



GUIDE

Waste Profile Sheets

December 2006

2006-0023

The Canadian Association of Petroleum Producers (CAPP) represents 150 companies that explore for, develop and produce natural gas, natural gas liquids, crude oil, oil sands, and elemental sulphur throughout Canada. CAPP member companies produce more than 95 per cent of Canada's natural gas and crude oil. CAPP also has 130 associate members that provide a wide range of services that support the upstream crude oil and natural gas industry. Together, these members and associate members are an important part of a \$100-billion-a-year national industry that affects the livelihoods of more than half a million Canadians.

Review by July 2010

Disclaimer

This publication was prepared for the Canadian Association of Petroleum Producers (CAPP) by Wotherspoon Environmental Inc. While it is believed that the information contained herein is reliable under the conditions and subject to the limitations set out, CAPP and Wotherspoon Environmental Inc. do not guarantee its accuracy. The use of this report or any information contained will be at the user's sole risk, regardless of any fault or negligence of Wotherspoon Environmental Inc., CAPP or its co-funders.

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

403, 235 Water Street
St. John's, Newfoundland
Canada A1C 1B6
Tel (709) 724-4200
Fax (709) 724-4225

Email: communication@capp.ca Website: www.capp.ca

Waste Profile Sheets Guide

The 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. In particular, the Sheets' information satisfy the requirements of the B.C. Occupational Health and Safety Regulation Section 5.78. When using the information on the sheets it is important to remember the following:

- Each waste's characterization and component data is based on general, but current, industry knowledge and through studies sponsored by the Canadian Association of Petroleum Producers (CAPP). The studies focused on available data from member companies and limited specific analytical research conducted by CAPP and its members.
- It is the responsibility of every waste generator to properly characterize their wastes prior to selecting the appropriate Waste Profile Sheet.
- Waste Profile Sheets have not been developed for materials contaminated with a raw product. In this case the MSDS and original TDG classification for the raw product should be consulted (e.g. soil contaminated with clean glycol – consult MSDS for glycol). This information is provided as a "guideline" only, and does 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.

Each Waste Information Sheet has been divided into four sections: General Information, Hazard Information, Management Methods, and Transportation. Refer to a "*Waste Profile Sheet*" when reviewing the following.

General Information

Original Use

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

Physical Description

The state the material is most often found (i.e. solid, liquid, sludge, gas) with a description, if applicable, such as colour and odour.

Contaminants

Possible contaminants which may be present in the waste. Contaminant information may be useful in determining proper laboratory analysis for waste classification and manifesting. However as this 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 provincial regulations.

Other Codes

Identifies specific provincial or federal waste codes, primarily the Alberta EUB Codes as per Directive 058.

Hazard Information

WHMIS Class

Wastes are not presently subject to Workplace Hazardous Materials Information System (WHMIS) legislation (except in Saskatchewan), unless the waste is designated for reuse, recycling, or recovery. However, information is provided as a guide to identify waste stream hazards. The waste generator is referred to WHMIS regulations for an interpretation of these WHMIS classifications.

Material Safety Data Sheet (MSDS)

Indicates a particular MSDS(s) which may more accurately identify safety information for the waste. In most cases, the MSDS reflects the component information in the first section of the Waste Information Sheet.

WHMIS Hazard Symbols & Safety Protective Equipment

Identifies (via a WHMIS symbol) 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 & clothing). This information can be used for completing the WHMIS labels or tags attached to waste containers.

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.

Health

Adverse health effects resulting from short-term exposure to the material, either as a single exposure or multiple exposures occurring within a short time, usually 24 hours or less. Immediate symptoms of acute exposure are important data for first aid procedures. Health effects may also be indicated for the four routes of entry into the human body: inhalation, eye contact, skin contact, and ingestion.

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.

Management Methods

Classification By Provincial Waste Regulations

The predominant classification of the waste in British Columbia, Alberta, Saskatchewan and the Northwest Territories. The waste classification should be considered when deciding on disposal options. If the waste profile sheet information does not exactly match the waste, testing may be required.

	Alberta	Saskatchewan	B.C. & NWT
Waste Classifications	<ul style="list-style-type: none">• Dangerous Oilfield Waste (DOW)• Non-Dangerous Oilfield Waste (non-DOW)	<ul style="list-style-type: none">• Waste Dangerous Good• PCB Waste• SIR Regulated Waste• Non-Hazardous Waste	<ul style="list-style-type: none">• Hazardous Waste• Non-Hazardous Waste

Hazardous or Dangerous Waste

- As handling, transportation, and disposal costs can increase significantly with this classification it would be beneficial for petroleum companies to periodically test the waste.

Non-Regulated Waste

- These waste types may not pose as great of an environmental and health risk as a hazardous or dangerous waste. Disposal options will involve less technology, storage

requirements are relaxed, and TDG requirements may not be applicable. However, inventory control and minimization techniques will still reduce operational costs and the intent of the waste regulations for handling and storage should still be considered.

- It should be noted that waste generators may be held responsible for any compliance action taken against them if the waste is incorrectly classified, regardless of the background information used to decide on the classification. Therefore if a waste generator (i.e. field location) routinely classifies a sludge waste as a non-special waste, it would be beneficial for the generator to occasionally sample the waste (i.e. characterize the waste) to ensure that the waste does not exhibit borderline properties that would make it a special 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.

Disposal

Provides suggestions for disposal management options.

Reportable Release Volumes

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

British Columbia:

- All crude oil spills >100 litres and all produced water spills >2m³ (or any volume off-site) must be reported to the B.C. Oil & Gas Commission (OGC).
- Any refined product spill in excess of B.C.'s Spill Reporting Regulation must be reported to B.C. Environment.

Both the OGC and B.C. Environment spills may be reported to the Provincial Release Reporting Number at 1-800-663-3456.

The OGC may also require direct notification for crude oil or produced water spills - Phone (250) 261-5700 or (250) 262-3300.

Dangerous goods spills must be reported to local police and the Provincial Emergency Program at 1-800-663-3456.

Alberta:

- All Upstream Produced Fluid spills (including crude oil, condensate, and produced water) $> 2 \text{ m}^3$ on-site and any amount off-site or from a pipeline must be reported to the local EUB office. The landowner must also be notified.
- Other spills, onsite and offsite are reported to Alberta Environment.
- Spills related to handling and offering for transport or transporting are reportable to the local police and the provincial authority

Energy and Utilities Board (EUB)
Calgary Office (403) 297-8303 or local field office

Alberta Environment (AENV)
Edmonton (780) 422-4505 or 1-800-222-6514

Dangerous Goods spills must be reported to local police and the provincial authority at 1-800-272-9600

Saskatchewan:

- All Upstream Produced Fluid spills (including crude oil, condensate, and produced water) $> 1.6 \text{ m}^3$ on-site and any amount off-site must be reported to the local SIR office.
- Refined product spills are reported to SENV.
- Spills related to handling and offering for transport or transporting are reportable to the local police or the provincial authority

Saskatchewan Industry and Resources (SIR)
Regina (306) 787-6113 or local field office

Saskatchewan Environment (SENV)
1-800-667-7525

Dangerous goods spills must be reported to local police or
1-800-667-7525

Northwest Territories and Nunavut Territory:

- Based on GNWT spill reporting requirements and specific licences and permits.
- Spills in NWT related to handling and offering for transport or transporting are reportable to the 24-hour Spill Report Line.
- Spills in Nunavut related to handling and offering for transport or transporting are reportable to the local police and the Nunavut Emergency Services.

GNWT

24-hour Spill Report Line at (867) 920-8130

Indian and Northern Affairs (based on typical land use permit conditions)

All petroleum and chemical spills must be reported to the 24-hour Spill Report Line at (867) 920-8130.

Dangerous goods spills in NWT must be reported to local police and the 24-hour Spill Report Line at (867) 920-8130.

Dangerous goods spills in Nunavut must be reported to local police and the Nunavut Emergency Services at 1-800-693-1666.

Federal (NEB and INAC):

- Check licences and permits. They may include specific waste management and reporting requirements.
- Immediate reporting
 - Spills requiring additional assistance, continuing spills or where further spills are possible.
 - Release of a substance that is likely to be an imminent environmental or health hazard.
 - > 20 L of flammable liquids or vehicular fluids on frozen water body.
 - All spills to near or into a water body.
 - Maintain onsite record of all spills
- All other spills
 - Maintain onsite record of all spills.
 - Monthly reporting of all minor spills.

NEB and INAC

Immediate report: 24-hour Spill Report Line at (867) 920-8130.

INAC: Monthly reports to the District Inspector(s).

Transportation

The Transportation of Dangerous Goods Regulations (TDGR) specify that consignors (shippers) of dangerous goods are responsible for assigning appropriate TDG classifications. A typical TDG classification is provided as a guide in classifying the wastes as per the TDGR. Note that if there is any indication that the subject waste's characteristics or components may be different

from the general information on the Waste Profile Sheet, then the identified TDG Classification may not be correct. If in doubt, the waste should be tested.

The following Special Provisions have been noted:

- 16 The technical name of the most dangerous substance related to the primary class must be shown, in parentheses, on the shipping document following the shipping name. The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name.
- 26 Not applicable. Refers only to nickel sulphate.
- 38 A person must not handle, offer for transport or transport these dangerous goods in a large means of containment if they are in direct contact with the large means of containment.
- 39 Batteries must be protected from short circuits.
- 43 Classification [of methanol] is based on human experience not TDG classification criteria.
- 56 When solids that are not dangerous goods and liquids included in Class 3, Liquids, are in a mixture, the mixture may be handled, offered for transport or transported under this shipping name without the tests and criteria for including substances in Class 4.1, Flammable Solids, first being applied, if
 - there is no free liquid visible at the time the mixture is loaded into a means of containment or at the time the means of containment is closed; and
 - each means of containment is leak proof.
- 58 When solids that are not dangerous goods and liquids included in Class 8, Corrosives, are in a mixture, the mixture may be handled, offered for transport or transported under this shipping name without the tests and criteria for including substances in Class 8, Corrosives, first being applied, if
 - there is no free liquid visible at the time the mixture is loaded into a means of containment or at the time the means of containment is closed; and
 - each means of containment is leak proof.

Labels & Placards

Indicates the type of labels on small containers and vehicle placards required. For field vehicles carrying small quantities (< 500 kg in most cases), placards may not be required.

Documents

In B.C., every hazardous waste shipment sent for disposal must be accompanied by a Waste Manifest.

In Alberta, hazardous waste shipments must be accompanied by a Dangerous Oilfield Waste Manifest. Material for recycle are shipped using a Recycle Docket.

In Saskatchewan and the Northwest Territories, waste dangerous goods/hazardous waste shipments must be accompanied by a federal (Environment Canada Waste Movement Document).

Every non-hazardous waste sent for disposal must be accompanied by a either a Company Waste Shipping Document (if in use) or a truck ticket.

"n/a" in the Transportation section refers to "not applicable".

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).

