



Waste Disposal and Reuse Guide

Niobrara Field

IMPORTANT NOTE

Considerable care has been taken to make this document consistent with applicable regulations and company policies. However, the *Williston Disposal and Reuse Guide* cannot possibly cover every type of material or situation that might be encountered.

Users are cautioned to make sure this copy is the most recent version. Read the document very carefully. If a particular substance or process is not described here, do not guess or extrapolate. Contact the ConocoPhillips HSE staff in your operating area for assistance.

April 17, 2013

Dear Employees and Contractors:

The *Niobrara Basin Waste Disposal and Reuse Guide* has been issued by ConocoPhillips Company. This document provides consistent waste management guidance for all employees and contractors in all of our Colorado operations to help ensure compliance with applicable regulations and company policies.

ConocoPhillips expects each of you to use this guidance and the associated training program to make sound decisions on the job.

Please contact your supervisor or ConocoPhillips HSE if you have any questions about using this guide, or about environmental compliance, waste minimization, pollution prevention, and recycling opportunities.

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Rockies

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NIOBRARA WASTE DISPOSAL AND REUSE GUIDE

NOTES, QUESTIONS, AND SUGGESTIONS

Your input is important. Please contact ConocoPhillips HSE whenever you have comments, questions, or suggestions. Use this page to keep track of any issues you would like to discuss.

ConocoPhillips HSE will forward these comments to the periodic review team. All suggestions will be considered for inclusion in the next revision of this document.

TABLE OF CONTENTS

	Page
Notes, Questions, and Suggestions	1
Table of Contents.....	2
Authority and Revisions	3
Record of Revisions	4
1. Introduction	5
2. Your Individual Responsibility for Complying with Environmental Laws.....	6
3. Abbreviations and Acronyms Used in This Guide.....	8
4. Practical Definitions for Field Use	9
5. Waste Management Planning	14
6. Contractors and Third Parties	15
7. Beneficial Reuse and Recycling Within COP Field Boundaries.....	16
8. New Chemicals and Restricted Products	17
9. Disposal/Reuse Tables: Instructions	18
 DISPOSAL/REUSE TABLES.....	 19
 ATTACHMENTS	 65
A. Waste Classification	
A.1 Relationship Between UIC and RCRA	66
A.2 Consequences of Mixing Waste	67
B. Class II Disposal Guidelines.....	68
C. Satellite Accumulation Area Guidelines.....	69
D. Facility Guides — By Area	70
D.1 Tower Landfill Facility Guide	71
D.2 Conquest 2-28 SWD Facility Guide	72
D.3 High Plains Disposal Facility Guide	73
D.4 LSWD #1 Disposal Facility Guide	74
D.5 Niobrara HWCAA Facility Guide	75
D.6 Niobrara Captive Units.....	76

AUTHORITY AND REVISIONS

The *Niobrara Waste Disposal and Reuse Guide* has been prepared by ConocoPhillips Company (COP). It is fully authorized for use by staff and contract personnel at all COP facilities in Colorado.

Our goal is to provide practical, accurate, and consistent guidelines that ensure compliance with applicable regulations and company policies. We do not expect everyone to become regulatory experts. However, we do expect you to use tools such as this document, and its associated training program, to make sound decisions in the workplace. Most importantly, we expect you to contact your supervisor and interface with COP HSE if you have any questions about waste management, waste minimization, or recycling.

This document will be periodically reviewed and revised as needed to reflect changing regulations, policies, and practices. The review team will solicit input and feedback from each operating area. Your suggestions for changes, clarifications, or additions are welcome.

RECORD OF REVISIONS

DATE	REVISION	SUMMARY OF CHANGES

1. INTRODUCTION

The *Niobrara Waste Disposal and Reuse Guide* provides management options for the majority of routine waste streams generated by oil and gas exploration and production operations in Colorado. It is a tool for staff and contractors who have attended the waste management training program and who, therefore, have a basic understanding of waste regulations, classification, and handling procedures.

This guide is not intended to answer every question you might have about disposal, recycling, or waste minimization. If you do not find a particular substance or management option on the list, or if you have a suggestion, ask COP HSE for a case-by-case evaluation.

The *Disposal/Reuse Tables* describe various waste streams and products, which are listed in alphabetical order. A number of management options are presented for each item, but a table cannot possibly address every scenario. The final decision will depend on factors such as location, season, facilities available in the area, facility-specific operating limitations, and owner-company policies as well as the laws and regulations.

The tables are followed by several attachments that provide additional guidance and information. These include:

- A. **Waste Classification** section, comparing the regulatory systems for wastes and disposal wells, and describing how disposal options may change if different types of waste are combined.
- B. **Class II Disposal Guidelines**, describing how wastes are evaluated for injection in a Class II Disposal Well.
- C. **Satellite Accumulation Area Guidelines**, summarizing regulatory requirements for temporary management of hazardous wastes on site.
- D. **Facility Guides** for each operating area or site, listing the facilities available for disposal, storage, and recycling. These guides include restrictions, paperwork requirements, and contacts for each facility.

2. YOUR INDIVIDUAL RESPONSIBILITY FOR COMPLYING WITH ENVIRONMENTAL LAWS

Relationship of the *Niobrara Waste Disposal and Reuse Guide* to Law, Regulations, Company Policies, and Possible Legal Positions

The information in this guide is based on regulations and policy guidelines of the U.S. Environmental Protection Agency (EPA), Colorado Department of Public Health and Environment (CDPHE), the U.S. Bureau of Land Management (BLM), the Colorado Oil and Gas Conservation Commission (COGCC), and the Colorado State Land Board as understood by representatives of COP HSE.

What you should know:

- Waste disposal, recycling, and reuse activities are subject to many environmental laws. Violations of these laws may lead to enforcement actions by state or federal officials.
- Criminal or civil enforcement actions may be directed against the individuals actually performing waste disposal or reuse operations, or their supervisors. This means that you may be personally at risk of criminal prosecution if you violate environmental laws or supervise individuals who do.
- Civil enforcement actions may be directed against the company you work for.
- You can significantly reduce or eliminate the risk of violating an environmental law by following this guide and by working closely with COP HSE at your location.
- It is especially important that you keep accurate and complete records of your waste management activities in accordance with COP's document management and retention policy. Without these records, it may be impossible to prove or demonstrate compliance, particularly if an investigation occurs long after the activity has taken place.

The Waste Transportation Documentation and Your Role and Responsibility in Waste Management

The waste transportation documentation is a tracking tool. For some disposal locations, documentation is also required by law. Information provided on transportation documentation may be input into a database and used to create reports on the composition and volume of recycled, injected, or otherwise disposed-of materials. If used, databases are also used for accounting purposes.

All COP personnel who manage waste must complete training, at a minimum, every three years. This training is intended to make each person aware of the guidelines on waste classification and waste disposal, from the initial waste-generating process to final disposal.

Initial training is mandatory for all generators, transporters, and receivers who sign manifests accompanying shipments of wastes at or to COP facilities. Initial awareness level training is also available for anyone who intends to use this guide to make waste management or reuse decisions. Please contact COP HSE for more information about training requirements and schedules.

3. ABBREVIATIONS AND ACRONYMS USED IN THIS GUIDE

APD	Application for Permit to Drill	MSDS	Material Safety Data Sheet
BLM	Bureau of Land Management	MSO	Multi-Skilled Operator
CDPHE	Colorado Department of Public Health and Environment	NORM	Naturally Occurring Radioactive Material
COP	ConocoPhillips Company	PCB	Polychlorinated biphenyls
DOT	U.S. Department of Transportation	PPE	Personal protective equipment
DRA	Drag Reducing Agent	PPM	Parts per million
E&P	Exploration and Production	RCRA	Resource Conservation and Recovery Act
EPA	Environmental Protection Agency	SAA	Satellite Accumulation Area
HSE	Health, Safety, and Environmental Department	SPOC	Single Point of Contact
HWCAA	Hazardous Waste Central Accumulation Area	TCLP	Toxicity characteristic leachate procedure
LCM	Lost circulation material	TEG	Triethylene glycol
COGCC	Colorado Oil and Gas Conservation Commission	UIC	Underground Injection Control
MEG	Monoethylene glycol	WWTP	Waste Water Treatment Plant

4. PRACTICAL DEFINITIONS FOR FIELD USE

Several important terms are described below in plain language. Also see the list of abbreviations and acronyms in the preceding section.

Do not use these definitions by themselves to classify wastes or make decisions about disposal. If you need a precise regulatory or technical definition, please contact COP HSE.

Accumulation Area

An area for the collection of small amounts of waste or recyclable materials prior to consolidation in a Central Accumulation Area (CCA) for disposal or recycling. Accumulation areas include:

WAA (Waste Accumulation Area) – general collection point for Conditionally Exempt Small Quantity Generator wastes.

SAA (Satellite Accumulation Area) – storage for regulated hazardous waste at or near the point of waste generation.

UAA (Universal Waste Accumulation Area) – storage for universal wastes such as batteries and light bulbs.

RAA (Recyclable Accumulation Area) – storage for used oil, glycol and other materials that can be recycled or reused.

Beneficial Reuse

Returning used material to service without treatment. The material is not considered a waste if it can be used again without processing. However, the product must replace in-kind and serve the same function as a similar volume of new product that would normally be used for the purpose. Any pollutants "along for the ride" must be considered. Improper disposal by sham reuse or recycling is not allowed. Beneficial uses, other than those specifically included in the tables, should be approved by COP HSE on a case-by-case basis. In some cases COGCC, and/or BLM sundry notices will be required.

Class I Disposal (Class ID) Well

See Attachment A. An injection well for disposal of non-hazardous waste or RCRA-exempt waste (see definitions below). Class ID wells are permitted and regulated by EPA through the Underground Injection Control (UIC) Program. Class ID wells may also accept wastes that are eligible for injection in Class IID wells (see below).

Class II Disposal (Class IID) Well

See Attachments A and B. A well for injection of materials which are brought to the surface in connection with conventional oil and gas exploration and production or are generated from production systems that directly support the processing of oil, gas, and produced water. EPA issues Class IID well permits under the UIC Program.

DOT-Regulated Sales Pipelines

Common carrier pipelines used to transport crude oil and natural gas from the oil field, downstream of the production separation process. These pipelines are subject to Department of Transportation (DOT) regulation under 49 CFR. Fluids, solids, and associated wastes from DOT pipelines are not E&P (exploration and production) exempt under RCRA (see Exempt Waste) and must be evaluated on a case-by-case basis for proper recycling or disposal options. Recovered oil may often be reintroduced to pipelines or production facilities as "oil-bearing hazardous secondary materials," but may not be disposed of as E&P exempt wastes.

Please check with COP Operations for the exact starting points of DOT-regulated lines.

Downhole

Material that originates below the ground surface during the oil and gas exploration, drilling, and production process OR otherwise meets the Class II disposal criteria as shown on Attachment B (*Class II Disposal Guidelines*).

Exempt Waste

This term is used broadly in the field to describe wastes that are **not regulated** as hazardous waste under RCRA. Exemptions are based on the source of the waste, not on its actual properties or composition. There are several exemptions that are important to oil and gas operations:

- The ***RCRA Exploration and Production (RCRA E&P) exemption*** is for drilling fluids, produced water, and other wastes associated with oil and gas exploration, development, and production. Associated wastes include fluids that come in contact with the oil and gas production stream during the removal of produced water or other contaminants from the crude oil. Use the *Disposal/Reuse Tables* in this guide to help determine if a specific waste is exempt, or contact COP HSE. The determination is not always straightforward, so do not guess or extrapolate.

RCRA E&P exempt wastes are not regulated as hazardous waste regardless of their composition or properties. New or unused leftover **products**, such as acids, methanol, seawater, diesel, drilling mud, and cement, are **not** RCRA E&P exempt. To be RCRA E&P exempt, materials must have actually been **used** for exploration, development, or production work, usually by coming from downhole or as a result of contact with oil or gas streams during production or processing activities.

New or unused leftover products, such as acids, methanol, seawater, diesel, drilling mud, and cement, are not E&P exempt.

- The **empty container exemption** applies to residues in containers. These residues are not regulated as hazardous waste while they remain in the container if the container is "RCRA empty" (see below).
- A **household exemption** applies to light bulbs, aerosol cans, and other waste derived from homes, hotels, kitchens (but not restaurants), bunkhouses, and crew quarters.

Hazardous Waste

Waste that meets the specific regulatory definitions under RCRA in 40 CFR 261.3. The generation, accumulation, storage, transportation, and disposal of hazardous waste are regulated by the EPA. Hazardous waste from oil and gas operations may include non-exempt wastes such as discarded paints, thinners, solvents, corrosive (acids, caustics), gasoline, diesel, xylene, and methanol.

"Characteristic hazardous waste" has one or more of the following properties:

- Ignitability (EPA waste code D001) includes liquids with a flash point less than 140 degrees F.
- Corrosivity (EPA waste code D002) includes aqueous material with a pH less than or equal to 2.0, or greater than or equal to 12.5.
- Reactivity (EPA waste code D003) includes materials inherently unstable under ordinary conditions or when exposed to water.
- Toxicity (exceeds allowable concentrations of regulated metals, pesticides, or organic compounds such as benzene) Toxicity characteristics are listed in 40 CFR 261.24.

"Listed hazardous waste" appears on lists published by the EPA in 40 CFR 261.31-261.33.

"Acutely hazardous waste" is a subcategory of listed hazardous waste with particularly toxic properties and more stringent management standards for amounts exceeding 1 kilogram or 1 quart. Examples include epinephrine, nitroglycerin, and dioxin-containing wastes.

Hazardous waste from oil and gas operations may include discarded paints, thinners, solvents, corrosives (acids, caustics), gasoline, diesel, xylene, and methanol. In Colorado, the generation, storage, transportation, and disposal of hazardous waste is regulated by CDPHE and EPA. All COP facilities must ship hazardous waste only to audited and permitted disposal facilities.

Hazardous waste may not be moved from one area to another, or brought into or out of a COP field without explicit approval from COP HSE. Hazardous waste may be transported within the same facility to a centralized hazardous waste accumulation area or storage unit.

Hazardous Waste Generator

A hazardous waste generator is any person or site whose processes and actions create hazardous waste. Generators fall into three categories according to the amount of hazardous waste generated per month. Generators producing less than 220 pounds per month are *conditionally exempt* generators and exempt from some of the rules for storage, transportation and disposal. The total amount of waste accumulated on site must be less than 2,200 pounds.

Non-hazardous Waste

A waste that does not meet the criteria for hazardous waste as defined by RCRA (see definition above). However, this waste is still regulated as solid waste or under other regulatory programs. It is still a liability and can present hazards to employees who handle it. Always follow all recommended safety and handling practices.

Operationally Empty

This is a term developed by COP for **non-hazardous** or **RCRA-exempt** residues in vacuum trucks and other large containers. Operationally empty is a concept — it is not a legal or regulatory term. If the truck or container has been emptied to the extent practicable using normal means, the remaining non-hazardous residue is considered negligible or *de minimus*. It does not affect the classification of the next load. Operationally empty applies only to non-hazardous or RCRA-exempt residues such as fresh water, brine, unused drilling mud, or exempt fluid. Containers that have carried new diesel, new methanol, new xylene, new acid, or any other hazardous material that would be considered a hazardous waste must first become **RCRA empty** (see definition below) before being rinsed or used to pick up a load of different material.

RCRA Empty

This regulatory term applies to residues **remaining in** containers that have not held a substance that would be considered an acute hazardous waste. The contents of a container are not regulated as hazardous waste if the container:

- Has been emptied as much as possible by normal means (pouring, pumping, aspirating), **AND**
- There is no more than 1 inch of residue, or no more than three percent by weight of the total capacity in containers that hold 119 gallons or less, or no more than 0.3 percent by weight if the container is larger than 119 gallons.

Even if the container is RCRA empty, subsequent rinse fluids are newly-generated wastes, and they are subject to a hazardous waste determination for hazardous waste characteristics. Containers themselves may also be hazardous if disposed

E&P exempt fluids will still be E&P exempt when they are rinsed from the container using non-hazardous fluids.

