

# Decommissioning and Remediation INFORMATION LETTER

## Frequently Asked Questions on Conducting Phase 1 Environmental Site Assessments and Changes to the Phase 1 ESA Form

### BACKGROUND

On July 1, 2001, Phase 1 Environmental Site Assessments (ESA) became mandatory for sites which had a final detailed soils assessment conducted after July 1, 2001 on private land and in the White Area, and for detailed site assessments in the Green Area. Experience with the Phase 1 ESA form and process has resulted in several questions. **This Information Letter provides some guidance with respect to the questions raised and includes the revised Phase 1 Site Assessment Form to be used.**

### FREQUENTLY ASKED QUESTIONS

#### When should a Phase 1 ESA be done?

The intent of the Phase 1 assessment is to provide the operator with enough information to determine if further contamination assessment or remediation work is required. Therefore, a Phase 1 ESA should be conducted before reclamation starts on a site. The information obtained from the Phase 1 ESA site visit, for example, will be quite different from the information gathered from the site visit following reclamation.

#### Will the audit program continue?

Yes. Approximately 10% of *Well-site Reclamation Certificate Application Forms* are audited for the Phase 1 ESA. If a Phase 1 ESA is chosen for audit, it must be received within 30 calendar days. If the Phase 1 ESA is deficient or unclear, the proponent has 30 days to supply the requested information. If the

information is not received, we will refuse to accept the application.

#### **If I have an approval under the Environmental Protection and Enhancement Act (EPEA) for an oil production site, do I have to conduct a Phase 1 ESA?**

No, the Phase 1 ESA described here is not necessary for sites with approvals under EPEA. Approval holders are expected to provide all necessary information about spills and remediation work as part of their approval reporting requirements.

#### **Why is the same information required on both the Phase 1 ESA and the Well-site Reclamation Certification Application Form?**

The documents should be considered as separate, stand alone, sources of information on the site. Initially, when the Phase 1 ESA became mandatory on July 1, 2001, sites were in various stages of the reclamation process and some sites were almost ready for a reclamation certificate. Therefore, both documents were being completed at about the same time.

#### **Can we use a different form for recording the results of the Phase 1 ESA?**

Yes, the existing form can be modified slightly, but providing the same information in the same order is essential. Some companies have elected to include additional information on the Phase 1 ESA form, which can be placed in a separate section or integrated within the form.

#### **If the information is not available, is entering N/A sufficient?**

No. An explanation of why the information could not be obtained is required. This could include a description of where the search was conducted. If the term is used within an explanation, please specify "not applicable" or "not available" instead of N/A.

#### **In Section 1.0 General Information, regarding pipeline type, will the form be changed to include a checkbox for sites where there is no pipeline?**

A Pipeline section has been added to the form to require information relevant to a pipeline. The form has also been changed to require information on how production fluids left a wellsite or disposal fluids came to a wellsite.

#### **If company files are not available, how can I obtain the drilling information?**

The Alberta Energy and Utilities Board (EUB) has records that are publicly available. Most information for Sections 2.1.1 and 2.1.2 is available through the EUB except for mud/fluid disposal method(s) and location(s); waste storage and handling; and herbicide use.

Drilling mud information may be available from the tower reports stored at the EUB's Core Research Center. Tower reports can be viewed by scheduled appointment only. Contact the EUB for information on turn-around times and costs.

EUB Main Office  
640 – 5th Avenue S.W.  
Calgary, Alberta

Phone: (403) 297-8190

Fax: (403) 297-7040

Email: [eub.info\\_services@gov.ab.ca](mailto:eub.info_services@gov.ab.ca)

EUB Core Research Center  
Phone: (403) 297-6400

**In Section 2.1.1 *Drilling Information Available*, what is required for specifying the sump location?**

A site diagram showing the location of the sump should be included. As well, for Section 2.1.2 *Production Information Available*, please specify the location of flare pits, underground and above ground storage tanks and other waste storage areas, buried pits and landfills. If the company records do not indicate where the sump or other structures are located, please provide an explanation of why their location on the site is unclear.

**Does the question in Section 2.1.2 regarding historical or current infrastructure on the site apply to dry and abandoned wells?**

Yes, this information applies to all sites throughout the life of site. Dry and abandoned wells likely had an access road and perhaps a remote sump or other infrastructure. Producing wells may also have had flare pits and storage tanks at one time. All infrastructure that was ever on the site should be listed.

**The first question in Section 2.1.3 *Environmental Information Available Y/N* seems unnecessary given the remaining questions in the section.**

Yes, the question is unnecessary and redundant. The section was changed when the form was revised.

