



Indian Oil and Gas Canada (IOGC) Surface Lease Environmental Audit Requirements

For IOGC Environmental Audit preparation and submission instructions please refer to the *IOGC Environmental Audit Submission Instructions and Coversheet* located on IOGC's website (www.iogc.ca).

Lessees are requested to make every effort possible to locate the IOGC Environmental Protection Terms Letter (Terms Letter) prior to contacting IOGC to request a copy. Note: The Terms Letter is appended to the Surface Lease Agreement.

First year Environmental Audits should include sections **A-F**.

Subsequent year Environmental Audits should include sections **B-F**.

IOGC File #: OS-	Legal Location:
Reserve Name and #:	Province:

A - First Year (ONLY) Environmental Audit Requirements

1.	If an Environmental Monitor was required as per Terms Letter, provide the name and company of the Environmental Monitor and include any field notes, issues that arose, recommendations or reports (e.g. as-built) prepared by the Environmental Monitor . Include information such as: <ul style="list-style-type: none">• a discussion on lease construction-related terms;• confirmation of appropriate soil handling measures (e.g. maintenance of 1 m soil separation);• confirmation that the dates the lease was constructed and when drilling activities (spud date) took place were consistent with the timing restrictions outlined in the Terms Letter;• a discussion on whether any species at risk or migratory birds were observed and whether appropriate setbacks were maintained; and/or• if required, confirmation that appropriate federal departments were notified and proper authorizations and/or permits were obtained (e.g. Department of Fisheries and Oceans Authorization).
2.	Provide the name of the First Nations Liaison/Monitor and include any field notes, issues, recommendations or reports prepared by the First Nations Liaison/Monitor . For example, identify whether any cultural sites/areas were located ¹ and whether appropriate setbacks were maintained.
3.	Identify whether a pre- or post-construction wildlife or vegetation survey was required, as per Terms Letter. Confirm that the necessary information was forwarded to the First Nation and IOGC (e.g. provide title of report and date submitted to IOGC).

¹Only generalized information should be provided. Do not include specific/exact locations or photos.

IOGC Surface Lease Environmental Audit Requirements

4.	Identify any additional or alternative mitigative measures undertaken during lease construction, drilling and/or interim reclamation. For example, minimal or reduced disturbance.
5.	Describe any alterations to fences (i.e. cuts, repairs or re-routing) and/or installation of new gates.
6.	If undertaken, include the results of pre-drilling and post-drilling water well testing. Provide a summary of results and any actions taken.
7.	Describe drilling waste disposal ² whether it was on-lease or off-lease, on-Reserve or off-Reserve. Confirm compliance with the provincial drilling waste management guidelines/directives. Include information on type of mud used, landspreading, landspraying while drilling, whether a drilling mud sump was used. For example if a sump was used, confirm that has it been properly disposed and reclaimed and whether it was pumped off lease or mix bury covered on lease. If a remote sump on-Reserve was used, provide IOGC surface lease agreement number (OS) and location.
8.	<p>If required as per Terms Letter, and the land spray area was on-Reserve, attach the land spray site sketch that includes:</p> <ul style="list-style-type: none"> a) the location of drilling fluid land spraying; b) the GPS coordinates of the area; c) the GPS coordinates of significant landmarks; d) an estimate of the area involved; e) the locations from which pre-disposal soil samples were taken; f) the results of the soil analysis; g) signature approval from the First Nation's Oil and Gas Representative; and h) signature confirmation from a Lessee Representative.
9.	If applicable, describe the timber management undertaken by the Lessee (i.e. salvage, rollback, burning, distribution of salvage, salvage or cut and rolled back of leaning or scarred trees, notification of location of log decks to First Nation, when will decked timber be removed etc.). Provide proposed timeline for removal of log decks.
10.	<p>Describe the progressive reclamation and interim clean-up. Describe:</p> <ul style="list-style-type: none"> • whether slopes have been contoured to match the surrounding landscape; • whether soils have been spread over non-working portions of the lease; • presence and location of topsoil piles and when proposed spreading over the non-working portions of the lease will take place; • whether Certificates of Seed Analysis were obtained and reviewed; • whether the reclaimed areas are naturally re-vegetating, seeded with an approved native seed mix, or seeded with a Certified Number 1 agronomic seed; and • the overall state of the revegetation efforts.
11.	Confirm that all construction equipment, materials and waste (extra barrels, packaging, debris, survey flags, etc.) have been removed and cleared from the lease.

