## Intermountain Oil and Gas BMP Project Memoranda of Understanding Databases: Guide to Searching the BMP Database

In the Intermountain Oil and Gas Best Management Practices (BMPs) Project, BMPs are defined by the author of the document from which they are derived. Consequently, "best" may be best from the perspective of government, industry groups, academics, NGOs, etc. In the case of MOUs, BMPs are defined by the local government and operators that negotiated/executed the MOU. In some MOUs, authors have listed BMPs in

Work in Progress: Note that the BMP Database is a work in progress. MOU BMP data entry may not be complete for the MOUs or issues in your search.

the main body language of the MOU. In many MOUs, the authors have listed the BMPs in a special appendix or exhibit.

For ease of comparing and sorting, BMPs are entered into the database "issue by issue". For example, one paragraph in an MOU labeled "Pit Practices" may be entered into the database as several BMPs – one specifying a type of berm, another requiring fencing or a specific type of pit liner. MOU best practices are included in the database regardless of whether they are identical to, stronger or weaker than applicable COGCC or local government regulation. Consequently, simply comparing the number of BMPs from one MOU to another would be a meaningless measure of the MOU's value/quality for protecting a particular interest or resource. One BMP that is more stringent than the COGCC regulations would be more protective than five BMPs that simple mimic the COGCC regulations.

BMPs can be accessed by:

- Listing all the BMPs in a specific MOU, and
- Searching by keyword or using filters.

## Listing of BMPs in an MOU:

Users can access a list of all of the BMPs from a specific MOU through the MOU document's data record. After finding an MOU of interest through a bibliographic search (see Figure 1), click on **'Publication Name'** to view the data record for the MOU (see Figure 2).

#### FIGURE 1.

#### **BIBLIOGRAPHY SEARCH**

Help   Add Info   Acronyms					
You are viewing the results of a Bibliography search. To change your search criteria or start a new search, click here.					
Registered users can login to export these search results.					
Displaying records 1 to 20 of 43 records. prev next		Show: 20 + Sort	by: Author Nam	e 💠 Dir: Up	\$ Go
Publication Name	Citation Label	Primary Author	Publication Year	Document Type	BMP Count
Memorandum of Understanding between Adams County and Oil and Gas Operators (Draft), ~2014	CO121	Adams County	2014	MOU/MOA	0
Memorandum of Understanding between Adams County and Oil and Gas Operators, 2015	CO174	Adams County	2015	MOU/MOA	60
Memorandum of Understanding between Arapahoe County and Oil and Gas Operators, 2013	CO122	Arapahoe County	2013	MOU/MOA	56
Memorandum of Understanding Between Elbert County and Agave Oil and Gas LLC, 2014	CO175	Board of County Commissioners of Elbert County	2014	MOU/MOA	33
<u>City and County of Broomfield Oil and Gas Operator Agreement,</u> 2013	CO120	City and County of Broomfield	2013	MOU/MOA	0
<u>City and County of Broomfield Oil and Gas Operator Agreement-</u> <u>-Final, 2013</u>	CO173	City and County of Broomfield	2013	MOU/MOA	186
Master Contract Concerning Consolidated Oil and Gas Exploration and Production Facilities, Property, Purchase, Oil and Gas Mineral Leases and Reciprocal Compensation between Longmont and TOP Operating, 2012	CO169	City of Longmont	2012	MOU/MOA	195
(Draft) Memorandum of Understanding Between Elbert County	CO154	Elbert Board of County		MOU/MOA	0

For a listing of BMPs in the document, click on 'View all BMPs from this publication' (see Figure 2).