Recycling

Returning material to service after some degree of processing. Recycling differs from beneficial reuse. Recycling waste requires some type of reclamation, processing, or treatment to make the material usable again. Treatment and recycling may be regulated when the material would be classified as hazardous waste if it were discarded instead of recycled. In some cases, sampling, testing, documentation, and even permits may be required. Check with COP HSE before attempting to recycle.

Satellite Accumulation Area (SAA)

See Attachment E. A temporary collection point for hazardous waste, located at or near the point of waste generation. SAAs are usually set up by COP HSE for routinely generated wastes such as aerosol cans and spent solvents. Instructions for SAA management are posted in each area. General guidelines are summarized in Attachment C. Each SAA is limited to 55 gallons of **total** waste per process. Once the 55-gallon limit is exceeded, the waste must be moved to a centralized collection point within three days.

Solid Waste

This term is commonly used in the field to describe trash, garbage, refuse, and debris that are actually in a solid physical state. However, the RCRA regulatory definition is much broader and includes any discarded material, including recyclables, whether they are solids, liquids, or gases.

Universal Waste

A special subset of hazardous waste subject to an alternative (less stringent) regulatory scheme in 40 CFR Part 273. Universal wastes include batteries (Ni-Cad, mercury, lithium, etc.), thermostats, discarded mercury-containing equipment (instruments, thermostats, barometers, manometers, temperature and pressure gauges, mercury switches), and lamps (fluorescent tubes, incandescent light bulbs, mercury vapor lamps, high sodium, etc.). They are still collected and managed in designated areas and still get shipped off site to approved facilities for recycling, but the weights or volumes do not have to be counted towards the facility's hazardous waste generator status. Facilities can accumulate universal waste on site for up to one year.

Used Oil

Used oil is presumed to be recycled. Any tank or container holding used oil must be labeled "USED OIL" and the requirements of 40 CFR 269.10 must be followed.

5. WASTE MANAGEMENT PLANNING

Waste management must be included in the planning process for all projects and operations. Do not assume that any waste generated on a project can be accepted by the nearest disposal facility. Inadequate waste management planning can have very costly consequences.

First:

- Identify products that will be used, such as fuels, lubricants, cleaners, and other chemicals.
- Identify the type and amount of waste likely to be generated.
- Evaluate waste minimization, recycling, and pollution prevention opportunities. These efforts may significantly reduce disposal costs, environmental impact, and regulatory liabilities.
- Substitute suitable products that are less toxic and less hazardous.
- Think of alternative approaches to your project or task that could avoid the generation of waste altogether.
- Identify beneficial reuses or recycling opportunities for your excess materials before your work begins.

Next:

Review this information with COP HSE, and:

- Determine disposal or recycling options for each waste stream.
- Select the appropriate facilities for managing each waste stream.
- Determine (in advance) what sampling, documentation, permits or other agency approvals, or training will be required.
- Set up procedures for transportation and delivery to the selected facilities.

6. CONTRACTORS AND THIRD PARTIES

These disposal/reuse guidelines apply **only** to materials generated on COP operated facilities and COP is contractually obligated to manage. If you generate hazardous or solid waste on COP operated sites, you are expected to closely coordinate waste management with COP. This is essential for all persons and parties involved to assure systematic compliance with all federal, state, and local environmental laws and regulations. Other materials at COP or other sites are the responsibility of that contractor unless specific arrangements have been made for management by COP.

Contractors are an integral and essential part of COP operations. Where contractor operations are under direct management by COP, wastes can often be managed at COP facilities.

Contractors and third parties may not bring any waste materials generated outside the field boundaries into COP facilities for disposal, recycling, or beneficial reuse without prior written approval. Similarly, contractors and third parties may not take any waste materials generated on COP facilities off site without explicit instructions or approval from COP.

COP is willing to review contractor and third-party operations on a case-by-case basis. Materials generated outside the field will be considered for COP management if (a) the contractor or third-party provides sufficient information about the waste stream or product, (b) the contractor or third party can demonstrate that they have an effective on-site waste management plan, (c) lease agreements and/or contractual agreements among the owners allow the acceptance of third-party wastes at that facility, (d) waste management by COP is consistent with contracts between the contractor and COP and (e) is in the best interest of COP. Please contact COP HSE if you would like more information or assistance.

Contractors who would like more information about managing wastes at their own facilities are encouraged to contact environmental consultants and hazardous waste transportation and disposal contractors as well as the EPA (www.epa.gov) and CDPHE (www.cdphe.gov).

7. BENEFICIAL REUSE AND RECYCLING WITHIN COP FIELD BOUNDARIES

A variety of products can be collected and reused **within field boundaries**. COP personnel, as well as contractors under COP supervision, are encouraged to consider beneficial reuse as an alternative to disposal. Several approved reuse options are listed in the *Disposal/Reuse Tables*. **Other uses may be possible**, but these should be evaluated in consultation with COP HSE on a case-by-case basis. In some cases COGCC and/or BLM sundry notices will be required.

The reused material must be an effective replacement for a similar volume of raw ingredient or new product that would normally be needed for the job. **Improper disposal through sham recycling or reuse is not allowed.** RCRA regulations prohibit the recycling of materials "used in a manner constituting disposal." Therefore, if this guide does not identify a specific reuse option for your waste stream, you must consult COP HSE for case-by-case approval before you reuse the material. Remember that contractors and third parties **may not bring any materials generated outside field boundaries** into COP facilities for disposal, recycling, or beneficial reuse without prior written approval.

In each operating area, collection stations may have been set up for materials like paper, cardboard, wood, metals, and polystyrene which can be sent off site for recycling. Used oil, diesel, and other hydrocarbons should be recycled whenever possible. Check the *Facility Guides* (Attachment D) for information about hydrocarbon recycling in each operating area.

8. NEW CHEMICALS AND RESTRICTED PRODUCTS

Chemical Approval Process

The Chemical Approval Process, found in Level I Management System Document L48 06-S17-Pr, allows COP Industrial Hygienists and other HSE staff to systematically evaluate regulations, health and safety issues, and disposal options for new chemicals prior to use. Any COP employee, contractor, or third party who wants to bring new chemicals onto COP operated facilities must first submit a *Chemical Approval and Inventory Control* form to COP. Based on the form, COP HSE may suggest alternatives, start keeping records required by regulations, and/or restrict or control the use of the chemical.

If you are interested in ordering or trying a new product, contact the COP Industrial Hygienist or other HSE staff first, and allow time for the process.

Evaluate all products before purchase or use. Make sure you are aware of health risks, handling precautions, and disposal requirements. Be aware that even "environmentally friendly" products may have hazardous properties and disposal restrictions.

Chlorinated or Halogenated Solvents

COP strongly discourages the use of products containing chlorinated or halogenated solvents unless absolutely no other product will do the job. Chlorinated compounds are found in many popular commercial solvents, degreasers, and cleaners. Although these are very effective solvents, they pose serious health and environmental hazards, as well as liabilities for improper disposal and accidental releases. In addition to the EPA, the Occupational Safety and Health Administration, CDPHE, and other regulations may apply. Note that landowners also can and do restrict products.

Check the Material Safety Data Sheet (MSDS) for all products that you intend to purchase or use. If the product contains a chlorinated or halogenated solvent, look for an alternative. Examples of these solvents include:

1,1,1-trichloroethane	Methylene chloride
1,1,2-trichloroethane	Ortho-dichlorobenzene
1,1,2-trichloro-1,2,2-trifluoroethane	Tetrachloroethylene
Carbon tetrachloride	Trichloroethylene
Chlorobenzene	Trifluoroethane
Chlorinated fluorocarbons	Trichlorofluoromethane

If there is no suitable alternative, advise COP HSE. Follow instructions for proper management and disposal as hazardous waste.

Do not mix chlorinated solvents with used oil or any other wastes, since the entire mixture may have to be managed as hazardous waste.

9. DISPOSAL/REUSE TABLES: INSTRUCTIONS

STEP 1: Look for your material in Column 1.

- Materials are listed in alphabetical order.
- There may be several listings for the same material. **Read each listing carefully!**
- Select the listing that matches your situation or waste-generating process.
- Be sure to note the difference between **used** and **unused** material, and material that has circulated through the well system (i.e., was “brought to the surface” or came “from downhole”) vs. excess or unused material that has not been circulated.
- If your item or process is not included in these tables, or if you are not sure which description best describes your material and source, contact COP HSE.

STEP 2: Note the classification in Column 2.

- You will need this information to select an appropriate disposal facility.
- Waste for Class I disposal must be non-hazardous or RCRA exempt.
- Wastes for Class II disposal must meet the criteria shown in Attachment B, *Class II Disposal Guidelines*.
- If you are not sure of the classification, store “unknown” wastes separately and **immediately** contact COP HSE for assistance.
- **Do not** mix wastes of different classification until you definitely know that both wastes are allowed to go to the same facility for disposal, you know that the two wastes are compatible with each other chemically and physically, and you know how to properly prepare manifests for a mixed load!
- **Do not** mix potentially hazardous wastes with used oil or other wastes!
- If your waste is hazardous, contact COP HSE for assistance.

STEP 3: Check the disposal/reuse options in Column 3.

- Several options are presented. Selection will depend on practical considerations, such as season and location, each facility's operating limits, company policies, and other restrictions.

STEP 4: Check the *Facility Guides* for site-specific information.

- A series of tables called *Facility Guides* are attached (Attachment E). They summarize some of the options that are available nearby.
- Each facility has its own operating restrictions and paperwork requirements.
- Contact the facility or COP HSE in advance if there are any questions about procedure.
- Only trained personnel may ship waste offsite to a disposal facility.
- If the listed facilities are not suitable for your waste, refer to the lists in Attachment A & B of COP HSE Level I Management System document L48 14-HSE33-Pr for corporate approved facilities in your area.

STEP 5: Check the documentation options in Column 4.

- Several options are presented. Selection will depend on waste classification and receiving facility.

If an item or disposal/reuse option is not in these tables, be sure to contact COP HSE for a case-by-case determination.

DISPOSAL/REUSE TABLES

*If an item or disposal/reuse option is not included in these tables, contact
COP HSE for a case-by-case determination.*

1. MATERIAL AND SOURCE	2. CLASSIFICATION/ CHARACTERIZATION	3. DISPOSAL/REUSE OPTIONS ⁴ See <i>Facility Guides</i> for options in the operating area.	4. TRANSPORTATION DOCUMENTATION ⁵
ACID ACID – unused or leftover (<u>not</u> circulated downhole ⁵)	<ul style="list-style-type: none"> Hazardous waste³ if discarded 	<ul style="list-style-type: none"> Use on other job (example: hold for a well stimulation) Small amounts: rinse truck on location with displacement fluid and utilize as part of the displacement If no other use, contact COP HSE 	<ul style="list-style-type: none"> Bill of Laden or; Hazardous Waste Manifest
ACID – returned from downhole ³ (stimulation flowback) and neutralized to meet receiving facility specifications	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Class II disposal well if allowed Class I disposal well (“RCRA Exempt” E&P) Onsite reserve pit if allowed Offsite evaporation pond if allowed Land farm if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
ACID – battery acid removed from batteries	<ul style="list-style-type: none"> Hazardous waste³ if discarded 	<ul style="list-style-type: none"> Manage in SAA and ship to Niobrara HWCAA 	<ul style="list-style-type: none"> Hazardous Waste Manifest
ACTIVATED CARBON ACTIVATED CARBON – unused, dry	<ul style="list-style-type: none"> Hazardous waste³ if discarded Non-hazardous if reclaimed 	<ul style="list-style-type: none"> Use on another job Send back to manufacturer for reclamation Manage in SAA and ship to Niobrara HWCAA Ignitable solid D001 	<ul style="list-style-type: none"> Bill of Laden or; Hazardous Waste Manifest
ACTIVATED CARBON – used to remediate contaminated groundwater or surface water	<ul style="list-style-type: none"> Hazardous waste³ if discarded Non-Hazardous if reclaimed 	<ul style="list-style-type: none"> Send back to manufacturer for reclamation Manage in SAA and ship to Niobrara HWCAA 	<ul style="list-style-type: none"> Hazardous Waste Manifest
AEROSOL CANS AEROSOL CANS – Partially Filled	<ul style="list-style-type: none"> If not empty, hazardous waste due to contents and/or container pressurization 	<ul style="list-style-type: none"> Use contents entirely, if possible Manage aerosol cans temporarily in SAA and ship to Niobrara HWCAA Don't puncture on site 	<ul style="list-style-type: none"> Hazardous Waste Manifest

Notes: 1. Typically non-hazardous, subject to verification

2. Could contain listed or characteristic hazardous waste, subject to verification

3. Known to contain a listed hazardous waste or to be a characteristic hazardous waste

4. All listed options may not be available. Based on waste classification, consult *Facility Guide* to determine available options.

5. “Downhole” means that material meets criteria for Class II Disposal shown in Attachment B

6. Required documentation dependent on waste classification. Documentation required only for transfers on public highways or outside of field boundaries.

DISPOSAL/REUSE TABLES

If an item or disposal/reuse option is not included in these tables, contact COP HSE for a case-by-case determination.

1. MATERIAL AND SOURCE	2. CLASSIFICATION/ CHARACTERIZATION	3. DISPOSAL/REUSE OPTIONS ⁴ See <i>Facility Guides</i> for options in the operating area.	4. TRANSPORTATION DOCUMENTATION ⁵
AEROSOL CANS - Empty	<ul style="list-style-type: none"> • Solid waste if empty • Potentially recyclable as scrap metal (follow site-specific procedures) 	<ul style="list-style-type: none"> • Don't puncture on site without prior approval from COP HSE. • Recycle as scrap metal only if punctured 	<ul style="list-style-type: none"> • Non-Hazardous Waste Manifest
AFFF FIRE FOAM	<ul style="list-style-type: none"> • Non-hazardous 	<ul style="list-style-type: none"> • Stabilize and landfill (subject to testing and pre-approval by County) 	<ul style="list-style-type: none"> • Non-Hazardous Waste Manifest
ANTI-FOAM – leftover, unused, off-spec	<ul style="list-style-type: none"> • Potentially hazardous if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> • Use for original intended purpose in process • Do not mix different products • Contact COP HSE 	<ul style="list-style-type: none"> • Bill of Laden or; • Non-Hazardous Waste Manifest or; • Hazardous Waste Manifest
ASBESTOS DEBRIS	<ul style="list-style-type: none"> • Solid waste • Not RCRA-hazardous, but regulated under other programs 	<ul style="list-style-type: none"> • Follow COP's asbestos management procedures • Double bag and label per MT/ND regulations • Send to permitted landfill (follow landfill operator's procedures) 	<ul style="list-style-type: none"> • Non-Hazardous Waste Manifest and; • ND Asbestos Manifest if in ND
ASH ASH – from waste incinerator	<ul style="list-style-type: none"> • Potentially hazardous if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> • Landfill (subject to testing and pre-approval by County) • Contact COP HSE if hazardous 	<ul style="list-style-type: none"> • Non-Hazardous Waste Manifest or; • Hazardous Waste Manifest
ASH – from fuel-burning heaters	<ul style="list-style-type: none"> • Class I • RCRA-exempt (not E&P – see 40 CFR 261.4(b)(4)) 	<ul style="list-style-type: none"> • Landfill (subject to testing and pre-approval by County) 	<ul style="list-style-type: none"> • Non-Hazardous Waste Manifest

