BRITISH COLUMBIA ENERGY REGULATOR

Well Data Submission Requirements Manual

VERSION 1.30: November 2023

About the Regulator

The BC Energy Regulator (Regulator or BCER) is the single-window regulatory agency with responsibilities for regulating oil and gas activities in British Columbia, including exploration, development, pipeline transportation and reclamation.

The Regulator's core roles include reviewing and assessing applications for industry activity, consulting with First Nations, ensuring industry complies with provincial legislation and cooperating with partner agencies. The public interest is protected by ensuring public safety, protecting the environment, conserving petroleum resources and ensuring equitable participation in production.

Vision, Mission and Values

Vision

A resilient energy future where B.C.'s energy resource activities are safe, environmentally leading and socially responsible.

Mission

We regulate the life cycle of energy resource activities in B.C., from site planning to restoration, ensuring activities are undertaken in a manner that:

- Protects public safety and the environment
- Supports reconciliation with Indigenous peoples and the transition to low-carbon energy
- Conserves energy resources
- Fosters a sound economy and social well-being

Values

Respect is our commitment to listen, accept and value diverse perspectives.

Integrity is our commitment to the principles of fairness, trust and accountability.

Transparency is our commitment to be open and provide clear information on decisions, operations and actions.

Innovation is our commitment to learn, adapt, act and grow.

Responsiveness is our commitment to listening and timely and meaningful action.

Additional Guidance

As with all Regulator documents, this document does not take the place of applicable legislation. Readers are encouraged to become familiar with the acts and regulations and seek direction from Regulator staff for clarification.

The Regulator publishes both application and operations manuals and guides. The application manual provides guidance to applicants in preparing and applying for permits and the regulatory requirements in the planning and application stages. The operation manual details the reporting, compliance and regulatory obligations of the permit holder. Regulator manuals focus on requirements and processes associated with the Regulator's legislative authorities. Some activities may require additional requirements and approvals from other regulators or create obligations under other statutes. It is the applicant and permit holder's responsibility to know and uphold all legal obligations and responsibilities. For example, Federal Fisheries Act, Transportation Act, Highway Act, Workers Compensation Act and Wildlife Act.

Throughout the document there are references to guides, forms, tables and definitions to assist in creating and submitting all required information. Additional resources include:

- Glossary and acronym listing on the Regulator website.
- Documentation and guidelines on the Regulator website.
- Frequently asked questions on the Regulator website.
- Advisories, bulletins, reports and directives on the Regulator website.
- Regulations and Acts listed on the Regulator website.

In addition, this document may reference some application types and forms to be submitted outside of the Application Management System but made available on the Regulator's website. Application types and forms include:

- Heritage Conservation Act, Section 12
- Road use permits
- Water licences
- Master licence to cut
- Certificate of restoration
- Waste discharge permit
- Experimental scheme application
- Permit extension application

Table of Revisions

The Regulator is committed to the continuous improvement of its documentation. The table below summarizes revisions to the Well Data Submission Requirements Manual. Revisions are posted to the documentation section of the Regulator's website at the beginning of every month and are effective one month after posting, unless otherwise noted. For more information about the Regulator's monthly revisions, and for details of this month's revisions, please visit the documentation section of the Regulator's website.

Stakeholders who would like to provide input or feedback on BCER documentation may send comments to servicedesk@bc-er.ca.

Posted Date	Effective Date	Chapter	Summary of Revision(s)
March 28, 2017	March 29, 2017	Section 2.14, 2.7.1, and Appendix A	Added .PDF as submission requirement for Ground Motion Monitoring submissions. Updated submission guidance for Completion and Workover Reports. For more information, refer to INDB 2017-07 on the Regulator's website.
June 7, 2017	July 1, 2017	2.11	Updated the chart to read "submit one PDF and one CSV".
September 8, 2017	September 8, 2017	1.9	Updated eSubmission reference guidance.
April 9, 2018	May 1, 2018	2.3.1-2.3.3	Changed "welldatamail@bc-er.ca" to "welldatamanagement@bc-er.ca".
June 7, 2019	June 7, 2019	Various	Updated to reflect changes to the Drilling and Production Regulation. Refer to INDB 2019-10 for more information.
January 10, 2020	February 1, 2020	2.14	Updated the Ground Motion Monitoring Submission Guidelines section to include new submission requirements.
July 27, 2020	July 27, 2020	2.13	Updated the section to reflect the revised Packer Isolation Test submission requirements.
Nov 6, 2023	Nov 6, 2023	Various	Replace BCOGC with BCER; OGAA with ERAA; new logos, references and associations

Table of Contents

Preface

About

The Well Data Submission Requirements Manual is intended to provide a reference document for well permit holders, by documenting well data submission requirements and processes, as established in the Energy Resource Activities Act (ERAA), Energy Resource Activities General Regulation and the Drilling and Production Regulation.

The manual has been prepared to be as comprehensive as possible; however it is not all encompassing and may not cover all situations. Where circumstances or scenarios arise and are not covered by the manual, please contact the Regulators' Records and Information Services Branch directly. Refer to section 1.8 for contact information.

Manual Structure

This manual is divided into sections and follows the order of steps that permit holders will follow when submitting well data.

The requirements in this manual have been developed to lead permit holders through the process of submitting well data to ensure that well data held by the Regulator is complete and useable.

Chapter 1	**General** outlines and explains general well data submission requirements including but not limited to; email address, naming conventions, rejection criteria, and privacy considerations.
Chapter 2	**Well Data Submission Requirements** outlines and explains submission requirements for well data.
Chapter 3	**Core Research Facility Submissions** outlines and explains core and sample submissions requirements and the core removal application proces for new and archived core and samples.

Manual Scope

This manual focuses exclusively on requirements and processes associated with the Regulator's legislated authorities and it does not provide information on responsibilities that may be specified as conditions on permits, or responsibilities that the Regulator does not regulate. It is the responsibility of the applicant or permit holder to know and comply with all of their legal responsibilities.

