

## SUPPLEMENT – JUNE 2002 INFORMATION BULLETIN

**This supplement provides important information about how the Petroleum Information Registry of Alberta will impact Oil and Gas Royalty Reporting.**

**This supplement also provides information about Alberta Natural Gas and Natural Gas Liquids Royalty (NGL) Framework Changes. This information is part of this supplement because natural gas and NGL royalty reporting will occur within the petroleum registry.**

**See important information about [NGL Training Sessions](#) on page 15**

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## **The Petroleum Registry of Alberta – Summary of Industry Changes to Department of Energy Oil and Gas Reporting**

As announced in [Information Letter 2002-18](#), the implementation of the Petroleum Registry of Alberta (the Registry) in October 2002 will introduce numerous reporting changes among industry, the Department of Energy (DOE and APMC) and the Alberta Energy and Utilities Board (EUB). The Registry is a shared, interactive, secure web-based database targeted to improve the quality and management of key volumetric, royalty and infrastructure information. For detail information on the Registry, please access the web-site at: <http://www.petroleumregistry.gov.ab.ca/>.

The Registry will affect data submission and retrieval methods currently experienced within the upstream petroleum industry. A summary of key changes brought about by the Registry follows below. For a complete understanding of each change, please ensure that your company has accessed the Registry training modules (available via the Registry web-site), in addition to reviewing publications produced by the DOE/EUB. Industry support is available via e-mail ([petroleumregistry.energy@gov.ab.ca](mailto:petroleumregistry.energy@gov.ab.ca)), phone (in Calgary: (403) 297-6111; other locations 1-800-992-1144) or fax ((403) 297-3665).

### **1. Infrastructure Changes**

#### **Business Associate Changes**

##### **Business Associate 7-Digit to 4-Digit Conversion**

Implementation of the Registry has necessitated the need for a standard Business Associate (BA) Identifier. Commencing October 1, 2002 all business conducted in the Registry must occur with Business Associate codes which are 4-characters in length. Therefore, the DOE will be converting all current 7-digit BA codes to new 4-digit codes. The DOE will be advising industry of the new codes by July 15, 2002 via several communication methods (Registry web-site, DOE web-site, future Information Bulletins, separate letters to affected clients). Certain submissions relevant to production periods prior to September 2002 (e.g. Owner Activity Statement (OAS) amendments) will be accepted by DOE with either the 7-digit or 4-digit ID. However, if the data submission is made to the Registry, 7-digit Ids will not be accepted.

**Submissions made to the Registry with an invalid BA code (which impact Crown Royalty) will be subject to Provisional Assessment, if not corrected by the required extract date.** Please refer to [Appendix B](#), which specifies the instances in which 4-digit/7-digit Business Associate Ids will be accepted. Royalty clients should be aware that regardless of the identifier length upon submission (7 or 4 character), the resulting output created by DOE will always contain the new, 4-character Business Associate ID. The DOE will accept use of the new 4-digit ID after August 1, 2002 (i.e. prior to Registry Implementation) for those clients who wish to make the changes to their systems prior to October 2002.

##### **Application for New Codes**

After October 2002 the Registry will have the functionality for industry clients to request a 4-digit Business Associate ID, should that company not already have one. The

application form will be submitted via the Registry, with hard copy letter (with signature) sent to DOE's Client Registry group. Royalty clients who do not have access to the Registry may still submit a written request to the Client Registry group, with the necessary documentation. Requests can be made to:

Alberta Department of Energy  
Client Registry  
9945 108 St floor 3  
Edmonton, AB T5K 2G6  
FAX # 780 422 9522  
Phone# 780 422 1395.

Further information on the process for BA code set-up can also be made to Agnes Kilmarnock at (780) 422-1378 or email [Agnes.Kilmarnock@gov.ab.ca](mailto:Agnes.Kilmarnock@gov.ab.ca)

#### **Business Associate Security Set-Up**

Those industry clients using the Registry to conduct business must have the appropriate BA infrastructure set-up prior to submission of data. This includes the set-up of a User Security Administrator (USA) for each company, who then in turn will determine which user(s) in the company will have permissions to submit and retrieve data in the registry. Please refer to the Registry web-site ([www.petroleumregistry.gov.ab.ca](http://www.petroleumregistry.gov.ab.ca)) for further details on this process.

#### **Facility Operator Changes**

The business rules associated with the Registry allow for facility operator changes (including battery operator changes) to be submitted and concurred on a 'real time' basis (via Registry facility operator screens and concurrence notification processes). Additionally, the security infrastructure within the Registry will only allow the recognized operator (recognized based on the current operator granting appropriate permissions) to submit data for a particular production month. Therefore, retroactive operator changes will not be allowed in the Registry (for production periods September 2002 and beyond). Commencing in July 2002 and continuing monthly until Registry implementation in October 2002, the DOE will publish a complete operator history listing (from 1994 onwards), to which respective operators must confirm. The final listing will be loaded into the Registry for information purposes only – no changes will be allowed once industry has confirmed the operator history records. Thus, the current Facility Operator Change Form (OC1) used to communicate gas facility operator changes will no longer exist (for any production period) after the Registry is implemented in October 2002. Further questions surrounding this process can be directed to the Gas Royalty Client Services HelpDesk at (780) 427-2962, or Karen Langpap, Oil Business Development Unit at (780) 422-9047 or [Karen.Langpap@gov.ab.ca](mailto:Karen.Langpap@gov.ab.ca) regarding battery operator information.

#### **Facility Identification Number 4-Digit to 7-Digit Conversion**

Another standardization process taking place with the implementation of the Registry is for facility IDs (which include batteries, terminals, custom treaters, meter stations, pipelines, gas plants, gathering systems and injection facilities) to be converted from 4-digits to 7-digits. A complete facility ID will now include the Province and Type, and thus the facility ID known today as AB GP 1234 must be reported as ABGP0001234 after Registry implementation in

October, 2002. Batteries will continue to be 7-digits, however as with other facilities, the Province and Type must be included (ABBT1234567). Royalty Clients should be aware that regardless of the identifier length upon submission (4 or 7 character), the resulting output created by DOE will always contain the new, 7-character facility ID. Please refer to [Appendix B](#) for a complete listing of where the new facility ID format must be used (and for which production periods) for Gas Royalty Reporting.

**Crown Interest and Production Entities**

Information on the Crown's interest in wells and multiple well production entities will be available on the Registry

**Certification of Vintage**

Vintage information will be available daily on the Registry but should not be interpreted as confirmed by the DOE. Certification Statements will continue to be mailed monthly as verification to Operators of vintage status. For additional information on this process, please contact Veronica Hanson at (780) 422-9080 or [Veronica.Hanson@gov.ab.ca](mailto:Veronica.Hanson@gov.ab.ca).

**2. Crude Oil Royalty Reporting**

(Updates to the *Petroleum Royalty Guidelines*, including Registry changes, will be available by October, 2002)

Currently Operators of facilities producing and delivering Crude Oil royalty submit APMC-120 and 121 forms to report volumes as well as claim reimbursement of transportation allowances. This procedure will be discontinued with the implementation of the Registry.

Crude Oil Facility Operators must split the royalty volumes to the Owner 'APMC' in the Registry and the Crown will extract its royalty receipt volumes directly from the Registry via these pipeline splits each month

The 'Transportation Allowance and Overdelivery Claims' system has been created to provide the Facility Operator the ability to file current month transportation allowances and claim back overdelivered volumes. The 'Transportation Allowance and Overdelivery Claims' system will be populated with the current pipeline split volumetric data.

For additional information on Crude Oil Royalty reporting, please contact:

- APMC Reporting – Marg Leet (403) 297-5475
- Crude Oil Crown Royalty Statements – Karen Langpap (403) 422-9047

Reports listed below will only be available via the Registry:

**APMC Reporting**

Report Package	Report Name	Text TXT Format Available	PDF Format available	Note Timing Change
Reconciliation	APMC/Operator/DOE Reconciliation Report (Current and Prior Month combined into one file)	Y	Y	*
	Royalty Totals Reconciliation Report	Y	Y	*
	APMC Unapproved Royalty Production Report	Y	Y	*
Transaction Processing Package	Transfers	Y	Y	
	General Invoice	Y	Y	
	General Advice	Y	Y	
	Statement of Royalty Adjustments and Transportation Allowances	Y	Y	
	Operator Royalty Delivery Confirmation Report	Y	Y	

Crude Oil Crown Royalty Statements

Report Package	Report Name	Text TXT Format Available	PDF Format available	Note Timing Change
Crude Oil Crown Royalty Statements	Current Month Summary for YYYY MM	Y	Y	*
	Summary for Current Processing Period	Y	Y	*
	Current Month Detail for YYYY MM	Y	Y	*
	Summary - Current Month EOR Relief for YYYY MM	Y	Y	*
	Detail of Adjustment for YYYYMM (Prior Periods)	Y	Y	*
	Scheme Level EOR Relief Details for Current Month YYYY MM	Y	Y	*

\*Note Timing Change: These reports will now be available approximately one month earlier.