Waste Profile Sheets

Absorbents – Oily Rags (BTEX)	Drilling Waste - Solvent Containing Pipe
Absorbents – Oily Rags (Non-Regulated)	Dope
Acid (Un-neutralized)	Filters - Amine (BTEX)
Batteries Wet Cell (Lead Acid)	Filters – Glycol (BTEX)
Carbon – Amine (BTEX)	Filters – Lube Oil
Carbon – Glycol (BTEX)	Filters – Non-Regulated
Carbon (Flammable)	Filters – Produced Water
Carbon (Pyrophoric)	Filters – Pyrophoric
Catalyst (Metals)	Filters – Raw Gas
Catalyst (Flammable)	Glycol (Heavy Metals)
Catalyst (Pyrophoric)	Hydrotest Fluids – Methanol
Caustic (Un-neutralized)	Incinerator Ash (Heavy Metals)
Contaminated Debris/Soil (BTEX)	Lubricating Oils (Used)
Contaminated Debris/Soil (Flammable)	PCBs (Liquids/Solids)
Contaminated Debris/Soil (Mercury)	Pigging Wax
Contaminated Debris/Soil (Metals)	Sludge Liquid – Amine (BTEX)
Contaminated Debris/Soil (NORMs)	Sludge Liquid – Glycol (BTEX)
Contaminated Debris/Soil (Sulphur)	Sludge Liquid (Flammable)
Desiccant Materials (BTEX)	Sludge – Non-Regulated
Drill Sump Materials (Hydrocarbon)	Sludge Solid – Amine (BTEX)
Drill Sump Materials (Non-Regulated)	Sludge Solid – Glycol (BTEX)
Drilling Waste - Acid / Water Mixture	Sludge – Solid (Flammable)
Drilling Waste - Caustic / Water Mixture	Sludge – Solid (Pyrophoric)
Drilling Waste - Frac Fluid (heavy metals)	Water (Trace Organics/BTEX)
Drilling Waste - Hydrocarbon / Acid /Water Mixture	

Absorbents – Oily Rags (BTEX)
Waste Profile Sheet

General Information

Original Use:	Maintenance and spill clean up operations.
Physical Description:	Oily and dirty cloths.
Contaminants:	May contain high concentrations of BTEX, hydrocarbons, solvents and heavy metals, glycols, amines.
Other Codes:	Alberta EUB Code: OILABS (Absorbents) OILRAG (Rags)

Hazard Information

WHMIS Class:	B4, D2B	MSDS:	For additional information see specific contaminant MSDS (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.		
Health:	<p>Skin irritation. Potential carcinogen.</p> <p>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.</p>		
First Aid Measures:	<p>Eye Contact: May cause irritation, but will not damage eye tissue.</p> <p>Skin Contact: May cause irritation or other skin disorders.</p> <p>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).</p>		

Management Methods

Classification By Provincial Waste Regulations:	B.C.: Hazardous Waste if low flash point, BTEX. AB: Dangerous Oilfield Waste (if low flash point, ignitability or BTEX).	SK: Waste Dangerous Good NWT: Hazardous Waste
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. NWT: Check specific licences and permits.	
Reportable Releases: (Check MSDS re classification)	<p>B.C.: > 25kg (Class 4); >1 kg (Class 9) AB.: >25 kg (Class 4); 1 kg (Class 9); any quantity into water or that may have harmful effect. SK.: >100 kg onsite, 50 kg offsite</p> <p>NWT: > 25kg (Class 4); >1 kg (Class 9) Check specific licences and permits. (See also page vi.)</p> <p>T.D.G.: > 25kg (Class 4); >25 kg (Class 9)</p>	

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Soaked: SOLIDS CONTAINING FLAMMABLE LIQUID N.O.S. (absorbents contaminated with (add technical name))	4.1	UN3175	II	16, 56
Tainted: Environmentally Hazardous Substance, Solid, n.o.s. (waste solids contaminated with BTEX)	9	UN3077	III	16
Labels:	Class 4.1 or 9			
Placards:	Class 4.1 or 9 if >500 kg or in direct contact with a large means of containment.			
Documents:	If Non-Dangerous Oilfield / Non-Hazardous Waste use a Truck Ticket. If Dangerous Oilfield / Hazardous Waste use the Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
Comments:	If contaminated with other TDG-regulated materials, see TDG classification of original material. Not regulated if sent for cleaning.			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

General Information

Original Use:	Maintenance and spill clean up operations.		
Physical Description:	Stained, not soaked oily and dirty cloth-type sorbent material. Various sizes and forms including pads, rolls and socks.		
Contaminants:	May contain low concentrations of hydrocarbons, solvents and heavy metals, glycols.		
Other Codes:	Alberta EUB Code: OILABS (Absorbents) OILRAG (Rags)		

Hazard Information

WHMIS Class:	B4	MSDS:	For additional information see specific contaminant MSDS (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.		
Health:	Skin irritation.		
First Aid Measures:	<p>Inhalation: In emergency situations, 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.</p> <p>Eye Contact: Flush eyes with fresh water until irritation subsides.</p> <p>Skin Contact: First aid not normally required.</p> <p>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.</p>		

Management Methods

Regulated Under Provincial Waste Regulations:	Not regulated as a waste unless low flash point, ignitability or BTEX component, or greater than 3% refined hydrocarbons. TDG regulated if free liquids, low flash point, ignitability or BTEX component (see Absorbents – Oily Rags (BTEX)).		
Storage:	Store temporarily in drain barrels to allow for the drainage of any free liquids. Transfer to waste filter bin. Keep in well ventilated storage area.		
Disposal:	Clean and reuse. Drain – reclaim/recycle liquids. Send drained filters to approved landfill (Class Ia, Ib or III, depending on characteristics, in AB) NWT: Check specific licences and permits.		
Reportable Releases:	Not normally a reportable release if non-regulated. However, if significant quantity or an environmental hazard, should be reported.		

Transportation

	Shipping Name	Class	PIN	Packing Group	Special Provisions
Non-Regulated.		N/A	N/A	N/A	N/A
Labels:	None				
Placards:	None.				
Documents:	Company Waste Shipping Document or Truck Ticket.				
Comments:	If the sorbents are heavily oiled with condensate or a flammable chemical, see Absorbents – Oil Rags (BTEX) Waste Profile Sheet. If used on other types of products or materials, may or may not be TDG regulated.				

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

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 EUB Code: ACID		

Hazard Information

WHMIS Class:	E; D1A	MSDS:	For additional information see specific contaminant MSDS (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.		
Health:	Respiratory irritant. Corrosive on contact. Severe burns. Avoid contact or inhalation of fumes.		
First Aid Measures:	<p>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.</p> <p>Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.</p> <p>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.</p> <p>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.</p>		

Management Methods

Classification By Provincial Waste Regulations:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste	SK: Waste Dangerous Good 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. In AB, Class Ia (pH 4.5 - 12.5), or Class Ib (pH 6.0 - 9.0). NWT: Check specific licences and permits.		
Reportable Releases: (Check MSDS re classification)	B.C.: > 5 L AB.: >5 L; any quantity into water or that may have harmful effect.	SK.: >50 kg onsite, 10 kg offsite NWT: > 5kg or L. Check specific licences and permits. (See also page vi.) T.D.G.: > 5 L

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
CORROSIVE LIQUID, N.O.S. (technical name)	8	UN1760	I, II, or III	16
Labels:	Class 8			
Placards:	Class 8 if >500 kg or in direct contact with a large means of containment.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
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.			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

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, caustic, lead and various chemicals. May be acid or dry filled. Acid may contain heavy metals and caustics. Household (alkaline) batteries contain carbon, manganese and zinc.
Other Codes:	Alberta EUB Code: BATT

Hazard Information

WHMIS Class:	E; D1B; D1A; D2A	MSDS:	For additional information see specific contaminant MSDS (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.		
Health:	Extremely corrosive vapour and liquids - can cause lung tissue damage. May cause severe burns and permanent tissue damage to eyes and skin. Lead poisoning.		
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:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste	SK: Waste Dangerous Good 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 place.	
Disposal:	Send to an approved battery recycler. Drain batteries of fluids and / or contain for transport. Treat fluids as per "Acid" Waste Sheet. NWT: Check specific licences and permits.	
Reportable Releases: (Check MSDS re classification)	B.C.: > 5 L AB.: >5 L; any quantity into water or that may have harmful effect.	SK.: >50 kg onsite, 10 kg offsite NWT: > 5kg or L. Check specific licences and permits. (See also page vi.) T.D.G.: > 5 L

Transportation

	Shipping Name	Class	PIN	Packing Group	Special Provisions
Batteries, wet, filled with acid		8	UN2794	III	39
Labels:	Class 8				
Placards:	Class 8 if >500 kg or in direct contact with a large means of containment.				
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).				
Comments:	I				

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

General Information

Original Use:	Absorption processes for the purification of amine from gas sweetening systems.		
Physical Description:	Granular carbon. (Activated carbon).		
Contaminants:	May contain materials filtered – amine, BTEX.		
Other Codes:	Alberta EUB Code: ACTCRB (Activated Carbon)		

Hazard Information

WHMIS Class:	B6, D2B	MSDS:	For additional information see MSDSs 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. Incineration may produce toxic fumes.		
Health:	Severe irritation if inhaled or if eye or skin contact. May release hydrogen sulphide. Potential carcinogen. 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.		
First Aid Measures:			

Management Methods

Classification By Provincial Waste Regulations:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste	
Storage:	Store in a sealed container (e.g. drums, totes). Store outdoors in a well ventilated area. May also be flammable or pyrophoric.	
Disposal:	Return to supplier if a pure product. Regenerate amine on-site or through a third party service company. Send to a waste contractor. NWT: Check specific licences and permits.	
Reportable Releases: (Check MSDS re classification)	B.C.: >1 kg AB: >1 kg; any quantity into water or if may have harmful effect	S.K.: >25 L or kg onsite, 5 kg or L offsite (benzene) N.W.T >1 kg or L. Check specific licences and permits. (See also page vi.) T.D.G.: >25 kg

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Waste Environmentally Hazardous Substance, n.o.s. (Carbon contaminated with BTEX)	9	UN3077	III	16
Labels:	Class 9			
Placards:	Class 9 if >500 kg or in direct contact with a large means of containment.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
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.			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

General Information

Original Use:	The purification of glycol from gas dehydration systems.		
Physical Description:	Granular carbon. (Activated carbon).		
Contaminants:	May contain materials filtered – glycol, BTEX.		
Other Codes:	Alberta EUB Code: ACTCRB (Activated Carbon)		

Hazard Information

WHMIS Class:	B6, D2B	MSDS:	For additional information see specific contaminant MSDS (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.		
Health:	High vapour concentration may irritate nose. Potential carcinogen. Avoid prolonged exposure.		
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:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste	SK: Waste Dangerous Good N.W.T.: Hazardous Waste
Storage:	Store in a sealed container (e.g. drums, totes). Store outdoors in a well ventilated area. May also be flammable or pyrophoric.	
Disposal:	Return to supplier if a pure product, regenerate through a third party service company or send to a waste contractor. NWT: Check specific licences and permits.	
Reportable Releases: (Check MSDS re classification)	B.C.: >25 kg (Class 4.2), >1 kg. (Class 9) AB.: >25 kg (Class 4.2), >1 kg. (Class 9); any quantity into water or if may have harmful effect	SK.: >25 L or kg onsite, 5 kg or L offsite (benzene) N.W.T. >25 kg or L (Class 4.2), >1 kg. (Class 9) Check specific licences and permits. (See also page vi.) T.D.G.: >25 kg (Class 4.2), > 25 kg (Class 9)

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Waste Environmentally Hazardous Substance, n.o.s. (Carbon contaminated with BTEX) If subject to spontaneous combustion: Self Heating Solid, organic, n.o.s. (name of hazardous ingredient)	9	UN3077	III	16
	4.2	UN3088	II	16

Labels:	Class 4.2 or 9
Placards:	Class 4.2 or 9 if >500 kg or in direct contact with a large means of containment.
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).
Comments:	If the carbon is contaminated with other materials, testing will be required (self-heating, flashpoint) to determine proper classification and manifesting.

