<table>
<tr><th>Guideline Item</th><th>Description</th><th>New Version</th></tr>
<tr>
<td>Chapter II –Sec 1.2.2 Calculating Provisional Assessment (PA)
Page 3, Paragraph 2, bullet 2
Page 3, sub-bullet 4</td>
<td>1. Changed the sulphur rate to 16.66667% from 35%

2. Added product Spec and Mix to description sub-bullets describing the valuation of the Crown Royalty Share of NGLs</td>
<td>• The rate determined for the Crown royalty share of the subject quantity is 50 per cent for gas and ethane (C1, C2), 30 per cent for propane and butanes (C3, C4), 40 per cent for pentanes plus (C5), and 16.66667 per cent for sulphur
• The default factor of 41 will be used to convert 10^3m^3 to GJ
• The Crown royalty share is valued at:
➢ The gas reference price for the production month
➢ The ethane reference price for the production month
➢ The pentanes plus reference price for the production month, where the quantities consist of pentanes plus (Spec or Mix)
➢ The propane reference price for the production month, where the quantities consist of propane (Spec or Mix)
➢ The butanes reference price for the production month, where the quantities consist of butanes (Spec or Mix)</td>
</tr>
<tr>
<td>Chapter II – Sec. 1.7 Statute Barred,
Page 8 - 9</td>
<td>Adjusted wording for new rules around statute barred production years as of December 31, 2018.</td>
<td>For production years up to and including 2014 a production year becomes statute barred on December 31st, four years after the end of the production year. For example, the 2006 production year became statute barred on December 31, 2010. Once a year has become statute barred, calculation or recalculation of royalty does not occur on a monthly basis.
…
…New Paragraphs, Page 9, paragraph 3 and 4.
For production year 2015 and on, amendments to Section 38 of the Act have been made to reduce the time for filing amendments from four years to three years, effective December 2018 (refer to Information Letter 2015-38) published December 10, 2015.

The department has up to five years to complete an audit or examination and Alberta Energy's operational teams have an additional six months to complete any recalculations</td>
</tr>
<tr>
<td>Chapter II – Sec. 1.8 – Royalty calculation Default
Page 12</td>
<td>Changes to default table</td>
<td>Table Entry:
Removal of Reference to GR2

Addition – Volumetric – WEARR
<table><tr><td>Volumetric</td><td>WEARR</td><td>No production but allocation and injection assessed.</td><td>r_q=5%</td></tr></table>
Addition – AB WG 99999 default
<table><tr><td>ABWG99999</td><td>Crown Interest</td><td>Use not approved</td><td>Crown interest = 100%</td></tr></table>
</td>
</tr>
<tr>
<td>Chapter II – Section 1.9 - Production Allocation Discrepancy Report
Page 12-13</td>
<td>New section to describe the Production Allocation Discrepancy report</td>
<td>**1.9 Production Allocation Discrepancies (PAD)**

Commencing with the 2009 production year, the gas royalty rate formula is sensitive to both price and quantity. To encourage accurate reporting, a monthly reconciliation process compares a production entity's allocated quantities with its reported gas production volumes. If the variance between the allocated quantities and the gas production volume exceeds a prescribed tolerance, the reporting situation is included in a monthly Petrinex PAD Report. This report is available to operators who have the ability to amend production or allocation volumes to resolve a reporting discrepancy.

On Petrinex under the Reports and Queries folder, users may request a report on demand which includes information up to the end of the pervious business day. Two days prior to the monthly department extract date, Petrinex performs a sweep of royalty triggered gas production and allocations quantities and produces a preliminary version of the report. Petrinex performs another sweep on the monthly department extract date to produce a final version of the report.

The department receives a copy of the final version of the Petrinex PAD report and uses it to determine the potential royalty impact on unresolved reporting discrepancies. If a discrepancy is a result of allocated quantities being overstated, the production volume is not considered to be a reliable indicator for the royalty rate and the department will subject the allocation to a royalty</td>
</tr>
</table>

Guideline Item	Description	New Version
		recalculation using a default r_q of 30%, as if no production volume was reported. Potential royalty recalculation impacts are communicated to royalty clients in a department PAD report which is included with the Ministry Invoices and Statements currently sent to royalty clients after the monthly gas royalty invoice cycle is complete. The department PAD report specifies the potential royalty impact for the six most recent production months. If the reporting situation is not corrected, the royalty will then be recalculated in the seventh production month using a default r_q of 30% and will appear on the current billing month's invoice as well as the Default Report. When royalty recalculation occurs for a given production month, that month is no longer included as a potential royalty impact in the department PAD report. Any new or further discrepancy for a production month that has already been subjected to royalty recalculation will immediately appear on the current billing month's invoice and it will be referenced on the Default Report. These recalculations will continue to appear on the Default Report until the discrepancy has been corrected. The royalty recalculations for each production month are not considered to be final assessments as further amendments may still be processed until a production year becomes statute barred. Exceptions: The department will recognize certain situations as report exceptions if it can be proven that the discrepancy is incorrectly classified on the report or if there are valid reasons why the discrepancy exceeds the tolerance. Reporting exceptions must be initiated through a written request to the Volumetric & Cost Reporting team, identifying the single well or multi-well production entity (PE), the reporting facility and the production period date range. If approved, a report exception may be subject to periodic review. Examples of reporting situations that would be considered for a report exception include, but are not limited to, the following: • Wells in a multi-well PE that have completed their program and are incorrectly expected to have an allocation to a single well. • Wells that are tied to more than one multi-well PE where the production and allocation are not correctly aligned to each PE.
Chapter II – Sec 3 – Appeals	Notice of Appeal has now been changed to Objection	All references to Appeal will be changed to "Notice of Objection"
Chapter II – Sec 3.1 – Appeals Process **Page 1**	Added reference to Mines and Minerals Dispute Resolution Regulation	A royalty client may register an appeal in accordance with the Mines and Minerals Dispute Regulation, AR 170/2015 in the case of a disagreement between a royalty client and the department with respect to compliance with legislation, Crown agreement, established guidelines or policy which remains unresolved despite consultations with the department's operating staff. Preliminary attempts to resolve a disagreement with operating staff must occur before the department will accept an appeal
Chapter II – Sec 3.1.2 – Notice of Appeal **Page 1**	Address change and Section Title Change and Clarification of criteria	A royalty client who is unable to resolve a disagreement through discussion with the relevant operating branch may formally object to an operating decision or an audit assessment. Objections must be filed with the Director of Dispute Resolutions at the address listed below with a copy sent to the relevant operating branch. Industry Relations 3rd Floor, 801 – 6 Avenue SW AMEC Place Calgary, Alberta T2P 3W2

