Name of Company that will hold Approval:	EnCana FCCL Oil Sands Ltd.	Company	Carolina Molina,
Company Website:	http://www.encana.com	Contact Name	Environmental & Regulatory Affairs Coordinator,
Type of Project (e.g., in-situ, mine, quarry, upgrader, etc.):	In-situ	and Information:	Email:Carolina.molina@encana.com, Phone:(403)645-2968
Types of Activity (major project processes):	SAGD	New Project, Expansion or Modification:	Expansion
Project Location (Legal Land Description) and Municipality:	Approximately 20 kilometers east of Conklin, Alberta in Section 16, Township 76, Range 6, west of the 4th Meridian.	Life of Project (# years, YYYY - YYYY):	25+ years 2014-2039+
Average Production Capacity per Year (specify units):	120,000 bpd incremental Production Capacity for Phases 1E/1F/1G. Cumulative Production Capacity of 218,800 bpd for Phases 1A/1B/1C/1D/1E/1F/1G.	Power Source (If on site power generation describe quantiy (MW) and facilities):	Third party utility company (Fortis)
Nearest Residence (km):	Conklin, Alberta (20 km)	Private or Public Land:	Public
Nearest FN Reserve(s) (name and km):	Winefred Lake (13 km) Janvier (30 km) Cowper Lake (36 km) Heart Lake (60 km)	Total Project Area (ha):	10,300 ha
Total Area to be Disturbed (ha):	~214 Hectares	Infrastructure Requirements (roads, pipelines, water intake, storage tankage):	A central processing facility, well pads, roads, a pipeline to supply fuel gas, an electrical power line, a diluted bitumen sales pipeline and a diluent supply pipeline.
Method of Product Transport (e.g., pipeline, rail, truck):	Pipeline	Project Products Including By- Products:	The main product is diluted bitumen. By products of blowdown, regen waste water, and produced water are disposed of in wells via pipeline. Other by-products include sulfur and drilling waste and lime sludge.
Location of End Market:	Currently USA, but this may evolve as Alberta develops upgrading capacity.	Expected Types of Air Emmissions (e.g., SO ₂ , NO _x , CO ₂):	SO ₂ , NO _X , CO ₂
Types of Wastes Generated:	Refer to attached Waste Management Chart	Waste Management Facilities (i.e., Disposal Well, Salt Caverns, Landfill, or Third-Party):	Refer to attached Waste Management Chart

Nearest Waterway/Waterbody (name and km):	Christina Lake (<1 km)	Watercourse Crossings (type of crossing, any Class A to C waterbodies):	We have two C waterbodies that will be crossed. Applications to DFO and TC will be done separately and at the time the crossing is required.
Water Act Licence Required (Y/N/Unknown/NA. If yes: purpose, source and estimated volumes):	Yes	Water Act Approval Required (Y/N/Unknown. If yes, purpose):	Yes
Fisheries Act Authorization Required (Y/N/Unknown):	No	Navigable Waters Protection Act Authorization Required (Y/N/Unknown):	Unknown
Pit Lake(s) Required (Y/N/Unknown/NA. If yes, # and ha):	No	Nearest Water Well (km) (Domestic or Commercial):	There are many saline and non- saline wells in the area as well as incremental saline wells required for Phases 1E/1F/1G. The nearest water well is 'AB WS 0000547' located at 9-17-76-6W4
Nearest Provincial Highway (# and distance):	Highway 881 (10 km)	Access to Provincial Highway (no improv req/improv req/const req):	No improvement required
Traffic Impact Assessment Required (Yes/No/Unknown):	Yes	Pre-disturbance Land Use(s):	Trapping, fishing, recreation
Reclamation Start and End (YYYY - YYYY):	Christina Lake is just in the early stages of development consequently reclamation is far off. ~2025.	Post- reclamation Land Use(s):	Trapping, fishing, recreation
Any Unique Environmental or Social Considerations (if yes, describe):	Yes, Trappers and First Nation Traditional Land Use	Historical Resources Impact Assessment Required (Y/N/Unknown):	Yes
Estimated Construction Person-Years of Employment:	~5,000 for initial construction of Phases 1E/1F/1G	Estimated Operation Persons-Years of Employment:	300-400 person years per year for sustaining wells and project operation for Phase 1E/1F/1G for 25+ years
Construction or Operation Camp Required (Y/N/Unknown. If yes, on- site or off-site):	Yes - The existing onsite camp will be expanded.	Method of Transport of Employees to Site (Construction and Operation):	It is expected that workers will commute to/from local municipalities such as Lac La Biche and Fort McMurray at the beginning and end of the shift. At the end of each shift we expect that the workforce will commute to their home destinations

			via their own personal vehicles twice per shift, once in and once out. Currently the vast majority of Operations workers stay in camp - the option to commute to neighboring communities is there now and will continue to be available in the future. Over the longer term some staff may choose to commute from neighboring communities within a reasonable commute (Conklin, Lac La Biche, Janvier, etc).
Date Stakeholder Engagement Started (Public/Aboriginal):	Q1 2009	Aboriginal Groups Involved in Stakeholder Engagement:	Fort McMurray First Nation, Chipewyan Prairie First Nation, Heart Lake First Nation, Beaver Lake Cree Nation, Conklin Métis, Chard Métis and Wood Buffalo Métis Corporation representing the Willow Lake Métis and Fort McMurray Métis #1935



WASTE MANAGEMENT CHART

Thermal Recovery B.U. - Christina Lake September 2007

Remember: The best way to manage waste is not to produce it in the first place!