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

General Information

Original Use:	Absorption processes for the purification of amine or waste water 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 EUB Code:	ACTCRB (Activated Carbon)

Hazard Information

WHMIS Class:	B6	MSDS:	For additional information see MSDSs 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.							
Health:	Check process unit to determine toxic components in the filtered waste stream.							
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:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste	
Storage:	Store in sealed container (e.g. drums). Store outdoors in a well ventilated area. May also be pyrophoric (See Carbon (Pyrophoric) Waste Profile Sheet).	
Disposal:	Return to supplier if a pure product, regenerate through a third party service company or send to a waste contractor. NWT: Check specific licences and permits.	
Reportable Releases: (Check MSDS re classification)	B.C.: >25 kg AB.: >25 kg; any quantity into water or if may have harmful effect.	SK.: >25 L or kg onsite, 5 kg or L offsite (benzene) N.W.T.: >25 kg. Check specific licences and permits. (See also page vi.) T.D.G.: >25 kg

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Pure activated carbon: Carbon, activated: Activated carbon contaminated with liquids: Solids Containing Flammable Liquid, n.o.s. (activated carbon)	4.2 4.1	UN1362 UN3175	III II	16, 56
If subject to spontaneous combustion: Self Heating Solid, organic, n.o.s. (name of hazardous ingredient)	4.2	UN3088	II	16
Labels:	Class 4.1 or 4.2			
Placards:	Class 4.1 or 4.2 if >500 kg or in direct contact with a large means of containment.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
Comments:	If the carbon is contaminated with other materials, analysis will be required to determine proper classification and manifesting.			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

General Information

Original Use:	Absorption processes for the purification of amine or waste water 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 EU Code: ACTCRB (Activated Carbon)		

Hazard Information

WHMIS Class:	B6	MSDS:	For additional information see MSDSs 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.		
Health:	Check process unit to determine toxic components in the filtered waste stream.		
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:	B.C.: Hazardous Waste AB: Dangerous Oilfield 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. NWT: Check specific licences and permits.	
Reportable Releases: (Check MSDS re classification)	B.C.: >25 kg AB: >25 kg; any quantity into water or if may have harmful effect.	SK: >100 kg onsite, 20 kg offsite (other inorganic substances) N.W.T.: >25 kg. Check specific licences and permits. (See also page vi.) T.D.G.: >25 kg

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Pure activated carbon: Carbon, activated	4.2	UN1362	III	
Contaminated with dangerous goods: Solids Containing Flammable Liquid, n.o.s. (activated carbon)	4.1	UN3175	II	16, 56
If pyrophoric: Pyrophoric solid, organic, n.o.s. (iron sulphide)	4.2	UN2846	I	16, 36 No bulk transport
Labels:	Class 4.1 or 4.2			
Placards:	Class 4.1 or 4.2 if >500 kg or in direct contact with a large means of containment.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
Comments:	Test if contaminated with other materials, to determine classification.			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

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 EUB Code: CATNS (Catalyst - non sulphur)		

Hazard Information

WHMIS Class:	B6, D2B	MSDS:	For additional information see MSDS of specific components (i.e. Coke, aluminum oxide).
WHMIS Label:	 	Protective Equipment:	   
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination. Potential flammability from iron sulphide components.		
Health:	Possible irritation of airways, lungs, skin and eyes. Inhalation of some component dust may cause cancer.		
First Aid Measures:	<p>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.</p> <p>Eye Contact: Flush eyes, including under eyelids, with a continuous flow of water for at least 15 min. If irritation persists, get medical attention.</p> <p>Skin Contact: Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing.</p> <p>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.</p>		

Management Methods

Classification By Provincial Waste Regulations:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste	SK: Waste Dangerous Good N.W.T.: Hazardous Waste
Storage:	Store in sealed container (e.g. drums).	
Disposal:	Return to supplier if a pure product. Regenerate through a third party service company. Send to a waste contractor. NWT: Check specific licences and permits.	
Reportable Releases: (Check MSDS re classification)	B.C.: >1 kg AB.: >1 kg; any quantity into water or if may have harmful effect.	SK.: >25 kg onsite, 5 kg offsite (nickel) N.W.T.: >1 kg. Check specific licences and permits. (See also page vi.) T.D.G.: >25 kg

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Environmentally hazardous substance, solid, n.o.s. (add technical name)	9	UN3077	III	16
Labels:	Class 9			
Placards:	Class 9 if >500 kg or in direct contact with a large means of containment.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
Comments:	Use appropriate leachate code in shipping name (LA43 – nickel). This waste may require specific analysis to determine leachability.			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

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 EUB Code:	CATNS (Catalyst - non sulphur)	

Hazard Information

WHMIS Class:	B6, D2B	MSDS:	For additional information see specific contaminant MSDS (i.e. Coke, aluminum oxide).
WHMIS Label:	 	Protective Equipment:	   
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination. Potential flammability from iron sulphide components.		
Health:	Possible irritation of airways, lungs, skin and eyes. Inhalation of some component dust may cause cancer. 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.		
First Aid Measures:			

Management Methods

Classification By Provincial Waste Regulations:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste	SK: Waste Dangerous Good N.W.T.: Hazardous Waste
Storage:	Store in sealed container (e.g. drums). Store outdoors in a well ventilated area. May also be pyrophoric (See Catalyst (Pyrophoric) Waste Profile Sheet).	
Disposal:	Return to supplier if a pure product. Regenerate through a third party service company. Send to a waste contractor. NWT: Check specific licences and permits.	
Reportable Releases: (Check MSDS re classification)	B.C.: >25 kg. AB: >25 kg; any quantity into water or if may have harmful effect.	SK: >25 kg onsite, 5 kg offsite (nickel) NWT: >25 kg. Check specific licences and permits. (See also page vi.) TDG: >25 kg.

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Solids Containing Flammable Liquid, n.o.s. (Technical name of hazardous ingredient)	4.1	UN3175	II	16, 56
Labels:	Class 4.1			
Placards:	Class 4.1 if >500 kg or in direct contact with a large means of containment.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
Comments:	May not be TDG regulated. Dependent on flash point test.			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

General Information

Original Use:	Used to remove low levels of H ₂ S in gas processing plants.	
Physical Description:	Granular powder.	
Contaminants:	May contain iron oxide, iron sulphide, hydrogen sulphide, pyrite, triolite, sulphur.	
Other Codes:	Alberta EUB Code:	CATSU (Catalyst - sulphur) IRNSPG (Iron Sponge)

Hazard Information

WHMIS Class:	B6, D2B	MSDS:	For additional information see specific contaminant MSDS (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.		
Health:	Hydrogen sulphide precautions. Slight skin irritant. Potential dust problems.		
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:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste	SK: Waste Dangerous Good N.W.T.: 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. NWT: Check specific licences and permits.	
Reportable Releases: (Check MSDS re classification)	B.C.: >25 kg. AB: >25 kg. any quantity into water or if may have harmful effect.	SK: 100 kg onsite, 20 kg offsite (other inorganic substances) NWT: >25 kg. Check specific licences and permits. (See also page vi.) TDG: >25 kg.

Transportation

	Shipping Name	Class	PIN	Packing Group	Special Provisions
Pyrophoric solid, inorganic, n.o.s. (Technical name of hazardous ingredient)		4.2	UN3200	I	
Iron Sponge: Iron sponge, spent		4.2	UN1376	III	16 No bulk transport
Labels:	Class 4.2				
Placards:	Class 4.2 if >500 kg or in direct contact with a large means of containment...				
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT)				
Comments:	Transport wet to prevent spontaneous combustion.				

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

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 naphthenates.		
Other Codes:	Alberta EUB Code: CAUS		

Hazard Information

WHMIS Class:	E, D1B,	MSDS:	For additional information see specific contaminant MSDS (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.		
Health:	Skin burns, severe eye damage, respiratory disease and damage to mucous membranes. 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 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.		
First Aid Measures:			

Management Methods

Classification By Provincial Waste Regulations:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste)	SK: Waste Dangerous Good 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). NWT: Check specific licences and permits.		
Reportable Releases: (Check MSDS re classification)	B.C.: > 5 L AB.: >5 L; any quantity into water or that may have harmful effect.	SK.: >50 kg onsite, 10 kg offsite NWT: > 5kg or L. Check specific licences and permits. (See also page vi.) T.D.G.: > 5 L

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
CORROSIVE LIQUID, N.O.S. (technical name)	8	UN1760	I, II, or III	16
Labels:	Class 8			
Placards:	Class 8 if over 500 kg or in direct contact with a large means of containment.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
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.			
While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.				

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 EUB Code: Various codes may apply.

Hazard Information

WHMIS Class:	B4, D2A	MSDS:	For additional information see specific contaminant MSDS.
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:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste	SK: Waste Dangerous Good N.W.T.: Hazardous Waste
Storage:	If saturated – store in steel drums. Temporary storage on drying pads or lined areas.	
Disposal:	Send to a waste contractor. NWT: Check specific licences and permits.	
Reportable Releases: (Check MSDS re classification)	B.C.: >1 kg (Class 9), 25 kg (Class 4) AB.: >1 kg (Class 9), 25 kg (Class 4); any quantity into water or if may have harmful effect.	SK.: >25 L or kg onsite, 5 kg or L offsite (benzene) N.W.T.: >1 kg or L (Class 9), 25 kg (Class 4). Check specific licences and permits. (See also page vi.) T.D.G.: >25 kg (Class 9), 25 kg (Class 4)

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Environmentally Hazardous Substance, Solid, n.o.s. (contaminated with BTEX)	9	UN3077	III	16
If free liquids: Solids containing flammable liquid n.o.s. (contaminated with BTEX)	4.1	UN3175	II	16, 56
Labels:	Class 9 or 4.1			
Placards:	Class 9 or 4.1 if in large containment or over 500 kg.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
Comments:	If containing flammable liquids "Waste Solids Containing Flammable Liquids n.o.s* (name of dangerous constituent), Class 4.1, UN 3175".			
While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.				