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DISPOSAL/REUSE TABLES

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1. MATERIAL AND SOURCE	2. CLASSIFICATION/ CHARACTERIZATION	3. DISPOSAL/REUSE OPTIONS ⁴ See <i>Facility Guides</i> for options in the operating area.	4. TRANSPORTATION DOCUMENTATION ⁵
BATTERIES			
BATTERIES – alkaline	<ul style="list-style-type: none"> Non-hazardous 	<ul style="list-style-type: none"> Dumpster or Collect in SAA and recycle through hazardous waste brokers 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
BATTERIES – lead-acid, unbroken	<ul style="list-style-type: none"> Recyclable (40 CFR 266.80) 	<ul style="list-style-type: none"> Return to supplier (follow specific handling and collection procedures in your operating area) 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
BATTERIES – lead-acid, broken	<ul style="list-style-type: none"> Recyclable (40 CFR 266.80) 	<ul style="list-style-type: none"> Contact COP HSE Will require special handling prior to recycling 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
BATTERIES – Ni-Cad, mercury, lithium, silver-oxide	<ul style="list-style-type: none"> Universal waste 	<ul style="list-style-type: none"> Manage in SAA and ship to Niobrara HWCAA Contact COP HSE 	<ul style="list-style-type: none"> Hazardous Waste Manifest
BATTERY ACID (see "Acid")			
BIOCIDE			
BIOCIDE – leftover, unused product, <u>not</u> circulated downhole ⁵	<ul style="list-style-type: none"> Potentially hazardous if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Use for intended purpose Class I disposal well if non-hazardous Triple-rinse and crush empty containers Contact COP HSE if hazardous 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
BIOCIDE – used in non-process vessels or lines (<u>not</u> containing downhole ⁵ materials)	<ul style="list-style-type: none"> Potentially hazardous if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Use for intended purpose Class I disposal well if non-hazardous Triple-rinse and crush empty containers Contact COP HSE if hazardous 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
BIOCIDE – returned from downhole ³	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Class II disposal well if allowed Class I disposal well ("RCRA Exempt" E&P) Onsite reserve pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest

Notes:

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- "Downhole" means that material meets criteria for Class II Disposal shown in Attachment B
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DISPOSAL/REUSE TABLES

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BIOCIDE/DRILLING MUD MIXTURES BIOCIDE/DRILLING MUD – <u>not</u> circulated downhole ⁵	<ul style="list-style-type: none"> Potentially hazardous if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Use for intended purpose Class I disposal well if non-hazardous Onsite reserve pit if allowed Land farm if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
BIOCIDE/DRILLING MUD – circulated downhole ³	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Class II disposal well if allowed Class I disposal well ("RCRA Exempt" E&P) Onsite reserve pit if allowed Land farm if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
BIOZAN (see "Gel")			
BLEED TRAILER FLUIDS BLEED TRAILER FLUIDS – <u>not</u> returned from downhole ⁵	<ul style="list-style-type: none"> Recyclable Potentially hazardous if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Recycle hydrocarbons in production stream if allowed Class I disposal well if non-hazardous Offsite recycler if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
BLEED TRAILER FLUIDS – returned from downhole ⁵	<ul style="list-style-type: none"> Recyclable Class II E&P exempt 	<ul style="list-style-type: none"> Recycle hydrocarbons in production stream if allowed Class II disposal well if allowed Class I disposal well ("RCRA Exempt" E&P) Offsite Recycler if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest

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BOILER BLOWDOWN WATER BOILER BLOWDOWN WATER – <u>not</u> circulated downhole ³	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Beneficial reuse upon approval by COP HSE Use as makeup water for mud & workover mixtures Use to clean cuttings conveyor Class I disposal well Onsite reserve pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
BOILER BLOWDOWN WATER – used on the rig to remove cuttings from conveyor (cuttings returned from downhole ³)	<ul style="list-style-type: none"> Class II (only if beneficially reused to rinse Class II material from equipment) E&P exempt 	<ul style="list-style-type: none"> Class II disposal well only if used to rinse Class II material from equipment and allowed Class I disposal well ("RCRA Exempt" E&P) Onsite reserve pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
BOILER SCALE	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Solids (no liquids) to landfill (subject to testing and pre-approval by county) 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
BRINE/KCl (Potassium Chloride) – may also be known as "Saltwater" or "Seawater" BRINE – unused or leftover	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Reuse on other job Class I disposal well 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
BRINE – returned from downhole	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Recondition and reuse Class II disposal well if allowed Class I disposal well ("RCRA Exempt" E&P) Onsite reserve pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest

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CALCIUM CARBONATE CALCIUM CARBONATE – unused or leftover from job	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Use for intended purpose Class I disposal well 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
CALCIUM CARBONATE – rinsate (fresh or saltwater) from unused or leftover product in tanks/trucks	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Beneficial reuse as approved by COP HSE Class I disposal well 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
CALCIUM CARBONATE – returned from downhole	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Use on another job Class II disposal well if allowed Class I disposal well Onsite reserve pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
CARBOLITE (FRAC SAND) CARBOLITE – unused or leftover	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Use on other job Landfill (subject to testing and pre-approval by county) Approved solid waste storage area (always verify location with COP HSE) 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
CARBOLITE – crude-free, returned from reverse-out	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Class II disposal well if allowed Class I disposal well (“RCRA Exempt” E&P) Onsite reserve pit if allowed Onsite completions pit if allowed Land farm if allowed Landfill (subject to testing and pre-approval by county) 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
CARBOLITE – crude, returned from downhole ³	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Class II disposal well if allowed Class I disposal well (“RCRA Exempt” E&P) Completions pit if allowed Land farm if allowed Landfill (subject to testing and pre-approval by county) 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest

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CAUSTIC CAUSTIC – unused or leftover (<u>not</u> circulated downhole ⁵) CAUSTIC – returned from downhole ³ (stimulation flowback) and neutralized to meet receiving facility specifications	• Hazardous waste ³ if discarded	• Use on other job (example: hold for a well stimulation) • If no other use, contact COP HSE	• Bill of Laden or; • Hazardous Waste Manifest
	• Class II • E&P exempt	• Class II disposal well if allowed • Class I disposal well (“RCRA Exempt” E&P) • Onsite reserve pit if allowed • Onsite completions pit if allowed • Offsite evaporation pond if allowed • Land farm if allowed	• Non-Hazardous Waste Manifest
CEMENT CEMENT – unused, leftover, <u>not</u> from downhole ³ CEMENT – returned from downhole ³ (may be contaminated with mud and contain retarder)	• Class I • Non-hazardous ¹	• Use on other job • Send to cement recycler (consider washing) • Class I disposal well • Solids to landfill (subject to testing and pre-approval)	• Bill of Laden or; • Non-Hazardous Waste Manifest
	• Class II • E&P exempt	• Rinse and send to cement recycler (consider washing) • Class II disposal well if allowed • Class I disposal well (“RCRA Exempt” E&P) • Onsite reserve pit if allowed • Completions pit if allowed • Solids to landfill (subject to testing and pre-approval)	• Bill of Laden or; • Non-Hazardous Waste Manifest

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1. MATERIAL AND SOURCE	2. CLASSIFICATION/ CHARACTERIZATION	3. DISPOSAL/REUSE OPTIONS ⁴ See <i>Facility Guides</i> for options in the operating area.	4. TRANSPORTATION DOCUMENTATION ⁶
CEMENT RINSATE CEMENT RINSATE – remove cement residual that has <u>not</u> circulated downhole ⁵	<ul style="list-style-type: none"> Class I Non-hazardous¹ (verify pH) 	<ul style="list-style-type: none"> Beneficial reuse (neutralize as needed) Examples: <ul style="list-style-type: none"> Use to clean cuttings conveyor Other beneficial reuses as approved by COP HSE Class I disposal well Onsite reserve pit if drilling related and allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
CEMENT RINSATE – remove returned cement residual from equipment (cement has circulated downhole ⁵)	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Class II disposal well if allowed Beneficial reuse (neutralize as needed) Examples: <ul style="list-style-type: none"> Use to clean cuttings conveyor Other beneficial reuses as approved by COP HSE Onsite reserve pit if allowed Onsite completions pit if allowed Class I disposal well ("RCRA Exempt" E&P) Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
CEMENT SPACER (CHEMICAL) – returned from downhole ⁵	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Class II disposal well if allowed Class I disposal well ("RCRA Exempt" E&P) Onsite reserve pit if allowed Onsite completions pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
CHEM CLEAR – commercial hydrocarbon-based cleaner CHEM CLEAR – leftover, unused	<ul style="list-style-type: none"> Class I Non-hazardous¹ (verify flash point) 	<ul style="list-style-type: none"> Use for intended purpose Class I disposal well 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest

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CHEM CLEAR – used, mixed with residues that have <u>not</u> been downhole ⁵	<ul style="list-style-type: none"> Mixture may be hazardous if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Beneficial reuse as approved by COP HSE Class I disposal well if non-hazardous Niobrara HWCAA if hazardous 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
CHEM CLEAR – used, mixed with residues that have been downhole ⁵	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Class II disposal well if allowed Class I disposal well ("RCRA Exempt" E&P) Onsite reserve pit if allowed Onsite completions pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
CHEMICALS AND REAGENTS – leftover, unused, off-spec. Examples: anti-foam, corrosion inhibitor, emulsion breaker, scale inhibitor, drilling mud reagents, other additives	<ul style="list-style-type: none"> Potentially hazardous waste if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Use chemicals for original intended purpose in process Do not mix different products Contact COP HSE as soon as disposal is required Manage in SAA and ship to Niobrara HWCAA 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
CLEANOUTS (see also "Tank/Vessel Solids") – residues from lines, vessels, or trucks containing Class II materials such as vessel sediments, pigging solids, crude. May include non-hazardous surfactants and detergents, non-hazardous hydrocarbon-based cleaning agents.	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Recycle hydrocarbon-based fluids Special purpose pit if allowed Class II disposal well if allowed Class II disposal well if allowed RCRA Exempt⁷ E&P ND permit required for crude tank cleanouts 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
CLEANOUT FOAM (see "Stimulation Fluids")			
CLEAR FRAC (see "Stimulation Fluids")			
COMPLETION FLUID COMPLETION FLUID – unused or leftover (not from downhole ⁵), such as weighted brine with lost circulation material (LCM)	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Use for intended purpose Class I disposal well Onsite reserve pit if allowed Onsite completions pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest

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COMPLETION FLUID – returned from downhole ⁵ , such as weighted brine with LCM	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Class II disposal well Class I disposal well ("RCRA Exempt" E&P) Onsite reserve pit if allowed Onsite completions pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
COMPUTER EQUIPMENT (see "Electronic Equipment")			
CONDENSATE	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Recycle hydrocarbon-based fluids Class II disposal well Class I disposal well ("RCRA Exempt" E&P) 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
CORROSION INHIBITOR			
CORROSION INHIBITOR – leftover, unused	<ul style="list-style-type: none"> Potentially hazardous waste if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Use for intended purpose Class I disposal well if non-hazardous Niobrara HWCAA if hazardous 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
CORROSION INHIBITOR – returned from downhole ⁵	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Class II disposal well if allowed Class I disposal well ("RCRA Exempt" E&P) Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
CRUDE OIL			
CRUDE OIL – from in-field wells, flowlines, production facilities (including dead crude)	<ul style="list-style-type: none"> Recyclable Class II E&P exempt 	<ul style="list-style-type: none"> Reuse on other job Recycle in production stream if allowed Use for freeze protection Class II disposal well Class I disposal well ("RCRA Exempt" E&P) 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
CRUDE OIL – from DOT-regulated sales pipelines	<ul style="list-style-type: none"> Recyclable Not E&P exempt – but meets the "recovered oil" exemption in 40 CFR 261.4(a)(12)(ii) 	<ul style="list-style-type: none"> Recycle in production stream if allowed Send to offsite recycler If considered a waste, contact COP HSE immediately 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest

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CRUDE/DIESEL MIXTURES			
CRUDE/DIESEL MIXTURE – mix of crude and unused or leftover diesel (diesel has <u>not</u> been downhole ⁵)	<ul style="list-style-type: none"> Recyclable Hazardous waste³ if discarded Not E&P exempt 	<ul style="list-style-type: none"> Recycle in production stream Contact COP HSE immediately if considered a waste 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
CRUDE/DIESEL MIXTURE – mix of crude and returned diesel (diesel used downhole ⁵)	<ul style="list-style-type: none"> Recyclable Class II E&P exempt 	<ul style="list-style-type: none"> Recycle in production stream Class II disposal well Class I disposal well ("RCRA Exempt" E&P) 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
CUTTINGS – returned from downhole ⁵ , including those removed when reconditioning mud	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Class II disposal well if allowed Onsite reserve pit if allowed Landfill (subject to testing and pre-approval by county) Land farm if allowed Beneficial reuse as approved by COP HSE 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
DESCALER – unused, leftover (not returned from downhole ⁵)	<ul style="list-style-type: none"> Hazardous waste³ if discarded 	<ul style="list-style-type: none"> Use for intended purpose Manage in SAA and ship to Niobrara HWCAA 	<ul style="list-style-type: none"> Bill of Laden or; Hazardous Waste Manifest
DESSICANT			
DESSICANT – from air compressors	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Landfill (subject to testing and preapproval by county) Minimize dust while handling 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
DESSICANT – used in gas conditioning skids	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Landfill (subject to testing and pre-approval by county) Class II disposal well if allowed Minimize dust while handling 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
DETECTOR TUBES – unused Dräger tubes and similar tubes manufactured by Sensidyne, Gastec, RAE, etc.	<ul style="list-style-type: none"> Hazardous waste³ if discarded 	<ul style="list-style-type: none"> Use for intended purpose Manage in SAA and then ship to Niobrara HWCAA 	<ul style="list-style-type: none"> Bill of Laden or; Hazardous Waste Manifest
DIATOMACEOUS EARTH			
DIATOMACEOUS EARTH – used to filter new brine	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Fluid: see "Brine" Solids to Landfill (subject to testing and preapproval by county) 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest

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3. Known to contain a listed hazardous waste or to be a characteristic hazardous waste

4. All listed options may not be available. Based on waste classification, consult *Facility Guide* to determine available options.

5. "Downhole" means that material meets criteria for Class II Disposal shown in Attachment B

6. Required documentation dependent on waste classification. Documentation required only for transfers on public highways or outside of field boundaries.

DISPOSAL/REUSE TABLES

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1. MATERIAL AND SOURCE	2. CLASSIFICATION/ CHARACTERIZATION	3. DISPOSAL/REUSE OPTIONS ⁴ See Facility Guides for options in the operating area.	4. TRANSPORTATION DOCUMENTATION ⁶
DIATOMACEOUS EARTH – used to filter returned brine	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Fluid: see "Brine" Class II disposal well if allowed Onsite reserve pit if allowed Completions pit if allowed Land farm if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
<p>DIESEL AND DIESEL MIXTURES (see also "Freeze Protection Fluids from Above-Ground Well Operations")</p> <p>DIESEL – New product, has <u>not</u> been downhole³</p> <ul style="list-style-type: none"> New product used to pressure test new or non-process lines (lines have not contained downhole⁵ materials) New product used to clean production lines or vessels, even if they contain downhole⁵ materials 	<ul style="list-style-type: none"> Contact COP HSE Recyclable Potentially hazardous waste if discarded, subject to case by case evaluation and testing² Not E&P exempt 	<ul style="list-style-type: none"> New product diesel may not be injected in Class I or Class II disposal wells even if mixed with exempt or Class II wastes Do not use new product diesel for pressure testing, freeze protection, or solvent properties without consulting COP HSE in advance! Recover fluids for approved reuse (fuel, freeze protection, etc.) Recycle in production stream if allowed Ship to offsite recycler if allowed If considered a waste, contact COP HSE immediately 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
<p>DIESEL – returned from downhole³ or in contact with downhole⁵ in the referenced manner</p> <ul style="list-style-type: none"> Used to pressure test existing production flowlines (lines have contained downhole⁵ fluids) Reused to clean production lines, vessels, or equipment containing downhole⁵ materials (mixture of returned diesel + Class II or exempt waste) 	<ul style="list-style-type: none"> Recyclable Class II E&P exempt 	<ul style="list-style-type: none"> Recover fluids for approved reuse (fuel, freeze protection, well work) Recycle in production stream if possible Send to offsite recycler if possible Class II disposal well if allowed Class I disposal well ("RCRA Exempt" E&P) <p>NOTE: CoP strongly discourages disposal of hydrocarbons if recycling is possible.</p>	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest

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DIRT (see "Cuttings," "Gravel," "Sandblast Media," "Sump Solids") DIRT – dry floor sweepings, incidental soil or road/pad dirt that is <u>not</u> from downhole ⁵	<ul style="list-style-type: none"> Potentially hazardous waste if discarded, subject to case by case evaluation and testing if it contains metal filings, paint chips, chemical spill residues² 	<ul style="list-style-type: none"> Small quantities (mixed with regular trash) in landfill dumpsters Significant amounts – approved solid waste storage area (always verify location with COP HSE) Landfill (subject to testing and pre-approval by county) 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
DIRT – wet solids from sumps, tanks, etc.; <u>not</u> from downhole ⁵	<ul style="list-style-type: none"> Potentially hazardous waste if discarded, subject to case by case evaluation and testing if contains metal filings, paint chips, chemical spill residues² 	<ul style="list-style-type: none"> Approved solid waste storage area (always verify location with COP HSE) Landfill (subject to testing and pre-approval by county) Class I disposal if non-hazardous Waste stream usually determined by the "carrier" fluid (such as "Sump Fluid," "Equipment/Facility Wash Water," etc.) 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
DIRT – Class II solids, may be mixed with Class II fluids	<ul style="list-style-type: none"> Classification depends on process Evaluate on case-by-case basis 	<ul style="list-style-type: none"> Landfill (subject to testing and pre-approval by county) Class II disposal well if allowed Class I disposal well ("RCRA Exempt" E&P) Onsite reserve pit if allowed Land Farming if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
"DIRTY WATER" OR "SLOP OIL" TANK FLUIDS – consisting only of Class II fluids and/or recyclable used oil	<ul style="list-style-type: none"> Recyclable (oil) Class II (water-based fluid) E&P exempt 	<ul style="list-style-type: none"> Recycle in production stream if allowed Class II disposal well if allowed Class I disposal well ("RCRA Exempt" E&P) Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
"DIRTY WATER" OR "SLOP OIL" TANK SOLIDS – removed during cleanout of dirty water tank at production facility	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Production pit if allowed Class II disposal well Land farm if allowed ND permit required for crude tank cleanouts 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
DOMESTIC WASTEWATER (see "Sewage")			

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DISPOSAL/REUSE TABLES

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DRAG REDUCING AGENT (DRA) – unused, recovered from spill	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Physical properties require special handling Approved solids storage area approved by COP HSE Land farm if allowed Class I disposal well if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
DRILLING MUD (see "Mud")			
DRUMS/BARRELS			
DRUMS/BARRELS – <u>not</u> empty	<ul style="list-style-type: none"> Contents may be hazardous waste (product-specific) 	<ul style="list-style-type: none"> Use contents completely If unusable, contact COP HSE 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
DRUMS/BARRELS – empty	<ul style="list-style-type: none"> Non-hazardous Possibly recyclable 	<ul style="list-style-type: none"> Approved scrap metal recycler/drum reconditioner Collect as instructed prior to delivery Ensure container is RCRA empty Triple rinse containers 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
ELECTRONIC EQUIPMENT – used or discarded computers, monitors, televisions, VCRs, etc.	<ul style="list-style-type: none"> May be recyclable Potentially hazardous waste if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Do not discard in dumpster Contact COP HSE for site-specific collection and recycling procedures Recycling is strongly encouraged 	<ul style="list-style-type: none"> Bill of Laden or; Hazardous Waste Manifest
EMPTY CONTAINER RESIDUE – residue and rinsate inside RCRA-empty vessels or containers (see Definitions)	<ul style="list-style-type: none"> Class I RCRA-exempt <u>only while</u> remaining in container Potentially hazardous waste when removed from container, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Requires hazardous waste determination if removed from container. Contact COP HSE 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
EPINEPHRINE (see "Medical Waste")			

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FILTERS			
FILTERS – diesel	<ul style="list-style-type: none"> Non-hazardous solid, subject to testing¹ 	<ul style="list-style-type: none"> Recover fluids for approved reuse Place drained filter in appropriate container Landfill drained filters only (subject to testing and pre-approval by county) 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
FILTERS – glycol or motor oil	<ul style="list-style-type: none"> Non-hazardous¹ 	<ul style="list-style-type: none"> Hot drain and puncture, place in appropriate container Landfill drained filters only (subject to testing and pre-approval by county) 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
FILTERS – produced water	<ul style="list-style-type: none"> E&P exempt 	<ul style="list-style-type: none"> Landfill (subject to testing and pre-approval by county) May be pyrophoric – handle with care 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
FILTERS – TEG, from production facility; may be contaminated with condensate when changed out	<ul style="list-style-type: none"> E&P exempt 	<ul style="list-style-type: none"> Hot drain and puncture, place in appropriate container Landfill drained filters only (subject to testing and pre-approval by county) 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
FILTERS – other	<ul style="list-style-type: none"> Potentially hazardous waste if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Contact COP HSE 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
FIRE EXTINGUISHING POWDER	<ul style="list-style-type: none"> Non-hazardous 	<ul style="list-style-type: none"> Landfill (subject to testing and pre-approval by county) 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
FLARE/RELIEF PIT WATER			
FLARE/RELIEF PIT WATER – fresh water in unused or closed out pits (pits do <u>not</u> contain downhole ⁵ residuals)	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Recover fluid for reuse as approved by COP HSE Class I disposal well Onsite reserve pit if allowed Offsite evaporation if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
FLARE/RELIEF PIT WATER – fresh water in used or active pits that contain downhole ⁵ residuals	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Recover fluid for reuse as approved by COP HSE Class II disposal well Class I disposal well Onsite reserve pit if allowed Offsite evaporation if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest

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DISPOSAL/REUSE TABLES

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FLUORESCENT TUBES (see "Light Bulbs")			
FOAM, POLYURETHANE – leftover chemical products from spray job	<ul style="list-style-type: none"> Potentially hazardous waste if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Use for intended purpose Contact COP HSE 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste or; Hazardous Waste Manifest
FORMALDEHYDE – including formaldehyde-soaked rags and PPE	<ul style="list-style-type: none"> Hazardous waste³ if discarded 	<ul style="list-style-type: none"> Manage in SAA and ship to Niobrara HWCAA 	<ul style="list-style-type: none"> Hazardous Waste Manifest
FRAC FLUIDS FRAC FLUIDS – leftover or unused frac fluids that are <u>not</u> from downhole ⁵	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Use on other job Class I disposal well Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
FRAC FLUIDS – returned, flowback from downhole ³	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Class II disposal well if allowed Class I disposal well ("RCRA Exempt" E&P) Onsite reserve pit if allowed Onsite completions pit if allowed Onsite production pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
FRAC SAND (see "Carbolite")			

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1. MATERIAL AND SOURCE	2. CLASSIFICATION/ CHARACTERIZATION	3. DISPOSAL/REUSE OPTIONS ⁴ See <i>Facility Guides</i> for options in the operating area.	4. TRANSPORTATION DOCUMENTATION ⁶
<p>FREEZE PROTECTION FLUIDS – from above-ground well operations</p> <p>Diesel and/or methanol/water mixtures – used for above-ground freeze protection, <u>not</u> in contact with downhole⁵ fluids</p>	<ul style="list-style-type: none"> • Contact COP HSE • Recyclable hydrocarbons (diesel mixtures only) • Hazardous waste³ if discarded • Not E&P exempt 	<ul style="list-style-type: none"> • New product diesel and methanol may not be injected in Class I or Class II disposal wells • Do not use new product diesel or methanol for freeze protection without consulting COP HSE in advance • Recycle in production stream if allowed • Offsite recycler if allowed • Contact COP HSE for site-specific options and procedures 	<ul style="list-style-type: none"> • Bill of Laden or; • Non-Hazardous Waste Manifest
<p>Diesel and/or methanol/water mixtures – used for above-ground freeze protection during well work, commingled with downhole⁵ fluids (as in coil tubing unit)</p>	<ul style="list-style-type: none"> • Recyclable • Class II • E&P exempt 	<ul style="list-style-type: none"> • If possible, segregate fluid that has not been circulated downhole⁵, and use on other job • Recycle in production stream if allowed • Offsite recycler if allowed • Class II disposal well if allowed • Class I disposal well • Describe on manifest as “Surface freeze protection fluids commingled with downhole⁵ fluids from (coil tubing, drilling, etc.) operation” 	<ul style="list-style-type: none"> • Bill of Laden or; • Non-Hazardous Waste Manifest
<p>FRICTION REDUCER (see “Drag Reducing Agent”)</p>			
<p>GARBAGE, FOOD WASTE</p>	<ul style="list-style-type: none"> • Solid waste • Non-hazardous 	<ul style="list-style-type: none"> • Do not discard in outdoor dumpsters except for dumpsters with animal-proof lids • Discard indoors in marked containers or kitchen dumpsters • Landfill • Incinerate 	<ul style="list-style-type: none"> • Non-Hazardous Waste Manifest

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GASOLINE GASOLINE – clean GASOLINE – contaminated, not usable	<ul style="list-style-type: none"> Usable product – not a waste Recyclable Potentially hazardous waste³ Not E&P exempt 	<ul style="list-style-type: none"> Recover and use for intended purpose Recycle in production stream if allowed Offsite recycler if allowed Manage in SAA and ship to Niobrara HWCAA Contact COP HSE 	<ul style="list-style-type: none"> Bill of Laden Bill of Laden or; Hazardous Waste Manifest
GEL, BIOZAN, OR DUAL POLY GEL, BIOZAN, OR DUAL POLY – unused, leftover (has <u>not</u> been downhole ⁵) GEL, BIOZAN, OR DUAL POLY – returned from downhole ⁵	<ul style="list-style-type: none"> Class I Non-hazardous¹ Class II E&P exempt 	<ul style="list-style-type: none"> Use on other job Class I disposal well Class II disposal well if allowed Class I disposal well (“RCRA Exempt” E&P) Onsite reserve pit if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest Non-Hazardous Waste Manifest
GLYCOL GLYCOL – unused, surplus, any type: <ul style="list-style-type: none"> Monoethylene (MEG) Triethylene (TEG) Propylene GLYCOL – <u>antifreeze</u> (MEG, propylene, etc.) from vehicles and equipment GLYCOL used to <u>freeze</u> <u>protect</u> lines/vessels that have <u>not</u> contained downhole ⁵ fluids	<ul style="list-style-type: none"> Class I Non-hazardous¹ Class I Non-hazardous¹ Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Recover fluid for reuse Class I disposal well Recover fluid for reuse Class I disposal well Recover fluid for reuse Class I disposal well 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest Bill of Laden or; Non-Hazardous Waste Manifest Bill of Laden or; Non-Hazardous Waste Manifest Bill of Laden or; Non-Hazardous Waste Manifest

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1. MATERIAL AND SOURCE	2. CLASSIFICATION/ CHARACTERIZATION	3. DISPOSAL/REUSE OPTIONS ⁴ See Facility Guides for options in the operating area.	4. TRANSPORTATION DOCUMENTATION ⁶
GLYCOL – used to freeze protect existing production flowlines (lines have contained downhole ⁵ fluids)	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Recover fluid for reuse Class II disposal well if allowed Class I disposal well (“RCRA Exempt” E&P) 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
GLYCOL used to <u>pressure test</u> lines/vessels that have <u>not</u> contained downhole ⁵ fluids	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Recover fluid for reuse Class I disposal well 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
GLYCOL – used to <u>pressure test</u> existing production flowlines (lines have contained downhole ⁵ fluids)	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Recover for reuse Class II disposal well if allowed Class I disposal well (“RCRA Exempt” E&P) 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
GRAVEL GRAVEL – clean	<ul style="list-style-type: none"> Not a waste 	<ul style="list-style-type: none"> Stockpile in designated areas for reuse Do not place in dumpsters 	<ul style="list-style-type: none"> Bill of Laden
GRAVEL – from spill cleanups, contaminated with fluids that have <u>not</u> been downhole ⁵ (e.g., new mud, diesel)	<ul style="list-style-type: none"> Class I Potentially hazardous waste¹, depending on material spilled Subject to testing 	<ul style="list-style-type: none"> Do not discard in dumpster Non-hazardous gravel may be land filled (subject to testing and pre-approval by county) Hazardous gravel (if excavated) managed as hazardous waste in SAA and then shipped to the Niobrara HWCAA 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
GRAVEL – from spill cleanups, contaminated with fluids from downhole ⁵	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Do not discard in dumpster Landfill (subject to testing and pre-approval by county) Class II disposal well if allowed Onsite reserve pit if allowed Emergency pit if allowed Land farming if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
GRAYWATER (see “Sewage”)			

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GREASE – Lubricating GREASE – non-leaded, used to lubricate fittings, pipes, etc. GREASE – containing metallic lead	• Nonhazardous ¹	• Use for intended purpose • Beneficially reuse (lubricate fifth wheels, etc.) • Contact COP HSE	• Bill of Laden
	• Hazardous waste ³ if discarded	• Collect in SAA and then ship to the Niobrara HWCAA	• Hazardous Waste Manifest
HAZARDOUS WASTE HAZARDOUS WASTE – may include paints, thinners, chlorinated solvents, xylene, acids, caustics, methanol, etc.	• Hazardous waste ³ if discarded	• Manage temporarily in SAA and then ship to the Niobrara HWCAA • Contact COP HSE • Do not mix with other waste or add to recyclable fluids such as used oil or glycol	• Hazardous Waste Manifest
	• Class I	• Contact COP HSE • Follow approved procedures for decharacterizing • Class I disposal well when confirmed non-hazardous	• Non-Hazardous Waste Manifest
HYDRATES DECHARACTERIZED HAZARDOUS WASTE – acids, caustics, turbine wash water, etc. treated to remove hazardous characteristic	• Class II • E & P exempt	• Recycle in production stream if allowed • Class II disposal well if allowed • Class I disposal well (RCRA Exempt, E&P)	• Non-Hazardous Waste Manifest
HYDROTEST FLUIDS (see "Methanol," "Water")			
INVESTIGATIVE-DERIVED WASTE (IDW) – waste (including PPE) from various sampling and remediation projects	• Potentially hazardous waste if discarded, subject to case by case evaluation and testing ²	• Handling of IDW should be clearly identified in any environmental consultant's sampling plan	• Non-Hazardous Waste or; • Hazardous Waste Manifest

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1. MATERIAL AND SOURCE	2. CLASSIFICATION/ CHARACTERIZATION	3. DISPOSAL/REUSE OPTIONS ⁴ See <i>Facility Guides</i> for options in the operating area.	4. TRANSPORTATION DOCUMENTATION ⁶
IRON SULFIDE/IRON SPONGE IRON SULFIDE/IRON SPONGE – polyphoric iron sulfide scale from production vessels, lines	<ul style="list-style-type: none"> Class II E & P exempt Spontaneously ignites when dry and exposed to oxygen 	<ul style="list-style-type: none"> Follow applicable safety procedures for handling and storage Store wet in leak-proof container Class II or Class I disposal well as slurry – subject to special approval & procedures Contact COP HSE and disposal facility 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
KCL (POTASSIUM CHLORIDE) (see "Brine")			
KILL WEIGHT FLUID KILL WEIGHT FLUID – leftover, unused (has <u>not</u> been downhole ⁵)	<ul style="list-style-type: none"> Potentially hazardous if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Use on other job Class I disposal well if non-hazardous Onsite reserve pit if allowed Land farm if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
KILL WEIGHT FLUID – returned from downhole ³	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Use on other job Class II disposal well Class I disposal well ("RCRA Exempt" E&P) Onsite reserve pit if allowed Land farm if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
KITCHEN GREASE	<ul style="list-style-type: none"> Non-hazardous 	<ul style="list-style-type: none"> Contact COP HSE for site specific procedures 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
KNOCKOUT LIQUIDS – from normal process separation	<ul style="list-style-type: none"> Recyclable Class II E&P exempt 	<ul style="list-style-type: none"> Recycle in production stream if allowed Class II disposal well if allowed Class I disposal well ("RCRA Exempt" E&P) 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest

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DISPOSAL/REUSE TABLES

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LABORATORY WASTES (see "Chemicals," "Samples," "Solvent," etc.)	<ul style="list-style-type: none"> Contact COP HSE Potentially hazardous waste if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Follow site-specific Chemical Hygiene Plan (approved by COP HSE) 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
LIGHT BULBS ("LAMPS")			
LIGHT BULBS – <u>whole</u> (incandescent, fluorescent, halogen – all types)	<ul style="list-style-type: none"> Universal waste 	<ul style="list-style-type: none"> Manage temporarily in SAA and ship to the Niobrara HWCAA Contact COP HSE for site-specific collection procedures 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
LIGHT BULBS – <u>accidentally broken</u> (all types)	<ul style="list-style-type: none"> Universal waste 	<ul style="list-style-type: none"> Manage temporarily in SAA and ship to the Niobrara HWCAA Contact COP HSE for site-specific collection procedures 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
LIGHT BULBS – <u>systematically crushed</u> (all types)	<ul style="list-style-type: none"> Potentially hazardous waste³ due to lead, mercury 	<ul style="list-style-type: none"> Do not crush unless following procedure approved by COP HSE Manage temporarily in SAA and ship to the Niobrara HWCAA Contact COP HSE for site-specific collection procedures 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
LOST CIRCULATION MATERIAL			
LOST CIRCULATION MATERIAL – leftover, unused (has <u>not</u> been downhole ⁵)	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Use on other job Landfill (subject to testing and pre-approval by county) Onsite reserve pit if allowed Not recommended for disposal by injection 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
LOST CIRCULATION MATERIAL – returned from downhole ⁵	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Use on other job Wash and send to landfill (subject to testing and pre-approval by county) Not recommended for disposal by injection (contact injection facility for instructions) Onsite reserve pit if allowed Land farm if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest

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MEDICAL WASTE			
MEDICAL WASTE – equipment <u>without</u> mercury (sharps, razors, swabs, etc.)	<ul style="list-style-type: none"> Solid waste 	<ul style="list-style-type: none"> Separate sharps Store in "BIOHAZARD" bag Send to approved incinerator or autoclave Special handling required for mercury debris 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
MEDICAL WASTE – epinephrine, nitroglycerin, warfarin (unused, leftover, expired)	<ul style="list-style-type: none"> Acutely hazardous waste if discarded 	<ul style="list-style-type: none"> Manage temporarily in SAA and ship to Niobrara HWCAA Contact COP HSE 	<ul style="list-style-type: none"> Hazardous Waste Manifest
MEDICAL WASTE – other medications	<ul style="list-style-type: none"> Non-hazardous¹ 	<ul style="list-style-type: none"> Do not send to landfill Can ship as non-hazardous waste to approved incinerator (contact COP HSE) 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
MERCURY AND MERCURY DEBRIS			
MERCURY AND MERCURY DEBRIS – broken thermometers, contaminated rags, etc.	<ul style="list-style-type: none"> Hazardous waste³ 	<ul style="list-style-type: none"> Manage in SAA and ship to Niobrara HWCAA Contact COP HSE 	<ul style="list-style-type: none"> Hazardous Waste Manifest
MERCURY AND MERCURY DEBRIS – lamps (light bulbs), thermostats, other equipment	<ul style="list-style-type: none"> Universal waste 	<ul style="list-style-type: none"> Manage in SAA and ship to Niobrara HWCAA Contact COP HSE 	<ul style="list-style-type: none"> Hazardous Waste Manifest

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DISPOSAL/REUSE TABLES

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METHANOL AND METHANOL/WATER MIXTURES (see also "Freeze Protection Fluids from Above-Ground Well Operations") METHANOL – NEAT PRODUCT (unused or leftover) that has <u>not</u> been downhole ⁵ • New product used to <u>pressure test</u> new or non-process lines (lines have <u>not</u> contained downhole ⁵ fluids) • New product recovered from <u>spill cleanups</u>	<ul style="list-style-type: none"> • Contact COP HSE • Hazardous waste³ if discarded 	<ul style="list-style-type: none"> • New product methanol may not be injected in Class I or Class II disposal wells • Do not use new methanol to pressure test new lines without consulting COP HSE in advance! • Recover fluids for approved reuse • Contact COP HSE for site-specific options and procedures 	<ul style="list-style-type: none"> • Bill of Laden or; • Hazardous Waste Manifest
METHANOL – USED DOWNHOLE ⁵ for well work (freeze protection, downhole testing, etc.) • Used to <u>pressure test</u> existing production flowlines (lines have contained downhole ⁵ fluids)	<ul style="list-style-type: none"> • Class II • E&P exempt 	<ul style="list-style-type: none"> • Recover fluids for approved reuse (contact COP HSE) • Class II disposal well if allowed • Class I disposal well ("RCRA Exempt" E&P) 	<ul style="list-style-type: none"> • Bill of Laden or; • Non-Hazardous Waste Manifest
MOLECULAR SIEVE – activated alumina	<ul style="list-style-type: none"> • Class I • Non-hazardous¹ 	<ul style="list-style-type: none"> • Do not discard in dumpster • Landfill (subject to testing and pre-approval by county) 	<ul style="list-style-type: none"> • Non-Hazardous Waste Manifest
MUD, DRILLING MUD, DRILLING – unused or leftover drilling mud that has <u>not</u> been downhole ⁵ (water or oil-based)	<ul style="list-style-type: none"> • Class I • Non-hazardous¹ 	<ul style="list-style-type: none"> • Use on other job • Class I disposal well • Onsite reserve pit if allowed • Land farm if allowed 	<ul style="list-style-type: none"> • Bill of Laden or; • Non-Hazardous Waste Manifest
MUD, DRILLING – water or oil-based mud, returned from downhole ⁵ (production well or Class II well)	<ul style="list-style-type: none"> • Class II • E&P exempt 	<ul style="list-style-type: none"> • Use on other job • Class II disposal well if allowed • Class I disposal well ("RCRA Exempt" E&P) • Onsite reserve pit if allowed • Land farm if allowed 	<ul style="list-style-type: none"> • Bill of Laden or; • Non-Hazardous Waste Manifest

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DISPOSAL/REUSE TABLES

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MUD RINSATE MUD RINSATE – fresh or saltwater used to rinse leftover or unused mud from tanks, trucks, mud pits, lines, equipment (mud has <u>not</u> gone downhole ⁵)	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Beneficial reuse upon approval by COP HSE Class I disposal well Onsite reserve pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
MUD RINSATE – fresh or saltwater used to rinse returned product from tanks, trucks, rig mud pits, and lines (mud has been downhole ⁵)	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Beneficial reuse upon approval by COP HSE Class II disposal well if allowed Class I disposal well ("RCRA Exempt" E&P) Onsite reserve pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
MUD SOLIDS (see also "Cuttings") – solids from downhole ⁵ , removed when reconditioning returned mud	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Class II disposal well if allowed Class I disposal well (capable of handling solids) ("RCRA Exempt" E&P) Onsite reserve pit if allowed Beneficial reuse if allowed Landfill (subject to testing and pre-approval by county) 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
MUD TITRATION WASTE	<ul style="list-style-type: none"> Hazardous waste³ if discarded 	<ul style="list-style-type: none"> Manage in SAA and ship to Niobrara HWCAA 	<ul style="list-style-type: none"> Hazardous Waste Manifest
NATURALLY OCCURRING RADIOACTIVE MATERIAL (NORM)	<ul style="list-style-type: none"> Class II E&P exempt, but regulated 	<ul style="list-style-type: none"> Contact COP HSE for special handling requirements 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
OFFICE MACHINE SUPPLIES – toners, etc. from printer, copier, fax	<ul style="list-style-type: none"> Potentially recyclable Potentially hazardous waste if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Follow site specific collection procedures Return to manufacturer if possible Contact COP HSE prior to disposal 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest

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1. MATERIAL AND SOURCE	2. CLASSIFICATION/ CHARACTERIZATION	3. DISPOSAL/REUSE OPTIONS ⁴ See Facility Guides for options in the operating area.	4. TRANSPORTATION DOCUMENTATION ⁵
OIL, HYDRAULIC OR LUBRICATING – gear/motor oil, lube oil, hydraulic fluid, transmission fluid, etc. (see also “Crude Oil”) OIL, HYDRAULIC OR LUBRICATING – unused, leftover OIL, HYDRAULIC OR LUBRICATING – used in vehicles, non-process equipment	<ul style="list-style-type: none"> Recyclable Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Use for intended purpose Recycle in production stream if allowed Ship to recycler if allowed 	• Bill of Laden
	<ul style="list-style-type: none"> Recyclable Potentially hazardous waste if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Label containers as “Used Oil” Recycle in production stream if allowed Reuse as fuel (testing may be required) Ship to recycler if allowed 	• Bill of Laden
	<ul style="list-style-type: none"> Recyclable Potentially hazardous waste if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Label containers as “Used Oil” Recycle in production stream if allowed Reuse as fuel (testing may be required) Ship to recycler if allowed 	• Bill of Laden
OIL, HYDRAULIC OR LUBRICATING – from inside production facility or surface safety valves <ul style="list-style-type: none"> Transmission fluid used in gear boxes (e.g., TEG transfer pump) Hydraulic oil leakage from turbine engines Lube oil leakage from compressors, vent gas blower, turbines, blowcases Leaks to the drain sump via hard piping OIL, HYDRAULIC – from subsurface safety valve system	<ul style="list-style-type: none"> Recyclable Class II E&P exempt 	<ul style="list-style-type: none"> Label containers as “Used Oil” Recycle in production stream if allowed Reuse as fuel (testing may be required) Ship to recycler if allowed 	• Bill of Laden
	<ul style="list-style-type: none"> Recyclable Class II E&P exempt 	<ul style="list-style-type: none"> Label containers as “Used Oil” Recycle in production stream if allowed Ship to recycler if allowed 	• Bill of Laden
OIL, SEAL – used compressor seal oil in contact with gas stream, collected from knockout pots			
OILY SAND, SOIL (see “Gravel”)			

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PAINT/THINNERS	<ul style="list-style-type: none"> Hazardous waste³ if discarded 	<ul style="list-style-type: none"> Manage in SAA and ship to Niobrara HWCAA Contact COP HSE 	<ul style="list-style-type: none"> Hazardous Waste Manifest
PAINT CHIPS	<ul style="list-style-type: none"> Potentially hazardous waste if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Do not discard in dumpster Contact COP HSE Landfill if non-hazardous (subject to testing and pre-approval by county) 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
PAINT RAGS – rags and sorbents contaminated with oil-based paint, solvent-based thinners	<ul style="list-style-type: none"> Potentially hazardous waste³ 	<ul style="list-style-type: none"> Do not discard in dumpster Manage in SAA and ship to Niobrara HWCAA Contact COP HSE 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
PAINT SLUDGE	<ul style="list-style-type: none"> Hazardous waste³ if discarded 	<ul style="list-style-type: none"> Manage in SAA and ship to Niobrara HWCAA Contact COP HSE 	<ul style="list-style-type: none"> Hazardous Waste Manifest
PAPER PRODUCTS – office paper, cardboard, newspaper	<ul style="list-style-type: none"> Potentially recyclable Non-hazardous 	<ul style="list-style-type: none"> Follow recycling procedures/restrictions in each area Landfill Incineration 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
PARAFFIN PARAFFIN – from in-field wells, flowlines, production facilities	<ul style="list-style-type: none"> Recyclable Class II E&P exempt 	<ul style="list-style-type: none"> Recycle in production stream Class II disposal well Class I disposal well (“RCRA Exempt” E&P) Land farm if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
PARAFFIN – from DOT-regulated sales pipelines	<ul style="list-style-type: none"> Recyclable Not E&P exempt 	<ul style="list-style-type: none"> Recycle in production stream If considered a waste, contact COP HSE immediately 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
PCB WASTE – includes light ballasts, ballasts, transformers, capacitors	<ul style="list-style-type: none"> Regulated under TSCA and 40 CFR Part 761 	<ul style="list-style-type: none"> Contact COP HSE 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest

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PHOTO PROCESSING/X-RAY FLUID – includes developer, stop bath, fixer, wash, detergent	<ul style="list-style-type: none"> Class I Non-hazardous¹ after recovery of silver Hazardous waste³ prior to silver recovery 	<ul style="list-style-type: none"> Manage temporarily in SAA if not immediately processed Process through silver recovery unit (contact COP HSE for assistance) Ship silver cartridge to approved off-site precious metals recycler Fluid (if non-hazardous after silver recovery) to Class I disposal well 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
PIGGING SOLIDS			
PIGGING SOLIDS – from water or saltwater line	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Production pit if allowed Landfill (subject to testing and pre-approval by the county) 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
PIGGING SOLIDS – from DOT-regulated sales pipeline or chemical feed line that has <u>not</u> held material from downhole ⁵	<ul style="list-style-type: none"> May be recyclable Potentially hazardous waste if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Send to recycler Class I disposal well if non-hazardous Land Farm if allowed and is non-hazardous Niobrara HWCAA if labeled as waste and is hazardous May be pyrophoric – handle with care 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
PIGGING SOLIDS – from production line that has held material from downhole ⁵	<ul style="list-style-type: none"> May be recyclable Class II E&P exempt 	<ul style="list-style-type: none"> Production pit if allowed Send to recycler Class II disposal well if allowed Class I disposal well Land Farm if allowed May be pyrophoric – handle with care 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
PIPE DOPE			
PIPE DOPE – unused, has <u>not</u> been downhole ³	<ul style="list-style-type: none"> Potentially hazardous waste if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Use for intended purpose If hazardous store in SAA and ship to Niobrara HWCAA 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest or; Hazardous Waste Manifest

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PIPE DOPE – used, returned from downhole ² (on rags used to wipe pipe threads)	<ul style="list-style-type: none"> E&P exempt 	<ul style="list-style-type: none"> Incinerate Landfill (subject to testing and pre-approval by county) 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
POLYSHIELD (POLYMER LINER MATERIAL) – leftover from spraying product	<ul style="list-style-type: none"> Potentially hazardous waste if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Use for intended purpose Contact COP HSE 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
PRODUCED WATER – from hard piping, drains, sumps, separators, vessels, etc.	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Beneficial reuse as approved by COP HSE Reserve pit if allowed Class II disposal well Class I disposal well (“RCRA Exempt” E&P) Send to offsite evaporation facility if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
RADIOACTIVE TRACERS			
RADIOACTIVE TRACERS – unused	<ul style="list-style-type: none"> Not regulated under RCRA but potentially regulated as radioactive 	<ul style="list-style-type: none"> Return to manufacturer or supplier following established protocols 	<ul style="list-style-type: none"> Bill of Laden
RADIOACTIVE TRACERS – used downhole ²	<ul style="list-style-type: none"> Class II, approved by NRC (Nuclear Regulatory Commission) 	<ul style="list-style-type: none"> Temporary pit if allowed Follow applicable decay in storage guidelines Class II disposal well approved by NRC Class I disposal well (“RCRA Exempt” E&P) Contact COP HSE for handling instructions before storing onsite or sending to an offsite facility 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
RAGS (see “Sorbents,” also see name of contaminant)			

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RESERVE PIT FLUIDS			
RESERVE PIT FLUIDS – deminimus crude, ⁵ returned mud, other material from downhole ⁵	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Beneficial reuse as approved by COP HSE Class II disposal well if allowed Class I disposal well ("RCRA Exempt" E&P) Evaporate onsite if allowed Sent to offsite evaporation facility if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
RESERVE PIT WATER – fresh water in unused or closed out pits (pits do <u>not</u> contain downhole ⁵ residuals)	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Beneficial reuse as approved by COP HSE Class I disposal well Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
RESERVE PIT WATER – fresh water in used or active pits that contain downhole ⁵ residuals	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Beneficial reuse Class II disposal well if allowed Class I disposal well ("RCRA Exempt" E&P) Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
RIGWASH – primarily water from the cleaning of downhole ⁵ wastes (e.g., from rig floor, tools, walls)	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Beneficial reuse as approved by COP HSE Class I disposal well ("RCRA Exempt" E&P) Class II disposal well if allowed Onsite reserve pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest

Notes: 1. Typically non-hazardous, subject to verification

2. Could contain listed or characteristic hazardous waste, subject to verification

3. Known to contain a listed hazardous waste or to be a characteristic hazardous waste

4. All listed options may not be available. Based on waste classification, consult *Facility Guide* to determine available options.

5. "Downhole" means that material meets criteria for Class II Disposal shown in Attachment B

6. Required documentation dependent on waste classification. Documentation required only for transfers on public highways or outside of field boundaries.

DISPOSAL/REUSE TABLES

If an item or disposal/reuse option is not included in these tables, contact COP HSE for a case-by-case determination.

