

Type	Area	Volume	Corrective action	CA Date
<input type="checkbox"/> Multiple Spills and Releases?				
Venting:				
Yes/No	Comment			
Flaring:				
Type	Satisfactory/Action Required	Comment	Corrective Action	CA Date

Predrill

Location ID: 436508

Site Preparation:

Lease Road Adeq.: _____ Pads: _____ Soil Stockpile: _____

S/A/V: _____

Corrective Action: _____ Date: _____ CDP Num.: _____

Form 2A COAs:

S/A/V: _____ **Comment:** _____

CA: _____ **Date:** _____

Wildlife BMPs:

BMP Type	Comment
Drilling/Completion Operations	<p>MEMORANDUM OF UNDERSTANDING</p> <p>This Memorandum of Understanding ("MOU") is made and entered into this ____ day of _____, 2013, by and between Arapahoe County, a Colorado County ("County") with an address of 5334 S. Prince St., Littleton, Colorado 80120 and _____ ("Operator"), with an address of _____ . The Operator and the County may be referred to individually as a "Party" or collectively as the "Parties."</p> <p>BACKGROUND</p> <p>A. Operator is the owner or lessee of oil and gas leasehold and/or mineral interests within unincorporated parts of the County, and, as of the time of the execution of this MOU, has the right and intent to further develop its oil and gas leasehold and/or mineral interests within said portion of the County.</p> <p>B. The intent of this MOU is to provide the conditions under which Operator will develop and operate future oil and gas facilities or newly expanded facilities in the unincorporated portions of the County, in order to foster the efficient and economic production of oil and gas resources, to protect human health, safety and welfare and to protect the environment and wildlife resources, while at the same time providing for a predictable and expeditious administrative process for obtaining County land use approvals and permits for oil and gas facilities. The terms "facility" or "facilities" are defined here as including oil and gas wellsites, flowlines, tank batteries, compressor stations, pits/ponds, below-grade tanks, dehydration units, vapor recovery units (VRUs), and associated roads. Pipelines and gathering systems, other than flowlines, as well as salt water disposal wells and injection wells are excluded. Locations with more than one of the above mentioned types of equipment will also be considered to be one facility. Unless indicated otherwise, the definitions of terms used in the MOU shall be the same as in the Colorado Oil and Gas Conservation Commission's ("Commission") Rules.</p> <p>NOW, THEREFORE, the Parties agree as follows:</p> <p>1. Intent to Supplement Commission Rules and Regulations. The Parties recognize that pursuant to the Colorado Oil and Gas Conservation Act, C.R.S. §§ 34-60-101, et seq. ("Act"), the Commission regulates the development and production of oil and gas resources in Colorado, and the Act authorizes the Commission to adopt statewide rules and regulations. The provisions of this MOU are intended to supplement and add to the Commission's rules and regulations. To the</p>

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.

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:

a. Preferred Option: It is the intent of the County that operators utilize closed-loop or modified closed-loop systems for drilling and completion operations in order to minimize or eliminate the need for earthen pits; however, notwithstanding the foregoing, where appropriate, and subject to prior County approval, the County generally supports: 1) the use of unlined drilling pits when bentonite or a similar clay additive is used during the drilling process, and 2) the use of lined single- or multi-well water storage pits in order to minimize the transport of water and promote recycling, subject to the requirements set forth in this subsection. Permitted modified closed-loop systems include oil and gas wells where air or fresh water is used to drill through the surface casing interval, defined as fifty (50) feet below the depth of the deepest aquifer, and a closed loop system is used for the remainder of the drilling and/or completion or recompletion procedures. Multi-well pits are defined as lined, engineered pits, constructed over an engineered base, with construction or liner specifications meeting or exceeding Commission pit lining rules, that will serve the functions of drilling, completion, and/or flowback pits for more than one well.