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ENCANA REQUIRES USE OF A MANIFEST FOR ALL WASTE THAT REQUIRES TRACKING ENSURE ALL MANIFESTS OR TRUCK TICKETS ARE FORWARDED TO THE AREA WASTE TRACKER (CALGARY OFFICE) FOR DATA ENTRY

Waste Name (Waste Code)	Classification	Storage Requirements	Shipping Information	Documentation	Tracking Required	Management Guidelines & EUB Handling Code
Absorbents (OILABS)	Non-DOW (unless low flashpoint, ignitability or BTEX)	When used for chemical or condensate clean-up, transfer to R.B.W. filter bins. If used on lube or crude oil place in supplied R.B.W. drums.	Usually not TDG regulated (Non-DOW). If saturated or used on chemicals or condensate: SOLIDS CONTAINING FLAMMABLE LIQUID N.O.S. (absorbents contaminated with technical name), Class 4.1, UN 3175, P.G. II. Special Provision #16 & 56. If saturated with lube oil: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID N.O.S. (absorbents contaminated with used lubricating oil containing lead), Class 9, UN 3082, P.G. III. Special Provision #16. Ship as per waste filters if placed in R.B.W. bins.	Oilfield Waste Manifest		Place in R.B.W. Sorbent Drums for R.B.W. pick-up (Handling Code: 16).
Acid (ACID)	DOW	Store in corrosion resistant (plastic or lined) container on barrel dock.	CORROSIVE LIQUIDS, N.O.S (type of acid), Class 8, UN 1760, P.G I. Special Provision #16.	 Oilfield Waste Manifest. ERAP** required when shipping >3000 L. 	V	 Send to Newalta Elk Point at 3-15-55-6 W4M or CCS Lindbergh at 5-26-56-5 W4M for neutralization and downhole disposal or neutralize prior to sending (Handling Code: 03) When an ERAP is required contact EnCana Environmental Services.
Activated Carbon (ACTCRB)	DOW (Assumed)	May be pyrophoric. Store in sealed steel containers (drums) in a well ventilated area. If not pyrophoric may be placed in R.B.W. filter bins.	 CARBON, ACTIVATED, Class 4.2, UN 1362, P.G. III. Ship as per waste filters if placed in R.B.W. bins. 	Oilfield Waste Manifest.	V	Place in R.B.W. filter bins for R.B.W. pick-up (Handling Code: 16).
Batteries (BATT)	DOW (if lead acid)	Store in a steel drum with absorbent or on a drip pan.	BATTERIES, WET, FILLED WITH ACID, Class 8, UN 2794, P.G. III, Special Provision #39.	Oilfield Waste Manifest.	•	 Send to local battery supplier for recycling (Handling Code: 16). Small dry cell batteries can be placed in domestic waste bin and hauled to local landfill (tracking not required)
Boiler Blowdown Water (BLBDWT)	Non-DOW (unless containing heavy metals such as Cr or V)	Closed system.	Not TDG regulated.	Oilfield Waste Manifest. (If sent for 3rd party disposal)	(If sent for 3rd party disposal)	 Dispose to an EnCana Class Ib injection well (Closed System). Send to Newalta Elk Point at 3-15-55-6 W4M or CCS Lindbergh at 5-26-56-5 W4M for downhole disposal or neutralize prior to sending (Handling Code: 05).