1. MATERIAL AND SOURCE	2. CLASSIFICATION/ CHARACTERIZATION	3. DISPOSAL/REUSE OPTIONS ⁴ See <i>Facility Guides</i> for options in the operating area.	4. TRANSPORTATION DOCUMENTATION ⁵
RINSATE (RINSE FLUIDS) RINSATE, CLASS I – saltwater/fresh water/non-hazardous detergent rinses, used to remove Class I waste residual (which has not been downhole ⁵) from trucks, tanks, or vessels	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Beneficial reuse as approved by COP HSE Class I disposal well Send to offsite evaporation facility if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
RINSATE, CLASS II – saltwater/fresh water/non-hazardous detergent rinses, used to remove Class II waste residual (which has been downhole ⁵) from trucks, tanks, or vessels	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Beneficial reuse as approved by COP HSE Class I disposal well ("RCRA Exempt" E&P) Class II disposal well if allowed Onsite reserve pit if allowed Onsite production pit if allowed Send to offsite evaporation facility if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
RINSATE FROM "NON-PROCESS" PIPES, VALVES, VESSELS, ETC. that have not contained produced fluid from downhole ⁵ . Cleaned for maintenance or decommissioning. Examples: fuel storage tanks and lines, bulk chemical storage facilities, camp wastewater piping	<ul style="list-style-type: none"> Potentially hazardous waste if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Contact COP HSE prior to generating rinsate Beneficial reuse as approved by COP HSE Class I disposal well if non-hazardous Send to offsite evaporation facility if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
RINSATE FROM PRODUCTION FLOWLINES, VALVES, VESSELS that have contained produced fluid from downhole ⁵ . Cleaned with water and non-hazardous detergent	<ul style="list-style-type: none"> Class II E&P exempt NOTE: Fluids from DOT-regulated sales pipelines are not E&P exempt and require case-by-case characterization 	<ul style="list-style-type: none"> Beneficial reuse as approved by COP HSE Class I disposal well ("RCRA Exempt" E&P) Class II disposal well if allowed Send to offsite evaporation facility if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest

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DISPOSAL/REUSE TABLES

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1. MATERIAL AND SOURCE	2. CLASSIFICATION/ CHARACTERIZATION	3. DISPOSAL/REUSE OPTIONS ⁴ See <i>Facility Guides</i> for options in the operating area.	4. TRANSPORTATION DOCUMENTATION ⁶
RINSATE REMOVED FROM RCRA-EMPTY VESSELS OR CONTAINERS (see Definitions) – residue removed from drum, truck, tank, or vessel using freshwater, saltwater, non-hazardous cleaning agents	<ul style="list-style-type: none"> Potentially hazardous waste if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Truck or vessel must meet RCRA-empty criteria prior to rinsing (RCRA-empty usually achieved by blowing-down to storage tank) Beneficial reuse as approved by COP HSE Class I disposal well if non-hazardous Offsite evaporation facility if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
SAMPLES – crude, production fluids, produced water, emulsion breaker from BS&W, spinouts	<ul style="list-style-type: none"> Recyclable Class II E&P exempt Verify classification of associated solvents or reagents 	<ul style="list-style-type: none"> Recycle hydrocarbon-based fluids if allowed Class II disposal well if allowed Class I disposal well (“RCRA Exempt” E&P) Onsite reserve pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
SAND – produced sand from established production lines, vessels, tanks, etc.	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Landfill (subject to testing and pre-approval by county) Class II disposal well if allowed Class I disposal well Land farm if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
SAND BLAST MEDIA (GRIT) SAND BLAST MEDIA – usually associated with maintenance, cleaning SAND BLAST MEDIA – non-hazardous media used to clean out oily scale from slug catchers, etc. at production facilities	<ul style="list-style-type: none"> Class I Non-hazardous¹ Potentially recyclable Class II E&P exempt 	<ul style="list-style-type: none"> Do not discard in dumpster Landfill (subject to testing and pre-approval by county) Landfill (subject to testing and pre-approval by county) Class II disposal well if allowed Class I disposal well Land farm if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest or; Hazardous Waste Manifest Non-Hazardous Waste Manifest

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DISPOSAL/REUSE TABLES

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1. MATERIAL AND SOURCE	2. CLASSIFICATION/ CHARACTERIZATION	3. DISPOSAL/REUSE OPTIONS ⁴ See <i>Facility Guides</i> for options in the operating area.	4. TRANSPORTATION DOCUMENTATION ⁶
SAP – sodium acid pyrophosphate (gel breaker) SAP – leftover, unused	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Use for intended purpose Class I disposal well Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
SAP – mixed with excess water/gel mixtures that have <u>not</u> been downhole ⁵	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Reuse if possible Class I disposal well Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
SAP – mixed with water/gel that has been downhole ⁵	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Class II disposal well if allowed Class I disposal well ("RCRA Exempt" E&P) Onsite reserve pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
SCALE INHIBITOR			
SCALE INHIBITOR – leftover, unused	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Use for intended purpose Class I disposal well 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
SCALE INHIBITOR – used in production lines, vessels, used to treat fluids from downhole ⁵	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Class II disposal well if allowed Class I disposal well ("RCRA Exempt" E&P) Onsite reserve pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
SCHMOO-B-GONE			
SCHMOO-B-GONE – leftover, unused	<ul style="list-style-type: none"> Potentially hazardous waste if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Use for intended purpose Contact COP HSE 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
SCHMOO-B-GONE – used downhole ⁵	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Class II disposal well if allowed Class I disposal well ("RCRA Exempt" E&P) Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
SEAWATER (see "Brine" or "Water")			

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6. Required documentation dependent on waste classification. Documentation required only for transfers on public highways or outside of field boundaries.

DISPOSAL/REUSE TABLES

*If an item or disposal/reuse option is not included in these tables, contact
COP HSE for a case-by-case determination.*

1. MATERIAL AND SOURCE	2. CLASSIFICATION/ CHARACTERIZATION	3. DISPOSAL/REUSE OPTIONS ⁴ See <i>Facility Guides</i> for options in the operating area.	4. TRANSPORTATION DOCUMENTATION ⁵
SEWAGE – sanitary/domestic wastewater and graywater	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Sewage treatment plant if possible Class I disposal well Check with COP HSE for other options Beneficial reuse as approved by COP HSE following treatment at a permitted WWTP 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
SHEETROCK	<ul style="list-style-type: none"> Non-hazardous 	<ul style="list-style-type: none"> Landfill (subject to testing and pre-approval by county) 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
SILICA POWDER OR SAND – from water softener	<ul style="list-style-type: none"> Non-hazardous¹ 	<ul style="list-style-type: none"> Landfill (subject to testing and pre-approval by county) 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
SLOP OIL (see "Dirty Water" and/or "Crude Oil")			
SMOKE DETECTORS	<ul style="list-style-type: none"> Recyclable Potentially radioactive/ hazardous waste if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Contact COP HSE Will be returned to manufacturer if possible Store in SAA and ship to Niobrara HWCAA 	<ul style="list-style-type: none"> Bill of Laden or; Hazardous Waste Manifest

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 - Could contain listed or characteristic hazardous waste, subject to verification
 - Known to contain a listed hazardous waste or to be a characteristic hazardous waste
 - All listed options may not be available. Based on waste classification, consult *Facility Guide* to determine available options.
 - "Downhole" means that material meets criteria for Class II Disposal shown in Attachment B
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DISPOSAL/REUSE TABLES

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1. MATERIAL AND SOURCE	2. CLASSIFICATION/ CHARACTERIZATION	3. DISPOSAL/REUSE OPTIONS ⁴ See <i>Facility Guides</i> for options in the operating area.	4. TRANSPORTATION DOCUMENTATION ⁶
SNOW SNOW – contaminated with fluids that have <u>not</u> been downhole ⁵ (e.g., new mud, diesel, chemicals)	<ul style="list-style-type: none"> Class I Subject to testing 	<ul style="list-style-type: none"> Beneficial reuse as approved by HSE Do not discard in dumpster Do not mix with other wastes or with spills of downhole⁵ fluids Contact COP HSE Class I disposal well (melted snow) Onsite reserve pit if allowed Offsite evaporation facility (melted snow) if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
SNOW – contaminated with fluids circulated through the wellbore (from downhole ⁵)	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Beneficial reuse as approved by COP HSE Do not discard in dumpster Class II disposal well if allowed Class I disposal well ("RCRA Exempt" E&P) Onsite reserve pit if allowed Emergency reserve pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
SNOWMELT OR RAINWATER (STORMWATER) SNOWMELT OR RAINWATER from pads, tank farms, impoundments (<u>not</u> in contact with fluids from downhole ⁵)	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> No surface discharge without explicit approval from COP Regulatory Beneficial reuse (for example, road watering) as approved by COP Regulatory and HSE – subject to testing Class I disposal well Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Bill of Laden or, Non-Hazardous Waste Manifest
SNOWMELT OR RAINWATER from well cellars, reserve pits (in contact with returned muds, cuttings, fluids from downhole ⁵)	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Beneficial reuse as approved by COP HSE Class I disposal well ("RCRA Exempt" E&P) Class II disposal well if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Bill of Laden or, Non-Hazardous Waste Manifest

Notes: 1. Typically non-hazardous, subject to verification

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DISPOSAL/REUSE TABLES

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1. MATERIAL AND SOURCE	2. CLASSIFICATION/ CHARACTERIZATION	3. DISPOSAL/REUSE OPTIONS ⁴ See <i>Facility Guides</i> for options in the operating area.	4. TRANSPORTATION ⁶ DOCUMENTATION ⁶
SOAP – various <u>non-hazardous</u> detergents & cleaning agents SOAP – leftover, unused SOAP – used, mixed with residues that have <u>not</u> been downhole ⁵ SOAP – used, mixed with residues that have been downhole ⁵	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Use for intended purpose Class I disposal well 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
	<ul style="list-style-type: none"> Potentially hazardous waste if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Class I disposal well if non-hazardous Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Class II disposal well if allowed Class I disposal well ("RCRA Exempt" E&P) Onsite reserve pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
SODA ASH SODA ASH – unused or leftover (has <u>not</u> been downhole ⁵)	<ul style="list-style-type: none"> Class I Non-hazardous¹ (pH) 	<ul style="list-style-type: none"> Use for intended purpose Landfill (subject to testing and pre-approval by the county) 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
SOLVENT/DEGREASER SOLVENT, CHLORINATED – 1,1,1-trichloroethane and others, commonly found in industrial cleaning products and degreasers	<ul style="list-style-type: none"> Hazardous waste³ with health hazards, if discarded 	<p>NOTE: solvents are not to be beneficially reused for freeze protection or disposed of by processing through production facility</p> <ul style="list-style-type: none"> Evaluate products carefully prior to purchasing – select non-chlorinated alternatives if possible Restrict to essential uses Use for intended purpose MT registration required if more than 20 gallons are used per year Store temporarily in SAA and ship to Niobrara HWCAA Contact COP HSE 	<ul style="list-style-type: none"> Bill of Laden or; Hazardous Waste Manifest

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DISPOSAL/REUSE TABLES

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1. MATERIAL AND SOURCE	2. CLASSIFICATION/ CHARACTERIZATION	3. DISPOSAL/REUSE OPTIONS ⁴ See <i>Facility Guides</i> for options in the operating area.	4. TRANSPORTATION DOCUMENTATION ⁶
SOLVENT, CITRUS-BASED	<ul style="list-style-type: none"> Potentially hazardous waste if discarded, subject to case by case evaluation and testing due to flash point² 	<ul style="list-style-type: none"> Use for intended purpose Manage temporarily in SAA – be alert to possible combustion hazard Contact COP HSE 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
SOLVENT, STODDARD	<ul style="list-style-type: none"> Hazardous waste³ if discarded 	<ul style="list-style-type: none"> Use for intended purpose Manage temporarily in SAA and ship to Niobrara HWCAA Not recyclable in production stream 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
SOLVENT, OTHER	<ul style="list-style-type: none"> Potentially hazardous waste if discarded, subject to case by case evaluation and testing due to flash point² 	<ul style="list-style-type: none"> Evaluate products carefully prior to purchasing to determine handling and disposal restrictions Use for intended purpose Contact COP HSE promptly to determine classification Manage spent product temporarily in SAA until classification is confirmed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest or; Hazardous Waste Manifest

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1. MATERIAL AND SOURCE	2. CLASSIFICATION/ CHARACTERIZATION	3. DISPOSAL/REUSE OPTIONS ⁴ See <i>Facility Guides</i> for options in the operating area.	4. TRANSPORTATION DOCUMENTATION ⁶
SORBENTS/RAGS – used in maintenance, housekeeping, spill cleanups, etc. SORBENTS/RAGS – contaminated with RCRA-hazardous wastes, including but not limited to paint, thinner, solvent (acetone, toluene, xylene, hexane, chlorinated products)	• Hazardous waste ³	<ul style="list-style-type: none"> Do not discard in dumpster Manage temporarily in SAA and ship to Niobrara HWCAA Contact COP HSE 	• Hazardous Waste Manifest
SORBENTS/RAGS – <u>saturated</u> with diesel, gasoline	• Hazardous waste ³	<ul style="list-style-type: none"> Do not discard in dumpster Manage temporarily in SAA and ship to Niobrara HWCAA Contact COP HSE 	• Hazardous Waste Manifest
SORBENTS/RAGS – lightly contaminated (not saturated) with oil, diesel, gasoline, Stoddard solvent, non-hazardous products	<ul style="list-style-type: none"> Non-hazardous¹ Potentially hazardous² if free liquid is present 	<ul style="list-style-type: none"> Store in metal, closed lid containers No free liquids Incinerate Landfill (subject to testing and pre-approval by county) If hazardous, store in SAA and ship to Niobrara HWCAA 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
SORBENTS/RAGS – contaminated with RCRA-exempt fluids, including <u>returned</u> diesel, <u>returned</u> crude	• E&P exempt	<ul style="list-style-type: none"> Store in metal, closed lid containers No free liquids Incinerate Landfill (subject to testing and pre-approval by county) 	• Non-Hazardous Waste Manifest
SOURCE WATER – from shallow groundwater well (not production well)	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Use for intended purpose Beneficially reuse as approved by COP HSE Class I disposal well Offsite evaporation pond if allowed 	• Non-Hazardous Waste Manifest
SPILL CLEANUP WASTE – contaminated soil, snow, water, sorbents, equipment	<ul style="list-style-type: none"> Classification depends on source and composition of spilled material Potentially hazardous waste if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Contact COP HSE to determine classification and disposal options See individual product listings in this table Manage in accordance with agency-approved waste disposal plans if applicable 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest or; Hazardous Waste Manifest

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1. MATERIAL AND SOURCE	2. CLASSIFICATION/ CHARACTERIZATION	3. DISPOSAL/REUSE OPTIONS ⁴ See <i>Facility Guides</i> for options in the operating area.	4. TRANSPORTATION DOCUMENTATION ⁶
STIMULATION FLUID STIMULATION FLUID – unused or leftover (not circulated downhole ⁵)	<ul style="list-style-type: none"> Potentially hazardous waste if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Use on other job Rinse truck on location with displacement fluid and utilize as part of the displacement Hold for another well Class I disposal well if non-hazardous Onsite reserve pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
STIMULATION FLUID – returned from downhole ³	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Class II disposal well if allowed Class I disposal well ("RCRA Exempt" E&P) Onsite reserve pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
STUCK-PIPE FREEING AGENTS STUCK-PIPE FREEING AGENTS – unused or leftover (have <u>not</u> been downhole ⁵)	<ul style="list-style-type: none"> Class I Subject to testing 	<ul style="list-style-type: none"> Use on other job Contact COP HSE Class I disposal well 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
STUCK-PIPE FREEING AGENTS – returned from downhole ⁵	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Class II disposal well if allowed Class I disposal well ("RCRA Exempt" E&P) Onsite reserve pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
SUBSURFACE PUMP CONTROL CABLE – electrical submersible pump (ESP)	<ul style="list-style-type: none"> Recyclable (fluids and cable) Class II (fluids) E&P exempt 	<ul style="list-style-type: none"> Purge/clean all internal and external fluids at rig or shop Recycle hydrocarbon fluids Class II disposal well (fluids) if allowed Class I disposal well ("RCRA Exempt" E&P) Cleaned cable to metal recycling (copper) 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest

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1. MATERIAL AND SOURCE	2. CLASSIFICATION/ CHARACTERIZATION	3. DISPOSAL/REUSE OPTIONS ⁴ See <i>Facility Guides</i> for options in the operating area.	4. TRANSPORTATION DOCUMENTATION ⁶
SUBSURFACE VALVE CONTROL LINES SUBSURFACE VALVE CONTROL LINES – unencapsulated	<ul style="list-style-type: none"> Recyclable (fluids and tubing) Class II (fluids) E&P exempt 	<ul style="list-style-type: none"> Purge/clean all internal and external fluids at rig or shop Recycle hydrocarbon fluids Class II disposal well (fluids) if allowed Class I disposal well ("RCRA Exempt" E&P) Purged metal tubing to scrap metal recycling 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
	<ul style="list-style-type: none"> Recyclable (fluids) Class II (fluids) E&P exempt (fluids) Non-hazardous¹ (cleaned control line) 	<ul style="list-style-type: none"> Purge/clean all internal and external fluids at rig or shop Recycle hydrocarbon fluids Class II disposal well (fluids) if allowed Class I disposal well ("RCRA Exempt" E&P) Purged control line (wiped clean) to landfill (subject to testing and pre-approval by county) 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
SUMP FLUIDS SUMP FLUIDS, CLASS I – fluids that have <u>not</u> circulated downhole ⁵ (from equipment, maintenance shops, etc.)	<ul style="list-style-type: none"> Potentially hazardous waste if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Recover usable products for intended purpose Beneficial reuse as approved by COP HSE Hydrocarbons to recycle Class I disposal well if non-hazardous Onsite reserve pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Beneficial use as approved by COP HSE Hydrocarbons to recycle Class II disposal well if allowed Class I disposal well ("RCRA Exempt" E&P) Onsite reserve pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
SUMP FLUIDS, CLASS II – fluids that have circulated downhole ⁵			

Notes: 1. Typically non-hazardous, subject to verification

2. Could contain listed or characteristic hazardous waste, subject to verification

3. Known to contain a listed hazardous waste or to be a characteristic hazardous waste

4. All listed options may not be available. Based on waste classification, consult *Facility Guide* to determine available options.

