

[PASC LOGO]

# Accounting for Shared Pad Site Costs

**ACCOUNTING GUIDELINE**

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## **Preface**

The Board of Directors of the Petroleum Accountants Society of Canada approves.....

The Board of Directors acknowledges and extends its sincere appreciation to the members of the Shared Pad Project Team and the PASC Joint Interest Research Committee for their contribution to this document.

We would like to thank COPAS for the use of its Shared Well Pad Cost Allocations Accounting Guideline for reference purposes only.

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# DISTRIBUTION OF SHARED PAD COSTS

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## **I. INTRODUCTION**

With the ongoing improvements in horizontal well technology, it is becoming increasingly common for wells to share a single pad (“shared pad”). This results in a reduced environmental footprint, and may also reduce costs for capital and operating.

Shared pads will have more than one well, some that are initially constructed as multi-well pads or others that are expanded at a later date. Wells sharing the pad may have a common working interest ownership or different working interest ownerships if they are subject to different Joint Operating Agreements (JOAs), pooling, payout, carried, non-consent or reversionary interests.

Pad drilling was not contemplated when many of these JOAs were executed. As a result, JOAs and Accounting Procedures do not adequately address shared pad cost variations, associated drilling or access and operational issues.

Shared pads are usually planned by the Operator before the initial work to build the pad has begun. It is recommended the parties enter into a written agreement stipulating the preferred method for allocating initial construction costs, ongoing costs of maintenance and operation, and sharing of abandonment and reclamation costs for the site (including shared surface equipment disposal credits). While initially pad operations may be or appear to be fairly simple and straightforward to not justify a separate agreement (due to common ownership of the wells and the pad site under a single JOA), pad development would be more easily managed if an agreement is in place from the onset.

The parties will also need to address the impact of early abandonment of individual wells. When an individual well is abandoned prior to all remaining wells on the pad, the agreement may require the well owners to pay a proportionate share of the estimated reclamation costs, less estimated salvage value, to the owners of the remaining wells on the pad or to a segregated account maintained and administered by the operator of the pad.

The fundamental principles of shared pad allocations is that cost sharing should be equitable, consistent and align, to the extent possible, to the benefits each well and owner receives. Existing wells on a pad should not bear any costs when subsequent wells are added unless the additional costs benefit the whole pad. Newer wells should not be responsible for the cost of the existing wells and pad, which does not provide value to them. This will be recognized when they are equalized into the pad.

There will typically be one Operator for a pad because of operating logistics, safety considerations and regulations such as Occupational Healthy and Safety and licensing.

An allocation procedure may not be necessary if all wells have the same ownership. However, consideration should be given to setting up the pad expenditure accounting based on the principles outlined in this Accounting Guideline for ease of accounting should additional wells be added to the pad at a later date.

Prepared in collaboration with the Joint PJVA/CAPL Pad Site Sharing Agreement Task Force, this Accounting Guideline is intended to aid in the understanding of shared pad cost allocation and accounting issues and to provide guidelines in applying reasonable allocation concepts. The document is intended to supplement the provisions of the 2017 Pad Site Sharing Agreement that is currently being developed. Where more than one method to equitably allocate costs exists, suggested alternatives have

also been provided. Guidance provided in this Accounting Guideline is subject to provisions in the 2017 Pad Site Sharing Agreement, or other governing agreement, and in the event of a conflict, the governing agreement shall prevail.

## **II. STRUCTURE AND SHARING OF THE PAD ACCOUNT**

A separate pad account should be set up independent of the associated well(s) to capture all related pad costs and to manage cost sharing. All costs should be recorded into two major groups:

- 1. Capital Costs**
- 2. Operating Costs**

Within each of these two groups, separate categories are necessary because some pad costs may not benefit all wells on the pad. Costs should be divided into three main categories, each with different owner sharing percentages:

- 1. Costs to be shared by all wells on the pad** that benefit all wells on the pad and shared proportionately by all owners.
- 2. Costs to be shared with a subset of wells on the pad** that benefit more than one well on the pad, but not all wells and shared by the owners of the subset group of wells only.
- 3. Well-specific costs that benefit only an individual well** that should be charged directly to the well, not allocated to the pad and shared by the owners of the specific well.

