

**BEFORE THE OIL AND GAS CONSERVATION COMMISSION
OF THE STATE OF COLORADO**

IN THE MATTER OF THE APPLICATION OF
CRESTONE PEAK RESOURCES OPERATING LLC
FOR AN ORDER TO ESTABLISH AND APPROVE
A RULE 216 COMPREHENSIVE DRILLING PLAN
FOR PORTIONS OF SECTIONS 1, 2, 3, 10, 11 AND
12, TOWNSHIP 1 NORTH, RANGE 69 WEST, 6th
P.M. AND PORTIONS OF SECTIONS 25, 26, 27, 34,
35 AND 36, TOWNSHIP 2 NORTH, RANGE 69
WEST, 6TH P.M. FOR THE COMPREHENSIVE
DEVELOPMENT AND OPERATION OF THE
CODELL AND NIOBRARA FORMATIONS,
WATTENBERG FIELD, BOULDER COUNTY,
COLORADO.

CAUSE NO. 1

DOCKET NO. 170500189

TYPE: GENERAL ADMINISTRATIVE

**CRESTONE PEAK RESOURCES OPERATING LLC'S FINAL COMPREHENSIVE DRILLING
PLAN CONTAINING ALL CONCEPTUAL, PRELIMINARY AND FINAL CDP PLAN
ELEMENTS**

Pursuant to the Colorado Oil and Gas Conservation Commission's ("Commission") Comprehensive Drilling Plan ("CDP") Pre-Hearing Application Process and Timeline ("Process")¹, Crestone Peak Resources Operating LLC ("Crestone"), by and through its undersigned attorneys, hereby submits the following Final Comprehensive Drilling Plan containing all Conceptual, Preliminary and Final CDP Plan Elements (the "Final CDP") at the request of the Commission². Pursuant to the Commission process established for Crestone's Rule 216 CDP Application, as amended, if this Final CDP is satisfactory to Commission Staff, the Commission Director will file a hearing application with the full Commission requesting acceptance of the CDP and schedule a hearing for September 17-18, 2018.³

Executive Summary of Final CDP

Crestone filed its application to establish and approve a voluntary Rule 216 Comprehensive Drilling Plan for the CDP Area (defined below) on February 22, 2017. Crestone held numerous meetings with state agencies and stakeholders, including Boulder County, prior to its February 22, 2017 submission. The February 22, 2017 CDP Application was sent to over

¹ See attached Crestone Peak CDP Pre-Hearing Application Process and Timeline (updated June 7, 2018).

² See attached Conceptual, Preliminary and Final CDP Plan Elements Table (dated March 16, 2017).

³ The Commission Staff has provided that, consistent with Commission Rules, if the COGCC application is timely protested or an intervention timely received, the hearing will be continued to the Commission's October 29-30, 2018 hearing date, which will be held in Denver.

750 interested parties. Over the course of the last 16 months, Crestone has: submitted four conceptual and preliminary CDP packets to the Commission for review by all stakeholders⁴; held four telephonic town halls with over 700 people invited to each town hall; held one in-person meeting for those residents within one-half mile of the potential oil and gas locations with over 55 people in attendance; engaged in multiple meeting with state agencies, the Town of Erie, and Boulder County; has engaged in several in-person meetings with surface owners within the CDP; has reviewed each and every one of the 1,308 comments submitted to the Commission via the public comment portal.

In order to determine the CDP Area and potential oil and gas locations within such area, Crestone undertook a “Planning by Exclusion” analysis. This effectively means that Crestone reviewed the CDP Area and determined potential oil and gas locations based on the following constraints, among other things: (1) Commission Designated Setback Locations of 1,000’ or more away from a Building Unit or High Occupancy Building Unit, (2) Colorado Parks and Wildlife Restricted Surface Occupancy and Sensitive Wildlife Habitat, (3) Colorado Division of Water Resources permitted water wells with a 250’ buffer, (4) Public Roads with a 250’ buffer, (5) FEMA and Boulder County Floodway and Floodplains, (6) Lakes, Reservoirs, Rivers, Streams, Ditches, Aqueducts, (7) existing oil and gas locations with existing wells, (8) Rule 318A drilling windows, and (9) Crestone’s leasehold interests in the CDP Area. The constraints in the CPD Area are many and provide limited surface access for potential oil and gas locations.⁵

Through the public outreach process and comments provided by the Commission, Colorado Department of Public and Environment, Colorado Parks and Wildlife, Town of Erie, Boulder County, surface owners, citizen groups, and residents near the potential Oil and Gas Locations, Crestone was able to reduce the initial number of potential oil and gas locations within the CDP Area from six (6) to the current three (3) oil and gas locations. The engagement and collaboration with the public was extremely helpful in determining the best available locations that will serve to protect the public health, safety, welfare and environment, but to also allow Crestone to produce the underlying hydrocarbons in a manner that protects correlative rights, prevents wastes, minimizes surface impacts, and results in efficient and economic development of the resource in the Codell and Niobrara Formations. As a result of the reduction of the number of oil and gas locations, Crestone has also been able to analyze and evaluate the number of horizontal wells necessary to develop the 10-square CDP area. Crestone has been able to reduce the number of wells from 216 horizontal wells to 140 horizontal wells, with 56 total wells in the corresponding DSU No. 1 (defined below), 28 total wells in the corresponding DSU No. 2 (defined below), and 56 total wells in the corresponding DSU No. 3 (defined below). As set forth herein, each of the three (3) potential oil and gas locations will have substantial mitigation measures and best management practices applied to each Form 2A, will be tankless, will transport oil, gas and water via pipeline, will apply all Rule 604.c. mitigation measures, and will be drilled and completed in a phased manner to avoid, mitigate or minimize as much impact to surrounding or nearby surface owners as possible. Due to recent information regarding Crestone’s Section 1 potential oil and gas location and Boulder County’s attempt to re-designation the floodway boundaries in

⁴ Crestone’s Preliminary CDP Submittal, as well as the Second, Third and Fourth Draft CDP Elements are available on the Commission’s website for a full review of the progression of the CDP development.

⁵ See attached Crestone CPD Planning by Exclusion Map.

Section 1, Crestone does have an alternative potential oil and gas location in Section 36 of the CDP Area, however, for various reasons set forth herein, Section 36 is not the preferred location for the development of DSU No. 1. Crestone has submitted the alternative Section 36 oil and gas location for review by the Commission Director, Commission Staff and the Commissioners to ensure that it is considered as part of the Final CDP.

The approval of this proposed Final CDP plan will effectuate the intent of the Colorado Oil and Gas Conservation Act, will provide clear, certain and consistent mandates for Crestone's surface locations for its horizontal development in Boulder County, will effectively result in reduced surface impacts, and will benefit the State, Boulder County, Boulder County citizens and the Nation as a whole. Crestone respectfully requests that the Commission Director, Commission Staff and the Commissioners themselves approve Crestone's Final CDP.

Comprehensive Drilling Plan Area

The Final CDP contains the following lands:

Township 1 North, Range 69 West, 6th P.M.

Section 1: All
Section 2: All
Section 3: E $\frac{1}{2}$
Section 10: E $\frac{1}{2}$
Section 11: All
Section 12: All

Township 2 North, Range 69 West, 6th P.M.

Section 25: All
Section 26: All
Section 27: E $\frac{1}{2}$
Section 34: E $\frac{1}{2}$
Section 35: All
Section 36: All

6,400 acres, more or less, Boulder County, Colorado. Hereinafter referred to as the "CDP Area".

General Information – Crestone Standing and Leasehold Ownership

1. Crestone is a limited liability corporation duly authorized to conduct business in the State of Colorado, and is a registered operator in good standing with the Commission.
2. Crestone is an Owner and Operator (as defined by C.R.S. §34-60-103(6.8), (7) and 100 Series Commission rules) that owns leasehold interests or holds the right to operator on the CDP Area lands described below.
3. Crestone owns approximately 71.5% of the leasehold interests in the CDP Area.
4. Specifically, Crestone owns the following interests in each corresponding Drilling and Spacing Unit Application, filed concurrently with this Final CDP:

- Docket No. 170500190 - Drilling and Spacing Unit No. 1 ("DSU No. 1"): 65.50%
DSU No. 1 consists of the following lands:

Township 1 North, Range 69 West, 6th P.M.

Section 1: All

Section 12: All

Township 2 North, Range 69 West, 6th P.M.

Section 25: All

Section 36: All

- Docket No.170500191 - Drilling and Spacing Unit No. 2 ("DSU No. 2"): 71.10%

Township 1 North, Range 69 West, 6th P.M.

Section 2: E $\frac{1}{2}$

Section 11: E $\frac{1}{2}$

Township 2 North, Range 69 West, 6th P.M.

Section 26: E $\frac{1}{2}$

Section 35: E $\frac{1}{2}$

- Docket No. 170500192 - Drilling and Spacing Unit No. 3 ("DSU No. 3"): 77.95%

Township 1 North, Range 69 West, 6th P.M.

Section 2: W $\frac{1}{2}$

Section 3: E $\frac{1}{2}$

Section 10: E $\frac{1}{2}$

Section 11: W $\frac{1}{2}$

Township 2 North, Range 69 West, 6th P.M.

Section 26: W $\frac{1}{2}$

Section 27: E $\frac{1}{2}$

Section 34: E $\frac{1}{2}$

Section 35: W $\frac{1}{2}$

5. Pursuant to C.R.S. §34-60-116 and §34-60-128 and Commission Rules 216, 503.b(1), 503.b(5), 503.b(6) Crestone has standing to pursue the Final CDP and the three-corresponding drilling and spacing units as it is an Owner, Operator and substantial leasehold interest owner within the CDP Area. Crestone has verified such standing and leasehold interests by executing the Verification Page attached hereto.
6. Certain comments provided as part of the CDP process have questioned Crestone's leasehold interests in the CDP Area and/or corresponding drilling and spacing units. Crestone maintains that its leasehold interests, and corresponding right to utilize the surface of the CDP Area, are a matter of public record and are available for public review at any time in the Boulder County Clerk and Recorder's Office.

Conceptual, Preliminary and Final CDP Plan Elements⁶

Rule 216.c.(1) – (12) – Informational Requirements:

- (1) A U.S. Geological Survey 1:24,000 topographic map showing the proposed oil and gas locations, including proposed access roads and gathering systems reasonably known to the operator(s);**

See Attachment A, A-1 (DSU No. 1), A-2 (DSU No. 2) and A-3 (DSU No. 3).

