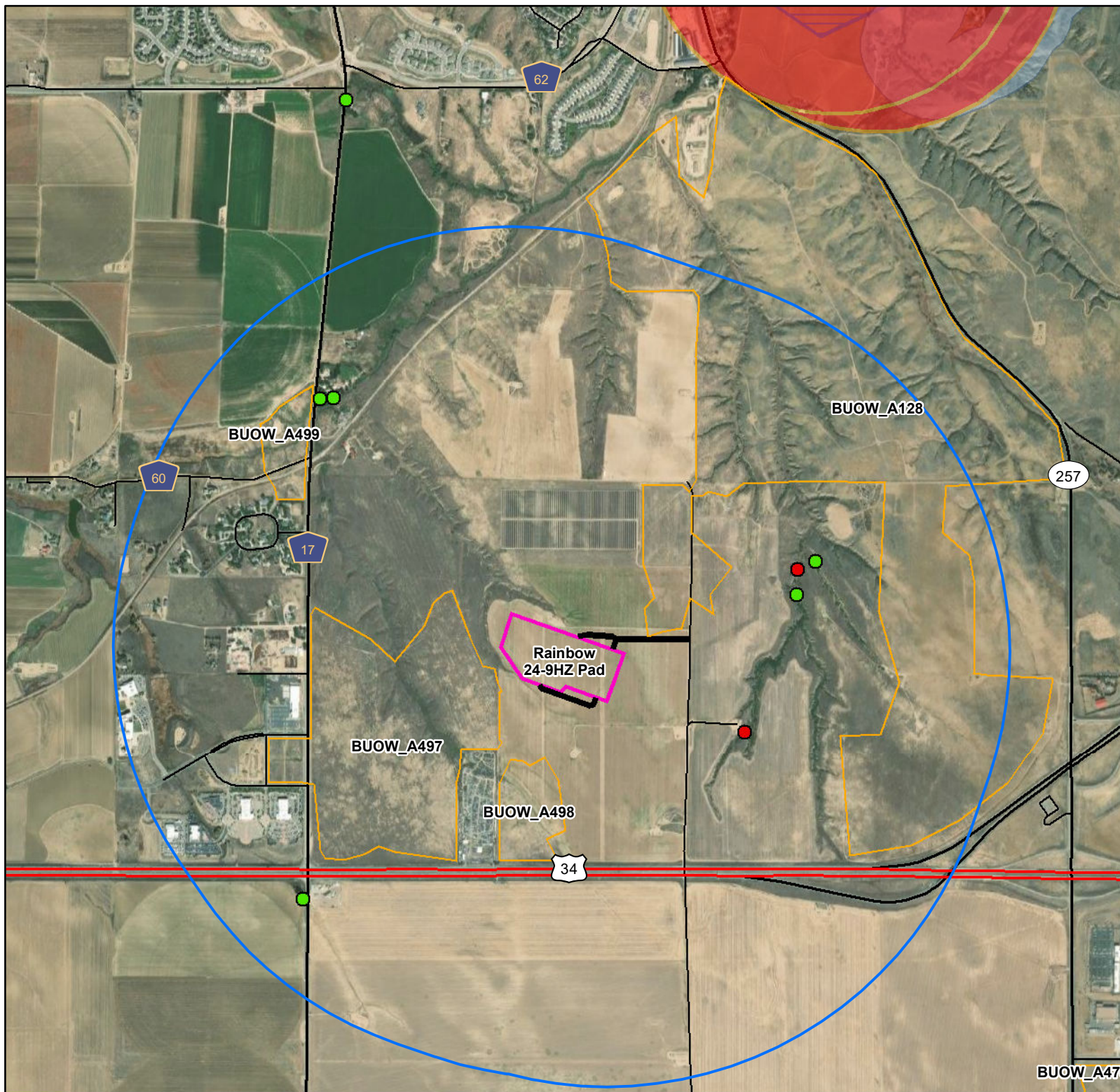


Site Characteristics

Legal Location: Sec 9, T5N R67W
County: Weld

Feature symbols not to scale

REVISED	BY	COMMENT
4/29/2022	AD	WPP HPH Map

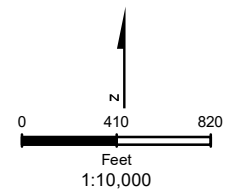
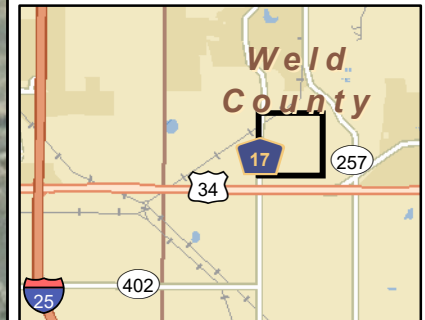


Rainbow 24-9HZ Pad

**Figure 4 -
Nearest OHWM**

Legend

- No OHWM
- Drainages with OHWM presence unknown
- Nearest known surface water exhibiting an OHWM
- Access Road
- Oil and Gas Location



Site Characteristics

Legal Location: Sec 9, T5N R67W
County: Weld

REVISED	BY	COMMENT
5/6/2022	MJW	Natural Resources Map



Feature symbols not to scale

