

Reviewed by:
Jeffrey Schroeder
 Senior Geologist
 Extraction Oil and Gas

I CERTIFY THAT I AM A PROFESSIONAL GEOLOGIST, HAVING MET THE EDUCATIONAL REQUIREMENTS AND PROFESSIONAL WORK EXPERIENCE REQUIRED BY C.R.S 23-41-208(b). I HAVE REVIEWED INFORMATION PERTAINING TO THIS OIL AND GAS LOCATION AND THE SURROUNDING AREA AND HAVE IDENTIFIED THREE GEOLOGIC HAZARDS: SINCE THE LOCATION HAS PREVIOUSLY BEEN IRRIGATED CROPLAND WE DON'T BELIEVE THAT EG-14 EOLIAN SOILS ARE PRESENT IN SIGNIFICANT ENOUGH QUANTITIES TO ADVERSELY IMPACT THE PROPOSED PROJECT. ADDITIONALLY, THE TOPSOIL PERFORMED FOR THE PROPOSED LOCATION CONFIRM THAT SAND IS BOUND BY OTHER MATERIALS (I.E. CLAY); EROSION FROM WIND OR WATER IS MINIMAL.

NOTE:

EG-14 EOLIAN (WIND-BLOWN) DEPOSITS, DUNE AND SHEET SAND DEPOSITS, AND CRETACEOUS AND TERTIARY FORMATIONS ARE ALL WITHIN 1 MILE OF THE WORKING PAD SURFACE.

SOURCES/HAZARDS REVIEWED:
 1. COGCC - GEOLOGIC HAZARDS
 -[HTTPS://COGCC.STATE.CO.US/ DATA2.HTML#/DOWNLOADS](https://cogcc.state.co.us/data2.html#/downloads)

- a. DRMS MINE
- b. CGS COAL MINE

- c. COAL AREA
 - d. EARTHQUAKES
2. COLORADO GEOLOGICAL SURVEY
 -[HTTPS://COLORADOGEOLOGICALSURVEY.ORG/GIS-DATA-MAP-PORTAL/](https://coloradogeologicalsurvey.org/gis-data-map-portal/)

- a. FAULT LINES
- b. COLLAPSIBLE SOILS
- c. COAL MINES

LEGEND

	LIMITS OF DISTURBANCE AREA		EFFECTIVE FEMA 100-YEAR FLOODPLAIN
	WORKING PAD SURFACE		EFFECTIVE FEMA 100-YEAR FLOODWAY
	5280' BUFFER		
	EG-14 DUNE AND SHEET SAND DEPOSITS		
	EG-14 CRETACEOUS AND TERTIARY FORMATIONS		
	EG-14 EOLIAN WIND BLOWN DEPOSITS		

