

Great Plains Energy Operating, LLC
Marquis #1
SWNW Section 23, T7S R52W
Lincoln County, Colorado

WASTE MANAGEMENT PLAN

Great Plains Energy Operating, LLC (Great Plains) has drafted this plan in compliance with ECMC Rules 304.c.(11) and 905.a.(4). Great Plains' intention is to follow all local, state, and federal regulations regarding any E&P waste generated at this location.

E&P wastes are not regulated (i.e., exempt) as hazardous wastes by the Environmental Protection Agency (EPA) (40 CFR 261) or by the ECMC. The ECMC regulates E&P wastes in the State of Colorado. Both agencies publish a list of E&P exempt wastes on their websites. To qualify as an E&P waste, the waste must be generated during the drilling, completions, or production operations. These wastes must be managed (treated, stored, transported, and disposed of) in accordance with ECMC, County and municipal regulations, and land use codes and ordinances.

Non-E&P Wastes (i.e., wastes not generated as part of Oil and Gas downhole operations) must be managed in accordance with Colorado Department of Public Health and Environmental ("CDPHE") regulations, and county and local landfill or waste disposal facility requirements.

SITE DESCRIPTION

This location will contain one re-entry vertical oil well and production equipment.

The location is on private surface. Any remediation or closure activities above and beyond the operations currently included in the executed Surface Use Agreement necessary at the location will be agreed upon with the surface owner at the time of remediation and/or closure activity.

DRILLING

Description of the Process Generating the Waste:

Water-based drilling fluids are used to lubricate and remove drill cuttings during the drilling process. Drilling fluids are processed to remove solids and recirculated. The drill cuttings are small pieces of rock and soil that break away from the well walls during drilling and are screened out of the liquid mud system. When drilling is complete, or drilling fluid is spent, the fluids are transported to a commercial disposal facility.

Drill Cuttings:

A closed loop drilling system will be used. The cuttings will be stored in an above ground container and hauled offsite for commercial disposal by a licensed third-party transportation company.

Freshwater drilling mud will be utilized for drilling this well.

Drill Fluids:

A closed loop drilling system will be used. The fluids will be stored in an above ground container and hauled offsite to an approved disposal facility by a licensed third-party transportation company. Excess water will be taken to be disposed of at a commercial disposal.

COMPLETIONS

Description of the Process Generating the Waste:

This well will not undergo hydraulic fracturing or other completion operations; therefore, there will be no completion waste generated.

Completion Fluids:

This well will not undergo completion operations.

Flowback Fluids:

There will be no flowback fluids from the completion operations of this well.

PRODUCTION

Description of the Process Generating the Waste:

Produced fluids will be brought up from the hydrocarbon formations during the extraction of hydrocarbons. It will primarily consist of formation water.

Produced Fluids:

Produced water will be stored onsite in containers that meet ECMC regulations prior to hauling for disposal. Tanks will be labeled in accordance with ECMC regulations. All load lines shall be bull plugged or capped. Secondary containment areas for tanks shall be constructed of steel panels, designed and installed to prevent leakage and resist degradation from erosion or routine operation, and shall be constructed with a synthetic or engineered liner that contains all primary containment vessels and flowlines and is mechanically connected to the steel ring to prevent leakage. Steel berms will be able to contain spills with capacity > 150% volume of the largest tank. Any spills will be immediately cleaned up and reported if volume exceeds reporting limit.

Whenever feasible, produced water will be recycled to support Great Plains drilling operations.

SPILL RESPONSE AND REMEDIATION

Description of the Process Generating the Waste:

Soil that has been impacted with produced hydrocarbons.

Impacted Soils:

Occasionally, spills of produced fluids may occur during oil and gas operations that result in localized impacts to soils on or near the oil and gas location. All spills are immediately cleaned up by Great Plains personnel. Impacted soils are assessed to determine if they exceed regulatory clean-up standards and require removal, treatment, or disposal. Characterizing potentially contaminated soils is accomplished either by field-screening the impacted soils to determine relative hydrocarbon concentrations, and/or by collecting samples of the impacted soils and sending the samples to an approved commercial lab for analysis per Table 915-1 constituents.

All contaminated soils exceeding regulatory clean-up standards are excavated and managed/disposed of properly. If a spill incident is subject to agency reporting requirements, the appropriate agencies are notified within the regulatory timelines. Impacted soils that exceed applicable clean-up standards are typically excavated and taken to an off-site commercial disposal facility that is authorized to accept that type of waste.