5. "Downhole" means that material meets criteria for Class II Disposal shown in Attachment B

6. Required documentation dependent on waste classification. Documentation required only for transfers on public highways or outside of field boundaries.

DISPOSAL/REUSE TABLES

If an item or disposal/reuse option is not included in these tables, contact COP HSE for a case-by-case determination.

1. MATERIAL AND SOURCE	2. CLASSIFICATION/ CHARACTERIZATION	3. DISPOSAL/REUSE OPTIONS ⁴ See <i>Facility Guides</i> for options in the operating area.	4. TRANSPORTATION DOCUMENTATION ⁶
SUMP SOLIDS			
SUMP SOLIDS, CLASS I – solids accumulating in sumps that collect materials which are <u>not</u> from downhole ⁵	<ul style="list-style-type: none"> Class I Potentially hazardous waste if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Landfill (subject to testing and preapproval by county) Class I disposal well if non-hazardous Land farm if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
SUMP SOLIDS, CLASS II – solids accumulating in sumps dedicated to materials from downhole ⁵	<ul style="list-style-type: none"> Classification depends on process Evaluate on case-by-case basis 	<ul style="list-style-type: none"> Landfill (subject to testing and preapproval by county) Class II disposal well if allowed Class I disposal well Land farm if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
SURPLUS PRODUCTS – new, off-spec, otherwise unwanted	<ul style="list-style-type: none"> Potentially hazardous waste² if discarded 	<ul style="list-style-type: none"> Use for intended purpose whenever possible Return to vendor if appropriate Consult MSDS to determine waste classification Contact COP HSE or Materials Group 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
TANK/VESSEL SOLIDS			
TANK/VESSEL SOLIDS – removed from tanks that have <u>not</u> held materials from downhole ⁵ (saltwater, chemicals, potable water, sewage, etc.)	<ul style="list-style-type: none"> Class I Potentially hazardous waste if discarded, subject to case by case evaluation and testing² 	<ul style="list-style-type: none"> Contact COP HSE prior to cleanout if possible Landfill (subject to testing and preapproval by county) Class I well if non-hazardous Land farm if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
TANK/VESSEL SOLIDS – removed from cleanout of tanks that have held used/returned materials from downhole ⁵	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Class II well if allowed Class I well (“RCRA Exempt” E&P) Onsite reserve pit if allowed Landfill (subject to testing and pre-approval by county) Land farm if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
TEG WITH TEA (TRIETHYLAMINE) –(see also “Glycol”) – wastewater from gas processing (dehydration system)	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Class II disposal well if allowed Class I disposal well (“RCRA Exempt” E&P) Recycle if possible 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest

Notes: 1. Typically non-hazardous, subject to verification

2. Could contain listed or characteristic hazardous waste, subject to verification

3. Known to contain a listed hazardous waste or to be a characteristic hazardous waste

4. All listed options may not be available. Based on waste classification, consult *Facility Guide* to determine available options.

5. “Downhole” means that material meets criteria for Class II Disposal shown in Attachment B

6. Required documentation dependent on waste classification. Documentation required only for transfers on public highways or outside of field boundaries.

DISPOSAL/REUSE TABLES

If an item or disposal/reuse option is not included in these tables, contact COP HSE for a case-by-case determination.

1. MATERIAL AND SOURCE	2. CLASSIFICATION/ CHARACTERIZATION	3. DISPOSAL/REUSE OPTIONS ⁴ See Facility Guides for options in the operating area.	4. TRANSPORTATION ⁶
THERMINOL – commercial heat exchange product THERMINOL – leftover, unused	<ul style="list-style-type: none"> Potentially hazardous waste³ if discarded (toxicity characteristic due to benzene) 	<ul style="list-style-type: none"> Use for intended purpose Contact COP HSE if unusable 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
THERMINOL – used, mixed with residues that have not been downhole ⁵	<ul style="list-style-type: none"> Potentially hazardous waste³ if discarded 	<ul style="list-style-type: none"> Contact COP HSE prior to disposal If hazardous, store in SAA and transport to Niobrara HWCAA 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
TURBINE WASH WATER	<ul style="list-style-type: none"> Potentially hazardous waste if discarded, subject to case by case evaluation and testing (cadmium, flash point)² 	<ul style="list-style-type: none"> Beneficial reuse as approved by COP HSE Class I disposal well if non-hazardous Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest or; Hazardous Waste Manifest
WASH BAY FLUIDS (see also "Sump Fluids") WASH BAY FLUIDS – water collected in sumps from washing vehicles in shops	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Beneficial reuse as approved by COP HSE Class I disposal well Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest
WASH BAY FLUIDS – water used to remove fluids and solids returned from downhole ³ from equipment and drilling tools	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Beneficial reuse as approved by COP HSE Class II disposal well if allowed Class I disposal well ("RCRA Exempt" E&P) Onsite reserve pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest

Notes: 1. Typically non-hazardous, subject to verification

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3. Known to contain a listed hazardous waste or to be a characteristic hazardous waste

4. All listed options may not be available. Based on waste classification, consult Facility Guide to determine available options.

5. "Downhole" means that material meets criteria for Class II Disposal shown in Attachment B

6. Required documentation dependent on waste classification. Documentation required only for transfers on public highways or outside of field boundaries.

DISPOSAL/REUSE TABLES

*If an item or disposal/reuse option is not included in these tables, contact
COP HSE for a case-by-case determination.*

1. MATERIAL AND SOURCE	2. CLASSIFICATION/ CHARACTERIZATION	3. DISPOSAL/REUSE OPTIONS ⁴ See <i>Facility Guides</i> for options in the operating area.	4. TRANSPORTATION DOCUMENTATION ⁶
WASHING MACHINE WATERS – used to clean downhole ⁵ fluids from clothing	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Use as makeup water for mud and workover mixtures Other beneficial reuse upon approval by COP HSE Class II disposal well if allowed Class I disposal well ("RCRA Exempt" E&P) Onsite reserve pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
WATER (see also "Flare/Relief Pit Water," "Reserve Pit Water," "Snowmelt," and "Sump Fluids")			
WATER – fresh or saltwater that has not been downhole ⁵	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Use on other job (mud makeup water, frac, etc.) Class I disposal well Offsite evaporation pond 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
WATER – fresh or saltwater circulated or reversed out from downhole ⁵ (e.g., when setting kickoff plug)	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Reuse on other job (mud makeup water, frac, etc.) Class II disposal well if allowed Class I disposal well ("RCRA Exempt" E&P) Onsite reserve pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest

Notes: 1. Typically non-hazardous, subject to verification

2. Could contain listed or characteristic hazardous waste, subject to verification

3. Known to contain a listed hazardous waste or to be a characteristic hazardous waste

4. All listed options may not be available. Based on waste classification, consult *Facility Guide* to determine available options.

5. "Downhole" means that material meets criteria for Class II Disposal shown in Attachment B

6. Required documentation dependent on waste classification. Documentation required only for transfers on public highways or outside of field boundaries.

DISPOSAL/REUSE TABLES

If an item or disposal/reuse option is not included in these tables, contact COP HSE for a case-by-case determination.

1. MATERIAL AND SOURCE	2. CLASSIFICATION/ CHARACTERIZATION	3. DISPOSAL/REUSE OPTIONS ⁴ See <i>Facility Guides</i> for options in the operating area.	4. TRANSPORTATION DOCUMENTATION ⁶
WATER – fresh or saltwater used to pressure test new lines or valves	<ul style="list-style-type: none"> Class I Non-hazardous¹ 	<ul style="list-style-type: none"> Beneficially reuse as approved by COP HSE Class I disposal well Offsite evaporation pond if allowed Possible discharge via permit (contact COP HSE at least 180 days in advance) 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
WATER – fresh or saltwater used to pressure test existing production flowlines or valves which contain residual downhole ⁵ fluids	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Beneficially reuse as approved by COP HSE Class II disposal well if allowed Class I disposal well (“RCRA Exempt” E&P) Onsite reserve pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
WATER SOFTENER BACKWASH EFFLUENT (see “Brine”)			
WAX (see “Paraffin”)			
WELL CELLAR FLUIDS – fluids from downhole ⁵ (crude, produced water) collected in cellar, plus rainwater or snowmelt in contact with downhole ⁵ fluids	<ul style="list-style-type: none"> Class II E&P exempt 	<ul style="list-style-type: none"> Beneficially reuse as approved by COP HSE Class II disposal well if allowed Class I disposal well (“RCRA Exempt” E&P) Onsite reserve pit if allowed Offsite evaporation pond if allowed 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest
WOOD	<ul style="list-style-type: none"> Potentially recyclable 	<ul style="list-style-type: none"> Check for site-specific collection and recycling procedures 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest

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3. Known to contain a listed hazardous waste or to be a characteristic hazardous waste

4. All listed options may not be available. Based on waste classification, consult *Facility Guide* to determine available options.

5. “Downhole” means that material meets criteria for Class II Disposal shown in Attachment B

6. Required documentation dependent on waste classification. Documentation required only for transfers on public highways or outside of field boundaries.

DISPOSAL/REUSE TABLES

If an item or disposal/reuse option is not included in these tables, contact COP HSE for a case-by-case determination.

1. MATERIAL AND SOURCE	2. CLASSIFICATION/ CHARACTERIZATION	3. DISPOSAL/REUSE OPTIONS ⁴ See <i>Facility Guides</i> for options in the operating area.	4. TRANSPORTATION DOCUMENTATION ⁶
XYLENE XYLENE – NEAT PRODUCT (unused or leftover) that has not been downhole ⁵	<ul style="list-style-type: none"> Hazardous waste³ if discarded Not E&P exempt 	<ul style="list-style-type: none"> Use for intended purpose Beneficial reuse as approved by COP HSE New product xylene may not be injected in Class I or Class II disposal wells Contact COP HSE in your operating area for site-specific options and procedures 	<ul style="list-style-type: none"> Bill of Laden or; Hazardous Waste Manifest
XYLENE – returned from downhole ⁵	<ul style="list-style-type: none"> Recyclable hydrocarbon Class II E&P exempt 	<ul style="list-style-type: none"> Recycle as hydrocarbon if allowed Recover fluids for approved reuse (contact COP HSE) Class II disposal well Class I disposal well ("RCRA Exempt" E&P) 	<ul style="list-style-type: none"> Bill of Laden or; Non-Hazardous Waste Manifest

Notes:

- Typically non-hazardous, subject to verification
- Could contain listed or characteristic hazardous waste, subject to verification
- Known to contain a listed hazardous waste or to be a characteristic hazardous waste
- All listed options may not be available. Based on waste classification, consult *Facility Guide* to determine available options.
- "Downhole" means that material meets criteria for Class II Disposal shown in Attachment B
- Required documentation dependent on waste classification. Documentation required only for transfers on public highways or outside of field boundaries.

DISPOSAL/REUSE TABLES

If an item or disposal/reuse option is not included in these tables, contact COP HSE for a case-by-case determination.

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Notes:

- 1. Typically non-hazardous, subject to verification
- 2. Could contain listed or characteristic hazardous waste, subject to verification
- 3. Known to contain a listed hazardous waste or to be a characteristic hazardous waste
- 4. All listed options may not be available. Based on waste classification, consult *Facility Guide* to determine available options.
- 5. "Downhole" means that material meets criteria for Class II Disposal shown in Attachment B
- 6. Required documentation dependent on waste classification. Documentation required only for transfers on public highways or outside of field boundaries.

ATTACHMENTS

- A. Waste Classification
 - A.1 Relationship Between UIC and RCRA
 - A.2 Consequences of Mixing Waste
- B. Class II Disposal Guidelines
- C. Satellite Accumulation Area Guidelines
- D. Disposal Facility Guides
 - D.1 Tower Landfill
 - D.2 Conquest 2-28 SWD
 - D.3 High Plains SWD
 - D.4 LSWD #1 SWD
 - D.5 Niobrara HWCAA
 - D.6 Niobrara Captive Units

A. WASTE CLASSIFICATION

A.1 Relationship Between UIC and RCRA

The chart below shows the general relationship between the UIC program and RCRA. RCRA determines the classification of **wastes** and regulates the wastes themselves. UIC regulates the classification and operation of **injection wells** and is designed to protect underground sources of drinking water. They are two distinct programs.

Attachment B shows the criteria for injection in a Class II Disposal (IID) well. It is important to remember that some types of RCRA-exempt wastes may **not** be injected into a Class IID well.

RCRA		UIC Program	
Waste Classification	Examples	Eligible for Disposal in Class ID Well	Eligible for Disposal in Class IID Well
Exempt, Household	Waste from residential camps	Yes	No
Exempt, E&P	Crude, produced water, NGL condensate, mud/cement well returns, acid/gel/diesel well returns	Yes	Yes if situation fits one of the cases/examples in Attachment B
Non-exempt, Non-hazardous ¹	Brine, glycols, certain sump fluids, certain water-based gels and polymers	Yes	No
	Nonhazardous rinsates removed from RCRA-empty drums, containers ¹	Yes	No
Hazardous	Discarded paints, solvents (used or unused) Xylene, methanol, diesel (not circulated downhole or recycled)	No	No

¹ Test results, MSDS, or generator knowledge may be required to confirm non-hazardous.

A. WASTE CLASSIFICATION (continued)

A.2 Consequences of Mixing Waste

Mixing wastes together can change their classification and make disposal of the resulting mixture more complicated — and expensive. Keep wastes separate until you have confirmed their classification and understand the consequences of mixing. Until you know otherwise, assume that:

- Hazardous waste + non-hazardous waste = hazardous waste
- Exempt waste + non-exempt waste = non-exempt waste
- Class I + Class II = Class I

A general definition of a “mixed load” is when a truck must make more than one connection to take on fluids prior to offloading. A separate manifest must be prepared for each waste stream in a mixed load. Generally, if waste materials are eligible at the same facility and are compatible, then it is appropriate to mix them. If you are mixing wastes with different classifications or wastes that are destined for different disposal facilities, consider the points below and contact environmental staff if you have any questions.