Compliance and Enforcement

This document does not replace legislation or affect legislative requirements. All permit holders are ultimately responsible for ensuring they understand and meet all requirements of the ERAA and their permits. Should a person not comply with the ERAA, the Regulator may take compliance and enforcement actions. For more information regarding the Regulator's Compliance and Enforcement processes, please refer to the Compliance and Enforcement Manual.

Business Transition Strategy

The Regulator is undertaking a Business Transition Strategy (BTS) to ensure it is well positioned as part of B.C.'s LNG Strategy. The eSubmission project, which focuses on receiving legislated operational requirements in electronic form, is an important part of the BTS.

This manual reflects the electronic file formats that industry is required to use when making well data submissions to the Regulator. The Regulator is phasing in electronic submission and is requesting all permit holders to submit digital formats of their required submissions. During the transition phase, the Regulator is requesting some documents to be submitted through eSubmission and some documents to be submitted by e-mail. Please refer to Chapter 2: Well Data Submission Requirements for more details. Hard copy paper submissions are not required and are no longer processed.

All electronic formats and naming conventions presented throughout this document are anticipated to be continued as the Regulator completes its transition to electronic submissions through eSubmission. Permit holders are required to use file formats and naming conventions detailed in this manual. Changes to naming conventions or file formats will be reflected in updates to this manual and through proper notification to industry.

Chapter 1: General

1.0 Well Data Submission

As outlined in Chapter 2: Well Data Submission Requirements, most submissions will be made by the permit holder through eSubmission and the remaining submissions will be emailed to welldatamail@bc-er.ca.

For submissions requested by email, each email should contain the files for a single submission type pertaining to a single well. If you have well data submissions that are not mentioned in this manual or that cannot be submitted as requested (for example, because of a file size limitation) please contact the Records and Information Services Branch using the contact information listed in section 1.8.

1.1 Well Reports and Well Data Definition

Well Reports and Well Data are defined in Section 14 of the Energy Resource Activities General Regulation as information obtained from or about a well, including:

- drilling reports
- well history reports
- unprocessed and processed log data
- dipmeter surveys
- directional surveys
- drill stem test data and analyses
- wire line data
- pressure – volume temperature and flow test data and analyses
- subsurface pressure data and analyses
- completion information
- reports respecting monitoring of hydraulic fracturing
- geological and geophysical information
- drilling depths
- casing and cementing information

- well status
- gas, oil or water sample or analysis data
- drill cuttings and cores and any analysis and description of the drill cuttings and cores

1.2 Electronic File Documentation

All electronic documentation must:

- be submitted in the file format specified in this manual
- be named according to the naming convention specified in this manual
- clearly identify the correct Well Authorization (WA) number of the well
- reference the drilling event, where possible

1.3 File Naming Conventions

File names for all electronic files must be prefixed with the correct well authorization number and contain sufficient detail to easily identify the document to which it relates. The name of the electronic file may include additional information required by the permit holder; for example, internal job numbers, etc. In general, the file naming convention is WA number, followed by file type, followed by date and then followed by a descriptor (up to 40 characters).

For details, refer to Appendix A.

1.4 Responsibility of Permit Holder

The BC Energy Regulator undertakes reasonable, standard validation steps to review a portion of the submitted well reports and well data for accuracy in support of quality data processing and dissemination.

The permit holder that submits well reports and well data is solely responsible for the completeness and accuracy of this information including any reference to the WA number. The Regulator does not take any responsibility for inaccurate, incomplete or incorrect information included in or submitted with well reports and well data. The BCER may make all or any portion of the information included in well reports and well data publicly available on expiry of statutory confidentiality status of the well, as referenced by the WA number that appears on the well reports and well data.

1.5 Privacy of Personal Information Considerations

Permit holders are reminded that, per B.C.'s Personal Information Protection Act, tour sheets, daily drilling reports, daily completion reports and any other documents containing personal information must not be submitted to the Regulator before they are edited such that the personal information is removed or rendered illegible.

A list of the names of crew members conducting operations on-site may be included. However, no other personal information about these individuals should be provided.

1.6 Submission Rejection Criteria

Complete and accurate well data shall be submitted within the timeframe prescribed in the Drilling and Production Regulation and the requirements outlined in this manual.

The Regulator may reject submissions for reasons such as:

- there are discrepancies with the WA number
- the electronic files cannot be opened and/or are corrupt
- the electronic files are not submitted in the file formats specified in this manual
- the electronic files are not named according to the naming conventions specified in this manual
- documents submitted contain personal information
- incomplete submission (i.e., missing pages)
- multiple WA's within one document or submission

1.6.1 Resubmission of Rejected Well Data

The Regulator expects that rejected well data submissions will be addressed by the permit holder immediately upon notification of the rejection. Where the Regulator rejects an electronic well data submission, it will send a notice to the permit holder. Where rejected, the submission has not been accepted by the Regulator, and the regulatory submission requirement is not considered met. Where data is not resubmitted and the regulatory requirement not met, the Regulator may pursue compliance and enforcement action as outlined in the Compliance Management and Enforcement Manual and the associated Deficiency Code List

1.7 Incomplete Well Data Submissions

Complete and accurate well data shall be submitted within the timeframe prescribed in the Drilling and Production Regulation and the requirements outlined in this manual.

In cases where a submission is missing well data or data formats, the Regulator expects that the missing well data or data formats will be addressed by the permit holder immediately upon the

notification of an incomplete submission. Incomplete data submissions are not considered to have met regulatory submission requirements. Failure to submit the requested well data within the timeframes outlined in the Compliance Management and Enforcement Manual and the associated Deficiency Code List may result in the permit holder being found to be in non-compliance.

1.8 Contact List

Records and Information Services Branch	welldatamail@bc-er.ca
Well Data Help Line	250-419-4488

1.9 Electronic Data Submission Portal

For information and guidance on making submissions through eSubmission, please refer to the eSubmission webpage.