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 EUB Code: SOILCO (Contaminated Debris & Soil - crude oil/condensate) SOILRO (Contaminated Debris & Soil - refined fuels/oils)

Hazard Information

WHMIS Class:	B4	MSDS:	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).		
Health:	High vapour concentrations may irritate nose, throat, and lungs. May irritate eyes and skin on contact. Personal protection required. Level of protection will vary with the nature of the waste.		
First Aid Measures:	<p>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.</p> <p>Eye Contact: Flush eyes with a continuous flow of fresh water for at least 15 min. until irritation subsides.</p> <p>Skin Contact: Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing.</p> <p>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.</p>		

Management Methods

Classification By Provincial Waste Regulations:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste	SK: Waste Dangerous Good N.W.T.: Hazardous Waste
Storage:	If saturated – store in steel drums. Temporary storage on drying pads or lined areas.	
Disposal:	Send to a waste contractor. NWT: Check specific licences and permits.	
Reportable Releases: (Check MSDS re classification)	B.C.: >25 kg or L (Class 4), >200L (Class 3) AB: >25 kg or L (Class 4), >200L (Class 3); any quantity into water or if may have harmful effect.	SK: crude oil/condensate: 1.6 m3 onsite, any quantity offsite Other: >100 kg or L onsite, 50 kg or L offsite (other petroleum products) N.W.T.: >25 kg or L (Class 4), 100 L (Class 3). Check specific licences and permits. (See also page vi.) T.D.G.: >25 kg or L (Class 4), >200L (Class 3)

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Solids Containing Flammable Liquid n.o.s. (name of hazardous ingredient)	4.1	UN3175	II	16, 56
If free liquids: Flammable liquid, n.o.s. (name of hazardous ingredient)	3	UN1993	II	16
Labels:	Class 4.1 or 3			
Placards:	Class 4.1 or 3 if in large containment or over 500 kg.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
Comments:	May not be TDG regulated. Dependent on flash point test, BTEX and hydrocarbon content.			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

General Information

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

Hazard Information

WHMIS Class:	D1A; D2A	MSDS:	For additional information see specific contaminant MSDS (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.		
Health:	Toxic vapours. Eye irritation. If absorbed by skin, may cause dermatitis. Long or repeated exposure may create emotional disorder and damage to the nervous system, kidneys or liver. 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.		
First Aid Measures:			

Management Methods

Classification By Provincial Waste Regulations:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste	SK: Waste Dangerous Good N.W.T.: 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. NWT: Check specific licences and permits.	
Reportable Releases: (Check MSDS re classification)	B.C.: >5 kg or L AB.: >5 kg or L; any quantity into water or if may have harmful effect.	SK.: >1 kg onsite, 100 g offsite (mercury) N.W.T.: >5 kg or L. Check specific licences and permits. (See also page vi.) T.D.G.: >5 kg or L

Transportation

	Shipping Name	Class	PIN	Packing Group	Special Provisions
Waste elemental mercury: Mercury		8	UN2809	III	
Contaminated debris/soil: Solids containing corrosive liquid n.o.s. (mercury)		8	UN3244	II	16, 26, 58
Labels:	Class 8				
Placards:	Class 8 if in large containment or over 500 kg.				
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).				
Comments:	Replace any remaining mercury manometers with electronic instruments.				

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

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 spill chemicals).
Contaminants:	May contain heavy metals, sorbent and other spill debris.
Other Codes:	Alberta EUB Code: SOILHM (Contaminated Debris & Soil - mercury/metals)

Hazard Information

WHMIS Class:	D2A	MSDS:	For additional information see specific contaminant MSDS (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.		
Health:	Dust may cause airway irritation and eye and skin irritation. Heavy metals require respirator if dust possible.		
First Aid Measures:	<p>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.</p> <p>Eye Contact: Flush eyes, including under eyelids, with a continuous flow of water for at least 15 min. If irritation persists, get medical attention.</p> <p>Skin Contact: Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing.</p> <p>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.</p>		

Management Methods

Classification By Provincial Waste Regulations:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste	SK: Waste Dangerous Good N.W.T.: Hazardous Waste
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 Ia, Ib or II, based on characteristics, in AB). NWT: Check specific licences and permits.	
Reportable Releases: (Check MSDS re classification)	<p>B.C.: >5 kg</p> <p>AB.: >5 kg; any quantity into water or if may have harmful effect.</p> <p>SK.: >10 kg onsite, 2 kg off-site (other metals)</p> <p>N.W.T.: >1 kg. Check specific licences and permits. (See also page vi.)</p> <p>T.D.G.: >25 kg.</p>	

Transportation

	Shipping Name	Class	PIN	Packing Group	Special Provisions
Environmentally hazardous substance, n.o.s. (Technical name of hazardous ingredient)		9	UN3077	III	16
Labels:	Class 9				
Placards:	Class 9 if in large containment or over 500 kg.				
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).				
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.				

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

General Information

Original Use:	Soils and other debris 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, sludge.
Contaminants:	Not available.
Other Codes:	Alberta EUB Code: NORM (Naturally Occurring Radioactive Materials)

Hazard Information

WHMIS Class:	Not Applicable.	MSDS:	Not Applicable.
WHMIS Label:	Not Applicable.	Protective Equipment:	
Environmental:	Radioactive contamination of soils, exposure to humans, wildlife and livestock.		
Health:	A low level radioactive material. Avoid prolonged exposure to high concentrations. Alpha, beta and gamma emitters. NORMS can accumulate and remain in the body for a long time and can be carcinogenic.		

First Aid Measures:

Management Methods

Classification By Provincial Waste Regulations:	Not Classification By 70 Bq/g.
Storage:	A dedicated, well-marked, sealed poly container should be available for the storage of NORM materials. The container should be located in a designated covered area with restricted access.
Disposal:	Under 70 Bq/g, can be disposed of through CCS. NWT: Check specific licences and permits.
Reportable Releases:	Any quantity in all jurisdictions if over 70 Bq/g.

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Not Classification By 70 Bq/g.	N/A	N/A	N/A	N/A
Labels:	None			
Placards:	None.			
Documents:	Company Waste Shipping Document or Truck Ticket in B.C., SK and N.W.T, EUB Oilfield Waste Manifest in Alberta.			
Comments:	Waste transported should be reviewed with provincial TDG authority. Currently there are no approved disposal options available.			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

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 EUB Code: SOILSU (Contaminated Debris & Soil - sulphur)		

Hazard Information

WHMIS Class:	Not a controlled product.	MSDS:	Sulphur
WHMIS Label:	N/A	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).		
Health:	Can cause irritation if inhaled or skin or eye contact. Protective clothing.		
First Aid Measures:	<p>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.</p> <p>Eye Contact: Flush eyes, including under eyelids, with a continuous flow of water for at least 15 min. Get immediate medical attention.</p> <p>Skin Contact: Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing.</p> <p>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.</p>		

Management Methods

Classification By Provincial Waste Regulations:	Not regulated.		
Storage:	Temporary storage on drying pads or in/on lined pits or ground. Will corrode steel containers. Avoid ground storage if possible.		
Disposal:	<p>Onsite treatment</p> <p>Landfill at an approved landfill (Class Ia, Ib, or II in AB)</p> <p>NWT: Check specific licences and permits.</p>		
Reportable Releases: (Check MSDS re classification)	B.C.: 200 kg (substances that can cause pollution) AB.: >any quantity into water or if may have harmful effect.	SK.: >500 kg onsite, 250 kg offsite (sulphur) N.W.T.: 100 kg or L (other contaminant). Check specific licences and permits. (See also page vi.) T.D.G.: Not Regulated	

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Not Regulated.	N/A	N/A	N/A	N/A
Labels:	None			
Placards:	None.			
Documents:	Company Waste Shipping Document or Truck Ticket.			
Comments:	Transport trucks must be tarped, end gates secure and the drivers aware of material characteristics to produce acidic water if wet.			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

General Information

Original Use:	Generated predominantly from natural gas processing plant dehydration processes, air drying systems.		
Physical Description:	Solid.		
Contaminants:	May contain H ₂ S, glycol, heavy hydrocarbons, aluminum, calcium, iron, sodium, silicon.		
Other Codes:	Alberta EUB Code: DESICT (Desiccant)		

Hazard Information

WHMIS Class:	B4, D2B	MSDS:	For additional information see specific contaminant MSDS.
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.		
Health:	Extreme breathing hazard if containing H ₂ S. Slight breathing hazard for short term inhalation of activated alumina or silica gel. May cause damage to eye tissue and irritation to skin with prolonged 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. 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:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste	
Storage:	Store in sealed containers. The supplier delivers virgin dessicant and changes out spent dessicant.	
Disposal:	Reuse/regenerate when possible. Send to cement manufacturer for use in cement mixtures BTEX component must not exceed 1000 mg/kg for landfilling.	
Reportable Releases: (Check MSDS re classification)	B.C.: >1 kg AB: >1 kg; any quantity into water or if may have harmful effect.	SK: >25 kg or L onsite, 5 kg or L offsite (benzene) N.W.T.: >1 kg. Check specific licences and permits. (See also page vi.) T.D.G.: >25 kg

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Environmentally Hazardous substance, Solid, n.o.s. (desiccant contaminated with BTEX)	9	UN3077	III	16
Labels:	Class 9			
Placards:	Class 9 if over 500 kg or in direct contact with a large means of containment.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
Comments:	While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.			

General Information				
Original Use:	Hydrocarbon diesel based drilling sump solids from hydrocarbon based drill systems.			
Physical Description:	Sludge or semi-dried solid.			
Contaminants:	May contain hydrocarbon (diesel), mud additives, BTEX.			
Other Codes:	Alberta EUB Code: SUMPIN (Drilling Sump Materials - hydrocarbon)			
Hazard Information				
WHMIS Class:	B4			
WHMIS Label:				
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).			
Health:	High vapour concentrations may irritate nose, throat, and lungs. May irritate eyes and skin on contact.			
First Aid Measures:	<p>Inhalation: Use proper respiratory protection and immediately remove victim from exposure. Administer artificial respiration if breathing has stopped and get medical attention.</p> <p>Eye Contact: Flush eyes with large amounts of water until irritation subsides (at least 15 min.). If irritation persists, get medical attention.</p> <p>Skin Contact: Flush with large amounts of water and use soap if available. Remove severely contaminated clothing/shoes and clean thoroughly before reusing.</p> <p>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.</p>			
Management Methods				
Classification By Provincial Waste Regulations:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste;	SK: Waste Dangerous Good N.W.T.: Hazardous Waste		
Storage:	Store in sump unit until disposal. NWT: Check specific licences and permits.			
Disposal:	The supplier delivers virgin desiccant and changes out spent desiccant. Send to cement manufacturer for use in cement mixtures. BTEX component must not exceed 1000 mg/kg for landfilling.			
Reportable Releases: (Check MSDS re classification)	B.C.: >100 L (any amount off-site). AB: >2 m ³ (any amount off-site); any quantity into water or if may have harmful effect.	SK: >200 L on-site, 100 L off-site (diesel) N.W.T.: >1 kg or L (Class 9), 100 L (Class 3). Check specific licences and permits. (See also page vi.) T.D.G.: >25 kg or L (Class 9), 200 L (Class 3)		
Transportation				
Shipping Name	Class	PIN	Packing Group	Special Provisions
If no free liquids: Environmentally Hazardous Substance, Solid, n.o.s. (add name of contaminant)	9	UN3077	III	16
If free liquids: Flammable Liquid n.o.s. (specify contaminant).	3	UN1993	III	16
Placards:	None Required.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
Comments:	If BTEX not present, may be regulated due to hydrocarbon (refined) if greater than 3% (but still a dangerous good).			
While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.				