Effective October 1, 2002, all APMC payments will be handled via electronic funds transfer. Notices of Direct Deposit will continue to be faxed.

### 3. **Natural Gas Royalty Reporting**

(Note: the revised version of the *Alberta Natural Gas Royalty Principles and Procedures*, updated to include Registry changes, will be available by October, 2002)

#### **Data Submission**

**Royalty/Partner Reporting:** For production periods September 2002 and beyond, royalty clients shall no longer report royalty/partner reporting on the Owner Activity Statement (OAS). **The OAS is replaced by Stream Allocation Factors (SAF) and Owner Allocation Factors (OAF), which are provided by industry to the Registry.** The volumetric details (production/sale volumes) previously provided on the OAS is replaced by the volumetric information submitted to the Registry to fulfil EUB regulatory requirements. (For details on these changes, please refer to the EUB Interim Directive 2002-2001 at: <http://www.eub.gov.ab.ca/BBS/requirements/ils/ids/id2002-01.htm>).

*Amendments* – For production periods prior to September 2002, the OAS will be used to amend data previously submitted on an OAS, using existing submission methods (the Registry will not accept OAS data). EUB amendments via the ‘S’ docs will also be amended the same way (‘S-doc’ amendments to production periods prior to September 2002 will be sent using existing submission methods to the EUB. The Registry will not accept S-documents).

The implementation of the Registry has also introduced new filing requirements by the *Common Stream Operator* (in certain situations, at a meter station reporting level). Further details on this new reporting requirement will be elaborated on in future publications of the Information Bulletin.

**Raw Gas Reporting:** For production periods September 2002 and beyond, royalty clients involved in ownership changes of gas quantities within the DOE’s royalty network must file a Raw Gas Allocation (RGA) submission to the Registry. For a definition of the royalty network, please refer to Appendix N-11 of the September 1, 2001 edition of the *Alberta Natural Gas Royalty Principles and Procedures*. The DOE will also use this information to determine if the ownership change qualifies for the *80% Raw Gas Sale* process, and if so, use this information to assess royalty at the point of sale, rather than the downstream facility in which the stream was processed. If any by-products were processed at the downstream facility for the same stream/owner, then these by-products will be converted into a gas equivalent and deemed as the gross sale quantity. Further details on this process will be elaborated on within further Information Bulletins. The seller of the gas stream is responsible for submitting the RGA. A new hard-copy “RGA Form” will be issued by DOE in a future Information Bulletin. This form is to be used only by those non-operators who are unable to access the Registry. All other clients must use the RGA submission process on the Registry.

*Amendments* – Royalty clients previously qualified for the *80% Raw Gas Sale* program by one of two ways: direct reporting on the OAS; via separate letter to DOE (Raw Gas Appeal process). These processes shall continue for production periods prior to September 2002 only. The Raw Gas Appeal process is no longer applicable for the September 2002 production period and beyond, as the RGA submission contains sufficient information to determine if the transaction qualifies for the program or not.

**Data Retrieval** – Implementation of the Registry will result in all reports produced by the Gas Royalty Mineral Revenues Information System (MRIS) being deposited into the client-specific Registry mail system, to be accessed by the relevant industry client(s). The reports will be available and can be downloaded in several formats (UDF or CSV/PDF/TXT).

**Current distribution methods (hard copy mailout, Electronic Transfer System (ETS), disk distribution, etc.) will cease for all impacted reports (note limited exceptions for non-operators below), regardless of production period.**

Data submissions may be sent to DOE using methods outside of the Registry, however once the DOE has processed that data and placed it in a report, the report output will be directed to the Registry for pick-up. **Example 1:** an amended OAS could be submitted using methods outside of the Registry, however the recalculations that result from that amendment will be produced in an Invoice package that will be sent to the Registry. **Example 2:** an AC2 form could be submitted via ETS, however the AC2 Turnaround Report will be sent to the Registry for the industry client to access. The following reports (with format possibilities) will be available on the Registry. Phase I implies the earliest that report will be sent to the Registry is October, 2002 while Phase II implies the earliest that report will be sent to the Registry is November 2002. “New” in the *MRIS Report Name* field implies a new report that was developed in conjunction with the implementation of the Registry.

Mineral Revenues Information System (MRIS) Reports						
Category	MRIS Report Name	UDF/DDF Format Avail.	TXT Format Avail.	PDF Format Avail.	CSV Format Avail.	Phase
Client Accounts	Statement of Account		Y	Y		1
Client Package - Monthly Reports	Invoice	Y	Y	Y	Y	2
	Crown Royalty Details	Y	Y	Y		2
	Crown Royalty Calculation Details (CSV)				Y	2
	Crown Royalty Volumetric Details (CSV)				Y	2
	Crown Royalty Low Productivity Details (CSV)				Y	2
	Provisional Assessment Summary (New)		Y	Y	Y	2
	Facility Average Royalty Rate (FARR) Supporting Details Report (New)		Y	Y		2
	Raw Gas Average Royalty Rate (RARR) Supporting Details Report (New)		Y	Y		2
	Facility Average Price (FAP) Supporting Details Report (New)		Y	Y		2
	Defaults Report		Y	Y	Y	2
	Penalty Detail		Y	Y	Y	2
Client Package – Annual Reports	Annual Allow Cost Rest Adj		Y	Y		2
	Annual Capital Cost Allowance	Y	Y	Y		2
	CCA Recaptures for EOR and RPB		Y	Y		2
	Annual CP Net of Op Costs	Y	Y	Y		2
	CP Recaptures for EOR and RPB		Y	Y		2
	Annual CCA and CP Fee Adjustment		Y	Y		2
	CERR Calculation	Y	Y	Y		2
	Royalty Deposit Adjustment		Y	Y		2
	Royalty Exemption Statement		Y	Y		2
Form Submission - Monthly Forms	Potential Operating Cost Recapture Report		Y	Y	Y	1
	OAS Validation Rejection Letter		Y	Y		1
	OAS Purchase/Sale Discrepancy Notice		Y	Y		1
	OAS Recon Discrepancy Notice		Y	Y		1
	Requested Detailed Outstanding OAS Reconciliation Discrepancies		Y	Y		1
	Summary of Outstanding OAS Volumetric Discrepancies		Y	Y		1
	SAF/OAF Ensure Complete (New)		Y	Y	Y	1
	ISC Imbalances at Meter Stations (New)		Y	Y		1
	RMF2 Reallocation Notice		Y	Y		1
	PW1 Turnaround Document		Y	Y		1
	PW1 Rejection Notice		Y	Y		1
	PW1 Calculation Detail Report		Y	Y	Y	1
	VA2 Turnaround Document		Y	Y		1
	VA3 Turnaround Document		Y	Y		1
VA4 Turnaround Document		Y	Y		1	
Form Submission - Annual Forms	Facility Cost Centre Letter		Y	Y		1
	AC1 Turnaround Document		Y	Y		1
	AC1 Revltdn Rejection Notice		Y	Y		1
	AC2 Turnaround Document		Y	Y		1
	AC2 Rejection Notice		Y	Y		1
	AC2 Revltdn Rejection Notice		Y	Y		1
	AC3 Rejection Notice		Y	Y		1
	AC3 Revltdn Rejection Notice		Y	Y		1

Mineral Revenues Information System (MRIS) Reports						
Category	MRIS Report Name	UDF/DDF Format Avail.	TXT Format Avail.	PDF Format Avail.	CSV Format Avail.	Phase
	AC4 Turnaround Document		Y	Y		1
	Missing AC4 Reminder Notice		Y	Y	Y	1
	AC4 Rejection Notice		Y	Y		1
	AC4 Revltdn Rejection Notice		Y	Y		1
	AC5 Rejection Notice		Y	Y		1
	AC5 Revltdn Rejection Notice		Y	Y		1
Daily Report	RMF3 Working Interest Ownership (WIO) Revalidation Report ( <b>New</b> )		Y	Y		1
	Invoice Consolidation Turnaround Letter ( <b>New</b> )		Y	Y		1

*Exceptions for Registry Output Delivery* – The DOE is aware that not all royalty clients will have access to the Internet-based Registry system. Although use of the Registry is strongly encouraged, for those non-operators that are unable to participate in the envisioned benefits of receiving these reports electronically in the Registry, the DOE will continue to produce hard copy reports that will be mailed. A survey will be conducted in June 2002 to all non-operators, confirming their ability to access the Registry. Operators will not have an option to receive hard copy reports – operators must access the Registry to retrieve reports issued by DOE.