#### FIGURE 2.

### VIEW PUBLICATION

#### View all BMPs from this publication

Citation Label:	C0174		
Publication Name:	Memorandum of Understanding between Adams County and Oil and Gas Operators		
Publication Type:	MOU/MOA		
Section Name:			
Author Name:	Adams County		
Other Authors:			
Contractor Name:			
Publication Year:	2015		
Publication No.:			
External Link:	http://www.co.adams.co.us/DocumentCenter/View/7353		
Local Source File:	CO174-adco_oilgas_mou.pdf		
Annotation:	This is the generic memorandum of understanding (MOU) between Adams County and potential oil and gas operators regarding conditions under which Operator will develop and operate oil and gas facilities installed or newly expanded in the unincorporated portions of the County.		
Required vs. Recommended:	Required – "The provisions of this MOU are intended to supplement and add to the COGCC's rules and regulations and not to replace such rules and regulations. To the extent that any of the provisions of this MOU are in conflict with the Act or COGCC rules and regulations, the stricter standards shall govern, or if neither is stricter, the COGCC rule or regulation shall apply." (page 2). In addition, text of the MOU uses "will" "must", etc. in the language of individual provisions.		
Ownership:	Federal, state, and private The MOU does not specifically address application under various land ownerships, but notes generally that: "The intent of this MOU is to provide the conditions under which Operator will develop and operate oil and gas facilities installed or newly expanded in the unincorporated portions of the County" (page 1).		

Sorting the report of BMPs by '**BMP ID**' will list the BMPs in the order in which they were entered into the database, which is <u>generally</u> the order in which they occurred in the MOU (Figure 3). Sorting by '**Text of BMP'** will order BMPs within the section of the MOU from which they were derived (e.g., all air quality BMPs together).

#### FIGURE 3

#### BROWSE BMPs

You are viewing BMP records related to the <u>Memorandum of Understanding between Adams</u> County and Oil and Gas Operators publication.

Found 60 records. prev next	Show: 80 + Sort by: BMP ID + Dir: Up + Go		
BMP ID Short Title	Text of BMP		
8959 Closed-loop or Modified Closed-loop Systems for Pits	"2. Operator's Pit Practices within the County. The Operator will comply, at a minimum, with the following pit practices, after the date of this MOU:		
8960 Conditions for Unlined Pits	"2. Operator's Pit Practices within the County. a. No Open Pits / Preferred Option: however, notwithstanding the foregoing, where appropriate,		
8961 Use of Lined Single and Multi-Well Storage Pits	"2. Operator's Pit Practices within the County. a. No Open Pits / Preferred Option: however, notwithstanding the foregoing, where appropriate,		
8962 Protection for Open Pits	"2. Operator's Pit Practices within the County. a. No Open Pits / Preferred Option: however, notwithstanding the foregoing, where appropriate,		
8963 Permitted Water Qualitity in Pits	"2. Operator's Pit Practices within the County. b. Water Storage Pits to Contain Fresh Water or Brine Water: Water stored in pits approved by the		
8964 Procedure for Pit Closure	"2. Operator's Pit Practices within the County. b. Water Storage Pits to Contain Fresh Water or Brine Water: Upon closure of the pit, the		
8965 Water Quality Monitoring in Pits	"2. Operator's Pit Practices within the County. b. Water Storage Pits to Contain Fresh Water or Brine Water: As long as the pit is open and		
8966 Pit Setbacks Requirement	"2. Operator's Pit Practices within the County. c. Pit Setbacks: All pit construction within 1/4 mile of a water well is generally discouraged by the		
8967 Lining Requirements for Multi-Well Pits	"2. Operator's Pit Practices within the County. d. Multi-Well Pits: In addition to any requirements stated above, multi-well pits will be lined per		
8968 Water Contaminants Removal in Multi-Well Pits	"2. Operator's Pit Practices within the County. d. Multi-Well Pits: Fluids stored in multi-well pits will be circulated through a four-phase		
8969 Monitoring Requirements for Multi-Well Pits	"2. Operator's Pit Practices within the County. d. Multi-Well Pits: Lined multi-well pits may be inspected and/or reviewed on an as-needed basis,		
8970 Closure Requirements for Multi-Well Pits	"2. Operator's Pit Practices within the County. d. Multi-Well Pits: Upon closure of the pit, the Operator will ensure the protection of the		

### **BMP Database Search:**

Users can search the BMP Database, by going to: http://www.oilandgasbmps.org/bmpadvsearch.php Use '**Keywords'** and other selection filters (left column) and '**Extra Fields to Display'** and '**Sort Options'** (right column) as illustrated in Figure 4.