b. Water Storage Pits to Contain Fresh Water or Brine Water: Water stored in pits approved by the County and allowed under Commission Rules, must meet the definition of fresh water or brine water, except for water stored in pits listed in 2c below. Fresh water is defined as containing total dissolved solids (TDS) less than or equal to 5,000 milligrams/liter (mg/l). Brine water is defined as water produced from an oil and/or gas well with TDS of greater than 5,000 mg/l. The Operator is required to remove all free and visible oil within 24 hours of discovery. Upon closure of the pit, the Operator will ensure the protection of the public health and environment by following all Commission pit closure rules, including collecting analytical data to ensure compliance with state standards. As long as the pit is open and containing fluid, a representative water sample shall be taken every six months from the surface of the pit fluids, the first sample to be taken within 6 months of the pit becoming operational. Water quality data will also include an analysis of Sodium Adsorption Ratio (SAR). The County will review water quality data provided by the Operator every six (6) months. TDS, pH, and specific conductance can be measured with a field meter. TEPH (total extractable petroleum hydrocarbons), BTEX (Benzene, Toluene, Ethylbenzene, and Xylenes), and SAR will be analyzed by an accredited laboratory. If the presence of TEPH and/or BTEX is indicated after County review and/or inspection, other water quality analyses may be required by the County.

c. Additional Pits that Require County Review and Approval: Skimming, settling, percolation, evaporation, and any type of netted pits are generally discouraged by the County; however such pits may be approved on a case-by-case basis through the Use by Special Review ("USR") process. A copy of the Pit Plan submitted to the Commission will be provided to the County at the same time as the plans are submitted to the Commission. Construction of these pits will be preceded by collection of "baseline" soil samples from the center of the planned pit at 6 and 18 inches depth. Soil samples will be analyzed for pH, Sodium Adsorption Ratio (SAR), and Electrical Conductivity (EC). The Operator shall stake and photograph from the center of the planned pit (toward north, south, east, and west directions) for inclusion in the County's copy of the Pit Plan. Upon closure of these pits, pH, SAR, EC, BTEX (Benzene, Toluene, Ethylbenzene, and Xylenes), and TEPH (total extractable petroleum hydrocarbons) analyses may be required if there is evidence of leaks or spills in the immediate area of the pits.

d. Pits That Do Not Require County Approval: Flare, Emergency, Plugging, and Workover pits will not require county review or approval prior to construction (unless within 1/4 mile of a residence as set forth below); however, the County will be copied on the notification(s) sent to the Commission and any pit plans, remediation plans, or analytical results submitted to the Commission.

e. Pit Setbacks: All pit construction within ¼ mile of a residence or water well is generally discouraged by the County and may have additional County requirements, such as fencing. Such pits will be reviewed on a case-by-case basis by the County.

f. Multi-Well Pits: In additi

S/AV: _____ **Comment:** _____

CA: _____	Date: _____
Stormwater:	
Comment: _____	
Staking:	
On Site Inspection (305):	
<u>Surface Owner Contact Information:</u>	
Name: _____	Address: _____
Phone Number: _____	Cell Phone: _____
<u>Operator Rep. Contact Information:</u>	
Landman Name: _____	Phone Number: _____
Date Onsite Request Received: _____	Date of Rule 306 Consultation: _____
Request LGD Attendance: _____	
<u>LGD Contact Information:</u>	
Name: _____	Phone Number: _____
Agreed to Attend: _____	
<u>Summary of Landowner Issues:</u>	

<u>Summary of Operator Response to Landowner Issues:</u>	

<u>Onsite Inspection Memorandum Summarizing Discussions at Inspection as Attachment:</u>	

Facility					
Facility ID: <u>436508</u>	Type: <u>WELL</u>	API Number: <u>005-07221</u>	Status: <u>DG</u>	Insp. Status: <u>DG</u>	

Well Drilling			
Rig:	Rig Name: <u>HP 280</u>	Pusher/Rig Manager: <u>Wes Evans</u>	
	Permit Posted: <u>SATISFACTORY</u>	Access Sign: <u>SATISFACTORY</u>	
Well Control Equipment:			
Pipe Ram: <u>YES</u>	Blind Ram: <u>YES</u>	Hydril Type: <u>YES</u>	
Pressure Test BOP: <u>Pass</u>	Test Pressure PSI: <u>5000</u>	Safety Plan: <u>YES</u>	
Drill Fluids Management:			
Lined Pit: <u>NO</u>	Unlined Pit: <u>NO</u>	Closed Loop: <u>YES</u>	Semi-Closed Loop: <u>NO</u>
Multi-Well: <u>YES</u>	Disposal Location: <u>CSI</u>		
Comment:			
BOP charts attached.			