Chapter 2: Well Data Submission Requirements

2.0 Summary Report of Drilling Operations

The Summary Report of Drilling Operations is to be submitted by the permit holder using eSubmission. Each summary report of drilling operations related to a rig release must be accompanied by a supporting document outlining the formation tops and logs run. Only one document is required per summary report and the naming convention is as follows:

WANUM_FTLR_YYYYMMMDD_OPTIONAL

2.1 Daily Drilling Reports (Tour Sheets)

Section 32 (1)(c) of the Drilling and Production Regulation requires tour sheets to be submitted to the Regulator within 30 days of rig release or when drilling operations cease with the intention of resuming at a later date.

Tour sheets must be in the standard format as outlined by the Canadian Association of Oilwell Contractors (CAODC).

Submit:	• one PDF • optional, one XML
Submit to:	eSubmission
Naming Convention:	WANUM_ETS_YYYYMMMDD_OPTIONAL

YYYYMMMDD is the rig release date or, where drilling is not yet complete, the drilling suspended date. The optional portion of the naming convention may be any alphanumeric text up to forty characters in length. For example, an electronic submission of Tour Sheets for WA11122 with a rig release date of May 1, 2014 would be:

11122_ETS_2014MAY01_TOURSHEETS.PDF

11122_ETS_2014MAY01_TOURSHEETS.XML

2.2 Logs

Section 34(3) of the Drilling and Production Regulation requires all logs to be submitted to the Regulator within 30 days of being run.

Measured depth (MD) and true vertical depth (TVD) logs must be provided for all directional wells.

Please Note:

LAS files are to follow the LAS 3.0 standard and must include the Well Authorization Number in the ~Well Section. Please refer to the LAS 3.0 Log ASCII Standard Document #1 – File Structures document.

2.2.1 Open Hole and Cased Hole Logs

TIFF image files are the preferred format for log image submissions. Where applicable, image files must be submitted in colour.

Submit:	• one TIFF and/or PDF of each log • one or more Log ASCII Standard (LAS) files with all curves
Submit to:	eSubmission
Naming Convention:	WANUM_WL_YYYYMMMDD_DESCRIPTION

YYYYMMMDD is the log run date. The description portion of the naming convention is mandatory and must describe the log being submitted. The description may be any alphanumeric text up to forty characters in length. For example, the submission of a neutron density log for WA11122 with a run date of May 1, 2014 would be:

11122_WL_2014MAY01_NeutronDensity.TIFF

11122_WL_2014MAY01_NeutronDensity.LAS

2.2.2 Specialty, Enhanced or Interpreted Logs

For specialty, enhanced, imaged, interpreted or computer-generated logs (Example: Borehole Imager, FMI, Semblance, Anisotropy Plots, Casing Inspection, Temperature, Veritlogs, etc.), submit both raw and interpreted logs.

Submit:	• one TIFF and/or PDF of each log • one or more Log ASCII Standard (LAS) files with all curves
Submit to:	eSubmission
Naming Convention:	WANUM_WL_YYYYMMMDD_DESCRIPTION

TIFF image files are the preferred format for log image submissions. Where applicable, image files must be submitted in colour.

YYYYMMMDD is the log run date. The description portion of the naming convention is mandatory and must describe the log being submitted. The description may be any alpha numeric text up to forty characters in length. For example, the submission of a FMI log for WA11122 with a run date of May 1, 2014 would be:

11122_WL_2014MAY01_FMI.TIFF

2.2.3 MWD, Hydrocarbon and Mud Gas Logs

Measured While Drilling (MWD) logs, MWD Gamma Ray logs, Hydrocarbon logs and Mud Gas logs, if run, are to be submitted as individual documents

Submit:	• one TIFF and/or PDF of each log • one or more Log ASCII Standard (LAS) files with all curves
Submit to:	eSubmission
Naming Convention:	WANUM_WL_YYYYMMMDD_DESCRIPTION

TIFF image files are the preferred format for log image submissions. Where applicable, image files must be submitted in colour.

YYYYMMMDD is the log run (end) date. The description portion of the naming convention is mandatory and must describe the log being submitted. The description may be any alphanumeric text up to forty characters in length. For example, the submission of measured depth and true vertical depth MWD logs for WA11122 with run end dates of May 1, 2014 would be:

11122_WL_2014MAY01_MD_MWD.TIFF

11122_WL_2014MAY01_TVD_MWD.TIFF

11122_WL_2014MAY01_MWD.LAS

2.2.4 Production and Completion Logs

For Production and Completion Logs, refer to the Oil and Gas Activity Operations Manual.

Submit:	• one TIFF and/or PDF of each log • one or more Log ASCII Standard (LAS) files with all curves
Submit to:	eSubmission
Naming Convention:	WANUM_WL_YYYYMMMDD_DESCRIPTION

TIFF image files are the preferred format for log image submissions. Where applicable, image files must be submitted in colour.

YYYYMMMDD is the log run date. The description portion of the naming convention is mandatory and must describe the log being submitted. The description may be any alpha numeric

text up to forty characters in length. For example, the submission of a Spinner Survey log for WA11122 with a run date of May 1, 2014 would be:

11122_WL_2014MAY01_SpinnerSurvey.TIFF

11122_WL_2014MAY01_SpinnerSurvey.LAS

Please Note:

For logs relating to core analysis (e.g. core gamma ray) refer to chapter 2.3 of this manual. For logs relating to wellsite geology reports (e.g. strip or lithology logs) refer to chapter 2.4 of this manual. Naming conventions for core logs and strip/lithology logs are consistent with well logs.

2.3 Core Reports and Photographs

Section 30(2) of the Drilling and Production Regulation requires a report of the result of the core analysis, including digital core data and photography, if any, to be submitted to the Regulator within 30 days after completion of a core analysis.

All core analyses conducted shall be submitted. All core analyses undertaken must be approved as part of the Core Removal Application or Sampling Application process. Refer to Chapter 3 of this manual.

The report must reference the Regulator's Core Removal Application or Sampling Application approval number and revision (tracking number) on the title page. Example: CRA 14-012-0. Clearly identify the correct well authorization number of the well on every document. Reports referencing multiple WA numbers will not be accepted.

