

Waste Management Plan Colorado Operations Weld County, Colorado



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TABLE OF CONTENTS

1.	INTRODUCTION	1.
2.	WASTE IDENTIFICATION AND MANAGEMENT	1.
2.1	Drilling Operations	1.
2.2	Oil and Gas Operations	1.
3.	Waste Disposal	1.
3.1	Waste Disposal.....	1.
3.1.1	Drilling Fluids	2.
3.1.2	Oil Waste	2.
3.1.2	Produced Water	2.
3.1.4	Spills.....	2.
4.	Waste Transportation	3.

1. INTRODUCTION

This Waste Management Plan (Plan) has been prepared in accordance with the Colorado Oil and Gas Conservation's (COGCC) Rule 318A.h Waste Management which requires that in conjunction with filing an Oil and Gas Location Assessment, Form 2A, the operator shall include a waste management plan meeting the general requirements of Rule 907.A. This Plan covers Continental Resources, Inc.'s Colorado exploration and production operations located in Weld County, Colorado.

2. WASTE IDENTIFICATION AND MANAGEMENT

- 2.1 Drilling Operations.** Typical drilling operations include site construction and rigging up; operation of the rig; a drilling mud system; and drilling string to make the hole. A list of typical waste potentially generated by drilling operations follows:

Debris	Spilled Fuel	Drums and Containers
Lubricating Oil	Drill Cuttings	Sand
Hydraulic Fluids	Sandblast Media	Mud-Weighting Materials
Used Oils and Oil Filters	Scrap Metal	Solid Waste and Garbage

Continental personnel will ensure that waste generated during drilling operations will be properly stored, handled, transported, treated, recycled, or disposed of to prevent threatened or actual significant adverse environmental impacts to air, water, soil or biological resources or to the extent necessary to ensure compliance with the concentration levels in Table 910-1, with consideration to WQCC ground water standards and classifications.

- 2.2 Oil and Gas Production Operations.** Typical oil and gas production operations include flowing and fracing wells, storage tanks, flare pits, flowlines, separation and processing equipment. A list of typical waste potentially generated by oil and gas production operations follows:

Paraffin	Slop Oil	Produced Water
Scale	Treating Chemicals	Sand
Used Lubrication Oil and Filters	Released Crude Oil	NORM

Continental facilities will be constructed and operated in a manner such to protect the waters of the state from significant adverse environmental impacts from exploration and production waste, except as permitted by applicable laws and regulations.

3. WASTE DISPOSAL

- 3.1 Waste Disposal.** Continental personnel will treat, store, and dispose of exploration and production wastes in a manner to prevent potential or actual adverse environmental impacts to air, water, soil or wildlife or to the extent necessary to ensure compliance with the concentration levels in Table 910-1, with consideration to WQCC ground water standards and classifications.

3.1.1 Drilling Fluids. Typically drilling fluids and pit contents will be either recycled or disposed of by one or more of the following ways:

- By injecting fluids into a Class II well permitted in accordance with COGCC Rule 325;
- Transported to a permitted commercial solid waste disposal facility;

Continental will sample pits in accordance with COGCC Rule 910-1 prior to closure.

3.1.2 Oil Waste. Oil waste consist of those materials containing crude oil, condensate, fuel, hydraulic fluids, or other hydrocarbon-containing exploration and production waste, such as impacted soil, frac sand, drilling fluids, workover fluids, and pit sludge. Typically oil waste will be stored in appropriate containers and disposed of at a commercial solid waste facility or through land treatment as follows:

- Land treatment on-site;
- Land treatment off-site, with prior written surface owner approval;
- Disposal at the North Weld Landfill located at 40000 Weld County Road 25 in Ault, Colorado.

Any free oil shall be removed prior to land treatment, the waste will then be spread evenly to prevent pooling, ponding, or runoff. Land treatment will be enhanced by disking, tilling, aerating, or addition of nutrients, microbes, water or other amendments when necessary.

Oil waste with high concentrations of hydrocarbons such as tank bottoms, pipeline pigging wastes and storage wastes will be disposed of at the North Weld Landfill located at 40000 Weld County Road 25 in Ault, Colorado. **Please Note:** Debris and scale will be tested for NORM prior to disposal.

3.1.3 Produced Water. Produced water will be stored on-site in tanks located within secondary containment until disposal. Typically produced water will be disposed of as follows:

- By injecting into a Class II injection well permitted in accordance with COGCC Rule 325;
- Disposal at permitted commercial facilities;

3.1.4 Spills. Visible discharges which result in a loss of fluids from containers will be promptly corrected and any accumulations of produced water or oil in the diked areas will be promptly removed. Impacts resulting from released fluids will be investigated and cleaned up as soon as possible. Continental personnel will notify the COGCC if required based on the quantity released and the media affected per COGCC Rule 906.

4. WASTE TRANSPORTATION

Exploration and production waste, when transported off-site for treatment or disposal, will be transported by authorized haulers (transporters) to the North Weld Landfill located at 40000 Weld County Road 25 in Ault, Colorado, which is authorized to receive such waste. Should waste be transported off-site Continental will maintain, for not less than five (5) years, copies of each invoice, bill, or ticket and such other records as necessary to document the following requirements A through F:

- A. The date of the transport;
- B. The identity of the waste generator;
- C. The identity of the waste transporter;
- D. The location of the waste pickup site;
- E. The type and volume of waste; and
- F. The name and location of the treatment or disposal site.

Such records shall be signed by the transporter, made available for inspection during normal business hours, and copies thereof will be furnished upon request.