The definition of Capital or Operating Costs would be as stipulated in the governing agreement (i.e. the governing agreement for the shared pad or in the case of a pad constructed for a single well, the JOA under which the pad was constructed). Allowable or chargeable costs, associated overheads and approval requirements would be as set out in the governing agreement and the Accounting Procedure attached to the governing agreement for the pad site.

Appendix I sets out a basis for sharing identified costs among wells on the pad.

## **III. OBLIGATION DATE FOR WELL PORTION OF SHARED PAD COSTS**

Each well sharing a pad shall pay a proportionate share of pad costs, however, as wells may not be drilled at the same time, existing pad capital costs must be allocated to subsequent wells within a reasonable time frame of the proposed addition of a well to the pad. In the absence of an agreement, or if the agreement is silent, it is recommended that the spud date be used as a start date for capital cost allocations. This date is easily identifiable and is the point in time when the well starts to use the pad. Costs incurred by the new well(s) for accessing pad owned facilities, incurred before the spud date should be charged to the well(s). The obligation date for sharing the pad production expenses will be the date of first production of the well.

If a pad is adapted or expanded solely to accommodate a proposed well/multi-well program that is cancelled prior to the spud date, the owners of the proposed well(s) are responsible for the capital costs associated with the expansion activities, but not for the original pad costs. If a pad is adapted for a new

well that turns out to be a dry hole, the owners of the dry hole are responsible for a proportionate share of well pad capital costs incurred to support the new well. In both these cases the owners of the failed wells become part owners of the capital cost of the pad and as owners of the asset may sell their ownership subject to the governing agreement.

#### **IV. ALTERNATIVE METHOD FOR CHARGING NEW WELLS**

When historical capital costs are unknown or to reduce administrative costs, an estimated value can be used for the pad and/or the related infrastructure or production equipment. A percentage of this estimated value would be charged to the well(s). This method of valuation should be used consistently for this pad. The Operator should ensure that a method be applied consistently, and the justification for using this method is well documented and approved by the partners.

#### **V. MAJOR CAPITAL & OPERATING COSTS**

##### **A. Roads**

###### **1. Capital**

The access road to the well pad is usually built before or concurrent with the pad. Cost sharing for the construction of the access road is usually determined by the parties (owners) of the original well(s). Wells drilled after this time should pay for their share of this road or a Road Use Agreement should be entered into. When a capital upgrade is required, this cost should be for all wells that will benefit, and any Road Use Agreements should be adjusted to reflect this cost increase.

Costs for repairing a road due to damage caused during drilling, completion or other capital undertakings should be allocated only to the wells whose activity caused the road damage. Should multiple wells be impacted, the costs to repair should be charged to this well sub-group.

###### **2. Operating**

A separate expense cost center for the access road should be set up to record costs and revenues. Costs for repairing a road due to ongoing operations would be considered a lease operating expense and shared amongst the owners of the road. Costs for repairing a road due to damage caused during expense workovers or other expense related work should be allocated only to the well(s) whose activity caused the road damage.

##### **B. Surface Rights and Right-of-Ways**

###### **1. Capital**

Surface Agreements between the Lease Owner (which may or may not be the pad operator) and the landowner must set out the terms of use including possible expansion of the pad. This agreement may stipulate a payment for the pad construction and equal payment per well, one payment that covers all wells on the pad or another payment arrangement. If there is an equal payment per well, an allocation may not be necessary, however if one payment covers all wells drilled, an allocation would be required to split the payment among the wells. If the payment for the first well is large and subsequent payments are smaller, the payments should be pooled and allocated equitably. The

pad operator should initially be responsible for the payment of the surface rentals related to the pad operation on behalf of the pad owners.

The surface land payments associated with pad production facilities should be treated as part of the facility investment cost and allocated to all the wells that use the facility.

Right-of-way or easement costs should be shared by the wells that benefit from the right-of-way or easement.

## **2. Operating**

The pad operator should be responsible for the payment and distribution of all expenses relating to surface rentals for the pad operations. Should the pad facilities have a different ownership from the well group then an equitable allocation between the facilities and the well group will need to be established.

