



WATER PLAN

BODACIOUS STATE F33-10 Pad

(DJ Basin / Greeley, CO)

The purpose of this Water Plan is to provide the specific information regarding the water source and volume of water that will be used during drilling and completion operations on the Bodacious State F33-10 pad. The Water Plan is described in detail below in accordance with ECMC Rule 304.c.(18) and Rule 223.a.

Water Volume (Estimated)

Noble Energy, Inc. (Noble) intends to source approximately 6.1 million bbls of surface water for Completions and approximately 21,000 bbls of surface water for Drilling.

Water Source Location

The planned water source is located in the [REDACTED]

Due to the projected timeframe to complete the Bodacious State F33-10, Noble has not entered into a contract to purchase water at this time. Noble will provide such information when a contract is executed.

Per the Colorado Division of Water Resources requirements, all surface and ground water coordinates, contact information, approximate amount of water, weekly reports, etc. will be provided to and inspected by the State Water Commissioner in the presiding Water District prior to Noble operations.

Use of Recycled or Reused Water

Noble is evaluating the use of recycled or reused produced water in the completions process.

Noble currently transfers fresh water via temporary aboveground waterlines or existing permanent freshwater pipeline infrastructures for completions. Recycled water facilities will require specific equipment on the facility location site along with treated water storage. Recycled water from an off-site facility requires that the recycled water to be transferred to location via temporary aboveground waterlines or permanent pipeline infrastructures and requires either installation of poly pipeline that increases the disturbance footprint and extends the timeframe of operations for installation and proper removal or requires significant amount of trucking operations. The placement of temporary on location mobile produced water recycling equipment is under evaluation. Produced water would be sourced from the connected produced water gathering line utilizing existing production volumes from other connected locations. Minimal treated water storage will be set on the facility to support continuous operation of the recycling treatment unit during the completion's operation period. The availability of adequate produced water supply, ability of the treatment process to be placed within Bodacious State F33-10 Pad footprint and overall schedule of completions operations are the primary considerations as to whether recycling water will be unitized on this project. Noble will continue to evaluate the feasibility of recycling at this location.

In addition to any substances that are not permitted to be used in accordance with state or federal regulations in place at the time of drilling operations, the chemicals listed in Table 437-1 will not be utilized in the hydraulic fracturing fluid at the proposed oil and gas locations. Additionally, monitoring of treated produced water will be performed to verify that chemical constituent listed in Table 437-1 for which Table 915-1 also provides a standard will be below the Table 915-1 standard, or the unconcentrated naturally occurring background level, whichever is greater.

<u>Ingredient Name</u>	<u>CAS #</u>	<u>Table 915-1 Concentration</u>
Benzene	71-43-2	5 µg/l
Lead	7439-92-1	
Mercury	7439-97-6	
Arsenic	740-38-2	
Cadmium	7440-43-9	
Chromium	7440-47-3	
Ethylbenzene	100-41-4	700 µg/l
Xylene	1330-20-7	1,400 µg/l
1,3,5-trimethylbenzene	108-67-8	67 µg/l
1,4-dioxane	123-91-1	
1-butanol	71-36-3	
2-butoxyethanol	111-76-2	
N,N-dimethylformamide	68-12-2	
2-ethylhexanol	104-76-7	
2-mercaptoethanol	60-24-2	
benzene, 1,1'-oxybis-,tetrapropylene derivatives, sulfonated, sodium salts (BOTS)	119345-04-9	
butyl glycidyl ether	8-6-2426	
Quaternary ammonium compounds, dicoco alkyldimethyl, chlorides (QAC)	61789-77-3	
Bis hexamethylene triamine penta methylene phosphonic acid (BMPA)	35657-77-3	
Diethylenetriamine penta (methylene-phosphonic acid) (DMPA)	15827-60-8	
FD&C blue no. 1	3844-45-9	
Tetrakis (triethanolaminate) zirconium (IV) (TTZ)	101033-44-7	

In accordance with Noble's dedication to mitigating impacts to the environment, Noble will implement its best practices regarding the proper handling and disposal of E&P waste, including produced water.