### Key Gas Royalty Process Changes

**Royalty Triggers** – While the point of determination in which royalty is due has not changed with the implementation of the Registry (e.g. dispositions of gas streams out of the royalty network, first recognition of by-product processing), the methodology to communicate these royalty trigger points has changed. For production periods relating to OAS reporting (prior to September 2002), key information provided on the OAS included Stream Category/Activity for instances in which royalty was due (e.g. PROD/PROC, PROD/TSF); instances in which royalty was not due, yet the information was necessary to ensure complete regulatory reporting (e.g. GAS SALE, BYPROD PROC); and instances for partner-to-partner reporting (e.g. INVOP, INVCL). For production periods after September 2002, the DOE will utilize the volumetric reporting (submitted to the Registry by the industry client and/or pipeline company) to determine the instances in which royalty is due. The royalty trigger points will therefore be recognized by the DOE upon analysis of the Registry volumetric submission. The main trigger points for these situations include:

**DISP** – a disposition of volumes from an in-network facility to an out of network facility. **Example:** A volumetric filing by a meter station indicates a receipt from ABGP0001234. This results in an auto-created DISP activity for the gas plant, with the following key pieces of information: Reporting Facility: ABGP0001234, Activity: DISP, Product: GAS, From/To Facility: ABMS0006789. This results in a royalty trigger.

**PURDISP** – a disposition of purchased volumes used as lease fuel. **Example:** ABBT1234567 reports a purchased receipt (PURREC) of gas quantities from ABBT9876543. The volumetric reporting at ABBT9876543 would result in:

Reporting Facility: ABBT9876543; Activity: PURDISP; Product: Gas; From/To Facility: ABBT1234567. This results in a royalty trigger.

**PROC** – by-product processing at a plant. OAS reporting indicates the volume of product that was actually processed. Within the Registry, the volume is a calculated value, based on the information supplied to the Registry. **Example:** APGP0001234 submits the following volumetric submission for a particular production month: Product: C3SP, Inventory Opening: 10 units; Inventory Closing 20 units; a Disposition of 40 units (these 40 units were auto-created by a receipt volume submitted by a pipeline company indicating ABGP0001234 as the facility which delivered the propane). Process activity calculated by the Registry = 50 units, which is a royalty trigger.

**REC (Inj Fac)** – receipt at an injection facility (subject to injection credits). **Example:** Injection facility ABIF0009876 reports the following: Activity: REC; Product: GAS; From/To Facility: ABGP0001234. This one transaction creates two royalty triggers: 1) a volume of gas subject to royalty at the Gas Plant (per the “DISP” rule above); 2) an injection credit at the injection facility.

**REC (ret. fuel)** – receipt at a battery/gathering system from a meter station (subject to return fuel credits). **Example:** ABBT1234567 submits the following: Activity: REC; Product: GAS, From/To: ABMS0005678. The DOE would then ensure ABBT1234567 is eligible to receive return fuel and if the facility in which the gas initially left the royalty network was indicated (per the facility infrastructure records updated on the Registry by the battery operator). If so, then a royalty trigger has occurred.

For further details surrounding the changes to Royalty Triggers, please contact the Client Services Gas Royalty HelpDesk at (780) 427-2962 or review the revised Alberta Natural Gas Royalty Principles and Procedures, which will be available by October, 2002.

**Reconciliation** – The introduction of a new methodology of determining royalty liability (analysis of volumetric/pipeline reporting) has resulted in the elimination of many of the Reconciliation processes within DOE:

S/OAS Reconciliation – is eliminated for production periods September 2002 and beyond as the ‘S’ and OAS are no longer filed. For these periods, there is no comparison done between volumes submitted to DOE by the royalty client and volumes submitted to EUB by the royalty client – there is only one control total to account for, and that is the new volumetric reporting which contains the EUB volumetric total.

Purchase/Sale Reconciliation – is eliminated for production periods September 2002 and beyond. Again, for these periods, there is no comparison done for transfers of ownership within the royalty network, as the one control total provided by the EUB volumetric reports will identify the necessary royalty trigger points.

Cascade reconciliation – will continue for both production periods prior to September 2002 (OAS Cascade Reconciliation) and production periods September 2002 and beyond (Registry Cascade Reconciliation). Both methods utilize the same rules for

determining a discrepancy situation (i.e. a cascade not adequately responded to), however the method by which the cascades are managed between the two methods will be different (OAS for pre-September 2002 vs. Stream Allocation Factors for September 2002 and beyond).

**Provisional Assessment** –the actual calculation of Provisional Assessment will not change after Registry Implementation (the process of converting a volume discrepancy to a monetary amount). The process for determination of the volume subject to a discrepancy will depend on whether the data was submitted for production periods prior to September 2002 (in which case the S/OAS will provide the basis for recognizing a volume discrepancy) or for production periods September 2002 and beyond (in which case the Stream Allocation/Owner Allocation Factors in conjunction with volume data will provide the basis for recognizing a volume discrepancy). Provisional Assessment determination can be summarized as follows:

<b>Provisional Assessment Reason Type</b>	<b>Production Periods Prior to Sept 2002</b>	<b>Production Periods Sept 2002 and beyond</b>	<b>Provisional Assessment Charged To</b>
S/OAS Volume Discrepancy	Applicable	Not Applicable	Facility Operator
Purchase/Sale Volume Discrepancy	Applicable	Not Applicable	Facility Operator
Cascade Discrepancy	Applicable	Applicable	Facility Operator
Missing or Invalid SAFs/OAFs	Not Applicable	Applicable	Facility Operator
Missing or Incomplete Meter Station Receipts	Not Applicable	Applicable	Common Stream Operator

**Natural Gas Liquid In-Stream Components (ISCs)**

Coinciding with the changes brought on by the Registry, certain volumetric submissions made by royalty clients must also contain the ISC component breakdown of the gas stream. For complete details on this process, please refer to Section Four of this publication entitled “Alberta Natural Gas and Natural Gas Liquids (NGL) Royalty Framework Changes.”

**Consolidated Well Groups (RMF1)**

Consolidated Well Groups (set-up via the RMF1 form) will no longer be valid reporting streams for production periods September 2002 and beyond. The Registry will not accept these entities to be reported on the Stream and Owner Allocation Factors – reporting must be done as the single well level. Therefore, all active RMF1s will be terminated effective September 2002. Royalty clients do not need to submit an amended RMF1 to terminate the well group for this purpose. However, should clients wish to terminate the RMF1 prior to September 2002 production month, an amended RMF1 form must be submitted to DOE. Further questions surrounding this process can be directed to the Gas Royalty Client Services HelpDesk at (780) 427-2962.

### **Facility to Meter Station Connection (TC20)**

After October 2002, the two main purposes of the TC20 form (facility to meter station connection and injection facility to reproducing facility tie) are displaced by data processed within the Registry. Volumetric reporting and facility infrastructure, respectively, eliminate the need for the TC20 form for production periods September 2002 and beyond.

Amendments for production periods prior to September 2002 will still require the TC20 form, filed outside of the Registry.

### **Data Submission Not In Scope for the Registry**

Not all data submissions made to DOE Gas Royalty today will be incorporated within the Registry. Data submissions not in scope for the Registry shall be submitted to DOE in the same fashion as is used today. Please refer to [Appendix B](#) for a summary of all data submissions to DOE Gas Royalty, and whether or not that particular submission will have a replacement and/or equivalent within the Registry.

### **Gas Crown Invoice Changes**

The use of Volumetrics/Stream Allocation Factors/Owner Allocation Factors for royalty reporting for production periods September 2002 and beyond has resulted in a change to the Volumetric portion of the Gas Crown Invoice package, as well as the User Defined File (UDF). The actual Invoice, supporting Billing Period Detail, Production Year Detail, Calculation and Low Productivity Details portion of the Crown Royalty Details will not change.