## **C. Site (Location) Costs**

### **1. Capital**

The majority of location-related costs provides a direct benefit to all wells and should be shared by all wells on the pad. Some examples of this are: surveying the site, location construction, berm construction, landscaping and permanent fencing for the pad. Wells that are drilled at a later date should also share these costs through a capital equalization adjustment. To reduce the administration of doing equalizations a time period can be set for this process such that all wells drilled during a period of 4 years from the date of completion of the initial construction are equalized. After expiry of the 4 years, a flat fee would be set for any new wells/owners.

Materials and services that are well-specific should be charged to the individual well. Some examples are the drilling of the conductor, rat and mouse holes, setting anchors, well signs and similar or related costs. Restoring a location after drilling, completion or abandonment should be charged to the well, unless incurred as part of a multi-well program, in which case they should be allocated to the wells involved in the operation to which the restoration activities relate.

Some costs may benefit a particular subset of wells. If new wells are drilled, completed or abandoned, there may be costs that benefit them. For example, if the pad needs to be expanded to allow for the new wells, the cost of this expansion should be shared by all the new wells for which the expansion was required. Once the costs are paid by this group of new well owners, they would then own a part of the shared pad. The pad ownership would then need to be re-determined on an equitable base to reflect the revised ownership of the expanded pad. Terms by which the new owners would share in any existing or prior liabilities associated with the original pad, such as environmental liabilities, would need to be considered upon re-equalization of the original pad ownership.

## **D. Drill Rig and Completion Equipment Mobilization and Demobilization Costs**

### **1. Capital**

When drilling multiple wells on the same pad, it is a common practice to drill the wells consecutively using the same rig. This usually results in a large rig transportation and assembly

charge for the first well and large demobilization costs for the last well. The first well drilled should not have to bear these costs for simply being the first well to drill on the pad. Typically, succeeding wells usually incur a smaller charge to skid the rig on the pad. For multi-well programs, the mobilization, rig-up and demobilization costs should be pooled and allocated to the wells drilled by that rig.

On larger pads, the completion equipment, which includes the equipment to fracture the well, may remain on the pad until all wells in the completion program are completed. This can be many weeks because of the number of fractures required per well. Should the mobilization or standby charges be significant, they should be handled the same as the rig demobilization costs.

Program mobilization and demobilization costs should be allocated to all the wells in a program including wells not on the same well pad.

## **E. Flowlines and Pipelines**

### **1. Capital**

The well flowline that connects an individual well to the shared production equipment should be a well specific charge. The capital cost of pipelines that serve more than one well should be shared by the wells that use the line. The ownership of common pipelines should be established at the time the common pipeline is installed and may be re-equalized as new wells are tied in.

### **2. Operating**

Unless operating costs are significant, they should be shared on the basis of ownership. Any non-owner usage would be charged a fee, shared by the owners of the pipeline based on their ownership or other basis if stipulated in the governing agreement.

## **F. Electrical Lines**

### **1. Capital**

Electrical lines and infrastructure installed for the well pad should be allocated among the wells that share the lines and infrastructure.

### **2. Operating**

The electrical demand and consumption charges need to be charged to the wells and facilities that they apply to.

## **G. Mud Costs**

### **1. Capital**

Drilling mud costs are usually well-specific, however on a pad the same mud could be used on more than one well. Should this occur, the costs of mud used should be transferred and recorded against the subsequent well(s).

When there is not a closed-loop type system to handle the drilling mud disposal for each well, consecutively drilled wells can often share a pit. The drilling mud disposal and pit reclamation, including environmental, costs should be shared equitably among the wells that used the pit.

## **H. Production Equipment**

### **1. Capital**

Capital equipment serving one well should be charged to that well. The capital cost for production equipment that serves more than one well should be equitably allocated to the wells served, i.e., equal shares to each well and each completion. Various methods exist, such as well count/ownership, reserves, annual production, etc. to allocate these costs. The basis should be negotiated and agreed to in advance of the installation and included along with supporting working papers in the approval document.

It should be noted that some wells may not need all of the production equipment on a pad. When allocating capital to the wells, the concepts of fairness and equity establish that an existing well would not typically bear additional costs when subsequent wells are added. However, while this principle does not mean an existing well should get newer equipment for free, it does mean that the amount an existing well is allocated should match the benefit it receives to the extent possible and within reason. An existing well may receive benefit in the form of newer equipment and improved operational efficiency, but may not receive benefit from additional capacity. If the parties to an agreement determine that an existing well is receiving a share of newer equipment that in essence extends the life of the production handling facilities more than the well needs, the parties should determine and agree on the basis by which the capital for the new equipment should be shared.

