

# ELM COULEE FIELD EOR FEASIBILITY STUDY

By: Montana Tech Petroleum Engineering

For: Montana Board of Oil and Gas Conservation

Fall 2012 Progress Report



# Elm Coulee Database

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## □ Contents

- Completion Data
- Production Data
- Open Hole Log Data
- Core & Fluid Data

## □ Structure

- Microsoft Access contains all completion data
- Access interfaces with Excel, which contains all production data
- Access will interface with open hole log data, which is currently filed in Petra format
- Access will contain all core and fluid data

## □ Entries to date

- Completion Data – 635 horizontal wells  
267 vertical wells
- Production Data – 745 horizontal wells
- Open Hole Log Data, Core & Fluid Data – no entries

# Elm Coulee Database

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- Continuing Database Work
  - Finish completion data entries
  - Add open hole log data
  - Add core & fluid data
  - Complete interface to search completion, production, log, core, and fluid data
  - Determine methods for updating completion and production data
  - Determine interface to access groups of wells production data analysis
- Current Capabilities of the Database
  - Search and view production data plots and raw data from Access
  - Search and view completion data from Access
- Current Uses of Production Data
  - Preparation of data for mapping production parameters
  - Estimating EUR

# Reservoir Modeling Study

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## □ Objectives

### ▣ Evaluate enhanced oil recovery (EOR) options for Elm Coulee

- Estimate of Bakken oil recovery are low (2 – 10% OOIP) given drilling and production methodologies currently deployed
- Bakken formation in Elm Coulee is not considered a candidate for water flooding due to low matrix permeability
- EOR processes may be feasible for low permeability Bakken formation
- Small increases in percentage of recoverable Elm Coulee oil will translate into significant production increases (revenue)

# Reservoir Modeling Study

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- Strategy
  - ▣ Compile relevant data
  - ▣ Develop geologic model
  - ▣ Incorporate geologic model and reservoir properties into reservoir simulator
  - ▣ Use history matching strategy to tune reservoir model to historical production data
  - ▣ Use history matched reservoir model to identify appropriate EOR process for Elm Coulee

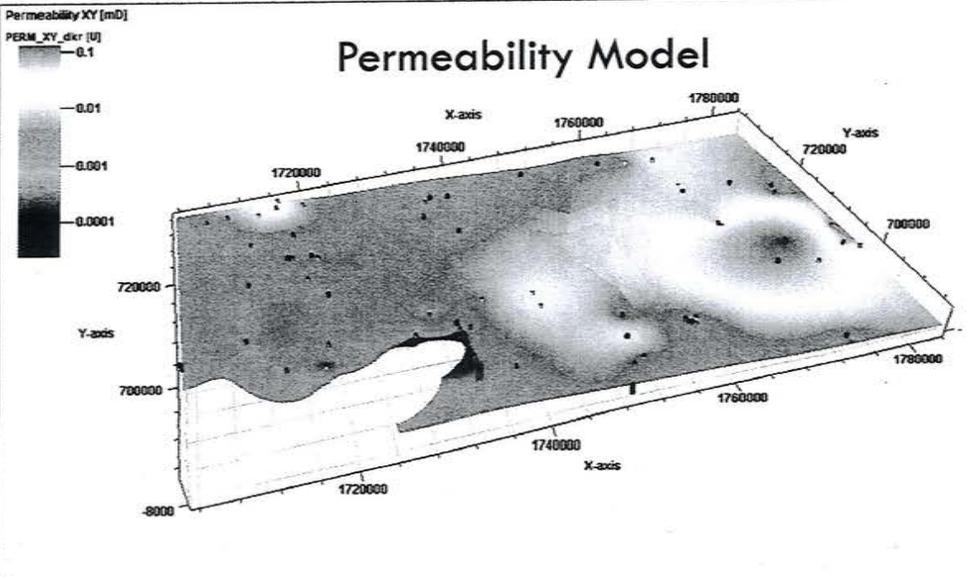
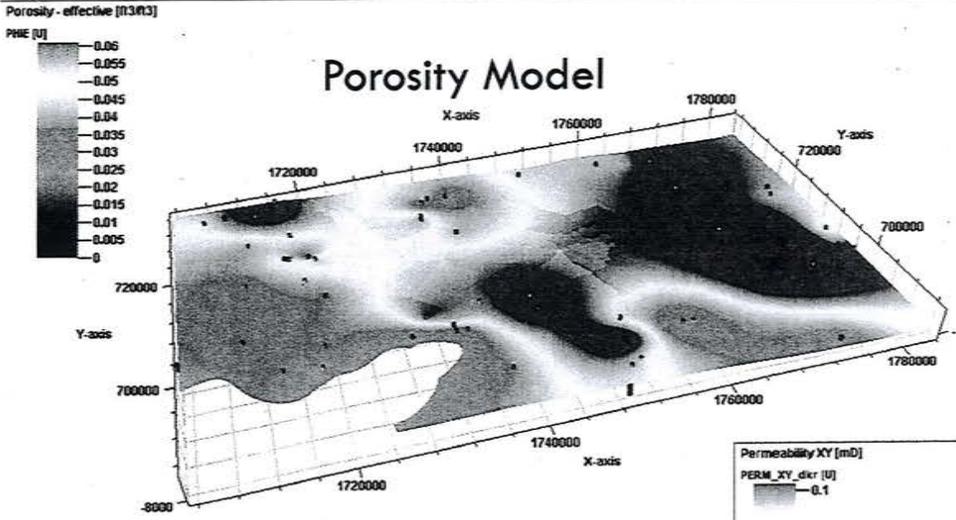
# Reservoir Modeling Study