- Crestone conducted an in-depth review and additional alternatives analysis of the Potential Oil and Gas Locations noted on all previously submitted Attachment A's as a result of numerous comments from the Commission, Colorado Department of Public Health and Environment ("CDPHE"), Colorado Parks and Wildlife ("CPW"), Colorado Water Conservation Board ("CWCB"), Federal Emergency Management Agency ("FEMA"), the Town of Erie, the City of Boulder, Boulder County, 700+ surface owners, several citizen groups and hundreds of citizens. As a result of such alternatives analysis, Crestone concluded that three (3) potential Oil and Gas Locations (with five (5) wellsites) located off of Highway 52 can be utilized to develop the entirety of the 10-square mile CDP Area in accordance with the Colorado Oil and Gas Conservation Act, Commission regulations and such development will also result in substantial protections to public health, safety and welfare.
- Due to Boulder County's recently disclosed information regarding a potential re-designation of a majority of Section 1 of the CDP Area as a floodway, Crestone conducted an additional alternatives analysis and has identified a potential "alternative" Oil and Gas Location in Section 36 of the CDP Area ("Alternative Section 36 Oil and Gas Location"). Crestone included the Alternative Section 36 Oil and Gas Location in each Attachment in support of this CDP so that the Commission Director and Commission may review and approve the Alternative Section 36 Oil and Gas Location as part of any approved CDP. Crestone's intent, as maintained through the course of this entire CDP process would be to utilize Section 1 as its "Preferred" location for the development of DSU No. 1. Crestone does not intend to utilize both the Section 1 Oil and Gas Location and the Alternative Section 36 Oil and Gas Location for the development of DSU No. 1, but does request approval of both locations as alternatives for development pending unresolved Boulder County floodway issues.

- (2) A current aerial photo showing the proposed oil and gas locations displayed at the same scale as the topographic map to facilitate use as an overlay;**

⁶ This list tracks the Commission's Conceptual, Preliminary and Final Elements Table.

- **Identify the locations of any known planned manmade surface water bodies that do not appear on existing topographic maps or aerial photos.**
- **Provide a map to identify floodplains**

See Attachment B, B-1 (DSU No. 1), B-2 (DSU No. 2) and B-3 (DSU No. 3).

- Crestone conducted an in-depth review and additional alternatives analysis of the Potential Oil and Gas Locations noted on all previously submitted Attachment B's as a result of numerous comments from the Commission, Colorado Department of Public Health and Environment ("CDPHE"), Colorado Parks and Wildlife ("CPW"), Colorado Water Conservation Board ("CWCB"), Federal Emergency Management Agency ("FEMA"), the Town of Erie, the City of Boulder, Boulder County, 700+ surface owners, several citizen groups and hundreds of citizens. As a result of such alternatives analysis, Crestone concluded that three (3) potential Oil and Gas Locations (with five (5) wellsites) located off of Highway 52 can be utilized to develop the entirety of the 10-square mile CDP Area in accordance with the Colorado Oil and Gas Conservation Act, Commission regulations and such development will also result in substantial protections to public health, safety and welfare.
- Due to Boulder County's recently disclosed information regarding a potential re-designation of a majority of Section 1 of the CDP Area as a floodway, Crestone conducted an additional alternatives analysis and has identified a potential "alternative" Oil and Gas Location in Section 36 of the CDP Area ("Alternative Section 36 Oil and Gas Location"). Crestone included the Alternative Section 36 Oil and Gas Location in each Attachment in support of this CDP so that the Commission Director and Commission may review and approve the Alternative Section 36 Oil and Gas Location as part of any approved CDP. Crestone's intent, as maintained through the course of this entire CDP process would be to utilize Section 1 as its "Preferred" location for the development of DSU No. 1. Crestone does not intend to utilize both the Section 1 Oil and Gas Location and the Alternative Section 36 Oil and Gas Location for the development of DSU No. 1, but does request approval of both locations as alternatives for development pending unresolved Boulder County floodway issues.

(3) Overlay maps showing the proposed oil and gas locations, including all proposed access roads and gathering systems, drainages and stream crossings, and existing and proposed buildings, roads, utility lines, pipelines, known mines, oil or gas wells, water wells known to the operator(s) and those registered with the State Engineer's Office, and riparian areas;

- **Identify the locations of planned access roads, well pads, production facilities, and oil, water, and gas pipelines.**

See Attachment C, C-1 (DSU No. 1), C-2 (DSU No. 2) and C-3 (DSU No. 3).

- At this point in time, Crestone does not intend to utilize any potential oil, water and gas pipelines within the CDP Area to transport oil, water or gas produced from existing Oil and Gas Locations outside of the CDP Area. The potential oil, water and gas pipelines designated on Attachment C are intended to show only those lines that will be utilized to transport oil, water or gas produced from the CDP Area.
- Crestone conducted an in-depth review and additional alternatives analysis of the Potential Oil and Gas Locations noted on all previously submitted Attachment C's as a result of numerous comments from the Commission, Colorado Department of Public Health and Environment ("CDPHE"), Colorado Parks and Wildlife ("CPW"), Colorado Water Conservation Board ("CWCB"), Federal Emergency Management Agency ("FEMA"), the Town of Erie, the City of Boulder, Boulder County, 700+ surface owners, several citizen groups and hundreds of citizens. As a result of such alternatives analysis, Crestone concluded that three (3) potential Oil and Gas Locations (with five (5) wellsites) located off of Highway 52 can be utilized to develop the entirety of the 10-square mile CDP Area in accordance with the Colorado Oil and Gas Conservation Act, Commission regulations and such development will also result in substantial protections to public health, safety and welfare.
- Due to Boulder County's recently disclosed information regarding a potential re-designation of a majority of Section 1 of the CDP Area as a floodway, Crestone conducted an additional alternatives analysis and has identified a potential "alternative" Oil and Gas Location in Section 36 of the CDP Area ("Alternative Section 36 Oil and Gas Location"). Crestone included the Alternative Section 36 Oil and Gas Location in each Attachment in support of this CDP so that the Commission Director and Commission may review and approve the Alternative Section 36 Oil and Gas Location as part of any approved CDP. Crestone's intent, as maintained through the course of this entire CDP process would be to utilize Section 1 as its "Preferred" location for the development of DSU No. 1. Crestone does not intend to utilize both the Section 1 Oil and Gas Location and the Alternative Section 36 Oil and Gas Location for the development of DSU No. 1, but does request approval of both locations as alternatives for development pending unresolved Boulder County floodway issues.
- **Provide a phasing plan with the planned timing for build-out of access roads, well pads, production facilities and oil, water, and gas pipelines. High level concept of timeline with reservoir test or wildcat wells.**

Phases of development:

1. Planning and permitting (July 2018 – Dec 2019): Crestone is required to gain regulatory approval from the Commission before constructing each Oil and Gas Location and drilling each well in the CDP area. The CDP process is part of the state permitting process. Boulder County also has land use authority over lands in unincorporated Boulder County; therefore, Crestone will obtain Boulder County Use by Special Review permits for all the Oil and Gas Locations in the CDP. Crestone may begin the Boulder County process after submitting the Final CDP to the State for consideration. Crestone will likely initiate the pipeline right-of-way acquisition program in the first quarter of 2019.
2. Seismic studies and subsurface mapping (July 2018 – Mar 2019): The process of acquiring seismic permits and permissions within the CDP Area will start in the summer of 2018. Once the appropriate seismic permits and permissions are obtained and the seismic survey begins, the actual seismic survey and study will take approximately 30-60 days to complete for the CDP area. During that time, the seismic crew will layout and install the receiver boxes to collect the data. Then vibrator trucks will move over the ground collecting data. After the data collection is complete, the crew retrieves all equipment and restores the location to original conditions. Any potential delays in the approval of the CDP will not impact the seismic study schedule or plan.
3. Pipeline Construction (Jan 2020 – Jan 2025): Pipeline construction occurs through the beginning phases of the project with the goal of having the required segments to the initial well pads completed before the end of the completion phase. The intent of the pipeline is to reduce truck traffic by flowing the production of the wells through the pipeline versus having it transported off the well pads by tanker truck. A trench is dug along the route of the pipeline and the pipe segments are staged adjacent to the trench. Welders then assemble and inspect the pipelines to ensure they are adequately bonded together. The pipelines are then lowered into the trench and covered up with soil. Boring, or placing the pipe into the right of way without disturbing the surface, is used in environmentally sensitive areas and other areas where open trenching is not practical. Crestone intends to bore the stream and ditch crossings in the CDP. After the pipe is constructed it is inspected and tested to ensure mechanical integrity. The pipeline is then put into service and the disturbed area on the surface is reclaimed. Crestone received comments from CDPHE, Erie and others requesting that the pipeline system be in service before production from any wells within the CDP area occurs. Crestone's intent is to have all liquid and gas pipelines in place to serve each oil and gas location at the start of production or the wells at that oil and gas location will be shut in until the pipelines are available. At this point, Crestone can confirm that this is its intent but reserves the right to modify this position if unforeseen circumstances occur that prevent the entirety of the pipeline system being placed into service prior to production from each of the final oil and gas locations within the CDP Area.

4. Well Pad Construction (Jan 2020 – Mar 2024): Preparing an individual Oil and Gas Location for drilling and completion operations takes approximately 2-3 months. Crestone will comply with the applicable Commission and Boulder County notice requirements regarding construction on an Oil and Gas Location. During the construction phase, mitigation measures are installed to reduce operational impacts. Environmental controls are also put into place to ensure environmental compliance during operations. Once the Oil and Gas Location is constructed it is ready for drilling operations.
5. Drilling Operations (Apr 2020 – Mar 2024): The first phase of drilling is moving the drilling rig onto an Oil and Gas Location. Crestone will comply with the applicable Commission and Boulder County notice requirements regarding moving a drilling rig on location. The drilling rig move process takes approximately 4-5 days to complete. After moving onto an Oil and Gas Location, the drilling rig is ready to begin operations. Drilling one of the proposed two-section (2 mile) horizontal wells will take approximately twelve (12) days with operations occurring on a 24/7 basis. The drilling rig continues the drilling process until all of the wells on the Oil and Gas Location are drilled. The drilling rig then moves to the next Oil and Gas Location on the schedule and repeats the drilling process. Please note that the Section 1 (or Alternative Section 36 Oil and Gas Location) and Section 3 potential Oil and Gas Locations are designed so that two drilling rigs could be located on site at the same time. Section 35 is designed for one drilling rig.
6. Completions Operations (Apr 2021 – Dec 2024): After all the wells on an Oil and Gas Location are drilled, the next phase is called the completion phase. The completion process dramatically enhances the volume of recoverable natural gas and oil from the formation by pumping large volume of water and sand into the well and adjacent rock formation. During this phase, there is an increase in noise and truck traffic associated with the delivery of equipment and materials, construction of temporary fresh water holding tanks, and crews entering and exiting location. The completion process takes approximately 7 days per well. Please note that the Section 1 (or Alternative Section 36 Oil and Gas Location) and Section 3 potential Oil and Gas Locations are designed so that two (2) drilling rigs could be located on site at the same time. Section 35 is designed for one drilling rig.
7. Interim Reclamation / Production (Jan 2022 – Jan 2052): The next phase is the production phase. During this phase, the well begins to flow through the process piping to the surface. The initial product flowing to the surface is the water used to complete the well. After several days of flowing water, the well slowly begins to flow hydrocarbons. When a majority of the production is hydrocarbons, the well is switched from flowing into onsite

temporary tanks to flowing into the pipeline transporting the product to the Hub, Crestone's Central Gathering Facility located in Weld County, Colorado. Once all the wells on the well pad are flowing to the Hub, the temporary tanks are removed and the interim reclamation process begins. During interim reclamation, the disturbed area is returned to meet the surrounding landscape with the minimal amount of disturbed area remaining to conduct safe operations. The production phase of a well is projected to last 30 years or longer.