### **2. Operating**

Costs of operating and maintaining production equipment should be shared on the basis of ownership unless the governing agreement specifies otherwise. Caution should be taken if considering a more complex cost-sharing basis such as a throughput basis for sharing if the pad wells are of similar stream composition and ownership. Variations in ownership and stream composition can easily be factored into the capital investment/ownership calculations to simplify the sharing of operating costs.

## **I. Infrastructure Costs Serving Multiple Pads**

### **1. Capital**

Capital infrastructure costs can benefit multiple pads and should be shared by all wells on all pads that receive a benefit. Examples of these types of costs are multiple pad construction projects, water supply systems, storage lots, electrical distribution systems, and road installation and upgrades. Various methods exist, such as well count/ownership, reserves, annual production, etc. to allocate these costs. The basis should be negotiated and agreed to in advance of the installation and included along with supporting working papers in the approval document. An AFE should be created to capture each undertaking separately and independent of other capital costs to facilitate redistribution or re-equalizing the costs among existing and new wells in future.

### **2. Operating**

Operating infrastructure costs can benefit multiple pads and should be shared by all wells on all pads that receive a benefit. Examples of these types of costs are water supply systems, storage lots, electrical distribution systems, and road upgrades. One allocation method may be to create a cost center to accumulate the costs for each project and allocate the costs evenly to existing wells. As future wells are drilled, the allocation can be adjusted such that all costs are re-distributed amongst both existing and new wells.

## **J. Dry Holes**

### **1. Capital**

Dry holes should bear a share of the initial pad capital allocation, pad abandonment/reclamation costs and common items such as location costs as the obligation for a well's portion of shared pad capital arises at the date the well is spud.

### **2. Operating**

Similarly any ongoing operating expenses such as lease rentals and other site costs would be chargeable to a dry hole. While considered operating costs for the pad, the costs may be recorded as capital costs by the well owners.

## **VI. HANDLING SPECIFIC PAD & RELATED COSTS**

### **A. Well-Specific Operating Costs**

Operating costs that are well-specific (benefit only an individual well) should be charged directly to the well and not allocated to the pad. Some examples of this are well workovers, chemicals required for down hole issues, well pressure testing, repairs and maintenance of the wellbore and wellhead, repairs for equipment serving only that well, non-routine services and labour required for the well, mineral rentals, water disposal, gathering and processing, well property tax, regulator well levies, etc.

### **B. Operating Costs Shared by a Subset of Wells on the Pad**

Operating costs that benefit more than one well on the pad, but not all wells, should be allocated to the wells which benefit from the costs. Some examples of this are operating labour when all wells are not producing, repair and maintenance costs for pad facilities that do not serve all wells, etc.

### **C. Operating Costs Shared by All Wells on the Pad**

Operating costs that benefit all wells on the pad should be shared among all wells. Some examples of this are routine road maintenance, snow plowing, surface lease rentals, pad maintenance and repairs, light repairs, fence repairs, site office costs, weed control, electricity/power, etc.

### **D. Shut-In, Suspended or Abandoned Wells**

It is recommended that only direct operating labour be charged to a "permanently" shut-in, suspended or abandoned well. These wells will also have some other operating charges however they should not have many charges that the producing wells do.

### **E. Production Expenses**

Production expenses that apply to both the wells and facilities on the pad need to be allocated to each well group or sub-group on an equitable basis. The operating costs for the facilities then need to be distributed to the individual wells that use it. Distribution could be done by various methods, such as:

1. Well count, should all the wells be approximately the same production.
2. A throughput adjustment, accounting for a user fees should there be non-owners in the facilities.
3. On a different basis if the facilities are complex. Consideration should be given to preparing a Facility Construction, Ownership and Operating Agreement for complex facilities and/or complex ownership structures.

It is highly recommended that accounting for production expenses be made as simple as possible (e.g. ownership basis) and that there be significant value to the Owners before a more complicated (e.g. throughput basis) accounting method is adopted.

#### **F. Wells Shut in to Allow Work on Well Pad**

Any well shut-in for non-emergency work may require other wells on the pad to also be shut in or change their rate of production. Compensation for any deferred production may be addressed in the agreement or agreed to prior this work being done.

