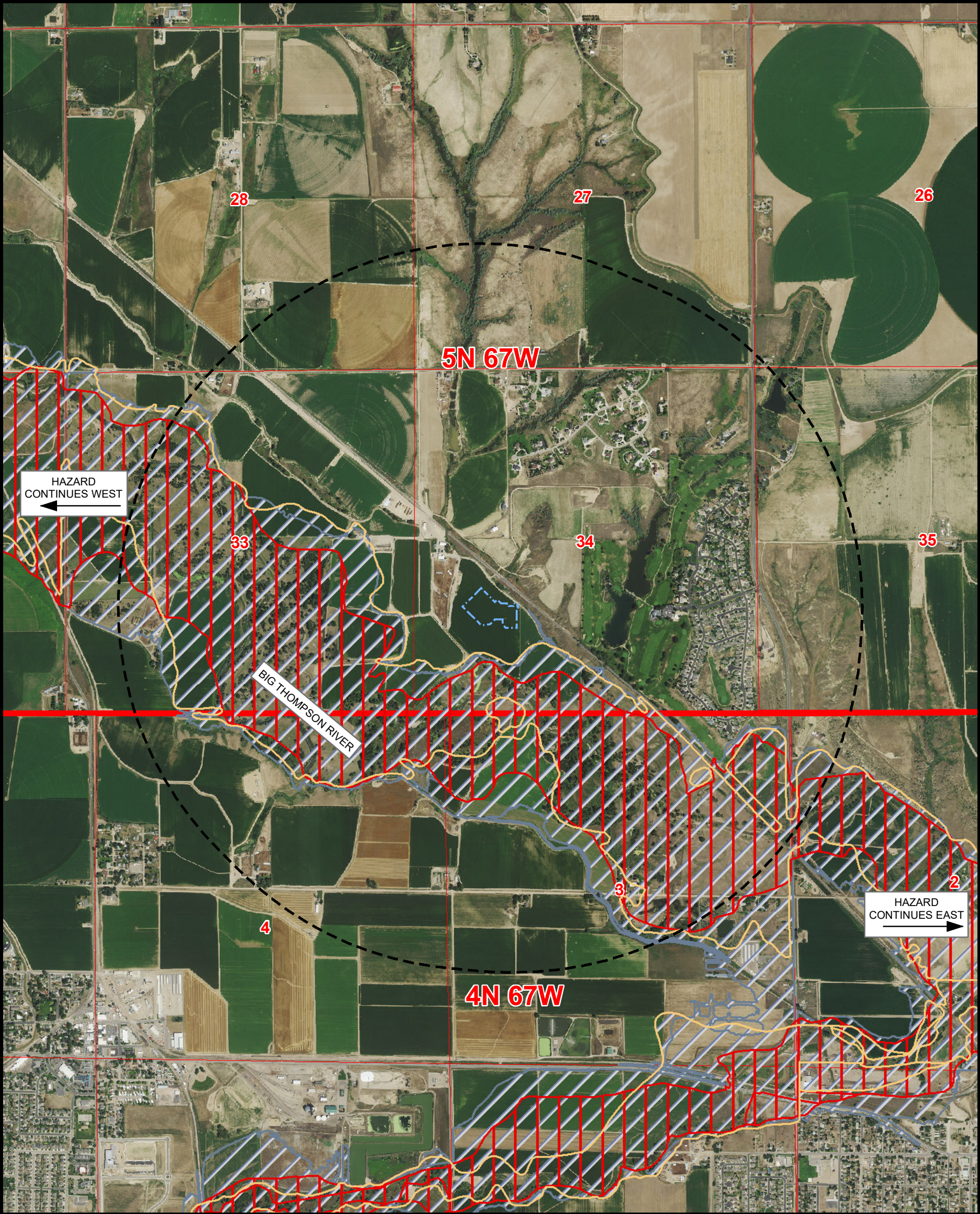


GEOLOGIC HAZARD MAP
CHARLENE NELSON 12-34HZ

SECTION 34, TOWNSHIP 5 NORTH, RANGE 67 WEST, 6TH P.M., WELD COUNTY, COLORADO



Legend

- PROPOSED WORKING PAD SURFACE
- 1 MILE BUFFER - WORKING PAD SURFACE
- 100-YEAR FLOODPLAIN (EFFECTIVE, 2016)
- 100-YEAR FLOODPLAIN (PRELIMINARY, 2020)
- 100-YEAR FLOODPLAIN (PRELIMINARY, 2020)

NOTE:
THIS MAP IS A COMPILATION OF PUBLICLY AVAILABLE DATA. THE ACCURACY AND COMPLETENESS OF SAID DATA
HAS NOT BEEN VERIFIED BY 609 CONSULTING, LLC. EXISTING CONDITIONS MAY DIFFER FROM WHAT IS SHOWN.

**Kerr-McGee Oil &
Gas Onshore L.P.**

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NAD83 CO-Nft

1" = 1,500ft

0 750 1,500

Drawn by: BB
Revised: CPS

Date: 30 Aug 2021
Date: 3 Sep 2021



Geologic Hazards Assessment for the Charlene Nelson 12-34HZ Pad

This analysis concerns a geologic hazards review for Kerr-McGee Oil & Gas Onshore LP's (KMOG) Nelson Family OGDG Application pertaining to the Charlene Nelson 12-34HZ Form 2A. My name is Cameron Ross and I am a Geologist Senior at KMOG. I have reviewed the Charlene Nelson 12-34HZ Form 2A as part of the Nelson Family OGDG Application for potential geologic hazards. I received a Bachelor of Science in Geology from Grand Valley State University and a Master of Science in Geology from Oklahoma State University. I have more than 10 years of experience specific to the geology of oil and gas projects. Based on my review of relevant materials, I am familiar with the properties subject to, and the matters set forth in the Nelson Family OGDG Application.

In support of KMOG's Lesser Impact Area Exemption request for the Geologic Hazard Plan for the Charlene Nelson 12-34HZ Form 2A, I am submitting one figure along with this written review. Pursuant to Rule 304.b and 304.c, I conducted a survey of geologic hazards within 1 mile of the proposed Working Pad Surface of the Charlene