

FIELD SITE INSPECTION PROCEDURE FORM

As regulators of British Columbia's energy industry, the BC Energy Regulator (BCER) focuses on effectively regulating and managing the provinces oil, gas, and energy sector. The following field inspection guideline is intended to assist the BCER in the fulfillment of its mandate of protecting public safety, conserving the environment, and conserving and supporting resource development.

The BCER ensures resources are dedicated by:

1. Helping to ensure Industry compliance with relevant Acts, Regulations, and Permit Authorizations.
2. Providing for consistency and transparency in the BCER's inspection processes.
3. Encouraging continuous improvement
4. Supporting positive working relationships.

This document is not intended to be a comprehensive list for inspection inventory, rather a guideline to support the flow and consistency of standard field, and site inspections.

Site Access	Comments
<ul style="list-style-type: none"> • Drainage structures and erosion prevention are functioning properly. • Road prism appears stable. • Bridges, culverts, and other structures associated with access are functional and appropriate for the uses of access. • Access can be used safely by the permit holder. • Drainage is directed around and away from the lease. 	
Conditions/Site Plan	Comments
<ul style="list-style-type: none"> • Review permit(s) and site plan. Observable permit conditions are met and the site plan is being followed. • Harvesting activities are in compliance: <ol style="list-style-type: none"> a) Master License to Cut (MLTC) conditions\Requirements are being met. b) Potential fire hazards have been abated as per "Schedule A" of the MLTC. c) Wood has been properly utilized as per "Schedule B" of the MLTC 	

Signage	Comments
<ul style="list-style-type: none"> Well signage is present and contains all necessary information: <ol style="list-style-type: none"> The name of the well permit holder; Emergency notification information, including a telephone number; The location of the surface site of the well as specified in the well permit; If the well may produce flammable gas, a flammable gas symbol; A poisonous gas symbol if the well is sour. (Sign must not indicate sour if the well is sweet.) Each well on the site is identified. 	
Spillage	Comments
<ul style="list-style-type: none"> Leaks, spills and odours precautions are taken (e.g. bull plugs, sight glass guards). If spillage has occurred, the permit holder or person carrying out an oil and gas activity must promptly or as soon as practicable: <ol style="list-style-type: none"> remedied the cause or source of the spillage; contained and eliminate the spillage; remediated any land or body of water affected by the spillage. Reportable spills have been reported to the BCER. 	
Wellhead(s)	Comments
<ul style="list-style-type: none"> No leaks are present. Surface casing vent can vent freely (perform flow check). Where surface casing leaks have been detected, the company has completed testing and submitted results to the BCER within 30 days. Wellhead is protected from excessive force. Valves are available and can be operated safely when well is active, and chained and locked or handles removed if qualified for suspension. Fencing or access control measures are in place for wells within 800 metres of populated area or where a populated area falls within emergency planning zone of the well. 	

<ul style="list-style-type: none"> • 2 master valves are installed for sour wells. • Production equipment is not made of wood. • Oil wells (pumpjacks) are equipped with shutdown if stuffing box fails, or vibration switch shutdown on artificial lift with H2S content > 100 PPM. (Applies to locations completed on or after 2010/10/04). 	
Flowlines	Comments
<ul style="list-style-type: none"> • Sour well(s) has an automated system to isolate the well in the event of an uncontrolled flow of oil or gas. • Sour well located within 1,600 metres of a populated area contain a hydrogen sulphide detection and alarm system that is continuously monitored and capable of activating the automated isolation system. • ESD bypass are locked closed. • Valves on critical shutdown or safety device sensors are locked open. • Pressure alert chains are be connected and of correct length (as applicable). 	
Production Equipment	Comments
<ul style="list-style-type: none"> • Secondary Containment – present and in good repair • Dykes and firewalls are free of weeds, grass and combustible material. 	

<ul style="list-style-type: none"> • Storage tanks and production equipment are located more than 60 meters from road allowances, public utilities. • Tanks and production equipment are appropriately grounded. • Fluid meters are maintained in good operating condition and suitably safeguarded from weather and from interference by unauthorized persons. • Shutdown systems are not bypassed and alarms are functional. • Electrical wiring is free of defects and maintained in good condition. • Ignitable vapours are vented to atmosphere i.e. regulators. • Flare stack is adequately anchored. • Flaring does not result in the emission of black smoke. • Venting of gas is not causing off site odors. • Sufficient area beneath and around the flare stack is free of combustible materials and vegetation. • Un-supervised flare stacks with intermittent flaring are equipped with an adequate auto-ignition system. • Sour unsupervised flare stacks with continuous flaring are: <ul style="list-style-type: none"> a) Equipped with a flame-out detection device b) Has operation shut down capability c) Provides an immediate alarm to the permit holder d) Has a flare stack with a minimum height of 12 m. 	
Environment	
<ul style="list-style-type: none"> • Vegetation: No invasive plants have become established on site. • Erosion: Lease area drainage is controlled to prevent erosion. • Crossings (if applicable): <ul style="list-style-type: none"> a) are built and maintained in a manner unlikely to harm fish or destroy, damage or harmfully b) alter habitat to do no harm to fish or fish habitat. 	

<ul style="list-style-type: none"> c) do not prevent fish movement or impede them in a harmful way. d) protect the sides of stream, lake, or wetland. e) disturbances have been mitigated in or around the stream, lake and/or wetland. • Soil separation: During construction schedule A and/or B are followed and soil piles are separated. • Earthen pits used for drilling fluids are made not to leak and built with suitable clearances to water courses and other structures. • Hazards on the site have been eliminated or minimized (e.g. cellars, rat holes) and site is free of garbage and debris. 	
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