The UDF has changes to record types 30, 51 and 62. Please contact the Gas Royalty Client Services HelpDesk at (780) 427-2962 for an updated version of this handbook. The handbook is also available at the following web-site:

[www.energy.gov.ab.ca](http://www.energy.gov.ab.ca)

Please refer to [Appendix A](#) for a sample of the new Volumetric portion of the Crown Royalty Details.

## Alberta Natural Gas and Natural Gas Liquids Royalty (NGL) Framework Changes

### 1. Alberta Natural Gas and Natural Gas Liquids Royalty (NGL) Framework Changes

The Alberta natural gas and natural gas liquids royalty framework changes have been outlined in [Information Letter 2002-19](#). These changes are intended to more appropriately align the province's natural gas and NGL royalty framework with developments in the industry and marketplace. The changes are effective from production month September 2002 onwards.

#### What are the changes?

There are three major changes. They are expected to maintain the overall amount of royalty collected, given comparable prices and production levels. The changes affect how the Crown recognizes the value of Gas and NGLs and how it calculates the royalty share.

1. *Crown Royalty will recognize the quantities and netback values of natural gas liquids in residue gas. These are in stream components (ISC) consisting of Ethane, Propane, Butanes, and Pentanes Plus within the gas stream at the time royalty is triggered.*
  - ⇒ Crown royalty for Gas will continue to be assessed on the energy of the gas, but the Crown royalty share of the Gas will be calculated at a facility average royalty rate (FARR%) and valued at a facility average reference price (FAP) based on the weighted average of the in stream component content within the royalty triggered gas.
  - ⇒ ISC volumetric information will be collected from certain facilities and pipelines and used by the Crown in the determination of the weighting for the FARR% and FAP. Gas Products extracted as liquids are not subject to assessment at facility averages as this change is to recognize the ISCs within the gas stream. Gas Products extracted as liquids will continue to be assessed at the royalty rate and reference price associated with each product.
2. *Royalty Rates for products as a liquid or as a component in a gas stream will be the same.*
3. *The royalty rate for Propane and Butanes is proposed to change from the current flat rate of 30% to a price sensitive royalty rate.*
  - ⇒ The royalty rates will be formula driven, similar to the way gas is currently calculated, subject to an expected minimum royalty rate (15%) and maximum royalty rate (30%).

In February 2000, Ethane was recognized as a distinct product. Royalty on Ethane is based on the Ethane Reference Price and Ethane Royalty Rate. Currently the Ethane reference price and Ethane royalty rate are equal to the Gas reference price and Gas royalty rate. These will be different when the Natural Gas and NGL royalty framework is implemented.

#### What ISC information is required and who is responsible for supplying them?

ISC volumetric information is required from Industry to enable the Crown to determine the appropriate Intra-Alberta Transportation Deduction (IATD) factor and facility weightings for each ISC product. The individual ISC product royalty rate and price are then used in the weighted average calculation of the facility averages for the royalty assessment of gas quantities.

**With implementation of the Petroleum Registry of Alberta (the Registry) in October 2002 (production month September 2002), the Crown will determine the royalty trigger quantities of Gas for royalty assessment from the gas volumetric submissions reported to**

**the Registry.** The ISC volumetric information must be reported in the Registry as an additional link to Gas volumetric information. However, not all Gas volumetric information requires an ISC link. The Registry ISC Reporting Table in [Appendix C](#) identifies the specific facility, common stream, meter station and pipeline operators responsible for ISC reporting to the Registry to satisfy Crown requirements. Please refer to the Registry Training Modules for volumetric submissions in the Registry.

**How will this impact facility and pipeline operators?**

Operators who are required to report the ISC composition must comply by filing the appropriate information to the Crown. Failure to do so or reporting incorrect information may lead to inaccurate calculation of facility averages for royalty clients, penalties and provisional assessments.

**How will this impact royalty clients?**

Royalty clients will, in general, have the royalty on their Gas production assessed at the FARR% and FAP of the facility where royalty is assessed. The FARR% and FAP are determined from the weighted average royalty rate and price of the ISC content in the gas stream and are calculated by the Mineral Revenues Information System (MRIS) (see [Appendix D](#) for facility average calculations). The ISC volumetric information reported by the required facility, common stream, meter station or pipeline operators are used to determine the weighted average.

**Will facility averages apply to all Gas production?**

Facility averages will apply in most cases, with a few exceptions. Raw gas sales that are subsequently processed and raw gas sales subsequently used for lease fuel are assessed at a raw gas average royalty rate (RARR%) that is based on the ISC factors identified by the seller on the Raw Gas Allocation (RGA) submission, rather than the ISC composition of the royalty trigger quantities at the facility. Raw gas sales that are subsequently processed are valued at 80% of the Gas Reference Price, while raw gas sales that are subsequently used for lease fuel are valued at 100% of the Gas Reference Price. The business rule for the valuation of these raw gas sales has not changed. Raw gas sales that are neither subsequently processed nor used as lease fuel will be assessed royalty at FARR% and FAP, similar to non-raw gas sale production.

**What supporting/new information will industry clients receive?**

Since the royalty rate and valuation price for Gas can be different at each royalty assessment facility, royalty clients will receive supporting details on the FARR%, RARR% and FAP used in the royalty calculation. Royalty clients will receive supplemental reports for each of these calculations in the Monthly Invoice Package. Clients can retrieve this package from the Registry as part of the Gas Royalty Reports.

**Are facility averages different each month and will they change for a production month once invoiced?**

Facility averages are different each production month because they are based on volumetric submissions and published royalty variables. Royalty rates, reference prices, and the adjusted intra-Alberta transportation deductions are determined monthly while meter station factors are determined annually. Facility averages, once calculated and used in an invoice for a production month, will only change for that facility and production month if amendments are processed for volumetrics and meter station factors (very seldom).

[Appendix D](#) is an example of how facility averages will be calculated.

**Upcoming MRIS Information Bulletins will address the following:**

- Volumetric Submission of ISC products
- In stream Product Component List
- Facility Average Royalty Rate Calculation and Supporting Details
- Low Productivity Allowance Adjustment
- Raw Gas Average Royalty Rate Calculation and Supporting Details
- Facility Average Price Calculation and Supporting Details
- Default variables and Supporting Details
- ISC Balancing and Discrepancy Notice
- Royalty Calculation and Crown Royalty Detail Report

**2. NGL Training**

**In conjunction with the changes to the NGL royalty framework and the introduction of in-stream components, the Department of Energy cordially invites you to attend one of the following town hall training sessions in Calgary.** Please note the dates, times and registration deadlines:

<b>Date</b>	<b>Time</b>	<b>Deadline For Registration</b>
Thursday, July 25 <sup>th</sup>	9:30 a.m. to 12:00 noon <b>or</b> 1:15 p.m. to 3:30 p.m.	Monday, July 15 <sup>th</sup>
Friday, July 26 <sup>th</sup>	9:30 a.m. to 12:00 noon <b>or</b> 1:15 p.m. to 3:30 p.m.	Monday, July 15 <sup>th</sup>
Tuesday, August 27 <sup>th</sup>	9:30 a.m. to 12:00 noon <b>or</b> 1:15 p.m. to 3:30 p.m.	Monday, August 19 <sup>th</sup>
Wednesday, August 28 <sup>th</sup>	9:30 a.m. to 12:00 noon <b>or</b> 1:15 p.m. to 3:30 p.m.	Monday, August 19 <sup>th</sup>
Monday, September 23 <sup>th</sup>	9:30 a.m. to 12:00 noon <b>or</b> 1:15 p.m. to 3:30 p.m.	Monday, September 16 <sup>th</sup>
Tuesday, September 24 <sup>th</sup>	9:30 a.m. to 12:00 noon <b>or</b> 1:15 p.m. to 3:30 p.m.	Monday, September 16 <sup>th</sup>

**All training sessions will be held at:** Rosebud Room, McDougall Centre  
455 - 6<sup>th</sup> Street SW  
Calgary, Alberta

As seating capacity for these town hall sessions is limited, please register at your earliest convenience with Carol Harke @ (780) 422-9275 by the respective deadlines.