² Information on remote sumps which are not contiguous to a surface lease should be submitted as a separate Audit.

IOGC Surface Lease Environmental Audit Requirements

B - Vegetation Monitoring and Management Requirements

12.	Identify and list any weeds including their provincial weed designation as defined under provincial regulations. Describe whether they are located on- or off-lease, the size of patch, if there is weed encroachment from surrounding areas, and percentage of the overall vegetation on the lease.
13.	Describe the Lessee's Weed Monitoring and Management Plan. Include the following information: <ul style="list-style-type: none">• approach for implementation;• compliance with provincial standards and requirements;• mechanical weed control strategies including on-going inspections (minimum two times per year during the growing season).
14.	Identify stressed vegetation or isolated bare spots on or off-lease. If present, identify the suspected cause and what actions are being taken to rectify the issue.

C - General Housekeeping Requirements

General

15.	Describe current activities or stages occurring on the lease (e.g. clearing, construction, drilling, installation, completions, production, suspension, abandonment, reclamation or remediation).
16.	Describe the surrounding land use (cultivated, improved pasture, pasture, forest, native prairie, muskeg, other).
17.	Describe the condition of the access road and lease. Include: <ul style="list-style-type: none">• low spots/slumping;• rutting (if present, identify whether it is channeling water into a waterbody/course); and• lease accessibility (seasonal/year-round).
18.	Describe whether traffic is confined to the tear drop portion of the lease or the surveyed access road.
19.	If required as per Terms Letter, identify whether the lease is bermed and if so, describe its condition.
20.	Identify whether there is a flare stack present and confirm that it meets appropriate setbacks. Identify if it is in use. List any concerns that have been reported and actions undertaken.
21.	Describe any odours (e.g. possible source and evidence of off-lease migration) and mitigative actions taken.
22.	Identify whether there is any unused equipment, supplies, felled trees/log decks and/or debris that should be removed from the lease.
23.	Confirm all garbage or loose debris is properly disposed of or controlled on-lease.

IOGC Surface Lease Environmental Audit Requirements

24.	List any complaints that have been reported, investigated and follow-up actions taken.
-----	--

Topography/Surface Drainage

25.	Describe the surface drainage on and around the lease (including presence of ponding and/or aquatic vegetation).
-----	--

26.	<p>Identify whether regular pump-off of excess water is required and/or should be required. If pump off occurs:</p> <ul style="list-style-type: none"> • describe how often it occurs and whether written records are kept; • confirm that Lessee tests water prior to release as per provincial regulations³; • identify where the pump-off is being deposited; and • confirm permission has been obtained from the First Nation and describe notification process.
-----	---

27.	Identify whether there is any evidence of soil erosion or erosion control measures being used. Describe any areas that require attention and the effectiveness of erosion control measures (if they are being used).
-----	--

Water Features/Waterbodies

28.	Identify waterbodies or low wet areas (slough) within 100m of the lease and access road, its distance (from lease boundary) and approximate size. Describe buffer or riparian area and the mitigation measures in place to prevent erosion and/or a potential spill from reaching the waterbody/ low area.
-----	--

29.	Identify ongoing or temporary permits or authorizations received from other federal authorities (e.g. from Environment Canada, Parks Canada). Confirm terms are being adhered to.
-----	---

D - Environmental Protection and Safety Requirements

Lease Access and Security

30.	Identify whether the lease and access road have signage compliant with the provincial regulations (location, appropriate warning symbols, visible in all seasons, legible, 1-800/24 hour emergency contact number, etc.).
-----	---

31.	<p>Identify whether the lease and (if applicable) access road has fencing compliant with the provincial regulations and/or the Terms letter. Describe:</p> <ul style="list-style-type: none"> • whether the fence excludes or should exclude people, livestock and/or wildlife; • whether it is secured or unsecured; • whether it is being maintained or requires repair; and • if there is a Texas gate on the access road and what its condition is.
-----	---

32.	Identify whether culverts or crossings have been installed on the access road and whether they have been properly installed, functioning (e.g. no hanging culverts, appropriately sized) and maintained (e.g. no water imbalance between sides and free of debris).
-----	---

³ Test results are not required to be included as part of the Audit, however should be available upon request by IOGC.