Nelson 12-34HZ Pad. The survey included geologic hazards that have the potential to pose significant hazards to public health, safety, and property, including, but not limited to, floodplain, surface mines, earthquakes, landslides and sub-surface mines. The attached figure is a map showing identified geologic hazard features that are located within 1 mile of the proposed Charlene Nelson 12-34HZ Working Pad Surface. The data source for the floodplain and surface mines shown on the figure is the Colorado Geological Survey GIS Datasets. Additional datasets utilized include USGS Earthquake Data, Colorado Geological Survey landslide data, USDA Natural resources Conservation Service soil data, and published maps and research papers.


The floodplain is present within 1 mile of the proposed drilling location; however, the floodplain is not present at the surface drilling location or the proposed access road.

My review and the attached figure support my conclusion that, based on the results of the geologic hazards survey, the only known geologic hazard within 1 mile of the proposed Working Pad Surface and access road is the 100-year floodplain. The floodplain is not present at the surface drilling location or access road. Therefore, the identified floodplain does not pose a significant hazard to public health, safety, or property. Furthermore, because no geologic hazards are present that would pose a significant hazard to health, safety, or property, no geologic hazard plan is required. For these reasons, a Lesser Impact Area Exemption should be granted for the Geologic Hazard Plan for the Charlene Nelson 12-34HZ Form 2A.

Certification:

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 no Geologic Hazards within a one mile radius that would pose a risk to the proposed Oil and Gas Operations or Location.

Respectfully:



Cameron S Ross
Senior Geologist

Kerr McGee Onshore Oil & Gas LP