Clients should direct any inquiries regarding NGL Framework Changes to Rose Ann Summers, Manager, Gas Royalty Calculation @ (780) 422-6684 or Will Wong, Team Lead, Gas Royalty Calculation @ (780) 415-0755

Jane Clerk  
Business Unit Leader  
Oil Development Business Unit

David Breakwell  
Acting Business Unit Leader  
Gas and Markets Development

Appendix A – Example of Changes to Crown Royalty Detail – Volumetric Section

CROWN ROYALTY DETAIL  
VOLUMETRIC

Invoice #: 112341

Issue Date: 2002-11-30  
Royalty Client: OAOA  
Name: BOB'S RESOURCES LTD  
Facility: AB-GP-4841534  
Production Period: 2002-09

Royalty Payer Code: OKZZ  
Name: FRANK'S DRILLING CO.  
Address: 232 32 AVE SW SUITE 2456  
LEDUC, AB  
T2R5V4

Volumetric Trigger Details

Allocation Details

Volumetric Trigger Details								Allocation Details						
Amend No.	Royalty Activity	Reporting Product	Reporting Facility	From/To Facility	Product	Volume	Energy	Amend No.	Owner Factor	Amend No.	Stream Factor	Allocator %	Client Volumetric Totals Quantity	Heat
Charge Type: Crown Royalty				Stream Id: AB-WI-100141304220W100				Stream Owner: OP49		SAF/CAF Submitter: OAOA				
1	DISP	GAS	AB-GP-4841534	AB-MS-1231232	GAS	230.0	9200	2	0.3500000000	0	0.242342300	0.2500000000	4.9	195.1
													4.9	195.1
Charge Type: Crown Royalty				Stream Id: AB-WI-100143456440W800				Stream Owner: OAOA		SAF/CAF Submitter: OAOA				
1	FURDISP	GAS	AB-GP-4841534	AB-MS-1231232	GAS	456.0	18240	2	0.3500000000	1	0.342300000	1.0000000000	54.6	2185
													54.6	2185
Charge Type: Crown Royalty				Stream Id: AB-WI-100143456440W800				Stream Owner: OAOA		SAF/CAF Submitter: OAOA				
1	PROC	C2-MK	AB-GP-4841534		C2-MK	23.0		2	0.4343440000	2	0.342300000	1.0000000000	3.4	
1	PROC	C3-MK	AB-GP-4841534		C3-MK	44.0		2	0.4343440000	2	0.342300000	1.0000000000	6.5	
													9.9	

**Appendix B**  
**Summary of Facility/Business Associate Identifier Changes for DOE-Related Submissions**

As mentioned above, the implementation of the Registry coincides with a standardization of the length of the facility and Business Associate identifier fields. The table below summarizes the requirements for each of these fields, for each of the submissions made to DOE, both for pre-Registry periods and post Registry periods.

Shaded fields refer to data submissions that are directly impacted by the introduction of the Registry. Non-shaded fields refer to data submissions that have not been affected by the Registry and thus current data submission methods remain in effect once the Registry is operational.

**Scope “Deferral”** - Submissions below which are marked with a double asterisk (\*\*) refers to data submissions that were initially part of Registry scope and were envisioned to be available in the Registry, once it became operational in October 2002. However, due to the need to implement additional functionalities of critical importance within the Registry, these topic areas were deferred for implementation. Should the Registry’s Construction Team be in a position to promote these items to production in time for October 2002 then every effort will be made to do so. At this time, all of these topic areas will not be functional within the Registry in October 2002. Any changes to this position will be immediately communicated to industry.

Form/ Submission Made to DOE	Facility Length (GP/GS/IF/MS) Prod Periods < Sept 2002; Pre Registry Launch	Facility Length (GP/GS/IF/MS) Prod Periods < Sept 2002; Post Registry Launch	Facility Length (GP/GS/IF/MS) Prod Periods Sept 2002 and beyond; Post Registry Launch	BA Non-Op Length Prod Periods < Sept 2002; Prior to Aug 1, 2002	BA Non-Op Length Prod Periods < Sept 2002; After Aug 1, 2002	BA Non-Op Length Prod Periods Sept 2002 and beyond; Post Registry Launch
<b>595 – SECAP</b> <i>Sulphur Emissions Control Assistance Program</i>	4-character (paper form submitted to DOE)	<b>Either</b> 4 or 7 character (paper form submitted to DOE)	<b>Either</b> 4 or 7 character (paper form submitted to DOE)	7 character (paper form submitted to DOE)	<b>Either</b> 7 or 4 character (paper form submitted to DOE)	<b>Either</b> 7 or 4 character (paper form submitted to DOE)
<b>AC1</b> <b>**</b> <i>Facility Cost Centre Setup/ Change</i>	4-character (paper form submitted to DOE)	<b>Either</b> 4 or 7 character (paper form submitted to DOE)	<b>Either</b> 4 or 7 character (paper form submitted to DOE)	7 character (paper form submitted to DOE)	<b>Either</b> 7 or 4 character (paper form submitted to DOE)	<b>Either</b> 7 or 4 character (paper form submitted to DOE)
<b>AC2-V2</b> <b>**</b> <i>Capital Cost Allowance Production Years 1997 and onwards</i>	4-character (paper form submitted to DOE or electronic submission via ETS)	<b>Must</b> be 7- character if submission made by ETS.  <b>Either</b> 4 or 7 character if submission made by paper to DOE	<b>Must</b> be 7- character if submission made by ETS.  <b>Either</b> 4 or 7 character if submission made by paper to DOE	7-character (paper form to DOE or electronic submission via ETS)	<b>Must</b> be 4- character if submission made by ETS.  <b>Either</b> 7 or 4 character if submission made by paper to DOE	<b>Must</b> be 4- character if submission made by ETS.  <b>Either</b> 7 or 4 character if submission made by paper to DOE

Form/ Submission Made to DOE	Facility Length (GP/GS/IF/MS) Prod Periods < Sept 2002; Pre Registry Launch	Facility Length (GP/GS/IF/MS) Prod Periods < Sept 2002; Post Registry Launch	Facility Length (GP/GS/IF/MS) Prod Periods Sept 2002 and beyond; Post Registry Launch	BA Non-Op Length Prod Periods < Sept 2002; Prior to Aug 1, 2002	BA Non-Op Length Prod Periods < Sept 2002; After Aug 1, 2002	BA Non-Op Length Prod Periods Sept 2002 and beyond; Post Registry Launch
<b>AC3</b> ** <i>Capital Cost Allowance Reallocations</i>	4-character (paper form submitted to DOE)	<b>Either</b> 4 or 7 character (paper form submitted to DOE)	<b>Either</b> 4 or 7 character (paper form submitted to DOE)	7 character (paper form submitted to DOE)	<b>Either</b> 7 or 4 character (paper form submitted to DOE)	<b>Either</b> 7 or 4 character (paper form submitted to DOE)
<b>AC4</b> ** <i>Operating Costs</i>	4-character (paper form submitted to DOE or electronic submission via ETS)	<b>Must</b> be 7- character if submission made by ETS.  <b>Either</b> 4 or 7 character if submission made by paper to DOE	<b>Must</b> be 7- character if submission made by ETS.  <b>Either</b> 4 or 7 character if submission made by paper to DOE	7-character (paper form to DOE or electronic submission via ETS)	<b>Must</b> be 4- character if submission made by ETS.  <b>Either</b> 7 or 4 character if submission made by paper to DOE	<b>Must</b> be 4- character if submission made by ETS.  <b>Either</b> 7 or 4 character if submission made by paper to DOE
<b>AC5-V2</b> ** <i>Custom Processing Fees Paid Production Years 1997 and onwards</i>	4-character (paper form submitted to DOE)	<b>Either</b> 4 or 7 character (paper form submitted to DOE)	<b>Either</b> 4 or 7 character (paper form submitted to DOE)	7 character (paper form submitted to DOE)	<b>Either</b> 7 or 4 character (paper form submitted to DOE)	<b>Either</b> 7 or 4 character (paper form submitted to DOE)
<b>AC10</b> <i>Application for Plant Type Code and Transportation Region Code</i>	4-character (paper form submitted to DOE)	Not Applicable <b>(Form Eliminated)</b> Registry Processes (within Facility Infrastructure) replace form	Not Applicable <b>(Form Eliminated)</b> Registry Processes (within Facility Infrastructure) replace form	Not Applicable Submission is made by an Operator	Not Applicable <b>(Form Eliminated)</b> Registry Processes (within Facility Infrastructur e) replace form	Not Applicable <b>(Form Eliminated)</b> Registry Processes (within Facility Infrastructure) replace form
<b>GRI</b> <i>Application to Grandfather Co-Generation or Long-Term Contracts</i>	Not Applicable No Facility Field on Form; Form no longer accepted by DOE	Not Applicable No Facility Field on Form; Form no longer accepted by DOE	Not Applicable No Facility Field on Form; Form no longer accepted by DOE	Not Applicable no new forms accepted by DOE	Not Applicable no new forms accepted by DOE	Not Applicable no new forms accepted by DOE
<b>GR2</b> <i>Annual Statement of Grandfathered Contract Sales</i>	Not Applicable No Facility Field on Form	Not Applicable No Facility Field on Form	Not Applicable No Facility Field on Form	Not Applicable Non-Operators have not applied for this program	Not Applicable Non- Operators have not applied for this program	Not Applicable No Non-Operators have applied for this program