A copy of the report prepared by the laboratory, complete with methodologies used, intervals tested, findings, data and conclusions contained **within a single PDF** document is required. In cases where multiple analyses are contained within one report, a table of contents that easily identifies analyses performed must be included.

Submissions consisting of only a single data table with no other content are considered incomplete and will **not** be accepted.

Core reports, core photography and core logs are to be submitted in electronic format by email.

2.3.1 Core Photography

All Core photography including, but not limited to, white light, UV Light, thin section photo-micrographics, Scanning Electron Microscopy (SEM), etc., should be in high resolution. Images must be submitted in colour, where applicable:

Submit:	• one image (TIFF, JPEG or PDF format)
Submit to:	welldatamanagement@bc-er.ca
Naming Convention:	WANUM_CORE_YYYYMMMDD_OPTIONAL

YYYYMMMDD is the core report date. The optional portion of the naming convention may be any alphanumeric text up to forty characters in length. For example, the electronic portion of the submission of a core photo for WA11122 with a report date of May 1, 2014 would be:

11122_WL_2014MAY01_Photo1.TIFF

2.3.2 Core Reports

For core reports (conventional, sidewall, thin sections and cuttings / samples):

Submit:	• one PDF copy • all evaluation/analysis tables in .XLS or .XLSX
Submit to:	welldatamanagement@bc-er.ca
Naming Convention:	WANUM_CORE_YYYYMMMDD_OPTIONAL

Images are to be submitted in colour, where applicable.

YYYYMMMDD is the core report date. The optional portion of the naming convention may be any alphanumeric text up to forty characters in length. For example, the submission of a Core Report for WA11122 with a report date of May 1, 2014 would be:

11122_CORE_2014MAY01_CoreReport.PDF

11122_CORE_2014MAY01_Table1.XLS

2.3.3 Core Logs

Submit:	• one TIFF and/or PDF of each log • one or more Log ASCII Standard (LAS) files with all curves
Submit to:	welldatamanagement@bc-er.ca
Naming Convention:	WANUM_WL_YYYYMMMDD_DESCRIPTION

TIFF image files are the preferred format for log image submissions. Where applicable, image files must be submitted in colour.

YYYYMMMDD is the core report date. The description portion of the naming convention is mandatory and must describe the log being submitted. The description may be any alphanumeric text up to forty characters in length. For example, the submission of a Core Gamma log for WA11122 with a report date of May 1, 2014 would be:

11122_WL_2014MAY01_CoreGamma.TIFF

11122_WL_2014MAY01_CoreGamma.LAS

Please Note:

Multiple wells reference in a core report or that form part of a core report will not be accepted. Core reports are to be submitted on a per well basis only.

2.4 Wellsite Geology Reports

Section 35(1) of the Drilling and Production Regulation requires the submission of an As-Drilled Survey Plan within 14 days of rig release.

For As-Drilled Survey Plan submission instructions by appending it to the directional survey .pdf file, refer to Section 2.6 of this document.

Section 35(2) of the Drilling and Production Regulation requires wellsite geology reports to be submitted to the Regulator within 60 days of rig release.

Wellsite geology reports must be submitted for a well or portion of a well for:

- wells classified as exploratory outpost,
- wells classified as exploratory wildcat, and
- any other well (regardless of classification), if a geological report has been prepared.

A wellsite geology report prepared by an on-site geologist containing, but not limited to, a well data summary, identification of formation tops, mud properties, well bore survey, bit record, daily summary report, summary report of well logs run, sample/core descriptions contained **within a single PDF** document and lithology and/or strip logs is required.

Measured depth (MD) and true vertical depth (TVD) Lithology/strip logs must be provided for all directional wells.

2.4.1 Wellsite Geology Reports

Submit:	• one PDF
Submit to:	eSubmission
Naming Convention:	WANUM_GEO_YYYYMMMDD_OPTIONAL

YYYYMMMDD is the geology report date. The optional portion of the naming convention may be any alphanumeric text up to forty characters in length. For example, the submission of a Wellsite Geology Report log for WA11122 with a report date of May 1, 2014 would be:

11122_GEO_2014MAY01_GeologyReport.PDF

2.4.2 Lithology / Strip Logs

Submit:	• one TIFF and/or PDF of each log • one or more Log ASCII Standard (LAS) files with all curves
Submit to:	eSubmission
Naming Convention:	WANUM_WL_YYYYMMMDD_DESCRIPTION

TIFF image files are the preferred format for log image submissions. Where applicable, image files must be submitted in colour.

YYYYMMMDD is the geology report date. The description portion of the naming convention is mandatory and must describe the log being submitted. The description may be any alphanumeric text up to forty characters in length. For example, the submission of a MD ROP Log for WA11122 with a report date of May 1, 2014 would be:

11122_WL_2014MAY01_MD_ROP.TIFF

11122_WL_2014MAY01_ROP.LAS

2.5 Drill Stem and Wire Line Tests

Section 30 of the Drilling and Production Regulation requires all bottom-hole tests of formation pressure and/or fluid inflow rates to be submitted to the Regulator within 30 days of analysis completion. For technical information and reporting requirements refer to the Oil and Gas Activity Operations Manual.

For drill stem tests and closed chamber reports (conventional and wire line drill stem tests such as repeat formation test), if applicable, include fluid recoveries, fluid analysis and pressure charts:

Submit:	• one PDF • one PAS (Optional, DST only)
Submit to:	eSubmission
Naming Convention:	WANUM_DST_YYYYMMMDD_OPTIONAL; or WANUM_RFT_YYYYMMMDD_OPTIONAL

YYYYMMMDD is the test date. The optional portion of the naming convention may be any alphanumeric text up to forty characters in length. For example, the submission of a Drill Stem Test for WA11122 with a test date of May 1, 2014 would be:

11122_DST_2014MAY01_DrillStemTest.PDF

11122_RFT_2014MAY01_RepeatFormationTest.PDF

2.6 Directional Surveys

Section 33 (2) & (3) of the Drilling and Production Regulation requires directional surveys to be submitted to the Regulator within 14 days of rig release. The last point on the directional survey must be the total measured depth (TMD) of the well bore. This allows the Regulator to link the directional survey with the correct drilling event.