General Information

Original Use:	Gelchem and KCL based drilling sump solids from fresh water drill systems.	
Physical Description:	Sludge or semi-dried solids.	
Contaminants:	May contain potassium chloride, fresh water gel.	
Other Codes:	Alberta EUB Code:	SUMPKC (Drilling Sump Materials - KCL) SUMPGL (Drilling Sump Materials - gel chem)

Hazard Information

WHMIS Class:	D2B	MSDS:	For additional information see specific contaminant MSDS (e.g. Potassium Chloride, Gelchem).
WHMIS Label:		Protective Equipment:	
Environmental:	Prevent entry into water courses.		
Health:	Slight irritation from inhalation and skin contact.		
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:	Not Regulated.		
Storage:	Store in sump unit until disposal. North: Check specific licences and permits.		
Disposal:	<ul style="list-style-type: none"> On-site treatment. Send to waste disposal facility. 		
Reportable Releases:	<p>Not normally a reportable release if non-regulated. However, if significant quantity or an environmental hazard, should be reported.</p> <p>B.C.: >100 L (any amount off-site). AB: >2 m³ (any amount off-site); any quantity into water or if may have harmful effect.</p> <p>SK.: >1.6 m³ (any amount off-site) N.W.T.: >100L. Check specific licences and permits. (See also page vi.) T.D.G.: Not Regulated.</p>		

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Not Regulated.	N/A	N/A	N/A	N/A
Placards:	None.			
Documents:	Company Waste Shipping Document or Truck Ticket.			
Comments:	Not TDG regulated unless contaminated with a Dangerous Good. Preferred disposal method is on-site treatment. Use Alberta EUB Directive 050 for disposal/treatment guidelines.			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

Drill Sump Materials (Non-Regulated) - December, 2006

050
Alberta EUB Directive

Drilling Waste - Acid / Water Mixture
Waste Profile Sheet

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 EUB Code: WWOFLD (well workover fluids)		

Hazard Information

WHMIS Class:	D1A, D2A, E	MSDS:	Use MSDS of specific acid.
WHMIS Label:	  	Protective Equipment:	  
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination.		
Health:	Respiratory irritant. Corrosive on contact, can cause severe burns to eyes and skin. Avoid skin contact or inhalation of fumes.		
First Aid Measures:	<p>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.</p> <p>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.</p> <p>Skin Contact: Remove severely contaminated clothing and clean before reusing. Flush with large amounts of fresh water and use soap if available.</p> <p>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.</p>		

Management Methods

Regulated Under Provincial Waste Regulations:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste (DOW)	SK: Waste Dangerous Good 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. North: Check specific licences and permits re disposal in sump.	
Reportable Releases: (Check MSDS re classification)	B.C.: > 5 L or kg AB.: >5 L or kg; any quantity into water or that may have harmful effect.	SK.: >50 kg onsite, 10 kg offsite; Hydrofluoric acid: >5 kg onsite, 1 kg offsite NWT: > 5 L or kg. Check specific licences and permits. (See also page vi.) T.D.G.: > 5 L or kg

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Corrosive Liquids, n.o.s. (add name of acid)	8	UN1760	I, II or III	16
Labels:	Class 8			
Placards:	Class 8 if over 500 kg or in direct contact with a large means of containment.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
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. If mixture contains hydrocarbons, refer to Drilling Waste - Hydrocarbon / Acid / Water Mixture Waste Profile Sheet.			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

Drilling Waste - Caustic / Water Mixture
Waste Profile Sheet

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 EUB Code: WWOFLD (well workover fluids)

Hazard Information

WHMIS Class:	B2, B3, E	MSDS:	For additional information see specific caustic MSDS (i.e. sodium hydroxide, potassium hydroxide).
WHMIS Label:	 	Protective Equipment:	  
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination.		
Health:	May cause skin burns, eye damage, respiratory disease and damage to mucous membranes.		
First Aid Measures:	<p>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.</p> <p>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.</p> <p>Skin Contact: Remove severely contaminated clothing and clean before reusing. Flush with large amounts of fresh water and use soap if available.</p> <p>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.</p>		

Management Methods

Regulated Under Provincial Waste Regulations:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste (DOW)	SK: Waste Dangerous Good 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. NWT: Check specific licences and permits re disposal in sump.	
Reportable Releases: (Check MSDS re classification)	B.C.: > 5 L or kg AB.: >5 L or kg; any quantity into water or that may have harmful effect.	SK.: >100 kg onsite, 20 kg offsite; NWT: > 5 L or kg. Check specific licences and permits. (See also page vi.) T.D.G.: > 5 L or kg

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Corrosive Liquids, n.o.s. (type of caustic	8	UN1760	I, II or III	16
Labels:	Class 8			
Placards:	Class 8 if over 500 kg or in direct contact with a large means of containment.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
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.			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

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 EUB Code: WWOFLD (well workover fluids)		

Hazard Information

WHMIS Class:	D2B, B2	MSDS:	For additional information see specific contaminant MSDS.
WHMIS Label:	 	Protective Equipment:	  
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination.		
Health:	May cause eye, skin and respiratory irritation.		
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:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste (DOW)	SK: Waste Dangerous Good NWT: Hazardous Waste
Storage:	Store in sealed drums.	
Disposal:	Well injection (with approval). Recover hydrocarbon prior to disposal. NWT: Check specific licences and permits re disposal in sump.	
Reportable Releases: (Check MSDS re classification)	B.C.: >100 L AB.: >200 L; any quantity into water or that may have harmful effect.	SK.: >100 L onsite, 50 L offsite NWT: >100 L. Check specific licences and permits. (See also page vi.) T.D.G.: >200 L

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Check MSDS for classification: example Petroleum Distillates, n.o.s.	3	UN1268	II	None
Labels:	Class 3			
Placards:	Class 3 if over 500 kg or in direct contact with a large means of containment.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
Comments:	Check MSDS of the frac fluid for classification. If not regulated, test for BTEX and metals.			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

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 EUB Code: WWOFLD (well workover fluids)

Hazard Information

WHMIS Class:	B2, B3, D1A, E	MSDS:	For additional information see specific contaminant MSDS.
WHMIS Label:	  	Protective Equipment:	 
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination.		
Health:	Respiratory irritant. Can cause severe burns to eyes and skin.		
First Aid Measures:	<p>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.</p> <p>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.</p> <p>Skin Contact: Remove severely contaminated clothing and clean before reusing. Flush with large amounts of fresh water and use soap if available.</p> <p>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.</p>		

Management Methods

Regulated Under Provincial Waste Regulations:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste (DOW)	SK: Waste Dangerous Good 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. NWT: Check specific licences and permits re disposal in sump.	
Reportable Releases: (Check MSDS re classification)	<p>B.C.: >100 L (Class 3) > 5 L (Class 8)</p> <p>AB.: >200 L (Class 3) > 5 L (Class 8); any quantity into water or that may have harmful effect.</p> <p>SK.: >100 L onsite, 50 L offsite (Class 3) (based on petroleum distillate) >50 kg onsite, 10 kg offsite (based on HCl)</p> <p>NWT: >100 L (Class 3) > 5 L (Class 8). Check specific licences and permits. (See also page vi.)</p> <p>T.D.G.: >200 L (Class 3) > 5 L (Class 8)</p>	

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
May be classified as any of the following:				
Flammable liquid, n.o.s. (technical name)	3	UN1993	I, II or III	16
Corrosive liquid, n.o.s. (technical name)	8	UN1760	I, II or III	16
Flammable Liquid, Corrosive, n.o.s. (technical name)	3 (8)	UN2924	I, II or III	16
Labels:	Class 3 for UN1993, Class 8 for UN1760, Class 3 and 8 for UN2924.			
Placards:	Class 3 or 8 if over 500 kg or in direct contact with a large means of containment.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement			
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).			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

General Information

Original Use:	Well servicing, drilling / completion operations.	
Physical Description:	Liquid, Semi-solid sludge.	
Contaminants:	Contains solvent. May contain lead.	
Other Codes:	Alberta EUB Code: SOLALP	

Hazard Information

WHMIS Class:	B3	MSDS:	See solvent and specific contaminant MSDS.
WHMIS Label:		Protective Equipment:	
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination.		
Health:	<p>High vapour concentrations are irritating to the eyes, nose, throat and lungs. May cause headaches, dizziness, may be anaesthetic, may cause other central nervous system effects. Frequent or prolonged contact may irritate the skin and cause a skin rash.</p> <p>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.</p> <p>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.</p> <p>Skin Contact: Remove severely contaminated clothing and clean before reusing. Flush with large amounts of fresh water and use soap if available.</p> <p>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.</p>		
First Aid Measures:			

Management Methods

Regulated Under Provincial Waste Regulations:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste (DOW)	SK: Waste Dangerous Good NWT: Hazardous Waste
Storage:	Store in sealed containers. Keep in well ventilated areas.	
Disposal:	<p>Recycle. Thermal treatment.</p> <p>NWT: Check specific licences and permits re disposal in sump.</p>	
Reportable Releases: (Check MSDS re classification)	B.C.: >100 L AB.: >200 L; any quantity into water or that may have harmful effect.	SK: >100 L onsite, 50 L offsite NWT: >100 L. Check specific licences and permits. (See also page vi.) T.D.G.: >200 L

Transportation

	Shipping Name	Class	PIN	Packing Group	Special Provisions
	Flammable liquid, n.o.s. (technical name)	3	UN1993	I, II, or III	16
Labels:	Class 3				
Placards:	Class 3 if over 500 kg or in direct contact with a large means of containment.				
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).				
Comments:	Should be tested to determine Packing Group.				