Form/ Submission Made to DOE	Facility Length (GP/GS/IF/MS) Prod Periods < Sept 2002; Pre Registry Launch	Facility Length (GP/GS/IF/MS) Prod Periods < Sept 2002; Post Registry Launch	Facility Length (GP/GS/IF/MS) Prod Periods Sept 2002 and beyond; Post Registry Launch	BA Non-Op Length Prod Periods < Sept 2002; Prior to Aug 1, 2002	BA Non-Op Length Prod Periods < Sept 2002; After Aug 1, 2002	BA Non-Op Length Prod Periods Sept 2002 and beyond; Post Registry Launch
<b>ICC1</b> <i>Invoice Consolidation Concurrence</i>	Not Applicable No Facility Field on Form	Not Applicable No Facility Field on Form	Not Applicable No Facility Field on Form	7 character (paper submission to DOE)	<b>Either</b> 7 or 4 character (paper form submitted to DOE)	<b>Either</b> 7 or 4 character (paper form submitted to DOE)
<b>NGL1</b> <i>NGL Valuation and Transportation</i>	Not Applicable No Facility Field on Form	Not Applicable No Facility Field on Form	Not Applicable No Facility Field on Form	Not Applicable Non Operators do not submit this form	Not Applicable Non Operators do not submit this form	Not Applicable Non Operators do not submit this form
<b>NGL2</b> <i>Storage Costs (1994 only)</i>	Not Applicable Form no longer exists	Not Applicable Form no longer exists	Not Applicable Form no longer exists	Not Applicable Form no longer exists	Not Applicable Form no longer exists	Not Applicable Form no longer exists
<b>OAS</b> <i>Owner Activity Statement</i>	4-character (electronically submitted to DOE)	<b>Either</b> 4 or 7 character (electronically submitted to DOE)	Not Applicable <b>OAS is eliminated</b> for prod periods Sept 2002 and beyond	7 character (electronically submitted to DOE)	<b>Either</b> 7 or 4 character (electronical ly submitted to DOE)	Not Applicable <b>OAS is eliminated</b> for prod periods Sept 2002 and beyond
<b>OC1</b> <i>Facility Operator Change Form</i>	4-character (paper form submitted to DOE)	<b>Must</b> be 7 character (NOTE: OC1 is eliminated and replaced by a Registry process which handles facility operator changes)	<b>Must</b> be 7 character (NOTE: OC1 is eliminated and replaced by a Registry process which handles facility operator changes)	Not Applicable Submission is made only by operators	Not Applicable Submission is made only by operators. Additionally , OC1 is eliminated and replaced by Registry processes.	Not Applicable Submission is made only by operators. Additionally, OC1 is eliminated and replaced by Registry processes.
<b>PW1</b> <i>Monthly Statement of Proprietary Gas – Royalty Waived</i>	4-character (paper form submitted to DOE)	<b>Either</b> 4 or 7 character (paper form submitted to DOE)	<b>Must</b> be 7 character (paper form submitted to DOE)	7 character (paper form submitted to DOE)	<b>Either</b> 7 or 4 character (paper form submitted to DOE)	<b>Must</b> be 4 character (paper form submitted to DOE)
<b>RMF1</b> <i>Consolidated Well Group Setup/Change</i>	Not Applicable No Facility Field on Form (paper form submitted to DOE)	Not Applicable No Facility Field on Form (paper form submitted to DOE)	Not Applicable No Facility Field on Form (paper form submitted to DOE)	Not Applicable Submission must be made by an Operator (paper form submitted to DOE)	Not Applicable Submission must be made by an Operator (paper form submitted to DOE)	Not Applicable <b>Form is eliminated</b> for production periods Sept 2002 and beyond

Form/ Submission Made to DOE	Facility Length (GP/GS/IF/MS) Prod Periods < Sept 2002; Pre Registry Launch	Facility Length (GP/GS/IF/MS) Prod Periods < Sept 2002; Post Registry Launch	Facility Length (GP/GS/IF/MS) Prod Periods Sept 2002 and beyond; Post Registry Launch	BA Non-Op Length Prod Periods < Sept 2002; Prior to Aug 1, 2002	BA Non-Op Length Prod Periods < Sept 2002; After Aug 1, 2002	BA Non-Op Length Prod Periods Sept 2002 and beyond; Post Registry Launch
<b>RMF2</b> ** <i>Reassignment of Volumes Setup/Change</i>	Not Applicable No Facility Field on Form (paper form submitted to DOE)	Not Applicable No Facility Field on Form (paper form submitted to DOE)	Not Applicable No Facility Field on Form (paper form submitted to DOE)	7 character (paper form submitted to DOE)	<b>Either</b> 7 or 4 character (paper form submitted to DOE)	<b>Either</b> 7 or 4 character (paper form submitted to DOE)
<b>RMF2-T</b> ** <i>Reassignment of Volumes Termination</i>	4-character (paper form submitted to DOE)	<b>Either</b> 4 or 7 character (paper form submitted to DOE)	<b>Either</b> 4 or 7 character (paper form submitted to DOE)	7 character (paper form submitted to DOE)	<b>Either</b> 7 or 4 character (paper form submitted to DOE)	<b>Either</b> 7 or 4 character (paper form submitted to DOE)
<b>RMF3</b> <i>Single Well/Injection Scheme Setup/Change</i>	4-character (paper form submitted to DOE)	<b>Must</b> be 7 character (paper form submitted to DOE)	<b>Must</b> be 7 character (paper form submitted to DOE)	Not applicable. Submission must be made by an operator (paper form submitted to DOE)	Not applicable. Submission must be made by an operator (paper form submitted to DOE)	Not applicable. Submission must be made by an operator (paper form submitted to DOE)
<b>VA1</b> <i>Election for Gas Valuation</i>	Not Applicable No Facility Field on Form (paper form submitted to DOE)	Not Applicable No Facility Field on Form (paper form submitted to DOE)	Not Applicable No Facility Field on Form (paper form submitted to DOE)	7 character (paper submission to DOE)	<b>Either</b> 7 or 4 character (paper form submitted to DOE)	<b>Either</b> 7 or 4 character (paper form submitted to DOE)
<b>VA2</b> <i>Corporate Average Price Calculation (Gas)</i>	Not Applicable No Facility Field on Form (paper form submitted to DOE)	Not Applicable No Facility Field on Form (paper form submitted to DOE)	Not Applicable No Facility Field on Form (paper form submitted to DOE)	7 character (paper submission to DOE)	<b>Either</b> 7 or 4 character (paper form submitted to DOE)	<b>Either</b> 7 or 4 character (paper form submitted to DOE)
<b>VA3</b> <i>Annual Corporate Average Price Calculation (Sulphur)</i>	Not Applicable No Facility Field on Form (paper form submitted to DOE)	Not Applicable No Facility Field on Form (paper form submitted to DOE)	Not Applicable No Facility Field on Form (paper form submitted to DOE)	7 character (paper submission to DOE)	<b>Either</b> 7 or 4 character (paper form submitted to DOE)	<b>Either</b> 7 or 4 character (paper form submitted to DOE)
<b>VA4</b> <i>Monthly Corporate Average Price Calculation (Sulphur)</i>	Not Applicable No Facility Field on Form (paper form submitted to DOE)	Not Applicable No Facility Field on Form (paper form submitted to DOE)	Not Applicable No Facility Field on Form (paper form submitted to DOE)	7 character (paper submission to DOE)	<b>Either</b> 7 or 4 character (paper form submitted to DOE)	<b>Either</b> 7 or 4 character (paper form submitted to DOE)
<b>OFSG</b> <i>Otherwise Flared Solution Gas Royalty Waiver Program Application Form</i>	Not applicable. Form is only filed by a battery operator (paper form submitted to DOE)	Not applicable. Form is only filed by a battery operator (paper form submitted to DOE)	Not applicable. Form is only filed by a battery operator (paper form submitted to DOE)	Not applicable. Form is only filed by a battery operator (paper form submitted to DOE)	Not applicable. Form is only filed by a battery operator (paper form submitted to DOE)	Not applicable. Form is only filed by a battery operator (paper form submitted to DOE)