### **VII. ABANDONMENT & RECLAMATION OF THE SHARED PAD SITE**

This guideline sets out two methods for final reclamation costs;

#### Option 1:

All owners of the pad remain owners until the pad site is fully reclaimed. There is a risk of non-payment by an owner entity who may no longer exist or be hard to trace and also an owner whose production has long since been abandoned.

#### Option 2:

At the onset, the parties could agree and document on an exit cost sharing strategy involving advance payment of estimated future pad reclamation costs as each well is abandoned. The arrangement may involve each owner of a well that is being abandoned, paying a proportionate share of the estimated reclamation costs less estimated salvage value to the owners of the remaining wells of the pad or to a segregated account or some other mechanism. Any required payments should be done at the time of the well abandonment and prior to the release and discharge of the well owner from obligations under the shared pad agreement. The Operator may obtain bids or appraisals to help estimate the reclamation costs for each well, this estimate should be based on a Phase 1 or a Phase 2(if required) environmental assessment as outlined by the Pad Site Sharing Agreement and paid for by the owners of the well proposed for abandonment. The pad ownership will be re-equalized and this payment will go to the remaining owners of the pad.

If the governing agreement for the shared pad does not address share sharing of final abandonment and reclamation costs, it is recommended that as each well is abandoned the parties negotiate the sharing of shared pad abandonment and reclamation costs.

The initial reclamation of a well, including any spills or other environmental liabilities related to that well, should be paid for by the owners of that well.

Should there be different ownership of the common facilities relating to the pad, the decommissioning, abandonment and reclamation charges for these should be at that ownership percentage.

Appendix I  
Sample Basis for Sharing  
Capital, Operating and Abandonment Costs

**CAPITAL COSTS**

	Individual Wells	All Wells	Comment	Recommended Basis	Adjustment Frequency
Pad Construction and Installation Costs		X		Well Count	Upon completion of installation and equalized as new wells are drilled
Pad Expansion Costs		X		Well Count	Upon completion of expansion and equalized as new wells are drilled
Well Drilling Costs	X				
Well Completion Costs	X				
Well Equipping Costs (e.g. wellhead)	X				
Installation of Common Equipment (e.g. group meter, satellite dishes, lease trailer, buildings, etc; excludes roads)		X	Unless equipment is used by a subset of all wells	Well Count or as otherwise agreed by Owners	Upon completion of installation and equalized as new wells are drilled
Pad Site Compressor or Other Production Equipment Installation Costs (Optional)		X	Unless equipment is used by a subset of all wells	Well Count or as otherwise agreed by Owners	Upon completion of installation and equalized as new wells are drilled
Flowline Installation Costs		X	Unless equipment is used by a subset of all wells	Well Count or as otherwise agreed by Owners	Upon completion of installation and equalized as new wells are drilled
Road Construction Costs (Includes Road Upgrade Costs)		X		Well Count	Upon completion of installation and/or upgrade and equalized as new wells are drilled

### OPERATING EXPENSES (OPERATIONS & MAINTENANCE)

	Individual Wells	All Wells	Comment	Recommended Basis	Adjustment Frequency
Well Operations & Maintenance	X				
Pad Site Operations & Maintenance (Routine repair and maintenance)		X	Exclude D&A Wells		
Lease Maintenance (Routine repair and maintenance)		X	Exclude D&A Wells		
Common Equipment Operating		X	Exclude D&A Wells		
Pad Site Compressor or Other Production Equipment Operating Costs		X	Exclude D&A Wells		
Flowline Operating Costs		X	Exclude D&A Wells		
Road Operating Costs (Routine repair and maintenance)		X	Exclude D&A Wells		

### ABANDONMENT & RECLAMATION COSTS

	Individual Wells	All Wells	Comment	Recommended Basis	Adjustment Frequency
Wells	X				
Pad		X	Include D&A Wells	Well Count	
Lease		X	Include D&A Wells	Well Count	
Common Equipment		X	All Previously Producing Wells	Well Count	
Pad Site Compressor or Other Production Equipment		X	All Previously Producing Wells	Well Count	
Flowline		X	All Previously Producing Wells	Well Count	
Road		X	Include D&A Wells	Well Count	