



Extraction Oil & Gas, Inc

## Wetland Delineation Report

FOR

T-Bone 28 XOG Pad

Prepared For:



1120 Lincoln Street, Suite 801  
Denver, CO 80203  
[www.ecmc.state.co.us](http://www.ecmc.state.co.us)

Prepared By:



1720 South Bellaire Street, Suite 400  
Denver, CO 80222  
[www.rpgres.com](http://www.rpgres.com)

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## 1. INTRODUCTION

RPG Resources (RPG), on behalf of Extraction Oil and Gas, Inc. (Civitas Resources, Inc.; hereafter Extraction or the Operator), conducted a wetland and waters survey of the proposed T-Bone 28 XOG pad location (Site) to identify any wetland or waterway constraint(s) present within or surrounding the proposed construction area. This assessment was conducted in order to ensure Extraction’s compliance with the associated Energy and Carbon Management Commission (ECMC) 1200 Series Rules, Clean Water Act (CWA) and other applicable agency requirements and recommendations. This report summarizes the project location, methods used and results of the assessment.

## 2. PROJECT LOCATION

The proposed pad location (Site) boundaries are defined as the limit of disturbance for the proposed pad. The Survey Area is confined to a 500-foot radius extending from the edge of the proposed limits of disturbance. The Survey Area is located in Township 5N, Range 66W, Section 28 in Weld County, Colorado. The Site is in the Western Great Plains Range and Irrigated Region Land Resource Region (LRR) of the Central High Plains, southern part Major Land Resource Region (MLRA). The field-verified land type is cropland.

One feature, defined as a NHD mapped intermittent stream and a NWI mapped R4SBC riverine is located upgradient approximately 8 feet northeast of the proposed limits of disturbance. This feature extends outside the Survey Area. Wetland hydrology was confirmed by field observation of saturation visible on aerial imagery and geomorphic position.

## 3. DESKTOP REVIEW

RPG’s environmental site assessment included a desktop review of aerial imagery and agency-mapped sensitive natural resources within the Survey Area including:

- ESRI Aerial Imagery
- United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Web Soil Survey (WSS)
- United States Fish and Wildlife (USFWS) National Wetland Inventory (NWI) and;
- United States Geological Survey (USGS) National Hydrography Dataset (NHD)

Upon review of ESRI Aerial Imagery, saturation was identified within the northeastern section of the survey area.

Four soil types were identified by the United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) Web Soil Survey (WSS): Kim loam 1-3% slopes (32), Kim loam 3-5% slopes (33), Olney fine sandy loam 1-3% slopes (47), and tassel fine sandy loam 5-20% slopes (61).

One feature, defined as a National Hydrography Dataset (NHD) rated intermittent stream and a National Wetland Inventory (NWI) riverine feature is mapped within 500 feet of the proposed oil and gas location.

## 4. QUALIFICATIONS

The wetland and waterway survey was completed by RPG employee, Brent Hoepfner. The field data collected was reviewed and verified by Russell Beam.

Mr. Hoepfner is an environmental scientist with plant identification skills and approximately 10 years of experience in wetland delineations and stream assessments. He has a degree in Biology and has conducted wetland delineations in Colorado and Mississippi.

Mr. Beam has completed hundreds of wetland delineations at sites near rivers, streams or other waterways throughout the Front Range and has obtained numerous 404 Wetland Permits from the US Army Corps of Engineers (USACE) if projects required. He has delineated wetlands and ordinary high-water marks using the Great Plains, Arid West, Western Mountains, Valleys, and Coast and Atlantic and Gulf Coastal Plain Regional Manuals per project requirements. He is familiar with the wide variety of soil types and the accurate assessment of hydric and upland soils.

## 5. METHODS

RPG followed routine delineation methods described in the USACE Wetlands Delineation Manual (USACE 1987), and in the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (Version 2.0) (USACE 2010), hereinafter referred to as the Regional Supplement, to evaluate the presence/absence of wetlands within the Site. Wetlands are characterized by a predominance of hydrophytic vegetation, presence of hydric soils, and presence of wetland hydrology.

While surveying the Site, RPG searched for visual evidence of vegetation composition consistent with prolonged inundation or saturation, and changes in surface features indicating the presence of wetland hydrology. If any of these circumstances were present, the observer(s) collected data necessary to complete a Wetland Determination Data Form, providing documentation of the presence or absence of wetlands. Determination of wetland habitat type, if present, was based on the classification system developed by Cowardin et al. (1979) and accepted by the USACE. Photographs were taken to document findings.

## 6. RESULTS

Feature 1, a National Hydrography Dataset (NHD) rated intermittent stream and a National Wetland Inventory (NWI) riverine feature is mapped within 500 feet of the proposed oil and gas location, was field verified as not present during the time of survey.

Feature 2, a field-verified ditch, is located approximately 8 feet northeast of the proposed pad location. Multiple occurrences of drainage patterns were identified within the vegetation and sediment of Feature 2. However, there was no ordinary high-water mark (OHWM), nor was there any flowing or ponding water present at the time of the survey.

One test pit, WSP001, was taken within the mapped boundaries of Feature 2 to determine the presence of hydrologic conditions. Wetland hydrology was indicated by saturation on aerial imagery and geomorphic position. No indication of hydric soils was observed at the time of the field survey.

Vegetation cover at the Survey Area was dominated by smooth brome (*Bromus inermis*) which has an upland (UPL) wetland indicator status.

Feature 2 is a field-verified water feature, but not a wetland feature, therefore it is not considered a constraint for the Site development.

6.1. Table 1

Feature Number	Name/Classification	Distance from OGL
1	NWI-mapped R4SBC Riverine	Mapped intersecting OGL, actual location is outside work area.
2	Ditch	Approximately 8 feet northeast. Upgradient.