Section 35(1) of the Drilling and Production Regulation requires the submission of an As-Drilled Survey Plan within 14 days of rig release. Append the As-Drilled Survey Plan in its original size from the Surveyor (example 22" x 34") to the end of the directional survey PDF file.

For more information, see the Directional Survey File Format Guide.

Submit:	• one TXT file and • one PDF copy, including the As Drilled Survey Plan
Submit to:	eSubmission
Naming Convention:	WANUM_DIR_YYYYMMMDD_OPTIONAL

YYYYMMMDD is the rig release date. The optional portion of the naming convention may be any alphanumeric text up to forty characters in length and should contain a drilling event and version identifier (if there are multiple drilling events and/or versions). For example, the original submission of a Directional Survey for WA11122 for Drilling Event 00 with a rig release date of May 1, 2014 would be:

11122_DIR_2014MAY01_00_V1.PDF

11122_DIR_2014MAY01_00_V1.TXT

2.7 Completion Data

Section 36 of the Drilling and Production Regulation requires that for each separate completion or workover operation on a well, a well permit holder must submit to the Regulator, within 30 days of the end of each completion or workover operation, a report, in chronological format, detailing all significant operations, treatments and resulting well behaviour, and including a downhole schematic diagram **in full colour**. This includes detailed information of hydraulic fracturing operations.

2.7.1 Completion and Workover Reports

For technical information and reporting requirements, refer to Oil and Gas Activity Operations Manual and the Notice of Operation and Completion Workover Report - Reference Guide.

Submit:	• One single PDF
Submit to:	eSubmission
Naming Convention:	WANUM_COMP_YYYYMMMDD_OPTIONAL

YYYYMMMDD is the last date of operations. The optional portion of the naming convention may be any alphanumeric text up to forty characters in length. For example, the submission of a Completion Report for WA11122 where the last date of operations was May 1, 2014 would be: 11122_COMP_2014MAY01_CompletionReport.PDF.

The Completion/Workover Report Form must be included as the first page of the PDF.

2.7.2 Hydraulic Fracture Data

For technical information and reporting requirements, refer to the Hydraulic Fracture Data Comma Separated Value (CSV) Files How-to Guide and the Perf Submission Template.

Submit:	• one CSV detailing fracturing detail • one CSV detailing perforation interval(s) (if applicable)
Submit to:	eSubmission
Naming Convention:	WANUM_FRAC_YYYYMMMDD_OPTIONAL WANUM_PERF_YYYYMMMDD_OPTIONAL

YYYYMMMDD is the last date of operations. The optional portion of the naming convention can be any alphanumeric text up to forty characters in length. For example, the submission of a Hydraulic Fracturing Data for WA11122 where the last date of operations was May 1, 2014 would be:

11122_FRAC_2014MAY01_FractureData.CSV

Please Note:

The submission of hydraulic fracturing data is a **separate**, but complimentary, requirement from fracture fluid disclosure. For information for the mandatory submission of fracture fluid disclosure, please see Section 2.7.3

2.7.3 Fracture Fluid Disclosure

Section 37 of the Drilling and Production Regulation requires that a well permit holder must maintain detailed records of the composition of all fracturing fluids that are used in a well for which the well permit holder is responsible, and submit to the Regulator the records within 30 days after the completion of the well. For technical information regarding fracture fluid disclosure, refer to the Fracture Fluid Disclosure Manual.

Submit:	• one CSV detailing fracture fluids
Submit to:	KERMIT
Naming Convention:	WANUM_FFR_YYYMMMDD_OPTIONAL

Note: there are no current naming conventions required for fracture fluid submissions, however; permit holders are encouraged to use the format listed above. YYYYMMMDD is the last date of operations. The optional portion of the naming convention may be any alphanumeric text up to forty characters in length.

2.8 Reservoir Pressure Survey Test Reports

Section 73 (1) to (6) of the Drilling and Production Regulation requires permit holders to report reservoir pressure measurements within 60 days after the date on which the pressures were measured. For technical information, refer to the Well Testing Requirements document.

Submit:	• one PDF and • one PAS • one CSV (optional, TRGS only)
Submit to:	eSubmission
Naming Convention:*	WANUM_TRG_YYYYMMMDD_OPTIONAL, or WANUM_TRGS_YYYYMMMDD_OPTIONAL, or WANUM_GRD_YYYYMMMDD_OPTIONAL

Only tests conducted using surface recorders may be submitted using the TRGS submission type. A TRGS submission may be submitted with or without a PAS file. However, if available, raw data must be submitted in either PAS or CSV file format.

YYYYMMMDD is the last date of testing. The optional portion of the naming convention may be any alphanumeric text up to forty characters in length. For example, the submission of a Pressure Survey Test for WA11122 where the last date of testing was of May 1, 2014 would be:

11122_TRG_2014MAY01_PressureTest.PDF

11122_TRG_2014MAY01_PressureTest.PAS

* Note: TRG (pressure transient), TRGS (pressure transient surface), GRD (static gradient)

2.9 Well Deliverability Test Reports

Section 63 (1) to (3) of the Drilling and Production Regulation requires permit holders to report well deliverability test measurements within 60 days of the date on which the operation concluded. For technical information, refer to the Well Testing Requirements document.

Submit:	• one PDF and • one PAS
Submit to:	eSubmission
Naming Convention:*	WANUM_TRG_YYYYMMMDD_OPTIONAL, or WANUM_PRD_YYYYMMMDD_OPTIONAL

YYYYMMMDD is the last date of testing. The optional portion of the naming convention may be any alphanumeric text up to forty characters in length. For example, the submission of a Well Deliverability Report for WA11122 where the last date of testing was May 1, 2014 would be:

11122_PRD_2014MAY01_ProdTest.PDF

11122_PRD_2014MAY01_ProdTest.PAS

*Note: TRG (absolute open flow), PRD (production/flow test)

2.10 Gas and Fluid Analyses

Section 34(5) (a) of the Drilling and Production Regulation requires that, if tests from a well allow good sampling, a report of all analyses made of any oil, gas, hydrocarbon liquid or formation water recovered from each formation are to be submitted to the Regulator 30 days after analysis completion.