Guideline Item	Description	New Version
		An objection must be identified clearly, and must meet the following criteria: • the objection must be received within 90 days from the end of the month in which audit assessment or operating decision is issued; • all amounts owed under the Act and the regulations, including penalties and interest, that relate to the objection must be paid; and • the basis for the objection should be outlined in a summary including: o References to relevant legislation and other authorities; o Interpretation of the relevant legislation o Comprehensive analysis of how each of the relevant facts and legislation affect the issue(s) involved; and o Evidence that amounts owed to the Crown have been paid.
Chapter II – Sec 3.1.3– Information Required in a Notice of Appeal **From Page 1**	Deleted. Content combined with section 3.1.2	~~**3.1.3 Information Required in a Notice of Appeal**~~ ~~A notice of appeal must include the following:~~ • ~~A description of the operating decision or audit assessment that is the subject of the appeal, along with how, when and by whom it was originally communicated to the royalty client~~ • ~~A brief description of the attempts made by the royalty client to resolve the disagreement with operational management~~ • ~~The reasons for the appeal~~ • ~~Evidence in support of the appeal, including:~~ ➢ ~~A comprehensive analysis of how each of the relevant facts and legislation affect the issue(s) involved~~ ➢ ~~Detailed references to the relevant legislation and other authorities~~ ➢ ~~The royalty client's interpretation of the relevant legislation and other authorities; and~~ ~~Evidence that any outstanding amount related to the operating decision or audit assessment that is the subject of the appeal has been paid to the Crown~~
Chapter II – Section 3.1.4 – review of a Notice of Appeal **Page 1**	3.1.4 turns into 3.1.3 and deleted content and Title change	**3.1.3 Review of an Objection** The Director of Dispute Resolution will notify the royalty client in writing that an Objection has been received. ~~Following the initial review of an appeal, the royalty client may be requested to provide additional information or clarification of information usually within 30 days of receipt of the notice of appeal. Any such information or clarification must be provided in order for the review to proceed.~~ ~~Investigation of a notice of appeal will involve consultation with the royalty client and representatives of the department operating staff.~~
Chapter III – Sec 2.2 **Page 2**	Additions to the Purpose of an RMF2	**Purpose** Royalty clients may submit an RMF2 form if they wish to reassign all or part of their Crown and/or freehold volumes of gas and gas products allocated to well events, well groups, units, or injection schemes. The RMF2 is not intended for the facilitation of sales activity between clients. In those instances, the OAF can be changed in order to facilitate a smooth transition of responsibility for the production volumes.
Chapter III – Sec 2.2.1 – RMF2 – Completion Instructions **Page 3**	Update to Concurrence and form requirements - termination date	For amendments, a concurrence does not need to be re-filed by clients whose percentage of the allocated share does not change or if the effective date range is reduced. If the assignor has changed any allocations or if the effective date range is expanded, concurrence must be received from those clients. 3.4 TERMINATION DATE - The numeric year and month in which the reassignments recorded in PART 4 are to be terminated. The effective date of the termination will be the first day of that production month. NOTE: If the termination date is not on the form, it will be returned to the submitter.

Guideline Item	Description	New Version
Chapter III – Sec 3.2.1 – RMF3 – V2 – Completion Instructions **Page 4**	Update to: 2.6 Total Crown %; 2.7 Client ID	2.6 TOTAL CROWN % - The total Crown interest in the well event or well group. The form will be returned if the Crown percentage does not match the MRIS system. 2.7 CLIENT ID - The four-character client ID ~~number~~ that identifies the royalty client who is a working interest owner in the well event, well group, or injection scheme. If the Client ID is invalid the form will be returned for correction.
Chapter IV – Valuing – Sec 1.8 - Residue Gas and Raw Gas	Update to arm's length sales (see page 14, paragraph 5)	Where raw gas is sold to one or several clients, the requirement of Petrinex and MRIS is to report the names of the purchasers and the portion sold to them on an RGA submission. In total, 100 per cent of the processed volumes **relating to the stream owner's total allocation should be accounted for on the RGA,** irrespective of the total percentage sold. Only the percentage of gas sold at arm's length is valued at 80 per cent reference price. The balance is valued at 100 per cent reference price. For other situations pertaining to raw gas sales that may warrant 80 per cent of the gas reference price valuation, clients may send in a written request to the department for review. If approved, an adjustment to the valuation is made. NOTE: In all cases, raw gas sales **must be valid** and at an arm's-length in order to be eligible for 80 per cent gas reference price valuation. Gas sales are considered to be at non-arm's length, when the sale is to related parties or when the seller is also purchasing gas from the same stream and the gas is disposed to an Alberta facility.
Chapter IV – Sec. 1.9 – Calculation of Gas Reference Price **Page 15**	Updates to calculation	Alberta Market Price (AMP) for the month *minus* Intra-Alberta Transportation Deduction for the month *net is multiplied by* Pipeline Fuel/Loss Factor for the month *plus or minus* Adjustment for Prior Period Amendments and Special Amendments
Chapter IV – Sec. 1.10 – Calculation of In Stream Components (ISC) Reference Prices **Page 15**	Wording Update – removal of wording	**1.10 Calculation of In-Stream Components (ISC) Reference Prices** ~~The method for calculating the ISC reference prices has changed effective with the January 2011 production month~~ Effective with the January 2011 production month, the gas reference price will be used to value all ISCs of natural gas (C1-ISC, C2-ISC, C3-ISC, C4-ISC, C5+-ISC). This policy will remain in place until producers are able to realize additional value for their share of ISCs. At that time, the department and industry will discuss the appropriate valuation model for ISCs. Refer to *Appendix D* for calculation details of the gas reference price.
Chapter IV – Sec 3.2 – Valuing Propane and Butanes **Page 2**	Update for changes for calculation for NGLs (new post June 2014 calculation)	**3.2 Valuing Propane and Butanes** For production months up to and including June 2014. The department values and invoices the monthly Crown royalty share of propane and butanes based on monthly reference prices that represent the value of a specification product delivered at Edmonton. To recognize the different values of propane and butanes at the point where the Crown royalty liability is triggered, the following adjustments are provided for: • regional transportation cost from the plant gate to Edmonton; and • fractionation cost for products produced as a component of an NGL mix. For production months of July 2014 and subsequent months

Guideline Item	Description	New Version
		The department values and invoices the monthly Crown royalty share of propane and butanes based on, two provincial reference prices. One price will be applied to specification grade product (including field condensate) and the other price will be applied to product contained in an NGL mix. Each reference price is a provincial average price, for product delivered at a field facility, which is the point where the Crown royalty liability is triggered, and is determined from pricing information submitted by NGL purchasers at field facilities in the province of Alberta. For NGL Price reporting instructions, refer to Appendix S
Chapter IV – Sec 3.2.1 Valuation Criteria of Propane and Butanes **Page 2**	Update for changes for calculation for NGLs (new post June 2014 calculation)	**3.2.1 Valuation Criteria for Propane and Butanes** For production months up to and including June 2014 The net unit price at which the department values and invoices the monthly Crown royalty share of propane and butanes is: Propane/Butanes Reference Price *(subject to a* Floor Price*)* *minus* Transportation *(by region)* *minus* Fractionation Allowance *(for Propane/Butanes, contained in an NGL mix)* For production months of July 2014 and subsequent months The unit price at which the department values and invoices the monthly Crown royalty share for each of propane and butanes is the provincial weighted average of field price determined from pricing information submitted by NGL purchasers at field facilities in the province of Alberta. Note that floor prices and transportation allowances are no longer required for the NGL products commencing July 2014.
Chapter IV – Sec 3.2.2 Propane and Butanes Reference Price **Page 3 - 4**	Update for changes for calculation for NGLs (new post June 2014 calculation)	**3.2.2 Propane and Butanes Reference Prices** For production months up to and including June 2014 The department calculates propane and butanes reference prices as the weighted average of prices paid. For non-field purchases of a specification product in the Edmonton area, refer to the description of the Edmonton Area in Appendix D…. …The propane and butanes references prices established for a month do not change retroactively. For production months of July 2014 and subsequent months The department calculates propane and butanes reference prices as the weighted average price derived from the submission of volumes and values purchased at field locations. The monthly propane, and butanes reference prices are calculated as follows:

Guideline Item	Description	New Version
		Total value of Propane/Butanes field purchase transactions reported in the month in Alberta **divided by** Total volumes reported for the same purchase transactions **plus or minus** Adjustments All purchasers of propane and butanes at field facilities within Alberta are required to submit the volumes and values of propane and butanes through Petrinex by the first business day of the second month following the month to which they apply. If the first day falls on a weekend or holiday, the next business day will apply. For NGL Price reporting instructions, refer to Appendix S. If the department receives amendments to information filed by purchasers, for a previous period, the department will use the amendments to recalculate the propane reference price and/or the butanes reference price for the month to which they apply. If the recalculated price were to cause the previous reference price to increase or decrease by more than one per cent that recalculated price will become eligible for approval as the restated reference price. Thereafter, the department will adjust the previously issued royalty invoices in accordance with the restated reference price. Under normal circumstances, a reference price will be restated once following a close off-period of approximately 30 months following the end of the calendar year for the month being amended. If the information required to calculate either the propane reference price or the butanes reference price, or both, is not received by the prescribed date, the Minister determines the reference price(s). The department publishes the propane and butanes reference prices in an Information Letter on the 15th day of the second month following the production month to which the reference price applies. If the 15th day falls on a non-business day, the next business day will apply. The propane, butanes and pentanes reference prices established for a month may be restated retroactively at a future date. A description of the business process can be found on Appendix S.
Chapter IV – Sec 3.2.3 Propane and Butanes Floor Price **Page 5**	Addition to end of section for post June 2014	**3.2.3 Propane and Butanes Floor Prices** For production months up to and including June 2014 The department calculates floor prices for propane and butanes to protect the Crown against inappropriately depressed prices in the Edmonton market. In any month where the floor price of either propane or butanes exceeds the reference price for the same product, and the Minister determines that there is no valid market reason for the disparity, the reference price(s) will be the same as the floor price(s) - refer to Appendix E. For production months of July 2014 and subsequent months propane and butanes floor prices are no longer required.
Chapter IV - Sec 3.3.1 - Pentanes Plus Par Price **Page 6 - 7**	Addition to end of section for post June 2014	**3.3.1 Pentanes Plus Par Price** For production months up to and including June 2014

Guideline Item	Description	New Version
		The Minister determines a pentanes plus par price for each production month, which is the pentanes plus reference price for the current production month, minus an allowance for transportation. The deduction for transportation is calculated as the volume-weighted average of the four regional transportation allowances for specification pentanes plus, in the applicable production month. The department publishes the pentanes plus par price in an Information Letter on or before the 15th day of the second month following the production month to which it applies. If this date falls on a weekend or holiday, the next business day will apply. The pentanes plus reference price established for a month does not change retroactively. For production months of July 2014 and subsequent months The Minister determines a Pentanes Plus Par Price for each production month, which is the Pentanes Plus Spec Reference Price for the current production month. The department publishes the Pentanes Plus Par Price in an Information Letter on or before the 15th day of the second month following the production month to which it applies. If this date falls on a non-business day, the next business day will apply.
Chapter IV - Sec 3.3.2. – Valuing Pentanes Plus **Page 7**	Addition to end of section for post June 2014	**3.3.2 Valuing Pentanes Plus** For production months up to and including June 2014 The department values and invoices the monthly Crown royalty for pentanes plus based on the monthly reference price that represents the value of specification pentanes plus delivered at Edmonton. To recognize the differing values of pentanes plus at the point where the Crown royalty liability is triggered, adjustments are provided for: • regional transportation cost from the plant gate to Edmonton; and • fractionation cost for pentanes plus contained as a component of NGL mix. For production months of July 2014 and subsequent months Effective July 2014 production month, two provincial reference prices are calculated for pentanes plus (C5+). One price will be applied to specification grade product (including field condensate) and the other price will be applied to product contained in an NGL mix. Each reference price is a provincial average price, for product delivered at a field facility, which is the point where the Crown royalty liability is triggered; and is determined from pricing information submitted by NGL purchasers at field facilities in the province of Alberta.
Chapter IV - Sec 3.3.3.` – Valuation for Pentanes Plus **Page 7 - 8**	Addition to end of section for post June 2014	**3.3.3 Valuation Criteria for Pentanes Plus** For production months up to and including June 2014 The net unit price at which the department values and invoices the monthly Crown royalty liability for pentanes plus is: Crown royalty liability for pentanes plus is:

Guideline Item	Description	New Version
		Pentanes Plus Reference Price *minus* Transportation *(by region)* *minus* Fractionation Allowance *(for Pentanes Plus contained in an NGL mix)* For production months of July 2014 and subsequent months The unit prices at which the department values and invoices the monthly Crown royalty liability for pentanes plus are the reference prices for pentanes plus spec and pentanes plus mix.
Chapter IV - Sec 3.3.4. – Pentanes Plus Reference Price **Page 8 - 9**	Addition to end of section for post June 2014	**3.3.4 Pentanes Plus Reference Price** For production months up to and including June 2014. The department calculates the pentanes plus reference price as the weighted average of prices paid for pentanes specification product purchased at non-field locations in the Edmonton area, refer to Edmonton Area description in Appendix Q. Major purchasers of pentanes plus, as designated by the Minister, provide price and volume information on the NGL-100 form each month by the 10th day of the second month following the production month to which they apply. If the 10th day falls on a non-business day, the next business day will apply. Refer to Appendix Q for reporting instructions for NGL-100. The monthly pentanes plus reference price is calculated as follows: total value of non-field purchases of Pentanes in the Edmonton Area as reported in the month *divided by* total volumes reported for the same purchase transactions If the department receives amendments to NGL-100 information filed by designated purchasers, for a previous period, the department will: • include the adjustments in calculating the pentanes plus reference price for the month in which the amendments are received, up to a maximum of 10 per cent of the respective reference price calculated before the adjustments are applied; and • carry forward any amounts above 10 per cent to the following month(s). Amendments that are reported and included as adjustments in this manner are those, which result from reporting errors or omissions by the reporting company. **See Page 9 Paragraph 3 and onward:** For production months of July 2014 and subsequent months The department calculates the Pentanes Plus Spec Reference Price and Pentanes Plus Mix Reference Price as the weighted average of prices paid for pentanes plus products purchased at field locations in Alberta.

