

THERE ARE NO GEOLOGIC HAZARDS WITHIN ONE MILE OF THE WELL PAD.

Soil Types in Proposed Oil and Gas Location: Vona loamy sand (0-3% slopes).

These soil types are considered to have a potential for collapse, but failure is uncommon and this hazard poses minimal risk to the proposed Oil and Gas Operations.

The Well Pad Location is in an area of minimal flood hazard (Zone X).

Resources Reviewed:

COGCC. GIS Online Interactive Map. cogccmap.state.co.us/cogcc_gis_online/. Accessed August 26, 2024.

USDA-NRCS Web Soil Survey <https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx> Accessed August 26, 2024

FEMA National Flood Hazard Layer Firmette – Accessed August 26, 2024

Colorado Geological Survey Earthquake and Fault Map Server Colorado Earthquake and Fault Map Server (mines.edu) – Accessed August 26, 2024 <https://cgsarcimage.mines.edu/ON-001/>

Colorado Geological Survey – Statewide Landslide Inventory Map - ON-006-01 Colorado Landslide Inventory (arcgis.com) – Accessed August 26, 2024 <https://cologeosurvey.maps.arcgis.com/apps/webappviewer/index.html?id=9dd73db7fbc34139abe51599396e2648>

Colorado Department of Public Health and Environment – Mine Impacted Streams Task Force – Colorado Abandoned Mines Land Information Web Application - Colorado AML Information (erams.com) – Accessed August 26, 2024 <https://erams.com/map/>

Colorado Geological Survey –Collapsible Soils of Colorado (arcgis.com) Accessed August 26, 2024 <https://cologeosurvey.maps.arcgis.com/apps/webappviewer/index.html?id=a6f816b35fb64d3da096e84af661f070>

Colorado Division of Reclamation, Mining and Safety Map Viewer - DRMS Mapping (state.co.us) – Accessed August 26, 2024 <https://maps.dnrgis.state.co.us/drms/Index.html?viewer=drms>

Colorado Geological Survey – ON-B-40M – Radioactive Mineral Occurrences of Colorado - ON-B-40M Radioactive Mineral Occurrences of Colorado (arcgis.com) – Accessed August 26, 2024 <https://cologeosurvey.maps.arcgis.com/apps/webappviewer/index.html?id=c5381e1335284d63bfa5d4b018b3372f>

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.

Will Harmon, P.G.

Environmental Specialist

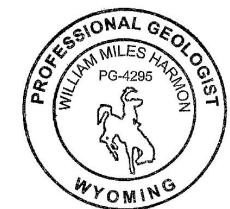
will.harmon@kljeng.com

(970) 450-7472

 9/3/2024

Signature

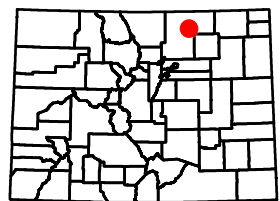
Date



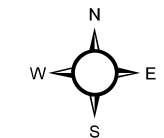
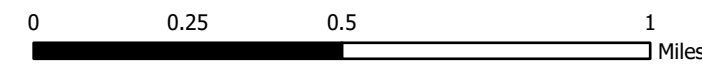
USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road data; Natural Earth Data; U.S. Department of State HIU; NOAA National Centers for Environmental Information



KLJ Project Number: 2407-01191
Date Created: 9/3/2024 Created by: NSO



Geologic Hazard Map Cartwright 24 Pad Weld County, CO



NW 1/4 OF NE 1/4 OF
SECTION 24 T-5-N, R-61-W, 6th P.M.
WELD COUNTY, COLORADO

-  Limits of Disturbance
-  Proposed Access Road
-  Working Pad Surface
-  1 Mile Radius From Well Pad
-  Sections
-  Townships

Path: K:\Projects\OilGas\AveryLandServices\2407-01191_Cartwright Pad Layout\GIS\ArcPro\Cartwright\Cartwright_V2\Cartwright_V2.aprx