**Section 2.1.4 *Land Information* and Section 3.0 *Interviews* seem similar. What are the main differences?**

For Section 3.0, interviews can be held with the landowner(s), past and current operators or occupants of the land to acquire information on former facilities, presence and details of spills, pits, waste storage and handling, etc. that may indicate contamination is present. Section 2.1.4 *Land Information* is part of the company file review to determine if there are historical landowner complaints. It is strictly for landowner and/or occupant complaints on file about the state of the land, which may include concerns about contamination.

For both sections, landowner's concerns about lease payments are not relevant as the Phase 1 ESA report should focus strictly on contamination and land quality issues.

**Why are aerial photographs required?**

Aerial photographs provide a visual chronological history of activities that occurred at a site especially when viewed at a large scale of 1:5000 or 1:7500. If company file information is non-existent or incomplete, aerial photographs can be the best information source to determine where a sump or flare pit was located on the site, if tanks were onsite and where spills occurred. This information can be valuable for the Phase 1 ESA site visit and for targeting soil sampling locations during a Phase 2 ESA.

**Where do I obtain aerial photographs for Section 2.2 *Historical Aerial Photograph Review*?**

Alberta Sustainable Resource Development includes Air Photo Services, which has aerial photographs of the province from 1949. Areas throughout the province have been photographed at various frequencies since that time and there are 1.25 million aerial photographs of the province in the collection. Photographs are catalogued and can be viewed at the Air Photo Services' office.

There are four types of products provided by Air Photo Services.

- Contact prints are made from negatives onto photographic paper and are the highest quality reproductions available.
- Laser prints are made from existing photographs onto bond paper and therefore have a lower resolution than contact prints.
- Digital prints are scanned from photographs and also have a lower resolution than contact prints.
- Diapositives are photocopies of photographs printed on clear film.

All photographs are available in stereoscopic pairs, which are viewed with a stereoscope to provide a three dimensional view of the landscape. Stereoscopic pairs may allow more site details to become visible such as tanks, wellheads and other infrastructure for Phase 1 ESAs.

The products are available by visiting Air Photo Services at the address below or by faxing the order form(s) found on their website. The website includes a sample completed form and forms for a single township or for four townships. As well, the website has information on

product pricing, types of reproductions available, enlargements, and a section on how to use aerial photos.

Depending on the number of legal locations you are ordering, a list of available photographs for each site will be available within three working days. This list is faxed to you for selection of the photographs needed to provide a chronological site history. Selected photographs can be circled and faxed back to Air Photo Services.

Air Photo Services

Main Floor, 9920 – 108 Street  
Edmonton, AB  
T5K 2M4

Phone: (780) 427-3520  
Fax: (780) 422-9683

Air Photo Service Website:  
<http://www.gov.ab.ca/env/land/airphoto>

Email: [Air.Photo@gov.ab.ca](mailto:Air.Photo@gov.ab.ca)

**How can I see site features on an aerial photograph when the scale is 1:30,000?**

Aerial photographs are generally taken at a scale of 1:30,000 but Air Photo Services can make enlargements. Enlargements from negatives provide a better quality image than enlargements from laser prints. To obtain the most site detail, enlargements to a scale of 1:5000 or 1:7500 are recommended.

**How many aerial photographs are needed for a Phase 1 ESA?**

For dry and abandoned wellsites that never produced, try to obtain an aerial photograph of the site while it was being drilled, if one exists. If there isn't one, provide the list obtained from Air Photo Services with the Phase 1 ESA.

For producing wellsites, the chronological history of the site from pre-disturbance to post-abandonment is required. An aerial photograph for every two to three year period while the site was producing should be used to show changes to the site, if the photographs are available. However, if detailed site information from the company files or EUB records is reported, then an aerial photograph for every five to six year interval while the site was producing is sufficient.

A review of the aerial photographs taken during the producing phase of a wellsite allows features that may be associated

with contamination to be identified, even if they were not included in the file review, such as above ground storage tanks. If aerial photographs are not available for the site when it was active, then no photographs are required. Attach the list from Air Photo Services of photographs available for the site to the Phase 1 ESA.

For batteries, the site history from pre-disturbance to post-abandonment is required. If available, the following aerial photographs are required: one pre-disturbance; one post-disturbance; one photograph for every 2 to 3 year interval while the site was active, if available. However, if detailed site information from the company files or EUB records is reported, then an aerial photograph for every five to six year interval while the site was producing is sufficient.

For pipeline above ground facilities and spills, aerial photos of the site before, during (if available), and after the spill cleanup or facility removal are required.