# Caution Crafting Keyword Searches!

See the "Search Tips" icon near the Keywords panel. ✓ Adding a ? to your keyword (road?) is necessary to search for plurals (i.e., road and roads). ✓ Adding an \* to a keyword

(pipe\*) will capture variations (e.g., pipe, pipes, pipeline).

## FIGURE 4

#### ADVANCED BMP SEARCH

nou traffic 🛛 🗍 🗍 🖨	Extra Fields to Display 9
Search the Title and Text fields only	Source Publication
	Include section and page
Category: (multiple selections allowed)	Category
Anv	Species
Air Quality and Emissions	Location
Aquatic and Riparian Values	Oil/gas Field
Community	Surface Ownership
Cultural/Historic	Mineral Ownership
	Lisage Type (Recommended vs. Required
Species: (multiple selections allowed)	Timing
Any	Cont Depath Applying
Animal Species	Cost-benefit Analysis
Accipiter	BMP Efficacy
Amphibian	Date Entered
Antelope	Last Updated
Any Unspecified General / Federal Western Region Colorado Dil/Gas Field Name: (multiple selections allowed)	Sort Options Sort By: Source Publication + Then By: +
Any	
Atlantic Rim Natural Gas Field (GREATER GREEN RIVE	
Castle Peak, Eightmile Flat, Monument Butte-Myton I	
CX Field (POWDER RIVER BASIN)	
Denver-Julesburg Basin	
Timing: (multiple selections allowed) Any Planning / Environmental Review Construction / Siting / Design	

You can use this page to perform more precise searches on the database and specify which fields you want to display in the results list. If you prefer a more basic search, you can use the <u>Basic Search</u> page.

> For tips on using Keywords in searches and on composing your data display, go to our <u>Help page</u>. View the <u>Bibliography</u>

#### Limiting a search to BMPs from MOUs:

- To compile a list of all BMPs from <u>only</u> the Local Government Operator MOUs in the database, simply type the acronym "MOU" into the keyword search field. And leave the adjacent dropdown menu on the default **'Match All'**. This will limit your search to these MOUs (less than 50 documents), but yield over **2,500 BMPs<sup>1</sup>** (as of June 2016).
- Omitting "MOU" from the Keyword panel will result in a search on BMPs from all of the 800+ documents in the database yielding over **11,000 BMPs<sup>2</sup>** as of June 2016.
- To limit your search to BMPs regarding a specific issue, further limit the search by

<sup>&</sup>lt;sup>1</sup> Go to

http://www.oilandgasbmps.org/bmpadvsearch.php?pagenum=1&dispcnt=160&sortby=pubName &sortdir=asc&mode=2&match=all&titleonly=&kw=mou&cat%5B%5D=0&loc%5B%5D=0&sp ec%5B%5D=0&field%5B%5D=0&timing%5B%5D=0&disp%5B%5D=id&disp%5B%5D=title &disp%5B%5D=text&disp%5B%5D=pubName&sortby2=text&showdocs=0&citextra=0 <sup>2</sup> Go to

http://www.oilandgasbmps.org/bmpadvsearch.php?pagenum=1&dispcnt=160&sortby=pubName &sortdir=asc&mode=2&match=all&titleonly=&kw=&cat%5B%5D=0&loc%5B%5D=0&spec% 5B%5D=0&field%5B%5D=0&timing%5B%5D=0&disp%5B%5D=id&disp%5B%5D=title&dis p%5B%5D=text&disp%5B%5D=pubName&sortby2=text&showdocs=0&citextra=0

choosing a filter criterion from a dropdown menu in the left column of the search page (e.g., **'Category'** = Air Quality and Emissions) or add a limiting keyword to the panel (e.g., **'Keyword'** = MOU traffic).

When limiting your searches, start simple. To search ONLY within the BMPs of MOUs, the keyword search must use the '**Match All'** function. This means that a keyword search of "MOU habitat?" will yield six BMPs, while a keyword search of "MOU habitat? Wildlife" will yield only three BMPs because both the words "habitat" or "habitats" and "wildlife" must occur in the text, title or note section of the BMP.

