CANADA'S OIL & NATURAL GAS PRODUCERS

GUIDE

Oilfield Waste Profile Sheets

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The Canadian Association of Petroleum Producers (CAPP) represents companies, large and small, that explore for, develop and produce natural gas and oil throughout Canada. CAPP's member companies produce about 80 per cent of Canada's natural gas and oil. CAPP's associate members provide a wide range of services that support the upstream oil and natural gas industry. Together CAPP's members and associate members are an important part of a national industry with revenues from oil and natural gas production of about $109 billion a year. CAPP's mission, on behalf of the Canadian upstream oil and natural gas industry, is to advocate for and enable economic competitiveness and safe, environmentally and socially responsible performance.

2100, 350 – 7 Avenue S.W.
Calgary, Alberta
Canada T2P 3N9
Tel 403-267-1100
Fax 403-261-4622

1820, 275 Slater Street
Ottawa, Ontario
Canada K1P 5H9
Tel 613-288-2126
Fax 613- 236-4280

1004, 235 Water Street
St. John's, Newfoundland and Labrador
Canada A1C 1B6
Tel 709-724-4200
Fax 709-724-4225

202, 1110 Government St.
Victoria, British Columbia
Canada V8W 1Y2
Tel 778-265-3819
Fax 403-261-4622

Overview

The Oilfield Waste Profile Sheets contained in this guide have been prepared to assist upstream petroleum industry operators with the classification and handling of common industry wastes.

Each Waste Profile Sheet has been divided into four sections: General Information, Hazard Information, Management Methods, and Transportation.

The waste profile sheet information is provided as general industry guidance. The waste profile sheets do not substitute for specific analysis, the approval of waste specific disposal methods and any other work required for the proper determination of health and safety protocols, transportation requirements, and suitable waste disposal methods.

Contents

1 Introduction

Oilfield waste can been described as an unwanted substance (by the generator) or mixture of substances that results from the construction, operation or reclamation of a well site, oil and gas battery, gas plant, compressor station, crude oil terminal, pipeline, gas gathering system, heavy oil site, oil sands site, or related facility.

Oilfield waste must be characterized in order to assess the appropriate handling, treatment, and disposal of that waste. This guide has been prepared to assist upstream petroleum industry operators with the classification and handling of common industry wastes.

1.1 Disclaimer

While CAPP and its consultants believe that data contained herein is factual and the opinions expressed are those of qualified experts, the data is not to be taken as a warranty or representation for which CAPP or its consultants assume legal responsibility. Any use of this data and information must be determined by the user in accordance with the current applicable federal, provincial, and local laws and regulations.

1.2 Using Appendix A - Waste Profile Sheets

Appendix A contains over 40 waste profile sheets. A table of contents listing the sheets is provided at the front of the appendix. The appendix may be used as a resource in its own right.

2 Background

The first version of the Waste Profile Sheets was developed from studies on oilfield waste sponsored by the Canadian Association of Petroleum Producers (CAPP). The studies focused on available data from member companies and specific analytic research. Each waste's characterization and component data is based upon general, but current, industry knowledge and has evolved into the current version of the Waste Profile Sheets as attached in the Appendix.

3 Regulations

There are multiple types of regulations that apply to oilfield wastes: oil and gas regulations, occupational health and safety regulations, environmental regulations, and transportation regulations. Some of these regulations also vary by jurisdiction.

3.1 Oil and Gas Regulations

Alberta

In Alberta, the Alberta Energy Regulator (AER) is responsible for the management of oilfield wastes under the authority of the *Oil and Gas Conservation Act* and the *Oil and Gas Conservation Rules*. The details regarding the management of oilfield wastes at the generator's facility site, the transportation of oilfield wastes on Alberta's public roads, and the treatment and disposal of oilfield wastes at waste management facilities are presented in multiple AER Directives and supporting documents. Specifically*, AER Directive 058 Oilfield Waste Management Requirements for the Upstream Petroleum Industry,* is regarded as the primary reference document on oilfield waste management.

British Columbia

The *Oil and Gas Commission Act* mandates the B.C. Oil and Gas Commission (OGC) to regulate oil and gas and pipeline activities in British Columbia. The OGC administers the Drilling and Production Regulation (DPR) under the Petroleum and Natural Gas Act (PNGA) for drilling and production operations.

Authorizations under the *Oil and Gas Waste Regulation* (OGWR) are subject to the provisions of the *Hazardous Waste Regulation* (HWR). The OGWR requires that drilling waste and waste cement be managed in accordance with the B.C. Oil and Gas Activity Operations Handbook (Oil and Gas Handbook) published by the OGC. The Oil and Gas Handbook also requires that substances in the soil-water mixture comply with all relevant standards in the *Contaminated Sites Regulation*.

Saskatchewan

The Saskatchewan Ministry of Energy and Resources (MER) is responsible for any waste materials regulated under the *Oil and Gas Act and Regulation* and the *Pipelines Act and Regulation*. MER regulated wastes are generated from exploration, drilling or production activities. MER regulated wastes generally includes oily waste.

MER regulated wastes only pertain to wastes on an MER regulated site. Once the waste is removed from the site for transport and disposal, the waste reverts to the Saskatchewan Ministry of Environment (MOE) jurisdiction.

3.2 Environmental or Hazardous Waste Regulations

Alberta

Responsibility for the regulation of wastes in Alberta is divided between the Alberta Energy Regulator (AER) and Alberta Environment and Parks (AEP). The AER is responsible for the regulation of upstream oilfield wastes, while AEP is responsible for the regulation of all other wastes generated in Alberta. Regardless of the regulator, the waste classification and characterization system is consistent, such that the criteria or properties that render a waste hazardous or a dangerous oilfield waste is the same.

British Columbia

Waste that is classified/defined as hazardous waste must be managed according to the rules and standards set out by the *Environmental Management Act* (EMA) and the *Hazardous Waste Regulation (HWR)*. The HWR places controls and restrictions on handling, storing, transporting and disposing of hazardous waste. It is the operator's responsibility to characterize wastes accurately and to handle the waste in accordance with the regulations.

The OGCA gives the OGC statutory decision making authority and responsibilities under specified enactments, including the EMA. EMA prohibits the discharge of waste from prescribed industries, trades, businesses, operations, and activities unless the discharge is authorized. Acceptable forms of authorization include regulations, codes of practice, orders, or permits and approvals issued pursuant to EMA.

Saskatchewan

Once the waste is removed from a regulated MER site for transport and disposal, the waste reverts to the MOE jurisdiction (e.g. waste dangerous good or non-hazardous waste). Waste dangerous goods are regulated by MOE under *the Hazardous Substances and Waste Dangerous Goods Regulations* are designated as hazardous waste. Non-hazardous waste is regulated by the MOE.

3.3 Occupational Health & Safety Regulations

The Workplace Hazardous Materials Information System (WHMIS) is the system in Canada used for classifying and labelling hazardous workplace chemicals ("hazardous products"). WHMIS is enabled by both federal and provincial legislation. Federally, the *Hazardous Products Act* (HPA) and *Controlled Products Regulations* cover suppliers of hazardous chemicals in Canada.

The primary purpose of provincial Occupational Health and Safety Regulations is to protect workers against health and safety hazards on the job. The provincial regulations set rules for health & safety in workplaces and enable WHMIS.

In general, WHMIS requirements apply to hazardous products inside a workplace. The WHMIS Regulation specifically exempts hazardous wastes as they are regulated via provincial and federal regulations. In addition, hazardous products shipped to and from

workplaces are covered by Transportation of Dangerous Goods (TDG) legislation, and no overlap is intended.

3.4 Transportation Regulations

The federal *Transportation of Dangerous Goods Act and Regulations* (TDG) identifies requirements for the transportation of dangerous goods. Wastes that are not classified as dangerous goods are not subject to the TDG Regulations; these wastes are transported under the appropriate jurisdictional environmental or hazardous waste regulations.

4 Responsibilities

4.1 Waste Generator

The waste generator is the licensee and/or approval holder which generates oilfield waste. The waste generator is also known as the consignor or shipper when wastes are transported.

The waste generator is responsible for ensuring that:

- Oilfield wastes are properly characterized and classified,
- Waste carriers and receivers have been informed of the oilfield waste's properties,
- Accurate and complete waste documentation and manifesting is maintained, and
- Appropriate treatment and disposal practices are utilized.

4.2 Waste Carrier

The waste carrier is the person or party who receives or takes control of oilfield waste for the purpose of transportation. The waste carrier is also known as the transporter.

The waste carrier is responsible for ensuring that:

- The waste generator has informed them of the oilfield waste's properties,
- Wastes are transported in the appropriate containers and means of containment, and
- Accurate and complete waste documentation and manifesting is maintained.

4.3 Waste Receiver

The waste receiver is the person or party who accepts or receives oilfield waste for the purpose of storage, consolidation, transfer, treatment, or disposal. The waste receiver is also known as the consignee when wastes are transported.

The waste receiver is responsible for ensuring that:

- Waste generators are informed of the capabilities and limitations of their treatment and disposal facilities,
- Only waste which the facility is approved to handle is received, and
- Accurate and complete waste documentation and manifesting is maintained.

5 Types of Oilfield Waste

As per provincial regulatory requirements, wastes are classified as either Dangerous Oilfield Waste/Hazardous Waste (DOW/HAZ), or Non-Dangerous Oilfield Waste/Non-Hazardous Waste (non-DOW/non-HAZ).

Provincial Regulatory Requirements	Waste Classifications	
Alberta	Dangerous Oilfield Waste (DOW)	Non-Dangerous Oilfield Waste (non-DOW)
British Columbia Saskatchewan Northwest Territories	Hazardous Waste	Non-Hazardous Waste

5.1 Dangerous Oilfield Waste & Hazardous Waste

Handling, transportation, (temporary) storage and disposal costs can increase significantly with DOW/HAZ classification, which makes it beneficial for waste generators to periodically test their waste to confirm classification.

Some hazardous wastes may be defined as hazardous recyclables, and if they are intended to be recycled, similar handling, transportation and storage will be required. Only the management option may change with a hazardous recyclable.

5.2 Non-Dangerous Oilfield Waste & Non-Hazardous Waste

Non-DOW/non-HAZ waste types may not pose as great of an environmental, health and safety risk as a hazardous or dangerous oilfield waste. Disposal options will involve less technology, storage requirements are less stringent, and Transportation of Dangerous Goods requirements may not be applicable.

Inventory control and waste minimization techniques, however, will reduce operational costs and the intent of the waste regulations for handling and storage should still be considered.

6 Waste Characterization

The waste generator is responsible for properly characterizing each waste. The waste characterization is then used to assess the appropriate handling, treatment, and disposal of that waste. Waste characterization is the assessment of the physical, chemical, and toxicological characteristics (i.e. properties) of a waste. There are three primary reasons for characterization:

- To assess the occupational health and safety hazards and control measures needed for worker safety,
- To assess the dangers relating to transportation on public roads, and
- To assess the environmental consequences of the waste so that a disposal or management option that appropriately addresses those consequences may be used.

Waste characterization provides information to properly classify waste as per regulatory requirements.

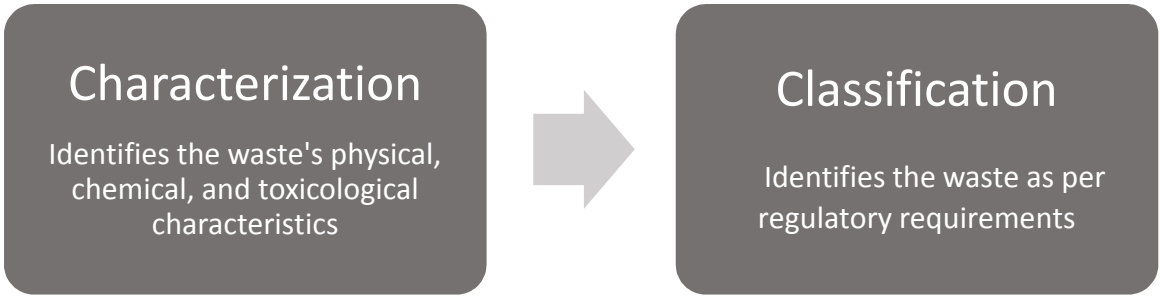

Figure 6-1 Characterization vs. Classification

When characterizing any waste, the Safety Data Sheet (SDS) and original TDG classification for the raw product should be consulted (e.g. soil contaminated with clean glycol – consult SDS for glycol).

Sufficient historical data exists for some waste streams, and waste profile sheets for those oilfield wastes have been developed to assist waste generators in characterization and informing waste carriers and waste receivers of the oilfield waste's properties.

It is highly recommended that periodic testing be conducted of all wastes to confirm characterization.

7 Waste Classification

Waste characterization provides necessary information to classify waste as per regulatory requirements as either DOW/HAZ or non-DOW/non-HAZ Waste. Classification is based upon the criteria outlined in various provincial and federal environmental regulations.

Classification criteria and test methods vary by jurisdiction. To properly classify wastes, the waste generator must consult applicable regulations and guidance documents. Guidance documents, such as AER Directive 58, the AEP Alberta User Guide for Waste Managers, and the British Columbia Hazardous Waste Legislation Guide, include a classification procedure to help determine whether a waste is DOW/HAZ or non-DOW/non-HAZ Waste.

As previously mentioned, sufficient historical data exists for some waste streams, and waste profile sheets for those oilfield wastes have been developed to assist waste generators in classification of their oilfield wastes.

It is important for waste generators to understand that waste profile sheets may not cover all cases and testing may be required before determining appropriate classification.

Periodic testing of all wastes to confirm classification is recommended.

7.1 Classification for Transportation

Wastes that are further classified as dangerous goods are subject to the Transportation of Dangerous Goods Regulations (TDGR). See section 9.

8 Hazard Information

The Workplace Hazardous Materials Information System (WHMIS) is the system in Canada used for classifying and labeling hazardous workplace chemicals (“hazardous products”). WHMIS is enabled by both federal and provincial legislation.

The main elements of WHMIS are:

- Product classification - Products intended for use in the workplace are classified based on their hazardous properties.
- Labels - Provide basic information that a worker needs to know to safely use a hazardous product.
- Safety data sheets (SDSs) - Supplement the label with more detailed information about a product’s physical and chemical characteristics, its hazardous properties and necessary handling precautions.
- Worker education - Ensures workers understand the information on labels and safety data sheets and can apply this knowledge on the job.

The hazard information on the waste profile sheets follows the guidance of federal WHMIS 2015 requirements.

8.1 Worker Safety

The primary purpose of provincial Occupational Health and Safety Regulations is to protect workers against health and safety hazards on the job. The provincial regulations set rules for health & safety in workplaces and enable WHMIS.

Wastes must be properly characterized to determine the hazards and control measures needed for worker safety. If a workplace chemical is a hazardous waste generated at the worksite, the employer (waste generator) must ensure that it is stored and handled safely using a combination of:

- Proper means of identification, and
- Instruction of workers on the safe handling of the hazardous waste.

The waste profile sheets provide hazard information to workers on how to safely handle, store and dispose of different types of oilfield waste. Workers should be able to identify the oilfield waste, understand the information on the waste profile sheets, and can apply this knowledge on the job to protect themselves (i.e. what personal protective equipment to wear) and others.

9 Management Methods

Once wastes are classified, storage, disposal and tracking can be determined based upon regulatory requirements. In the event of a spill, releases must be reported.

9.1 Storage

Oilfield wastes, whether Dangerous Oilfield/Hazardous Waste or Non-dangerous/Non-hazardous Waste, are generally stored:

- At a waste storage facility (stand-alone) operated by a waste generator for collection of their own wastes, or
- At a waste transfer station operated by an independent company as a third-party waste receiver.

Specific site-storage requirements for oilfield waste are identified on the waste profile sheets for reference.

9.2 Treatment & Disposal

Waste treatment (or waste processing) means to apply any method, technique or process that is designed to change the physical, chemical or biological character or composition of a substance. Waste treatment methods reduce the hazard of the waste and alter the waste into a material which may not require further disposal.

Waste disposal means that the handling of the waste is complete and that the intentional placement of waste on or in land is in its final location.

Waste generators are responsible to ensure appropriate treatment and disposal practices are utilized. Specific oilfield waste disposal options are identified on the waste profile sheet for reference.

Waste receivers are responsible for knowing the capabilities and limitations of their treatment technologies and as such, must only accept wastes exhibiting the properties their facility is approved to handle. Generally this will require waste characterization, unless the stream is sufficiently well-known through prior testing or an in-depth knowledge of the origin of the waste. A waste profile sheet may assist in this determination.

9.3 Tracking

Waste generators are responsible to track their wastes from the time of initial generation through to final disposition (cradle to grave). The effective tracking of oilfield waste is essential to aid the waste generator in ensuring the proper handling, treatment and disposal of oilfield wastes. All waste generators must implement and maintain a waste tracking system. The waste tracking system must enable the waste generator to demonstrate compliance and provide the appropriate information required for reporting.

9.4 Spills

In the event of a spill, report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Releases must be reported to the appropriate regulator(s) – refer to federal and provincial release reporting regulations.

10 Transportation

There are numerous requirements that apply to the transportation of wastes whether DOW/HAZ or non-DOW/non-HAZ Waste. These requirements include identification of dangerous goods, handling, communication of hazards, shipping documentation and training.