### 6.2. 100-year Floodplain

The Site is not located within any Federal Emergency Management Agency (FEMA)-mapped 100-year floodplain. No construction activity is scheduled to occur within a 100-year floodplain.

## 7. CONCLUSION

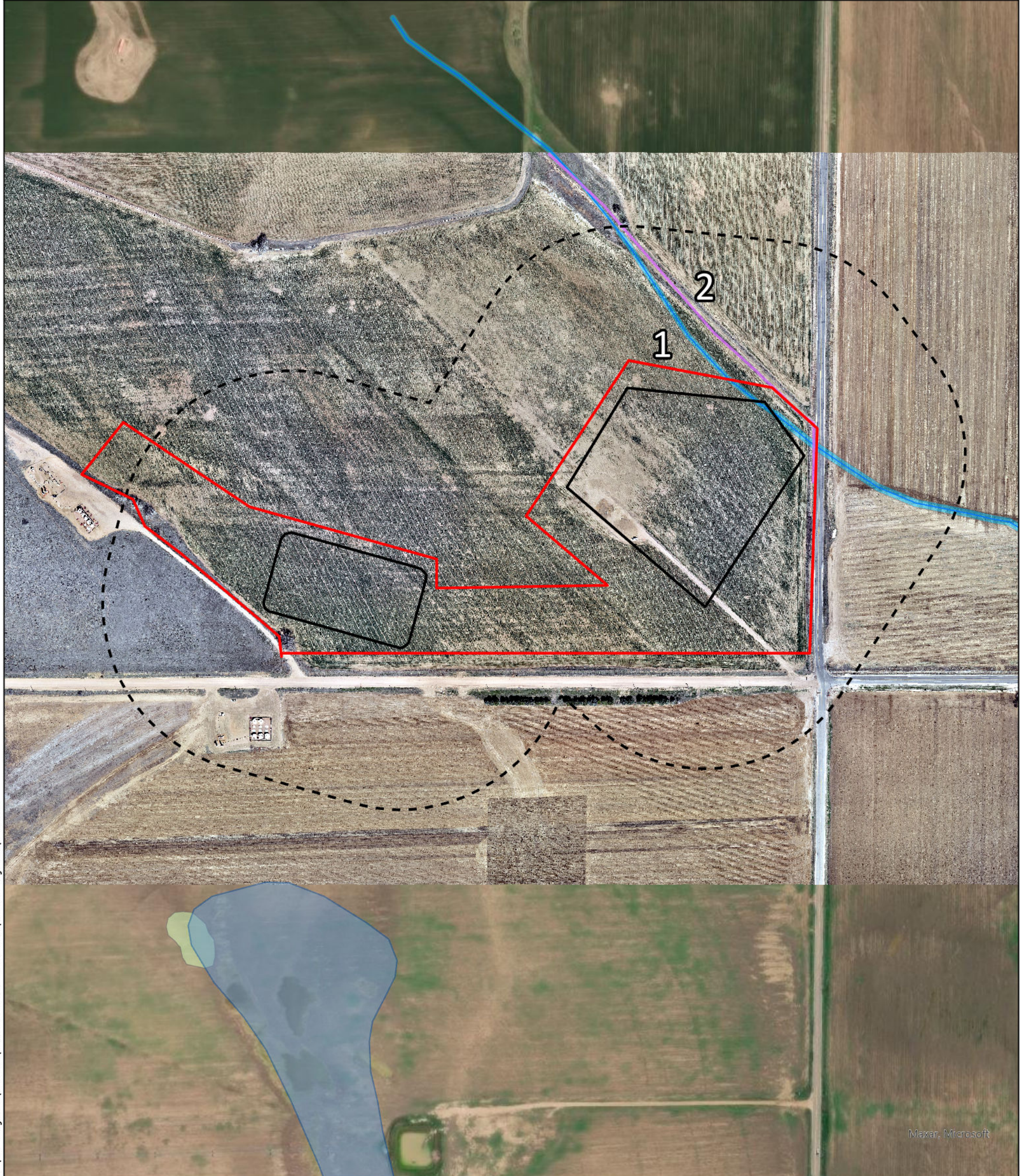
Based on the results of our surveys, one field verified ditch was observed within the boundaries of the Survey Area. No wetlands nor streams were located within the survey area.

APPENDIX A  
Site Map

EXTRACTION OIL AND GAS, INC.  
 T-BONE XOG 28 PAD  
 SEC 28, T5N, R66W, 6th P.M.  
 WELD COUNTY, COLORADO



Feature Number	Feature Classification	Distance and Direction	Field Observation
1	NWI mapped Riverine Feature (R4SBC)	Within OGL	Feature 1 was field verified as a non-wetland.
2	Ditch	8 feet northeast. Upgradient.	Feature 2 was field verified outside of the OGL. The purple line indicates the updated flow pattern of the drainage feature.



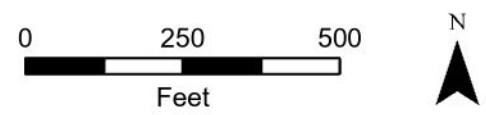
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Maxar, Microsoft

# WETLAND VERIFICATION MAP

- Oil and Gas Location (OGL)
- Working Pad Surface (WPS)
- 500-Foot Buffer Around WPS
- Field Verified Location of Feature 2
- NHD-Mapped Stream/River
- NHD-Mapped Lake/Pond
- NWI-Mapped Riverine
- NWI-Mapped Freshwater Emergent Wetland

Projection: WGS 1984  
 Date: 07/24/2024  
 Drafted by: HJL



1 inch equals 400 feet

APPENDIX B  
Site Photos

## PHOTOS



1. Overview of Soil Test Pit Location.