FACILITY DECOMMISSIONING

Description of the Process Generating the Waste:

Once the well has fulfilled its useful life, it may be a candidate for plugging and abandonment. This location will undergo site assessment as per Rule 911. During the life of the well, soils surrounding the wellhead may be found to have been impacted by operations.

Impacted Soils:

At the time of plugging and abandonment, the soils around the location will undergo characterization to verify compliance with Table 915-1. Characterizing potentially contaminated soils is accomplished either by field-screening the impacted soils to determine relative hydrocarbon concentrations, and/or by collecting samples of the impacted soils and sending the samples to an approved commercial lab for analysis per Table 915-1 constituents.

All contaminated soils exceeding regulatory clean-up standards are excavated and managed/disposed of properly. If a spill incident is subject to agency reporting requirements, the appropriate agencies are notified within the regulatory timelines. Impacted soils that exceed applicable clean-up standards are typically excavated and taken to an off-site commercial disposal facility that is authorized to accept that type of waste.

PLUGGING AND ABANDONMENT

Description of the Process Generating the Waste:

Drilling mud circulated out of annulus and cement brought back to surface during plugging activities.

Plugging Fluids:

Excess fluids utilized during the plugging and abandonment will be stored in tanks on location until the well is abandoned. Once they are no longer required, they will be hauled to a commercial disposal facility.

OTHER WASTES

Garbage:

Garbage, trash, and other waste materials will be collected in a portable, self-contained, and fully enclosed trash cage during drilling and completion operations. Upon completion of operations (or as needed) the accumulated trash will be disposed of at an authorized sanitary landfill.

Sewage:

Self-contained, chemical toilets will be provided for human waste disposal. Upon completion of operations, or as needed, the toilet holding tanks will be pumped and the contents thereof disposed of at the nearest, approved sewage disposal facility.

RECORDS MANAGEMENT

Great Plains will comply with ECMC Rule 905.b. All E&P waste will be transported within Colorado. As per 905.b.(3), Great Plains will maintain records for a minimum of 5 years of invoices, bills, tickets, and any other records as necessary to document the following information:

- Date of transport;
- Identity of waste generator;
- Identity of waste transporter;
- Location of waste pickup site;
- Type and volume of waste; and
- Name and location of treatment or disposal site.

Records will be maintained in compliance with ECMC Rule 206, Recordkeeping and Access to Records. Records will be maintained at Great Plains' Oklahoma City office.

OFFSITE DISPOSAL FACILITIES

Commercial Facility:

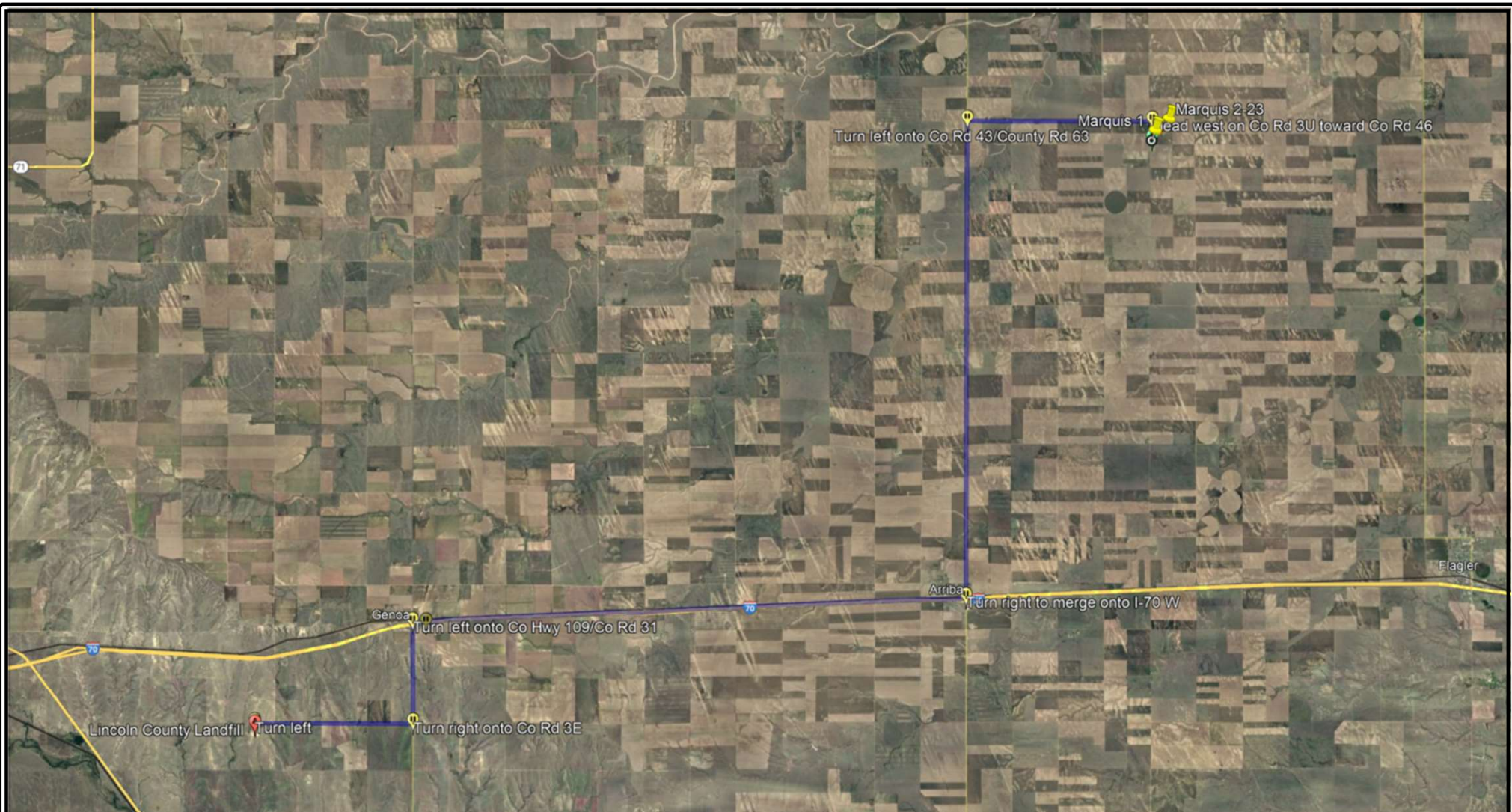
Lincoln County Landfill
27510 Co Rd 3E
Genoa, CO 80818

BEST MANAGEMENT PRACTICES

- Operator will use appropriate haul routes for all waste transportation.
- Onsite E&P Waste Storage will be stored in compatible containers or engineered containment devices. The containers will be regularly inspected to ensure they are in good condition and free of excessive wear, structural issues, or other defects that may impact their effectiveness.
- Operator will not bury or burn trash or other waste materials at this location.
- Trash receptacles will be designed, maintained, and operated to protect public safety and the environment from exposure to overflowing, leak prone, or insecure trash receptacles.

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Waste Management Plan

Waste Type	Waste Classification	Waste Content Description	Waste Per Well	Disposal Frequency	Containment Description	Disposal Type	Disposal Location
Drilling Cuttings	E&P Waste	Water-based Drill Cuttings	84 cubic yards	One Time Only	Above-ground steel containment receptacles	Haul to Commercial Facility	Commercial
Water-Based Drilling Fluids	E&P Waste	Water-based Drill Cuttings	100 bbls	One Time Only	Tanks	Haul to Commercial Facility	Commercial
Cement	E&P Waste	Excess Cement from casing	1 cubic yard	One Time Only	Tanks	Haul to Commercial Facility	Commercial
Sewage	Non-Hazardous Solid Waste	Sewage	130 gals	Weekly	Chemical Toilets	Haul to Commercial Facility	Commercial
Garbage	Non-Hazardous Solid Waste	Garbage/Trash	10 cubic yards	Weekly	Enclosed trash containers	Haul to Commercial Facility	Commercial
Contaminated Soils	E&P Waste	Contaminated soils from spill or release of produced fluids	N/A	As needed	Earthen berm containment on location	Onsite treatment or Haul to Approved Commercial Disposal Facility	Onsite or Commercial
Produced Water	E&P Waste	Formation Water	1,000 bbls / month	As needed	Tanks	Haul to Commercial Facility	Commercial
Plugging Fluids	E&P Waste	Excess mud and used water	200 bbls	One Time Only	Tanks	Haul to Commercial Facility	Commercial

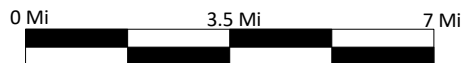


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Haul Route Map

Legend



Haul Route



Prepared By:
Ardor Environmental LLC

August 29, 2023