10.1 Wastes Classified as a Dangerous Good

Wastes which meet the characteristics of a dangerous good must comply with the TDG Regulations. The waste generator (consignor) is responsible for determining if the waste meets the classification of a dangerous good, in accordance with Part 2 of the TDG Regulations.

In addition, the consignor must also have a proof of classification. A proof of classification can be:

- A test report;
- A lab report; or
- A document that explains how the dangerous goods were classified.

A typical TDG classification is provided in the waste profile sheet as a guide to classify the wastes as per the TDG Regulations.

The waste profile sheet is an acceptable proof of classification if it is accompanied by an explanation that describes how the dangerous goods were classified.

Periodic testing of all wastes to confirm classification is recommended.

10.2 Handling

All wastes must be transported in an appropriate means of containment, which is a container or packaging, or any part of a means of transport that is or can be used to contain wastes. For the packaging of wastes which are dangerous goods, the means of containment are prescribed based on the hazards associated with the material.

10.3 Communication of Hazards and Identification of Dangerous Goods

Communication of hazards related to waste shipments is required for the purposes of protecting the health and safety of workers and emergency responders, and public safety. Hazards are communicated on container labels and the documents that must accompany all waste shipments and be made readily accessible during transportation.

Safety Marks are the labels and placards that are used to identify dangerous goods. Placards are a clear indication that a transport unit contains dangerous goods that otherwise might not immediately be identified as such.

10.4 Shipping Documents

All waste shipments must be accompanied by a shipping document which contains specific information as prescribed by the regulatory authority where the waste is generated.

When a waste is a dangerous good the shipping document must comply with the Transportation of Dangerous Goods requirements.

Non-hazardous waste shipments must be accompanied by a either a Company Waste Shipping Document (if in use) or a truck ticket.

Hazardous waste shipments must be accompanied by a federal Movement Document/Manifest.

In Alberta, Dangerous Oilfield Wastes must be accompanied by an AER Alberta Oilfield Waste Form (or equivalent).

Hazardous recyclables that are shipped within Alberta to a recycling facility use a Recycle Docket.

Hazardous waste shipments across all provincial and international borders must use the federal Movement Document/Manifest.

10.5 Training

Every person engaged in the handling, offering for transport, or transporting of wastes, including waste classified as dangerous goods, must be trained in the aspects applicable to their assigned duties. This is important in managing the shipments of these waste materials, because without adequate training, workers may not be able to select the proper packaging, labels or shipping documents.

11 Waste Profile Sheets

The Oilfield Waste Profile Sheets contained in this guide have been prepared to assist upstream petroleum industry operators with the classification and handling of common industry wastes.

Each Waste Profile Sheet has been divided into four sections: General Information, Hazard Information, Management Methods, and Transportation.

The waste profile sheet information is provided as general industry guidance. The waste profile sheets do not substitute for specific analysis, the approval of waste specific disposal methods and any other work required for the proper determination of health and safety protocols, transportation requirements, and suitable waste disposal methods.

11.1 General Information

Original Use

A description of the general use or the process from which the waste is generated in upstream operations.

Physical Description

Waste material is most often described as solid, liquid, sludge, or gas, with a description, if applicable, such as colour and odour.

To satisfy regulatory requirements, a waste must be identified as a solid, liquid, or gas to determine proper characterization, appropriate management, and means of containment selection. The “Paint Filter Test” is commonly used to classify a waste as a solid or liquid (compared to a sludge).

Contaminants

Contaminant information may be useful to determine proper laboratory analysis for waste classification and manifesting. However, as the information is very general, it may not apply to all wastes of the same type. Further waste analysis may be required to determine the classification of the waste as per the jurisdictional regulation.

Other Codes

Identifies specific provincial or federal waste codes, primarily the AER Codes as per Directive 047 & 058 and AER supplied announcements on updates to the Directive. The word "*reportable*" indicates that the waste type is reportable to the AER, upon request, through an annual digital data submission (DDS). Wastes that are "*reportable*" are either DOWs or other Reportable Oilfield Wastes as per Table 9.1 of AER Directive 058.

11.2 Hazard Information

The hazard information section on the Waste Profile Sheets uses the WHMIS format for the communication of hazards. This section follows the Federal WHMIS 2015, which is expected to be fully implemented in all jurisdictions by December 2018. Refer to the relevant WHMIS regulations for specific details.

WHMIS Class

The hazard information applies to two major groups of hazards: physical, and health.

- Physical hazards: based on the physical or chemical properties of the waste – such as flammability, reactivity, or corrosivity to metals.
- Health hazards: based on the ability of the waste to cause a health effect – such as eye irritation, respiratory sensitization (may cause allergy or asthma symptoms or breathing difficulties if inhaled), or carcinogenicity (may cause cancer).

Safety Data Sheets (SDS)

Indicates a particular SDS(s) which may identify safety information for the waste more accurately. In most cases, the SDS is reflective of the contaminant information in the first section of the waste profile sheet.

WHMIS Labels & Personal Protective Equipment

This section identifies, via WHMIS symbols, the hazard type and the personal protective equipment and precautions which workers must employ to protect themselves during the handling and storage of the waste (i.e. gloves, respiratory equipment, eye protection, footwear, and clothing).

Environmental

The impacts that the specific waste could have on the environment. The major pathways of possible environmental concern are provided. Pathways may include

surface water contamination, groundwater contamination, vegetation damage, air pollution, and fire / explosion.

First Aid Measures

Specific first aid measures which are applicable to injuries or effects on personnel that are directly related to the waste type and physical state. Other first aid measures which may be applicable to a pure component in the waste are not identified.

11.3 Management Methods

Classification by Provincial Waste Regulations

As per provincial regulatory requirements, wastes are classified as either Dangerous Oilfield Waste/Hazardous Waste, or Non-Dangerous Oilfield Waste/Non-Hazardous Waste.

Storage

Provides general information essential for the safe storage of the waste, either temporary at field locations, or for longer term storage at company facilities. This information is taken from AER Directive 055 and specific contaminant Safety Data Sheets (SDS).

Disposal

Provides suggestions for the appropriate management of the waste stream based upon industry practice.

Reportable Releases

The minimum reportable release quantities and emergency notification contacts are provided should a spill or other type of incident occur with respect to the specific waste (when applicable).

11.4 Transportation

The transportation section on the waste profile sheet provides information related to appropriate shipping names including recommended shipping names, container selection, labelling requirements and suggested shipping documents.

When a waste is a dangerous good, the shipping name is provided in the correct order to ensure regulatory compliance.

Containers

- Small Containers (with a capacity less than or equal to 450 L) - Indicates the type of labels and other safety marks required on small containers.
- Large Containers (with a capacity greater than 450 L) - Indicates vehicle placards and other safety marks required. For field vehicles carrying small quantities (< 500 kg in most cases), placards may not be required.

Documents

All waste shipments must be accompanied by a shipping document which contains specific information prescribed by the regulatory authority where the waste is generated.

- When a waste is a dangerous good the shipping document must comply with TDG requirements.
- Non-HAZ waste shipments must be accompanied by a either a Company Waste Shipping Document (if in use) or a truck ticket.

Comments

Provides additional information on the TDG classification, reasons for non-classification, or alternative classifications that may apply dependent on the specific waste. There may also be a minimum quantity or other TDGR exemptions which may be applicable. Other waste management information and the acceptable industry practice may also be suggested (i.e. treatment and disposal).

Appendix A. Waste Profile Sheets

A.1. List of Waste Profile Sheets

Waste Profile Sheet: **Absorbents & Rags (BTEX & Hydrocarbon)**

General Information	
Original Use:	Maintenance and spill clean-up operations.
Physical Description:	Oily and dirty rags and absorbents.
Contaminants:	May contain high concentrations of BTEX, hydrocarbons, solvents and heavy metals, glycols, amines.
Other Codes:	Alberta AER Code: OILABS (Absorbents) – *reportable* OILRAG (Rags, if destined for cleaning) - *reportable*

Hazard Information			
Physical:	Flammable Solids.		
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization, Carcinogenicity, Mutagenicity, Reproductive Hazards.		
SDS:	For additional information see specific contaminant SDS (e.g.: Crude Oil).		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Possible ignition of other wastes. Uncontrolled storage and disposal may cause groundwater and soil contamination. Incineration without flue gas scrubber may produce toxic fumes.		
First Aid Measures:	**Inhalation:** Generally not considered to be a hazard at normal temperatures. High vapour concentrations may irritate the nose, throat and lungs; may cause dizziness and headaches; may be anaesthetic and cause other central nervous system effects. **Eye Contact:** May cause irritation, but will not damage eye tissue. **Skin Contact:** May cause irritation or other skin disorders. **Ingestion:** Swallowing of food or materials contaminated by handling oily rags may cause irritation of mouth, throat and stomach and may cause digestive disorder and/or damage. Small amounts of oil drawn into the lungs either from swallowing or vomiting may cause severe health effects (e.g. bronchopneumonia or pulmonary edema).		

Management Methods		
Classification By Provincial Waste Regulations (typical):	**BC:** Hazardous Waste if BTEX, > 3% refined hydrocarbon or fails rope burn test. **AB:** Dangerous Oilfield Waste if low flash point, ignitability or BTEX	**SK:** Hazardous Waste if BTEX or fails rope burn test. **NWT:** Hazardous Waste if BTEX or fails rope burn test
Storage:	Store in sealed drums or containers. Keep in a well-ventilated area away from heat sources. Do not mix with other sorbents used for chemicals.	
Disposal:	Send or scheduled pick-up to sorbent cleaning service. If sorbents cannot be recycled, deposit in waste filter bins for removal by waste contractor.	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation

UN No.	Shipping Name	Class	Packing Group	Special Provisions
	If flammable, no free liquid:			
UN3175	SOLIDS CONTAINING FLAMMABLE LIQUID N.O.S. (absorbents contaminated with "*insert the technical name of the contaminant*").	4.1	II	16, 56
UN1993	If flammable & free liquid:			
	FLAMMABLE LIQUID N.O.S. *(*absorbents contaminated with *"insert the technical name of the flammable contaminant").*	3	I, II, or III	16, 150
Various	If not flammable, but TDG: TDG information is based on the contaminant.	Various	Various	
	If not TDG but Leachable (e.g. BTEX, heavy metals, glycol):			
	AB, SK & NWT: LEACHABLE WASTE, SOLID, OR LEACHABLE WASTE LIQUID (*absorbents/rags containing "insert the technical name of the contaminant")*	None		
	BC: LEACHABLE TOXIC WASTE SOLID OR LEACHABLE TOXIC WASTE LIQUID (*absorbents/rags containing "insert the technical name of the contaminant")*	None		
Small Container:	Class 4.1 or Class 3 label (and any subsidiary risk labels) based on specific liquid; Shipping name and UN number; Technical name in brackets if Special Provision 16.			
Large Container:	Class 4.1 or Class 3 or other if >500 kg or in direct contact with a large means of containment. UN Number required with the placard if in direct contact with a large means of containment or ≥ 4000 kg.			
Documents:	If Non-Dangerous Oilfield Waste / Non-Hazardous Waste use a Truck Ticket. If Dangerous Oilfield Waste / Hazardous Waste use the AER Alberta Oilfield Waste Form or Recycle Docket (AB), the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:	If contaminated with other TDG-regulated materials, see TDG classification of original material. Not regulated if sent for cleaning.			

Absorbents & Rags (BTEX & Hydrocarbon) – 2020

Waste Profile Sheet: **Acid (Un-neutralized)**

General Information	
Original Use:	Water treatment, de-scaling, and well servicing.
Physical Description:	Corrosive liquid.
Contaminants:	Specific to the waste acid and use. Various concentrations.
Other Codes:	Alberta AER Code: ACID - *reportable*

Hazard Information			
Physical:	Corrosive to Metals.		
Health:	Skin/Eye Corrosion, Acute Toxicity – Oral, Dermal, Inhalation.		
SDS:	For additional information see specific contaminant SDS (e.g.: Sulphuric Acid).		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Leaching of metals if acid comes in contact with soil. Possible groundwater contamination if spilled or leaks at storage sites. Surface water contamination if not neutralized.		
First Aid Measures:	**Inhalation:** POISON material. If inhaled, get medical aid immediately. Remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. **Eyes:** In case of contact, immediately flush eyes with plenty of water for a t least 15 minutes. Get medical aid immediately. **Skin:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse. **Ingestion:** If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.		

Management Methods		
Classification By Provincial Waste Regulations (typical):	**BC**: Hazardous Waste **AB:** Dangerous Oilfield Waste	**SK:** Hazardous Waste **NWT:** Hazardous Waste
Storage:	Store in a corrosion resistant (plastic or lined) container at field facility. Store in a cool, dry, well-ventilated area away from incompatible substances. Corrosives area. Do not store in metal containers. Store away from alkalis. Separate from oxidizing materials.	
Disposal:	Return to supplier if possible (if product is not contaminated). Neutralization may be required by waste contractor. Dispose in a disposal well. In AB, Class Ia (pH 4.5 - 12.5), or Class Ib (pH 6.0 - 9.0).	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
UN1760	CORROSIVE LIQUIDS, N.O.S. (*insert technical name of the acid)*	8	I, II or III	16
Small Container:	Class 8 label (and any subsidiary risk labels) based on specific liquid; Shipping name and UN number; Technical name in brackets if Special Provision 16.			
Large Container:	Class 8 placard if >500 kg or in direct contact with a large means of containment. UN Number required with the placard if in direct contact with a large means of containment or shipping >4000 kg.			
Documents:	AER Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:	If the waste is a mixture of acid with non-dangerous goods, use the shipping name for the corrosive. Must be Packing Group I if not tested.			

Acid (Un-neutralized) – 2020

Waste Profile Sheet: **Batteries – Wet Cell (Lead acid)**

General Information	
Original Use:	Variety of automotive, electric storage, portable or emergency electricity and lighting, and instruments.
Physical Description:	Various solid forms.
Contaminants:	Sulphuric acid, lead and various chemicals.
Other Codes:	Alberta AER Code: BATT - *reportable*

Hazard Information	
Physical:	Corrosive to Metals.
Health:	Skin/Eye Corrosion, Acute Toxicity – Oral, Dermal, Inhalation, Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization, Carcinogenicity, Mutagenicity, Reproductive Hazards.
SDS:	For additional information see specific contaminant SDS (e.g.; Acid, Lead, Battery Acid, Battery Fluid).
WHMIS Label:	 **Protective Equipment**: 
Environmental:	Lower pH in aqueous environments. Battery fluids may have high heavy metals contents. Can contaminate soil and water through landfill leachate. Do not incinerate. Small quantity 'consumer' household batteries (non-vehicle) do not pose a serious threat to environment if landfilled.
First Aid Measures:	**Inhalation:** Electrolyte: Remove to fresh air immediately. If breathing is difficult, give oxygen. Lead compounds: Remove from exposure, gargle, wash nose, eyes and lips; consult physician. Ingestion: Electrolyte: Give large quantities of water; do not induce vomiting; consult physician. Lead compounds: Consult physician immediately. **Skin:** Electrolyte: Flush with large amounts of water for at least 15 minutes; remove contaminated clothing completely, including shoes, and do not wear again until cleaned. If acid is splashed on shoes, remove and discard if they contain leather. Lead compounds: Wash immediately with soap and water. Lead compounds are not readily absorbed through the skin. **Eyes:** Electrolyte and Lead compounds: Flush immediately with large amounts of water for at least 15 minutes; consult physician immediately.

Management Methods		
Classification By Provincial Waste Regulations (typical):	**BC:** Hazardous Waste **AB:** Dangerous Oilfield Waste	**SK:** Hazardous Waste **NWT:** Hazardous Waste
Storage:	Store damaged batteries in corrosion resistant (plastic or lined) containers at field facility. Undamaged batteries may be stored on a drip pan. Keep in a cool, dry and well-ventilated area, off the ground, away from incompatible materials.	
Disposal:	Send to an approved battery recycling facility. Drain batteries of fluids and / or contain for transport. Treat fluids as per "Acid" Waste Sheet.	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
UN2794	BATTERIES, WET, FILLED WITH ACID	8	III	
Small Container:	Class 8 label, shipping name and UN number.			
Large Container:	Class 8 placard if >500 kg or in direct contact with a large means of containment. UN Number required with the placard if in direct contact with a large means of containment or shipping >4000 kg.			
Documents:	AER Alberta Oilfield Waste Form or Recycle Docket (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:				

Batteries – Wet Cell (Lead Acid) – 2020

Waste Profile Sheet: **Carbon – BTEX (Glycol and Amine Systems)**

General Information	
Original Use:	The purification of glycol from gas dehydration systems. Absorption processes for the purification of amine from gas sweetening systems.
Physical Description:	Granular carbon. (Activated carbon).
Contaminants:	May contain materials filtered – amine, glycol, BTEX.
Other Codes:	Alberta AER Code: ACTCRB (Activated Carbon) - *reportable*

Hazard Information			
Physical:	Reactive Flammable Material		
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization, Carcinogenicity, Mutagenicity, Reproductive Hazards.		
SDS:	For additional information see SDSs of filtered stream components.		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination (through amines and metal leaching). Wash water may contain high levels of amine or glycol. Incineration may produce toxic fumes.		
First Aid Measures:	**Inhalation:** Use proper respiratory protection to immediately remove victim from exposure. **Eye Contact:** Flush eyes with a continuous flow of fresh water until irritation subsides but for at least 15 min. **Skin Contact**: Remove severely contaminated clothing and clean before reusing. Flush with large amounts of fresh water and use soap if available. **Ingestion:** DO NOT induce vomiting. If individual is conscious, give milk or water to dilute stomach contents. DO NOT attempt to give anything by mouth to an unconscious person. Keep warm & quiet. Seek immediate medical attention.		