8. Final Reclamation (Jan 2052 – Jul 2056): Once a well is no longer economically beneficial to operate, it is plugged and abandoned in accordance with the applicable Commission regulations. During the plugging process, the wellhead and all surface equipment are removed. The surface is then graded and contoured to match the surrounding area. The next step is revegetation and lasts for 2-3 years depending on growth rate. The final step of the reclamation process is to obtain the Commission's approval to officially close the site.

(4) A list of all proposed oil and gas facilities to be installed within the area covered by the Comprehensive Drilling Plan over the time of the Plan and the anticipated timing of the installation;

- **Describe the conceptual well pad and facility locations, as well as planned pipeline routes.**

Nearly all the CDP area has been converted from a native short grass prairie ecosystem into dryland cropland, irrigated cropland, pastures, transportation infrastructure, and residential development. Much of the CDP is preserved from development to retain the rural character of the CDP by either direct ownership by Boulder County or through Conservation Easements with Boulder County. Two perennial streams, Boulder Creek and Coal Creek, cross the CDP Boundary; and there are numerous irrigation ditches, reservoirs and small man-made ponds throughout the CDP boundary used for crop irrigation.

Development within the CDP is confined due to the presence of several factors including wetlands, wildlife, geology, soils, streams and other waterbodies, etc. that dictate where well pads and associated infrastructure may be placed. The maps in Attachments B and C demonstrate the complexities involved in the selection of potential oil and gas locations with the CDP Area.

Of the proposed well pad locations, only the Section 1 well pad is in an environmentally sensitive area, the currently mapped 100-year floodplain and now potentially re-designated floodway, as well as in proximity to Great Blue Heron rookeries. The remaining well pads are not located in any such mapped areas. Crestone has engaged in discussion with the Army Corps of Engineers, FEMA, CWCB and Boulder County about the Section 1 well pad and will obtain any permits from the federal, state or local government for the Section 1 proposed Oil

and Gas Location, if necessary. Upon further discussions with the Commission, state agencies, local governments and citizens within the CDP Area and upon review of Boulder County's comments to the prior CDP plan submittals, Crestone relocated the Section 1 wells and production facilities outside of the existing Boulder County mapped "Floodway" area. Please note that the Boulder County re-designation of a majority of Section 1 as a Floodway has not occurred as of the date of this Final CDP filing.

Regarding land ownership in the areas of the proposed well pads, Sections 1 and 3 are all located on lands owned by Boulder County Open Space. Boulder County questioned Crestone's leasehold and mineral ownership within the CDP Area in its November 10, 2017 and December 8, 2017 letter to the Commission. Crestone will address this concern in the final section of this Final CDP. The Section 35 well pad and the Alternative Section 36 Oil and Gas Location are on lands owned by a fee surface owner with the underlying leasehold and mineral ownership held by Crestone. Crestone will attempt to obtain a Surface Use Agreement from the respective surface owners for the final Oil and Gas Locations in the CDP Area, but retains its rights of access under applicable Colorado statutes, regulations and case law.

The potential oil and gas locations are unlikely to impact sensitive plant communities, including wetlands; however, field verification is necessary prior to ground disturbing activities. The Section 1 potential Oil and Gas Location is in an area that should be evaluated in the field due to the potential presence of agricultural wetlands. Irrigation ditches and laterals may also support regulatory wetlands and should be evaluated in the field.

Regarding the design of the well pads, the three (3) potential Oil and Gas Locations (with five (5) wellsites) in Crestone's CDP will be similar in design, with the only difference being the number of wells and the corresponding production equipment on each oil and gas location. Each well pad is planned for up to 28 wells each. Based on Crestone's additional technical and operational analysis as well as state agency, Boulder County and citizen input, Crestone has already reduced the maximum number of wells needed to develop a two-section area of each proposed drilling and spacing unit underlying the CDP Area to 28 wells from its original proposal.

A potential Oil and Gas Location will require a temporary area of approximately 15-20 acres during drilling and completion operations to accommodate equipment, environmental controls, and mitigation measures, such as sound walls.

Once the wells are drilled and completed, the commissioning of the production equipment will begin. During the production phase, the Oil and Gas Location will be reclaimed ("Interim Reclamation") per Commission regulations back to 5-7 acres. Each well will have a dedicated separator, and other vessels and production equipment will be split amongst several wells. Overall, the production facilities will occupy a significantly smaller footprint from traditional facilities due to being "tankless" and using the Hub.

At the end of the wells' economic life, each well will be plugged, all surface equipment removed, and the entire area reclaimed ("Final Reclamation") to blend in with the surrounding area.

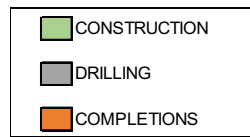
- Describe the conceptual planned timing/phasing of oil and gas operations, commencing with oil and gas location construction through drilling and completion within each proposed drilling and spacing unit within the CDP area.

Proposed project timing:

Assumptions:

- 1) 1 drilling rig (~12 days / well)
- 2) 1 completions fleet (~7 days / well)

Well Pad	# Wells	Lateral Length	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021	Q4 2021	Q1 2022	Q2 2022	Q3 2022	Q4 2022	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Q3 2024	Q4 2024	Q1 2025	Q2 2025	Q3 2025	Q4 2025
CPR Unit 1H-B169	28	2	CONSTRUCTION	DRILLING							COMPLETIONS															
	28	2					DRILLING							COMPLETIONS												
CPR Unit 3H-A169	28	2								CONSTRUCTION	DRILLING							COMPLETIONS								
	28	2											DRILLING						COMPLETIONS							
CPR Unit 35H-P269	28	2																CONSTRUCTION	DRILLING						COMPLETIONS	



*Please note that the CPR Unit 1H-B 169 is referencing the Section 1 well pad. If the Section 36 well pad is determined to the best available location, then such pad will track the same project timing as the Section 1 well pad.

- Describe the estimated well count and tank count at each oil and gas location and production facility

Well Pad	Well Count	Storage Tanks	Wellbore Direction	Wellbore Length
CPR Unit 1H-B169	28	0	North	2 sections
	28	0	South	2 sections
CPR Unit 35H-P269	28	0	North & South	2 sections
CPR Unit 3H-A169	28	0	North	2 sections
	28	0	South	2 sections
CDP TOTAL	140	0		

*Please note that the CPR Unit 1H-B 169 is referencing the Section 1 well pad. If the Section 36 well pad is determined to the best available location, then such pad will track the same project timing as the Section 1 well pad.

At the current time, Crestone is proposing three (3) potential Oil and Gas Locations within the CDP area, with five (5) well pads. Crestone intends all such locations will be “tankless”, meaning there will not be permanent hydrocarbon storage tanks and the ancillary equipment required for onsite storage of hydrocarbons. Crestone will transport by pipeline, all liquids produced from the wells on these well pads to the Hub, located at the intersection of CR 6 and CR 7, in Weld County, Colorado.

Although Crestone will not utilize permanent hydrocarbon storage tanks on these locations, some production equipment (i.e. “surge vessels”) may be required. Each well will have an allocation separator, which allows Crestone to pay their working interest partners and royalty owners without having to install tanks for the traditional method of tank gauging. Oil surge drums are also installed, at a rate of about one oil surge drum per eight separators. Similarly, a water surge drum and a water pump skid may be required depending on pipeline pressures during operations. Surge drums are horizontal pressure vessels approximately 4–½’ in diameter by 20’ long placed along the lines with constant fluid flow. These are installed to provide interface level control for the pumps. Crestone will also install electric-drive air compressors to provide air pressure to the instrumentation and control components at the wellheads, separators and pumps. Instrument air is a utility that replaces the use of natural gas for the same purpose, eliminating emission points. Each well pad may have multiple instrument air skids, approximately one per twelve wells. A structural skid is used to mount the variable frequency drives and starter panels for this equipment.

The gas, which separates from the liquids in the allocation separator, is sold through an onsite custody transfer meter, to Crestone’s gathering company. The third-party gatherer may have some piping facilities on location, adjacent to their meter, to inspect and maintain their pipeline system. Lastly, in the third-party gatherer limits the temperature at which the gas can be transferred from the site. A temporary fan might be installed if the produced temperatures exceed that allowable temperature – this would be especially true during new well startups in the summer. A liquid knockout will be installed just before the meter, to keep liquids out of the gas system.

See Attachment D.

- **Describe the use and location of any planned centralized Oil and Gas Facilities and underground injection facilities.**

As stated above, all liquids (oil, condensate, and produced water) produced by Crestone wells within the CDP will be transported via pipeline to the Hub. From the Hub, oil will be transported via truck or pipeline to the refineries. All gas produced will be transferred to the third party gathering company at the well pad and transported via pipeline to the gas treatment plant. The produced water will be

transported to a licensed commercial disposal facility for disposal. Crestone does not have plans to build or operate an underground injection facility for this project.

- **Describe by quarter-quarter section any lands for which Surface Use Agreement or right of way has been executed for well pads, production facilities, access roads or pipelines.**

At this point in time, Crestone has not executed a Surface Use Agreement or right of way for any proposed well pad, Oil and Gas Location, access road, or pipeline within the boundaries of the CDP Area. Notices were sent to Boulder County Open Space and two private landowners in early September to engage in consultation about using their surface for proposed well pads. Negotiations are ongoing with the private surface owners and Crestone is continuing its attempts to discuss and consult for the use of the Boulder County Open Space with Boulder County representatives. Crestone however, has been informed by Boulder County representatives that they will not discuss the use of Boulder County Open Space as potential Oil and Gas Locations until Crestone engages in the Boulder County oil and gas permitting process under Article 12 of the Boulder County Code. Crestone will continue to attempt such discussions with Boulder County, especially in light of CPW, CDPHE, Town of Erie, the public's and Boulder County's own comments requesting that Crestone locate the potential Oil and Gas Locations adjacent to Highway 52, with further comments specifically requesting the use of Boulder County Open Space for Oil and Gas Locations. If Boulder County Open Space would support the use of open space adjacent to Highway 52 for certain of the potential Oil and Gas Locations adjacent to Highway 52, then this would assist Crestone in analyzing the need for a Surface Use Agreement and/or easements for such locations.

(5) A plan for the management of exploration and production waste;

E&P, universal and hazardous waste will be temporarily stored and labeled onsite in compatible containers, e.g. production tanks/containers, completions tanks/containers, 55 gallon drums, three-sided tanks, bermed and lined areas, etc. Where practical, such containers will be covered to limit odors and wildlife activity. Containers will be inspected on a regular basis to ensure they are in good condition and free of damage. Inspection frequency will vary depending on the type of waste contained, activity onsite, and waste volumes. Waste will be segregated by type and will only be combined in accordance with an environmental review. Safety Data Sheets (SDS) for each waste and associated materials will be referenced for proper storage and transport of waste.