Section 62(3), 67(1) and 71(2) of the Drilling and Production Regulation requires a report of the component analyses of the crude oil liquids, natural gas and liquids and water to be submitted to the Regulator within 60 days of sampling.

Submit:	• one PDF and • one PAS
Submit to:	eSubmission
Naming Convention:	WANUM_GAN_YYYYMMMDD_OPTIONAL, or WANUM_OAN_YYYYMMMDD_OPTIONAL, or WANUM_WAN_YYYYMMMDD_OPTIONAL

GAN is to be used for Gas Analysis, OAN is to be used for Oil Analysis and WAN is to be used for Water Analysis. YYYYMMMDD is the analysis date. The optional portion of the naming

convention may be any alphanumeric text up to forty characters in length. For example, the submission of a Gas Analysis for WA11122 with an analysis date of May 1, 2014 would be:

11122_GAN_2014MAY01_14G123456.PDF

11122_GAN_2014MAY01_14G123456.PAS

Please Note:

The submission of liquid hydrocarbon analysis (condensate) is a single submission that may include the gas analysis in the pdf. The PAS file will include both the condensate and gas analysis and should be submitted as a single submission. When naming the file, the optional component is recommended to be the unique lab file number of the analysis.

2.11 Isotopic Analysis

Section 34(5) (b) of the Drilling and Production Regulation requires, if performed, a report of all isotopic analyses of mud gas, headspace gas, produced gas, surface casing vent flow gas, or any other gas associated with a well to be submitted to the Regulator within 30 days of analysis completion.

Section 34 (6.1) of the Drilling and Production Regulation requires a permit holder of an exploratory outpost well or an exploratory wildcat well to capture a minimum of 15 mud gas isotope data samples per 1,000m interval between the base of the surface casing and either the total depth in a vertical well or the point where deviation exceeds 80° from the vertical in a horizontal well. An analysis of the isotope data samples captured must be submitted to the Regulator within 30 days of analysis completion.

Submit:	• one PDF and • one CSV
Submit to:	eSubmission
Naming Convention:	WANUM_ISO_YYYYMMMDD_OPTIONAL

YYYYMMMDD is the analysis date. The optional portion of the naming convention may be any alphanumeric text up to forty characters in length. For example, the submission of an Isotopic Analysis for WA11122 with an analysis date of October 1, 2015 would be:

11122_ISO_2015OCT01_IsotopicAnalysis.PDF

2.12Pressure-Volume Temperature Analysis

Section 34(6) of the Drilling and Production Regulation requires data and results from a bottom hole or other pressure-volume-temperature (PVT) analysis to be submitted to the Regulator within 30 days of analysis completion.

Submit:	• one PDF
Submit to:	eSubmission
Naming Convention:	WANUM_PVT_YYYYMMMDD_OPTIONAL

YYYYMMMDD is the test end date. The optional portion of the naming convention may be any alphanumeric text up to forty characters in length. For example, the submission of a Pressure-Volume Temperature Analysis for WA11122 with a test end date of May 1, 2014 would be:

11122_PVT_2014MAY01_PressureVolTempTest.PDF

2.13Packer Isolation Testing

Section 16 (3) (b) and 39(6)(a) of the Drilling and Production Regulation requires that reports of annual segregation test be submitted to the Regulator within 30 days of completing the test.

Submit:	• electronic submission form, and • attach the required graphs and/or other, optional, associated documents
Submit to:	eSubmission

2.14 Ground Motion Monitoring

As outlined in Industry Bulletin 2016-19, ground motion monitoring reports, where required, are to be submitted within 30 days of completing fracturing activities.

Submit:	• one PDF, and • one CSV, and • one or more SEED file(s) (if applicable)
Submit to:	welldatamail@bc-er.ca
Naming Convention:	WANUM_GMMR_YYYYMMMDD_OPTIONAL

YYYYMMMDD is the ground motion monitoring completion date. The optional portion of the naming convention may be any alphanumeric text up to forty characters in length. For example, the submission of a ground motion monitoring report for WA11122 with a test end date of October 1, 2016 would be:

11122_GMMR_2016OCT01_Ground MotionReport.PDF
11122_GMMR_2016OCT01_GroundMotionReport.CSV
11122_GMMR_2016OCT01_GroundMotionReport.SEED

Chapter 3: Core Research Facility Submissions

3.0 General

Section 29 (1)(d) and (2)(d) of the Drilling and Production Regulation requires samples (drill cuttings) and cores (full diameter and side wall) to be submitted to the Regulator's Core Facility within 14 days of rig release.

Physical Address:

BC Energy Regulator

6534 Airport Road - REID Building

Fort St John, B.C, V1J 4M6

Mailing Address:

BC Energy Regulator

6534 100th Ave, Fort St John, B.C. V1J 8C5

Attention: Facility Supervisor

Telephone Contacts:

Telephone - 24 hour reception: 250-794-5200

Telephone - Facility Supervisor: 250-794-5225

Fax: 250-794-5390

3.01 Samples

Submit two sets of standard vials (5.5 cm high and 1.9 cm in diameter), arranged by consecutive depths in standard trays (24 cm by 33 cm) and filled to the lid with washed and dried cuttings.

Vials and trays must be clearly and accurately labeled with the well authorization number, formal well name and location of the well and the sample depths represented.

Special care should be taken to clearly differentiate whipstock, sidetrack, horizontal or multilateral legs samples through correct labeling of the drilling event.

Include a complete Notice of Shipment of Drill Cutting Samples Form.