Guideline Item	Description	New Version
		The monthly pentanes plus reference prices are calculated as follows: Total value of Pentanes Plus field purchase transactions reported in the month in Alberta **divided by** Total volumes reported for the same purchase transactions **plus or minus** Adjustments All purchasers of pentanes plus provide volume and value information through Petrinex each month by the first business day of the second month following the production month to which they apply. If the first day falls on a weekend or holiday, the next business day will apply. For NGL Price reporting instructions, refer to Appendix S. If the department receives amendments to information filed by purchasers, for a previous period, the department will: use the amendments to recalculate Pentanes Plus Spec Reference Price and Pentanes Plus Mix Reference Price for the month to which they apply. If the recalculated price were to cause the previous reference price to increase or decrease by more than one per cent, that recalculated price will become eligible for approval as the restated reference price. Thereafter, the department will adjust the previously issued royalty invoices in accordance with the restated reference price. Under normal circumstances, restate a reference price once following a close off-period of approximately 30 months following the end of the calendar year for the month being amended. If the information required to calculate either the Pentanes Plus Spec Reference Price or Pentanes Plus Mix Reference Price, or both, is not received by the prescribed date, the Minister determines the reference price(s). The department publishes the Pentanes Plus Spec Reference Price and Pentanes Plus Mix Reference Price in an Information Letter on the 15th day of the second month following the production month to which the reference price applies. If the 15th day falls on a non-business day, the next business day will apply.
Chapter IV - Sec 3.4.1. – Regional Transportation Allowances **Page 10**	Addition to end of section for post June 2014.	**3.4.1 Regional Transportation Allowances** For production months up to and including June 2014. The department deducts a transportation allowance from the propane reference price, the butanes reference price, and the pentanes plus reference price as part of its calculation of the price at which it values the Crown's royalty share of each of those products. **Transportation Allowance Estimates** • For all transportation allowances except specification pentanes: If there is no information available to calculate a transportation allowance, the department determines the transportation allowance as the weighted average of the other regional transportation allowances within that category (before amendment effects). The weighting uses provincial production in each region, for each category, from the previous calendar year.

Guideline Item	Description	New Version
		• For Specification pentanes: If there is no information available to calculate a transportation allowance for specification pentanes, or if the information has been submitted by a single reporting company, the department determines the transportation allowance as the simple average of the preceding twelve months for that region (before the effects of the amendment). The preceding period cannot include periods prior to January 2000. For production months of July 2014 and subsequent months Transportation allowances are no longer required. Commencing July 2014, purchasers report volumes and values at the field location, which is the same as the royalty valuation point.
Chapter IV - Sec 3.4.2. – Fractionation Allowances **Page 12**	Addition to end of section for post June 2014.	**3.4.2 Fractionation Allowance** For production months up to and including June 2014 The department deducts a fractionation allowance from the propane reference price, the butanes reference price, and the pentanes reference price as part of its calculation of the price at which it values the Crown royalty share of propane, butanes, and pentanes plus which are produced as a component of an NGL mix. **… Paragraphs 5 and 6** The fractionation allowance established for a month does not change retroactively. For production months of July 2014 and subsequent months Fractionation allowances are no longer required. Commencing July 2014, purchasers report volumes and values at the field location, which is the same as the royalty valuation point.
Chapter V –Section 5.6 Horizontal Oil New Well Royalty Rate (HONWRR) **Page 10**	Inserted **new** section 5.6 and pushed other sections down by 1(e.g. old 5.6 becomes 5.7)	**5.6 Horizontal Oil New Well Royalty Rate (HONWRR)** A.R. 32/2011, Sch.4, S.1 **Overview** All eligible horizontal oil wells spud on or after May 1, 2010, are assessed a royalty of five per cent for all products. Qualification is based on horizontal code designation by the AER and excludes wells that produce simultaneously from other non-horizontal zones (well code as designated by the AER).
Chapter V –Section 5.6.1 Horizontal Oil New Well Royalty Rate (HONWRR) **Page 10**	Inserted **new** section 5.6.1	**5.6.1 Eligibility Criteria** A.R. 32/2011, Sch.4, S.1, S.2, S.4 To qualify, a well event: • must be spud on or after May 1, 2010; • must be defined as an oil or non-project Oil Sands well event (AER Fluid Status Code 01 or 17); • must have a Crown interest greater that zero per cent when it commences production; • must continue to be an oil or non-project Oil Sands well event; and • must be identified as horizontal Oil or non-project Oil Sands well event. The AER Kickoff Reason Code (Directional Drill Reason Code) on the well event must be Horizontal (code 4).

<table>
<tr><th>Guideline Item</th><th>Description</th><th>New Version</th></tr>
<tr><td>Chapter V –Section 5.6.2 Horizontal Oil New Well Royalty Rate (HONWRR)
Page 10</td><td>Inserted new section 5.6.2</td><td>5.6.2 Non-Eligibility Criteria
• A well event that is part of a project under the Oil Sands Royalty Regulation, 2009.
• A re-entry, reactivation, lengthened or deepened well event</td></tr>
<tr><td>Chapter V –Section 5.6.3 Horizontal Oil New Well Royalty Rate (HONWRR)
Page 10</td><td>Inserted new section 5.6.3</td><td>5.6.3 Crown Royalty Calculation
Crown royalty for the qualified wells is calculated at a rate of 5% for crude oil, gas and gas products (extracted ethane, propane, butanes, pentanes plus and sulphur). Crude oil royalty is not adjusted if the rate is less than or equal to five per cent.</td></tr>
<tr><td>Chapter V –Section 5.6.4 Horizontal Oil New Well Royalty Rate (HONWRR)
Page 10</td><td>Inserted new section 5.6.4</td><td>5.6.4 Limitations on Horizontal Oil New Well Royalty Rate Benefit
A.R. 32/2011 Sch.4 S.4
The HONWRR is a well based rate and the well events identified in a well as horizontal oil well events contribute to the applicable eligible production month cap and the applicable volume cap.

The eligible production month cap and volume cap for a new well containing horizontal oil well events correspond to the measured depth of the well in accordance with the following table:
<table>
<tr><th>Depth MD</th><th>Volume Cap of Oil Equivalent</th><th>Production Month Cap</th></tr>
<tr><td>More than 0m but less than 2,500m</td><td>7,449 m^3</td><td>18 months</td></tr>
<tr><td>2,500m or more but less than 3,000m</td><td>9,539 m^3</td><td>24 months</td></tr>
<tr><td>3,000m or more but less than 3,500m</td><td>11,129 m^3</td><td>30 months</td></tr>
<tr><td>3,500m or more but less than 4,000m</td><td>12,719 m^3</td><td>36 months</td></tr>
<tr><td>4000m or more but less than 4,500m</td><td>14,309 m^3</td><td>42 months</td></tr>
<tr><td>4,500m or more</td><td>15,899 m^3</td><td>48 months</td></tr>
</table></td></tr>
<tr><td>Chapter VI – Section 3.2.1 Reporting of Operating Costs Associated with Greenhouse Gas E mission Compliance Costs for Production Years 2007 and 2008 (Natural Gas Royalty</td><td>Deleted Section (no longer applicable)</td><td>~~Reporting of Operating Costs Associated with Greenhouse Gas Emission Compliance Costs for Production Years 2007 and 2008 (Natural Gas Royalty Regulation, 2002)~~