Environmental		
Spills/Releases:		
Type of Spill: _____	Description: _____	Estimated Spill Volume: _____
Comment: _____		
Corrective Action: _____		Date: _____
Reportable: _____	GPS: Lat _____	Long _____
Proximity to Surface Water: _____	Depth to Ground Water: _____	

Water Well:

	Lat	Long
DWR Receipt Num: _____	Owner Name: _____	GPS : _____

Field Parameters: _____

Sample Location: _____

Emission Control Burner (ECB): _____

Comment: _____

Pilot: _____ Wildlife Protection Devices (fired vessels): _____

Reclamation - Storm Water - Pit

Interim Reclamation:

Date Interim Reclamation Started: _____ Date Interim Reclamation Completed: _____

Land Use: RANGELAND

Comment: _____

1003a. Debris removed? _____ CM _____

CA _____ CA Date _____

Waste Material Onsite? _____ CM _____

CA _____ CA Date _____

Unused or unneeded equipment onsite? _____ CM _____

CA _____ CA Date _____

Pit, cellars, rat holes and other bores closed? _____ CM _____

CA _____ CA Date _____

Guy line anchors removed? _____ CM _____

CA _____ CA Date _____

Guy line anchors marked? _____ CM _____

CA _____ CA Date _____

1003b. Area no longer in use? _____ Production areas stabilized ? _____

1003c. Compacted areas have been cross ripped? _____

1003d. Drilling pit closed? _____ Subsidence over on drill pit? _____

Cuttings management: _____

1003e. Areas no longer needed for drilling or subsequent operations for have been re-vegetated to 80% of pre-existing? _____

Production areas have been stabilized? _____ Segregated soils have been replaced? _____

RESTORATION AND REVEGETATION

Cropland

Top soil replaced _____ Recontoured _____ Perennial forage re-established _____

Non-Cropland

Top soil replaced _____ Recontoured _____ 80% Revegetation _____

1003 f. Weeds Noxious weeds? _____

Comment: _____

Overall Interim Reclamation _____

Final Reclamation/ Abandoned Location:

Date Final Reclamation Started: _____ Date Final Reclamation Completed: _____

Final Land Use: RANGELAND

Reminder: _____

Comment: _____

Well plugged _____ Pit mouse/rat holes, cellars backfilled _____

Debris removed _____ No disturbance /Location never built _____

Access Roads Regraded _____ Contoured _____ Culverts removed _____

Gravel removed _____

Location and associated production facilities reclaimed _____ Locations, facilities, roads, recontoured _____

Compaction alleviation _____ Dust and erosion control _____

Non cropland: Revegetated 80% _____ Cropland: perennial forage _____

Weeds present _____ Subsidence _____

Comment: _____

Corrective Action: _____ Date _____

Overall Final Reclamation _____ Well Release on Active Location Multi-Well Location

Storm Water:

Loc Erosion BMPs	BMP Maintenance	Lease Road Erosion BMPs	Lease BMP Maintenance	Chemical BMPs	Chemical BMP Maintenance	Comment
Compaction	Fail	Waddles	Pass	SI	Pass	
Seeding		Seeding				
Check Dams	Pass	Ditches	Pass	CM	Pass	
Waddles	Pass					
Berms	Pass	Check Dams	Fail	MHSP	Pass	
Retention Ponds	Fail	Mulching	Pass			
Mulching	Pass	Culverts	Pass	SR	Pass	

S/A/V: **ACTION REQUIRED** Corrective Date: **09/02/2014**

Comment: **Heavy rains caused rills on south bank of location. Sediment transported offsite below 3 retention ponds. Conoco said that their contractor was out today and is aware of the erosion. Check dams are on a scheduled maintenance routine.**

CA: **Maintain BMPs to prevent erosion and offsite transport of sediment.**

Pits: NO SURFACE INDICATION OF PIT

Attached Documents

You can go to COGCC Images (<https://cogcc.state.co.us/weblink/>) and search by document number:

Document Num	Description	URL
673705136	Conoco State Massive 1H DR rills	http://ogccweblink.state.co.us/DownloadDocumentPDF.aspx?DocumentId=3401436
673705137	Conoco State Massive 1H DR covered materials	http://ogccweblink.state.co.us/DownloadDocumentPDF.aspx?DocumentId=3401437
673705138	Conoco State Massive 1H DR BMPs	http://ogccweblink.state.co.us/DownloadDocumentPDF.aspx?DocumentId=3401438

673705139	Conoco State Massive 1H DR BOP	http://ogccweblink.state.co.us/DownloadDocumentPDF.aspx?DocumentId=3401439
673705140	Conoco State Massive 1H DR BOP2	http://ogccweblink.state.co.us/DownloadDocumentPDF.aspx?DocumentId=3401440