Waste in tanks/containers referenced above will periodically be transported offsite by a licensed transporter via truck in accordance with SDS handling and transport requirements. Where pipeline is available at our facility pad locations, produced water will be transported to a centralized production facility and then transported via truck from that facility to an authorized licensed disposal facility or transported by truck directly from the facility pad to an authorized licensed disposal facility. Transportation and disposal will be recorded on waste manifests to ensure proper

tracking and reporting. Truck transport frequency will vary from site to site based on waste volumes.

E&P petroleum impacted soils, drill cuttings, drilling mud, and tank bottoms will be disposed of at a licensed third-party disposal facility. Liquid wastes including flow back and produced water will be disposed of at a licensed third-party injection facility.

- Third Party Disposal Facilities
 - Waste Management
 - Buffalo Ridge Landfill – Keenesburg, Colorado
 - North Weld Landfill – Ault, Colorado
 - Republic Services
 - Waste Connections
 - Denver Regional Landfill - Erie, Colorado
 - Expedition Water Solutions - EWS #1, 2, & 3
 - NGL Water Solutions

All stormwater controls will be designed by a professional engineer, and all sites will be constructed under the Crestone's Stormwater Management Plan (SWMP). Active sites will be inspected bi-monthly until the site has achieved final stabilization.

Per Commission Rule 907.a.(3), Reuse and Recycling of E&P waste, Crestone, with prior approval from the Commission, will potentially recycle and reuse produced water to be used in downhole completions operations.

- **Describe the general drill cuttings management plan**

Crestone's well bore construction and design plans include the use of oil based mud ("OBM") during the drilling process. Due to the potential for odor from the use of OBM, Crestone will utilize multiple mitigation measures including, but not limited to, additives to the OBM, chillers for the drilling mud, enclosed mud tanks, and the walls around the location to contain the odors.

During operations, drill cuttings will be run through a shaker and dehydrated. The cuttings will be placed into storage bins adjacent to the rig. The cuttings will then be collected by a licensed transporter and delivered to a third party commercial disposal facility for disposal. Drill cutting volumes and transport records will be tracked via waste manifests.

(6) A description of the wildlife resources at each oil and gas location;

- **On the topographic map or aerial photo provided under element No. 1 or 2 above, identify SWHs and RSOs.**

See Attachment E, E-1 (DSU No. 1), E-2 (DSU No. 2) and E-3 (DSU No. 3).

(7) Wildlife information that is determined necessary after consultation with the Colorado Parks and Wildlife;

Colorado Parks and Wildlife provided feedback on the proposed CDP area and stated that they had the following biological concerns, which Crestone has addressed, or will address:

- Bald eagle nest in the W½ of Section 36 and winter roosts
 - Location of the nest with respect to the pipeline route
 - Timing of construction of the Section 35 well pad
- Swainson's hawk nest
- Great blue heron nesting and foraging areas
- Burrowing owl potential nesting habitat
- Raptor nests – if new nests are observed, CPW will be notified

CPW also had other comments and Crestone has addressed these below:

- Pipeline boring – the pipeline will be bored under Boulder Creek
- Crestone will consult with CPW upon approval of the CDP regarding any pre-construction surveys that may be necessary
- Crestone is reviewing the comment regarding no new activity within 100 meters of Boulder Creek
- Crestone will review the proposed pipeline crossing of Boulder Creek with CPW
- Crestone will consult with CPW on the Preble's meadow jumping mouse, burrowing owl and mountain plover survey

Crestone discussed the use of the Section 36 Alternative Oil and Gas Location due to Boulder County's recent information regarding the potential re-designation of Section 1 as a Floodway. It is Crestone's understanding that CPW maintains that Section 1 is a better location due to the Bald Eagle's nest in the W½ of Section 36. Crestone remains in contact with Colorado Parks and Wildlife and has continued to answer questions arising from Crestone's prior submissions.

(8) Locations of all proposed reference areas to be used as guides for interim and final reclamation;

See Attachment W.

(9) Past economic uses to which the land has been put in the previous ten (10) years reasonably known to the operator(s);

Nearly all the CDP has been converted from a native short grass prairie ecosystem into dryland cropland, irrigated cropland, pastures, transportation infrastructure, and residential development. Much of the CDP is preserved from development to retain the rural character of the CDP by either direct ownership by Boulder County or through Conservation Easements with Boulder County. It is important to note, however, that the Conservation Easements do allow for oil and gas development

as Crestone's leases pre-date such easements. The CDP Area, including lands covered by Conservation Easements, has been utilized for oil and gas development as evidenced by the ninety-five producing oil and gas wells within the boundary of the CDP Area. Boulder County informed Crestone that the area is also utilized for agricultural development.

- **Identify any existing agreements or ongoing coordination efforts with local governments that will apply to oil and gas exploration and production activities within the proposed CDP area.**

There are no existing agreements with local governments that apply to oil and gas exploration and production activities within the proposed CDP Area; however, Crestone is in communication with Boulder County and the Town of Erie regarding the CDP development proposal. Crestone has engaged in several meetings with Boulder County and Town of Erie and will continue to coordinate and collaborate with the Town of Erie and Boulder County as the CDP process proceeds, with such coordination to continue to include in-person meetings, invitations any additional neighborhood or public meetings, distribution of any notifications or documents related to the CDP Area, among other items. Crestone welcomes comments from the Town of Erie and Boulder County to the Final CDP is reviewed by the Commission Director and Commissioners.

(10) Any planned variance requests that are reasonably known to the operator;

- **Identify any known or anticipated additional variance requests**

Due to the nature of this CDP process, at this time Crestone maintains that the following list is non-inclusive and that there may be additional known or anticipated variance requests for the CDP Area that arise as this project progresses to hearing with the Commission. However, Crestone, can reasonably foresee that it may have Rule 502.b. variance requests related to the following:

- Rule 303.g. – Permit Expiration: Crestone will seek a variance on the length of time a Form 2 and Form 2A are valid and will request that such time period correspond to the initial length of the CDP which is six (6) years. Such variance will apply to all Form 2 and Form 2A's for the well pads within the CDP Area. Crestone is specifically requests that this Commission allow the Form 2 and Form 2A terms to extend past the allowable two (2) and three (3) years, respectively, due to the unknown timing of Commission permitting for the requested number of wells in each proposed drilling and spacing unit, the unknown timing of the Boulder County land use permits for the Oil and Gas Locations proposed in each proposed drilling and spacing unit, the duration of oil and gas operations for the construction of each Oil and Gas Location on the CDP Area, the duration of oil and gas operations for the drilling and completing of the requested number of wells for the CDP Area, and other foreseeable delays on timing of Crestone's development and operation of the Codell and Niobrara Formations on the CDP Area. Crestone will provide additional details for the variance and submit the variance request with each Form 2 and Form 2A.

- Rule 318A – Drilling Window Requirements: Crestone will seek a variance to the location of the Section 1 well pad outside of the Rule 318A drilling window in order to avoid the currently mapped Floodway. Crestone will provide additional details for the variance and submit the variance request with the Form 2A.
- Rule 318A – Twinning Variance: Crestone will seek a variance from Rule 318A for the twinning of wells for all well pads within the CDP. Crestone will provide additional details for the variance and submit the variance request with each Form 2 and Form 2A.
- Rule 216.g. – Six-year Length of time for CDP: Crestone will seek a variance for the six (6) year length of approval set forth in Rule 216 for a CDP. Crestone requests that the Commission allow the CDP to be valid for a period of six (6) years, or so long as oil and gas operations are occurring on the Application Lands. Crestone specifically requests that this Commission allow the Rule 216 Comprehensive Drilling Plan to extend past the allowable six (6) years for so long as oil and gas operations are occurring on the Application Lands due to the unknown timing of Commission permitting for the requested number of wells in each proposed drilling and spacing unit, the unknown timing of the Boulder County land use permits for the Oil and Gas Locations proposed in each proposed drilling and spacing permit, the duration of oil and gas operations for the construction of each Oil and Gas Location on the Application Lands, the duration of oil and gas operations for the drilling and completing of the requested number of wells for the Application Lands, and other foreseeable delays on timing of Applicant's development and operation of the Codell and Niobrara Formations on the Application Lands. Crestone will provide additional details for the variance at the CDP hearing.
- Rule 1003 - Interim Reclamation Timing Requirements: Crestone may seek a variance to Rule 1003 interim reclamation timing requirements for all well pads, if necessary, to ensure that there is adequate time for drilling, completion and production operations to occur within the 10-square mile CDP Area. Crestone will provide additional details for the variance and submit the variance request with each Form 2A.
- Rule 303.b.(3)(L) – Requirement for Multi-well plan: Crestone may seek a variance to Rule 303.b.(3)(L) for the submittal of a multi-well plan upon filing of any Form 2A for all well pads within the CDP Area. Crestone will provide additional details for the variance and submit the variance request with each Form 2A.
- Crestone reserves the right to request additional variances at the CDP hearing or as the Form 2 and Form 2A's are submitted to the Commission under an approved CDP plan.

(11) Proposed best management practices or mitigation to minimize adverse impacts to resources such as air, water, or wildlife resources; and

- **Identify appropriate Rule 603 best practices**

Crestone will comply with all applicable requirements outlined in Rule 603. Crestone's proposed Section 1, Section 3 and Section 35 potential Oil and Gas Locations are outside of Commission buffer zones and are greater than 1000' from the nearest building. The Alternative Section 36 potential Oil and Gas Location is within 1,000' from the nearest building. The site design utilizing pipelines to transport oil and gas to a central facility will minimize traffic by eliminating the need for truck transport. The locations will be inspected regularly and kept free of trash, debris and weeds. No waste material or unused equipment will be stored on site.

The Section 1 potential Oil and Gas Location is currently located within a floodplain, but the actual location of the Section 1 wells and production facilities are outside of Boulder County's existing floodway area. As stated above, Boulder County is attempting to re-designate a majority of Section 1 as a "Floodway" but, as of the date of this filing, such re-designation has not been approved or adopted. Crestone will utilize a professional engineer to design the well pads within Section 1 and to ensure compliance with Commission Rule 603.h. including orienting the well pad to minimize potential flood impact and any other applicable state regulations. A current inventory of all equipment onsite will be maintained and equipment will have automatic shutoffs installed in the event of a catastrophic event. All equipment will be properly anchored. No tanks will be utilized on location. Secondary containment will be constructed using steel berms and an impervious liner.

- **Identify any planned oil and gas facility or production facility locations that would be within a Designated Setback Location or Urban Mitigation Area.**

The Section 1, Section 3 and Section 35 wells pads are not within a Designated Setback Location. If the Alternative Section 36 Oil and Gas Location is utilized, then it will be within a Designated Setback Location. Crestone has made every effort to avoid all Designated Setback Locations and continues to maintain that the Section 1 well pad is the preferred location for purposes of protecting building unit owners from a closer location. None of the potential locations have ever been in an Urban Mitigation Area. Crestone's initial constraints on reviewing and analyzing any potential oil and gas location was to ensure that no such location will be within a Designated Setback Location or Urban Mitigation Area. Crestone, however, was forced by Boulder County to review and analyze the Alternative Section 36 Oil and Gas Location within a Designated Setback Location.