~~The Allowable Operating Cost (AC4-V2) has no provision to report GHG emission compliance costs separately from other allowable operating costs. The operator of an Alberta Energy Regulator (AER) facility required under the Specified Gas Emitters Regulation (SGER) to reduce GHG emissions, or the operator of an ERCB facility that has sold a performance credit to a facility to assist in compliance obligations, must submit a letter to the department, with supporting documentation, to claim the operating costs for the production years 2007 and 2008. GHG emission compliance costs are to be claimed at an AER facility level. If applicable, facility~~</td></tr>
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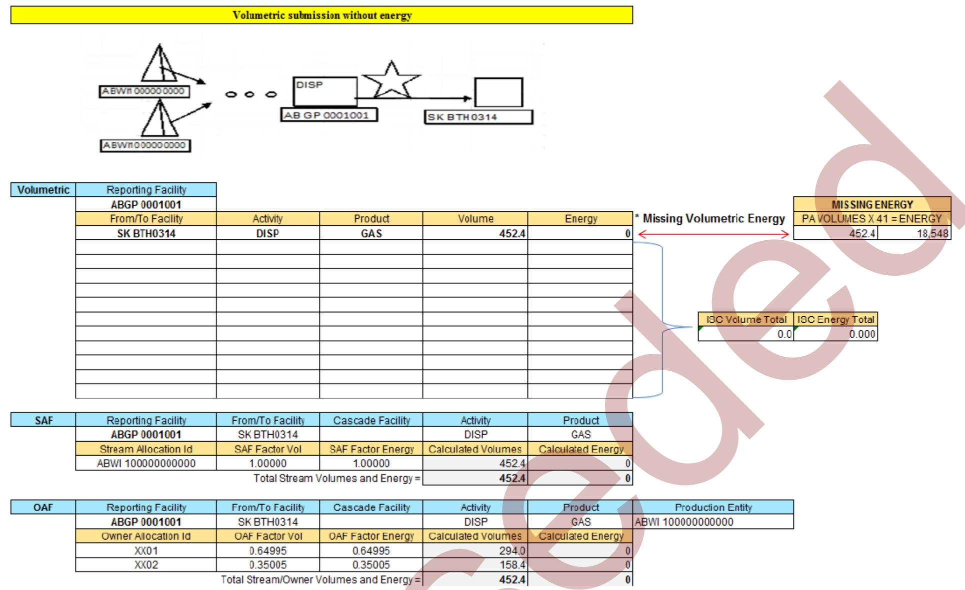
Guideline Item	Description	New Version
Regulation, 2002) **From Page 2**		~~operators must include the percentage of operating costs that is to be allocated to each working interest owner or designated royalty client.~~ ~~Requests should be sent to the department before a production year becomes statute barred. Once the department has completed its review, an amendment is processed and reflected as an Other Financial Transaction on the facility operator's invoice. It is the operator's responsibility to allocate the credit amongst the working interest owners. An allowable cost restriction is applied at the working interest owner level if the Crown share of allowable cost deduction exceeds the total royalty compensation owed to the Crown by the royalty client. The department monitors this adjustment until the production year becomes statute barred.~~
Chapter VI – Section 3.2.2 - Reporting of Operating Costs Associated with Greenhouse Gas E mission Compliance Costs for Production Years 2009 (Natural Gas Royalty Regulation, 2009) **From Page 2**	Deleted Section – No longer applicable	**~~Reporting of Operating Costs Associated with Greenhouse Gas Emission Compliance Costs for Production Years Effective 2009 (Natural Gas Royalty Regulation, 2009)~~** ~~A separate line item is included on the Capital and Operating Cost Allowance (AC2-V4) to capture GHG emission compliance costs. The costs should be reported separately from the other allowable operating costs as they are not eligible to receive overhead and working capital allowance.~~
Appendix A – Sec 6.1 – Reporting Schematics **Page A11-A12**	Updated schematic to fix errors or omissions	**Updates to:** **Schematic Royalty Trigger Type (DISP): Disposition to Out of Network with Return Fuel** Removed the duplicate appearance of the OAF under "Royalty Crown Charge" that appeared on page A-11 and again on page A-12
Appendix B – Sec 1.1 – Introduction **Page B-1**	Added a new reconciliation process	h. A volumetric submission containing royalty liable gas volumes without energy.
Appendix B – Schematic e – A missing SAF response to a cascade (cont'd) **Page B-11**	Updated schematic to fix errors or omissions	**Updates to:** **Schematic e. A missing SAF response to a cascade** Removed appearance of the SAF and OAFs referencing ABBT0040042 on page B-11, not needed
Appendix B – Schematic h **Page B-16**	New schematic for new reconciliation process	**H Volumetric submission without energy** Includes new schematic illustrating reporting with missing volumetric energy

<table>
<tr><th>Guideline Item</th><th>Description</th><th>New Version</th></tr>
<tr><td></td><td></td><td>

h. Volumetric submission without energy



</td></tr>
<tr><td>Appendix B – Sec. 2 Definitions
Page B - 19</td><td>Changes to Royalty Network Definition.
Condenses the explanation of the trigger point or “delivered to” facility.</td><td>

Royalty Network - The royalty network (as described in Appendix A, Royalty Triggers) is a collection of interconnected processing and gathering facilities that receive products either directly or indirectly from reservoirs. The department deems the network to end when the product is delivered to:

Any facility where the Province and facility type does not equal ABBT, ABGS or ABGP (conventional gas plants)The term royalty network, as defined above, is intended to be used within the context of royalty assessment and volumetric reconciliation by the department.

- ~~Commercial transportation facilities such as metre stations, pipelines, railcars, and trucks (except in the case where a processed gas stream is transferred to a pipeline for the purpose of being eventually used as eligible fuel)~~
- ~~Mainline straddle plants~~
- ~~Fractionation plants~~
- ~~Facilities for the purpose of injection~~
- ~~Facilities outside Alberta~~
- ~~Refineries, terminals, treating plants~~

~~The term royalty network, as defined above, is intended to be used within the context of royalty assessment and volumetric reconciliation by the department.~~

</td></tr>
<tr><td>Appendix B – Section 3 – Volumetrics with Missing Allocations (Reconciliation)
Page B-19</td><td>Removal of statement of regarding PA for unreconciled injection volumes</td><td>

3. Volumetrics with Missing Allocations (Reconciliation)

The volumetric allocation reconciliation is performed for all royalty liable gas at batteries, gathering systems, gas processing plants, field straddle plants, meter stations, and injection facilities. There is no volumetric reconciliation of mainline straddle plants or fractionation plants.