Management Methods		
Classification By Provincial Waste Regulations (typical):	**BC:** Hazardous Waste if BTEX or fails rope burn test. **AB:** Dangerous Oilfield Waste if BTEX	**SK**: Hazardous Waste if BTEX or fails rope burn test. **NWT:** Hazardous Waste if BTEX or fails rope burn test.
Storage:	Store in a sealed container (e.g. drums, totes). Store outdoors in a well-ventilated area. May also be flammable or self-heating (See Carbon (Self-Heating)).	
Disposal:	Return to supplier if a pure product. Regenerate on-site or through a third party service company. Send to a waste contractor.	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
None None	If Not flammable (not TDG), test for leachate: AB, SK & NWT: LEACHABLE WASTE, SOLID (carbon containing *"insert technical name of the contaminant")* BC: LEACHABLE TOXIC WASTE (carbon containing *"insert technical name of the contaminant")*	None None		
Small Container:	Class 4.2 label, shipping name and UN number.			
Large Container:	Class 4.2 placard if >500 kg or in direct contact with a large means of containment. UN number required with the placard if in direct contact with a large means of containment or shipping>4000 kg.			
Documents:	AER Alberta Oilfield Waste Form or Recycle Docket (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:	If the carbon is contaminated with other materials, analysis will be required (self-heating, flashpoint) to determine proper classification and manifesting. Carbon may exhibit properties of self-heating and would then be classified as Waste Self-Heating Substances, Solid, N.O.S.*, Class 4.2, UN 3088, P.G. II.			

Carbon – BTEX(Glycol and Amine Systems) – 2020

Waste Profile Sheet: **Carbon, Activated (Flammable)**

General Information	
Original Use:	Absorption processes for the purification of amine or wastewater streams.
Physical Description:	Black pure carbon.
Contaminants:	May contain materials filtered from process streams such as iron sulphide, BTEX, hydrocarbons, heavy metals, calcium, sodium, amine, and its degradation processes.
Other Codes:	Alberta AER Code: ACTCRB (Activated Carbon) - *reportable*

Hazard Information			
Physical:	Reactive Flammable Material		
Health:	Check process unit to determine toxic components in the filtered waste stream.		
SDS:	For additional information see SDSs of filtered stream components.		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Contaminants (components) may be environmentally toxic to plants. Air pollution if incinerated. Landfill disposal will require hydrocarbon analysis.		
First Aid Measures:	**Inhalation:** Use proper respiratory protection to immediately remove victim from exposure. Administer artificial respiration if breathing has stopped and seek prompt medical attention. **Eye Contact:** Flush eyes with a continuous flow of fresh water for at least 15 min. **Skin Contact:** Flush with large amounts of fresh water and use soap if available. Remove severely contaminated clothing and clean before reusing. **Ingestion:** DO NOT induce vomiting since it is important that no amount of the material should enter the lungs (aspiration). Keep at rest and get prompt medical attention.		

Management Methods			
Classification By Provincial Waste Regulations (typical):	**BC:** Hazardous Waste **AB:** Dangerous Oilfield Waste	**SK:** Hazardous Waste **NWT:** Hazardous Waste	
Storage:	Store in sealed container (e.g. drums). Store outdoors in a well-ventilated area. May also be self-heating (See Carbon (Self-Heating) Waste Profile Sheet).		
Disposal:	Return to supplier if a pure product, regenerate through a third party service company or send to a waste contractor.		
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.		

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
UN3175	SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. (activated carbon) If subject to spontaneous combustion or self -heating, see Carbon (Self Heating).	4.1	II	16, 56
Small Container:	Class 4.1 label, shipping name and UN number.			
Large Container:	Class 4.1 placards if >500 kg or in direct contact with a large means of containment. UN Number required with the placard if in direct contact with a large means of containment or shipping >4000 kg.			
Documents:	AER Alberta Oilfield Waste Form or Recycle Docket (AB), Waste Manifest (BC) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:	If the carbon is contaminated with other materials, analysis will be required to determine proper classification and manifesting.			

Carbon, Activated (Flammable) – 2020

Waste Profile Sheet: **Carbon (Self-Heating)**

General Information	
Original Use:	Absorption processes for the purification of amine or wastewater streams.
Physical Description:	Black pure carbon.
Contaminants:	May contain materials filtered from process streams such as iron sulphide, hydrocarbons, heavy metals, calcium, sodium, amine, and its degradation processes.
Other Codes:	Alberta AER Code: ACTCRB (Activated Carbon) - *reportable*

Hazard Information			
Physical:	Reactive Flammable Material		
Health:	Check process unit to determine toxic components in the filtered waste stream.		
SDS:	For additional information see SDSs of filtered stream components.		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Contaminants (components) may be environmentally toxic to plants. Air pollution if incinerated. Landfill disposal will require self-heating analysis.		
First Aid Measures:	**Inhalation:** Use proper respiratory protection to immediately remove victim from exposure. Administer artificial respiration if breathing has stopped and seek prompt medical attention. **Eye Contact:** Flush eyes with a continuous flow of fresh water for at least 15 min. **Skin Contact**: Flush with large amounts of fresh water and use soap if available. Remove severely contaminated clothing and clean before reusing. **Ingestion:** DO NOT induce vomiting since it is important that no amount of the material should enter the lungs (aspiration). Keep at rest and get prompt medical attention.		

Management Methods		
Classification By Provincial Waste Regulations (typical):	**BC:** Hazardous Waste **AB:** Dangerous Oilfield Waste	**SK:** Hazardous Waste **NWT:** Hazardous Waste
Storage:	Store in sealed steel container (drums). Store outdoors in a well-ventilated area. May also be flammable. See Carbon (Flammable) Waste Profile Sheet.	
Disposal:	Return to supplier if a pure product, regenerate through a third-party service company or send to a waste contractor.	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
UN3190	SELF-HEATING SOLID, ORGANIC, N.O.S. (“*insert the technical name of the contaminant”).*	4.2	II or III	16
Small Container:				
Large Container:	UN Number required with the placard if in direct contact with a large means of containment or if shipping > 1000 kg of UN3190.			
Documents:	AER Alberta Oilfield Waste Form or Recycle Docket (AB), Waste Manifest (BC) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:	Test if contaminated with other materials, to determine classification.			

Carbon (Self-Heating) – 2020

Waste Profile Sheet: **Catalyst (Metals or Flammable)**

General Information

Original Use:	Gas processing, crude oil and heavy oil productions.
Physical Description:	Solid.
Contaminants:	May contain aluminum oxide, metal carbonyls, cobalt oxide, molybdenum trioxide, organic sulphides, silica, calcium, sodium, potassium oxide, nickel oxide and heavy metals.
Other Codes:	Alberta AER Code: CATNS (Catalyst - non sulphur) - *reportable*

Hazard Information

Physical:	Reactive Flammable Material
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization, Carcinogenicity, Mutagenicity, Reproductive Hazards.
SDS:	For additional information see SDS of specific components (i.e. Coke, aluminum oxide).
WHMIS Label:	 **Protective Equipment:** 
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination. Potential self-heating (see Catalyst Self-Heating Waste Profile Sheet) or flammability from iron sulphide components.
First Aid Measures:	**Inhalation:** Use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest and call for immediate medical attention. **Eye Contact:** Flush eyes, including under eyelids, with a continuous flow of water for at least 15 min. If irritation persists, get medical attention. **Skin Contact:** Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing. **Ingestion:** If individual is conscious, have him rinse his mouth with water. Give victim milk or water in order to dilute stomach contents. DO NOT attempt to give anything by mouth to an unconscious person. Keep warm and quiet. Get prompt medical attention.

Management Methods

Classification By Provincial Waste Regulations (typical):	**BC:** Hazardous Waste if leachable, BTEX or fails rope burn test. **AB:** Dangerous Oilfield Waste if flammable or leachable.	**SK:** Hazardous Waste if leachable, BTEX or fails rope burn test. **NWT:** Hazardous Waste if leachable, BTEX or fails rope burn test.
Storage:	Store in sealed container (e.g. drums). Store outdoors in a well-ventilated area. Prevent rainwater from entering containers. May also be self-heating (See Catalyst (Self-Heating) Waste Profile Sheet).	
Disposal:	Return to supplier if a pure product. Regenerate through a third party service company. Send to a waste contractor.	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation

UN No.	Shipping Name	Class	Packing Group	Special Provisions
UN3175	Flammable: SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. (*"insert the technical name of the contaminant"*)	4.1	II	16, 56
None	If containing metals: AB, SK & NWT: LEACHABLE WASTE, SOLID (catalyst containing *"insert the technical name of the contaminant")*	None	None	
None	BC: LEACHABLE TOXIC WASTE (catalyst containing *"insert the technical name of the contaminant")*	None	None	

Small Container:	Class 4.1 label, shipping name (with technical name of contaminant in brackets) and UN number. No TDG safety marks required if not TDG regulated.
Large Container:	Class 4.1 placard if >500 kg or in direct contact with a large means of containment. UN Number required with the placard if in direct contact with a large means of containment or if shipping >4000 kg.
Documents:	AER Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).
Comments:	May not be TDG regulated, dependent on flash point test results. Use appropriate leachate code in shipping name (e.g. LA43 – nickel). This waste may require specific analysis to determine leachability.

Catalyst (Metals or Flammable) – 2020

Waste Profile Sheet: **Catalyst (Self-Heating)**

General Information	
Original Use:	Used to remove low levels of H_2S in gas processing plants.
Physical Description:	Granular powder.
Contaminants:	May contain iron oxide, iron sulphide, hydrogen sulphide, pyrite, triolite, sulphur.
Other Codes:	Alberta AER Code: CATSU (Catalyst - sulphur) – *reportable* IRNSPG (Iron Sponge) – *reportable*

Hazard Information			
Physical:	Reactive Flammable Material		
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization, Carcinogenicity, Mutagenicity, Reproductive Hazards.		
SDS:	For additional information see specific contaminant SDS (i.e. Iron Sulphide, Hydrogen Sulphide).		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination (through acidic leaching of soil metals). Potential for dust problems and SO_2 releases.		
First Aid Measures:	**Inhalation:** Use proper respiratory protection to immediately remove victim from exposure. **Eye Contact:** Follow first aid instructions for drum contents. Get medical attention. **Skin Contact:** First aid not normally required. **Ingestion:** First aid not normally required. If gastric irritation or other symptoms develop, get medical attention.		

Management Methods		
Classification By Provincial Waste Regulations (typical):	**BC:** Hazardous Waste **AB:** Dangerous Oilfield Waste	**SK:** Hazardous Waste **NWT**: Hazardous Waste
Storage:	Store in sealed steel containers. Keep dampened during storage.	
Disposal:	Regenerate through a third party service company. Send to a waste contractor (Class I landfill).	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
UN3190	SELF-HEATING SOLID, INORGANIC, N.O.S. ("*insert the technical name of the contaminant*")	4.2	II or III	16
	If Iron Sponge:			
UN1376	IRON SPONGE, SPENT	4.2	III	
Small Container:	Class 4.2 label, shipping name (with technical name in brackets if Special Provision 16) and UN number.			
Large Container:	Class 4.2 if >500 kg or in direct contact with a large means of containment. UN Number required with the placard if in direct contact with a large means of containment or shipping >1,000 kg of UN3190 or shipping >4000 kg.			
Documents:	AER Alberta Oilfield Waste Form or Recycle Docket (AB), the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:	Transport wet to prevent spontaneous combustion.			

Catalyst (Self-Heating) – 2020

Waste Profile Sheet: **Caustic (Un-neutralized)**

General Information	
Original Use:	Water treatment plants, de-scaling operations, turnaround washings, and neutralization of acidic water.
Physical Description:	Solid, slurry, liquid. High solubility in water, beige to white in colour.
Contaminants:	Sodium hydroxide and / or potassium hydroxide. May contain hydrogen sulphide, hydrocarbons, phenols, cresols, and napthenates.
Other Codes:	Alberta AER Code: CAUS - *reportable*

Hazard Information			
Physical:	Corrosive to Metals.		
Health:	Skin/Eye Corrosion, Acute Toxicity – Oral, Dermal, Inhalation.		
SDS:	For additional information see specific contaminant SDS (e.g.: Sodium hydroxide).		
WHMIS Label:		**Protective Equipment**:	
Environmental:	High pH effluent may result in organics leaching from wastewater pond sludges. Surface / groundwater contamination through highly soluble components. Sodium content in the effluent could be a problem if released to surface water.		
First Aid Measures:	**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. **Eyes:** In case of contact, immediately flush eyes with plenty of water for a t least 15 minutes. Get medical aid immediately. **Skin:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse. **Ingestion:** If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.		

Management Methods		
Classification By Provincial Waste Regulations (typical):	**BC:** Hazardous Waste **AB:** Dangerous Oilfield Waste	**SK**: Hazardous Waste **NWT:** Hazardous Waste
Storage:	Store in a corrosion resistant (plastic or lined) container. Store in a cool, dry, well-ventilated area away from incompatible substances, strong acids, metals, flammable liquids and organic halogens.	
Disposal:	Return to supplier if possible (if product is not contaminated). Neutralization may be required by waste contractor. Dispose in a disposal well. In AB, Class Ia (pH 4.5 - 12.5), or Class Ib (pH 6.0 - 9.0).	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
UN1760	CORROSIVE LIQUIDS, N.O.S. (*"insert the technical name of the caustic")*	8	I, II or III	16
Small Container:	Class 8 label, UN Number and shipping name (with technical name in brackets).			
Large Container:	Class 8 placard if >500 kg or in direct contact with a large means of containment. UN Number required with the placard if in direct contact with a large means of containment or shipping >4000 kg.			
Documents:	AER Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:	If the waste is a mixture of basic, caustic, or corrosive with non-dangerous goods, use the shipping name for the corrosive. Must be Packing Group I if not tested.			

Caustic (Un-neutralized) – 2020

Waste Profile Sheet: **Contaminated Debris / Soil (BTEX)**

General Information	
Original Use:	Generated by the accidental spillage of glycol at dehydration and/or compression facilities or amine spills with gas sweetening. Includes contaminated soils, vegetation, and absorbent materials.
Physical Description:	Solid (glycol and contaminated solids).
Contaminants:	May contain BTEX, glycol, amines, possibly heavy metals (unlikely).
Other Codes:	Alberta AER Code: Various codes may apply - *all reportable*

Hazard Information			
Physical:	Flammable Solids.		
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization, Carcinogenicity, Mutagenicity, Reproductive Hazards.		
SDS:	For additional information see specific contaminant SDS.		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination.		
Health:	Inhalation of fumes may cause throat irritation and headaches. Toxic when ingested; could result in kidney damage. Moderate irritation to skin, eyes and mucous tissues upon contact. Potential carcinogen.		
First Aid Measures:	**Inhalation:** Use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped and call for medical attention. **Eye Contact:** First aid normally not required. **Skin Contact**: First aid not normally required. **Ingestion**: If individual is conscious, have him rinse his mouth with clean water. Give conscious victim milk or water to drink in order to dilute stomach contents. DO NOT attempt to give anything by mouth to an unconscious person. Keep at rest and get prompt medical attention.		

Management Methods		
Classification By Provincial Waste Regulations (typical):	**BC:** Hazardous Waste **AB:** Testing Required	**SK**: Hazardous Waste **NWT:** Hazardous Waste
Storage:	If saturated – store in steel drums. Temporary storage on drying pads or lined areas.	
Disposal:	Send to a waste contractor (Oilfield Waste Processing Facility).	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
	If flammable: See Contaminated Debris / Soil (Hydrocarbon) If tainted (Not TDG), BTEX, heavy metals, glycol:			
None	AB, SK & NWT: LEACHABLE WASTE, SOLID, debris / soil containing *("insert the technical name of the contaminant")*	None	None	
None	BC: LEACHABLE TOXIC WASTE, debris / soil containing *("insert the technical name of the contaminant").*	None	None	
Small Container:	No TDG safety marks if no dangerous goods.			
Large Container:	No TDG safety marks if no dangerous goods.			
Documents:	AER Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:	Should be tested if any doubt about content.			

Contaminated Debris / Soil (BTEX) – 2020

Waste Profile Sheet: **Contaminated Debris / Soil (Hydrocarbon)**

General Information	
Original Use:	Generated by the accidental spillage of crude oil, condensate, diesel oils, or refined fuels. Includes contaminated soils, vegetation, and absorbent materials.
Physical Description:	Solid (oil/condensate and contaminated solids).
Contaminants:	May contain oil, condensate, BTEX, heavy metals, salts, spill debris, and absorbent materials.
Other Codes:	Alberta AER Code: SOILCO (Contaminated Debris & Soil - crude oil/condensate) - *reportable* SOILRO (Contaminated Debris & Soil - refined fuels/oils) – *reportable* SOILEM (Contaminated Debris & Soil - emulsion) – *reportable*

Hazard Information			
Physical:	Flammable Solid.		
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization		
SDS:	Crude oil		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination. Migration of hydrocarbons also possible with land treatment. Light ends may be extremely mobile (water soluble).		
First Aid Measures:	**Inhalation**: Use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped and call for prompt medical attention. **Eye Contact:** Flush eyes with a continuous flow of fresh water for at least 15 min. until irritation subsides. **Skin Contact:** Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing. **Ingestion:** DO NOT induce vomiting. If conscious, give milk or water to dilute stomach contents. DO NOT attempt to give anything by mouth to an unconscious person. Keep warm and quiet and seek medical attention.		