3.01.1Business hours at the Fort St. John Core Research Facility (REID Building)

Business hours at the Fort St. John Core Research Facility (REID Building) are 8:30 am to 4:30 pm Monday to Friday. The REID Building is closed for lunch from 12:00 pm to 1:00 pm.

After business hours at the REID Building, place sample trays along with Notice of Shipment of Drill Cutting Samples for both identical sets in the secure drop box located on the left (west) side of the building. Please follow the signs directing you to the drop box location.

3.02 Cores

New core must have a completed and approved Core Examination Application Form prior to removal from the wellsite to a laboratory and any analysis being performed.

Full diameter cores should be submitted in wooden boxes with the following exterior dimensions: 81cm x 25 cm x 10 cm (32” x 10” x 4”). Ensure the box is securely nailed shut using one inch coated box nails, accompanied by a complete Notice of Shipment of Core Form.

Core boxes should be well constructed with ¾ inch wooden sides and ends; lid and bottom preferably of ¼ inch fir plywood held in place by 1 inch coated box nails. Boxes should not exceed 30 inches in interior length and should be 2 rows wide and 1 row high. Please replace damaged core boxes before shipping to the Core Research Facility.

Core boxes must be clearly and accurately labeled on the end of each box with the well authorization number, formal well name and location, sample depths represented, core number, consecutive box number and indicate the top and bottom.

Side wall cores must be submitted in appropriate packaging and be clearly labeled with the well authorization number, formal well name, sample depth and core number. A minimum coin size representative sample must be submitted for each sample interval.

If cores are slabbed, the core face must be preserved. Both the 1/3 and 2/3 portions must be returned to the Regulator and are subject to the Core Testing Standard.

3.1 Examination and analysis of Cores (New and Removed)

Section 31 (3) of the Drilling and Production Regulation provides that a person, on payment of the fee prescribed, may remove a core from the Core Research Facility for the purpose of laboratory investigations and analysis that cannot be performed at the Core Research Facility.

Refer to the section 29(1)(2) of the Drilling and Production regulation for core and sampling preparation and Core Testing Standard for core handling, plugging and slabbing requirements.

An Core Examination Application Form must be submitted to and approved by a Regulator official prior to the removal of core and any investigation (analysis) being done on the core.

A separate Core Examination Application Form must be submitted for each well. All analysis and tests to be conducted must be included on the Core Removal Application.

If different analyses are proposed for different intervals, the intervals associated with each analysis must be specified on the Core Examination Application Form.

If different laboratories are contracted to perform specific analyses on specific intervals, the laboratory and the associated analysis and interval must be specified on the Core Examination Application Form.

The applicant is responsible for ensuring that the laboratory(s) contracted to conduct the work are made aware of, and adhere to the Regulator's core submission handling and return requirements, analyses submission requirements, and, provides complete and quality documentation in a timely manner. In addition, the applicant is responsible for ensuring that the laboratory does not perform any unauthorized analysis.

The applicant must be an authorized company official, or, where a contracted service provider is making application on behalf of company, an authorized official name and contact information is provided.

A revised Core Examination Application Form must be submitted, and approved by a BCER official for any changes in scope or schedule from the original Core Examination Application Form. An approved application will be limited to two (2) extensions.

A BCER official may request the immediate return of the core or by a specific date.

3.2 Core and Drill Cutting Samples (New and Removed)

A Sampling Application Form must be submitted to, and approved by, a BCER official prior to the removal of the sample and any investigation being done on the sample.

A separate Sampling Application must be submitted for each well for which sampling is being requested. All analysis and tests to be conducted for a well must be included on the Sampling Application.

If different analyses are proposed for different sample intervals, the intervals associated with each analysis must be specified on the Sampling Application.

If different laboratories are contracted to perform specific analyses on specific samples, the laboratory and the associated analysis and interval must be specified on the Sampling Application.

The applicant is responsible for ensuring that the laboratory(s) contracted to conduct the work are made aware of, and adhere to the Regulators sample submission, handling and return requirements, analyses submission requirements, and, provides complete and quality documentation in a timely manner.

The applicant must be an authorized company official, or, where a contracted service provider is making application on behalf of company, an authorized official name and contact information is provided.

A revised Sampling Application must be submitted, and approved by a BCER official for any changes in scope or schedule from the original Sampling Application. An approved application will be limited to 2 extensions.

A BCER official may request the immediate return of the samples or by a specific date.

Appendix A: File Naming Conventions

Below is a quick reference guide of electronic file naming for well data submissions.

Submission Type	Regulator Naming Convention	File Type Description	File Name (Optional or Mandatory)	Date Guidance
Formation Tops / Logs Run	WANUM_FTLR_YYYYMMMDD_OPTIONAL.PDF	Portable Document Format	Maximum 40 characters	Rig Release Date
Directional Survey	WANUM_DIR_YYYYMMMDD_OPTIONAL.TXT	Text File (Survey Data)	Maximum 40 characters	Rig Release Date
	WANUM_DIR_YYYYMMMDD_OPTIONAL.PDF	Portable Document Format	Maximum 40 characters	Rig Release Date
Tour Sheets	WANUM_ETS_YYYYMMMDD_OPTIONAL.XML	CAODC XML Format	Maximum 40 characters	Rig Release or Drilling Suspended Date
	WANUM_ETS_YYYYMMMDD_OPTIONAL.PDF	CAODC Portable Document Format	Maximum 40 characters	Rig Release or Drilling Suspended Date
Log Files	WANUM_WL_YYYYMMMDD_MANDATORY.LAS	Industry Standard LAS Format	Maximum 40 characters	Log Run Date
	WANUM_WL_YYYYMMMDD_MANDATORY.PDF	Portable Document Format	Maximum 40 characters	Log Run Date
	WANUM_WL_YYYYMMMDD_MANDATORY.TIF	Tagged Image File Format	Maximum 40 characters	Log Run Date
Geological Reports	WANUM_GEO_YYYYMMMDD_OPTIONAL.PDF	Portable Document Format	Maximum 40 characters	Report Date