IOGC Surface Lease Environmental Audit Requirements

33.	Identify whether the surface casing vent is compliant with provincial regulations (i.e. open/closed and has appropriate above-ground clearance).
34.	Identify whether the wellhead valves are compliant with provincial regulations (i.e. open/closed, chained/secured and/or outlets bull-plugged as required).

Chemical Storage and Containment

35.	List and describe all drums, tanks, and chemical containers. Confirm that they are sealed, labelled and stored in compliance with provincial and/or federal regulations. For example, describe whether there is legible WHMIS labelling and storage is to MSDS specifications.
36.	List and describe all tanks (above-ground and underground) and the secondary containment. Confirm that the secondary containment is appropriate and compliant with provincial and federal regulations. If applicable, describe the leak detection system or when hydrostatic testing took place.

Spill Prevention, Response and Reporting

37.	List any reportable spills that have occurred by date. Include substance, volume, and date. Confirm that IOGC and the First Nation were forwarded a copy of the Spill Report for any reportable spill. If not, include a copy.
38.	Identify any on or off-lease surface staining (including salt staining), seeps, discharges or other signs of contamination. Identify the source, clean-up strategy and mitigative measures to prevent further contamination.

Emergency Response Plan (ERP) and Safety

39.	Identify if the lease has an ERP. If so, when it was last updated.
40.	With respect to a site-specific ERP (H ₂ S sites), identify when the tabletop or major exercise was last conducted. Describe whether the exercise took place on-Reserve and whether it involved First Nation Authorities.
41.	Identify whether there are any open excavations or other areas that may pose a threat to wildlife, livestock, or humans.

E - Overall/Summary Environmental Audit Requirements

42.	Confirm compliance with IOGC Environmental Protection Terms Letter ⁴ (include in Appendix). Identify by number, any Terms not in compliance and steps taken to bring it into compliance.
43.	Confirm compliance with other applicable provincial and federal Acts, Regulations, Directives,

⁴ Lessees are requested to make every effort possible to locate the IOGC Environmental Protection Terms Letter (it is appended to the Surface Lease Agreement) prior to contacting IOGC to request a copy.

IOGC Surface Lease Environmental Audit Requirements

	Guidelines, and Information Letters pertaining to upstream oil and gas sites (e.g. drilling waste, oilfield waste and storage requirements) not specifically described in previous requirements.
44.	Provide a summary statement of the compliance or non-compliance of the lease. Include professional sign-off confirming that the Environmental Audit has been conducted by an independent Environmental Professional⁵.
45.	In the event that the lease is non-compliant, the Lessee is encouraged to bring the lease into compliance prior to submission of the final Environmental Audit report.
46.	Provide a summary of any non-compliance issue(s) and describe how and when non-compliance issue(s) are to be addressed . If non-compliance issues have been addressed after the completion of the Environmental Audit but prior to submission, attach evidence of compliance (i.e. report of corrective action taken with photo documentation) with Environmental Audit submission.

F - Environmental Audit Attachment Requirements

I. Copy of the IOGC Environmental Protection Terms Letter

II. Site Sketch or Map

Ensure the sketch or map includes the wellhead, sump, access road, surface facilities, tanks, berms, knockout tanks, secondary containment, topsoil piles, low areas, areas where surface water ponds, any equipment on lease, etc.

Include distance scale, North orientation arrow, topological features, water features, vegetation including weeds, surrounding residences, or other features of importance.

III. Site Photos

The Audit must include captioned colour photographs. The location where the photographs were taken and the direction of the photographs should be included on a map or diagram.

Ensure the following photos are included: wellhead, sump, access road, surface facilities, tanks, berms, knockout tanks, topsoil piles, low areas, areas where surface water ponds, any equipment on lease, etc.

IV. Follow-up Compliance Reporting

For leases that had non-compliance issues, include a report of corrective action taken with photo documentation.

April 2012

⁵A professional is identified as an individual who possesses a post-secondary degree in biological, environmental, or natural resource sciences from an accredited college or university, or a technical diploma in biological, environmental, or natural resource sciences from an accredited college, or educational equivalencies; has technical knowledge and experience in the assessment of vegetation, wildlife, soils and/or hydrology; and is acting within his/her area of expertise.

Work completed in Alberta, British Columbia or Saskatchewan should be completed by an assessor who is a registered member in good standing of a regulated professional association constituted under an act of the provincial Legislature or the assessor's work is reviewed by a member of a regulated professional association.