- **Identify appropriate Rule 604.c. Mitigation Measures best practices**

Crestone will employ all Rule 604.c. mitigation measures on any final Oil and Gas Location to ensure compliance all applicable state and federal rules and to

minimize impacts to the public and the environment associated with its oil and gas operations in the CDP area. Crestone will also incorporate site-specific BMP's on final Oil and Gas Locations as such site-specific BMP's develop through the public meeting process, public comment process and Commission Form 2A permitting process.

(12) A list of all parties that participated in creating the Comprehensive Drilling Plan pursuant to Rule 216.d.(2).

- **Provide a list of all local governmental designees, HOAs, and Planned Unit Developments within the CDP area.**

Local Governments within CDP Application Lands:

- Boulder County (Planning Department)
- Boulder County Open Space
- Boulder County Attorney
- Town of Erie
- Town of Erie Attorney

On September 7, 2017 and September 11, 2017, Crestone sent Boulder County Open Space letters requesting discussions regarding the use of Boulder County Open Space surface for potential Oil and Gas Locations within the CDP area. See Attachment F. Boulder County Open Space responded through the Boulder County Attorneys' office stating that it would not be consulting with Crestone until Crestone engages in the County oil and gas permitting process. As recently as November 8, 2017, the Boulder County attorney restated this position and, again, politely declined to meet with Crestone to specifically discuss the use of Boulder County Open Space for the initial potential oil and gas locations or any proposed alternative oil and gas locations adjacent to Highway 52. In April 2018, Crestone again requested discussions about the use of Boulder County Open Space for purposes of oil and gas development and was told that no discussion will occur until the local government permitting process is initiated. Crestone will continue to engage with Boulder County in the hopes that it will discuss the potential and alternative oil and gas locations as part of this CDP process. Crestone has provided notice to Boulder County of the potential Oil and Gas Locations set forth herein and welcomes further discussions with Boulder County on the use of open space for such locations.

HOAs:

- The Cottages at Erie Village Owners Association
- The Kenosha Estates Homeowners Association
- Erie Village Homeowners Association, Inc.
- Kenosha Farm Homeowners Association, Inc.
- Oxford Farm HOA

PUDs:

Crestone is continuing to determine whether there are any PUDs in the CDP area other than those included on the Boulder County Planning website.

- **Provide a list of surface and mineral owners within the proposed CDP area.**

See Attachment G.

Surface owners within CDP Application Lands:

Crestone notified the over 700 known surface owners within the CDP Area as shown on the Boulder County Assessor's webpage. The known surface owners are listed on Attachment G. Pursuant to Rule 216, Crestone notified the known surface owners within the CPD Application Lands. On September 14, 2017, Crestone also sent an introductory letter to various surface owners within the CDP area. See Attachment H. As part of the public comment and neighborhood meeting process, Crestone focused initially on those surface owners within ½ mile of a potential oil and gas location and invited such persons to a neighborhood meeting on October 18, 2017. The invitations were to persons both within and outside of the CDP Area. Such persons were also invited to a telephonic town hall on October 19, 2017. Upon request from the Commission, Crestone invited over 700 surface owners, plus local governments and state agencies, to a second telephonic town hall on November 2, 2017. As part of the process associated with this Third Draft Preliminary CDP Plan submittal, Crestone held a third telephonic town hall on January 11, 2018 for the over 700 surface owners and other stakeholders within the CDP Area. As part of the process associated with the Fourth Draft Preliminary CDP Plan submittal, Crestone held a fourth telephonic town hall on April 4, 2018 for the over 700 surface owners, local governments, state agencies, senators, legislators, and the media.

In addition to the above-referenced surface owners receiving a copy of the original CDP Application and Amended CDP Application, working interest owners and unleased mineral interest owners within the CDP Area also received Second Amended Applications for the three-corresponding drilling and spacing units. These are listed on Attachment H.

- **216.d.(2) Colorado Department of Public Health and Environment, the Colorado Parks and Wildlife, local governmental designee(s), and all surface owners.**

Crestone notified the following state agencies upon initial submission of the CDP Application as well as invited each to any CDP meeting/conversation with Commission Staff:

- Colorado Oil and Gas Conservation Commission
- Colorado Department of Public Health and Environment
- Colorado Parks and Wildlife
- Colorado Department of Transportation

- Colorado State Land Board

As of the date of this Final CDP submission, the Commission, CDPHE and CPW have provided feedback to Crestone's original CDP Application as well as, in certain instances, Crestone's Conceptual Information submission on April 11, 2017, Crestone's Conceptual and Preliminary Elements submission, and Crestone's Second, Third and Fourth Draft Preliminary Elements submission. Crestone has not received any comments, nor objections, from the Colorado Department of Transportation or the Colorado State Land Board.

- **Other Parties who should be considered for participation in the CDP process: Emergency Responders, Neighborhood Groups, Irrigation companies, Special Water and Sanitation Districts.**
 - Boulder Rural Fire Protection
 - Boulder County Sheriff Office
 - Erie Police Department
 - Boulder & Weld County Ditch
 - Boulder & White Rock Ditch
 - Northern Colorado Water Conservancy District
 - Howell Ditch Company

Rule 216.d.(1)-(3) - Procedure:

- (1) **A proposed Comprehensive Drilling Plan shall describe the operator's reasonably foreseeable oil and gas development activities.**

See description above in Rule 216.c.(4); See also Attachment I, I-1, I-2 and I-3 and the three (3) corresponding spacing applications for the CDP Area.

- **Identify Applicant's mineral ownership percentage within the CDP area using color-coding to indicate the following tiers: 0%; 1-49%; 50-99%; 100%.**

For purposes of this Final CDP submittal, Crestone's working interest ownership percentage within each DSU (that covers the entirety of the CDP Application Lands) is as follows:

- DSU #1: 65.50%
- DSU #2: 71.10%
- DSU #3: 77.95%

Crestone owns a total of approximately 71.5% working interest in the entire CDP Application Lands. Crestone will continue to revise and supplement its ownership as the leasing process and record title ownership analysis progresses. Crestone has partial undivided leasehold interests in each of the three (3) DSUs comprising the CDP Application Lands. See Attachment J, J-1, J-2 and J-3.

- (2) **The operator(s) shall invite the Colorado Department of Public Health and Environment, the Colorado Parks and Wildlife, local governmental designee(s), and all surface owners to participate in the development of the Comprehensive Drilling Plan. In many cases, participation by these agencies and individuals will facilitate identification of potential impacts and development of conditions of approval to minimize adverse impacts.**

Crestone has complied, and will continue to comply, with the requirements of this section. Crestone will continue to communicate with and provide invitations for any meetings or telephonic town halls held by Crestone to the Colorado Department of Public Health and Environment, Colorado Parks and Wildlife, the Town of Erie and Boulder County, surface owners within ½ mile of any potential oil and gas location and other surface owners within the CDP area. As of the date of this filing, Crestone has provided personal invitations to the Colorado Department of Public Health and Environment, Colorado Parks and Wildlife, Colorado Department of Transportation, Colorado State Land Board, the Town of Erie, Boulder County, Boulder County Open Space, any surface owner within ½ mile of any potential Oil and Gas Location, as well as the entire membership of the homeowner's association in Section 26, Township 2 North, Range 69 West, and all other 700+ surface owners within the CDP Area. Crestone welcomed the participation and feedback on the each of Crestone's Draft CDP submittal from the state agencies, local governments and individuals within the CDP Area. See Attachment K for a map illustrating the ½ mile buffer from each potential Oil and Gas Location. As set forth above, Crestone also noticed over 700 surface owners, plus local governments and state agencies, to participate in the each of the four (4) telephonic town hall meetings. Crestone will be holding a fifth (5th) telephonic town hall on June 27, 2018.

- (3) **The operator(s) shall provide a summary of the proposed identified measures to minimize adverse impacts.**

Crestone will employ each of the following mitigation measures on all final Oil and Gas Locations within the CDP Area to ensure compliance all applicable state and federal rules, as well as any site-specifics measures determined necessary as a result of comments received during public meetings, public comment and the Commission's review of the Form 2A's. Site specific mitigation measures will be included on each Form 2A filed for the final, approved Oil and Gas Locations. Crestone's intent is to minimize impacts to the public and the environment associated with its oil and gas operations in the CDP area through the following Rule 604.c.(2) mitigation measures:

- A. Noise - Crestone will employ the most current technology available at the time of operation (i.e. sound mitigation walls) to ensure compliance with Rule 802. Crestone will continuously monitor noise readings with instruments placed between the Oil and Gas Location and residential Building Units. An ambient sound level survey will be conducted. Crestone will conduct noise monitoring during construction, drilling, and completion operations. To provide long term noise mitigation at this location, all production equipment will be powered by electricity. Once flowback operations are complete, a noise study will be completed to determine if additional permanent noise mitigation measures are needed. During all

phases of operations, low-frequency noise levels will not exceed 65 dBC as measured from the nearest Building Unit. If sound levels exceed 65 dBC, Crestone will remedy the exceedance within 48 hours of the occurrence.

- B. Closed Loop Drilling Systems - A closed loop system will be utilized during drilling. No open pits will be used.
- C. Green Completions - Test separators and associated flow lines and sand traps shall be installed on-site to accommodate green completion techniques pursuant to Commission Rules. In the anticipated absence of a viable gas sales line, the flowback gas shall be thermally oxidized in an emissions control device (ECD), which will be installed and kept in operable condition for least the first 90 days of production pursuant to CDPHE rules. This ECD shall have an adequate capacity for 1.5 times the largest flowback within a 10-mile radius, will be flanged to route gas to other or permanent oxidizing equipment and shall be provided with the equipment needed to maintain combustions where non-combustible gases are present. Crestone notes that its intent it to have liquid and gas pipelines in place prior to production from the oil and gas locations within the CDP Area.
- D. Traffic Plan - A Traffic Impact Study (TIS) will be completed as part of the well pad permitting process. The proposed haul route and overweight haul route for construction, drilling, completion, and production traffic will be designated through this study. Water will not be trucked to the location for completion operations. Crestone's intent is to pipe water to oil and gas location for completions operations in lieu of trucking the water to such locations. However, during the flowback phase, Crestone will utilize temporary flowback tanks and truck the liquids off of each location until the wells are within specifications to flow by pipeline to the Hub. During this temporary flowback period, Crestone will deploy mitigation measures adequate to protect the environment from accidental spills or releases by installing liners and berming around the tanks.
- E. Multi-well Pads - This will be a multi-well pad, located in a manner which allows for the greatest distances possible from building units. The layout of the production facilities was configured to be as far as possible from building units in order to keep the facilities outside of the Buffer Zone, as per Rule 604.c.(2)E.
- F. Leak Detection Plan - Crestone will monitor production facilities weekly at a minimum to a maximum of daily to identify fluid leaks; including, but not limited to, visually inspecting all wellheads, tanks and fittings. As part of Crestone's Leak Detection and Repair (LDAR) program, all facilities including above ground flowlines and piping will be inspected monthly with an infrared camera. This frequency may be reduced as production declines in accordance to Colorado Department of Health and Environment -

Regulation 7 Section XVII. If identified, hydrocarbon leaks are tagged and repaired accordingly: a first attempt of repair will be made within the first five days, and thereafter will be cleared or repaired on the next scheduled shutdown. Whenever any condition that could adversely affect the safe and proper operation of the facility is discovered, it will be addressed immediately. If at any time, the condition is of such a nature that it presents an immediate hazard to persons or property, the affected part of the system shall not be operated until the unsafe condition has been corrected. Additionally, inspections will be completed at least monthly, if not more frequently, as part of Crestone's internal Audio, Visual, and Olfactory (AVO) Monitoring Program. Records of the AVO inspections will be maintained through Crestone's field data capture software. If a leak is identified, reporting and repair will be initiated through Crestone's internal process. Additionally, annual SPCC inspections will be conducted by a third party and documented. Annual flowline testing will also occur according to Commission rules. Inspection and record retention of flowline testing will be in accordance per Commission regulation. All records will be made available to the Commission upon to request.