The Advanced BMP Search screen in Figure 4 indicates the search filters and display criteria used to obtain the result illustrated in the database search result shown in Figure 5 (excerpt of 54 BMPs from 19 MOUs as of June 2016). Note that a search of <u>all</u> traffic-related BMPs<sup>3</sup> in the database would yield an additional 169 BMPs from various sources.

#### FIGURE 5 Advanced BMP Search

Yo	You are viewing the results of an advanced search. To change your search criteria or start a new search, click here.				
Re	Registered users can login to export these search results.				
Displaying records 1 to 20 of 54 records. prev next Show: 60 + Sort by: Source Publication + Dir: Up + Go					
BMP ID	Short Title	Text	Source Publication		
<u>9772</u>	Temporary surface water lines	"3. Water Supply and Quality. To reduce truck traffic, where reasonably practicable, temporary surface water lines are encouraged and will be	(Model) Brighton Memorandum of Understanding		
<u>9827</u>	Minimize dust associated with on- site activities and traffic	"14. Fugitive Dust suppression Dust associated with on-site activities and traffic on access roads shall be minimized throughout construction,	(Model) Brighton Memorandum of Understanding		
<u>10080</u>	Dust Minimization Throughout Operation Lifetime	"18, Fugitive Dust Suppression. Dust associated with on-site activities and traffic on access roads shall be minimized throughout construction,	A Resolution Approving an Oil and Gas Operator Agreement and Site Access Agreement {between Town of Timnath and] Peterson Energy, 2015		
<u>10128</u>	Operations Minimization or Suspension During Air Quality Action Days	"21. Air quality. The following apply at the Well Site, except as noted j) Air Quality Action Days Emission reduction measures shall be	A Resolution Approving an Oil and Gas Operator Agreement and Site Access Agreement {between Town of Timnath and] Peterson Energy, 2015		
<u>10414</u>	Description of Vehicles and Route Useage Included in Application	"42. Transportation and circulation The submittal shall also include the estimated weights of vehicles when loaded, a description of the	A Resolution Approving an Oil and Gas Operator Agreement and Site Access Agreement {between Town of Timnath and] Peterson Energy, 2015		
<u>10416</u>	Operator's Transportation and Circulation Shall Comply With Town Code	"42. Transportation and circulation The Operator shall comply with all Transportation and Circulation requirements as contained in the Town Code	A Resolution Approving an Oil and Gas Operator Agreement and Site Access Agreement {between Town of Timnath and] Peterson Energy, 2015		
<u>8865</u>	Fugitive Dust Suppression	"18. Fugitive Dust suppression. Dust associated with on-site activities and traffic on access roads shall be minimized throughout construction,	City and County of Broomfield Oil and Gas Operator AgreementFinal		
<u>9141</u>	Ingress and egress points to public roads located/maintained/improved	"11. Public Roadway and Traffic Impacts. a. Ingress and egress. Ingress and egress points to public roads shall be located, maintained and	Master Contract Concerning Consolidated Oil and Gas Exploration and Production Facilities, Property, Purchase, Oil and Gas Mineral Leases and Reciprocal Compensation between Longmont and TOP Operating		

#### <sup>3</sup> Go to

http://www.oilandgasbmps.org/bmpadvsearch.php?pagenum=1&dispcnt=160&sortby=pubName &sortdir=asc&mode=2&match=all&titleonly=&kw=traffic&cat%5B%5D=0&loc%5B%5D=0& spec%5B%5D=0&field%5B%5D=0&timing%5B%5D=0&disp%5B%5D=id&disp%5B%5D=tit le&disp%5B%5D=text&disp%5B%5D=pubName&sortby2=text&showdocs=0&citextra=0

Users can customize the components of a search result and manipulate the order of BMPs in the search result by checking or un-checking '**Extra Fields to Display'** and choosing '**Sort Options'** from the Advanced BMP Search Screen (Figure 4) or '**Sort Options'** from the search results screen (Figure 5). Registered users (following a free and simple registration process) can download the BMP search report to an Excel file. See the '**login'** link on Figure 5.