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

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 EUB Code:	FILSWT (Gas Sweetening Filters)

Hazard Information

WHMIS Class:	B6, D2B	MSDS:	For additional information see specific contaminant MSDS.
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.		
Health:	Severe irritation if inhaled or if eye or skin contact.		
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:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste	SK: Waste Dangerous Good N.W.T.: Hazardous Waste
Storage:	Store temporarily in drain barrels to allow for the drainage of any free liquids. Transfer to designated filter bin/bag. Keep in well ventilated storage area.	
Disposal:	Disposal to a hazardous waste disposal facility. Drained liquids should be recycled if possible or sent to a waste contractor for incineration / downhole disposal. NWT: Check specific licences and permits.	
Comments:	Use filters with removable cores to reduce waste volumes.	
Reportable Releases: (Check MSDS re classification)	B.C.: >1 kg AB.: >1 kg; any quantity into water or if may have harmful effect.	SK.: >25 kg onsite, 5 kg offsite (benzene) N.W.T.: >1 kg. Check specific licences and permits. (See also page vi.) T.D.G.: >25 kg

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Environmentally Hazardous Substance, Solid, n.o.s. (waste filters contaminated with BTEX)	9	UN3077	III	16
Labels:	Class 9			
Placards:	Class 9 if over 500 kg or in direct contact with a large means of containment.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
Comments:	Some amines are regulated and others are not. Some non-regulated amine products may be regulated due to other contaminants.			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

General Information

Original Use:	Gas processing facilities where glycol is used as a liquid dessicant 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 EUB Code: FILGLY (Glycol Filters)

Hazard Information

WHMIS Class:	B6, D2B	MSDS:	For additional information see specific contaminant MSDS (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.		
Health:	High vapour concentration may irritate nose. Potential carcinogen. Avoid prolonged exposure.		
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:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste	SK: Waste Dangerous Good N.W.T.: 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 pyrophoric; store in steel drums). Keep in well ventilated areas.	
Disposal:	Disposal to a hazardous waste disposal facility. Drained liquids should be recycled if possible or sent to a waste contractor for incineration / downhole disposal. NWT: Check specific licences and permits.	
Reportable Releases: (Check MSDS re classification)	B.C.: >1 kg AB.: >1 kg; any quantity into water or if may have harmful effect.	SK: >25kg onsite, 5 kg offsite (benzene). N.W.T. >1 kg. Check specific licences and permits. (See also page vi.) T.D.G.: >25 kg

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Environmentally Hazardous Substance, Solid, n.o.s. (waste filters contaminated with BTEX).	9	UN3077	III	16
Labels:	Class 9			
Placards:	Class 9 if over 500 kg or in direct contact with a large means of containment.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
Comments:	E.G., DEG and TEG filters are not TDG regulated. However, after use in gas dehydration processes, glycol filters may be flammable, or leachable.			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

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, naphtha. May also contain triphenyl phosphates, anti-rust and anti-oxidant additives.		
Other Codes:	Alberta EUB Code: FILLUB (Lube Oil Filters)		

Hazard Information

WHMIS Class:	D2B	MSDS:	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.		
Health:	High vapour concentrations may irritate nose and throat. Slight skin irritations.		
First Aid Measures:	<p>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.</p> <p>Eye Contact: Flush eyes, including under eyelids, with a continuous flow of water for at least 15 min. If irritation persists, get medical attention.</p> <p>Skin Contact: Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing.</p> <p>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.</p>		

Management Methods

Classification By Provincial Waste Regulations:	B.C.: Hazardous Waste (if >3% refined hydrocarbons) AB: Dangerous Oilfield 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. Drained liquids should be recycled. NWT: Check specific licences and permits.	
Reportable Releases: (Check MSDS re classification)	B.C.: >100 L AB: >5 kg or L; any quantity into water or if may have harmful effect.	SK: >100 L onsite, 50 L, offsite (lube oil) N.W.T.: >5 kg or L. Check specific licences and permits. (See also page vi.) T.D.G.: >25 kg or L

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Alberta only - with accompanying permit, Environmentally hazardous substance, solid, n.o.s. (waste filters used in the commercial production of oil and gas).	9	UN3077	III	16
Other than Alberta, and Alberta: Environmentally hazardous substance, solid, n.o.s. (lead).	9	UN3077	III	16
Labels:	Class 9			
Placards:	Class 9 if over 500 kg or in direct contact with a large means of containment.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT). If <3% refined hydrocarbons, Company Waste Shipping Document or Truck Ticket (but still a dangerous good).			
Comments:	Drained lubricating oil filters are not TDG regulated.			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

General Information

Original Use:	Granular filter media and screen type filters used for the removal of precipitate matter from fresh water sources at water flood facilities OR groundwater or surface water filters used for the removal of sand, silt, and corrosion products from supply waters at facilities that do not have pre-treatment equipment.
Physical Description:	Cloth or paper cartridges of various sizes, metal cartridges.
Contaminants:	May contain iron oxides, aluminum oxide and possibly some trace metals.
Other Codes:	Alberta EUB Code: FLBWWT (Filter Backwash Liquids – water treatment) FILFWT (Filters – raw/fresh water)

Hazard Information

WHMIS Class:	Not a Controlled Product.	MSDS:	For additional information see specific contaminant MSDS (e.g. biocides).
WHMIS Label:	None	Protective Equipment:	
Environmental:	Environmentally benign.		
Health:	Slight eye and skin irritant.		
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:	Not regulated.
Storage:	Store temporarily in drain barrels to allow for the drainage of any free liquids. Recycle liquids through battery process.
Disposal:	Send to an approved landfill. Any drained liquids should be recycled through battery process. NWT: Check specific licences and permits.
Reportable Releases:	Not Applicable.

Transportation

	Shipping Name	Class	PIN	Packing Group	Special Provisions
Not Regulated.		N/A	N/A	N/A	N/A
Labels:	None				
Placards:	None.				
Documents:	Company Waste Shipping Document or Truck Ticket (Non-Special).				
Comments:	None.				

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

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 EUB Code: FILPWT (Filters – Produced/Process Water)

Hazard Information

WHMIS Class:	B4, D2B	MSDS:	For additional information see specific contaminant MSDS.
WHMIS Label:	 	Protective Equipment:	 
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination.		
Health:	High vapour concentrations may irritate nose. Slight skin irritations.		
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:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste	SK: Waste Dangerous Good N.W.T.: Hazardous Waste
Storage:	Store temporarily in drain barrels to allow for the drainage of any free liquids. Provide spill/leak containment. Keep in a well ventilated area.	
Disposal:	Disposal to a hazardous waste disposal facility. Drained liquids should be recycled if possible or sent to a waste contractor for incineration / downhole disposal. NWT: Check specific licences and permits.	
Reportable Releases:	B.C.: >1 kg or L (Class 9), >200 L (Class 3) AB.: >1 kg or L (Class 9), >200 L (Class 3); any quantity into water or if may have harmful effect.	SK.: >1.6 m ³ onsite; any quantity offsite N.W.T.: >1 kg or L (Class 9), >100 L (Class 3). Check specific licences and permits. (See also page vi.) T.D.G.: >25 kg or L (Class 9), >200 L (Class 3)

Transportation

	Shipping Name	Class	PIN	Packing Group	Special Provisions
Alberta only - with accompanying permit:					
Environmentally hazardous substance, solid n.o.s. (waste filters used in the production of oil and gas)	9	UN3077		III	16
Other than Alberta – no free liquids:					
Environmentally hazardous substance, solid n.o.s. (waste filters contaminated with crude oil, BTEX)	9	UN3077		III	16
Other than Alberta – contains free liquids					
Flammable liquid, n.o.s. (crude oil)	3	UN1993		II	16
Labels:	Class 9 or 3				
Placards:	Class 9 or 3 if > 500 kg or in direct contact with large means of containment.				
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).				
Comments:	None.				

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

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, trace metals, hydrocarbons, carbon, iron sulphide, BTEX.	
Other Codes:	Alberta EUB Code: FILSWT (Gas Sweetening Filters – amine, sulphanol)	

Hazard Information

WHMIS Class:	B4, D2B	MSDS:	For additional information see specific contaminant MSDS (e.g. Diethanolamine)
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.		
Health:	Severe irritation if inhaled or if eye or skin contact. May contain cyanides which are highly toxic. May release hydrogen sulphide.		
First Aid Measures:	<p>Inhalation: Use proper respiratory protection to immediately remove victim from exposure.</p> <p>Eye Contact: Flush eyes with a continuous flow of fresh water for at least 15 min.</p> <p>Skin Contact: Remove severely contaminated clothing and clean before reusing. Flush with large amounts of fresh water and use soap if available.</p> <p>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 and quiet. Seek immediate medical attention.</p>		

Management Methods

Classification By Provincial Waste Regulations:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste	SK: Waste Dangerous Good N.W.T.: Hazardous Waste
Storage: Store temporarily in drain barrels to allow for the drainage of any free liquids. Transfer to designated filter bin/bag. Keep in well ventilated storage area.		
Disposal: Send to a hazardous waste disposal facility. NWT: Check specific licences and permits.		
Reportable Releases: (Check MSDS re classification)	B.C.: >25 kg AB: >25 kg; any quantity into water or if may have harmful effect.	SK: >100 kg onsite, 20 kg offsite (other inorganic substances) N.W.T.: >25 kg. Check specific licences and permits. (See also page vi.) T.D.G.: >25 kg

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Pyrophoric Solids, inorganic, n.o.s. (Waste filters with iron sulphide)*	4.2	UN2846	I	16, 38 No Bulk Transport
Labels:	Class 4.2			
Placards:	Class 4.2 if over 500 kg.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
Comments:	Use filters with removable cores to reduce waste volumes. DEA itself is not Classification By TDG. However, processes may make waste pyrophoric.			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

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 EUB Code: FILOTH (Filters – Other (raw/fuel gas, NGLs))		

Hazard Information

WHMIS Class:	B4, D2B	MSDS:	For additional information see specific contaminant MSDS.
WHMIS Label:	 	Protective Equipment:	 
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination.		
Health:	High vapour concentrations may irritate nose. Slight skin irritations.		
First Aid Measures:	<p>Inhalation: First aid is normally not required. If individual feels ill move to fresh air and allow to rest.</p> <p>Eye Contact: First aid is normally not required. If irritation or other symptoms develop, get medical attention.</p> <p>Skin Contact: First aid is normally not required. If irritation or other symptoms develop, get medical attention.</p> <p>Ingestion: First aid is normally not required. If gastric irritation or other symptoms develop, get medical attention.</p>		

Management Methods

Classification By Provincial Waste Regulations:	B.C.: Hazardous Waste AB: Dangerous Oilfield 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 pyrophoric; store in sealed steel drums.	
Disposal:	Send to hazardous waste disposal facility. NWT: Check specific licences and permits.	
Reportable Releases: (Check MSDS re classification)	B.C.: >1 kg AB.: >1 kg; any quantity into water or if may have harmful effect.	SK.: >100 L onsite; 50 L offsite (other petroleum products) N.W.T.: >1 kg. Check specific licences and permits. (See also page vi.) T.D.G.: >25 kg

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Alberta only - with accompanying permit: Environmentally hazardous substance, solid n.o.s. (waste filters used in the commercial production of oil and gas)	9	UN3077	III	16
Other than Alberta – no free liquids: Environmentally hazardous substance, solid n.o.s. (waste filters contaminated with crude oil, BTEX)	9	UN3077	III	16
Labels:	Class 9			
Placards:	Class 9 if over 500 kg or in direct contact with large means of containment.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
Comments:	None.			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

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 EUB Code: GLYCHM (Glycol Solutions – w/lead or heavy metals)	

Hazard Information

WHMIS Class:	D2A	MSDS:	For additional information see specific contaminant MSDS (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.		
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.		
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:	Not regulated unless contaminated with heavy metals, inhibitors for antifreeze or iron sulphide. If regulated: B.C.: Hazardous Waste AB.: Dangerous Oilfield Waste		
Storage:	Store material in steel drums at field facility. Store in a cool well ventilated place.		
Disposal:	Recycle. Disposal well (with approval). NWT: Check specific licences and permits.		
Reportable Releases: (Check MSDS re classification)	B.C.: >1 kg AB: >1 kg or L; any quantity into water or if may have harmful effect.		
	SK.: > 25 L onsite; 5 L off-site (nickel) N.W.T.: >1 kg or L. Check specific licences and permits. (See also page vi.) T.D.G.: >25 kg or L		

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
If regulated: Environmentally Hazardous Substance, Solid, n.o.s. (waste filters contaminated with (name of hazardous constituent)	9	UN3077	III	16
Labels:	Class 9			
Placards:	Class 9 if over 500 kg or in direct contact with a large means of containment.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			

Comments: Pure glycol is not TDG regulated. However, through use, it may become a dangerous good.