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## □ Work to Date

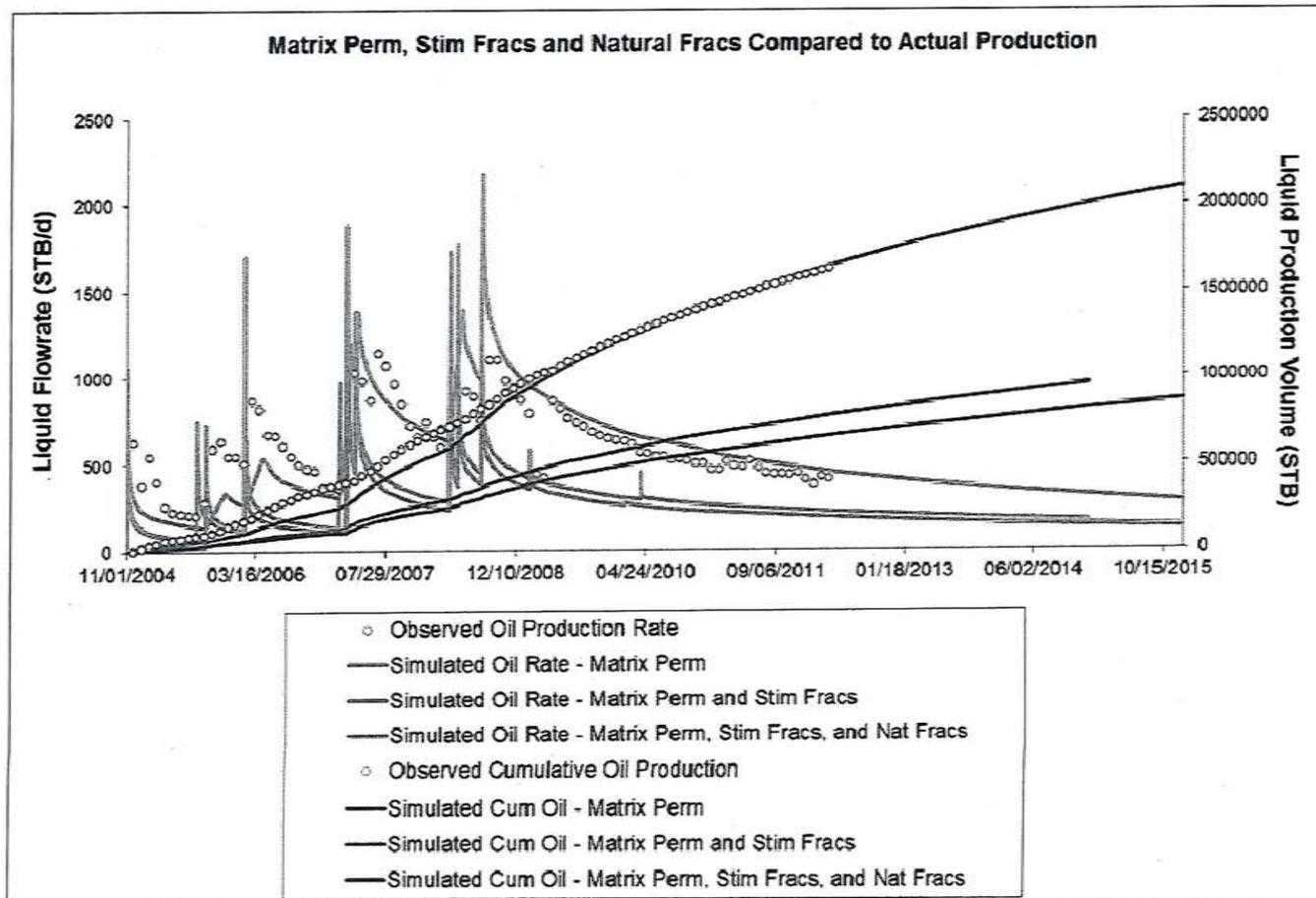
- Elm Coulee geologic and reservoir data compiled
- Initial geologic model developed
- Geologic model and reservoir properties incorporated into reservoir simulator
- History matching process initiated

# Reservoir Modeling Study



# Reservoir Modeling Study

## □ Initial Simulation Results



# Reservoir Modeling Study

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## □ Future Work

- Improve quality of history match
  - Reevaluate permeability model
  - Update fracture models, increasing complexity as needed to improve history match
- Use history matched reservoir model to identify appropriate EOR process for Elm Coulee
  - Compare recoverable oil for EOR processes
  - Assess feasibility of required EOR process injection rates
  - Evaluate potential for early breakthrough of EOR injection media
    - If early breakthrough is suggested, evaluate mitigation methods
- Identify area in Elm Coulee for EOR pilot study