The AER volumetric data, at a facility level, is compared to the SAF and OAF allocations reported by the facility operator for that

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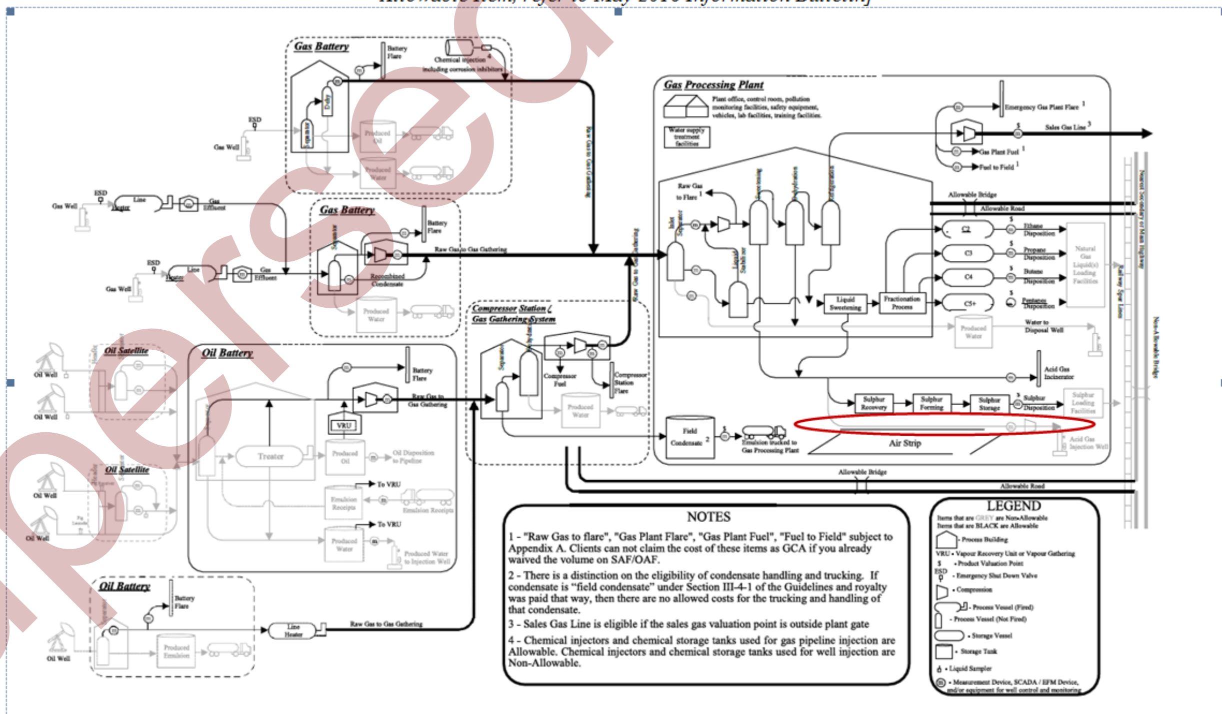
<tr><th>Guideline Item</th><th>Description</th><th>New Version</th></tr>
<tr><td></td><td></td><td>facility. For each reconciliation product at the facility, the sum of the volumes allocated to each owner is compared to the reported volumetrics from the reporting pipelines. If the sum of the reporting facility reported production is less than the volumetrics allocated from the pipeline, the operator of the facility provisionally assessed for the difference.

~~In the case of injection volumes potentially qualifying for royalty (injection) credit, the sum of reported injection receipts are compared to the dispositions to the injection facility reported. If the sum of the reported injection receipts is greater than the disposition volume, the operator of the injection facility is provisionally assessed for the difference.~~</td></tr>
<tr><td>Appendix B – Sec. 4 – Ensure Complete Reports
Page B-20</td><td>Inserted additional error and explanation into table</td><td><table><tr><th>DOE Ensure Complete Error</th><th>Error Explanation</th></tr><tr><td>Missing Volumetric Energy</td><td>No volumetric energy submitted for a DOE required volumetric activity.</td></tr></table></td></tr>
<tr><td>Appendix B – Sec 5 – Volumetric Reconciliation Discrepancy Letters
Page B-21</td><td>Updated wording</td><td>Outstanding PA Discrepancies
• Displays all outstanding PA discrepancies for the client:
➢ ~~Pre and post Petrinex~~
➢ ~~Open and closed years (non statute barred)~~
➢ Crown disadvantage only (PA charged)
➢ Access on Petrinex through the Ministry Invoices and Statements menu option, then the Manage Invoices and Statements menu option
• The report package is Client Package – Monthly Reports
• This report is sent to the client with each invoice run</td></tr>
<tr><td>Appendix B – Sec 7 Reconciliation Products
Page B-22</td><td>Added new Product Grouping</td><td><table><tr><th>Product Grouping</th><th>Products in the Group</th><th>Resulting Product Code</th></tr><tr><td>Propane – SP</td><td>C3-SP</td><td>C3-SP</td></tr></table></td></tr>
<tr><td>Appendix G – Sec 2.1 Leases
Page G-2</td><td>Changed generally accepted Accounting Principles (GAAP) to International Financial Reporting Standards (IFRS)</td><td>2.1 Leases
Where an eligible asset is leased, the costs associated with the lease may be considered either an operating expense or a capital expense in nature. The department will make this determination of the type of lease using International Financial Reporting Standards (IFRS) as adopted by the Chartered Professional Accountants (CPA). It is noted that the CPA has adopted “IFRS 16 – Leases” which is effective January 1, 2019 or earlier upon adoption by a company. The department will apply the IFRS 16 reporting standards to National Gas Guidelines effective January 1, 2019 or earlier upon adoption by a reporting company in determining if a lease is of a capital or operating nature.</td></tr>
<tr><td>Appendix G – Sec 2.3 The following are examples of allowable capital costs…
Page G-2 – G-3</td><td>Added approved cost rewording.</td><td>• Evaporation ponds and liners used in processing at a gas plant.

• Actual or imputed interest or other financing costs, not exceeding the prime rate of interest posted monthly by the Department of Energy, will be allowed as part of the cost of a new facility ~~and capital additions to an existing facility up to the production start-up date~~. Interest on construction is calculated monthly during the construction period using the current months approved interest rate multiplied by the accumulated capital cost amount (net of overhead) incurred from the previous month. Interest is not compounded.
• …Pollution monitoring and seepage detection equipment related to a specific repair, and only incurred for a reasonable time period after the repair.</td></tr>
</table>

Guideline Item	Description	New Version
Appendix G – Section 2.3 Allowable and Non-Allowable Capital Costs **Page G-2**	Removal of reference to IL 2001-34 (EECP) in Appendix G Program no longer available. Reference removed from Section 2.3 page G-2.	• Electrical generation equipment where the output is used to operate eligible capital assets. ~~Please refer to Information Letter 2001-34 Energy Efficiency Credit Program (EECP) for restrictions.~~
Appendix G – Sec 3.1 The following are the non-allowable capital costs…. **Page G-5**	Added non-allowable cost	• Remediation, Reclamation and Abandonment costs
Appendix G – Sec 3.1 The following are the non-allowable capital costs….	Schematic correction	• Correction of non-allowable cost indicator line for Acid Gas Injection Well (as per IB notification – May 2016) *[The line related to both capital and non-capital costs related to **Acid Gas Injection** has been corrected to Grey to indicated a Non-Allowable Item, refer to May 2016 Information Bulletin]* 
Appendix H – Sec 2 – Allowable Operating Costs **Page H-1**	Changed wording – additions and deletions,	**2 Allowable Operating Costs** Generally, any eligible operating cost incurred during the production year in Alberta pertaining to the operation of an eligible capital asset (*Appendix G*) is eligible for allowable cost purposes. The related capital; fully depreciated or not, must be identifiable for the operating costs to be considered eligible. ~~Where operating costs are shared between eligible and ineligible activities, Facility Cost Centre (FCC) operators are permitted to include a portion of the total costs as an allowable operating cost~~A ~~reasonable allocation methodology must be used to establish the portion to be included for allowable cost purposes. The department will review the allocation methodology and has final approval. Allocation between eligible and ineligible activities may be based on the reasonable proration of inputs/outputs including,~~