Form/ Submission Made to DOE	Facility Length (GP/GS/IF/MS) Prod Periods < Sept 2002; Pre Registry Launch	Facility Length (GP/GS/IF/MS) Prod Periods < Sept 2002; Post Registry Launch	Facility Length (GP/GS/IF/MS) Prod Periods Sept 2002 and beyond; Post Registry Launch	BA Non-Op Length Prod Periods < Sept 2002; Prior to Aug 1, 2002	BA Non-Op Length Prod Periods < Sept 2002; After Aug 1, 2002	BA Non-Op Length Prod Periods Sept 2002 and beyond; Post Registry Launch
<b>TC20</b> <i>Application For Facility To Meter Station Connection</i>	4-character (paper form submitted to DOE)	<b>Either</b> 4 or 7 character (paper form submitted to DOE)	<b>Must</b> be 7 character (NOTE: TC20 <b>eliminated</b> and replaced by Registry processes which handles Meter Station data)	Not applicable. Form is only submitted by an operator (paper form submitted to DOE)	Not applicable. Form is only submitted by an operator (paper form submitted to DOE)	Not applicable. Form is only submitted by an operator (NOTE: TC20 <b>eliminated</b> and replaced by Registry processes which handles Meter Station data)
<b>RGA</b> <i>Raw Gas Allocation</i>	Not applicable. New form created for implementation of the Registry.	Not applicable. New form created for implementation of the Registry.	<b>Must</b> be 7 character if submitted electronically via the Registry.  <b>Either</b> 7 or 4 character if submitted by paper to DOE (non operators only)	Not applicable. New form created for implementatio n of the Registry.	Not applicable. New form created for implementat ion of the Registry.	<b>Must</b> be 4 character if submitted electronically via the Registry.  <b>Either</b> 7 or 4 character if submitted by paper to DOE (non operators only)
<b>SAF/OAF</b> <i>Stream Allocation Factor / Owner Allocation Factor</i>	Not applicable. New form created for implementation of the Registry.	Not applicable. New form created for implementation of the Registry.	<b>Must</b> be 7- character (submitted electronically via the Registry)	Not applicable. New form created for implementatio n of the Registry.	Not applicable. New form created for implementat ion of the Registry.	<b>Must</b> be 4- character (submitted electronically via the Registry)

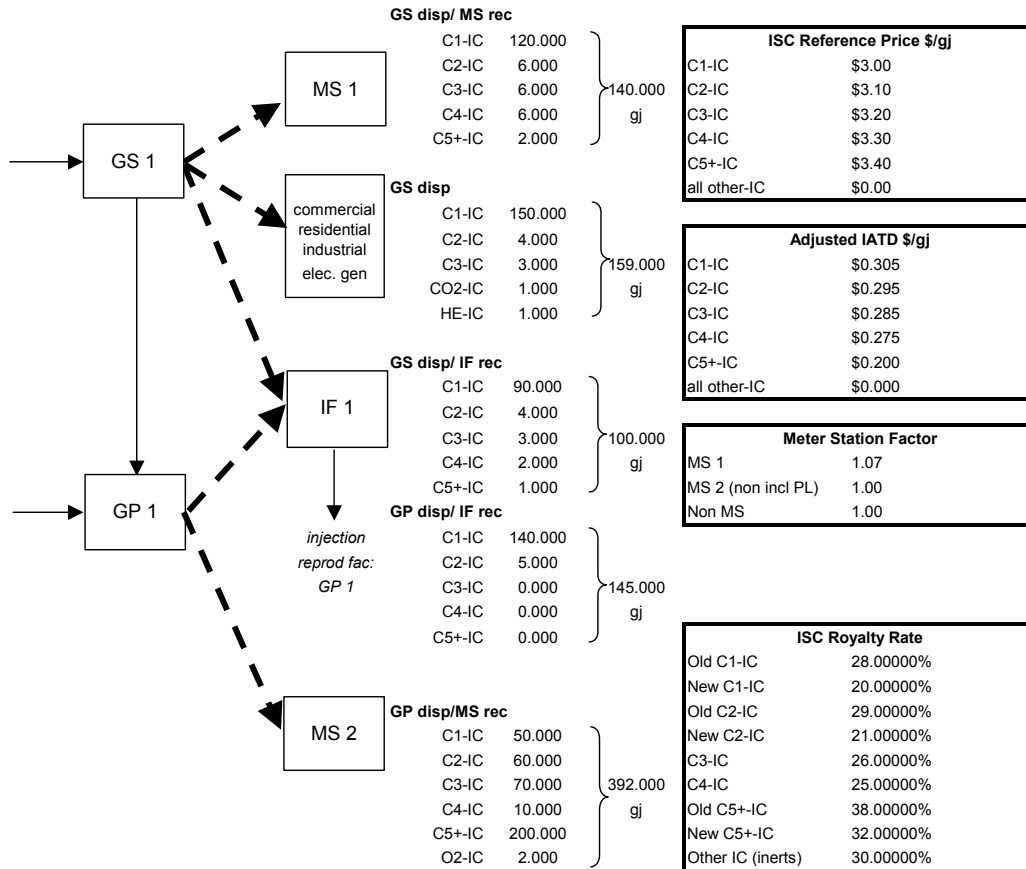
**Appendix C**  
**Registry In Stream Components (ISC) Reporting Table**

<i>For activity at reporting facility and from/to location, submitter must report ISC, along with the Gas volumetric submission to the Registry.</i>			
<b>Submitter</b>	<b>Reporting Facility</b>	<b>Activity</b>	<b>From/To Location</b>
Pipeline Operators	AB PL	REC	AB MS sub type 631
Meter Station Operators, or Common Stream Operators	AB MS with link to a non reporting PL,  AB MS where Registry auto population is not elected	REC	Any AB location
Mainline Straddle Plant Operators	AB GP sub type Mainline Straddle	REC	AB BT, AB GS, AB GP
Field Straddle Plant Operators	AB GP sub type Field Straddle	REC	Any AB location
Injection Facility Operators	AB IF	REC	Any AB location
Battery, Gathering System or Gas Plant Operators	AB BT, GS, or GP	DISP	AB RE, AB CO, AB IN, AB EG, AB R1, AB R2
Battery, Gathering System or Gas Plant Operators	AB BT, GS, or GP	DISP	Any non AB location
Raw Gas Sellers	Report ISC factors of raw gas stream on RGA Submission		

AB	Alberta	BT	Battery	CO	Commercial
EG	Electrical Generation	GP	Gas Plant	GS	Gathering System
IF	Injection Facility	IN	Industrial	MS	Meter Station
PL	Pipeline	RE	Residential	R1/R2	Residential Pipeline

## Appendix D Facility Average Royalty Rate (FARR) and Facility Average Price (FAP) Calculation Example

**Schematic**



Dotted arrows indicate deliveries out of the royalty network. These deliveries are royalty trigger deliveries. Injection credits are based on net receipts at injection facilities.