Management Methods		
Classification By Provincial Waste Regulations (typical):	**BC**: Hazardous Waste if > 3% refined hydrocarbon **AB:** Dangerous Oilfield Waste if low flash point or contains BTEX	**SK:** Hazardous Waste **NWT:** Hazardous Waste
Storage:	If saturated – store in steel drums. Temporary storage on drying pads or lined areas.	
Disposal:	Send to a waste contractor (Oilfield Waste Processing Facility or Class I Landfill).	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
UN3175	If no free liquid at time of packaging but contains hydrocarbons: SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. (“*insert the technical name of the contaminant*”).	4.1	II	16, 56
None	If no free liquid and no crude, condensate or fuel: Not regulated if no other contaminants. *If no hydrocarbon but contains BTEX see Contaminated Soil and Debris – BTEX.	None	None	
Small Container:	No TDG safety marks if no dangerous goods. If dangerous goods: Class 3 or Class 4.1 label, Shipping name and UN number (technical name in brackets if Special Provision 16).			
Large Container:	No TDG safety marks if not a dangerous good. If dangerous goods: Class 3 or Class 4.1 placard if >500 kg or in direct contact with a large means of containment. UN Number required with the placard if in direct contact with a large means of containment or >4000 kg.			
Documents:	AER Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:	May not be TDG regulated. Dependent on flash point test, BTEX and hydrocarbon content.			

Contaminated Debris / Soil (Hydrocarbon) – 2020

Waste Profile Sheet: **Contaminated Debris / Soil (Mercury)**

General Information

Original Use:	This waste is generated from the spillage of mercury from instruments.
Physical Description:	Solid (mercury and contaminated soils).
Contaminants:	May contain mercury, sorbent and other spill debris.
Other Codes:	Alberta AER Code: SOILHM (Contaminated Debris & Soil - mercury/metals) – *reportable*

Hazard Information

Physical:	Not Applicable.
Health:	Acute Toxicity – Oral, Dermal, Inhalation, Aspiration, Specific Target Organ Toxicity (single exposure, repeated exposure).
SDS:	For additional information see specific contaminant SDS (e.g. Mercury).
WHMIS Label:	 **Protective Equipment**: 
Environmental:	Spilled mercury will contaminate pond and drainage ditch sludge and can accumulate in drains/gutters within process buildings. Leachate may contain soluble mercury salts.
First Aid Measures:	**Inhalation:** Use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest and call for immediate medical attention. **Eye Contact:** Flush eyes, including under eyelids, with a continuous flow of water for at least 15 min. Get immediate medical attention. **Skin Contact:** Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing and dispose. **Ingestion:** If individual is conscious, give milk or beaten egg whites in order to dilute stomach contents. Induce vomiting. DO NOT attempt to give anything by mouth or to induce vomiting if individual is unconscious. Get immediate medical attention.

Management Methods

Classification By Provincial Waste Regulations (typical):	**BC:** Hazardous Waste **AB:** Dangerous Oilfield Waste	**SK:** Hazardous Waste **NWT:** Hazardous Waste
Storage:	Store in a closed container at field facility. Keep in a cool, well-ventilated area.	
Disposal:	Send to a reclaimer or waste contractor for reclamation or disposal.	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation

UN No.	Shipping Name	Class	Packing Group	Special Provisions
	Waste elemental mercury:			
UN2809	MERCURY	8	III	126
	Contaminated Debris / Soil:			
UN3244	SOLIDS CONTAINING CORROSIVE LIQUID N.O.S. (mercury).	8	II	16, 58
	If leachable contamination:			
None	AB, SK & NWT: LEACHABLE WASTE, SOLID, debris / soil containing *("insert the technical name of the contaminant").*	None	None	
None	BC: leachable toxic waste, debris / soil containing *("insert the technical name of the contaminant").*	None	None	
Small Container:	Class 8 label, shipping name (with technical name of contaminant in brackets) if Special Provision 16 and UN Number.			
Large Container:	Class 8 placard if >500 kg or in direct contact with a large means of containment. UN Number required with the placard if in direct contact with a large means of containment or shipping >4000 kg.			
Documents:	AER Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:	Replace any remaining mercury manometers with electronic instruments.			

Contaminated Debris / Soil (Mercury) – 2020

Waste Profile Sheet: **Contaminated Debris / Soil (Leachable Metals)**

General Information	
Original Use:	Generated from the spillage of lubricants, solvents and other chemicals which have heavy metal components.
Physical Description:	Solid (Soils contaminated with traces of spill chemicals but no liquids).
Contaminants:	May contain heavy metals, sorbent and other spill debris.
Other Codes:	Alberta AER Code: SOILHM (Contaminated Debris & Soil - mercury/metals) – *reportable*

Hazard Information			
Physical:	Not Applicable.		
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization, Carcinogenicity, Mutagenicity, Reproductive Hazards.		
SDS:	For additional information see specific contaminant SDS (e.g. Arsenic, Lead)		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination. Leachate may contain high levels of lead and unidentified compounds.		
First Aid Measures:	**Inhalation:** Use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest and call for immediate medical attention. **Eye Contact:** Flush eyes, including under eyelids, with a continuous flow of water for at least 15 min. If irritation persists, get medical attention. **Skin Contact:** Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing. **Ingestion:** If individual is conscious, have him rinse his mouth with water. Give victim milk or water to dilute stomach contents. DO NOT attempt to give anything by mouth to an unconscious person. Keep warm & quiet. Get prompt medical attention.		

Management Methods		
Classification By Provincial Waste Regulations (typical):	**BC**: Hazardous Waste if leachables or > 3% refined hydrocarbon **AB:** Dangerous Oilfield Waste if leachables	**SK:** Hazardous Waste if leachables **NWT:** Hazardous Waste if leachables
Storage:	Store in a closed container at field facility. Keep in a cool, well-ventilated area away from incompatible materials.	
Disposal:	Physical/chemical treatment. Landfill at approved landfill (Class I or II, based on characteristics, in AB).	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
None None	AB, SK & NWT: LEACHABLE WASTE, SOLID, debris / soil containing *("insert the technical name of the contaminant").* BC: LEACHABLE TOXIC WASTE, debris / soil containing *("insert the technical name of the contaminant").*	None None	None None	
Small Container:	No TDG safety marks required.			
Large Container:	No TDG safety marks required.			
Documents:	AER Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:	All handling, transportation, storage and treatment options for waste must be in accordance with provincial and federal regulation and with approval of the regulatory body.			

Contaminated Debris / Soil (Leachable Metals) – 2020

Waste Profile Sheet: **Contaminated Debris / Soil (NORMs)**

General Information	
Original Use:	Soils, debris, and other materials (PPE, filters, etc.) that become contaminated with scale and sludge found in downhole tubing, flowlines, water treatment facilities and other process vessels. Sources are from radioactive salts (barium sulphate) in produced water (radium) and radon in natural gas.
Physical Description:	Solids, sludges, other materials (PPE, filters, etc.)
Contaminants:	Various contaminants may be present. If material has been screened and is greater than twice the background levels, contact your HSE department.
Other Codes:	Alberta AER Code: NORM (Naturally Occurring Radioactive Materials) - *reportable*

Hazard Information			
Physical:	Not Applicable.		
Health:	A low level radioactive material. Avoid prolonged exposure to high concentrations. Alpha, beta and gamma emitters. NORM can accumulate and remain in the body for a long time and can be carcinogenic.		
SDS:	Not Applicable.		
WHMIS Label:	Not Applicable.	**Protective Equipment**:	
Environmental:	Radioactive contamination of soils, exposure to humans, wildlife and livestock.		
First Aid Measures:	**Inhalation:** Use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest in a well-ventilated area and call for immediate medical attention. **Eye Contact:** Check for and remove contact lenses. Flush eyes, including under eyelids, with a continuous flow of water for at least 15 min. If irritation persists, get medical attention. **Skin Contact:** Flush with large amounts of water. Use disinfectant soap if available and cover the contaminated skin with an anti-bacterial cream. Remove severely contaminated clothing and clean thoroughly before reusing. **Ingestion:** If a large amount is swallowed, get immediate medical attention.		

Management Methods		
Classification By Provincial Waste Regulations:	**BC:** NORM Waste **AB:** NORM Waste	**SK:** NORM Waste **NWT**: NORM Waste
Storage:	A dedicated, well-marked, sealed container should be available for the storage of NORM materials. The container should be located in a designated covered area with restricted access.	
Disposal:	Dispose at a cavern or landfill licensed for NORMs. Consult with receiving facilities for regulated radiation limits.	
Reportable Releases:	Any quantity in all jurisdictions if over 70 Bq/g. Releases into the environment are regulated by Health Canada.	

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
N/A	Not TDG regulated if < 70 Bq/g. See also other Contaminated Debris / Soil waste profile sheets (if Self-Heating, flammable or contaminated with leachables) for the best description.	N/A	N/A	N/A
If > 70Bq/g	Consult the Packaging and Transport of Nuclear Substances Regulations			
Small Container:	No TDG safety marks required if less than <70 Bq/g.			
Large Container:	No TDG safety marks required if less than <70Bq/g.			
Documents:	AER Alberta Oilfield Waste Form (AB) or Truck Ticket. If >70 Bq/g, Shipping Document must contain TDG information.			
Comments:	Waste transported should be reviewed with provincial TDG authority. Check with you HSE department for information on waste contractors offering NORM disposal.			

Contaminated Debris / Soil (Norms) – 2020

Waste Profile Sheet: **Contaminated Debris / Soil (Sulphur)**

General Information	
Original Use:	Contaminated Debris and Soil – Sulphur.
Physical Description:	Solid (sulphur and contaminated soils).
Contaminants:	May contain elemental sulphur and other spill debris.
Other Codes:	Alberta AER Code: SOILSU (Contaminated Debris & Soil - sulphur) - *reportable*

Hazard Information			
Physical:	Flammable Solid.		
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization.		
SDS:	Sulphur		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Sulphur spills can lower soil pH and may increase the leaching of metals from the soil into the groundwater. Soil bacteria are adversely affected by concentrations of sulphur in the soil above 100 ppm. May damage vegetation if not treated with lime. Surface water and groundwater contamination if burial pit is not lined with lime and/or is not used in sufficient quantities in land treatment operations (production of low pH leachate).		
First Aid Measures:	**Inhalation:** Use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest and call for immediate medical attention. **Eye Contact:** Flush eyes, including under eyelids, with a continuous flow of water for at least 15 min. Get immediate medical attention. **Skin Contact:** Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing. **Ingestion:** If individual is conscious, give milk or beaten egg whites in order to dilute stomach contents. Induce vomiting. DO NOT attempt to give anything by mouth or to induce vomiting if individual is unconscious. Get immediate medical attention.		

Management Methods		
Classification By Provincial Waste Regulations (typical):	**BC:** Non-Hazardous Waste (unless not prilled) **AB:** Non-Dangerous Oilfield Waste	**SK:** Non-Hazardous Waste (unless not prilled) **NWT:** Non-Hazardous Waste (unless not prilled)
Storage:	Temporary storage on drying pads or in/on lined pits or ground. Will corrode steel containers. Avoid ground storage if possible.	
Disposal:	Landfill at an approved landfill. For Class I and II landfills in Alberta, sulphur disposal must be in accordance with "*Guidelines for Landfill Disposal of Sulphur Waste and Remediation of Sulphur Containing Soils, 2011*".	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
UN1350	Not regulated if sulphur is prilled or shipped ≤ 400 kg (sulphur) per container. If regulated: SULPHUR	4.1	III	33
Small Container:	If TDG regulated: Class 4.1 label, shipping name and UN Number			
Large Container:	If TDG regulated: Class 4.1 placard if >500 kg or in direct contact with a large means of containment. UN Number required with the placard if in direct contact with a large means of containment or shipping >4000 kg.			
Documents:	Company Shipping Document or Truck Ticket. If TDG regulated: Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:	Transport trucks must be tarped, end gates secure and the drivers aware of material characteristics to produce acidic water if wet. In AB, sulphur is specifically exempt from hazardous waste classification as per the Alberta User Guide Part 1A-21.			

Contaminated Debris / Soil (Sulphur) – 2020

Waste Profile Sheet: **Desiccant Materials (BTEX)**

General Information	
Original Use:	Generated predominantly from natural gas processing plant dehydration processes, air drying systems.
Physical Description:	Solid.
Contaminants:	May contain H_2S, glycol, heavy hydrocarbons, aluminum, calcium, iron, sodium, silicon.
Other Codes:	Alberta AER Code: DESICT (Desiccant) - *reportable*

Hazard Information			
Physical:	Flammable Solids.		
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization, Carcinogenicity, Mutagenicity, Reproductive Hazards.		
SDS:	For additional information see specific contaminant SDS.		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Dusting may be a problem. Possible toxic components may pose groundwater contamination if stored on surface or in landfill. Material will sink in water.		
First Aid Measures:	**Inhalation**: Use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest and call for immediate medical attention. **Eye Contact:** Flush eyes, including under eyelids, with a continuous flow of water for at least 15 min. If irritation persists, get medical attention. **Skin Contact:** Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing. **Ingestion:** If individual is conscious, have him rinse his mouth with water. Give victim milk or water in order to dilute stomach contents. DO NOT attempt to give anything by mouth to an unconscious person. Keep warm and quiet. Get prompt medical attention.		

Management Methods			
Classification By Provincial Waste Regulations (typical):	**BC**: Hazardous Waste if leachable or fails rope burn test **AB**: Dangerous Oilfield Waste if flammable or leachable	**SK:** Hazardous Waste if leachable or fails rope burn test **NWT:** Hazardous Waste if leachable or fails rope burn test	
Storage:	Store in sealed containers. The supplier delivers virgin desiccant and changes out spent desiccant. Prevent rainwater from entering containers.		
Disposal:	Reuse/regenerate when possible. Send to cement manufacturer for use in cement mixtures Send to landfill if applicable regulations are met.		
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.		

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
UN3175	If no free liquid at time of packaging & high hydrocarbon present: SOLIDS CONTAINING FLAMMABLE LIQUID N.O.S. *("insert the technical name of the contaminant").*	4.1	II	16, 56
None	If not flammable: AB, SK & NWT: LEACHABLE WASTE, SOLID, desiccant containing *("insert the technical name of the contaminant").*	None	None	
None	BC: LEACHABLE TOXIC WASTE, desiccant containing *("insert the technical name of the contaminant").*	None	None	
Small Container:	No TDG safety marks if no dangerous goods. Class 4.1 label, shipping name (*insert the technical name of the contaminant in brackets if Special Provision 16*) and UN Number.			
Large Container:	No TDG safety marks if not a dangerous good. Class 4.1 placard if >500 kg or in direct contact with a large means of containment, or none. UN Number required with the placard if in direct contact with a large means of containment or shipping >4000 kg.			
Documents:	AER Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:				

Desiccant Materials (BTEX) – 2020

Waste Profile Sheet: **Drilling Waste Materials (Hydrocarbon)**

General Information	
Original Use:	Hydrocarbon based drilling waste materials (solids, fluids, slurries) from hydrocarbon-based drilling.
Physical Description:	Sludge, fluids, or semi-dried solid.
Contaminants:	May contain hydrocarbons, mud additives, BTEX.
Other Codes:	Alberta AER Code: DRWSHC (Drilling Waste - hydrocarbon) - *reportable*

Hazard Information			
Physical:	Flammable Solid.		
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization		
SDS:	For additional information see specific contaminant SDS (e.g. Diesel and additives).		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination. Migration of hydrocarbons also possible with land treatment. Light ends may be extremely mobile (water soluble).		
	Inhalation: Use proper respiratory protection and immediately remove victim from exposure. Administer artificial respiration if breathing has stopped and get medical attention. **Eye Contact:** Flush eyes with large amounts of water until irritation subsides (at least 15 min.). If irritation persists, get medical attention. **Skin Contact:** Flush with large amounts of water and use soap if available. Remove severely contaminated clothing/shoes and clean thoroughly before reusing. **Ingestion:** DO NOT induce vomiting. If individual is conscious, give milk or water to dilute stomach contents. Keep warm and quiet and get medical attention.		