# Initial Year Progress

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- Close to expected timeline
- Close to expected budget
- 12 Montana Tech faculty & students involved
- 7 operating companies contacted and assisting
- Project well underway

Community Development Services of Montana  
954 Caledonia Street, Butte, MT 59701

November 30<sup>th</sup>, 2012

Leo Heath, Department Head  
Petroleum Engineering Department  
Montana Tech of The University of Montana  
1300 West Park Street  
Butte, MT 59701

Dear Leo:

I am pleased to respond to your Request for Proposal to prepare a Procedures Manual for the Montana Board of Oil and Gas Conservation (the Board), in conjunction with the Montana Tech Petroleum Engineering Department. More particularly, my firm, Community Development Services (CDS) of Montana is proposing to assist in the research, development and writing of the Manual, and in the preparation of associated training materials, regarding the Board's regulatory field inspection duties.

The development of the Manual is being undertaken in response to a September 2011 Legislative Performance Audit of the Board's Regulatory Program, which recommends that the Board "generally provide more formalized direction to division staff for inspection and enforcement activities." Key to these efforts will be the facilitation of discussions among Board Members, Oil and Gas Conservation Division Staff and the Montana Legislative Audit Division. Certainly, the success of this endeavor will rely on the participation and input of those who will work with the manual and the associated business processes on a daily basis.

Over the past 25 years I have had the opportunity to work extensively in the fields of community development and public policy. My experience includes the writing of various manuals and directories for the State of Montana. These include:

- *County Bridge and Road Capital Improvement Planning and Financing Manual (1997, revised 2001)*, prepared for the Department of Commerce – Treasure State Endowment Program
- *Tax Increment Financing in Montana – A Manual for Local Governments and Economic and Community Development Agencies (2012)*, prepared for the Governor's Office of Economic Development, in conjunction with the Department of Revenue
- *Montana Preservation Directory (multiple editions)* – prepared for the State Historic Preservation Office



I have also worked with various public and private entities to prepare strategic plans, growth policies, regulatory programs and funding proposals. In 2007 (updated in 2011), I prepared an *Employee Handbook* for Techline Services, a private company that distributes equipment for construction, mining, exploration, water well, oil and gas, and quarry drilling.

Since 1991, I have served on the adjunct faculty of Montana Tech, where I've presented classes and seminars in the field of professional writing, including courses in business and technical writing, speech, communication, non-profit management and grant proposal preparation. I also present seminars to various government and non-profit entities on tax increment financing, strategic planning and non-profit governance.

In conjunction with the development of the County Bridge and Road Manual, I developed a state-wide training program for local government staff on bridge and road planning and funding. The manual and the educational materials were interwoven to create an easily adaptable presentation that can be offered in modules that correspond to various sections of the manual and associated field reports. I would propose to use a similar approach for the Oil and Gas Conservation Procedures Manual and training materials.

I have attached my cost proposal, time line and my standard resume for your review. Please let me know if I can provide any additional information or if you have any questions about this proposal.

Thank you for this opportunity.

Sincerely,

*Janet A. Cornish*

Janet A. Cornish, Principal  
Encl.



### **Proposed Scope of Work and Associated Costs**

This cost proposal is based on the following Scope of Work as provided in the RFP, with some additional tasks added.

#### **Scope of Work by Task**

- 1) Review Relevant Resources including:
  - a) Montana Board of Oil and Gas Conservation (BOGC) Rules and Regulations
  - b) 2011 Performance Audit of BOGC Regulatory Program by Legislative Audit Division
  - c) Current Montana Oil and Gas Conservation Division inspection system
  - d) Inspection systems from other states for best practices
  - e) Montana Tech Proposed Scope of Work (June, 2012)
- 2) Prepare detailed outline of Montana inspection system
  - a) Interview Oil and Gas Conservation Division Staff, BOGC Members and Legislative Audit personnel
  - b) Design and Facilitate group meetings of field inspection personnel to provide opportunities for interaction and consensus building regarding inspection procedures
  - c) Build draft outline and associated business processes
  - d) Conduct internal review of outline
  - e) Present outline to the BOGC and Inspection Staff for review and comment
  - f) Finalize outline
- 3) Design business processes
  - a) Design required field inspection forms and associated protocols based on activities conducted under step 2
  - b) Present forms to the BOGC and Inspection Staff for review and comment
  - c) Finalize forms and integrate with outline for procedures manual
- 4) Produce draft and final deliverables
  - a) Design/Prepare draft field inspection procedures manual
  - b) Conduct internal review
  - c) Present draft manual to the BOGC, Inspection Staff and Legislative Audit Division for review and comment
  - d) Prepare final manual
  - e) Design/Prepare draft training materials
    - i) Power Point Presentation Modules

Community Development Services of Montana  
Proposed Scope and Cost



- ii) Presentation Notes
- iii) Other materials as determined (posters, pamphlets, etc.)
- f) Conduct Internal Review
- g) Submit training materials for review and comment by the BOGC and Inspection Staff
- h) Prepare final versions of Training Materials
- i) Determine production mode of Manual and Training materials – print and electronic versions
- j) Submit final deliverables to the client
- 5) Provide monthly activity reports to Montana Tech and the Oil and Gas Conservation Division

Costs for each of these tasks and associated travel expenses are presented in Table 1.