Waste Name (Waste Code)	Classification	Storage Requirements	Shipping Information	Documentation	Tracking Required	Management Guidelines & EUB Handling Code
Caustic (CAUS)	DOW	Store in corrosion resistant (plastic or lined) container on barrel dock. Store in a separate area from acids.	CORROSIVE LIQUIDS, N.O.S. (type of caustic), Class 8, UN 1760, P.G. I, Special Provision #16.	 Oilfield Waste Manifest. ERAP** required when shipping >3000 L. 	V	 Neutralize pH to between 6 and 9. Send to Newalta Elk Point at 3-15-55-6 W4M or CCS Lindbergh at 5-26-56-5 W4M for downhole disposal sending (Handling Code: 05). When an ERAP is required contact EnCana Environmental Services.
Chemicals - Inorganic (INOCHM)	DOW	Store as per suppliers suggested methods.	Consult supplier label for TDG information or consult EnCana Environment personnel.	Oilfield Waste Manifest.	•	 Return to supplier if possible. Send to Newalta Industrial for possible product recovery (Handling Code: 16). Send to Newalta Redwater Class la injection well at 08-15-54-26 W4M (Handling Code: 04)
Chemicals - Organic (ORGCHM)	DOW	Store as per suppliers suggested methods.	Consult supplier label for TDG information or consult EnCana Environment personnel.	Oilfield Waste Manifest.	<i>y</i>	 Return to supplier if possible. Send to Newalta Industrial for possible product recovery (Handling Code: 16). Send to Newalta Redwater Class la injection well at 08-15-54-26 W4M (Handling Code: 04)
Construction and Demolition Material (CONMAT)	Non-DOW	Store in an orderly manner in a low traffic area of facility.	Not TDG regulated (unless contaminated with a DOW).	Truck Ticket or invoice		Transport to Fort McMurray landfill at 22-88-9 W4M or Owl River landfill at NW25-67-13 W4M (Handling Code: 11)
Containers - Crude Oil Sample Bottles (EMTCON)	Non-DOW	Store empty containers in steel drums.	Not TDG regulated (if no free liquids).	Oilfield Waste Manifest		 Clean and reuse when possible. If broken, drain and clean then send to local landfill (Handling Code: 11).
Containers - Drums / Barrels (EMTCON)	Non-DOW (unless not empty of a DOW)	Store on sides with all bungs securely in place.	 Usually not TDG regulated (Non-DOW). If > 10% full with a dangerous good, use TDG shipping information of the dangerous good. 	Oilfield Waste Manifest.		 Return to supplier if possible. Send to Great Western Containers in Edmonton (Handling Code: 16).
Contaminated Debris and Soil - Chemical/Solvent (SOILCH)	DOW (Assumed)	 Store in drums or bins at waste storage area. For larger volumes store in a secure area. Ensure secondary containment and protection from precipitation. 	Dependent on specific chemical / solvent. Consult supplier label for TDG information.	Oilfield Waste Manifest	V	 Treat on-site as per EnCana Environment personnel directions (Handling Code: 19). R.B.W. Bins are picked up by R.B.W. on a regular schedule (Handling Code: 16).
Contaminated Debris and Soil - Oil / Condensate (SOILCO)	Non-DOW (unless low flashpoint or BTEX)	Store in a secure area. Ensure secondary containment and protection from precipitation.	 If low hydrocarbon or BTEX content, and flash point >61°C: Not TDG regulated (Non-DOW). If unsure or high hydrocarbon content: SOLIDS CONTAINING FLAMMABLE LIQUID N.O.S. (soil / debris contaminated with crude oil), Class 4.1, UN 3175, P.G. II. Special Provision #16 & 56 	Oilfield Waste Manifest.	V	 Treat on-site as per EnCana Environment personnel directions (Handling Code: 19). Send to an oilfield waste processing facility (Handling Code: 03) R.B.W. Bins are picked up by R.B.W. on a regular schedule (Handling Code: 16).

Waste Name (Waste Code)	Classification	Storage Requirements	Shipping Information	Documentation	Tracking Required	Management Guidelines & EUB Handling Code
Contaminated Debris and Soil - Produced Water (SOILPW)	Non-DOW	Store in a lined, diked area.	Not TDG regulated.	Oilfield Waste Manifest (if moved off-site)	V	 Treat on-site as per EnCana Environment personnel directions (Handling Code: 21 - on-site chemical treatment). R.B.W. Bins are picked up by
						R.B.W. on a regular schedule (Handling Code: 16).
Contaminated Debris and Soil - Refined Fuels/Oils (SOILRO)	Non-DOW (unless low flashpoint, BTEX or heavy metals)	Store in a lined, diked area.	If low hydrocarbon or BTEX content, and flash point >61°C: Not TDG regulated (Non-DOW). If unsure or high hydrocarbon content: SOLIDS CONTAINING FLAMMABLE LIQUID N.O.S. (soil / debris contaminated with name of product), Class 4.1, UN 3175, P.G. II.Special Provision #16 & 56 If lube oil with heavy metals: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (soil / debris contaminated with lubricating oil containing lead), Class 9, UN 3077, P.G. III. Special Provision #16. Waste must be tested.	Oilfield Waste Manifest (if moved off-site)		 Treat on-site as per EnCana Environment personnel directions (Handling Code: 19). Contact EnCana Environment personnel to arrange off-site disposal if required. R.B.W. Bins are picked up by R.B.W. on a regular schedule (Handling Code: 16).
Corrosion Inhibitor / Oxygen Scavenger Solutions (CORINH)	DOW	Store in closed tanks or drums.	FLAMMABLE LIQUID, CORROSIVE N.O.S. (oilfield process liquids), Class 3(8), UN 2924. Special Provision #16.	Oilfield Waste Manifest. ERAP** required when shipping >1000 L.	V	 Send to Newalta Elk Point at 3-15-55-6 W4M or CCS Lindbergh at 5-26-56-5 W4M (Handling Code: 03). When an ERAP is required contact EnCana Environmental Services.
Crude Oil and Condensate Emulsions (COEMUL) Does not include liquids destined for custom treating only	Non-DOW (unless low flashpoint or BTEX)	Store in production tanks.	 If low oil content: Not TDG regulated (Non-DOW). If unsure or high oil / condensate content: PETROLEUM CRUDE OIL, Class 3, UN 1267, P.G. II or III. Waste must be tested. 	Oilfield Waste Manifest	V	Recycle waste to process when possible. Send to Newalta Elk Point at 3-15-55-6 W4M or CCS Lindbergh at 5-26-56-5 W4M for product recovery (Handling Code: 03). Note: Liquids destined for custom treating (oil and water only) are not considered wastes and exempt from EUB waste legislation. TDG may still apply.
Dessicant – Air Compressors (DESICT)	Non-DOW	Store in sealed drums or reinforced bags.	Not TDG regulated.	Oilfield Waste Manifest	V	Send to Canadian Waste Services Edmonton Class II landfill (Handling Code: 10).
Filter Backwash Liquids - Water treatment (FLBWWT)	Non-DOW	Store in lined ponds.	Not TDG regulated.	Oilfield Waste Manifest.		 Recycle through battery. Send to Newalta Elk Point at 3-15-55-6 W4M or CCS Lindbergh at 5-26-56-5 W4M (Handling Code: 03)