Management Methods		
Classification By Provincial Waste Regulations (typical)**:**	**BC:** Hazardous Waste if leachable, > 3% refined hydrocarbon or fails rope burn test **AB:** Dangerous Oilfield Waste if flammable or leachable	**SK:** Hazardous Waste if leachable or fails rope burn test **NWT**: Hazardous Waste if leachable or fails rope burn test
Storage:	Store in a cool, well-ventilated area which is secure and separate from work areas and incompatible materials. Liquid-based drilling wastes must be stored in tanks, and the solids from hydrocarbon-based drilling wastes must be stored in a manner that prevents contact with the ground (tanks or shale bins) as per D-050.	
Disposal:	Send to waste disposal facility (Oilfield Waste Processing Facility).	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation

UN No.	Shipping Name	Class	Packing Group	Special Provisions
UN1993	If free liquids and low flashpoint (<60°C): FLAMMABLE LIQUID N.O.S. *("insert the technical name of the contaminant").*	3	I, II, or III	16, 150
UN3175	If no free liquid and low flashpoint (<60°C): SOLIDS CONTAINING FLAMMABLE LIQUID N.O.S. *("insert the technical name of the contaminant").*	4.1	II	16, 56
None	If no free liquids: AB, SK & NWT: LEACHABLE WASTE (*SPECIFY SOLID OR LIQUID*), drilling waste containing *("insert the technical name of the contaminant").*	None	None	
None	BC: LEACHABLE TOXIC WASTE, drilling waste containing *("insert the technical name of the contaminant").*	None	None	

Small Container:	Class 3 or 4.1 label, shipping name (with technical name in brackets if Special Provision 16) and UN Number. No TDG safety marks if not regulated.
Large Container:	Class 3 or 4.1 placard if >500 kg or in direct contact with a large means of containment. UN Number required with the placard (when required) if in direct contact with a large means of containment or shipping >4000 kg. No TDG safety marks if not regulated.
Documents:	AER Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).
Comments:	

Waste Profile Sheet: **Drilling Waste Materials (Gel Chem)**

General Information				
Original Use:	Gelchem, polymer, potassium silicate, or potassium chloride based drilling waste materials (solids, fluids, slurries) from fresh water drill systems.			
Physical Description:	Sludge or semi-dried solids.			
Contaminants:	May contain potassium chloride, fresh water gel.			
Other Codes:	Alberta AER Code: DRWSAC (Drilling Waste Materials – advanced gel chem. - KCL) - *reportable* DRWSGC (Drilling Waste Materials - gel chem) - *reportable*			
Hazard Information				
Physical:	Not Applicable.			
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization.			
SDS:	For additional information see specific contaminant SDS (e.g. Potassium Chloride, gel chem).			
WHMIS Label:		**Protective Equipment:**		
Environmental:	Prevent entry into water courses.			
First Aid Measures:	**Eye Contact:** Wash with plenty of water. **Skin Contact:** Remove contaminated clothing and flush affected area thoroughly with water.			
Management Methods				
Classification By Provincial Waste Regulations (typical):	**BC:** Non-Hazardous Waste **AB:** Non-Dangerous Oilfield Waste	**SK:** Non-Hazardous Waste **NWT:** Non-Hazardous Waste		
Storage:	Store in a cool, dry, well-ventilated area. Non-hydrocarbon based drilling waste may be stored on-site in sumps or earthen berms in accordance with D-050.			
Disposal:	On-site treatment / disposal in accordance with D-050, GL-99-01, BCOGC O&G Handbook, (sump, mix/bury/cover, landspray). Send to waste disposal facility (Oilfield Waste Processing Facility).			
Reportable Releases:	Not normally a reportable release if non-regulated. However, if significant quantity or an environmental hazard, should be reported. Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.			
Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
N/A	Not Regulated.	N/A	N/A	N/A
Small Container:	No TDG safety marks required.			
Large Container:	No TDG safety marks required.			
Documents:	Company Shipping Document or Truck Ticket.			
Comments:	Not TDG regulated unless contaminated with a Dangerous Good. Preferred disposal method is on-site treatment. Use Alberta AER Directive 050, Saskatchewan MER GL 99-01, or BCOGC O&G Handbook for disposal/treatment guidelines.			

Drilling Waste Materials (Gel Chem) – 2020

Waste Profile Sheet: **Filters – Amine (BTEX)**

General Information

Original Use:	Filters used for the removal of corrosion products, amine decomposition products and hydrocarbons in the amine regeneration process.
Physical Description:	Light brown with hydrocarbon particles. May include pre-cast filter materials and cartridge elements.
Contaminants:	May contain residual amines, BTEX, trace metals, hydrocarbons, carbon.
Other Codes:	Alberta AER Code: FILSWT (Gas Sweetening Filters) - *reportable*

Hazard Information

Physical:	Reactive Flammable Material
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization, Carcinogenicity, Mutagenicity, Reproductive Hazards.
SDS:	For additional information see specific contaminant SDS.
WHMIS Label:	 **Protective Equipment:** 
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination (through amines and metal leaching). Wash water may contain high levels of amine. Incineration may produce toxic fumes. Potential carcinogen.
First Aid Measures:	**Inhalation:** Use proper respiratory protection to immediately remove victim from exposure. **Eye Contact:** Flush eyes with a continuous flow of fresh water for at least 15 min. **Skin Contact**: Remove severely contaminated clothing and clean before reusing. Flush with large amounts of fresh water and use soap if available. **Ingestion** DO NOT induce vomiting. If individual is conscious, give milk or water to dilute stomach contents. DO NOT attempt to give anything: by mouth to an unconscious person. Keep warm & quiet. Seek immediate medical attention.

Management Methods

Classification By Provincial Waste Regulations (typical):	If self-heating or leachable: **BC:** Hazardous Waste **AB:** Dangerous Oilfield Waste	**SK:** Hazardous Waste **NWT:** Hazardous Waste
Storage:	Store temporarily in drain barrels to allow for the drainage of any free liquids. Transfer to designated filter bin or other air tight container.	
Disposal:	Disposal to a hazardous waste disposal facility or ship filter bin to a waste receiver transfer station. Drained liquids should be recycled if possible or sent to a waste contractor for incineration / downhole disposal.	
Comments:	Use filters with removable cores to reduce waste volumes.	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation

UN No.	Shipping Name	Class	Packing Group	Special Provisions
UN3190	If self-heating: SELF-HEATING SOLID, INORGANIC, N.O.S. (iron sulphide)	4.2	II or III	16
None	If not self-heating: AB, SK & NWT: LEACHABLE WASTE, SOLID, filters containing amines and BTEX.	None	None	
None	BC: LEACHABLE TOXIC WASTE, filters containing amines and BTEX.	None	None	

Small Container:	If self-heating: Class 4.2 label, shipping name (with technical name in brackets) and UN Number. None if not self-heating.
Large Container:	If self-heating: Class 4.2 placard if over 500 kg or in direct contact with a large means of containment. UN Number required with the placard if in direct contact with a large means of containment or shipping >1,000 kg. None if not self-heating.
Documents:	AER Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).
Comments:	Some amines are regulated and others are not. Some non-regulated amine products may be regulated due to other contaminants.

Filters – Amine (BTEX) – 2020

Waste Profile Sheet: **Filters – Glycol (BTEX)**

General Information

Original Use:	Gas processing facilities where glycol is used as a liquid desiccant in the natural gas dehydration process. Facilities where glycol is used as a heat trace. Filters used for the removal of corrosion products, and other impurities from glycol when recycled or regenerated in a closed system. Both sweet and sour gas plants produce this waste.
Physical Description:	Cartridge or paper filters.
Contaminants:	May contain triethylene glycol (TEG), diethylene glycol (DEG), ethylene glycol (E.G.), hydrocarbons, boron, chromium, copper, nickel, lead, zinc, iron sulphide and carbon.
Other Codes:	Alberta AER Code: FILGLY (Glycol Filters) - *reportable*

Hazard Information

Physical:	Reactive Flammable Material
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization, Carcinogenicity, Mutagenicity, Reproductive Hazards.
SDS:	For additional information see specific contaminant SDS (e.g. TEG, DEG, E.G.).
WHMIS Label:	 **Protective Equipment:** 
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination. Wash water may contain high levels of glycol. Incineration may produce toxic fumes.
First Aid Measures:	**Inhalation:** Use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest. Call for prompt medical attention. **Eye Contact:** Flush eyes with a continuous flow of fresh water until irritation subsides but at least 15 minutes. **Skin Contact:** Flush with large amounts of fresh water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing. **Ingestion:** If individual is conscious, have him rinse his mouth with water. Give victim milk or water in order to dilute stomach contents. DO NOT attempt to give anything by mouth to an unconscious person. Keep warm and quiet and seek medical attention.

Management Methods

Classification By Provincial Waste Regulations (typical):	If self-heating or leachable: **BC:** Hazardous Waste **AB:** Dangerous Oilfield Waste	**SK:** Hazardous Waste **NWT:** Hazardous Waste
Storage:	Store temporarily in drain barrels to allow for the drainage of any free liquids. Transfer to waste filter bin. Glycol filters used in sour service may be self-heating; store in designated filter bin or other air tight container.	
Disposal:	Disposal to a hazardous waste disposal facility or ship filter bin to waste receiver transfer station. Drained liquids should be recycled if possible or sent to a waste contractor for incineration / downhole disposal.	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation

UN No.	Shipping Name	Class	Packing Group	Special Provisions
	If self-heating:			
UN3190	SELF-HEATING SOLID, INORGANIC, N.O.S. (iron sulphide)	4.2	II or III	16
	If not self-heating:			
None	AB, SK & NWT: LEACHABLE WASTE, SOLID, filters containing glycol.	None	None	
None	BC: LEACHABLE TOXIC WASTE (filters containing *"insert the technical name of the contaminant")*	None	None	

Small Container:	If self-heating: Class 4.2 label, shipping name (with technical name in brackets) and UN Number. None if not self-heating.
Large Container:	If self-heating: Class 4.2 placard if over 500 kg or in direct contact with a large means of containment. UN Number required with the placard if in direct contact with a large means of containment or shipping >1,000 kg. None if not self-heating.
Documents:	AER Alberta Oilfield Waste Form or Recycle Docket (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).
Comments:	EG, DEG and TEG filters are not TDG regulated. However, after use in gas dehydration processes, glycol filters may be flammable, or leachable. If UN3190, ERAP required if quantity exceeds 1000 kg.

Filters – Glycol (BTEX) – 2020

Waste Profile Sheet: **Filters – Lube Oil**

General Information	
Original Use:	Filters from engines, rotating equipment and lubricating oil clean-up systems used for the removal of corrosion products, degradation sludges and other impurities.
Physical Description:	Cloth or paper cartridges of various sizes, metal cartridges.
Contaminants:	May contain hydrocarbons, lead, zinc, additives, and other trace heavy metals, N-hexane, naptha. May also contain triphenyl phosphates, anti-rust and anti-oxidant additives.
Other Codes:	Alberta AER Code: FILLUB (Lube Oil Filters) - *reportable*

Hazard Information			
Physical:	Not Applicable.		
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization.		
SDS:	Lubricating Oil.		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination (metals leaching). Heavy metals may release under acidic conditions. Hydrocarbons are toxic in soil and water. Incineration may produce toxic fumes.		
First Aid Measures:	**Inhalation:** Use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest and call for immediate medical attention. **Eye Contact:** Flush eyes, including under eyelids, with a continuous flow of water for at least 15 min. If irritation persists, get medical attention. **Skin Contact:** Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing. **Ingestion:** DO NOT induce vomiting since it is important that no amount of the material should enter the lungs (aspiration). Keep at rest and get prompt medical attention.		

Management Methods		
Classification By Provincial Waste Regulations (typical):	**BC:** Hazardous Waste (unless crushed, drained and < 3% refined hydrocarbon) **AB:** Dangerous Oilfield Waste	**SK:** Hazardous Waste **NWT:** Hazardous Waste
Storage:	Store temporarily in drain barrels to allow for the drainage of any free liquids. Transfer to separate bin. Keep in well-ventilated storage area.	
Disposal:	Disposal to a hazardous waste disposal facility or ship filter bin to a waste receiver transfer station. Drained liquids should be recycled.	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
None None	AB, SK & NWT: LEACHABLE WASTE, SOLID, filters containing lube oil. BC: Waste Oil Not regulated if drained	None None	None None	
Small Container:	No TDG safety marks required.			
Large Container:	No TDG safety marks required.			
Documents:	AER Alberta Oilfield Waste Form or Recycle Docket (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK). If in BC and < 3% refined hydrocarbons, use Company Shipping Document or Truck Ticket.			
Comments:				

Filters – Lube Oil – 2020

Waste Profile Sheet: **Filters – Produced Water**

General Information	
Original Use:	Filters used for the filtration of water injected for disposal or formation pressure maintenance purposes.
Physical Description:	Cloth or paper cartridges of various sizes, metal cartridges.
Contaminants:	May contain hydrocarbons, BTEX, biocides and scale and corrosion inhibitors.
Other Codes:	Alberta AER Code: FILPWT (Filters – Produced/Process Water) - *reportable*

Hazard Information			
Physical:	Flammable Solids.		
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization, Carcinogenicity, Mutagenicity, Reproductive Hazards.		
SDS:	For additional information see specific contaminant SDS.		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination.		
First Aid Measures:	**Inhalation:** First aid is normally not required. If individual feels ill move to fresh air and allow to rest. **Eye Contact:** First aid is normally not required. If irritation or other symptoms develop, get medical attention. **Skin Contact:** First aid is normally not required. If irritation or other symptoms develop, get medical attention. **Ingestion:** First aid is normally not required. If gastric irritation or other symptoms develop, get medical attention.		

Management Methods		
Classification By Provincial Waste Regulations (typical):	If self-heating or leachable: **BC**: Hazardous Waste **AB:** Dangerous Oilfield Waste	 **SK:** Hazardous Waste **NWT**: Hazardous Waste
Storage:	Store temporarily in drain barrels to allow for the drainage of any free liquids. Transfer to waste filter bin. If self-heating; store in designated filter bin or other air tight container.	
Disposal:	Disposal to a hazardous waste disposal facility or ship filter bin to waste receiver transfer station. Drained liquids should be recycled if possible or sent to a waste contractor for incineration / downhole disposal.	
Reportable Releases:	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
UN3190	If self-heating: SELF-HEATING SOLID, INORGANIC, N.O.S. *("insert the technical name of the contaminant").*	4.2	II or III	16
None None	AB, SK & NWT: LEACHABLE WASTE, SOLID, filters containing hydrocarbons BC: LEACHABLE TOXIC WASTE, filters containing hydrocarbons	None None	None None	
Small Container:	If self-heating: Class 4.2 label, shipping name (with technical name in brackets) and UN Number. None if not self-heating.			
Large Container:	If self-heating: Class 4.2 placard if over 500 kg or in direct contact with a large means of containment. UN Number required with the placard if in direct contact with a large means of containment or shipping >1,000 kg. No TDG if not self-heating.			
Documents:	AER Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:				

Filters – Produced Water – 2020

Waste Profile Sheet: **Filters – Raw Gas**

General Information	
Original Use:	Filters used in gas processing.
Physical Description:	Cloth or paper cartridges of various sizes, metal cartridges.
Contaminants:	May contain hydrocarbons, BTEX and particulate.
Other Codes:	Alberta AER Code: FILOTH (Filters – Other (raw/fuel gas, NGLs)) - *reportable*

Hazard Information			
Physical:	Flammable Solids.		
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization, Carcinogenicity, Mutagenicity, Reproductive Hazards.		
SDS:	For additional information see specific contaminant SDS.		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination.		
First Aid Measures:	**Inhalation:** First aid is normally not required. If individual feels ill move to fresh air and allow to rest. **Eye Contact:** First aid is normally not required. If irritation or other symptoms develop, get medical attention. **Skin Contact:** First aid is normally not required. If irritation or other symptoms develop, get medical attention. **Ingestion:** First aid is normally not required. If gastric irritation or other symptoms develop, get medical attention.		

Management Methods		
Classification By Provincial Waste Regulations(typical)	If leachables: **BC:** Hazardous Waste **AB:** Dangerous Oilfield Waste	**SK:** Hazardous Waste **NWT**: Hazardous Waste
Storage:	Store temporarily in drain barrels to allow for the drainage of any free liquids. Keep in well-ventilated area. Filters used in sour gas service may be self-heating; store in sealed steel drums.	
Disposal:	Send to hazardous waste disposal facility or ship filter bin to waste receiver transfer station.	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
None	AB, SK & NWT: LEACHABLE WASTE, SOLID, filters containing *("insert the technical name of the contaminant").*	None	None	
None	BC: LEACHABLE TOXIC WASTE, filters containing *("insert the technical name of the contaminant").*	None	None	
Small Container:	No TDG safety marks required.			
Large Container:	No TDG safety marks required.			
Documents:	AER Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:				

Filters – Raw Gas – 2020

Waste Profile Sheet: **Frac Fluids**

General Information	
Original Use:	Well servicing, drilling / completion operations, formation fracturing.
Physical Description:	Liquid.
Contaminants:	May contain hydrocarbons, BTEX, lead, trace metals (i.e. Ba, Cr, V).
Other Codes:	Alberta AER Code: FRFLDW Frac Fluid (water based) - *reportable* FRFLDH Frac Fluid (hydrocarbon based) - *reportable* FRFLDR Frac Fluid (radioactive) - *reportable*

Hazard Information			
Physical:	Flammable Liquids.		
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization.		
SDS:	For additional information see specific contaminant SDS.		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination.		
First Aid Measures:	**Inhalation:** Use proper respiratory protection to immediately remove victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest and seek immediate medical attention. **Eye Contact:** Flush eyes, including under eyelids, with a continuous flow of fresh water for at least 15 min. If irritation persists, get medical attention. **Skin Contact:** Remove severely contaminated clothing and clean before reusing. Flush with large amounts of fresh water and use soap if available. **Ingestion:** DO NOT induce vomiting. If individual is conscious, give milk or water to dilute stomach contents. DO NOT attempt to give anything by mouth to an unconscious person. Keep warm & quiet. Seek immediate medical attention.		