Table 1. CDS Cost Proposal – Board of Oil and Gas Conservation Procedures Manual		
Time by Task		
Task	Hours @ \$60.00	Cost
1	40	\$2,400
2	80	\$4,800
3	60	\$3,600
4	160	\$9,600
4 – document layout and design publication format development	100 @ \$30	\$3,000
5	10	\$ 600
<b>Total</b>		<b>\$24,000</b>
Travel and Per Diem Expenses		
Activity	Mileage @\$0.565/meals and lodging @ cost	
Three trips to Helena	432 (no lodging)	\$250
One Trip to Billings	480 – one night lodging	\$460
One Trip to Shelby	480 – one night lodging	\$460
<b>Total Travel Cost</b>		<b>\$1,170</b>
<b>Grand Total</b>		<b>\$25,170</b>



**Project Time Line**

The completion of the scope of work is estimated to require no more than seven months.

- 1) Review Relevant Resources
- 2) Prepare detailed outline of Montana inspection system
- 3) Design business processes
- 4) Produce draft and final deliverables
- 5) Provide monthly activity reports to Montana Tech and the Oil and Gas Conservation Division

Table 2 provides a proposed project time line.

Table 2. Proposed Project Time Line – Assume a January 15 <sup>th</sup> , 2013 Start Date								
Task		January	February	March	April	May	June	July
1	Resource Review							
2	Interviews and Outline Preparation							
3	Form and Business Processes Design							
4	Draft Manual and Training Materials Preparation							
	Final Manual and Training Materials Preparation and Printing							
5	Monthly Activity Reports							



## Resume

### Professional Objective:

Subscribing to the notion that strong and viable organizations combined with effective programs create stronger communities, Janet works with government agencies, non-profits, and other publicly oriented entities to define, structure and fund their efforts.

### Education:

M.S. (1977) Environmental Studies, University of Montana, Missoula

B.A. (1973) Political Science, University of Wisconsin, Madison

### Experience:

- Community Development Services, Owner and Principal (1987 - Present)
- Montana Tech Adjunct faculty (1991 – 2012) - Teaching Classes in:
  - Business and Professional Communication
  - Speech
  - Grant Proposal Writing
  - Non-Profit Management
- Butte Silver Bow Urban Revitalization Agency Director (1979-1987)
- U.S. Department of the Interior, Historic American Engineering Record, Community Liaison & Planning Specialist (1979)
- University of Montana, Administrative Assistant (1976 - 1977)
- University of Montana Teaching Assistant, Department of Political Science (1975 - 1976)

### Current Clients:

- Missoula County – Tax Increment Financing Industrial District Formation at Bonner
- Ravalli County Economic Development Authority – Tax Increment Financing Program
- City of Great Falls – Tax Increment Financing Industrial District Program
- The Governor’s Office of Economic Development – Tax Increment Financing Manual Preparation and Editing
- Butte-Silver Bow Public Works Department (under contract with Dowl-HKM) – Water System Improvements Financing Strategies, Meeting Facilitation, Strategic Planning
- Bear Paw Development Corporation, Havre, Montana – Tax Increment Financing Program Development for the City of Fort Benton and Hill County
- Anaconda Deer Lodge and Beaverhead County Public Health Departments – Providing Meeting Facilitation and Technical Assistance for the Community Health Needs Assessment and Community Health Improvement Program
- Town of East Helena (under contract with Robert Peccia and Associates) – Institutional Controls Program Design, Growth Policy Update
- Butte-Silver Bow Public Health Department – Meeting Facilitation for Environmental Health Studies conducted in conjunction with the Environmental Protection Agency and Atlantic Richfield.



**Professional Affiliations:**

- Montana Board of Architects and Landscape Architects, vice chair, appointed by the Governor, June, 2010
- Montana Association of Planners: Member since 1979; on the Board of Directors from 1980-1983 and currently serving on the Board of Directors as Treasurer
- Glacier Park Foundation: Member since 1981; currently serving on the Board of Directors
- Community, Culture and Heritage: Secretary/Treasurer and Member of the Board of Directors since 1995.
- US Bancorp Butte, Montana, Member of the Board of Directors since 2002
- National Center for Health Care Informatics – Butte, MT, Member of the Board and Secretary/Treasurer, 2005-2008
- Montana Cultural Trust, Citizens Review Committee: 1981-1985
- National Trust for Historic Preservation: Member of the National Board of Advisors from 1987-1990