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

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 EUB Code: METHNL

Hazard Information

WHMIS Class:	B2, D1B, D2A; D2B	MSDS:	For additional information see specific contaminant MSDS (e.g.: Methanol).
WHMIS Label:	  	Protective Equipment:	   
Environmental:	Potential groundwater contamination if spilled. Very toxic to aquatic life.		
Health:	Vapours may irritate nose, throat, lungs, and cause eye irritation. Methanol is readily absorbed by the skin and may produce nervous system effects.		
	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:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste)	SK: Waste Dangerous Good 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 1a or 1b. in AB) NWT: Check specific licences and permits.	
Reportable Releases: (Check MSDS re classification)	B.C.: >100 L AB.: >200 L; any quantity into water or that may have harmful effect.	SK: >500 L onsite, 100 L offsite NWT: >100 L. Check specific licences and permits. (See also page vi.) T.D.G.: >200 L

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Methanol with non-dangerous goods: Methanol	3 (6.1)	UN1230	II	43
Methanol with other flammables: Flammable Liquids n.o.s. (name of hazardous ingredient)	3	UN1993	II	16
Labels:	Class 3 and 6.1 (Methanol); Class 3 (Flammable liquid)			
Placards:	Class 3 if over 500 kg or in direct contact with a large means of containment.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

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 EUB Code: INCASH (Incinerator Ash – if incinerated material is reportable)	

Hazard Information

WHMIS Class:	D2A	MSDS:	For additional information see specific contaminant MSDS (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.							
Health:	Dust may cause airway irritation and eye and skin irritation. Dust may also be toxic if containing heavy metals.							
First Aid Measures:	<p>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.</p> <p>Eye Contact: Flush eyes, including under eyelids, with a continuous flow of water for at least 15 min. If irritation persists, get medical attention.</p> <p>Skin Contact: Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing.</p> <p>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.</p>							

Management Methods

Classification By Provincial Waste Regulations:	B.C.: Hazardous Waste AB: Dangerous Oilfield 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. NWT: Check specific licences and permits.	
Reportable Releases: (Check MSDS re classification)	B.C.: >1 kg AB: >1 kg or L; any quantity into water or if may have harmful effect.	SK: >10 kg onsite, 2 kg off-site (other metals) N.W.T.: >1 kg or L. Check specific licences and permits. (See also page vi.) T.D.G.: >25 kg or L

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
If regulated: Environmentally Hazardous Substance, Solid, n.o.s. (waste filters contaminated with (name of hazardous constituent).	9	UN3077	III	16
Labels:	Class 9			
Placards:	Class 9 if over 500 kg or in direct contact with a large means of containment.			
Documents:	Oilfield Waste Manifest (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			

Comments: This waste may require specific analysis to determine leachable constituents.

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

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 EUB Code: LUBOIL (Lubricating Oil)		

Hazard Information

WHMIS Class:	D2B	MSDS:	Lubricating Oil.
WHMIS Label:		Protective Equipment:	
Environmental:	Potential groundwater and surface water contamination (hydrocarbons and metals) if applied to roads or other ground surfaces.		
Health:	May cause some skin and tissue irritation.		
First Aid Measures:	<p>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.</p> <p>Eye Contact: Flush eyes, including under eyelids, with a continuous flow of water for at least 15 min. If irritation persists, get medical attention.</p> <p>Skin Contact: Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing.</p> <p>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.</p>		

Management Methods

Classification By Provincial Waste Regulations:	Not regulated unless containing heavy metals such as Vanadium or Lead or if containing >3% refined hydrocarbons (B.C.).		
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:	<p>Return to supplier for recycling.</p> <p>Send to a lube oil recycling facility.</p> <p>NWT: Check specific licences and permits.</p>		
Reportable Releases: (Check MSDS re classification)	<p>B.C.: >100 L</p> <p>AB: >1 L; any quantity into water or if may have harmful effect.</p> <p>SK.: >100 L onsite, 50 L offsite (lubricating oil)</p> <p>N.W.T.: >1 kg or L. Check specific licences and permits. (See also page vi.)</p> <p>T.D.G.: >25 L</p>		

Transportation

	Shipping Name	Class	PIN	Packing Group	Special Provisions
If regulated:	Environmentally Hazardous Substance, Solid, n.o.s. (lead).	9	UN3077	III	16
Labels:	Class 9				
Placards:	Class 9 if over 500 kg or in direct contact with a large means of containment.				
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).				
Comments:	Unused (clean) lubricating oils are not TDG regulated. Used lubricating oils are assumed to be contaminated with lead.				

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

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 EUB Code:	PCBLIQ (Polychlorinated Biphenyls- Askarel liquids) PCBSLF (Polychlorinated Biphenyls- contaminated solids <50ppm) and others.

Hazard Information

WHMIS Class:	D2A	MSDS:	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.		
Health:	Can be absorbed through the skin. Severely toxic – may be a carcinogen.		
First Aid Measures:	<p>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.</p> <p>Eye Contact: Flush eyes, including under eyelids, with a continuous flow of water for at least 15 min. If irritation persists, get medical attention.</p> <p>Skin Contact: Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing.</p> <p>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.</p>		

Management Methods

Classification By Provincial Waste Regulations:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste	SK: Waste Dangerous Good N.W.T.: Hazardous Waste
Storage:	Refer to federal storage guidelines. NWT: Check specific licences and permits.	
Disposal:	Send to waste contractor for high temperature incineration.	
Reportable Releases: (Check MSDS re classification)	B.C.: >1 kg or L (all >50 ppm) AB: >1 kg or L; any quantity into water or if may have harmful effect.	SK.: >1 kg onsite, 50 g offsite N.W.T.: >0.5 kg or L. Check specific licences and permits. (See also page vi.) T.D.G.: >25 kg or L

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Polychlorinated Biphenyls or articles containing polychlorinated biphenyls (PCB)	9	UN2315	II	None
Labels:	Class 9			
Placards:	Class 9 if over 500 kg or in direct contact with a large means of containment.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
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.			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

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 EUB Code:	PIGWST (Pigging Waste)

Hazard Information

WHMIS Class:	B2, B3 or B4	MSDS:	For additional information, see hydrocarbon related MSDSs.
WHMIS Label:		Protective Equipment:	
Environmental:	Uncontrolled storage and disposal may cause groundwater and soil contamination.		
Health:	High vapour concentration may irritate nose. Slight skin irritations.		
First Aid Measures:	<p>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.</p> <p>Eye Contact: Flush eyes, including under eyelids, with a continuous flow of water for at least 15 min. If irritation persists, get medical attention.</p> <p>Skin Contact: Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing.</p> <p>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.</p>		

Management Methods

Classification By Provincial Waste Regulations:	Alberta: Dangerous Oilfield Waste (assumed). B.C.: Hazardous Waste.	
Storage:	Store in sealed drums at field facility. Keep away from ignition and heat sources.	
Disposal:	Send to a licensed oilfield reclaimer. NWT: Check specific licences and permits.	
Reportable Releases: (Check MSDS reclassification)	B.C.: >0.5m ³ (oil) / 2m ³ (salt water) onsite; or any quantity offsite AB: >2 m ³ (any amount off-site); any quantity into water or if may have harmful effect.	SK: >1.6 m ³ onsite, any amount off-site N.W.T.: 25 kg or L. Check specific licences and permits. (See also page vi.) T.D.G.: >25 kg or L.

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Solids Containing Flammable Liquids n.o.s. (crude oil sludge)	4.1	UN3175	II	16, 56
Labels:	Class 4.1			
Placards:	Class 4.1 if over 500 kg or in direct contact with a large means of containment.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
Comments:	May not be TDG regulated there are no liquids.			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

General Information

Original Use:	DEA is a widely used solvent for acid gas removal processes in sour gas plants. Sludges are generated in the 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 EUB Code: SLGSWT (Sludge - gas sweetening systems)		

Hazard Information

WHMIS Class:	B3, D2A	MSDS:	For additional information see specific contaminant MSDS (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.		
Health:	May cause skin, eye and respiratory irritation. Potential carcinogen.		
First Aid Measures:	<p>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.</p> <p>Eye Contact: Flush eyes with a continuous flow of fresh water until irritation subsides but at least 15 minutes.</p> <p>Skin Contact: Flush with large amounts of fresh water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing.</p> <p>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.</p>		

Management Methods

Classification By Provincial Waste Regulations:	B.C.: Hazardous Waste AB: Dangerous Oilfield 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. NWT: Check specific licences and permits.	
Reportable Releases: (Check MSDS re classification)	B.C.: >1 kg AB.: >1 kg; any quantity into water or if may have harmful effect.	SK.: 10 kg onsite, 5 kg offsite (other metals) NWT: >1 kg. Check specific licences and permits. (See also page vi.) T.D.G.: >25 kg

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Environmentally Hazardous Substance, Liquid, n.o.s. (waste contaminated with BTEX)	9	UN3082	III	16
See Comments section below.				
Labels:	Class 9			
Placards:	Class 9 if over 500 kg or in direct contact with a large means of containment.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
Comments:	DEA itself is not Classification By TDG; however, some products commonly referred to as DEA are regulated. Processes may also make this a leachable waste or even pyrophoric.			
While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.				

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 EUB Code: SLGGLY (Sludge – glycol/gas drying systems)		

Hazard Information

WHMIS Class:	B3, D2A	MSDS:	For additional information see specific contaminant MSDS.
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.		
Health:	May cause some skin, eye and respiratory irritation. Potential carcinogen.		
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:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste	
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%). NWT: Check specific licences and permits.	
Reportable Releases: (Check MSDS re classification)	B.C.: >1 kg AB: >1 kg; any quantity into water or if may have harmful effect.	SK: >10 kg onsite, 2 kg offsite (other metals) N.W.T.: >1 kg. Check specific licences and permits. (See also page vi.) T.D.G.: >25 kg

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
If regulated: Environmentally Hazardous Substance, Liquid, n.o.s. (BTEX)	9	UN3077	III	16
Labels:	Class 9			
Placards:	Class 9 if over 500 kg or in direct contact with a large means of containment.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
Comments:	E.G., DEG and TEG sludges are not TDG regulated. However, after use in gas dehydration processes, glycol filters may be flammable or leachable. Potential classes include 4.1, 4.2, 9.			
While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.				