- G. Berm construction - Berms shall be constructed of steel rings with a synthetic or engineered liner and designed to contain 150% of the capacity of the largest vessel. Secondary containment devices shall be sufficiently impervious to contain any spilled or released material. Tertiary containment, such as an earthen berm, will be installed around production facilities. All berms will be visually checked weekly at a minimum to a maximum of daily by the lease operator to ensure proper working condition. Additionally, inspections will be completed monthly, if not more frequently, as part of Crestone's internal Audio, Visual, and Olfactory (AVO) Monitoring Program. Records of the AVO inspections will be maintained through Crestone's field data capture software. If a berm is found to be in non-operating condition or if a leak is identified, reporting and repair will be initiated through Crestone's internal process. Annual detailed berm inspections will be conducted per the SPCC plan by a third party.
- H. Blowout preventer equipment ("BOPE") - Blowout prevention equipment for drilling operations will consist of double ram with blind ram and pipe ram. At least one person at the well site during drilling operations will Mineral Management certification for blowout prevention.
- I. BOPE testing for drilling operations - Upon initial rig-up and at least once every thirty (30) days during drilling operations thereafter, pressure testing of the casing string and each component of the blowout prevention equipment including flange connections shall be performed to seventy percent (70%) of working pressure or seventy percent (70%) of the internal yield of casing, whichever is less. Pressure testing shall be conducted and the documented results will be retained for inspection by the Director for a

period of one year. Activation of the pipe rams for function testing shall be conducted daily when practicable

- J. BOPE for well servicing operations - A double ram and annular preventer will be used during drilling. Stabbing valves shall be installed in the event of reverse circulation and shall be prior tested with low and high-pressure fluid.
- K. Pit level indicators – There will be no pits on any CDP location.
- L. Drill stem tests - Closed chamber drill stem tests shall be allowed. All other drill stem tests shall require approval by the Director.
- M. Fencing - The location will be adequately fenced to restrict access by unauthorized persons. Fencing will be installed around facilities and wellheads. Fence shall be six (6) feet in height, of noncombustible material, and will include a gate that shall be locked.
- N. Control of fire hazards - Any material not in use that might constitute a fire hazard shall be removed a minimum of twenty-five (25) feet from the wellhead, tanks and separator. Any electrical equipment installations inside the bermed area shall comply with API RP 500 classifications and comply with the current national electrical code as adopted by the State of Colorado. Crestone shall comply with Rule 606A.d. regarding flammable liquids.
- O. Loadlines - All loadlines shall be bull plugged or capped.
- P. Removal of surface trash - All trash, debris and material not intrinsic to the operation of the oil and gas facility shall be removed and legally disposed of as applicable.
- Q. Guy line anchors – Crestone’s contracted drilling rigs do not use guy line wires, but guy lines are used with the current fleet of workover rigs. If a guy line anchor is required, the anchors left buried for future use shall be identified by a marker of bright color not less than four (4) feet in height and not greater than one (1) foot east of the guy line anchor.
- R. Tank specifications – Crestone will not be using storage tanks at any of the facilities in the CDP Area.
- S. Access roads - All access roads will be constructed to the required standard to accommodate local emergency vehicles. These roads will be maintained for access at all times. These roads will also be the primary access for all operational traffic including material deliveries. During the completions phase, water will be locally sourced and piped to the locations, but sand will be delivered by truck. Traffic will be routed to minimize local

interruption. Dust control measures like watering and magnesium chloride will be utilized, as necessary. Further, when constructing access roads, topsoil will be removed first. From the access point, the first 100' will be constructed with asphalt. The remainder of the road to the well pad and facilities will be 6" of compacted class 6 road base with an additional 4" of recycled asphalt on top.

- T. Well site cleared - Within ninety (90) days after a well is plugged and abandoned the well site shall be cleared of all non-essential equipment, trash, and debris. For good cause shown, an extension of time may be granted by the Director.
- U. Identification of plugged and abandoned wells - The operator shall identify the location of the wellbore with a permanent monument as specified in Rule 319.a.(5). The operator shall also inscribe or imbed the well number and date of plugging upon the permanent monument.
- V. Development from existing well pads – There are no existing well pads within the area that meet the size and location requirements to accommodate Crestone's operations planned for the CDP Area.
- W. Site-specific measures - During any Rule 306 consultation, Crestone may develop a mitigation plan to address location specific considerations not otherwise addressed by specific mitigation measures identified in this subsection 604.c.

The Commission requested an overview of the expected benefits of an approved Final CDP to the Town of Erie and Boulder County. Such benefits will include the following non-inclusive list of items which will continue to evolve as this CDP process progresses:

- A comprehensive plan for oil and gas development for 10-square mile area in Boulder County.
- The siting of three (3) potential Oil and Gas Locations more than 1,000' away from a building unit or residence.
- Open and transparent planning process which involves government and citizen stakeholders from conception through final Commission approval.
- Minimization of surface disturbance through the consolidation of multi-wells pads and facility locations for the development of the proposed CDP area and the use of existing state and county roads.
- Tankless locations by utilizing the Hub, Crestone's central gathering facility in Weld County, for gathering all liquids from CDP well pads.
 - Oil, gas and water pipeline infrastructure from each well pad
 - Significant reduction in truck traffic because of pipeline infrastructure
 - To the extent technically feasible and reasonably practicable, use of existing road and utility easements for the location of the oil, gas and water pipeline infrastructure
- Landscape scale mitigation planning to protect the environment, wildlife, and other natural resources.

- Engineering review of all 95 current producing oil and gas wells within the boundaries of the CDP for potential plugging and removal; to the extent allowed by law or contract, Crestone intends to plug and abandon certain vertical/directional wells within the CDP Area as part of the overall development process.
- Crestone will return certain portions of Boulder County Open Space to usable, reclaimed lands upon plugging and abandoning certain vertical/directional wells within the CDP Area.
- Economic benefits to school districts and other Boulder County entities from severance and ad valorem tax revenues from hydrocarbon production in unincorporated Boulder County.

Rule 216.e. – Variances and Site-Specific Approvals:

(1) Identify any rule variances to be incorporated and all the requirements for granting variances.

Any rule variance will be governed by the requirements of any applicable provision of the Colorado Oil & Gas Conservation Act, C.R.S. §34-60-101 et seq., and Commission Rule 502.b. Due to the nature of this CDP process, at this time Crestone maintains that the following list is non-inclusive and that there may be additional known or anticipated variance requests for the CDP Area that arise as this project progresses to hearing with the Commission. However, Crestone, can reasonably foresee that it may have Rule 502.b. variance requests related to the following:

- Rule 303.g. – Permit Expiration: Crestone will seek a variance on the length of time a Form 2 and Form 2A are valid and will request that such time period correspond to the initial length of the CDP which is six (6) years. Such variance will apply to all Form 2 and Form 2A's for the well pads within the CDP Area. Crestone is specifically requests that this Commission allow the Form 2 and Form 2A terms to extend past the allowable two (2) and three (3) years, respectively, due to the unknown timing of Commission permitting for the requested number of wells in each proposed drilling and spacing unit, the unknown timing of the Boulder County land use permits for the Oil and Gas Locations proposed in each proposed drilling and spacing unit, the duration of oil and gas operations for the construction of each Oil and Gas Location on the CDP Area, the duration of oil and gas operations for the drilling and completing of the requested number of wells for the CDP Area, and other foreseeable delays on timing of Crestone's development and operation of the Codell and Niobrara Formations on the CDP Area. Crestone will provide additional details for the variance and submit the variance request with each Form 2 and Form 2A.
- Rule 318A – Drilling Window Requirements: Crestone will seek a variance to the location of the Section 1 well pad outside of the Rule 318A drilling window in order to avoid the currently mapped Floodway. Crestone will provide additional details for the variance and submit the variance request with the Form 2A.

- Rule 318A – Twinning Variance: Crestone will seek a variance from Rule 318A for the twinning of wells for all well pads within the CDP. Crestone will provide additional details for the variance and submit the variance request with each Form 2 and Form 2A.
- Rule 216.g. – Six-year Length of time for CDP: Crestone will seek a variance for the six (6) year length of approval set forth in Rule 216 for a CDP. Crestone requests that the Commission allow the CDP to be valid for a period of six (6) years, or so long as oil and gas operations are occurring on the Application Lands. Crestone specifically requests that this Commission allow the Rule 216 Comprehensive Drilling Plan to extend past the allowable six (6) years for so long as oil and gas operations are occurring on the Application Lands due to the unknown timing of Commission permitting for the requested number of wells in each proposed drilling and spacing unit, the unknown timing of the Boulder County land use permits for the Oil and Gas Locations proposed in each proposed drilling and spacing permit, the duration of oil and gas operations for the construction of each Oil and Gas Location on the Application Lands, the duration of oil and gas operations for the drilling and completing of the requested number of wells for the Application Lands, and other foreseeable delays on timing of Applicant's development and operation of the Codell and Niobrara Formations on the Application Lands. Crestone will provide additional details for the variance at the CDP hearing.
- Rule 1003 - Interim Reclamation Timing Requirements: Crestone may seek a variance to Rule 1003 interim reclamation timing requirements for all well pads, if necessary, to ensure that there is adequate time for drilling, completion and production operations to occur within the 10-square mile CDP Area. Crestone will provide additional details for the variance and submit the variance request with each Form 2A.
- Rule 303.b.(3)(L) – Requirement for Multi-well plan: Crestone may seek a variance to Rule 303.b.(3)(L) for the submittal of a multi-well plan upon filing of any Form 2A for all well pads within the CDP Area. Crestone will provide additional details for the variance and submit the variance request with each Form 2A.
- Crestone reserves the right to request additional variances at the CDP hearing or as the Form 2 and Form 2A's are submitted to the Commission under an approved CDP plan.