**Honors and Awards:**

- 2011, Certificate of Appreciation, Powell County Commissioners
- 2010, Certificate of Appreciation, Jefferson County Development Corporation
- 2010 Recipient of the Service Award from the Montana Association of Geographic Information Professionals
- 2008 Recipient of the Rose and Anna Busch Award in recognition of Teaching, Scholarship and Professional Excellence, Montana Tech
- 2005, Certificate of Appreciation, Montana Department of Natural Resources and Conservation
- 1982 Recipient of the Montana Historic Preservation Award

**Selected Publications and Documents:**

- Community Health Needs Assessments for Butte-Silver Bow and Madison Counties – 2011 -2012
- Tax Increment Financing in Montana – A Manual for Local Governments – 2012
- East Helena Growth Policy (co-author) – 2009
- Butte-Silver Bow 2008 Growth Policy Update Draft (co-author) – 2008-2009
- West Bank Urban Renewal Plan, City of Great Falls, 2007
- Butte-Silver Bow Transportation Plan – 2006
- Butte-Silver Bow Housing Plan – 2006
- Butte-Silver Bow Community Environmental Health Assessment, 2004
- Programmatic Environmental Impact Statement – Real Estate Bureau, Montana Department of Natural Resources and Conservation, 2004
- Technical Resource Document – Whitefish Area State Trust Land Plan, December, 2003
- Cultural Landscape of Going to the Sun Road, with RTI, Butte, 2002
- County Bridge and Road Financing Manual, with WGM Group, 1997
- Anaconda-Butte Historic Preservation Plan, 1993

Montana Board of Oil and Gas  
Proposal to Develop Field Inspection Procedures Manual  
December - 2012

Proposed Contract Budget:

Item	Amount
Employee Summer Salaries	
Leo Heath (8 hrs.)	\$434
John Getty (8 hrs.)	\$357
Benefits	\$198
Subcontractor Services	\$25,170
Montana Tech Indirect Expenses	<u>\$6,540</u>
<b>BUDGET TOTAL =</b>	<b>\$32,699</b>



Brent D. Chicken  
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November 29, 2012

## MEMORANDUM AND PROPOSED GUIDELINES

### Introduction

The Montana Board of Oil and Gas Conservation ("MBOGC") has requested the preparation and provision of proposed guidelines related to the efforts undertaken by an operator to effect the voluntary pooling of interests in the mineral estate of a permanent spacing unit. Specifically, the guidelines are to address two (2) matters: (i) the attempts made by an operator to provide a participation and/or leasing offer to the owners of mineral interests within a given spacing unit who may not be readily locatable and (ii) the reasonableness of that participation and/or leasing offer.

Prior to setting forth the proposed guidelines, a brief discussion of Montana's statutory pooling statute; the subject issues as addressed therein and in similar statutes found in Colorado, Wyoming, North Dakota and Utah; and the applicable administrative rules of such states, is in order.<sup>1</sup>

### Montana Statutory Pooling

Montana law expressly allows the owners of various interests in the mineral estate of a spacing unit to voluntarily pool the same. M.C.A. § 82-11-202(1)(a). Owners of such interests must make a "good faith attempt" to effect voluntary pooling. M.C.A. § 82-11-202(1)(b). When such attempt is unsuccessful, an interested person may apply to the MBOGC for an order pooling all interests in a permanent spacing unit for development and operation, and setting forth the allocation of the proceeds of production. M.C.A. § 82-11-202(1)(b). The statutory pooling order of the MBOGC must be made after notice and hearing, "upon terms and conditions that are just and reasonable and that afford to the owner of each tract or interest in the permanent spacing unit the opportunity to recover or receive without unnecessary expense a just and equitable share of the oil or gas produced and saved from the spacing unit." *Id.* Notice of a statutory pooling action must be made by publication and by mailing, to the address found in the records of the applicable county clerk and recorder. M.C.A. § 82-11-141(4)(b).

Neither Montana's statutory pooling statute, nor the Administrative Rules of Montana promulgated by the MBOGC ("MBOGC Rules"), define what constitutes a "good faith attempt" to effect voluntary pooling. *See* M.C.A. § 82-11-202; MBOGC Rules, Chapter 26-22-101 *et seq.* Moreover, neither M.C.A. § 82-11-202, nor the MBOGC Rules, contain any language requiring

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<sup>1</sup> For purposes of this Memorandum, we have focused on the pooling of unleased mineral interests, typically owned by private individuals. The voluntary and statutory pooling of leasehold working interests is beyond the scope of this Memorandum.

that an offer to participate and/or lease be provided to, or that a diligent effort be made to ensure delivery of the same to, the owners of mineral estate interests in a permanent spacing unit prior to the issuance of a statutory pooling order. *See id.*<sup>2</sup>

Rather, M.C.A. § 82-11-202(3)(a) simply provides that in the absence of voluntary pooling, the owner of interests in the mineral estate of a permanent spacing unit is presumed to have refused to pay such owner's share of costs, and is subject to statutory pooling, when such owner fails to agree to the same in writing after an offer to participate or lease is sent via United States mail, to the owner's address of record as set forth in the office of the applicable county's clerk and recorder, or as on file with the MBOGC. However, the MBOGC is empowered to "adopt and enforce rules and orders to implement" Montana's statutory pooling provisions. M.C.A. § 82-11-111(2)(c).