#### **What information should be provided on the aerial photographs?**

Indicate on the aerial photos or on a clear overlay where the lease is located as well as any features that are visible on the site. A clear overlay allows text and arrows to be used to describe the site without marking up the aerial photograph. If a feature is unclear, but is suspected to be an area of potential contamination, please indicate on the aerial photograph that it could be a sump, for example.

#### **Should original aerial photographs be submitted with the Phase 1 ESA?**

Original aerial photographs in the form of contact, digital or laser prints are preferred as the quality is superior to photocopied aerial photographs. High quality scanned aerial photographs can also be submitted. However, if the quality of the scanned or photocopied photographs is poor, the original aerial photographs will be requested.

#### **In Section 3.0 Interviews of Present and Past Operators and Landowners, what does information pertinent to this site mean?**

The question has been changed to determine if the interview information is specifically for the site or if it is general information for the area or type of site.

#### **The landowner/occupant hasn't returned my phone call for the interview. Can I state that on the form in Section 3.0 Interviews?**

The landowner/occupant interview is essential to the completion of a Phase 1 ESA. This activity determines whether a landowner/occupant has complaints about the site and if there were events or infrastructure on the site that could have caused contamination. Several attempts should be made to contact the landowner/occupant and each attempt should be documented. A single, unanswered phone call is insufficient. If the landowner/occupant cannot be contacted after several attempts, indicate in both sections on the Phase 1 ESA form, the dates, times and method(s) used (phone, email, letter, etc.).

#### **In Section 4.0 Site Visit, under Photographs, Photo 1, Photo 2, what is required?**

During the site visit, photographs should be taken of the site and a brief description of each photograph provided (e.g., where it was taken from, which direction it is showing, what it is showing).

#### **What is the first question in Section 5.0 Conclusions and Recommendations asking?**

The question has been changed in the revised form. It now asks if the Phase 1 ESA information is **sufficient to form a conclusion** about contamination being present at a site. In other words, is there enough information to indicate the site is free from contamination or is likely contaminated? If contamination is suspected then a Phase 2 ESA should be conducted to identify the extent and nature of the contamination so a remediation plan can be developed. If there isn't enough information to answer the question, then another investigation should be undertaken to obtain information. This could include a Phase 2 ESA.

#### **What attachments should be included in the Phase 1 ESA report?**

The list of available aerial photographs from Air Photo Services, all original or scanned aerial photographs, photographs taken during the site visit and a lease survey plan with field notations. Also, if there was a sump, flare pit, underground or above storage tanks or infrastructure on the site, the location of each of these

in relation to other site features should be diagrammed. Please submit two copies of the report and one original or scanned set of aerial photographs.

#### **If a Phase 2 ESA was conducted, or the site remediated as the first step, do I need to go back and do a Phase 1 ESA for that site?**

No, as noted above the purpose of the Phase 1 is to determine if contamination is suspected and further work is required. By doing the Phase 2 or by remediating the site at the start, you have already determined this. If a site is audited for the Phase 1 ESA, and a Phase 2 ESA was completed for the site or the site was remediated, provide a letter indicating that a Phase 2 was done or the site was remediated, the date(s) of the assessment/remediation and whether contamination was found. A copy of the Phase 2 ESA report should not be submitted unless requested by a Reclamation Inspector for the reclamation inquiry.

### **NEW FORM**

**The attached form replaces the one in the document *Phase 1 Environmental Site Assessment Guideline for Upstream Oil and Gas Sites*.** Operators should use the new form for all sites where reclamation certificates are submitted after November 1, 2002.

### **CONTACTS**

The following can be reached toll free by calling 310-0000 and then dialing the number shown below.

#### **For public lands:**

Alberta Sustainable Resource Development  
Public Lands Division,  
3rd Floor, 9915 - 108 Street,  
EDMONTON, Alberta T5K 2G8.

Phone: (780) 427-3570  
Fax: (780) 422-4251  
e-mail: kevin.ball@gov.ab.ca

#### **For all other lands:**

Alberta Environment,  
Environmental Sciences Division,  
4th Floor, 9820-106 Street,  
EDMONTON, Alberta T5K 2J6

Phone: (780) 427-5883  
Fax: (780) 422-4192  
e-mail: [land.management@gov.ab.ca](mailto:land.management@gov.ab.ca)

Location: \_\_\_\_\_

**1. GENERAL SITE INFORMATION**

Facility Name: \_\_\_\_\_ Surface Location (LSD): \_\_\_\_\_

License No.: \_\_\_\_\_ MSL/ROE /LOC/PLA, if Public Land: \_\_\_\_\_

Licensee: \_\_\_\_\_ Operator: \_\_\_\_\_

Current Regulatory Status: \_\_\_\_\_

Type of Reclamation Certificate Applied For:

 Pipeline  Battery  Oil Production Site  Wellsite**Pipeline Information (answer if  Pipeline is checked)**Pipeline type?  Oil  Gas  Saltwater  Other \_\_\_\_\_

From: \_\_\_\_\_ To: \_\_\_\_\_

Diameter: \_\_\_\_\_ Depth: \_\_\_\_\_ Abandoned:  In-Place  Removed**Well or Oil Production Site Information (answer if  Oil Production Site, or  Wellsite are checked)**Well type?:  D&A  Oil  Gas  Disposal  Other \_\_\_\_\_Producer well:  Fluid was piped from the site  Fluid was trucked from the siteDisposal well:  Fluid was piped to the site  Fluid was trucked to the siteSour: (>1%)  yes  no**Battery Information (answer if  Battery is checked)** Single well battery  Multi-well battery Fluid was piped to the site  Fluid was trucked to the site**2. RECORDS REVIEW****2.1. COMPANY FILE REVIEW**

Review Date: \_\_\_\_\_ Reviewed By: \_\_\_\_\_

**2.1.1 Drilling Information (wells and oil production sites)**Were drilling records reviewed?  Yes  No If NO, why not? \_\_\_\_\_

Drilling Date: \_\_\_\_\_

Sump Location (attach diagram if present): \_\_\_\_\_

Mud Type: \_\_\_\_\_

Mud/Fluid Disposal Method(s): \_\_\_\_\_

Mud/Fluid Disposal Location(s): \_\_\_\_\_

Other (includes waste storage/handling, etc.): \_\_\_\_\_

**2.1.2 Production/Storage Information (wells, oil production sites, batteries)**Was production/storage information obtained?  Yes  No If No, why not? \_\_\_\_\_

Historical or current associated infrastructure (includes tankage, pipeline infrastructure, process skids, and access roads.) \_\_\_\_\_

Flare Pits (wells, oil production sites):  Yes  No  Unknown

Details/Location: \_\_\_\_\_

Location: \_\_\_\_\_

Underground Storage Tanks:  Yes  No  Unknown If YES, number of tanks \_\_\_\_\_

Capacity: \_\_\_\_\_

Location: \_\_\_\_\_

Aboveground Storage Tanks:  Yes  No  Unknown If YES, number of tanks \_\_\_\_\_

Capacity: \_\_\_\_\_

Location: \_\_\_\_\_

Herbicide Used:  Yes  No  Unknown

Details: \_\_\_\_\_

Other (includes waste storage/handling/chemical storage, buried pits and landfills, etc.):  
\_\_\_\_\_  
\_\_\_\_\_**2.1.3 Environmental Information (all facilities)**Spills/Releases:  Yes  No  Unknown (If YES, attach a brief description including spill material, volume and date)

Location/Extent: \_\_\_\_\_

Type (EUB codes): \_\_\_\_\_ Volume Recovered: \_\_\_\_\_

Remediation Action (when initiated, target completion date, attach assessment and remediation details if available):  
\_\_\_\_\_  
\_\_\_\_\_Reported to Regulatory Agency:  Yes  No  Unknown

If Yes, Identify Regulatory Agency and Date: \_\_\_\_\_

**2.1.4 Land Information (all facilities)**Landowner/Occupant Complaints From Company File Review:  Yes  No

Identify Issue(s) of Concern: \_\_\_\_\_

**2.1.5 Former Third Party ESA(s) Information (all facilities)**Has a previous ESA been conducted?  Yes  No

If Yes, Consultant: \_\_\_\_\_ Report Title: \_\_\_\_\_ Report Date: \_\_\_\_\_

Report Findings: \_\_\_\_\_

**2.2. HISTORICAL AERIAL PHOTOGRAPH REVIEW**

For producing wells and batteries the following aerial photographs are required, if available: one pre-disturbance; one post-disturbance; one photograph for every 2 to 3 year interval while the site was active.

For dry and abandoned wells, one aerial photograph of the active site, if available, is required.

For pipeline above ground facilities and spills, aerial photos of the site before, during (if available), and after the spill cleanup or facility removal are required.

For all aerial photographs, please use a scale of 1:5000 or 1:7500 to show detail. This scale will likely require an enlargement of the original aerial photograph.