Guideline Item	Description	New Version
		~~but not limited to: production volumes, kilowatt hours, horsepower, labour time spent, distance, fuel consumed, property or other tax assessments.~~ Where operating costs are shared for both eligible and ineligible activities then operators may be permitted to use a portion of the total cost as an allowable operating expenditure. A reasonable allocation methodology should be used to establish the portion to be included for allowable cost purposes. A reasonable allocation process for labour costs may be based on time sheets which indicate the amount of time spent on specific tasks related to compressing, gathering and processing. A reasonable allocation for electrical costs related to a compressor may be based on the electrical consumption of the compressor versus the electrical consumption of the facility; or a calculation based on the horsepower of the compressor versus the total horsepower of all equipment at the facility. The department will review the allocation methodology and has final approval.
Appendix H – Sec 2.1 **Page H-2**	Added new section and changed numbering for Direct vs. Indirect operating costs.	**2.1 Direct vs. Indirect** • In determining what a direct operating cost is, the department applies the following considerations: ➢ Traceable to a specific eligible capital cost, ➢ Arise from operating eligible capital assets within a specific FCC, ➢ Relate to materials, labour and expenses related to the gathering, compressing or processing Crown volumes, ➢ Interact with the production cost immediately, ➢ Are costs that can be completely attributed to the production of specific goods, ➢ Must be incurred within the Crown royalty network. • The identification of direct costs implies a means-end framework; the cost must have been incurred through an applied process (the means) that directly contributed to the production of Crown royalty volumes (the end). Royalty clients should apply their means-end framework consistently, which is subject to rational justification during an audit. In order for a cost to be seen as direct there must be a strong linkage between the cost and the operation of a specific FCC. • Indirect costs are those that do not meet the criteria as a direct cost. An example of the application of the above principles is the cost of direct labour. For instance, labour costs that are fixed (e.g. a monthly salary or hourly wage) would be treated as a direct cost to the extent of time the employee is working on an eligible capital asset. Corporate wide incentive or bonus plans would be ineligible, as the cost does not interact with the production process immediately, cannot readily be predetermined and the value assigned to the plan is dependent upon activities beyond the royalty network. **NOTE:** Clarification of Requirements for Filing Operating Costs: • "Allowable Costs – Capital & Operating Cost Allowance AC2-V4 Production Years 2009 And Onwards" form as shown on Chapter VI, Section 3, Page 22, Part 7 outlines what to report for the Operating Cost Allowance Calculation. • Section 7.5 of the form entitled "Direct Allowable Operating Costs" is the summation of all the actual "Direct" Allowable Operating Costs paid. • Section 7.6 "Overhead" is automatically calculated by the Crown by multiplying the amount of the Direct Allowable Operating Costs in Field 7.5 by 10 per cent. The Crown gives this amount to cover all the Indirect Allowable Operating Costs, including Bonuses.
Appendix H – Sec 2.1 – Leases	Section 2.1 Leases **becomes Section 2.2 Leases**	**2.2 Leases** Where an eligible asset is leased, the costs associated with the lease may be considered either an operating expense or a

Guideline Item	Description	New Version
Page H-2	Changed Generally Accepted Accounting Principles (GAAP) to International Financial Reporting Standards (IFRS) Changed section number	capital expense in nature. The department will make this determination of the type of lease using International Financial Reporting Standards (IFRS) as adopted by the Chartered Professional Accountants (CPA). It is noted that the CPA has adopted "IFRS 16 – Leases" which is effective January 1, 2019 or earlier upon adoption by a company. The department will apply the IFRS 16 reporting standards to National Gas Guidelines effective January 1, 2019 or earlier upon adoption by a reporting company in determining if a lease is of a capital or operating nature.
Appendix H – Sec 3.1 **Page H-3**	Added non-allowable operating cost	• Bonuses, rewards or other incentive plans. • Operating costs that are deemed, indirect or estimated. Indirect costs are those costs which are directly related to production. • Operating costs pertaining to prior production periods. • Operating costs related to assets that are before the final point of separation of gas from oil.
Appendix K – Rapidtrans Deposit Slips and Deposit Locations **Page 2**	Change current email address	page 2 from G94Deposit@enr.gov.ab.ca to the correct Gas94Deposit@gov.ab.ca
Appendix L	Change in Contact information:	Any contact information is kept up to date in the Monthly Gas Royalty Information Bulletins under Business Contacts
Appendix N Glossary and Definitions	List Changes: ***See Attached Appendix N***	Alberta Energy Regulator AER AER Facility (examples) ERCB and ERCB Facility examples - removed Amendment Arm's-Length (amended) Buy/Sell Condensate (amended) Delivery Month Eligible NGL Purchase Ethane – amended for NGL reporting Field Condensate Field Facility (NGL) Field Purchase (NGL) Mix Product New Gas (removed) New Select Price (removed) Petrinex (replaced Petroleum Registry of Alberta) PRA (removed) Production Allocation Discrepancy (PAD) Production Year Registry (removed) Select Price (removed) Special Pentanes (removed) Special Pentanes Processing Allowance (removed)

Guideline Item	Description	New Version
Appendix R - Acronyms	List Changes	AER – Alberta Energy Regulator Removed ERCB FCP – Facility Component Proportion IC – Injection Credit IFRS – International Financial Reporting Standards Removed – PRA Rp – Price component of the Crown royalty rate Rq – quantity component of the Crown royalty rate SSG – Soldier Settlement Gas SSO – Soldier Settlement Oil PAD – Production Allocation Discrepancy
Appendix O User Guide to Client Invoicing **Page O-41**	Addition of illustration of the PAD Report seen in the Invoice Package	

Guideline Item	Description	New Version

Production Allocation Discrepancy Report

Invoice # 00000123456

Issue Date: 2016/02/29
Royalty Client: 1234
Name: NoName Energy Resources Ltd.

Royalty Payer: 1234
Name: NoName Energy Resources Ltd.
Address: XXXXXXXXXXXX
Calgary, AB X9X 9X9