**Above is a schematic depicting a network of facilities receiving and delivering gas. The FARR and FAP calculations following illustrate the weighted average calculation of gas royalty rates gas valuation prices at each royalty trigger facility.**

**Legend:**

- |  |                                       |                                |
|--|---------------------------------------|--------------------------------|
| <b>C1-IC</b> Methane                               | <b>C2-IC</b> Ethane In Stream         | <b>C3-IC</b> Propane In Stream |
| <b>C4-IC</b> Butane In Stream                      | <b>C5+-IC</b> Pentanes Plus In Stream | <b>GS</b> Gathering System     |
| <b>disp</b> Disposition                            | <b>rec</b> Receipts                   | <b>GP</b> Gas Plant            |
| <b>IATD</b> Intra Alberta Transportation Deduction |                                       | <b>IF</b> Injection Facility   |
| <b>MS</b> Meter Station                            |                                       |                                |

FARR calculation (note: energy from inerts are excluded from FARR calculation)

Facility	Vintage	Product	Delivery/Rec		(1)	(2)	3=1*2	4=SUM(3)/SUM(1)
			Location	Energy (GJ)	R%	Base Royalty Energy (GJ)	Avg R%	
GS 1	old	C1-IC	MS 1		120.000	28.00000%	33.600	
			commercial		150.000	28.00000%	42.000	
			IF 1		90.000	28.00000%	25.200	
		C2-IC	MS 1		6.000	29.00000%	1.740	
			commercial		4.000	29.00000%	1.160	
			IF 1		4.000	29.00000%	1.160	
		C3-IC	MS 1		6.000	26.00000%	1.560	
			commercial		3.000	26.00000%	0.780	
			IF 1		3.000	26.00000%	0.780	
		C4-IC	MS 1		6.000	25.00000%	1.500	
			IF 1		2.000	25.00000%	0.500	
			MS 1		2.000	38.00000%	0.760	
		C5+-IC	MS 1		2.000	38.00000%	0.760	
			IF 1		1.000	38.00000%	0.380	
<b>GS 1</b>	<b>old</b>			<b>397.000</b>		<b>111.120</b>	<b>27.98992%</b>	
GS 1	new	C1-IC	MS 1		120.000	20.00000%	24.000	
			commercial		150.000	20.00000%	30.000	
			IF 1		90.000	20.00000%	18.000	
		C2-IC	MS 1		6.000	21.00000%	1.260	
			commercial		4.000	21.00000%	0.840	
			IF 1		4.000	21.00000%	0.840	
		C3-IC	MS 1		6.000	26.00000%	1.560	
			commercial		3.000	26.00000%	0.780	
			IF 1		3.000	26.00000%	0.780	
		C4-IC	MS 1		6.000	25.00000%	1.500	
			IF 1		2.000	25.00000%	0.500	
			MS 1		2.000	32.00000%	0.640	
		C5+-IC	MS 1		2.000	32.00000%	0.640	
			IF 1		1.000	32.00000%	0.320	
<b>GS 1</b>	<b>new</b>			<b>397.000</b>		<b>81.020</b>	<b>20.40806%</b>	
GP 1	old	C1-IC	IF 1		140.000	28.00000%	39.200	
			MS 2		50.000	28.00000%	14.000	
		C2-IC	IF 1		5.000	29.00000%	1.450	
			MS 2		60.000	29.00000%	17.400	
		C3-IC	MS 2		70.000	26.00000%	18.200	
		C4-IC	MS 2		10.000	25.00000%	2.500	
		C5+-IC	MS 2		200.000	38.00000%	76.000	
		<b>GP 1</b>	<b>old</b>			<b>535.000</b>		<b>168.750</b>
GP 1	new	C1-IC	IF 1		140.000	20.00000%	28.000	
			MS 2		50.000	20.00000%	10.000	
		C2-IC	IF 1		5.000	21.00000%	1.050	
			MS 2		60.000	21.00000%	12.600	
		C3-IC	MS 2		70.000	26.00000%	18.200	
		C4-IC	MS 2		10.000	25.00000%	2.500	
		C5+-IC	MS 2		200.000	32.00000%	64.000	
		<b>GP 1</b>	<b>new</b>			<b>535.000</b>		<b>136.350</b>
IF	old	C1-IC	GS		90.000	28.00000%	25.200	
			GP		140.000	28.00000%	39.200	
		C2-IC	GS		4.000	29.00000%	1.160	
			GP		5.000	29.00000%	1.450	
		C3-IC	GS		3.000	26.00000%	0.780	
		C4-IC	GS		2.000	25.00000%	0.500	
		C5+-IC	GS		1.000	38.00000%	0.380	
<b>IF</b>	<b>old</b>			<b>245.000</b>		<b>68.670</b>	<b>28.02857%</b>	
IF	new	C1-IC	GS		90.000	20.00000%	18.000	
			GP		140.000	20.00000%	28.000	
		C2-IC	GS		4.000	21.00000%	0.840	
			GP		5.000	21.00000%	1.050	
		C3-IC	GS		3.000	26.00000%	0.780	
		C4-IC	GS		2.000	25.00000%	0.500	
		C5+-IC	GS		1.000	32.00000%	0.320	
<b>IF</b>	<b>new</b>			<b>245.000</b>		<b>49.490</b>	<b>20.20000%</b>	

Note: FARR at IF is based on ISC receipts at IF

FARR at crown royalty facilities are based on royalty trigger ISC dispositions at those facilities

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FAP calculation (note: energy from inerts are excluded from FAP calculation)

Facility	Product	Location	(1) quantity GJ	(2) Ref Price	(3)=(1)*(2)	(4) Adjusted IATD	(5)=(1)*(4)	(6) Meter Station Factor	(7)=(6)*(1)	(8)=Sum(3)/Sum(1) Facility Ref Price	(9)=Sum(5)/Sum(1) Facility Adj IATD	(10)=Sum(7)/Sum(1) Royalty Trig Factor	(11)=[(10) - 1]*(9) Gas Transportation Adjustment	(12)=(8)-(11) Valuation Price (FAP)
GS 1	C1-IC	MS 1	120.000	\$3.00	\$360.00	\$0.305	\$36.60	1.07	128.400	\$3.02	\$0.303	1.02	\$0.01	\$3.01
		commercia	150.000	\$3.00	\$450.00	\$0.305	\$45.75	1.00	150.000					
	C2-IC	IF 1	90.000	\$3.00	\$270.00	\$0.305	\$27.45	1.00	90.000					
		MS 1	6.000	\$3.10	\$18.60	\$0.295	\$1.77	1.07	6.420					
	C3-IC	commercia	4.000	\$3.10	\$12.40	\$0.295	\$1.18	1.00	4.000					
		IF 1	4.000	\$3.10	\$12.40	\$0.295	\$1.18	1.00	4.000					
	C4-IC	MS 1	6.000	\$3.20	\$19.20	\$0.285	\$1.71	1.07	6.420					
		commercia	3.000	\$3.20	\$9.60	\$0.285	\$0.86	1.00	3.000					
	C5+-IC	IF 1	3.000	\$3.20	\$9.60	\$0.285	\$0.86	1.00	3.000					
		MS 1	6.000	\$3.30	\$19.80	\$0.275	\$1.65	1.07	6.420					
<b>GS 1</b>			<b>397.000</b>		<b>\$1,198.40</b>		<b>\$120.15</b>		<b>406.800</b>					
GP 1	C1-IC	IF 1	140.000	\$3.00	\$420.00	\$0.305	\$42.70	1.00	140.000	\$3.19	\$0.261	1.00	\$0.00	\$3.19
		MS 2	50.000	\$3.00	\$150.00	\$0.305	\$15.25	1.00	50.000					
	C2-IC	IF 1	5.000	\$3.10	\$15.50	\$0.295	\$1.48	1.00	5.000					
		MS 2	60.000	\$3.10	\$186.00	\$0.295	\$17.70	1.00	60.000					
	C3-IC	MS 2	70.000	\$3.20	\$224.00	\$0.285	\$19.95	1.00	70.000					
	C4-IC	MS 2	10.000	\$3.30	\$33.00	\$0.275	\$2.75	1.00	10.000					
<b>GP 1</b>			<b>535.000</b>		<b>\$1,708.50</b>		<b>\$139.83</b>		<b>535.000</b>					
IF 1	C1-IC	GS	90.000	\$3.00	\$270.00	\$0.305	\$27.45	1.00	90.000	\$3.01	\$0.304	1.00	\$0.00	\$3.01
		GP	140.000	\$3.00	\$420.00	\$0.305	\$42.70	1.00	140.000					
	C2-IC	GS	4.000	\$3.10	\$12.40	\$0.295	\$1.18	1.00	4.000					
		GP	5.000	\$3.10	\$15.50	\$0.295	\$1.48	1.00	5.000					
	C3-IC	GS	3.000	\$3.20	\$9.60	\$0.285	\$0.86	1.00	3.000					
	C5+-IC	GS	2.000	\$3.30	\$6.60	\$0.275	\$0.55	1.00	2.000					
<b>IF 1</b>			<b>245.000</b>		<b>\$737.50</b>		<b>\$74.41</b>		<b>245.000</b>					

Note: Injection Credit is based on the FAP of the reproducing facility  
 In this example, injection credit would be assessed at \$3.19. If the injection facility does not have a reproducing facility, the injection credit would then be assessed at \$3.01 (FAP of the injection facility).