Waste Name (Waste Code)	Classification	Storage Requirements	Shipping Information	Documentation	Tracking Required	Management Guidelines & EUB Handling Code
Filter (Media) - Water Treatment (FILWTT)	Non-DOW (unless BTEX or other leachate)	Store in sealed drums	Waste usually not TDG regulated. If high BTEX content: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (waste filters used in the commercial production of oil and gas), Class 9, UN 3077, P.G. III. Special Provision #16.	Oilfield Waste Manifest	V	 If Non-DOW send to Canadian Waste Services Class II Edmonton landfill (Handling Code: 10). If DOW - as soon as sufficient quantities exist, transport to nearest R.B.W. filter bin. R.B.W. bins are picked up by R.B.W. on a regular schedule (Handling Code: 16). Reuse/regenerate when possible.
Filters - Gas Sweetening - Amine (FILSWT)	DOW	 Store in drain drums on barrel dock. Provide spill / leak containment. Store Pyrophoric filters in sealed steel drums. Transfer to R.B.W. bins when dry. 	 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (waste filters used in the commercial production of oil and gas), Class 9, UN 3077, P.G. III. Special Provision #16. May also be pyrophoric, Class 4.2. 	Oilfield Waste Manifest.	V	 As soon as sufficient quantities exist, transport to nearest R.B.W. filter bin. R.B.W. bins are picked up by R.B.W. on a regular schedule (Handling Code: 16).
Filters - Glycol (FILGLY)	DOW	 Store in drain drums on barrel dock. Filters used in sour service may be pyrophoric - keep filters wet. Provide spill / leak containment. Transfer to R.B.W. bins when dry. 	 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (waste filters used in the commercial production of oil and gas), Class 9, UN 3077, P.G. III. Special Provision #16. May also be pyrophoric, Class 4.2. 	Oilfield Waste Manifest.	V	 As soon as sufficient quantities exist, transport to nearest R.B.W. filter bin. R.B.W. bins are picked up by R.B.W. on a regular schedule (Handling Code: 16).
Filters - Lube oil (FILLUB)	DOW (Unless filter elements are completely drained)	 Store in drain drums on barrel dock. Provide spill / leak containment. Transfer to R.B.W. bins when dry. 	 If drained (Non-DOW): Not TDG regulated. If undrained (DOW): ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (waste filters used in the commercial production of oil and gas), Class 9, UN 3077, P.G. III. Special Provision #16. 	Oilfield Waste Manifest	V	 As soon as sufficient quantities exist, transport to nearest R.B.W. filter bin. R.B.W. bins are picked up by R.B.W. on a regular schedule (Handling Code: 16)
Filters – Methanol (FILMTH)	DOW	 Store in sealed drums on barrel dock. Provide spill / leak containment. Transfer to R.B.W. bins when dry. 	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (waste filters used in the commercial production of oil and gas), Class 9, UN 3077, P.G. III. Special Provision #16.	Oilfield Waste Manifest.	V	 As soon as sufficient quantities exist, transport to nearest R.B.W. filter bin. R.B.W. bins are picked up by R.B.W. on a regular schedule (Handling Code: 16)
Filters - Other (Raw /Fuel Gas, NGL's) (FILOTH)	DOW	 Store in sealed drums on barrel dock. Provide spill / leak containment. Transfer to R.B.W. bins when dry. 	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (waste filters used in the commercial production of oil and gas), Class 9, UN 3077, P.G. III. Special Provision #16.	Oilfield Waste Manifest.	V	 As soon as sufficient quantities exist, transport to nearest R.B.W. filter bin. R.B.W. bins are picked up by R.B.W. on a regular schedule (Handling Code: 16)