Never mix new methanol, new diesel, or any hazardous waste with a load destined for a disposal facility.

Things to Consider Before Mixing:

- Mixed Class I and Class II waste must go to a Class I disposal well. Refer to the facility restrictions in Attachment D prior to mixing.
- Do not dilute hazardous wastes to make them non-hazardous for injection into a Class ID. Dilution of hazardous waste is regulated under RCRA.
- Do not mix wastes with recyclable materials, like used oil.
- Do not mix incompatible wastes.

B. CLASS II DISPOSAL GUIDELINES

Class II disposal wells are for injection of fluids that are brought to the surface in connection with conventional oil and natural gas production and may be commingled with wastewaters from gas plants which are an integral part of production operations, unless those waters are classified as hazardous waste at the time of injection.

CASE 1: Material that originates below ground*

Examples:

- Crude oil (not including refined products like diesel or gasoline)
- Produced water
- Produced sand
- Condensates
- Formation cuttings
- Sludges and solids collecting in production lines and vessels
- Brines



CASE 2: Products that are used or circulated within the well system for a specific purpose related to drilling, workovers, or production.* Does not include unused or surplus product remaining in temporary service lines or portable service equipment.

NOTE: Fluids may not be circulated through the well system for the purpose of reclassifying them for disposal.

Examples:

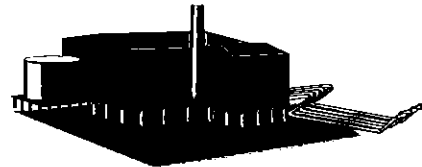
- Returned drilling mud
- Returned seawater
- Returned workover and stimulation fluids
- Returned frac sand
- Returned cement
- Returned freeze protection fluids from well tubing, annulus, or production lines
- Fluids returned during pressure bleedoff
- Fluids used for essential pressure testing at the wellhead
- Used hydraulic fluid from subsurface safety valve system



CASE 3: Products that physically come into contact with, or are used to process or treat, downhole materials in the course of the production process* as long as they are nonhazardous and are mixed with produced water prior to injection.

Examples:

- Glycol removed from heat exchanger circulatory systems
- Water and non-hazardous cleaners used to remove downhole materials during pipeline or vessel cleanouts
- Diatomaceous earth used to filter returned brine
- Fresh or seawater used to rinse off returned fluids or solids from tools and equipment



CASE 4: Fluids used to freeze-protect existing flow lines.

CASE 5: Snowmelt or rainwater in contact with downhole materials in reserve pits or well cellars.

CASE 6: Wastewaters (regardless of their source) from gas plants which are an integral part of production operations, unless those waters are classified as hazardous waste at the time of injection.

Example:

- TEG (triethylene glycol) dehydrators at gas plants

CASE 7: Fresh water (containing <10,000 milligrams per liter total dissolved solids) added to or substituted for produced water, as long as the only use of the water is for purposes integrally associated with oil and gas production or storage.

**If not identified here, check with COP HSE*

C. SATELLITE ACCUMULATION AREA GUIDELINES

General Description

- SAAs are temporary collection sites for small quantities of regulated hazardous wastes¹ like paint, thinners, solvents, and contaminated rags.
- Wastes from SAAs are ultimately moved to centralized locations in each operating area, where trained personnel prepare the waste for shipment to regulated disposal facilities. The attached *Facility Guides* identifies the locations of these centralized storage areas.

Site-Specific Procedures

- Each operating area has specific requirements for setting up and managing SAAs and site-specific training requirements. Contact COP HSE for assistance.
- Do not move hazardous waste from one field to another or from one SAA to another SAA. Hazardous waste can only be moved from the SAA to the centralized storage area and must be disposed of within a specific period of time.

Regulatory Requirements (40 CFR 262.34 (c))

- Each SAA is limited to 55 gallons total accumulation (one quart total for acutely hazardous wastes²) per process. Several smaller containers may be used for different types of waste, but the total in each area may not exceed 55 gallons per process.
- Universal wastes such as batteries and lamps may be collected in the vicinity of an SAA, but they are not counted towards the 55-gallon limit.
- SAAs must be located at or near the point of waste generation.
- At all times, SAAs must be under the control of an operator of the process generating the waste.
- Containers must be tightly closed at all times except when being filled or emptied.
- If funnels are attached to the containers, they must have valves and be kept closed when not in use.
- Containers must be compatible with the contents and in good condition at all times (tight sealing bungs or lids and no significant rust or dents).
- Containers must be clearly marked with the words "Hazardous Waste" or with other words that identify the contents of the container (e.g., "Used Thinner," "Waste Paint").
- On the date when the container becomes full and/or the 55-gallon limit is exceeded, this date (the accumulation start date) must be clearly marked on each container.
- The waste container must be moved to a designated hazardous waste storage area within 3 days of becoming full.
- Federal regulations do not require weekly SAA inspections, but inspections are required at least weekly for any centralized hazardous waste accumulation area.

¹ See Definitions.

² Acutely hazardous wastes are identified on EPA's P-list in 40 CFR 261.33(e) and include some of the F021-F028 wastes. P-listed wastes are rarely encountered, although the medical clinics do generate a few, such as epinephrine, warfarin, and nitroglycerin.

D. FACILITY GUIDES – BY OPERATING AREA

- D.1 Tower Landfill
- D.2 Conquest 2-28 SWD
- D.3 High Plains SWD
- D.4 LSWD #1 SWD
- D.5 Niobrara HWCAA
- D.6 Niobrara Captive Units

Note: If the listed facilities are not suitable for your waste, refer to the lists in Attachments A & B of COP HSE Level I Management System document L48 14-HSE33-Pr for other corporate approved facilities in your area.

D.1 TOWER LANDFILL FACILITY GUIDE

	SOLID WASTE DISPOSAL	E&P EXEMPT SOLIDS DISPOSAL
Name	Tower Landfill	Tower Landfill
Location	Allied Waste-Tower LF 8480 Tower Rd Commerce City, Colorado 80022	Allied Waste-Tower LF 8480 Tower Rd Commerce City, Colorado 80022
Operator	Republic Services/Allied Waste	Republic Services/Allied Waste
Materials Accepted	<ul style="list-style-type: none"> Non- hazardous solid waste 	<ul style="list-style-type: none"> Industrial Landfill - CERCLA, solidification. All non-haz waste accepted. Car Wash waste, purge waters, cont. soils, friable/non-friable asbestos
Restrictions	<ul style="list-style-type: none"> All wastes must be characterized by testing or generator knowledge No hazardous waste No medical or infectious waste No liquids without prior approval COP Environmental is the SPOC for landfill approvals 	<ul style="list-style-type: none"> No liquids without prior approval All wastes must be characterized by testing or generator knowledge No NORM Drilling mud – special handling requirements apply. See Environmental Coordinator
Paperwork Required	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest Formal pre-approval form, must be prepared to document waste status during random load checks Transportation companies must be prepared to document insurance status 	<ul style="list-style-type: none"> Non-Hazardous Waste Manifest Formal pre-approval form, must be prepared to document waste status during random load checks Transportation companies must be prepared to document insurance status
Facility Contact	Amy Hobbs 303-371-5115 ext.112 ahobbs@republic.com	Amy Hobbs 303-371-5115 ext.112 ahobbs@republic.com
Compliance Contact	Amy Hobbs 303-371-5115 ext.112 ahobbs@republic.com	Amy Hobbs 303-371-5115 ext.112 ahobbs@republic.com
Notes	<ul style="list-style-type: none"> Return original copy of the Non-Hazardous Waste Manifest to COP Environmental 	<ul style="list-style-type: none"> Return original copy of the Non-Hazardous Waste Manifest to COP Environmental Test for NORM as deemed necessary based on material

D.2 CONQUEST 2-28 SWD FACILITY GUIDE

	E&P Exempt Liquids	
Name	Class II Injection Well	
Location	CR19, southwest of Brighton Brighton, CO Take E470 West to Hwy85, west on WCR 2 for about 4 miles, then CR19 north for 1 mile	
Operator	High Sierra Water Services LLS Conquest SWD 2-28: High Sierra Water Services	
Materials Accepted	<ul style="list-style-type: none"> • Produced water 	
Restrictions	<ul style="list-style-type: none"> • All wastes must be characterized by testing or generator knowledge and obtain pre-approval • No high solids loads • No drilling mud • COP Environmental is the SPOC for waste disposal approvals • Non-Hazardous Waste Manifest 	
Paperwork Required		
Facility Contact	Dave Gage Jim Goddard	dgage@highsierraenergy.com jgoddard@highsierraenergy.com 970-381-6871(cell) 970-381-5005(cell) 970-356-5560(wrk) 970-356-5560(wrk)
Compliance Contact	Doug White	dwhite@highsierraenergy.com 303-809-3326(cell)
Notes	<ul style="list-style-type: none"> • Return original copy of the Non-Hazardous Waste Manifest to COP HSE • 	

D.3 HIGH PLAINS DISPOSAL FACILITY GUIDE

	E&P Exempt Liquids	
Name	Class II Injection Well	
Location	17754 WCR 32	Platteville, CO 80651
Operator	A&W Water Service, Inc. NOT APPROVED FOR USE AT THIS TIME	
Materials Accepted	<ul style="list-style-type: none"> • Produced water 	
Restrictions	<ul style="list-style-type: none"> • All wastes must be characterized by testing or generator knowledge and obtain pre-approval • No high solids loads • No drilling mud • COP Environmental is the SPOC for waste disposal approvals • Non-Hazardous Waste Manifest 	
Paperwork Required		
Facility Contact	Clint Sellmer 303-325-4852 Csellmer@HPDSDWD.com On-Site Phone: 970-785-8189	
Compliance Contact	Clint Sellmer 303-325-4852 Csellmer@HPDSDWD.com	
Notes	<ul style="list-style-type: none"> • Return original copy of the Non-Hazardous Waste Manifest to COP HSE • 	

D.4 LSWD #1 DISPOSAL FACILITY GUIDE

		E&P Exempt Liquids	
		Class II Injection Well	
Name			
Location	CR34 at CR 49 Akron, CO		
Operator	Select Energy Services Lone Star SWD #1 Well		
Materials Accepted	<ul style="list-style-type: none"> • Produced water 		
Restrictions	<ul style="list-style-type: none"> • All wastes must be characterized by testing or generator knowledge and obtain pre-approval • No high solids loads • No drilling mud • COP Environmental is the SPOC for waste disposal approvals 		
Paperwork Required	<ul style="list-style-type: none"> • Non-Hazardous Waste Manifest 		
Facility Contact	<ul style="list-style-type: none"> - Landon Eskew 720.378.5119 leskew@selectenergyservices.com 		
Compliance Contact	<ul style="list-style-type: none"> - Harvey Greenwood, 720.378.5120 hgreenwood@selectenergyservices.com 		
Notes	<ul style="list-style-type: none"> • Return original copy of the Non-Hazardous Waste Manifest to COP HSE • 		

D.5 NIOBRARA HWCAA FACILITIES GUIDE

	USED OIL	USED GLYCOL	HAZARDOUS WASTE (see SAA guidelines)	UNIVERSAL WASTE (see SAA guidelines)
Name	Used Oil Accumulation Drum	Used Glycol Accumulation Drum	HWCAA	HWCAA
Location	Watkins Office – See Notes	Watkins Office – See Notes	Watkins Office – See Notes	Watkins Office – See Notes
Operator	COP	COP	COP	COP
Materials Accepted	<ul style="list-style-type: none"> COP generated lube oils, hydraulic fluids, transmission fluids, grease 	<ul style="list-style-type: none"> COP generated MEG, TEG, Ethylene, Propylene 	<ul style="list-style-type: none"> COP generated Hazardous Wastes (Contractors are responsible for disposal of their own wastes) 	<ul style="list-style-type: none"> COP generated Universal Wastes (Contractors are responsible for disposal of their own wastes)
Restrictions	<ul style="list-style-type: none"> Maximum shipment of 55 gallons Total Halogens <1000 ppm Solids content <2% No hazardous waste such as unused methanol or xylene No used solvents (Varsol, Stoddard) or chlorinated solvents No used diesel COP owned material only Do not self transport more than 55 gallons of used oil on public roads, must use an EPA certified transporter if shipping on public roads in higher volumes Containers must be labeled as "Used Oil" 	<ul style="list-style-type: none"> No hazardous waste such as unused methanol or xylene Solids content <2% COP owned material only 	<ul style="list-style-type: none"> COP owned waste only No hazardous waste from outside field boundaries Access restricted to authorized personnel only No deliveries without prior arrangement with COP HSE Waste must be physically received by attendant and logged prior to transporter departure – No drop-offs A Bill of Laden with a valid charge code must accompany the waste Analytical results or a MSDS must accompany the waste May self transport to HWCAA on road as long as field is in CESQ status. Comply with DOT requirements when transporting 	<ul style="list-style-type: none"> COP owned waste only No universal waste from outside field boundaries Access restricted to authorized personnel only No deliveries without prior arrangement with COP HSE Waste must be physically received by attendant and logged prior to transporter departure – No drop-offs A Bill of Laden with a valid charge code must accompany the waste Analytical results or a MSDS must accompany the waste May self transport to HWCAA on road as long as field is in CESQ status. Comply with DOT requirements when transporting
Paperwork Required	<ul style="list-style-type: none"> Drum log entry 	<ul style="list-style-type: none"> Drum log entry 	<ul style="list-style-type: none"> Bill of laden with charge code 	<ul style="list-style-type: none"> Bill of laden with charge code
Facility Contact				
Compliance Contact				
Notes	<ul style="list-style-type: none"> Contact COP HSE 72 hours in advance – Niobrara does not routinely generate hazardous waste so the HWCAA may not be established and location may vary. Contact COP HSE 48 hours in advance if shipment volume is greater than 50 gallons. 	<ul style="list-style-type: none"> Contact COP HSE 72 hours in advance – Niobrara does not routinely generate hazardous waste so the HWCAA may not be established and location may vary. Contact COP HSE 24 hours in advance if shipment volume is greater than 50 gallons 	<ul style="list-style-type: none"> Contact COP HSE 72 hours in advance – Niobrara does not routinely generate hazardous waste so the HWCAA may not be established and location may vary. Contact COP HSE 48 hours in advance if shipment weight (minus container weight) exceeds 100 pounds. 	<ul style="list-style-type: none"> Contact COP HSE 72 hours in advance – Niobrara does not routinely generate hazardous waste so the HWCAA may not be established and location may vary. Contact COP HSE 48 hours in advance if shipment weight (minus container weight) exceeds 1,000 pounds

D.6 NIOBRARA CAPTIVE UNITS

E&P EXEMPT WASTE					
Name	Reserve Pits	Flare Pits	Class II Injection Wells	Skim Pits, Emergency Pits, and Workover Pits	
Locations	Pits not currently used in Niobrara	Pits not currently used in Niobrara	See individual well descriptions in this document	Pits not currently used in Niobrara	
Operator	COP	COP	COP	COP	
Materials Accepted	<ul style="list-style-type: none"> No materials accepted 	<ul style="list-style-type: none"> No materials accepted 	<ul style="list-style-type: none"> <u>Pre-approved</u> E&P exempt liquids Non-exempt material allowed on a case by case basis 	<ul style="list-style-type: none"> No materials accepted 	
Restrictions			<ul style="list-style-type: none"> No waste from outside the field boundaries COP owned/generated waste only No deliveries without prior arrangement with onsite Foreman Specific waste streams must be analyzed and a facility approval generated prior to hauling material to site 		
Paperwork Required	• N/A	• N/A	• Field Ticket	• N/A	
Facility Contact			Onsite contact – Number Varies		
Compliance Contact	COP Regulatory Justin Carille 432 688-9165 off. 432 202-4112 cell	COP Regulatory Justin Carille 432 688-9165 off. 432 202-4112 cell	COP Regulatory Justin Carille 432 688-9165 off. 432 202-4112 cell	COP Regulatory Justin Carille 432 688-9165 off. 432 202-4112 cell	
Notes	• Contact COP Regulatory	• Contact COP Regulatory	• Contact COP Regulatory	• Contact COP Regulatory	

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