### Colorado, Wyoming, North Dakota and Utah Statutory Pooling

#### I. Colorado

Colorado's oil and gas conservation laws allow the owners of interests in the mineral estate of a drilling unit to voluntarily pool the same. C.R.S. § 34-60-116(6). In the absence of voluntary pooling, the Colorado Oil and Gas Conservation Commission ("COGCC") may statutorily pool all interests in such drilling unit<sup>3</sup> for the development and operation of the same, upon the application of an interested person. *Id.* COGCC-issued statutory pooling orders must be made after notice and hearing, "upon terms that are just and reasonable, and that afford to the owner of each tract or interest in the drilling unit the opportunity to recover or receive, without unnecessary expense, his just and equitable share." *Id.* Pursuant to the Rules and Regulations of the Colorado Oil and Gas Conservation Commission ("COGCC Rules"), notice of a statutory pooling action must be made by both United States mail, to the "last known mailing address" of interested persons and through publication by the COGCC. C.R.S. § 34-60-108(4).

Colorado's statutory pooling provisions expressly provide that no statutory pooling order may be issued by the COGCC, over the protest of an affected owner of an interest in the mineral estate of the drilling unit, "until the [COGCC has] received evidence that such unleased mineral owner shall have been tendered a reasonable offer to lease, upon terms no less favorable than those currently prevailing in the area at the time application" for the statutory pooling order is made, and until such unleased mineral owner has received a written offer to participate in his

<sup>2</sup> It should be noted, however, that for purposes of Montana's unlocatable mineral owner trust provisions, the owner of an interest in the mineral estate of a tract of land is deemed "unlocatable" when such owner's "place of residence and present whereabouts" cannot be reasonably ascertained after a diligent, but unsuccessful, location effort. *See* M.C.A. § 82-1-302(1)-(2). Although the terms "reasonably ascertained" and "diligent [location effort]" are undefined, Montana courts have interpreted M.C.A. §§ 82-1-301 *et seq.* as requiring "a diligent effort to try to locate" the subject mineral estate interest owner. *In re Matter of Vukich*, 2000 ML 1779 (noting that "with today's technology . . . those efforts to locate can often involve a much more practical and reliable way of locating an owner . . .").

<sup>3</sup> Although the applicable statutes in the discussed states refer to such units variously as "spacing units," "spacing and spacing units," and "spacing units," for purposes of this memorandum the latter is used for convenience.

share of costs. C.R.S. § 34-60-116(7)(d). Pursuant to the COGCC Rules, the offer to lease and participate must be made in writing, via United States mail, to the last known address of the unleased mineral owner. *See* COGCC Rule 530(c).

The determination of whether an unsuccessful offer to lease was reasonable under C.R.S. § 34-60-116(7)(d) requires the COGCC to consider the following elements of the offered oil and gas lease in comparison to all “cornering and contiguous” drilling units: (i) the date of the lease, primary term and acreage; (ii) annual per-acre rental; (iii) bonus payment amount; (iv) landowner’s royalty; and (v) “such other lease terms as may be relevant.”<sup>4</sup>

## II. Wyoming

Pursuant to W.S.A. § 30-5-109(f), the parties owning interests in the mineral estate of a drilling unit may voluntarily pool the same for purposes of development and operation. Where voluntary pooling is absent, the Wyoming Oil and Gas Conservation Commission (“WOGCC”) may issue an order, statutorily pooling all interests in a drilling unit for its development and operation, after application by an interested person, notice and hearing, and “upon terms and conditions that are just and reasonable.” *Id.* Notice of statutory pooling actions must be made by United States mail and publication. *See* W.S.A. § 3-5-111(d).

Neither Wyoming’s statutory pooling statute, nor the Administrative Rules of the Wyoming Oil and Gas Conservation Commission (“WOGCC Rules”), provides specific criteria regarding what renders a person a “nonconsenting owner” for statutory pooling purposes, such that the WOGCC instead relies on its discretion in the interpretation and enforcement of Wyoming’s oil and gas conservation statutes.<sup>5</sup> In practice, statutory pooling applicants must typically show that reasonable offers to participate and/or lease were sent via United States mail to all parties owning interests in the spacing unit for which the applicant seeks statutory pooling.

## III. North Dakota

Like Colorado, Wyoming and Montana, North Dakota law provides for the voluntary pooling of interests in the mineral estate of a spacing unit. N.D.C.C. § 38-08-08(1). When voluntary pooling has not been effected, the North Dakota Industrial Commission, Oil and Gas Division (“NDIC”), may issue an order pooling all interests in the spacing unit upon application by an interested person, notice and hearing, “upon terms and conditions that are just and reasonable, and that afford to the owner of each tract or interest in the spacing unit the

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<sup>4</sup> Colorado law provides no unlocatable mineral interest trust mechanism, and instead relies exclusively on the statutory pooling process and Colorado’s Unclaimed Property Act, C.R.S. §§ 38-13-101 *et seq.*, with respect to the pooling of, and the allocation of production proceeds concerning, mineral interests owned by unlocatable persons. We do note that in contested cases, the COGCC may make specific findings with respect to lease reasonability and efforts made to contact owners of interests in the mineral estate of a spacing unit.