Waste Name (Waste Code)	Classification	Storage Requirements	Shipping Information	Documentation	Tracking Required	Management Guidelines & EUB Handling Code
Filters - Produced Water (FILPWT)	DOW	 Store in drain drums on barrel dock. Provide spill / leak containment. Transfer to R.B.W. bins when dry. 	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (waste filters used in the commercial production of oil and gas), Class 9, UN 3077, P.G. III. Special Provision #16.	Oilfield Waste Manifest.	V	 As soon as sufficient quantities exist, transport to nearest R.B.W. filter bin. R.B.W. bins are picked up by R.B.W. on a regular schedule (Handling Code: 16)
Filters - Raw (Fresh) Water (FILFWT)	Non-DOW	Store in supplied domestic waste bins.	Not TDG regulated.	Oilfield Waste Manifest		Transport to Fort McMurray landfill at 22-88-9 W4M (Handling Code: 11)
Garbage - Domestic Waste (DOMWST)	Non-DOW	Store in supplied domestic waste bins.	Not TDG regulated.	Truck Ticket or invoice.		Transport to Fort McMurray landfill at 22-88-9 W4M or Owl River landfill at NW25-67-13 W4M (Handling Code: 11)
Glycol (GLYC)	Non-DOW (Unless from a cooling system with lead solder)	Store in steel drums on barrel dock or in steel tanks.	 Usually not TDG regulated (Non-DOW). If heavy metals are suspected due to lead soldered vessels: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (glycol solution containing lead), Class 9, UN 3082, P.G. III. Special Provision #16. 	Oilfield Waste Manifest	V	 Return to supplier if product has not been contaminated. Send to Newalta Industrial for regeneration (Handling Code: 16).
Hydrotest Fluids - Methanol (METHNL)	DOW	Store in steel drums on barrel dock or in steel tanks.	METHANOL, SOLUTION, Class 3 (6.1), UN 1230, P.G. II. Special Provision #43.	Oilfield Waste Manifest.	V	 Reuse when possible. Send to Newalta Elk Point at 3-15-55-6 W4M or CCS Lindbergh at 5-26-56-5 W4M for deep well disposal (organics must be <10%) (Handling Code: 05).
Ion Exchange Resin (IEXRES)	Non-DOW	Store in sealed drums.	Not TDG regulated.	Oilfield Waste Manifest	V	Send to Canadian Waste Services Class II Edmonton landfill (Handling Code: 10).
Ion Exchange Regenerant Liquids (IEXLIQ)	Non-DOW (Assumed)	Closed system.	Not TDG regulated.	Oilfield Waste Manifest	V	Dispose to an EnCana Class Ib injection well (Closed System).
Lube Oil (LUBOIL)	DOW (Assumed)	 Store in sealed drums on barrel dock or in storage tanks equipped with spill containment / leak detection. Used lube oil must be segregated from other waste liquids to facilitate recycling. 	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (used lubricating oil containing lead), Class 9, UN 3082, P.G. III. Special Provision #16.	Oilfield Waste Manifest.	V	 Picked up by supplier or Newalta when requested. Waste lube oil is re-refined by Newalta and the Esso refinery in Ft. Saskatchewan (Handling Code: 15). R.B.W. Bins are picked up by R.B.W. on a regular schedule (Handling Code: 16).
Metal Scrap (SMETAL)	Non-DOW (Assumed)	Store in a low traffic areas.	Not TDG regulated.	Truck Ticket / Invoice.		Send to local scrap metal dealer for recycling (Handling Code: 16).
NORM Scale (NORM)	Non-DOW (Unless > 70 Bq/gm)	Seal and transfer to Wainwright B NORM storage facility.	 Not TDG regulated. Contact EnCana Environmental Services prior to transport. 	Oilfield Waste Manifest.	V	 Transfer to EnCana Wainwright B NORM storage faclity. Contact EnCana Environmental Services.
Paint (WPAINT)	DOW	Store in paint cabinets. Provide secondary containment and protection from precipitation.	 PAINT, Class 3, UN 1263, P.G. II, Special Provision #59. See paint container for specific TDG Class. 	Oilfield Waste Manifest.	V	Place in sealed containers next to R.B.W. bins for scheduled R.B.W. pick-up.

Waste Name (Waste Code)	Classification	Storage Requirements	Shipping Information	Documentation	Tracking Required	Management Guidelines & EUB Handling Code
Wash Fluids - Water (WSHWTR)	Non-DOW (Unless high organic content, flash point or pH)	 Usually handled in a closed system. For open system contain in drums or, if necessary, lined ponds. 	 Usually not TDG regulated (Non-DOW). If fluid contains hydrocarbon or other contaminants: FLAMMABLE LIQUID, CORROSIVE N.O.S (oil and gas industry wash solutions), Class 3 (8), UN 2924. Special Provision #16. 	 Oilfield Waste Manifest ERAP** required when shipping >1000 L (DOW only). 	(if DOW)	 Send to Newalta Elk Point at 3-15-55-6 W4M or CCS Lindbergh at 5-26-56-5 W4M for deep well disposal (Handling Code: 05) When an ERAP is required contact EnCana Environmental Services.
Water – Produced / Brine Solutions (WATER)	Non-DOW	Handle within a closed system at facility or store in production or water tanks.	Not TDG regulated.	Truck Ticket / Invoice.		Dispose to EnCana Class II Injection well (Handling Code: 06).
Well Workover Fluids - Acid (WWOFLD)	DOW (Assumed)	Store in corrosion resistant (plastic or lined) container on barrel dock.	CORROSIVE LIQUID, N.O.S. (type of acid), Class 8, UN 1760, P.G. I, Special Provision #16.	 Oilfield Waste Manifest. ERAP** required when shipping >3000 L. 	V	 Neutralize pH to between 6 and 9. Send to Newalta Elk Point at 3-15-55-6 W4M or CCS Lindbergh at 5-26-56-5 W4M for downhole disposal (Handling Code: 05). When an ERAP is required contact EnCana Environmental Services.
Pigging Wastes (PIGWST)	DOW (Assumed)	Store in drums or other steel containers on the barrel dock.	SOLIDS CONTAINING FLAMMABLE LIQUID N.O.S. (crude oil sludge and wax), Class 4.1, UN 3175, P.G. II. Special Provision # 16 & 56.	Oilfield Waste Manifest.	•	 Recycle through system when possible. Send to Newalta Elk Point at 3-15-55-6 W4M or CCS Lindbergh at 5-26-56-5 W4M (Handling Code: 03).
Rags - Oily (OILRAG)	Non-DOW (unless low flashpoint, ignitability and BTEX)	Store in sealed drums or containers at barrel dock.	Usually not TDG regulated (Non-DOW). If saturated or used on chemicals or condensate: SOLIDS CONTAINING FLAMMABLE LIQUID N.O.S. (rags contaminated with technical name), Class 4.1, UN 3175, P.G. II. Special Provision # 16 & 56 Ship as per waste filters if placed in filter bins.	Oilfield Waste Manifest	(if DOW)	Place in R.B.W. bin. R.B.W. bins are picked up by R.B.W. on a regular schedule (Handling Code: 16).
Sand – Produced (SAND)	DOW (Assumed)	Store in lined ponds or tanks. Store separately from other sludges.	SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. (produced sand containing crude oil), Class 4.1, UN 3175, P.G. II. Special Provision # 16 & 56.	Oilfield Waste Manifest	•	 Send to Newalta Elk Point at 3-15-55-6 W4M, CCS Lindbergh at 5-26-56-5 W4M or Bromley-Marr Bonnyville at NE 4-61-05 W4M for product recovery (Handling Code: 03). Send to Canadian Waste Services' Edmonton Landfill (Handling Code: 10). Consult EnCana environmental personnel for other disposal options such as road spread/incorporation or asphalt production.