Management Methods		
Regulated Under Provincial Waste Regulations (typical):	**BC**: Hazardous Waste **AB**: Dangerous Oilfield Waste	**SK**: Hazardous Waste **NWT**: Hazardous Waste
Storage:	Store in sealed drums or tanks.	
Disposal:	Well injection (with approval). Recover hydrocarbon prior to disposal.	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
UN2924 example: UN1268	If transported by vacuum truck, use CAPP TDG Permit (see comments below): MIXED OILFIELD PRODUCTION FLUIDS, TREAT AS FLAMMABLE LIQUID, CORROSIVE N.O.S. If without permit: Check SDS for classification. example: PETROLEUM DISTILLATES, N.O.S.	3(8) example: 3	II example: II	16 example: 92, 150
Small Container:	Based on example above: Class 3 label, shipping name and UN Number.			
Large Container:	Based on example above: Class 3 placard if over 500 kg or in direct contact with a large means of containment. UN Number required with the placard if in direct contact with a large means of containment or shipping >4000 kg.			
Documents:	AER Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:	Check SDS of the frac fluid for classification. If not regulated, test for BTEX and metals. CAPP Permit required if shipping as MIXED OILFIELD PRODUCTION FLUIDS (classification not required). Use Federal Equivalency Certificate SH5561 (Ren. 11) (all jurisdictions) or AB permit 2019-2057 (only in Alberta) and ensure all terms and conditions are met.			

Frac Fluids – 2020

Waste Profile Sheet: **Glycol (Heavy Metals)**

General Information	
Original Use:	Engine and compressor coolant. Dehydration for natural gas processing. Heat trace and heat medium (line heaters, utility boilers).
Physical Description:	Liquid usually mixed 1:1 with water (depending on particular use).
Contaminants:	Glycol may contain iron oxide (trace), iron sulphide, heavy metals. May also contain corrosion inhibitors for antifreeze.
Other Codes:	Alberta AER Code: GLYCHM (Glycol Solutions – w/lead or heavy metals) – *reportable* GLYC (Glycol Solutions – no heavy metals) - *reportable*

Hazard Information			
Physical:	Not Applicable.		
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization, Carcinogenicity, Mutagenicity, Reproductive Hazards.		
SDS:	For additional information see specific contaminant SDS (e.g. TEG, DE, E.G., Antifreeze)		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination. Fatal to wildlife.		
First Aid Measures:	**Inhalation:** Use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest and call for immediate medical attention. **Eye Contact:** Flush eyes, including under eyelids, with a continuous flow of water for at least 15 min. If irritation persists, get medical attention. **Skin Contact**: Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing. **Ingestion:** DO NOT induce vomiting since it is important that no amount of the material should enter the lungs (aspiration). Keep at rest and get prompt medical attention.		

Management Methods		
Classification By Provincial Waste Regulations (typical):	Not regulated unless contaminated with heavy metals, inhibitors for antifreeze, or iron sulphide. If regulated:	
	BC: Hazardous Waste **AB:** Dangerous Oilfield Waste	**SK:** Hazardous Waste **NWT:** Hazardous Waste
Storage:	Store material in steel drums at field facility away from sources of heat or spark. Store in a cool well-ventilated place. Provide spill / leak containment.	
Disposal:	Recycle. Disposal well (with approval).	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
None None	AB, SK & NWT: LEACHABLE WASTE, LIQUID, glycol containing lead BC: LEACHABLE TOXIC WASTE, glycol containing lead	None None	None None	
Small Container:	No TDG safety marks required.			
Large Container:	No TDG safety marks required.			
Documents:	AER Alberta Oilfield Waste Form or Recycle Docket (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:	Pure glycol is not TDG regulated. However, through use, it may become a dangerous good.			

Glycol (Heavy Metals) – 2020

Waste Profile Sheet: **Hydrotest Fluids - Methanol**

General Information	
Original Use:	Methanol is used as a hydrotest fluid for pipelines and for dehydration in gas processing. Also used for hydrate removal.
Physical Description:	Low viscosity clear liquid, alcohol-like odour.
Contaminants:	Methanol.
Other Codes:	Alberta AER Code: METHNL - *reportable*

Hazard Information			
Physical:	Flammable Liquids.		
Health:	Acute Toxicity – Oral, Dermal, Inhalation. Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization, Carcinogenicity, Mutagenicity, Reproductive Hazards.		
SDS:	For additional information see specific contaminant SDS (e.g.: Methanol).		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Potential groundwater contamination if spilled. Very toxic to aquatic life.		
First Aid Measures:	**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. **Eyes:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid. **Skin:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse. **Ingestion:** Potential for aspiration if swallowed. Get medical aid immediately. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If vomiting occurs naturally, have victim lean forward.		

Management Methods		
Classification By Provincial Waste Regulations (typical):	**BC**: Hazardous Waste **AB:** Dangerous Oilfield Waste	**SK**: Hazardous Waste **NWT**: Hazardous Waste
Storage:	Store in steel drums or tanks. Keep away from heat, sparks, and flame and sources of ignition. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area. Keep containers tightly closed.	
Disposal:	Reuse fluids for subsequent hydro-testing operations. Send to waste contractor for recovery of product or incineration. Disposal well (Class Ia or Ib. in AB).	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
UN1230	Methanol with non-dangerous goods: METHANOL	3 (6.1)	II	43
UN1993	Methanol with other flammables: FLAMMABLE LIQUIDS N.O.S. *("insert the technical name of the contaminant").*	3	I, II, or III	16, 150
Small Container:	Class 3 and 6.1 labels for Methanol or Class 3 label for Flammable liquid, shipping name (with hazardous ingredient in brackets if Special Provision 16) and UN Number.			
Large Container:	Class 3 placard if over 500 kg or in direct contact with a large means of containment. UN Number required with the placard if in direct contact with a large means of containment or shipping > 4000 kg.			
Documents:	AER Alberta Oilfield Waste Form or Recycle Docket (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:				

Hydrotest Fluids - Methanol – 2020

Waste Profile Sheet: **Incinerator Ash (Heavy Metals)**

General Information	
Original Use:	Ash residue from solid waste incinerators which have received government approval. Used for burning camp and domestic garbage.
Physical Description:	Black/Grey ash powder.
Contaminants:	May contain heavy metals: arsenic, lead and other.
Other Codes:	Alberta AER Code: INCASH - *reportable*

Hazard Information			
Physical:	Not Applicable.		
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization, Carcinogenicity, Mutagenicity, Reproductive Hazards.		
SDS:	For additional information see specific contaminant SDS (e.g. Arsenic, Lead).		
WHMIS Label:		**Protective Equipment**:	
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination. Leachate may contain high levels of lead and unidentified compounds.		
First Aid Measures:	**Inhalation:** Use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest and call for immediate medical attention. **Eye Contact:** Flush eyes, including under eyelids, with a continuous flow of water for at least 15 min. If irritation persists, get medical attention. **Skin Contact:** Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing. **Ingestion:** If individual is conscious, have him rinse his mouth with water. Give victim milk or water to dilute stomach contents. DO NOT attempt to give anything by mouth to an unconscious person. Keep warm & quiet. Get prompt medical attention.		

Management Methods		
Classification By Provincial Waste Regulations (typical):	**BC:** Hazardous Waste **AB:** Dangerous Oilfield Waste if leachables	**SK:** Hazardous Waste **NWT**: Hazardous Waste
Storage:	Contain in steel drums or similar containers. Keep containers closed and store in a cool, well-ventilated place. Clean incinerator regularly.	
Disposal:	If regulated, send to an approved landfill. If not regulated, recycle (construction) or send to an approved landfill.	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
None None	AB, SK & NWT: LEACHABLE WASTE, SOLID, incinerator ash containing *("insert the technical name of the contaminant").* BC: LEACHABLE TOXIC WASTE, incinerator ash containing *("insert the technical name of the contaminant").*	None None	None None	
Small Container:	No TDG safety marks required.			
Large Container:	No TDG safety marks required.			
Documents:	AER Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:	This waste may require specific analysis to determine leachable constituents.			

Incinerator Ash (Heavy Metals) – 2020

Waste Profile Sheet: **Lubricating Oils (Used)**

General Information	
Original Use:	Lubrication of oilfield machinery, engines, compressors, and vehicles.
Physical Description:	Hydrocarbon liquids and grease.
Contaminants:	May contain lead, trace metals (i.e. Ba, Cr, V), triphenyl phosphate, butylated triphenyl phosphate, anti-rust and anti-oxidant additives.
Other Codes:	Alberta AER Code: LUBOIL (Lubricating Oil) - *reportable*

Hazard Information			
Physical:	Not Applicable.		
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization.		
SDS:	Lubricating Oil.		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Potential groundwater and surface water contamination (hydrocarbons and metals) if applied to roads or other ground surfaces.		
First Aid Measures:	**Inhalation:** Use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest and call for immediate medical attention. **Eye Contact:** Flush eyes, including under eyelids, with a continuous flow of water for at least 15 min. If irritation persists, get medical attention. **Skin Contact:** Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing. **Ingestion:** DO NOT induce vomiting since it is important that no amount of the material should enter the lungs (aspiration). Keep at rest and get prompt medical attention.		

Management Methods		
Classification By Provincial Waste Regulations (typical)**:**	**BC:** Hazardous Waste (if containing heavy metals and/or ⍰3% refined hydrocarbons) **AB:** Non-Dangerous Oilfield Waste (unless containing heavy metals)	**SK:** Non-Hazardous Waste (unless containing heavy metals) **NWT:** Non-Hazardous Waste (unless containing heavy metals)
Storage:	Store in sealed drums at field facility. Larger quantities should be stored in storage tanks equipped with spill containment measures. Used lubricating oil ***must*** be segregated from other produced / waste liquids.	
Disposal:	Return to supplier for recycling. Send to a lube oil recycling facility.	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
None	AB: WASTE LUBE OIL. BC, SK, NWT: WASTE OIL. If leachable contaminant (i.e. lead): LEACHABLE WASTE, LIQUID, lube oil containing *("insert the technical name of the contaminant").*	None	None	
Small Container:	No TDG safety marks required.			
Large Container:	No TDG safety marks required.			
Documents:	AER Alberta Oilfield Waste Form or Recycle Docket (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK). If in BC and <3% refined hydrocarbons, use Company Shipping Document or Truck Ticket.			
Comments:	Unused (clean) lubricating oils are not TDG regulated. Used lubricating oils are assumed to be contaminated with lead.			

Lubricating Oils (Used) – 2020

Waste Profile Sheet: **PCBs (Liquids / Solids)**

General Information

Original Use:	Electrical non-conducting fluids used as insulators and heat exchanging fluids to prevent overheating in transformers, capacitors and older electrical switching units. Banned in 1977.
Physical Description:	Metal equipment or other solids contaminated with PCB liquids. PCB liquids are clear to yellow, are not soluble in water and have a bitter smell. May be cloudy after used.
Contaminants:	Polychlorinated biphenyls. Fluorescent ballast contains 25 grams PCB. Capacitors and transformers contain larger volumes.
Other Codes:	Alberta AER Code: PCBBAL (fluorescent light ballasts) - *reportable* PCBLIQ (askarel liquids) - *reportable* PCBSLF (contaminated solids <50 ppm) - *reportable* PCBSLI (contaminated solids ≥50 & <1000 ppm) - *reportable* PCBSGI (contaminated solids ≥1000 ppm) - *reportable*

Hazard Information

Physical:	Not Applicable.
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization, Carcinogenicity, Mutagenicity, Reproductive Hazards. Can be absorbed through the skin.
SDS:	PCB
WHMIS Label:	 **Protective Equipment:** 
Environmental:	Non-biodegradable and can bio-accumulate in all types of life forms through the food chain and eventually to humans. Heating or incineration can produce dioxins and furans.
First Aid Measures:	**Inhalation:** Use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest and call for immediate medical attention. **Eye Contact:** Flush eyes, including under eyelids, with a continuous flow of water for at least 15 min. If irritation persists, get medical attention. **Skin Contact:** Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing. **Ingestion:** DO NOT induce vomiting since it is important that no amount of the material should enter the lungs (aspiration). Keep at rest and get prompt medical attention.

Management Methods

Classification By Provincial Waste Regulations (typical):	**BC:** Hazardous Waste **AB:** Dangerous Oilfield Waste	**SK:** Hazardous Waste (if >5ppm concentration) **NWT:** Hazardous Waste
Storage:	Refer to federal storage guidelines.	
Disposal:	If PCB concentration is > 50 ppm send to an approved destruction facility for both liquids and solids. If < 50 ppm alternate options are available.	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation

UN No.	Shipping Name	Class	Packing Group	Special Provisions
UN2315	POLYCHLORINATED BIPHENYLS, LIQUID, regulated only when the concentration is more than 50 ppm, by mass	9	II	
UN3432	POLYCHLORINATED BIPHENYLS, SOLID, regulated only when the concentration is more than 50 ppm, by mass	9	II	
N/A	Non-Hazardous Solid (Containing PCB <50 ppm)	N/A	N/A	
N/A	Non-Hazardous Liquid (Containing PCB <50 ppm)	N/A	N/A	

Small Container:	Class 9 label, shipping name and UN Number.
Large Container:	Class 9 placard if over 500 kg or in direct contact with a large means of containment. UN Number required with the placard if in direct contact with a large means of containment or shipping >4000 kg.
Documents:	AER Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).
Comments:	All handling, transportation, storage and treatment options for waste must be in accordance with provincial and federal regulation and with approval of the regulatory body.

PCBs (Liquids/Solids) – 2020

Waste Profile Sheet: **Pigging Wax**

General Information	
Original Use:	Crude oil production, pipeline transmission, and heavy oil production. Generated from pipeline cleaning operations that have pig receiving facilities.
Physical Description:	Liquid or wax.
Contaminants:	Hydrocarbon, paraffin, demulsifiers. May contain NORMs.
Other Codes:	Alberta AER Code: PIGWST (Pigging Waste) - *reportable*

Hazard Information			
Physical:	Flammable Liquids, Combustible Liquids, or Flammable Solids.		
Health:	Skin Irritation, Skin/Respiratory Sensitization.		
SDS:	For additional information, see hydrocarbon related SDSs.		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination.		
First Aid Measures:	**Inhalation:** Use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest and call for immediate medical attention. **Eye Contact:** Flush eyes, including under eyelids, with a continuous flow of water for at least 15 min. If irritation persists, get medical attention. **Skin Contact:** Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing. **Ingestion:** DO NOT induce vomiting since it is important that no amount of the material should enter the lungs (aspiration). Keep at rest and get prompt medical attention.		

Management Methods		
Classification By Provincial Waste Regulations (typical):	**BC:** Hazardous Waste. **AB:** Dangerous Oilfield Waste (assumed).	**SK:** Hazardous Waste **NWT**: Hazardous Waste
Storage:	Store in sealed drums at field facility. Keep away from ignition and heat sources.	
Disposal:	Send to a waste contractor (Oilfield Waste Processing Facility).	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
UN3175	If no free liquids at time of packaging: SOLIDS CONTAINING FLAMMABLE LIQUIDS N.O.S. (crude oil sludge)	4.1	II	16, 56
UN1993	If any free liquids: FLAMMABLE LIQUID N.O.S., (pigging waste contaminated with *("insert the technical name of the flammable contaminant")).*	3	I, II, or III	16, 150
Small Container:	Class 3 label or 4.1 label, shipping name with technical name of contaminant in brackets and UN Number.			
Large Container:	Class 3 placard or 4.1 placard if over 500 kg or in direct contact with a large means of containment. UN Number required with the placard if in direct contact with a large means of containment or shipping >4000 kg.			
Documents:	AER Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:	May not be TDG regulated there are no liquids.			

Pigging Wax – 2020

Waste Profile Sheet: **Sludge - Gas Sweetening (Liquid)**

General Information	
Original Use:	Sludges are generated in acid gas removal process and contain amine degradation products and accumulated corrosion products.
Physical Description:	Liquid sludge.
Contaminants:	Dependent on operation: May contain DEA, amine degradation products, trace metals, iron sulphide.
Other Codes:	Alberta AER Code: SLGSWT (Sludge - gas sweetening systems) - *reportable*

Hazard Information			
Physical:	Not Applicable.		
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization, Carcinogenicity, Mutagenicity, Reproductive Hazards.		
SDS:	For additional information see specific contaminant SDS (e.g. Diethanolamine).		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination (from amines and metals). Potential air pollution if burned illegally.		
First Aid Measures:	**Inhalation**: Use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest. Call for prompt medical attention. **Eye Contact:** Flush eyes with a continuous flow of fresh water until irritation subsides but at least 15 minutes. **Skin Contact:** Flush with large amounts of fresh water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing. **Ingestion:** DO NOT induce vomiting. If individual is conscious, give milk or water to dilute stomach contents. DO NOT attempt to give anything to an unconscious person. Keep warm and quiet and seek medical attention.		

