

Frequently Asked Questions

Directive 040 – General

September 2021

Q1. How do I apply for exemptions to *Directive 040* test requirements and what information is required?

A1. Contact the AER Well Test Group by email at welltest-helpline@aer.ca explaining why the exemption is being requested and providing all pertinent documentation to support the request. There are many reasons to apply for a testing exemption. These are explained in detail in sections 3.1 and 3.5 of *Directive 040*.

Q2. Do I have to wait until the finish drilling information is updated by the licensee before I can submit any PAS files?

A2. Yes. Data from any well test conducted cannot be submitted until the Finished Drill Date is available on the AER system, with the exception of drillstem tests (DSTs), which require only the spud date.

Q3. If my service company is not on the AER listing of SERCOs, how do I obtain a code?

A3. Contact the AER Well Test staff via email at welltest-helpline@aer.ca, providing the full name of your company, and a code will be assigned to you.

Q4. What is the procedure if I submit a test and realize later that I have to correct the file?

A4. Since the original PAS file needs to be deleted from the AER system before resubmission, you need to email the Welltest-Helpline to request deletion. Once the original file has been deleted, you will receive a reply advising that you can resubmit the PAS file.

Q5. If the original file was submitted with the Test Purpose Indicator = (O)ther, and I want to replace it with an amended file changed to (I)ntial, do I need to notify the AER Well Test Group?

A5. Yes, you are required to advise the Well Test Group of your intentions and request that the original file submitted as (O)ther be removed from the AER database.

Q6. As a DST tester, I may be responsible for submitting the PAS files to the AER on behalf of the Licensee. Do I have to wait until the finish drilling information is updated by the licensee?

A6. No. Since the well drilling information may not be sent to the AER until up to three weeks after the rig is released, the DST will be accepted as long as the spud information has been reported. (Note that all other PAS files require the final drilling information, including the total depth of the well before a submission is accepted.)

Q7. Can I submit just AOF data without any pressure information?

A7. If tested before April 1, 2005, the pressure results summary and data table gauge areas can be blank.

Q8. If I have acquired all the flow rates and pressures needed for my initial deliverability test, how do I report the in-line information (no more than “Cleanup” flaring only), since I will not have equipment on site to generate a PRD file?

A8. In the TRG.PAS file, there is a table called Data Table – Inline Rate and Pressure Summary where the recorded rates and pressures are to be reported.

Q9. What sort of information should be included in a PRD image file?

A9. Depending on the test conducted, it is recommended to supply the same information as set out in *Directive 034: Gas Well Testing, Theory and Practice*, appendix E, forms EG-29 A, B, and C and EG-34.

Q10. With respect to CBM control wells, if I have determined the flow rates and pressures for each tested zone by a spinner survey, how can the data be submitted via WTC?

A10. At this time, there is no way to submit the spinner data electronically through WTC. This information can be submitted in a Tagged Image File Format (tiff) on a CD or DVD and mailed to the attention of the AER ICD Well Log Processing Group.

Q11. What information should be provided in a PDF file?

A11. A18. When bottomhole pressure gauges are not used, the conversion of wellhead pressures to bottomhole condition should be clearly indicated and presented. Any wellbore schematics, graphs, analysis data, and conclusions not captured in the PAS file should be included.

Q12. How do I submit pre-1999 (electronic) data if I do not have a PAS file?

A12. The AER Well Test Group accepts paper copies of well test data obtained before January 1, 1999.

Q13. If the DST was mechanically successful (not a misrun), does an extrapolated pressure have to be attained?

A13. No. Only DSTs being considered as the initial pressure (Pi) for the specific formation need to have at least one gauge (most representative) extrapolated (P*).

Q14. During the running of a static gradient survey, are there any requirements as to where the stop depths should be taken?

A14. No. Although the depths and durations chosen are up to the well test coordinator, it is recommended that a stop be made as close to MPP as possible. The duration at MPP should comply with section 4.1.3 of *Directive 040*.

Q15. If gauges are run past the zone of investigation (i.e., gas) and make contact with liquid, do I need to report the liquid gradient ([GRLIQ]) in my PAS file?