Waste Name (Waste Code)	Classification	Storage Requirements	Shipping Information	Documentation	Tracking Required	Management Guidelines & EUB Handling Code
Slop Oil (COEMUL)	DOW (Assumed)	Store in tanks.	 If mainly liquid: PETROLEUM CRUDE OIL, Class 3, UN 1267, P.G. II or III. If mainly solid: SOLIDS CONTAINING FLAMMABLE LIQUIDS, N.O.S. (hydrocarbon sludge from the production of oil and gas), Class 4.1, UN 3175, P.G. II. Special Provision # 16 & 56 (Waste Code for this option is SLGHYD) 	Oilfield Waste Manifest	•	Send to Newalta Elk Point at 3-15- 55-6 W4M or CCS Lindbergh at 5- 26-56-5 W4M for product recovery (Handling Code: 03).
Sludge - Hydrocarbon (SLGHYD)	DOW (Assumed)	 Store in lined ponds or tanks / drums. Store separately from other sludges. 	SOLIDS CONTAINING FLAMMABLE LIQUID, N.O.S. (hydrocarbon sludge from the production of oil and gas), Class 4.1, UN 3175, P.G. II. Special Provision # 16 & 56.	Oilfield Waste Manifest.	~	 Recycle to process when possible. Send to Newalta Elk Point at 3-15-55-6 W4M or CCS Lindbergh at 5-26-56-5 W4M (Handling Code: 03).
Sludge Sulphur (SLGSUL)	Non-DOW	Store in metal bins or drums	Not TDG Regulated.	Oilfield Waste Manifest	~	Send to Landfill for disposal: West Edmonton Landfill (Handling Code 10)
Sludge – Lime (SLGLIM)	Non-DOW	Store in metal bins	Not TDG Regulated.	Oilfield Waste Manifest	•	Send to Newalta Elk Point at 3-3-55-6 W4M (Handling Code 03), CCS Lindbergh at 5-26-56-W4M (Handling Code 03), or West Edmonton Landfill (Handling Code 10).
Wash Fluids - Solvent (WSHORG)	DOW (Assumed)	Store in tanks or sealed drums.	 May be Class 3, 6 or 8. Refer to TDG information from supplier. Uncontaminated BioSol is not TDG Regulated. 	Oilfield Waste Manifest.	•	 Send to Newalta Industrial for product recovery (Handling Code: 16). Send for deep well disposal (Handling Code: 04).
Well Workover Fluids - Hydrocarbon (WWOFLD)	DOW (Assumed)	Store in production \ slop tanks or drums.	FLAMMABLE LIQUID, CORROSIVE N.O.S. (mixed oilfield production fluids) Class 3(8), UN 2924. Special Provision #16.	Oilfield Waste Manifest ERAP** required when shipping >1000 L.	V	 Recycle waste to process when possible. Send to Newalta Elk Point at 3-15-55-6 W4M or CCS Lindbergh at 5-26-56-5 W4M for product recovery (Handling Code: 03). When an ERAP is required contact EnCana Environmental Services.
Well Workover Fluids - Produced Water (WWOFLD)	Non-DOW	Handle within a closed system or store in production tanks.	Not TDG regulated.	Truck Ticket / Invoice.	~	Process through battery if possible. Downhole inject via EnCana Class II Injection well (Handling Code: 06).
						 Send to Newalta Elk Point at 3-15- 55-6 W4M or CCS Lindbergh at 5- 26-56-5 W4M (Handling Code: 05)

EnCana Waste Storage and Shipping Locations*

Facility Name	Location	EUB Facility Licence Number
Christina Lake Project	8-17-76-6 W4M	F-27189

EUB Approved Waste Receivers (for area)

Facility Name	Location	EUB Facility Code (Main Waste Facility)
CCS Lindbergh	5-26-56-5 W4M Box 1300 Elk Point, AB T0A 1A0 P: (780) 724-3002 F: (780) 724-4961	557
Newalta Elk Point	3-15-55-6 W4M Box 1001 Elk Point, AB T0A 1A0 P: (403) 724-4333 F: (403) 724-3519	688
Landfills: Ft. McMurray Owl River CWS Edmonton CCS Janvier	P: (780) 799-5822 P: (780) 826-3951 P: (780) 447-2141 P: (780) 792-8153	
Other Receivers: RBW Waste Mgmt Newalta Industrial	P: (780) 438-2183 P: (780) 469-0392	

^{*} If sending wastes directly for disposal from locations other than those listed, ensure the complete legal location and EUB Facility Code are indicated on the Manifest or Truck Ticket. If sending from a wellsite, use the facility code of the central production site the well is tied into.