(2) Practices and conditions agreed to in an accepted Comprehensive Drilling Plan shall be:

- A. Included as conditions of approval in any Form 2 or other permit for individual wells or other ground-disturbing activity covered by the Plan, where no Form 2A is required under Rule 303.d.(2).B.**

Crestone shall apply any conditions of approval and best management practices approved by the Commission as part of the approval process on any Form 2 or Form 2A.

- B. Included as conditions of approval in any Form 2, Form 2A, or other permit for individual wells or other ground-disturbing activity covered by the Plan, where a Form 2A is required under Rule 303.d.(1).**

Crestone is attaching DRAFT Form 2A's for review and comment for each of the three proposed Oil and Gas Locations set forth herein.⁷ See Attachment L. **These DRAFT Form 2A's have NOT been submitted to the Director for approval. These DRAFT Form 2A's are for informational and discussion purposes only. The Commission's approval of the proposed CDP IS NOT the acceptance or approval of the DRAFT Form 2A's attached hereto.**

The purpose of submitting the DRAFT Form 2A's is to allow state agencies, local governments, surface owners and members of the public reviewing this CDP submittal to provide early feedback on the DRAFT Form 2A's. This early communication and discussion regarding the DRAFT Form 2A's will allow Crestone and the Commission Staff, Commission Director and the Commissioners to address site-specific comments on the proposed locations and fully develop the final Form 2A's to be submitted upon approval of the FINAL CDP.

Any Form 2A submitted for an Oil and Gas Location within the CDP Area will have a separate Rule 305.d. comment period that is open to the public through the Form 2A process upon Crestone's submittal of actual Form 2A's and the Director's determination of their completeness.

Crestone shall apply any conditions of approval and best management practices approved by the Commission as part of the approval process on any Form 2 or Form 2A.

- C. Any permit-specific condition of approval for wildlife habitat protection will be included only with the consent of the surface owner.**

Crestone shall apply any conditions of approval and best management practices approved by the surface owner and the Commission as part of the approval process on any Form 2 or Form 2A.

Crestone's Analysis and Initial Response to Information Obtained During Stakeholder Outreach Process

1. Meetings Conducted During First, Second, Third and Fourth Formal Stakeholder Outreach and Engagement Period

⁷ Please note that there is not a DRAFT Form 2A for the Alternative Section 36 Oil and Gas Location as Crestone is currently working with the fee surface owner to gain access for surveying and review of the potential alternative location. Crestone will supplement this Final CDP Attachment K accordingly once the DRAFT Form 2A for the Alternative Section 36 Oil and Gas Location is complete.

- October 18, 2017: Vinelife Church Neighborhood Meeting: Crestone invited over 140 parcel owners who were located within a ½ mile of the six potential oil and gas locations to the neighborhood meeting and the first telephonic town hall. This initial invitation included the entire membership of the homeowner's association in Section 26, Township 2 North, Range 69 West. Of those invited, 59 attended the meeting at the Vinelife Church and 41 number attended the telephonic town hall. Upon comment and request from the public and Boulder County, the Commission required Crestone to hold a second telephonic town hall within the first stakeholder outreach period set forth above and to extend the first formal stakeholder comment period to Friday, November 11, 2017. Crestone complied and invited over 700 people, along with local governments and state agencies, to participate in a telephonic town hall on Thursday, November 2, 2017. Of those invited, 26 attended the telephonic town hall. During the second telephonic town hall, Crestone clearly invited each and every participate to request a one-on-one meeting with Crestone to continue to discuss the concerns stated during the stakeholder outreach process. As of the date of this filing, only a handful of the surface owner/citizen participants have accepted Crestone's offer of a one-on-one discussion.
- October 19, 2017: First Telephonic Town Hall
- October 25, 2017: Proposed Meeting with Nanner Fisher, CDP area resident, who accepted a one-on-one meeting with Crestone on October 19, 2017 and then cancelled such meeting on October 24, 2017
- November 2, 2017: Second Telephonic Town Hall - One-on-one meetings offered to each person, Senator and Legislative Representative participating in telephonic town hall
- November 7, 2017: Town of Erie Meeting
- November 8, 2017: CDPHE Meeting
- November 8, 2017: Boulder County/Commission Staff Meeting
- December 13, 2017: Kenosha Road Property Owners Representative and Mr. Sura
- December 13, 2017: Oxford Farm Property Owners Representatives and Mr. Chiropolos
- January 11, 2018: Third Telephonic Town Hall - One-on-one meetings offered to each person, Senator and Legislative Representative participating in telephonic town hall
- January 17, 2018: Meeting with Section 2 and Section 35 Surface Owners
- January 22, 2018: Meeting with Section 2 Surface Owners and Counsel
- February 7, 2018: Meeting with Surface Owners near Section 2 potential location
- April 4, 2018: Fourth Telephonic Town Hall - One-on-one meetings offered to each person, Senator and Legislative Representative participating in telephonic town hall
- April 26, 2018: Boulder County Meeting
- June 15, 2018: Final CDP Submittal
- June 27, 2017: Fifth Telephonic Town Hall to be held by Crestone

Throughout the course of this CDP Process Crestone representatives and counsel have fielded hundreds of calls, emails and questions about the CDP Area, CDP submittals and overall development plans. This open line of communication will continue as this process progresses.

Crestone requested a meeting with Colorado Parks and Wildlife and as of the date of this filing, CPW has not confirmed a meeting regarding the CDP is necessary. Crestone has, however, been in contact with a representative of CPW on a regular basis.

2. Comments Received During First, Second, and Third Formal Stakeholder Outreach and Engagement Period

Crestone received the following comments during the Stakeholder Outreach and Engagement Period:

November 2, 2017: Kenosha Road Property Owners (Matthew Sura)
December 8, 2017 See Attachment M.

November 9, 2017: CDPHE (Kent Kuster)
January 19, 2018 See Attachment N.
April 13, 2018

November 10, 2017: Town of Erie (R. Martin Ostholthoff)
See Attachment O.

November 10, 2017: Boulder County (Kim Sanchez/Kate Burke)
December 8, 2017 See Attachment P.
January 19, 2018
April 15, 2018

December 8, 2017: Oxford Road Property Owners (Mike Chiropolos)
January 19, 2018 See Attachment Q.

December 8, 2017: City of Boulder
January 19, 2018 See Attachment R.
April 15, 2018

December 9, 2017: Jeff Thompson
January 19, 2018 See Attachment S.

January 19, 2018: Colorado Parks & Wildlife
See Attachment T.

Various Dates: Public Comments via Commission comment portal
See Attachment U.

Various Dates: Comments from CDP and surrounding area surface owners during October 18, 2017 meeting and October 19, November 2, 2017, and January 11, 2018 telephonic town halls

Various Dates: Comments from Boulder County citizens via Crestone's CDP comment email

Various Dates: Comments from Boulder County citizens via Boulder County's website/email submittal

3. Crestone's Analysis and Response to Meetings and Comments Received During First, Second and Third Formal Stakeholder Outreach and Engagement Period

- Comments from Kenosha Road Property Owners:

Crestone met with Mr. Sura and a representative of the Kenosha Road Property Owners on December 13, 2017. Notwithstanding Kenosha Road's statement clearly stating that they do not support and outwardly oppose oil and gas development in Boulder County, Crestone responds as follows:

- a. Crestone utilized the current Commission Designated Setback Location of 1,000' for its location analysis for the original potential oil and gas locations. 1,500' exceeds state requirements, however, Crestone will review Kenosha Roads alternative locations in relation to Crestone's leasehold rights and potential surface access/use rights.
- b. Based on comments from the CDPHE, Town of Erie, Boulder County, COGCC and numerous citizens and citizen groups, Crestone concluded that Highway 52 potential Oil and Gas Locations, illustrated on the new Attachment A, can be utilized to develop the entirety of the CDP area in accordance with the Colorado Oil and Gas Conservation Act and also results in protections to the public health, safety and welfare. Crestone, however, continues to maintain that it has limited potential locations on Highway 52 due to surface constraints, limited surface allowances and Boulder County's position that it will not discuss or consult with Crestone for potential use of Boulder County Open Space adjacent to Highway 52 until Crestone consents to utilizing Boulder County's permitting process prior to the Commission's CDP process.
- c. As set forth above, Crestone will take the utmost precautions on developing an oil and gas location within a FEMA floodplain or Floodway.

- Comments from CDPHE:

Crestone met with Kent Kuster of the CDPHE on November 8, 2017 and engaged in a productive dialogue about the CDP Area and potential oil and gas locations. Crestone is appreciative of the CDPHE's feedback and responds to certain of the CDPHE comments as follows:

- a. Crestone continued its in-depth review and analysis of the initial potential oil and gas locations as a result of numerous comments requesting such locations to be located adjacent to Highway 52. Crestone, however, has limited potential locations on Highway 52 due to surface constraints, limited surface allowances and Boulder County's position that it will not discuss or consult with Crestone for potential use of Boulder County Open Space adjacent to Highway 52 until Crestone consents to utilizing Boulder County's permitting process prior to the Commission's CDP process.
 - b. With respect to the CDPHE's request that the pipeline system be in service before production from any wells within the CDP area occurs, Crestone can confirm that, at this point, its intent is to have such pipelines in place but must reserve the right to modify this position if unforeseen circumstances occur that prevent the entirety of the pipeline system being placed into service prior to production from each of the final oil and gas locations within the CDP Area.
 - c. Crestone will analyze CDPHE's request for remote hydraulic fracturing operations, however, this may not be necessary depending on the siting of the final oil and gas locations within the CDP Area.
 - d. Crestone will continue pursuing methods and practices to reduce odors from the oil and gas operations within the CDP Area.
 - e. Crestone confirms that it will use infrared cameras on the well sites within the CDP Area during drilling, completion and production activities.
 - f. Crestone will conduct an in-depth review and analysis of each of the ninety-five existing vertical and/or directional wells within the CDP Area as the development of the subsurface operational aspects proceeds. Crestone, however, is subject to numerous joint operating agreements for the existing wells that require Crestone to fulfill certain obligations to their working interest partners in such wells prior to plugging and abandoning wells within the CDP Area. Certain of these obligations prevent Crestone from determining which vertical/directional wells within the CDP Area may be plugged and abandoned at this point in time.
 - g. Crestone will ensure advanced planning for any necessary flaring allowances within the CDP Area.
- Comments from Erie:

Crestone met with representatives of the Town of Erie on November 7, 2017 and engaged in a productive dialogue about the CDP Area and potential oil and gas locations. Crestone is appreciative of the Town of Erie's feedback and responds to certain of the Town of Erie comments as follows:

- a. Crestone conducted an in-depth review and analysis of the initial potential oil and gas locations as a result of numerous comments requesting such locations to be located adjacent to Highway 52. Crestone, however, has limited potential locations on Highway 52 due to surface constraints, limited surface allowances and Boulder County's position that it will not discuss or consult with Crestone for potential use of Boulder County Open Space