Management Methods		
Classification By Provincial Waste Regulations (typical):	**BC:** Hazardous Waste **AB:** Dangerous Oilfield Waste	**SK:** Hazardous Waste **NWT**: Hazardous Waste
Storage:	Store in tanks/barrels at field facility. Segregate from other waste sludges.	
Disposal:	Disposal based on specific characteristics. Options include: Physical/chemical treatment, landfill, biodegradation or thermal treatment.	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation

UN No.	Shipping Name	Class	Packing Group	Special Provisions
	Check SDS. To determine if a dangerous good.	Check SDS		
	If not a dangerous good:			
None	AB, SK & NWT: LEACHABLE WASTE, LIQUID, gas sweetening sludge containing *("insert the technical name of the contaminant").*	None	None	
None	BC: LEACHABLE TOXIC WASTE, gas sweetening sludge containing *("insert the technical name of the contaminant").*	None	None	
Small Container:	If a dangerous good, label, shipping name and UN Number based on class.			
Large Container:	If a dangerous good, placard based on class; placard is required and over 500 kg or in direct contact with a large means of containment. UN Number required with the placard if in direct contact with a large means of containment or shipping >4000 kg.			
Documents:	AER Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:	Diethanolamine (DEA) is not classified as a dangerous good; however, some products also commonly referred to as DEA (e.g. diethylamine) are regulated. Processes may also make this a leachable or self-heating waste.			

Sludge - Gas Sweetening (Liquid) – 2020

Waste Profile Sheet: **Sludge - Gas Sweetening (Solid)**

General Information	
Original Use:	Sludges are generated in acid gas removal process and contain amine degradation products and accumulated corrosion products.
Physical Description:	Solid sludge (semi-solid).
Contaminants:	Dependent on operation: May contain DEA, amine degradation products, trace metals, iron sulphide.
Other Codes:	Alberta AER Code: SLGSWT (Sludge –gas sweetening systems) - *reportable*

Hazard Information			
Physical:	Flammable Solids.		
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization, Carcinogenicity, Mutagenicity, Reproductive Hazards.		
SDS:	For additional information see specific contaminant SDS (e.g. Diethanolamine).		
WHMIS Label:		**Protective Equipment**:	
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination (from amines and metals). Potential air pollution if burned illegally.		
First Aid Measures:	**Inhalation:** Use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest. Call for prompt medical attention. **Eye Contact:** Flush eyes with a continuous flow of fresh water until irritation subsides but at least 15 minutes. **Skin Contact:** Flush with large amounts of fresh water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing. **Ingestion**: DO NOT induce vomiting. If individual is conscious, give milk or water to dilute stomach contents. DO NOT attempt to give anything to an unconscious person. Keep warm and quiet and seek medical attention.		

Management Methods		
Classification By Provincial Waste Regulations (typical):	**BC:** Hazardous Waste **AB:** Dangerous Oilfield Waste	**SK:** Hazardous Waste **NWT:** Hazardous Waste
Storage:	Store in tanks/barrels at field facility. Segregate from other waste sludges.	
Disposal:	Disposal based on specific characteristics. Options include: physical/chemical treatment, landfill, biodegradation and thermal treatment. Send to an approved facility.	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
	If DEA, check SDS to determine if a dangerous good. See "Comments" below. If self-heating:	Check SDS		
UN3190	SELF HEATING, SOLID, INORGANIC, N.O.S. ("insert the technical name of the contaminant").	4.2	II or III	16
	If not a dangerous good:			
None	AB, SK & NWT: LEACHABLE WASTE, SOLID, gas sweetening sludge containing ("insert the technical name of the contaminant").	None	None	
None	BC: LEACHABLE TOXIC WASTE, gas sweetening sludge containing ("insert the technical name of the contaminant").	None	None	
Small Container:	If self-heating: Class 4.2 label, shipping name (with technical name in brackets) and UN Number. None if not self-heating.			
Large Container:	If self-heating: Class 4.2 placard if over 500 kg or in direct contact with a large means of containment. UN Number required with the placard if in direct contact with a large means of containment or shipping >1,000 kg. No TDG if not self-heating.			
Documents:	AER Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:	DEA itself is not Classified as a TDG; however, some products commonly referred to as DEA are regulated. Processes may also make this a leachable waste or self-heating.			

Sludge - Gas Sweetening (Solid) – 2020

Waste Profile Sheet: **Sludge - Gas Sweetening (Iron Sponge)**

General Information	
Original Use:	Gas sweetening operations that use iron sponge.
Physical Description:	Solid sludge (semi-solid).
Contaminants:	May contain hydrocarbons, asphaltenes, corrosion inhibitors, iron oxides, iron sulphides.
Other Codes:	Alberta AER Code: SLGSWT (Sludge – gas sweetening) - *reportable*

Hazard Information			
Physical:	Flammable Solid.		
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization		
SDS:	For additional information see specific contaminant SDS (e.g. Crude oil, iron sulphide)		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Waste characterization required to identify pollution concerns. Uncontrolled storage and disposal may cause groundwater and soil contamination.		
First Aid Measures:	**Inhalation**: Use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest and call for immediate medical attention. **Eye Contact**: Flush eyes, including under eyelids, with a continuous flow of water for at least 15 min. If irritation persists, get medical attention. **Skin Contact:** Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing. **Ingestion**: DO NOT induce vomiting since it is important that no amount of the material should enter the lungs (aspiration). Keep at rest and get prompt medical attention.		

Management Methods		
Classification By Provincial Waste Regulations (typical):	**BC:** Hazardous Waste **AB:** Dangerous Oilfield Waste	**SK:** Hazardous Waste **NWT:** Hazardous Waste
Storage:	Store in steel drums.	
Disposal:	Disposal based on specific characteristics. Options include: physical/chemical treatment, landfill, biodegradation and thermal treatment.	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
UN3190	If self-heating: SELF-HEATING SOLID, INORGANIC, N.O.S. (“insert the technical name of the contaminant”).	4.2	II or III	16
UN1376	If not self-heating: IRON SPONGE, SPENT	4.2	III	
Small Container:	Class 4.2 label, shipping name (with technical name in brackets if Special Provision 16) and UN Number.			
Large Container:	Class 4.2 placard if more than 500 kg or in direct contact with a large means of containment. UN Number required with the placard if in direct contact with a large means of containment or shipping >1,000 kg of UN3190 or shipping >4000 kg.			
Documents:	AER Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:	Lime neutralization required in landfill – 3/1 lime/sulphur weight ratio. Transport wet to prevent spontaneous combustion.			

Sludge - Gas Sweetening (Iron Sponge) – 2020

Waste Profile Sheet: **Sludge - Glycol (Liquid)**

General Information	
Original Use:	Gas processing plants. Waste sludges associated with gas drying and glycol systems.
Physical Description:	Liquids sludge.
Contaminants:	May contain glycols, boron compounds.
Other Codes:	Alberta AER Code: SLGGLY (Sludge – glycol/gas drying systems) - *reportable*

Hazard Information			
Physical:	Combustible Liquids		
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization, Carcinogenicity.		
SDS:	For additional information see specific contaminant SDS.		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Additional characterization required to identify pollution concerns. Possible soil and vegetation contamination from glycols that use boron compounds for stabilization.		
First Aid Measures:	**Inhalation:** Generally not considered to be a hazard at normal temperatures (up to 38°C). High vapour concentrations may irritate the nose, throat and lungs; may inhibit cholinesterase enzyme activity, causing disturbance of central nervous system. **Eye Contact:** Not expected to be a hazard. **Skin Contact:** Not expected to be a hazard. **Ingestion:** May irritate mouth, throat or stomach.		

Management Methods		
Classification By Provincial Waste Regulations (typical):	**BC:** Hazardous Waste **AB:** Dangerous Oilfield Waste	**SK**: Hazardous Waste **NWT:** Hazardous Waste (by definition)
Storage:	Store in sealed containers. Keep in well-ventilated areas.	
Disposal:	Send to a waste contractor for potential treatment and disposal. Send to a hazardous waste disposal facility for high temperature incineration. Inject via salt water or waste disposal well (Alberta: glycol content must be <40%).	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation

UN No.	Shipping Name	Class	Packing Group	Special Provisions
UN1993	If flammable: FLAMMABLE LIQUID N.O.S. (“insert the technical name of the contaminant”).	3	I, II, or III	16, 150
None	If not flammable and high leachable BTEX: AB, SK & NWT: LEACHABLE WASTE, LIQUID, drying system sludge containing (“insert the technical name of the contaminant”).	None	None	
None	BC: LEACHABLE TOXIC WASTE, drying system sludge containing (“insert the technical name of the contaminant”).	None	None	
Small Container:	Class 3 label for Flammable liquid, shipping name (with hazardous ingredient in brackets if Special Provision 16) and UN Number.			
Large Container:	Class 3 placard if over 500 kg or in direct contact with a large means of containment. UN Number required with the placard if in direct contact with a large means of containment or shipping > 4000 kg.			
Documents:	AER Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:	E.G., DEG and TEG sludges are not TDG regulated.			

Sludge - Glycol (Liquid) – 2020

Waste Profile Sheet: **Sludge - Glycol (Solid)**

General Information	
Original Use:	Gas processing plants. Waste sludges associated with gas drying and glycol systems.
Physical Description:	Liquid sludge (semi-solid).
Contaminants:	May contain glycols, boron compounds.
Other Codes:	Alberta AER Code: SLGGLY (Sludge – glycol/gas drying systems) - *reportable*

Hazard Information			
Physical:	Flammable Solids.		
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization, Carcinogenicity, Mutagenicity, Reproductive Hazards.		
SDS:	For additional information see specific contaminant SDS.		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Additional characterization required to identify pollution concerns. Possible soil and vegetation contamination from glycols that use boron compounds for stabilization.		
First Aid Measures:	**Inhalation**: Generally not considered to be a hazard at normal temperatures (up to 38°C). High vapour concentrations may irritate the nose, throat and lungs; may inhibit cholinesterase enzyme activity, causing disturbance of central nervous system. **Eye Contact:** Not expected to be a hazard. **Skin Contact:** Not expected to be a hazard. **Ingestion**: May irritate mouth, throat or stomach.		

Management Methods		
Classification By Provincial Waste Regulations (typical):	**BC:** Hazardous Waste **AB:** Dangerous Oilfield Waste	**SK**: Hazardous Waste **NWT**: Hazardous Waste
Storage:	Store temporarily in drain barrels to allow for the drainage of any free liquids. Transfer to waste bin (glycol filters used in sour service may be self-heating; store in steel drums). Keep in well-ventilated areas.	
Disposal:	Disposal based on specific characteristics. Options include: oilfield waste processing facility, physical/chemical treatment, landfill, biodegradation and thermal treatment.	
Reportable Releases: (Check SDS re classification	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation

UN No.	Shipping Name	Class	Packing Group	Special Provisions
UN3190	If self-heating: SELF-HEATING SOLID, INORGANIC, N.O.S. (“insert the technical name of the contaminant”).	4.2	II or III	16
UN3175	If flammable and no free liquids: SOLIDS CONTAINING FLAMMABLE LIQUID N.O.S. (“insert the technical name of the contaminant”).	4.1	II	16, 56
None None	If not flammable or self-heating and high leachable BTEX: AB, SK & NWT: LEACHABLE WASTE, SOLID, sludge containing glycol BC: LEACHABLE TOXIC WASTE, sludge containing glycol and lead	None None	None None	
Small Container:	Class 4.1 or 4.2 label, shipping name and UN Number. No TDG label if not TDG regulated.			
Large Container:	Class 4.1 or 4.2 placard if ⍰500 kg or in direct contact with a large means of containment. UN Number required with the placard if in direct contact with a large means of containment or if shipping >1000 kg if UN3190 or shipping >4000 kg. No TDG label if not TDG regulated.			
Documents:	AER Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:				

Sludge - Glycol (Solid) – 2020

Waste Profile Sheet: **Sludge – Hydrocarbon (Liquid)**

General Information	
Original Use:	Oil and heavy oil production operations. Waste liquid sludge from crude oil separators.
Physical Description:	Black viscous liquid sludge (semi-solid). Strong hydrocarbon odour.
Contaminants:	May contain hydrocarbons, asphaltenes, corrosion inhibitors, iron oxides, iron sulphides.
Other Codes:	Alberta AER Code: SLGEML (Sludge – emulsion) - *reportable* SLGPIT (Sludge – flare pit) - *reportable* SLGHYD (Sludge – hydrocarbon) - *reportable*

Hazard Information			
Physical:	Combustible Liquid		
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization		
SDS:	For additional information see specific contaminant SDS (e.g. Crude oil, iron sulphide)		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Waste characterization required to identify pollution concerns. Uncontrolled storage and disposal may cause groundwater and soil contamination.		
First Aid Measures:	**Inhalation**: Use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest and call for immediate medical attention. **Eye Contact:** Flush eyes, including under eyelids, with a continuous flow of water for at least 15 min. If irritation persists, get medical attention. **Skin Contact:** Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing. **Ingestion:** DO NOT induce vomiting since it is important that no amount of the material should enter the lungs (aspiration). Keep at rest and get prompt medical attention.		

Management Methods		
Classification By Provincial Waste Regulations (typical):	**BC:** Hazardous Waste if > 3% refined hydrocarbon **AB:** Dangerous Oilfield Waste	**SK:** Hazardous Waste **NWT:** Hazardous Waste
Storage:	Store in tanks or barrels. Store separately from other sludges.	
Disposal:	Send to a licensed reclaimer for product recovery and disposal. Send to a waste contractor for potential treatment and disposal (Cavern or Oilfield Waste Processing Facility). Spread and treat waste on-site if permitted.	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
UN2924	If transported by vacuum truck, use CAPP TDG Permit (see comments below): MIXED OILFIELD PRODUCTION FLUIDS, TREAT AS FLAMMABLE LIQUID, CORROSIVE N.O.S.	3(8)	II	16
UN1993	If without permit: FLAMMABLE LIQUID, N.O.S. (hydrocarbon sludge)	3	I, II, or III	16, 150
Small Container:	Class 3 label, shipping name and UN Number.			
Large Container:	Class 3 placard if more than 500 kg or in direct contact with a large means of containment. UN Number required with the placard if in direct contact with a large means of containment or shipping >4000 kg.			
Documents:	AER Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:	This waste may have to be tested. CAPP Permit required if shipping as MIXED OILFIELD PRODUCTION FLUIDS (classification not required). Use Federal Equivalency Certificate SH5561 (Ren. 11) (all jurisdictions) or AB permit 2019-2057 (only in Alberta) and ensure all terms and conditions are met.			

Sludge – Hydrocarbon (Liquid) – 2020

Waste Profile Sheet: **Sludge - Hydrocarbon (Solid)**

General Information	
Original Use:	Oil and heavy oil production operations. Waste sludge from bottom of crude oil separators, inlet separators, slop tanks, flare knockouts, etc.
Physical Description:	Black viscous sludge (semi-solid). Strong hydrocarbon odour.
Contaminants:	May contain hydrocarbons, asphaltenes, corrosion inhibitors, iron oxides, iron sulphides.
Other Codes:	Alberta AER Code: SLGEML (Sludge – emulsion) - *reportable* SLGPIT (Sludge – flare pit) - *reportable* SLGHYD (Sludge – hydrocarbon) - *reportable*

Hazard Information			
Physical:	Flammable Solid.		
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization		
SDS:	For additional information see specific contaminant SDS (e.g. Crude oil, iron sulphide)		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Waste characterization required to identify pollution concerns. Uncontrolled storage and disposal may cause groundwater and soil contamination.		
First Aid Measures:	**Inhalation**: Use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest and call for immediate medical attention. **Eye Contact:** Flush eyes, including under eyelids, with a continuous flow of water for at least 15 min. If irritation persists, get medical attention. **Skin Contact:** Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing. **Ingestion**: DO NOT induce vomiting since it is important that no amount of the material should enter the lungs (aspiration). Keep at rest and get prompt medical attention.		

Management Methods		
Classification By Provincial Waste Regulations (typical):	**BC**: Hazardous Waste if > 3% refined hydrocarbon **AB**: Dangerous Oilfield Waste	**SK**: Hazardous Waste **NWT**: Hazardous Waste
Storage:	Store in tanks or barrels. Store separately from other sludges.	
Disposal:	Disposal based on specific characteristics. Options include: oilfield waste processing facility, physical/chemical treatment, landfill, biodegradation and thermal treatment.	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
UN3175	SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. (“insert the technical name of the contaminant”).	4.1	II	16, 56
Small Container:	Class 4.1 label, shipping name (with technical name of contaminant in brackets if Special Provision 16) and UN Number.			
Large Container:	Class 4.1 placard if more than 500 kg or in direct contact with large means of containment. UN Number required with the placard if in direct contact with a large means of containment or shipping >4000 kg.			
Documents:	AER Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:	This waste may have to be tested to determine if it meets any of the TDG classification criteria and, if required, a leachate test.			