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 EUB Code:	Various codes may apply.

Hazard Information

WHMIS Class:	B3	MSDS:	For additional information see specific contaminant MSDS (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.									
Health:	May cause skin, eye, and respiratory irritation.									
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:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste	
Storage:	Store in tanks or barrels.	
Disposal:	Send to a licensed reclaimer for product recovery and disposal. Send to a waste contractor for potential treatment and disposal (cavern disposal). Spread and treat waste on-site if permitted. NWT: Check specific licences and permits.	
Reportable Releases: (Check MSDS re classification)	B.C.: >100 L (any amount off-site). AB: >2 m ³ (any amount off-site); any quantity into water or if may have harmful effect.	SK: >1.6 m ³ onsite, any amount off-site N.W.T.: >100 L. Check specific licences and permits. (See also page vi.) T.D.G.: >200 L.

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Flammable Liquid, n.o.s. (hydrocarbon sludge)	3	UN1993	II	16
Labels:	Class 3			
Placards:	Class 3 if more than 500 kg or in direct contact with a large means of containment.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
Comments:	This waste may have to be tested.			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

Sludge – Non-Regulated
Waste Profile Sheet

General Information

Original Use:	Wash water digester, filter backwash pond, process pond and utility boiler sludge.
Physical Description:	Liquid sludge (semi-solid).
Contaminants:	May contain hydrocarbons, PAH's, aluminum, sulphides, chlorides and trace metals.
Other Codes:	Alberta EUB Code: Various codes may apply.

Hazard Information

WHMIS Class:	D2A	MSDS:	For additional information see specific contaminant MSDS.
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.		
Health:	Possible skin and eye irritation.		
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:	Not regulated as a waste unless >3% refined hydrocarbons (B.C.) (but is a dangerous good).
Storage:	Leave in-situ or store in lined ponds or tanks/barrels. Segregate from other sludges.
Disposal:	Spread and treat waste on-site if permitted. NWT: Check specific licences and permits.
Reportable Releases:	Not normally a reportable release if non-regulated. However, if an environmental hazard, should be reported.

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Not Regulated.	N/A	N/A	N/A	N/A
Labels:	None			
Placards:	None required.			
Documents:	Company Truck Ticket.			

Comments: If the sludge has a high hydrocarbon content or suspected BTEX components, the waste should be tested. If regulated, see Sludge – Liquid (Flammable)

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

Sludge Solid – Amine (BTEX)
Waste Profile Sheet

General Information

Original Use:	DEA is a widely used solvent for acid gas removal processes in sour gas plants. Sludges are generated in the 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 EUB Code:	SLGSWT (Sludge –gas sweetening systems)	

Hazard Information

WHMIS Class:	B4, D2B	MSDS:	For additional information see specific contaminant MSDS (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.		
Health:	May cause skin, eye and respiratory irritation. Potential carcinogen.		
First Aid Measures:	<p>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.</p> <p>Eye Contact: Flush eyes with a continuous flow of fresh water until irritation subsides but at least 15 minutes.</p> <p>Skin Contact: Flush with large amounts of fresh water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing.</p> <p>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.</p>		

Management Methods

Classification By Provincial Waste Regulations:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste	
Storage:	Store in tanks/barrels at field facility. Segregate from other waste sludges. NWT: Check specific licences and permits.	
Disposal:	Disposal based on specific characteristics. Options include: physical/chemical treatment, landfill, biodegradation and thermal treatment.	
Reportable Releases: (Check MSDS re classification)	B.C.: >1 kg AB.: >1 kg; any quantity into water or if may have harmful effect.	SK: >10 kg onsite, 2 kg offsite N.W.T.: >1 kg. Check specific licences and permits. (See also page vi.) T.D.G.: >25 kg

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
If regulated: Environmentally Hazardous Substance, Solid, n.o.s. (waste contaminated with BTEX)	9	UN3077	III	16
Labels:	Class 9			
Placards:	Class 9 if over 500 kg or in direct contact with a large means of containment.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
Comments:	DEA itself is not Classification By TDG; however, some products commonly referred to as DEA are regulated. Processes may also make this a leachable waste or even pyrophoric.			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

Sludge Solid – Glycol (BTEX)
Waste Profile Sheet

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 EUB Code: SLGGGLY (Sludge – glycol/gas drying systems)	

Hazard Information

WHMIS Class:	B4, D2B	MSDS:	For additional information see specific contaminant MSDS.
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.		
Health:	May cause some skin, eye and respiratory irritation. Potential carcinogen.		
First Aid Measures:	<p>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.</p> <p>Eye Contact: Not expected to be a hazard.</p> <p>Skin Contact: Not expected to be a hazard.</p> <p>Ingestion: May irritate mouth, throat or stomach.</p>		

Management Methods

Classification By Provincial Waste Regulations:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste	SK: Waste Dangerous Good N.W.T.: 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 pyrophoric; 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. NWT: Check specific licences and permits.	
Reportable Releases: (Check MSDS re classification)	B.C.: >1 kg AB: >1 kg; any quantity into water or if may have harmful effect.	SK.: >25 kg onsite, 5 kg offsite (benzene) N.W.T.: >1 kg. Check specific licences and permits. (See also page vi.) T.D.G.: >25 kg

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Environmentally Hazardous Substance, Solid, n.o.s. (waste contaminated with BTEX).	9	UN3077	III	16
Labels:	Class 9			
Placards:	Class 9 if over 500 kg or in direct contact with a large means of containment.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
Comments:	E.G., DEG and TEG filters are not TDG regulated. However, after use in gas dehydration processes, glycol filters may be pyrophoric, flammable, or leachable.			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

Sludge – Solid (Flammable)
Waste Profile Sheet

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 EUB Code: Various codes may apply.

Hazard Information

WHMIS Class:	B4	MSDS:	For additional information see specific contaminant MSDS (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.		
Health:	May cause skin, eye and respiratory irritation.		
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:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste	SK: Waste Dangerous Good N.W.T.: Hazardous Waste
Storage:	For larger volumes store in ecology pits. For lesser volumes store in tanks or barrels.	
Disposal:	Disposal based on specific characteristics. Options include: oilfield waste processing facility, physical/chemical treatment, landfill, biodegradation and thermal treatment. NWT: Check specific licences and permits.	
Reportable Releases: (Check MSDS re classification)	B.C.: >100 L (any amount off-site). AB: >2 m ³ (any amount off-site); any quantity into water or if may have harmful effect.	SK: >1.6 m ³ onsite, any amount off-site N.W.T.: 25 kg. Check specific licences and permits. (See also page vi.) T.D.G.: >25 kg

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
Solids Containing Flammable Liquid, n.o.s. (name of hazardous ingredient)	4.1	UN3175	II	16, 56
Labels:	Class 4.1			
Placards:	Class 4.1 if more than 500 kg or in direct contact with large means of containment.			
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
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.			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

Sludge – Solid (Pyrophoric)
Waste Profile Sheet

General Information

Original Use:	Gas sweetening operations that use iron sponge.
Physical Description:	Liquid sludge (semi-solid).
Contaminants:	May contain hydrocarbons, asphaltenes, corrosion inhibitors, iron oxides, iron sulphides.
Other Codes:	Alberta EUB Code: SLGPRO (Sludge – process)

Hazard Information

WHMIS Class:	B4	MSDS:	For additional information see specific contaminant MSDS (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.		
Health:	May cause skin, eye, and respiratory irritation. 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.		
First Aid Measures:			

Management Methods

Classification By Provincial Waste Regulations:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste	SK: Waste Dangerous Good N.W.T.: Hazardous Waste
Storage:	Store in steel drums.	
Disposal:	Disposal based on specific characteristics. Options include: physical/chemical treatment, landfill, biodegradation and thermal treatment. NWT: Check specific licences and permits.	
Reportable Releases: (Check MSDS re classification)	B.C.: >25 kg AB.: >25 kg; any quantity into water or if may have harmful effect.	SK.: >100 L onsite, 50 L offsite (other petroleum products) N.W.T.: >25 kg. Check specific licences and permits. (See also page vi.) T.D.G.: >25 kg

Transportation

	Shipping Name	Class	PIN	Packing Group	Special Provisions
	Iron sponge, spent	4.2	UN1376	III	
Labels:	Class 4.2				
Placards:	Class 4.2 if more than 500 kg or in direct contact with a large means of containment...				
Documents:	Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).				
Comments:	Lime neutralization required in landfill – 3/1 lime/sulphur weight ratio. Transport wet to prevent spontaneous combustion.				

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.

General Information

Original Use:	Process waste waters 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 waste water 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 EUB Code: PWTROR (Water – process with organic chemicals)		

Hazard Information

WHMIS Class:	B3, D2A	MSDS:	For additional information see specific contaminant MSDS.
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).		
Health:	High vapour concentrations may irritate nose and throat. Slight skin irritations.		
First Aid Measures:	<p>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.</p> <p>Eye Contact: Flush eyes, including under eyelids, with a continuous flow of water for at least 15 min. If irritation persists, get medical attention.</p> <p>Skin Contact: Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing and clean thoroughly before reusing.</p> <p>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.</p>		

Management Methods

Classification By Provincial Waste Regulations:	B.C.: Hazardous Waste AB: Dangerous Oilfield Waste	SK: Waste Dangerous Good N.W.T.: Hazardous Waste
Storage:	Store on-site in a tank or lined waste water retention pond.	
Disposal:	Well injection. NWT: Check specific licences and permits.	
Reportable Releases: (Check MSDS re classification)	B.C.: >1 kg or L AB.: >1 kg or L; any quantity into water or if may have harmful effect.	SK.: >25 L onsite, 5 L offsite (benzene) N.W.T.: >1 kg or L. Check specific licences and permits. (See also page vi.) T.D.G.: >25 kg or L

Transportation

Shipping Name	Class	PIN	Packing Group	Special Provisions
If Regulated: Environmentally Hazardous Substance, liquid, n.o.s. (name of hazardous ingredient) See comments section below.	9	UN3082	III	16
Labels:	Class 9			
Placards:	Class 9 if over 500 kg or in direct contact with a large means of containment.			
Documents:	Truck ticket if not regulated. Oilfield Waste Manifest or Recycle Docket (AB), Waste Manifest (B.C.) or the federal Waste Movement Document (SK and NWT).			
Comments:	Testing is required. High hydrocarbon content may constitute a flammable liquid (Class 3).			

While CAPP and its consultants believe that data contained herein are 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 assumes legal responsibility. Any use of this data and information must be determined by the user in accordance with applicable federal, provincial and local laws and regulations.