Supporting Logs	SUBMIT AS WELL LOG (see above)	Industry Standard LAS Format	Maximum 40 characters	Geological Report Date
	SUBMIT AS WELL LOG (see above)	Tagged Image File Format	Maximum 40 characters	Geological Report Date
Submission Type	**Regulator Naming Convention**	**File Type Description**	**File Name (Optional or Mandatory)**	**Date Guidance**
Hydraulic Fracture Data: FRAC Files	WANUM_FRAC_YYYYMMMDD_OPTIONAL.CSV	Regulator proprietary CSV format	Maximum 40 characters	Last Date of Operations
Hydraulic Fracture Data: PERF Files	WANUM_PERF_YYYYMMMDD_OPTIONAL.CSV	Regulator proprietary CSV format	Maximum 40 characters	Last Date of Operations
Fracture Fluid Disclosure	WANUM_FFR_YYYYMMDD_OPTIONAL.CSV	Regulator proprietary CSV format	Maximum 40 characters	Last Date of Operations
Gas Analysis	WANUM_GAN_YYYYMMMDD_OPTIONAL.PAS	Industry Standard PAS GAN format	Maximum 40 characters	Analysis Date
	WANUM_GAN_YYYYMMMDD_OPTIONAL.PDF	Portable Document Format	Maximum 40 characters	Analysis Date
Oil Analysis	WANUM_OAN_YYYYMMMDD_OPTIONAL.PAS	Industry Standard PAS OAN format	Maximum 40 characters	Analysis Date
	WANUM_OAN_YYYYMMMDD_OPTIONAL.PDF	Portable Document Format	Maximum 40 characters	Analysis Date
Water Analysis	WANUM_WAN_YYYYMMMDD_OPTIONAL.PAS	Industry Standard PAS WAN format	Maximum 40 characters	Analysis Date
	WANUM_WAN_YYYYMMMDD_OPTIONAL.PDF	Portable Document Format	Maximum 40 characters	Analysis Date
Production Flow Tests	WANUM_PRD_YYYYMMMDD_OPTIONAL.PAS	Industry Standard PAS PRD format	Maximum 40 characters	Last Date of Testing

	WANUM_PRD_YYYYMMMDD_OPTIONAL.PDF	Portable Document Format	Maximum 40 characters	Last Date of Testing
Static Gradient Pressure Tests	WANUM_GRD_YYYYMMMDD_OPTIONAL.PAS	Industry Standard PAS GRD format	Maximum 40 characters	Last Date of Testing
	WANUM_GRD_YYYYMMMDD_OPTIONAL.PDF	Portable Document Format	Maximum 40 characters	Last Date of Testing
Submission Type	**Regulator Naming Convention**	**File Type Description**	**File Name (Optional or Mandatory)**	**Date Guidance**
Transient Pressure and Deliverability (Bottom Hole)	WANUM_TRG_YYYYMMMDD_OPTIONAL.PAS	Industry Standard PAS TRG format	Maximum 40 characters	Last Date of Testing
	WANUM_TRG_YYYYMMMDD_OPTIONAL.PDF	Portable Document Format	Maximum 40 characters	Last Date of Testing
Transient Pressure and Deliverability (Surface)	WANUM_TRGS_YYYYMMMDD_OPTIONAL.PAS	Industry Standard PAS TRGS format	Maximum 40 characters	Last Date of Testing
	WANUM_TRGS_YYYYMMMDD_OPTIONAL.PDF	Portable Document Format	Maximum 40 characters	Last Date of Testing
	WANUM_TRGS_YYYYMMMDD_OPTIONAL.CSV	Comma Separated Value Format	Maximum 40 characters	Last Date of Testing
DST	WANUM_DST_YYYYMMMDD_OPTIONAL.PDF	Portable Document Format	Maximum 40 characters	Test Date
	WANUM_DST_YYYYMMMDD_OPTIONAL.PAS	Industry Standard PAS DST Format	Maximum 40 characters	Test Date
RFT	WANUM_RFT_YYYYMMMDD_OPTIONAL.PDF	Portable Document Format	Maximum 40 characters	Test Date
Completion Reports	WANUM_COMP_YYYYMMMDD_OPTIONAL.PDF	Portable Document Format	Maximum 40 characters	Last Date of Operations
Core Data	WANUM_CORE_YYYYMMMDD_OPTIONAL.PDF	Portable Document Format	Maximum 40 characters	Report Date

	WANUM_CORE_YYYYMMMDD_OPTIONAL.TIF	Tagged Image File Format	Maximum 40 characters	Report Date
	WANUM_CORE_YYYYMMMDD_OPTIONAL.JPG	Digital Image File Format	Maximum 40 characters	Report Date
	WANUM_CORE_YYYYMMMDD_OPTIONAL.XLS	Microsoft Excel File Format	Maximum 40 characters	Report Date
	WANUM_CORE_YYYYMMMDD_OPTIONAL.XLSX	Microsoft Excel File Format	Maximum 40 characters	Report Date
Submission Type	**Regulator Naming Convention**	**File Type Description**	**File Name (Optional or Mandatory)**	**Date Guidance**
Isotopic Analysis	WANUM_ISO_YYYYMMMDD_OPTIONAL.PDF	Portable Document Format	Maximum 40 characters	Test End Date
	WANUM_ISO_YYYYMMMDD_OPTIONAL.CSV	Regulator proprietary CSV format	Maximum 40 characters	Test End Date
Pressure-Volume Temperature Analysis	WANUM_PVT_YYYYMMMDD_OPTIONAL.PDF	Portable Document Format	Maximum 40 characters	Test End Date
Packer Isolation Test	WANUM_PIT_YYYYMMMDD_OPTIONAL.PDF	Portable Document Format	Maximum 40 characters	Test End Date
Ground Motion Monitoring	WANUM_GMMR_YYYYMMMDD_OPTIONAL.CSV	Portable Document Format	Maximum 40 characters	Report Date
	WANUM_GMMR_YYYYMMMDD_OPTIONAL.SEED	Standard for the Exchange of Earthquake Data	Maximum 40 characters	Report Date