A15. Yes, if it is an oil, water, or crude bitumen well ([WSFL] <> 02 [gas]). No, if well is a gas well and the liquid contact is completely below the tested interval.

Q16. Are flowing gradients required to be submitted to the AER?

A16. Yes. Although they are not used by the AER in any regular daily activities, in accordance with *Oil and Gas Regulations*, section 11.120(1)(b), all data gathered for the purpose of obtaining information must be submitted.

Further, prior to July 2004 (when PAS version 4.00 was instituted), flowing gradients were rarely captured, but upon suggestion from industry, provisions were made to the GRD.PAS file to accept them.

Q17. What is the difference between a stabilized AOF and an extended AOF?

A17. An extended AOF is calculated from an extended flow rate where the well may not have attained real flowing pressure stabilization. An extended pressure drawdown response has yet to touch the no-flow boundaries at the end of the drilling spacing unit. A stabilized AOF is where the only pressure support or lack of support is from the drilling spacing unit's drainage area.

Q18. When more than one gauge is run in the hole, do I have to indicate which are the top or bottom recorders?

A18. No. Unlike previous PAS file formats, where your "source" gauge had to be reported as #1, the new format (v. 4.00+) only requires that the serial number for your choice gauge (GSER) be reported in ~Pressure Results - Summary [GSERU] (gauge serial number used in summary).

Therefore, any data checking will be done against that gauge. (Note: subsequent gauges still must follow any required formatting standards.)

Q19. Are clean-up or swab data required to be submitted?

A19. Only if these data are in combination with the drawdown or flowing data of a deliverability test.

Q20. In the Recombined Gas Properties section, how is the value for [RECOFLO] (recombined flow rate) supposed to be derived? Is this a measured value reported in the field or is it a derived value? In either case, some laboratories do not obtain, calculate, or store this value.

A20. The calculation for this is in *Directive 034*, but is summarized as follows: In order to calculate the gas equivalent of the liquid, the liquid flow rate in moles per day must first be calculated. This is equal to the flow rate (m³/d) multiplied by the density of the liquid (kg/m³) divided by the molar mass of the liquid (g/mol) multiplied by 1000. This results in the liquid flow rate in mol/d and is multiplied by 23.645×10^{-6} to determine the gas equivalent of the liquid in 10³ m³/d.

Q21. If my test failed and provided no useful data, does the data have to be submitted to the AER?

A21. Section 3.7 of *Directive 040* provides submission requirements. In the case of information that might be misleading, it would not be required unless it was a DST. All DSTs must be submitted, including misruns.

Q22. Is the AER considering any consequences for not submitting data that is gathered only for the operator benefit?

A22. Compliance with respect to the matter above will be reviewed sometime in the future.

In addition, further review is planned to address potential escalations directly to Notice of Noncompliance for repeat offenders, as well as situations where well test data that do not exist in the public domain are being used by an operator as source information in an application and/or at a hearing.

Q23. Do wells that are drilled under Subsurface Order Nos. 1, 3, and 5 require initial production and fluid analyses to be completed?

A23. Yes. All *Directive 040* requirements still apply.

Q24. Can diagnostic fracture injection tests be used to fulfil initial pressure requirements?

A24. Yes. Diagnostic fracture injection test results can now be submitted in the TRG PAS file as test type 50. Both surface and bottomhole pressure gauges are acceptable.

Q25. How do I submit a PVT study to the AER?

A25. There are two options:

- 1) Submit the PVT study in PDF format with the TRG PAS file. It cannot be submitted separately.
- 2) PVT data contained on a CD or DVD can still be sent to the AER Core Research Centre as per the following instructions:

- The CD or DVD being submitted must be labelled with the company name, contact name, contact phone number, and email address and must be sent to the following address:

Attention: CRC Compliance
3545 Research Way NW
Calgary, AB T2L1Y7

- Separate blocks of information with an underscore (e.g. RS_0123456_00-13-20-20-045-12W4_MP.pdf).
- Identify the sampling category of the data by either using “RS” for reservoir evaluation/productivity studies or “GS” for geological/other studies.
- Submit each individual analysis as a separate file.
- When multiple UWIs are being studied, identify one UWI that was sampled.
- Each file name should be unique.