<sup>5</sup> Moreover, like Colorado, Wyoming relies wholly on statutory pooling, and its Uniform Unclaimed Property Act, W.S.A. §§ 34-24-101 *et seq.*, with respect to the pooling of, and allocation of production proceeds concerning, mineral interests owned by unlocatable persons. In addition, in contested cases, the WOGCC may also make specific findings with respect to lease reasonability and efforts made to contact owners of interests in the mineral estate of a spacing unit.

opportunity to recover or receive, without unnecessary expense, that owner's just and equitable share." *Id.* The NDIC must provide notice of a statutory pooling action, generally through publication. *See* N.D.C.C. §§ 38-08-11.

While North Dakota's oil and gas conservation statutes are silent regarding the requirements for, or the reasonability of, offers to participate and/or lease to the owner of an interest in the mineral estate of a spacing unit prior to statutory pooling, the North Dakota Administrative Code ("NDIC Rules") provides some guidance. The NDIC Rules provide that in the case of an unleased mineral owner, the statutory pooling risk penalty may only be imposed if the applicant first provides such owner, in writing via mail requiring a receipt signature, both an invitation to participate in the development costs in the drilling unit and a "good faith" offer to lease. *See* NDIC Rules, Chapter 43-02-03-16.3(2)(c). Based on the foregoing, North Dakota's oil and gas conservation statutes and regulations are therefore highly analogous to Montana's, eschewing specific provisions regarding efforts to offer participation and/or leasing to interest owners and the reasonableness of the same.<sup>6</sup>

#### IV. Utah

Utah's oil and gas conservation laws allow parties owning interests in the mineral estate encompassed by a drilling unit to voluntarily pool the same. U.C.A. § 40-6-6.5(1). Where a written agreement for the same cannot be reached, the Utah Division of Oil, Gas and Mining ("UDOGM") is statutorily empowered to pool all such interests for operation and development of the drilling unit, after notice and hearing, and upon terms that are just and reasonable. U.C.A. § 40-6-6.5(2)(a)-(b).<sup>7</sup> Statutory pooling requires notice by either personal service (which pursuant to U.C.R. 4(d)(2) includes mail requiring a receipt signature) or publication, at the sole discretion of the UDOGM. *See* U.C.A. § 40-6-10(3)(a)-(b).

Although Utah's oil and gas conservations statutes contain no provisions regarding the requirement for, or the reasonability of, offers to lease and the efforts required to locate the owner of an interest in the mineral estate of a drilling unit prior to statutory pooling, guidance regarding the same is provided by the Utah Oil and Gas Conservation General Rules ("UDOGM Rules"). Pursuant to UDOGM Rule R649-2-9, a statutory pooling applicant has the burden to establish that a good faith leasing attempt has been made via United States mail, and that the parties were unable to agree, although the UDOGM has the authority to extend the statutory pooling action upon request of the nonconsenting owner, to allow time for the parties to continue negotiations. Accordingly, similar to Montana and Wyoming, Utah's oil and gas conservation

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<sup>6</sup> However, as with Colorado and Wyoming, in contested cases the NDIC may make specific findings with respect to lease reasonability and efforts made to locate owners of interests in the mineral estate of the spacing unit. It should also be noted that North Dakota, like Montana, also employs an unlocatable mineral interest owner trust system, which requires the creation of a trust where such owner's "place of residence and present whereabouts are unknown and cannot be reasonably ascertained," and requiring a showing of a "diligent but unsuccessful effort to locate"; however, also like Montana, the terms "reasonably ascertained" and "diligent [location effort]" are undefined. N.D.C.C. § 38-13.1-01.

<sup>7</sup> It should be noted that the in issuing a statutory pooling order, the UDOGM is also expressly authorized to adopt any terms appearing in an operating agreement between consenting owners within the spacing unit, either through submission by such consenting parties, or by the UDOGM's own motion. U.C.A. § 40-6-6.5(2)(b)(i)-(iii)

statutes and regulations forego specific provisions regarding efforts to provide participation and/or leasing offers and the reasonableness thereof, and rely instead upon the discretion of the UDOGM.<sup>8</sup>

### **Statutory Pooling Discussion**

A review of the foregoing identifies certain common themes among the statutory pooling schemes found in Montana, Colorado, Wyoming, North Dakota and Utah which are germane to the subject issues of the attempts made by an operator to provide a participation and/or leasing offers and the reasonableness of the same.

The first commonality among the states above is that a good faith attempt to seek voluntary pooling appears to be universally acknowledged where reasonable offers to participate in the spacing unit and/or execute an oil and gas lease are provided by United States mail or other form of delivery to the last known address of record of an interest owner. Once this is done, all of the foregoing states will typically find that a good faith attempt to voluntarily pool has been made (even where the offers to participate and/or lease have been returned undeliverable), and deem all parties who have not voluntarily pooled their interests to be nonconsenting parties for purposes of statutory pooling.