Stream Id	Production Period	Facility	Product	Volumetric Heat	Crown Interest	Previous rq	Previous Royalty Rate	Projected Royalty Rate	Previous Base Royalty	Projected Base Royalty	Previous Charge Amount	Projected Charge Amount	Charge Amount Difference
AB UN 01111	2015-07	AB GP 0001000	GAS	111	48.7698666	*	6.172	20.930	7.95	26.97	8.18	27.75	19.57
AB UN 01111	2015-07	AB GP 0002000	GAS	11	48.7698666	*	6.490	21.034	0.83	2.69	0.84	2.72	1.88
AB UN 01111	2015-07	AB GP 0002000	C2-MX	2	48.7698666	*	5.000	20.460	0.11	0.44	0.11	0.44	0.33
AB UN 01111	2015-08	AB GP 0001000	GAS	112	48.7698666	*	6.140	21.691	8.59	30.33	8.82	31.14	22.32
AB UN 01111	2015-08	AB GP 0002000	GAS	11	48.7698666	*	5.777	21.544	0.79	2.96	0.80	3.00	2.20
AB UN 01111	2015-08	AB GP 0002000	C2-MX	2	48.7698666	*	5.000	21.270	0.12	0.49	0.12	0.49	0.37
AB UN 01111	2015-09	AB GP 0001000	GAS	98	48.7698666	*	6.094	21.631	7.43	26.36	7.63	27.07	19.44
AB UN 01111	2015-09	AB GP 0002000	GAS	18	48.7698666	*	5.333	21.345	1.19	4.78	1.20	4.82	3.62
AB UN 01111	2015-09	AB GP 0002000	C2-MX	2	48.7698666	*	5.000	21.225	0.12	0.49	0.12	0.49	0.37
AB UN 01111	2015-10	AB GP 0001000	GAS	108	48.7698666	*	6.191	21.022	7.83	26.57	8.06	27.36	19.30
AB UN 01111	2015-10	AB GP 0002000	GAS	3	48.7698666	*	5.199	20.625	0.18	0.72	0.18	0.72	0.54
AB UN 01111	2015-11	AB GP 0001000	GAS	107	48.7698666	*	6.137	20.183	7.08	23.28	7.30	24.00	16.70
AB UN 01111	2015-11	AB GP 0002000	GAS	3	48.7698666	*	5.051	19.716	0.16	0.64	0.16	0.64	0.48
AB UN 01111	2015-12	AB GP 0001000	GAS	106	48.7698666	*	6.111	19.784	6.70	21.68	6.92	22.40	15.48
AB UN 01111	2015-12	AB GP 0002000	GAS	3	48.7698666	*	5.182	19.368	0.16	0.60	0.16	0.60	0.44
AB UN 02222	2015-07	AB GP 0002000	GAS	1,962	18.1054256	*	12.344	21.034	104.37	177.83	106.12	180.82	74.70
AB UN 02222	2015-07	AB GP 0002000	C2-MX	362	18.1054256	*	11.223	20.460	17.53	31.95	17.82	32.48	14.66
AB UN 02222	2015-08	AB GP 0002000	GAS	2,020	18.1054256	*	12.619	21.544	118.15	201.71	119.53	204.07	84.54
AB UN 02222	2015-08	AB GP 0002000	C2-MX	370	18.1054256	*	12.060	21.270	20.67	36.46	20.91	36.89	15.98
AB UN 02222	2015-09	AB GP 0002000	GAS	2,133	18.1054256	*	12.945	21.345	127.48	210.21	128.48	211.85	83.37
AB UN 02222	2015-09	AB GP 0002000	C2-MX	411	18.1054256	*	12.713	21.225	24.11	40.25	24.30	40.57	16.27
AB UN 02222	2015-10	AB GP 0002000	GAS	2,388	18.1054256	*	11.311	20.625	117.37	214.02	118.35	215.81	97.46
AB UN 02222	2015-10	AB GP 0002000	C2-MX	427	18.1054256	*	11.161	20.550	20.73	38.17	20.90	38.48	17.58
AB UN 02222	2015-11	AB GP 0002000	GAS	2,128	18.1054256	*	10.956	19.716	93.29	167.88	94.13	169.39	75.26
AB UN 02222	2015-11	AB GP 0002000	C2-MX	411	18.1054256	*	10.917	19.695	17.94	32.37	18.10	32.66	14.56
AB UN 02222	2015-12	AB GP 0002000	GAS	1,747	18.1054256	*	12.019	19.368	80.59	129.87	81.35	131.10	49.75
AB UN 02222	2015-12	AB GP 0002000	C2-MX	165	18.1054256	*	11.887	19.290	7.55	12.25	7.62	12.36	4.74
AB UN 03333	2015-09	AB GP 0003000	GAS	24	100.0000000	*	13.394	21.503	8.20	13.16	8.33	13.37	5.04
AB UN 03333	2015-12	AB GP 0003000	GAS	16	100.0000000	*	19.376	19.604	6.57	6.65	6.69	6.77	0.08
AB UN 04444	2015-08	AB GP 0004000	GAS	1,000	100.0000000	*	8.513	22.513	217.92	576.33	217.92	576.33	358.41
AB UN 04444	2015-08	AB GP 0004000	C2-MX	134	100.0000000	*	5.000	21.270	17.13	72.86	17.13	72.86	55.73
AB UN 05555	2015-12	AB BT 9000001	GAS	16,355	100.0000000	*	13.577	21.831	4,707.56	7,569.40	4,707.56	7,569.40	2,861.84
AB WI 100010101010W100	2015-08	AB GP 0005000	GAS	7,592	100.0000000	-20.000	5.405	21.417	1,050.50	4,162.58	1,075.12	4,260.14	3,185.02
AB WI 100010101010W100	2015-08	AB GP 0005000	C2-SP	985	100.0000000	-20.000	5.000	21.270	126.08	536.36	129.04	548.95	419.91
AB WI 100020202020W100	2015-08	AB GP 0006000	GAS	4,799	25.0000000	-7.909	7.972	22.337	244.84	686.04	251.53	704.78	453.25
AB WI 100020202020W100	2015-08	AB GP 0006000	C2-MX	4	25.0000000	-7.909	5.000	21.270	0.13	0.54	0.13	0.54	0.41
AB WI 100030303030W100	2015-08	AB GP 0005000	GAS	1,652	100.0000000	-20.000	5.405	21.417	228.59	905.77	233.95	927.01	693.06
AB WI 100030303030W100	2015-08	AB GP 0005000	C2-SP	221	100.0000000	-20.000	5.000	21.270	28.31	120.43	28.97	123.24	94.27
AB WI 100040404040W100	2015-09	AB GP 0003000	GAS	1,561	100.0000000	27.089	5.000	22.474	199.03	894.60	199.03	894.60	695.57
AB WI 100040404040W100	2015-09	AB GP 0003000	C2-MX	164	100.0000000	27.089	5.000	21.225	20.85	88.52	20.85	88.52	67.67
AB WI 100040404040W100	2015-10	AB GP 0003000	GAS	2,277	100.0000000	25.911	5.000	22.022	273.24	1,203.47	273.24	1,203.47	930.23
AB WI 100040404040W100	2015-10	AB GP 0003000	C2-MX	172	100.0000000	25.911	5.000	20.550	20.66	84.90	20.66	84.90	64.24
AB WI 100050505050W100	2015-08	AB GP 0004000	GAS	1,167	100.0000000	-17.716	6.026	21.662	180.04	647.16	182.85	657.26	474.41
AB WI 100050505050W100	2015-08	AB GP 0004000	C2-MX	2	100.0000000	-17.716	5.000	21.270	0.24	1.01	0.24	1.01	0.77
									8,128.91	19,031.75	8,181.42	19,213.27	11,031.85

******* End Of Report *******

Note: rq is calculated at individual well events contributing to royalty rate for a Unit, Well group or Injection Scheme

Reference Number: 0101010

Page 1

Guideline Item	Description	New Version
Appendix S – Natural Gas Liquids Price Reporting	New appendix: Appendix S – Natural Gas Liquids Price Reporting	New – effective as of production reporting or production periods July 2014 (2014/07) and onward