- adjacent to Highway 52 until Crestone consents to utilizing Boulder County's permitting process prior to the Commission's CDP process.
- b. As stated during the meeting with Erie, Crestone will provide as-builts for any pipelines constructed within the Town of Erie boundaries. Crestone is also fully participating in the Commission flowline rulemaking hearings and will comply with any mapping requirements adopted by the Commission as part of such process.
 - c. Crestone is reviewing the noise mitigation measures requested by the Town of Erie and will be analyzing the requested reduction of at least ten db(A).
 - d. Crestone confirms that it will use infrared cameras on the well sites within the CDP Area during drilling, completion and production activities.
 - e. Crestone intends to locally source water for its oil and gas operations within the CDP Area.
 - f. Crestone will provide Erie with the proposed haul routes, shall be a minimum of 200' away from roads and will explore alternative methods of delivering materials/supplies to any oil and gas location within Erie.
 - g. Crestone will discuss the request for a road impact study with Erie to gain further information on Erie's expectations for such study.
- Comments from Boulder County to First, Second, Third and Fourth Submittals:

In addition to the numerous meetings to discuss the CDP with Boulder County representatives over the course of the last 16 months, Crestone met with representatives of Boulder County on numerous occasions to discuss the potential oil and gas locations within the CDP Area. Boulder County has continued to submit comments throughout the course of this process and Crestone has reviewed and address such comments. Crestone is appreciative of Boulder County's detailed feedback and responds to certain Boulder County comments as follows:

- a. Crestone and Boulder County have met on numerous occasions regarding the CDP since February 2017. In each of the discussions, Boulder County has taken the position that Crestone should not go through the Commission CDP Process first, but that Crestone should go through the Boulder County permitting process first. Crestone has always maintained that the Commission CDP process governs Crestone's oil and gas operations within the CDP Area and that the Commission has primacy over such operations under current Colorado case law, statutes and regulations. As such, Boulder County and Crestone have taken the position that they will "agree to disagree" on the primary jurisdiction aspects and proceed with conversations regarding certain aspects of the CDP.
- b. Boulder County has continually questioned Crestone's information regarding its rights to drill within the CDP Area. In four signed and notarized applications filed in February 2017, Crestone stated that it is an "Owner" as defined by the Oil and Gas Conservation Act and the 100 Series Commission rules. Crestone has also continually included a leasehold ownership with each of its CDP submissions to the Commission and has continually provided

information regarding its Owner status to the Commission and the public in each subsequent CDP filing. As described above and shown in Attachment I to this submission, Crestone has approximately 71.5% leasehold interest within the CDP Area. Further, for the new potential Oil and Gas Locations in Sections 1, 35 and 3, and now the alternative Section 36, Crestone included a leasehold ownership map as part of each CDP submission to the Commission and has continually provided information regarding its Owner status to the Commission and the public in each subsequent CDP filing. Crestone has also located the potential Oil and Gas Locations within Rule 318A drilling windows, with the exception of Section 1 per discussions with the COGCC and other stakeholders. This leasehold interest gives Crestone the right to develop the minerals underlying the CDP Area and to use the surface as is reasonably necessary pursuant to current Colorado law and C.R.S. 34-60-127. Boulder County can review the County records for evidence of Crestone's leasehold interests underlying certain areas of Boulder County Open Space. Through a series of assignments and transfers of interests since the execution of such leases, Crestone can verify that it currently holds leasehold ownership interests in each of the proposed units and CDP Area. With such leasehold interests and under Colorado law, Crestone does have the right to utilize the surface above Crestone's leased mineral interests. Boulder is requesting "actual proof" of Crestone's right to drill and, without providing a confidential and proprietary title opinion outlining each detail of Crestone's leases within the CDP, such proof lies in the Boulder County Clerk & Recorder's Office for public review.

- c. Boulder County has stated that "information in the Plan is inadequate on virtually every level and, consequently, impacts cannot be adequately identified." Boulder County's statement stems from the fact that Crestone has not voluntarily placed Boulder County's permitting process first, over the Commission's primacy authority.
- d. Crestone maintains that the oil and gas locations will be tankless upon completion of the drilling and completion operations as set forth above.
- e. Crestone has included information from Colorado Parks and Wildlife set forth above. CPW has consistently maintained that the Alternative Section 36 Oil and Gas Location is not preferred due to the location of the Bald Eagle's nest in the W $\frac{1}{2}$ of such section.
- f. Boulder County's concerns with the use of Boulder County Open Space could be alleviated should Boulder County choose to engage in discussions and consultation with Crestone regarding the use of such space, as requested repeatedly from Boulder County citizens.
- g. Crestone continued its in-depth review and analysis of the initial potential oil and gas locations as a result of numerous comments requesting such locations to be located adjacent to Highway 52. Crestone, however, has limited potential locations on Highway 52 due to surface constraints, limited surface allowances and Boulder County's position that it will not discuss or consult with Crestone for potential use of Boulder County Open Space adjacent to Highway 52 until Crestone consents to utilizing Boulder County's permitting process prior to the Commission's CDP process.

- h. As stated in detail above, Crestone has complied with all Commission requirements during each of the formal stakeholder outreach time periods, including holding an additional telephonic town hall where invitations were mailed out no less than one week prior to the event.
- i. Crestone directs Boulder County to the statement above Crestone is continuing to determine whether there are any PUDs in the CDP area “other than those included on the Boulder County Planning website.” Crestone is aware of the PUD’s listed by Boulder County as set forth in prior submissions.
- j. Crestone included the Howell Ditch company as an additional party.
- k. Crestone has identified variances that may be necessary and will continue to update the list as this process proceeds.
- l. Crestone maintains that many of the alleged “failures” stem directly from Boulder County’s position that Crestone should be proceeding with Boulder County’s local permitting process first, which is where many of the items listed in Boulder County’s comments would apply.
- m. Crestone relocated the Section 2 proposed Oil and Gas Location to Section 35 and has modified the Section 1 Oil and Gas Location to place the wells and production facilities outside of the Boulder County existing Floodway area.
- n. Prior to the incorporation of the Alternative Section 36 Oil and Gas Location, none of Crestone’s proposed Oil and Gas Locations (Sections 1, 3, and 35) were in a Designated Setback Location and are therefore more than 1000’ away from any Building Unit. Due to Boulder County’s attempt to obstruct development in Section 1, Crestone’s Alternative Section 36 Oil and Gas Location will be a Designated Setback Location.
- o. Boulder County’s most recent attempt to obstruct oil and gas development is evidenced by the proposed re-designation of the currently existing floodplain area in Section 1 to a full-scale Floodway. Crestone has met with CWCB about the re-designation process and will be participating in such process as it progresses. Crestone understands the need for protections in a floodplain and floodway area and has committed to working with an engineering design firm to ensure that the Section 1 location meets state and local requirements regarding non-disbursement of water and increased flood mitigation measures in such areas.
- p. Boulder County’s position on Crestone’s violation of Rule 318A drilling windows is misplaced as it relates to the Section 1 well pad. Boulder County’s initial comments to the Section 1 well pad revolved around the Section 1 well pad being within the floodway. Crestone took such comments as well-received and moved the Section 1 well pad outside of the floodway, which in turn, resulted in the Section 1 well pad being outside of a Rule 318A drilling window. Boulder County cannot claim that there is a violation of Rule 318A when such location was moved per Boulder County’s own requests. Crestone has confirmed that it will seek a variance to the Section 1 well pad location from the Commission.

- q. Boulder County maintains that traffic and truck trips have not been addressed and Crestone has confirmed throughout each CDP submission that the facilities will be tankless, which will result in a substantial reduction of truck trips.
 - r. Boulder County has also maintained that Crestone has not addressed noise, odor, vibrations, lights, air quality, health impacts, water usage and waste throughout this entire process. Each CDP submission, including this Final CDP, contains information regarding each of these aspects.
 - s. Boulder County clearly mistakes the approval of a CDP as an approval of each Form 2 and Form 2A as well as an approval for each and every mitigation measure and best management practice that will be applied to each Form 2 and Form 2A submitted for approval from the Commission within the CDP Area. Boulder County, should it choose to participate in the CDP Hearing, will have the opportunity to address its concerns to the Commission. Further, Boulder County, should it choose to participate in the Form 2A comment process, will also have an opportunity to address specific mitigation measures for each well pad within the CDP Area through the Commission permitting process.
- Comments from CDP and surrounding area surface owners during October 18, 2017 meeting, October 19 and November 2, 2017 and January 11, 2018 telephonic town halls:

Crestone addressed numerous questions and comments during the aforementioned meeting and town halls. Crestone has the audio recording of each of the telephone town halls on its website at <http://www.crestonepeakresources.com/cdp/>. Crestone has also addressed many of the answers to participant's questions on its website in a document entitled "Frequently Asked Questions: Boulder County Comprehensive Drilling Plan Surface Owner Meetings."
 - Public Comments via Commission comment portal:

Crestone is continuing to review the comments received by the Commission. Crestone maintains, however, that many of responses to the comments have been addressed to such commenters who participated in the neighborhood meeting, telephonic town halls, or email correspondence with such persons. Other responses to public comments and concerns through the Commission's comment portal are addressed herein.
 - Written Letters in Support of Crestone CDP Plan

Crestone has also received written letters in support of the CDP Plan from Mr. Donald Caldwell, Liberty Oilfield Services, Colorado Petroleum Council and the Colorado Oil & Gas Association. Please see Attachment V.

Request for Approval

Crestone respectfully requests that this Applicant's request for the Rule 216 FINAL Comprehensive Drilling Plan be presented by the Commission Director via application and notice of hearing to the Commission at the September 17-18, 2018, and that upon such hearing, the Commission enter its order:

- A. Establishing and approving a Comprehensive Drilling Plan in accordance with the requirements of Commission Rule 216 for portions of Sections 1, 2, 3, 10, 11 and 12, Township 1 North, Range 69 West, 6th P.M. and portions of Sections 25, 26, 27, 34, 35 and 36, Township 2 North, Range 69 West, 6th P.M., Boulder County, Colorado for the comprehensive development and operation of the Codell and Niobrara Formations;
- B. Approving the variances set forth herein as they relate to Rule 303.g. and Rule 216.g. timing allowances for Form 2, Form 2A's and an approved CDP; and
- C. For all such other findings and orders as the Commission may deem proper or advisable in this matter.

DATED June 15, 2018.

Respectfully submitted:

CRESTONE PEAK RESOURCES OPERATING LLC

By: /s/ Electronically Signed – Jamie L. Jost

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CERTIFICATE OF SERVICE

I hereby certify that, on June 15, 2018, Jost Energy Law, P.C. caused Crestone Peak Resources Operating LLC's FINAL CDP in Colorado Oil and Gas Conservation Commission Docket No. 170500189 to be served via electronic mail to Colorado Oil and Gas Conservation Commission and by courier at the address listed below:

Via Email and Courier:

Colorado Oil and Gas Conservation Commission
ATTN: Julie Murphy, Greg Deranlau, John Noto & Rebecca Treitz
1120 Lincoln Street, Suite 801
Denver, CO 80203
Julie.Murphy@state.co.us
Greg.deranlau@state.co.us
John.noto@state.co.us
Rebecca.treitz@state.co.us

/s/ Electronically Signed – Jamie L. Jost