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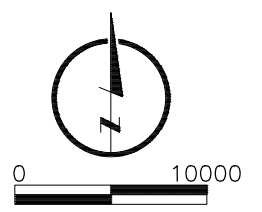
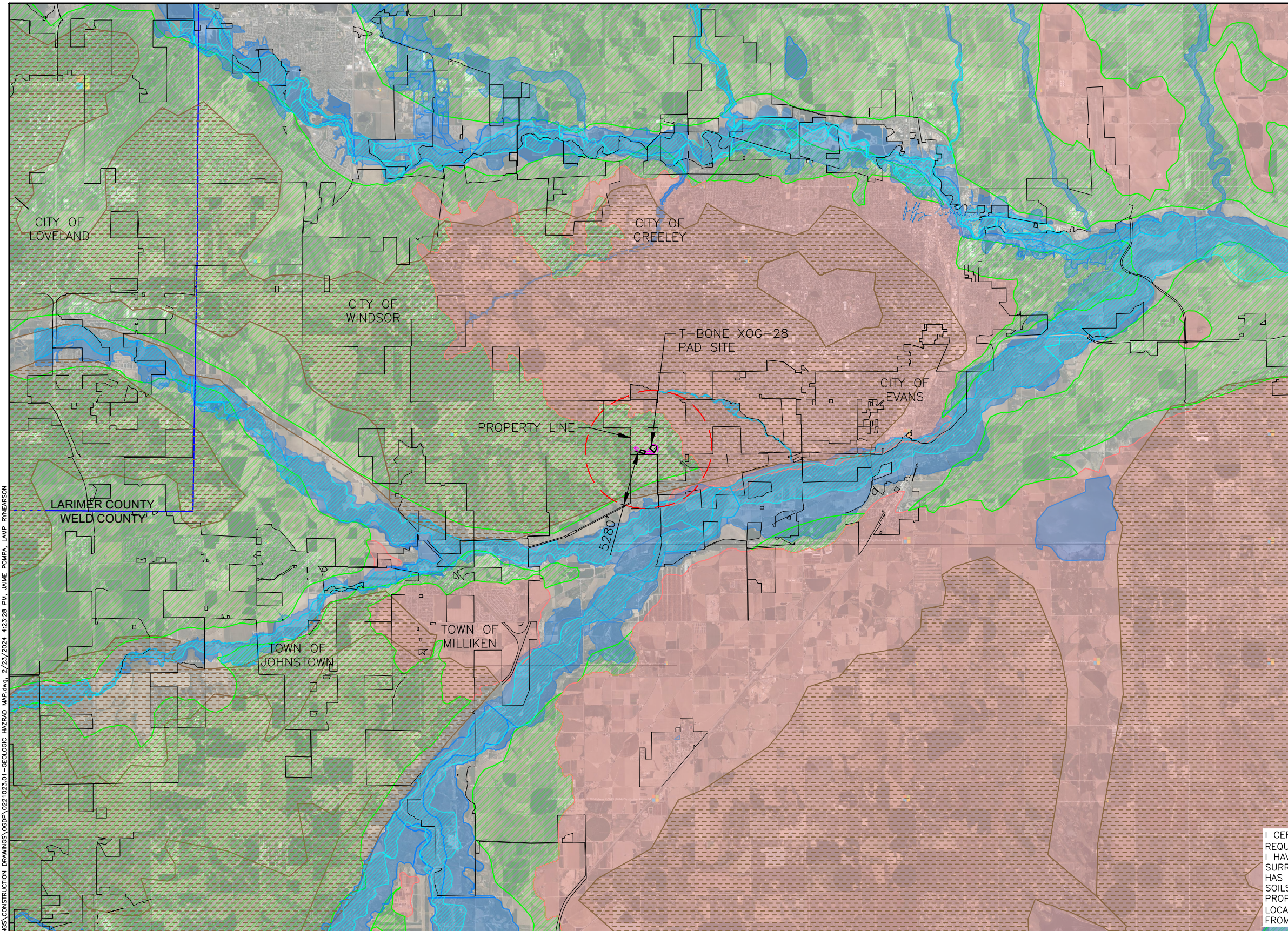
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 MO AUTH. NO.: E-2013011903 | LS-2019043127

DESIGNER / DRAFTER TJS
REVIEWER MAP
PROJECT NUMBER 0221023
DATE 02/23/2024
SURFACE LOCATION S28, T5N, R66W
BOOK AND PAGE 1 OF 2

**T-BONE XOG-28 PAD
 GEOLOGIC HAZARDS MAP**

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LEGEND

- LIMITS OF DISTURBANCE AREA
- WORKING PAD SURFACE
- 5280' BUFFER
- MUNICIPAL BOUNDARY
- EG-14 DUNE AND SHEET SAND DEPOSITS
- EG-14 CRETACEOUS AND TERTIARY FORMATIONS
- EG-14 EOLIAN WIND BLOWN DEPOSITS
- EFFECTIVE FEMA 100-YEAR FLOODPLAIN
- EFFECTIVE FEMA 100-YEAR FLOODWAY

NOTE:

EG-14 EOLIAN (WIND-BLOWN) DEPOSITS, DUNE AND SHEET SAND DEPOSITS, AND CRETACEOUS AND TERTIARY FORMATIONS ARE ALL WITHIN 1 MILE OF THE WORKING PAD SURFACE.

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S28, T5N, R66W

BOOK AND PAGE
2 OF 2



T-BONE XOG-28 PAD GEOLOGIC HAZARD EXPANDED AREA