If you have any questions concerning waste management see the Environmental Services Web Site for a copy of EnCana's Waste Management Guidelines, or contact:

- Area Waste Rep. Mark Berrett (780) 559-6147
- Waste Tracker Lyla Gobin (403) 645-7812
- Environmental Services Shannon Makinson (403) 645-5709
- Upstream Operations Drilling Waste Sean Wade (403) 645-6574

EnCana's EUB Operator Code is A2EZ

EnCana's Alberta Waste Generator Number is ABG1665 (Former PCR operations). This number must be included on the manifest for any wastes destined for disposal at an AENV approved facility (e.g. Swan Hills).

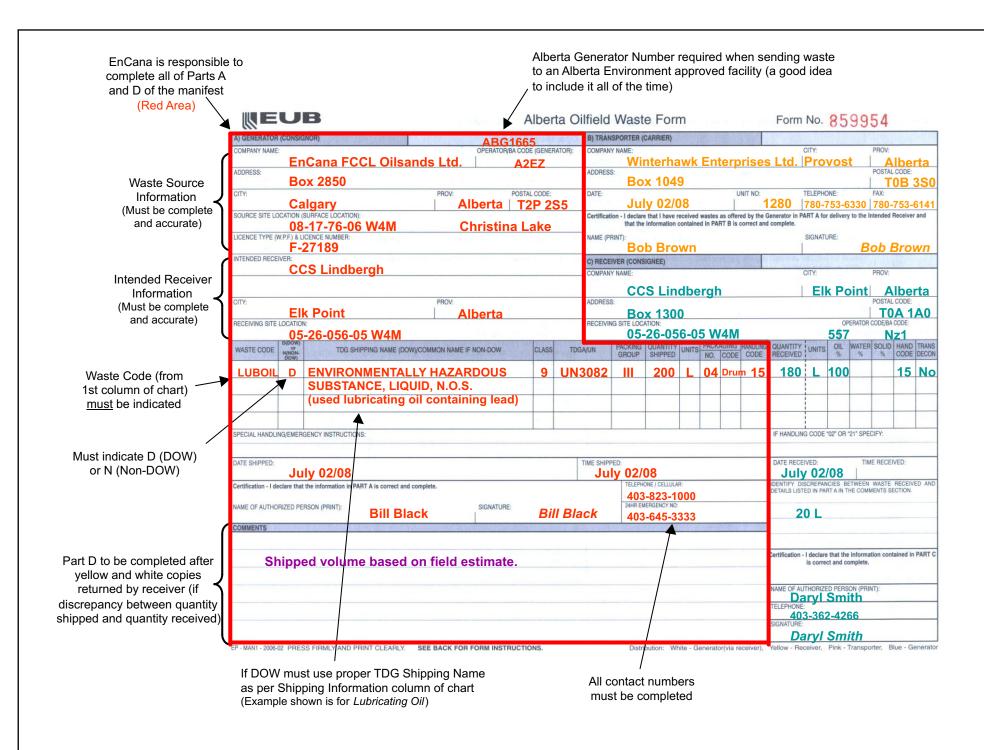
This chart has been developed as a quick reference source only. For further information regarding the management of produced wastes consult EnCana environmental personnel.

EUB Waste Handling Codes							
01	Storage Facility	12	Thermal Treatment				
02	Transfer Station (Specify final disposal location/type)	13	Biodegradation Facility				
03	Oilfield Waste Processing Facility	14	Small Oilfield Waste Incinerator				
04	Class la Disposal Well	15	Used Oil Recycler				
05	Class Ib Disposal Well	16	Recycling Facility (excluding used oil)				
06	Class II Disposal Well	17	Swan Hills Facility				
07	Cavern	18	Road Spreading				
80	Class la Landfill	19	Biodegradation (on-site)				
09	Class Ib Landfill	20	Burial (on-site)				
10	Class II Landfill	21	Other (specify)				
11	Class III Landfill						

EUB Number and Type of Packaging							
01	Drum	05	Bag				
02	Tank	06	Roll-off or Lugger				
03	Bulk	07	Other				
04	Carton						

EnCana Oilfield Waste Manifesting Procedure										
EnCana Generator	Transporter	Receiver	EnCana Calgary Office							
Complete Part A Have Transporter complete Part B Give remaining pages of manifest to Transporter Send blue pages to EnCana Calgary Office	Complete Part B Carry manifest with shipment Give manifest to Receiver Receive pink page from Receiver Contact Generator if serious discrepancy (24 hours)	Complete Part C upon receipt of shipment Return pink page to Transporter (30 days) Retain yellow page for 2 years Return white page to Generator (30 days) Contact Generator /Transporter if serious discrepancy (24 hours)	Receive white page from Receiver Notify EUB immediately of any serious discrepancy Investigate and correct discrepancies (with EnCana operator) and complete Part D Correct any mistakes on manifest Retain white page and any blue pages for 2 years Record information onto waste tracking system.							

^{**} ERAP - Emergency Response Assistance Plan (see TDGR Part 7 for further info).