Location: \_\_\_\_\_

Review Date: \_\_\_\_\_ Reviewed By: \_\_\_\_\_

Photo ID: \_\_\_\_\_ Year: \_\_\_\_\_ Scale: \_\_\_\_\_

Evidence of Former Infrastructure or Areas of Potential Contamination: \_\_\_\_\_

Photo ID: \_\_\_\_\_ Year: \_\_\_\_\_ Scale: \_\_\_\_\_

Evidence of Former Infrastructure or Areas of Potential Contamination: \_\_\_\_\_

Photo ID: \_\_\_\_\_ Year: \_\_\_\_\_ Scale: \_\_\_\_\_

Evidence of Former Infrastructure or Areas of Potential Contamination: \_\_\_\_\_

Photo ID: \_\_\_\_\_ Year: \_\_\_\_\_ Scale: \_\_\_\_\_

Evidence of Former Infrastructure or Areas of Potential Contamination: \_\_\_\_\_

Photo ID: \_\_\_\_\_ Year: \_\_\_\_\_ Scale: \_\_\_\_\_

Evidence of Former Infrastructure or Areas of Potential Contamination: \_\_\_\_\_

Photo ID: \_\_\_\_\_ Year: \_\_\_\_\_ Scale: \_\_\_\_\_

Evidence of Former Infrastructure or Areas of Potential Contamination: \_\_\_\_\_

**3. INTERVIEWS (e.g., Present and Past Operators and Landowners)**

Interview Held With:  Landowner(s)  Operator(s)

Is the Interview Information:  Specifically for this Site  Generally for the Area or Type of Operation

Interview Date: \_\_\_\_\_ Interviewed By: \_\_\_\_\_

Name of Person Interviewed and Position: \_\_\_\_\_

Location: \_\_\_\_\_

Details of the Interviewee's Comments: *(request information on previous complaints, former facilities, presence and details of spills, pits, waste storage/handling, vegetation control, etc.)*: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**4. SITE VISIT**

Date (m/d/y): \_\_\_\_\_ Assessor: \_\_\_\_\_

Surrounding Land Use: N: \_\_\_\_\_ S: \_\_\_\_\_ E: \_\_\_\_\_ W: \_\_\_\_\_

Topography: \_\_\_\_\_

Vegetation: \_\_\_\_\_

Proximity to (fill in distance to all that apply):

Residence \_\_\_\_\_; Water well \_\_\_\_\_; Surface waterbody (e.g., dugout, stream, river): \_\_\_\_\_

Equipment or Tankage Present (or visual signs of former facilities):  Yes  No

What was observed?: \_\_\_\_\_

Visual Signs of Open or Potentially Buried Earthen Pits:  Yes  No

What was observed?: \_\_\_\_\_

Evidence of Past Spills (includes cumulative releases and well centre impacts):  Yes  No

What was observed?: \_\_\_\_\_

Adjacent land affected by operations on the site?  Yes  No

Vegetation Stress Apparent:  Yes  No

Details (location, evidence): \_\_\_\_\_

Does Site Visit Information Conflict with Specific File or Air Photo Review Information:  Yes  No

If YES, explain: \_\_\_\_\_

Photographs of the Site: (not aerial photographs)

Photo 1 (*photo description*): \_\_\_\_\_

Photo 2 (*photo description*): \_\_\_\_\_

Photo 3 (*photo description*): \_\_\_\_\_

*(add additional photographs if necessary)*

**5. CONCLUSIONS AND RECOMMENDATIONS**

Phase 1 ESA information is sufficient to form a conclusion about contamination?  Yes  No

If NO, indicate what was done to gain sufficient information (e.g., Phase 2 ESA)

Details (type of investigation, date): \_\_\_\_\_

Phase 1 ESA showed contamination is likely present?  Yes  No

If YES, indicate what follow-up work was done on the site (e.g., Phase 2 ESA, remediation work):

Details (type of investigation, date): \_\_\_\_\_

Location: \_\_\_\_\_

**6. DECLARATION**

I \_\_\_\_\_ of \_\_\_\_\_ certify that, to the best of my knowledge, all of the aforementioned information is accurate. This Phase I Environmental Site Assessment (ESA) was conducted for \_\_\_\_\_, for the above noted location. All the pertinent information gathered during the Phase I ESA has been provided within this report.

Date: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Email: \_\_\_\_\_

**Operator Contact Information, if different than above**

Mailing Address: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

Email: \_\_\_\_\_

**7. ATTACHMENTS**

- ⇒ Original aerial photographs (from Section 2.2)
- ⇒ List of available aerial photographs from Air Photo Services
- ⇒ Photographs of the site from the site visit
- ⇒ Lease Survey Plan (with field notations)