Sludge - Hydrocarbon (Solid) - 2020

Waste Profile Sheet: **Sludge - Process**

General Information	
Original Use:	Wastewater digester, filter backwash pond, process pond and utility boiler sludge.
Physical Description:	Liquid sludge (semi-solid).
Contaminants:	Water, solids, hydrocarbons, PAH's, aluminum, sulphides, chlorides and trace metals.
Other Codes:	Alberta AER Code: SLGPRO (Sludge – process) - *reportable*

Hazard Information			
Physical:	Not Applicable.		
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization, Carcinogenicity, Mutagenicity, Reproductive Hazards.		
SDS:	For additional information see specific contaminant SDS (e.g. Crude oil, iron sulphide)		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Potential groundwater contamination with leaching of hydrocarbons, metals, and PAH's if improperly stored. Metals concern if waste stream is combined with low pH water. Further analysis may be required to determine pollution concerns from individual sludges.		
First Aid Measures:	**Inhalation:** Use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest and call for immediate medical attention. **Eye Contact:** Flush eyes, including under eyelids, with a continuous flow of water for at least 15 min. If irritation persists, get medical attention. **Skin Contact:** Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing. **Ingestion:** DO NOT induce vomiting since it is important that no amount of the material should enter the lungs (aspiration). Keep at rest and get prompt medical attention.		

Management Methods		
Classification By Provincial Waste Regulations (typical):	**BC:** Testing Required **AB:** Testing Required	**SK:** Testing Required **NWT:** Testing Required
Storage:	Store in tanks or barrels. Segregate from other sludges.	
Disposal:	Disposal based on specific characteristics. Options include: physical/chemical treatment, landfill, biodegradation and thermal treatment.	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
	See "Comments" below.			
Small Container:	If TDG regulated: appropriate class label, shipping name (with technical name of contaminant in brackets if Special Provision 16) and UN Number			
Large Container:	If TDG regulated: appropriate TDG placard if more than 500 kg or in direct contact with large means of containment. UN Number required with the placard if in direct contact with a large means of containment or shipping >4000 kg.			
Documents:	If Non-Dangerous Oilfield Waste / Non-Hazardous Waste use a Truck Ticket. If Dangerous Oilfield Waste / Hazardous Waste use the AER Alberta Oilfield Waste Form, federal Movement Document (BC, NWT) or TDG document (SK). Use the federal Movement Document when transporting across provincial borders.			
Comments:	This waste has to be tested to determine if it meets the criteria as a dangerous good. Potential classes include 3, 4.1, and 4.2. CAPP Permit required if shipping as MIXED OILFIELD PRODUCTION FLUIDS (classification not required). Use Federal Equivalency Certificate SH5561 (Ren. 11) (all jurisdictions) or AB permit 2019-2057 (only in Alberta) and ensure all terms and conditions are met.			

Sludge - Process – 2020

Waste Profile Sheet: **Solvent Residues**

General Information				
Original Use:	Well servicing, drilling / completion operations.			
Physical Description:	Liquid, Semi-solid sludge.			
Contaminants:	Contains solvent. May contain lead.			
Other Codes:	Alberta AER Code: SOLALP (non-halogenated aliphatic) - *reportable* SOLARO (non-halogenated aromatic)- *reportable*			
Hazard Information				
Physical:	Combustible Liquid.			
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization.			
SDS:	See solvent and specific contaminant SDS.			
WHMIS Label:		**Protective Equipment:**		
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination.			
First Aid Measures:	**Inhalation:** Use proper respiratory protection to immediately remove victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest and seek immediate medical attention. **Eye Contact:** Flush eyes, including under eyelids, with a continuous flow of fresh water for at least 15 min. If irritation persists, get medical attention. **Skin Contact:** Remove severely contaminated clothing and clean before reusing. Flush with large amounts of fresh water and use soap if available. **Ingestion:** DO NOT induce vomiting. If individual is conscious, give milk or water to dilute stomach contents. DO NOT attempt to give anything by mouth to an unconscious person. Keep warm & quiet. Seek immediate medical attention.			
Management Methods				
Regulated Under Provincial Waste Regulations (typical):	**BC:** Hazardous Waste **AB:** Dangerous Oilfield Waste	**SK:** Hazardous Waste **NWT:** Hazardous Waste		
Storage:	Store in sealed containers. Keep in well-ventilated areas. Provide spill and leak containment.			
Disposal:	Recycle. Thermal treatment. Send to an approved oilfield waste receiver (Oilfield Waste Processing Facility).			
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.			
Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
	See "Comments" below.			
Small Container:	If TDG regulated: appropriate class label, shipping name (with technical name of contaminant in brackets if Special Provision 16) and UN Number			
Large Container:	If TDG regulated: appropriate TDG placard if more than 500 kg or in direct contact with large means of containment. UN Number required with the placard if in direct contact with a large means of containment or shipping >4000 kg.			
Documents:	AER Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:	Solvents can be classified as Flammable Liquids (Class 3), Toxic Substances (Class 6), Leachable (BTEX), or Corrosives (Class 8). Refer to supplier for classification information.			

Solvent Residues – 2020

Waste Profile Sheet: **Water - Process (Trace Organics)**

General Information

Original Use:	Process wastewaters are a combination of streams characteristic to specific facility. Waste includes wash water, cooling waters, drainage from process buildings, and may include runoff water. Collected via sumps, floor drains and drain lines into central process wastewater storage tanks or holding ponds.
Physical Description:	Liquid.
Contaminants:	May contain iron oxides, calcium carbonate, BTEX, hydrocarbons, oil and grease, trace metals (lead, chromium, thallium)
Other Codes:	Alberta AER Code: PWTROR (Water – process with organic chemicals) - *reportable*

Hazard Information

Physical:	Combustible Liquid.
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization.
SDS:	For additional information see specific contaminant SDS.
WHMIS Label:	 **Protective Equipment:** 
Environmental:	Waste may contain volatiles and components which will generate toxic fumes during decomposition of the waste. May also contain trace metals and sulfides. Uncontrolled storage and disposal may cause groundwater and soil contamination (metals, hydrocarbons).
First Aid Measures:	**Inhalation:** Use proper respiratory protection to immediately remove the affected victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest and call for immediate medical attention. **Eye Contact:** Flush eyes, including under eyelids, with a continuous flow of water for at least 15 min. If irritation persists, get medical attention. **Skin Contact:** Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing. **Ingestion:** DO NOT induce vomiting since it is important that no amount of the material should enter the lungs (aspiration). Keep at rest and get prompt medical attention.

Management Methods

Classification By Provincial Waste Regulations (typical):	**BC:** Hazardous Waste **AB:** Dangerous Oilfield Waste if leachables	**SK:** Hazardous Waste **NWT:** Hazardous Waste
Storage:	Store on-site in a tank or lined wastewater retention pond.	
Disposal:	Well injection.	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation

UN No.	Shipping Name	Class	Packing Group	Special Provisions
	See "Comments" below.			
None	AB, SK & NWT: LEACHABLE WASTE, LIQUID, process water containing ("insert the technical name of the contaminant").	None	None	
None	BC: LEACHABLE TOXIC WASTE, process water containing ("insert the technical name of the contaminant").	None	None	
Small Container:	No TDG safety marks required. (See "Comments" below.)			
Large Container:	No TDG safety marks required. (See "Comments" below.)			
Documents:	Truck ticket if not regulated. AER Alberta Oilfield Waste Form or Recycle Docket (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:	Testing is required if contamination with TDG regulated substance(s) is suspected. High hydrocarbon content may result in a flammable liquid (Class 3).			

Water - Process (Trace Organics) – 2020

Waste Profile Sheet: **Well Workover Fluids (Acid)**

General Information	
Original Use:	Well servicing, drilling / completion operations. Acid wastes from well stimulations can be either residual acids not used, found in storage tanks or drums at the well site.
Physical Description:	Corrosive liquid.
Contaminants:	Hydrochloric acid, hydrofluoric acid
Other Codes:	Alberta AER Code: WWOFLD (well workover fluids) – *reportable*

Hazard Information			
Physical:	Corrosive to Metals.		
Health:	Acute Toxicity – Oral, Dermal, Inhalation. Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization, Carcinogenicity, Mutagenicity, Reproductive Hazards, Skin/Eye Corrosion.		
SDS:	Use SDS of specific acid.		
WHMIS Label:		**Protective Equipment:**	
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination.		
First Aid Measures:	**Inhalation:** Use proper respiratory protection to immediately remove victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest and seek immediate medical attention. **Eye Contact:** Flush eyes, including under eyelids, with a continuous flow of fresh water for at least 15 min. If irritation persists, get medical attention. **Skin Contact:** Remove severely contaminated clothing and clean before reusing. Flush with large amounts of fresh water and use soap if available. **Ingestion:** DO NOT induce vomiting. If individual is conscious, give milk or water to dilute stomach contents. DO NOT attempt to give anything by mouth to an unconscious person. Keep warm & quiet. Seek immediate medical attention.		

Management Methods		
Regulated Under Provincial Waste Regulations (typical):	**BC:** Hazardous Waste **AB:** Dangerous Oilfield Waste if corrosive and/or flammable	**SK:** Hazardous Waste **NWT:** Hazardous Waste
Storage:	Store in corrosion resistant (plastic or lined) containers. Keep closed. Store in a cool, well-ventilated place away from caustics.	
Disposal:	Well injection (with approval). Recover hydrocarbon prior to disposal.	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
UN2924	If transported by vacuum truck, use CAPP TDG Permit (see comments below): MIXED OILFIELD PRODUCTION FLUIDS, TREAT AS FLAMMABLE LIQUID, CORROSIVE N.O.S. Without permit: test to determine if flammable and/or corrosive or not regulated.	3(8)	II	16
Small Container:	If TDG regulated: appropriate class label, shipping name (with technical name of contaminant in brackets if Special Provision 16) and UN Number			
Large Container:	If TDG regulated: appropriate TDG placard if more than 500 kg or in direct contact with large means of containment. UN Number required with the placard if in direct contact with a large means of containment or shipping >4000 kg.			
Documents:	AER Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:	Corrosives that have not been tested must be included in Packing Group I as per TDGR Section 2.42 (1). Waste may not be regulated as they are dependent upon pH. Waste should be tested. If mixture contains hydrocarbons, refer to Drilling Waste - Hydrocarbon / Acid / Water Mixture Waste Profile Sheet. CAPP Permit required if shipping as MIXED OILFIELD PRODUCTION FLUIDS (classification not required). Use Federal Equivalency Certificate SH5561 (Ren. 11) (all jurisdictions) or AB permit 2019-2057 (only in Alberta) and ensure all terms and conditions are met.			

Well Workover Fluids (Acid) – 2020

Waste Profile Sheet: **Well Workover Fluids (Caustic)**

General Information				
Original Use:	Well servicing, drilling / completion operations.			
Physical Description:	Solid, slurry, liquid. High solubility in water, beige to white in colour.			
Contaminants:	Sodium hydroxide and / or potassium hydroxide. May contain hydrogen sulphide and / or hydrocarbons.			
Other Codes:	Alberta AER Code: WWOFLD (well workover fluids) – *reportable*			
Hazard Information				
Physical:	Flammable Liquid, Combustible Liquid, Corrosive to Metals.			
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization, Skin/Eye Corrosion.			
SDS:	For additional information see specific caustic SDS (i.e. sodium hydroxide, potassium hydroxide).			
WHMIS Label:		**Protective Equipment:**		
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination.			
First Aid Measures:	**Inhalation:** Use proper respiratory protection to immediately remove victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest and seek immediate medical attention. **Eye Contact:** Flush eyes, including under eyelids, with a continuous flow of fresh water for at least 15 min. If irritation persists, get medical attention. **Skin Contact:** Remove severely contaminated clothing and clean before reusing. Flush with large amounts of fresh water and use soap if available. **Ingestion:** DO NOT induce vomiting. If individual is conscious, give milk or water to dilute stomach contents. DO NOT attempt to give anything by mouth to an unconscious person. Keep warm & quiet. Seek immediate medical attention.			
Management Methods				
Regulated Under Provincial Waste Regulations (typical):	**BC:** Hazardous Waste **AB:** Dangerous Oilfield Waste if corrosive and/or flammable	**SK:** Hazardous Waste **NWT** Hazardous Waste		
Storage:	Store in corrosion resistant (plastic or lined) container. Store in a separate area from acids.			
Disposal:	Well injection (with approval). Recover hydrocarbon prior to disposal.			
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.			
Transportation				
UN No.	**Shipping Name**	**Class**	**Packing Group**	**Special Provisions**
UN2924	If transported by vacuum truck, use CAPP TDG Permit (see comments below): MIXED OILFIELD PRODUCTION FLUIDS, TREAT AS FLAMMABLE LIQUID, CORROSIVE N.O.S. If without permit: test to determine if flammable and/or corrosive or not regulated.	3(8)	II	16
Small Container:	If corrosive and regulated: Class 8 label, shipping name (with technical name of contaminant in brackets) and UN Number			
Large Container:	If corrosive and regulated: Class 8 placard if more than 500 kg or in direct contact with large means of containment. UN Number required with the placard if in direct contact with a large means of containment or shipping >4000 kg.			
Documents:	AER Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).			
Comments:	Corrosives that have not been tested must be included in Packing Group I as per TDGR Section 2.42 (1). Waste should be tested. Waste may not be regulated dependent upon pH. CAPP Permit required if shipping as MIXED OILFIELD PRODUCTION FLUIDS (classification not required). Use Federal Equivalency Certificate SH5561 (Ren. 11) (all jurisdictions) or AB permit 2019-2057 (only in Alberta) and ensure all terms and conditions are met.			

Well Workover Fluids (Caustic) – 2020

Waste Profile Sheet: **Well Workover Fluids (Hydrocarbon / Acid / Water Mixture)**

General Information

Original Use:	Well servicing, drilling / completion operations. Produced during fracturing and solvent squeezing well stimulation programs. Wastes from well stimulations can be either residual acids not used, found in storage tanks or drums at the well site; or acids produced in conjunction with hydrocarbons during the first stages of production following the workover.
Physical Description:	Liquid.
Contaminants:	Hydrochloric acid, acetic acid, formic acid, diesel fuel, kerosene, crude oil, toluene, distillate, xylene, methanol, gelling agents, surfactants, clay stabilizers, and other fluid control agents.
Other Codes:	Alberta AER Code: WWOFLD (well workover fluids) - *reportable*

Hazard Information

Physical:	Flammable Liquid, Combustible Liquid, Corrosive to Metals.
Health:	Eye Irritation, Skin Irritation, Skin/Respiratory Sensitization, Skin/Eye Corrosion.
SDS:	For additional information see specific contaminant SDS.
WHMIS Label:	 **Protective Equipment:** 
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination.
First Aid Measures:	**Inhalation**: Use proper respiratory protection to immediately remove victim from exposure. Administer artificial respiration if breathing has stopped. Keep at rest and seek immediate medical attention. **Eye Contact:** Flush eyes, including under eyelids, with a continuous flow of fresh water for at least 15 min. If irritation persists, get medical attention. **Skin Contact:** Remove severely contaminated clothing and clean before reusing. Flush with large amounts of fresh water and use soap if available. **Ingestion:** DO NOT induce vomiting. If individual is conscious, give milk or water to dilute stomach contents. DO NOT attempt to give anything by mouth to an unconscious person. Keep warm & quiet. Seek immediate medical attention.

Management Methods

Regulated Under Provincial Waste Regulations (typical):	**BC:** Hazardous Waste **AB:** Dangerous Oilfield Waste	**SK:** Hazardous Waste **NWT** Hazardous Waste
Storage:	Store in tanks or sealed drums. Store in a cool, well-ventilated area away from ignition and heat sources.	
Disposal:	Well injection (with approval). Recover hydrocarbon prior to disposal.	
Reportable Releases: (Check SDS re classification)	Report any release of a substance into the environment that may cause, is causing, or has caused an adverse effect. An adverse effect is impairment of, or damage to, the environment, human health or safety, or property. Refer to federal and regional release reporting regulations.	

Transportation

UN No.	Shipping Name	Class	Packing Group	Special Provisions
UN2924	If transported by vacuum truck, use CAPP TDG Permit (see comments below): MIXED OILFIELD PRODUCTION FLUIDS, TREAT AS FLAMMABLE LIQUID, CORROSIVE N.O.S.	3(8)	II	16
	If without permit:			
UN1993	FLAMMABLE LIQUID, N.O.S. (“insert the technical name of the contaminant”).	3	I, II or III	16, 150
UN1760	CORROSIVE LIQUID, N.O.S. (“insert the technical name of the contaminant”).	8	I, II or III	16
UN2924	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (“insert the technical name of the contaminant”).	3(8)	I, II or III	16

Small Container:	Class 3 label for UN1993, Class 8 label for UN1760 or Class 3 and 8 labels for UN2924; shipping name (with technical name in brackets); and UN Number.
Large Container:	Class 3 or 8 placard if over 500 kg or in direct contact with a large means of containment. UN Number required with the placard if in direct contact with a large means of containment or shipping > 1,000 kg of UN2924 or shipping > 4000 kg.
Documents:	AER Alberta Oilfield Waste Form (AB) or the federal Movement Document / Manifest (BC, NWT or out of province) or Truck Ticket (SK).
Comments:	Waste should be tested. Corrosives that have not been tested should be included in Packing Group I as per TDGR Section 2.42 (1). CAPP Permit required if shipping as MIXED OILFIELD PRODUCTION FLUIDS (classification not required). Use Federal Equivalency Certificate SH5561 (Ren. 11) (all jurisdictions) or AB permit 2019-2057 (only in Alberta) and ensure all terms and conditions are met.

Well Workover Fluids (Hydrocarbon / Acid / Water Mixture) – 2020