EnCana is responsible to complete all of Part A of the manifest	MANIFEST - MA This Manifest conforms to all Federal an and environmental legislation requiring m Ce manifeste est conforme aux legislations sur l'environnement et le transport, requéra	d Provincial transport anifesting. I fédérale et provinciale									Manifest Reference Nº de référence du r	No. nanifeste	1804341=4	
(Red Area)	A Consignor (Generator) Expediteur (Producteur)	onsignor (Generator) xpediteur (Producteur) Provincial ID No. / Nº d'Id. provincial ABG1665			arrier ransporteur	Provincial ID No. /	Provincial ID No. / Nº d'id. provincial			Reference nos. of other Manifest(s) used / No's de références des autres manifestes utilisés				
Waste Source	Company name / Nom de l'entrepris EnCana FCCL O Mailing address / Adresse postale	ilsands Ltd.	Code postal	Wint	name / Nom de l'entre terhawk Ent Adresse		d.				C Consignee (Destinataire (Réceptions		Provincial ID No. / Nº d'id. provincial 557	
Information (Must be complete	Shipping site address / Origine de l'	Calgary AB T2P 2S 'expédition '8-17-076-06 W4M	5	P.O.		Prov.			stal code / 0		L'information à fourr	on same as i ir par le desi Yes / Oul	Intended Consignee in Part A tinataire est la mème qu'en A No, complete the boxed area below	
and accurate)	City / Ville	Province Postal code / C	ode postal	FIOV	/ost	Registration No. / N	No d'Imma			Prov.	Company name / !	Nom de l'entr	reprise	
	Calgary Alberta T2P 2S5			Vehicle / Véhicule Trailer/Rail Car No. 1		Comp	Complete AB			CCS Lindbergh				
(Intended consignee Destinataire prévu	Provincial ID No. / No d'id, provincial		Trailer/Rail	ue - wagon Il Car No. 2 ue - wagon						P.O. Box	1300		
	CCS Lindbergh			Point of entry Point of entrée Point d'entrée Point de sortie				7 . 1	City / Ville Province Postal code / Code postal					
Intended Receiver Information	Address / Adresse City / Vil		e postal	du transpor	trication: I declare that I led consignee and that th teur: Jatteste avoir recu destinataire choisi et que	e information contained it les déchets offerts par l'	n Part B is expéditeur	complete dans la p	and correct. / artie A en vue	Déciaration de leur		ress / Destin	AB T0A 1A0	
(Must be complete and accurate)	Receiving site address / Destinat			Year / Année					nt) ères d'imprim		05-26-056-05 W4M City / Ville			
	05-26-056-05 W4N					2, 2	2 2 BOB		Elk Point		AB T0A 1A0			
(City / Ville Elk Point	Province Postal code / Cod AB T0A 1A0	e postal	Signature BO	B			50) 7	'85-40	00	Date received / Date Year / Année Month / 0 7 1		/ / Jour	
		oping name of waste on réglementaire du déchet	Province (Quebec	Waste ider Identification Ial No. / Nº Ontario only) Ontario seul)		Quantity shipped Quantité expédiée	Units L or ou kg unites	Classification	oupe oupe	Contenants Code: Int ibre ext.	Quantity received Quantité regu	Units L or r ou kg	identify any shipment discrepancy problems. Attent addenduril recessary / Indiquer could difference relative a expedition. Annexer me feutile au besoin.	
Physical State of waste: Solid (S)	(S) Lube Oil				UN 3082	500	L	3(8)		3 02	500	L	une feuille au besoin.	
Liquid (L) Gas (G)										1				
	Liquid N.O.\$.						1			/_			A S.	
						3		-		S S				
	Special handling/Emergency instructions				Below Ci-dessous Circulation no Quebec only N° de circulation - Réservée au Québec					If handling code "Oth Si code de manutenti	er" (specify) on "divers	spécitif		
										If waste to be transfer company name / SI le transférés, préciser le	red; epacify e déchets de ham du de	Interest Provincial ID No. / Nº d'id. provincial interestre		
	Date shipped / Date d'expédition Time / Heure Schedul Year / Année Month / Mois Daty / Jour Year / A			led arrival date / Date d'arrivée prévue unnée Month / Mois Day / Jour						Address / Adress	2 6	City / Ville Prov.		
	0 7 1 0 2 2 12:30 AM (X P.M. 0				7 1 0 2 2			Consignes and Residon disagness that the information contained in Part C is correct and complete. Declaration! baspedings by declarar que tous les renseignements à la partie C cont vénidiques et						
Consignor ¢ertification: I declare that the information contained in Part A Déclaration de l'expéditeur : Je déclare qua tous les renseignements à la					art A is correct and complete. s à la partie A sont veridiques et complets.					Declarationally expedit act for declare due tous les renseignements a la partie c sont vendiques et complets. Name of authorized perses, (print) / Nom de l'agent autorisé (caractères d'imprimerie)				
Signature and	Name of authorized person (print) Nom de l'agent autorisé (caractères d'Impri	of authorized person (print) e l'agent autorisé (caractères d'imprimerie) Signature						Tel. no: / Nº de tél.				DARX		
contact number —— must be completed	Bill			Bill		(403) 290	-383	3		Signature		Tel. no. / Nº de tél. (250) 789-3051	
•	MOE 04-1917 (06/99)	distribution on reverse / Instructions pour compléter et distrib				ouer au verso		Copy/Copie 1 (white/blanche)						
If Hazard	ا ous Waste must use pro						ackac			2.5ti (k	40 70100			
Name as	per "Shipping Information	on" column of chart				7	sted o	on rev	erse/					
(Example shown is for Well Workover Fluids) of manifest														