This result is consistent with both the general tenet that the owner of an interest in the spacing unit should be cognizant of matters affecting the same, and with traditional constitutional mandates of due process. That is, because the statutory pooling process itself generally does not effect a constitutional taking for which personal or other heightened forms of notice are required; rather, the mailing and publication notice required by the the above-discussed statutory pooling schemes is generally sufficient for the exercise of each state's police power to pool all interests in a spacing unit. It follows that the pretext for statutory pooling – a good faith attempt to effect voluntary pooling – should not be burdened by a greater level of notice than required by the exercise of the police power itself.

A second commonality in the foregoing statutory pooling schemes is regulatory body discretion; the MBOGC, WOGCC, COGCC, NDIC and UDOGM are all provided with broad statutory discretion in discerning whether a party seeking statutory pooling, or a risk penalty, has made a good faith attempt to first effect voluntary pooling. In some cases, the exercise of this discretion is occasionally borne out in the findings of the regulatory agency in its statutory pooling orders. In other cases, such as in Colorado, the basis for exercise of discretion is expressly set forth in administrative rules. However, in all cases the exercise of regulatory agency discretion is typically seen only in contested cases; the applicant is generally afforded a presumption that attempts to effect voluntary pooling have been in good faith in the absence of a protest to the contrary, in which case the burden of proof would usually fall upon the contesting

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<sup>8</sup> As with Colorado and Wyoming, Utah's statutory pooling scheme also relies wholly on statutory pooling, and its Unclaimed Property Act, U.C.A. §§ 67-4a-101 *et seq.*, with respect to the pooling of, and the allocation of production proceeds concerning, mineral interests owned by unlocatable persons. Moreover, in contested cases, the UDOGM may make specific findings with respect to lease reasonability and efforts made to contact owners of interests in the mineral estate of the spacing unit.

party. This view is consistent with the basic statutory requirement that attempts to voluntarily pool need only be sent to an interest owner's last known address of record.

Finally, the foregoing statutory pooling schemes each recognize that participating parties owning interests in a spacing unit should be permitted to develop those interests without unnecessary expense. Accordingly, while a certain amount of regulatory agency discretion with respect to the efforts made to contact a spacing unit interest owner that may not be readily locatable is likely permissible, the efforts required should not rise to the level of placing an undue burden on those parties who have agreed to voluntarily pool their spacing unit interests.

### **Proposed MBOGC Statutory Pooling Guidelines**

Based on the foregoing, it is clear that any proposed guidelines concerning the good faith efforts undertaken by an operator to effect the voluntary pooling of spacing unit interests must themselves be reasonable; must acknowledge the express provisions of M.C.A. § 82-11-202(3)(a) concerning the gravamen for deeming a spacing unit interest owner a nonconsenting party; and must not place unnecessary burdens on those parties whose spacing unit interests have been voluntarily pooled. Accordingly, the proposed statutory pooling guidelines are as follows:

1. A statutory pooling applicant pursuant to M.C.A. § 82-11-202 shall provide to each owner of a spacing unit interest who has not otherwise voluntarily pooled the same: (i) a reasonable offer to participate in the development of the subject spacing unit, containing the name, location, target subsurface formation(s) and spud date of the subject well or wells and the total estimated cost of drilling, completing, equipping and operating the subject well or well(s) and (ii) a reasonable offer to lease such spacing unit interests, containing terms which are reasonable in comparison to similar offers to lease made by the statutory pooling applicant and accepted by other voluntarily pooled owners of interests in the spacing unit (collectively, "Voluntary Pooling Offer").

2. The Voluntary Pooling Offer shall be provided via mail requiring a receipt signature, addressed to each such owner's mailing address of record as set forth in the office of the clerk and recorder in the county where the spacing unit is located, or as otherwise on file with the MBOGC.

3. In the event any Voluntary Pooling Offer is returned as undeliverable, the statutory pooling applicant shall undertake a basic search in an attempt to discern a valid mailing address for such spacing unit interest owner, including a search of one or more commonly-used internet websites reasonably capable of providing such mailing address information.

4. In its MBOGC application pursuant to M.C.A. § 82-11-202, the statutory pooling applicant shall: (i) state that it has provided a Voluntary Pooling Offer to each owner of interests in the spacing unit whose interests therein have not otherwise been voluntarily pooled; (ii) state that each such Voluntary Pooling Offer meets the criteria set forth in the above Guideline No. 1; (iii) identify any such Voluntary Pooling Offers that were returned as undeliverable; and (iii) in

each such event, indicate that the statutory pooling applicant undertook a basic search to discern a valid mailing address for such interest owner.

5. In the absence of a valid protest to any MBOGC application pursuant to M.C.A. § 82-11-202, compliance with Guideline Nos. 1-4 by a statutory pooling applicant shall be presumed to constitute a reasonable, good faith effort to voluntarily pool interests in the subject spacing unit for purposes of M.C.A. § 82-11-202.