

U.S. Department of the Interior
Bureau of Land Management
Colorado River Valley Field Office
2300 River Frontage Road
Silt, Colorado 81652

Section 390 Categorical Exclusions for Oil and Gas Development, Exclusion No. 3

NEPA LOG NUMBER: DOI-BLM-CO-N040-2014-0048-CX (390)

A. Background

BUREAU OF LAND MANAGEMENT (BLM) OFFICE: Colorado River Valley Field Office (CRVFO)

CASEFILE/PROJECT NUMBER: Federal Lease COC58673.

PROPOSED ACTION TITLE/TITLE TYPE: Proposal to Drill One Additional Federal Well (17 Federal Wells total) from the Existing SG 43-28 Pad Located on BLM Lands Southwest of Parachute, Garfield County, Colorado, Authorized by Application for Permit to Drill (APD).

APPLICANT: WPX Energy Rocky Mountain LLC

LOCATION OF THE PROPOSED ACTION: Township 7 South (T7S), Range 96 West (R96W), Section 28, NE¹/₄SE¹/₄, Sixth Principal Meridian. Pad elevation is 5,122 feet above mean sea level (MSL).

The project lies approximately 5.5 miles southwest of Parachute, Garfield County, Colorado which is accessed by the gas field development road on the north-side of Interstate 70 (I-70). The existing spur road to the pad would continue to serve the access needs for this second drilling visit scheduled in 2014.

DESCRIPTION OF PROPOSED ACTION: In 2013, WPX Energy Rocky Mountain LLC (“WPX”) proposed to drill and develop 16 new Federal oil and gas wells from the existing SG 43-28 well pad located on BLM land (Figure 1). BLM approved the Applications for Permit to Drill (APD) for these 16 Federal wells in a July 3, 2013 decision on the Environmental Assessment (EA) # DOI-BLM-CO-N040-2013-0053-EA. In December 2013, WPX completed the construction work related to the pad expansion for these new directional wells resulting in 2.46 acres of surface disturbance (Figures 2 and 3). Water needed to drill the additional well would be trucked to the pad on existing State, County and private development roads.

The lone producing well on this pad will remain temporarily shut-in until the drilling and completion work planned for these new 17 wells is finished in 2014.

Also in 2013, WPX received approval for an APD from the BLM to drill one Federal directional well (Boseley SG 242-28) from the existing SG 21-27 pad located approximately ½ mile northeast of the SG 43-28 pad. This Federal bottomhole was analyzed in EA # DOI-BLM-CO-N040-2013-0106-EA, known as the Lower Kelly Gulch project with a decision rendered on November 4, 2013. Since the approval of the lone Federal well on the SG 21-27 pad, WPX has determined that planned bottomhole can be drilled from the recently expanded SG 43-28 pad.

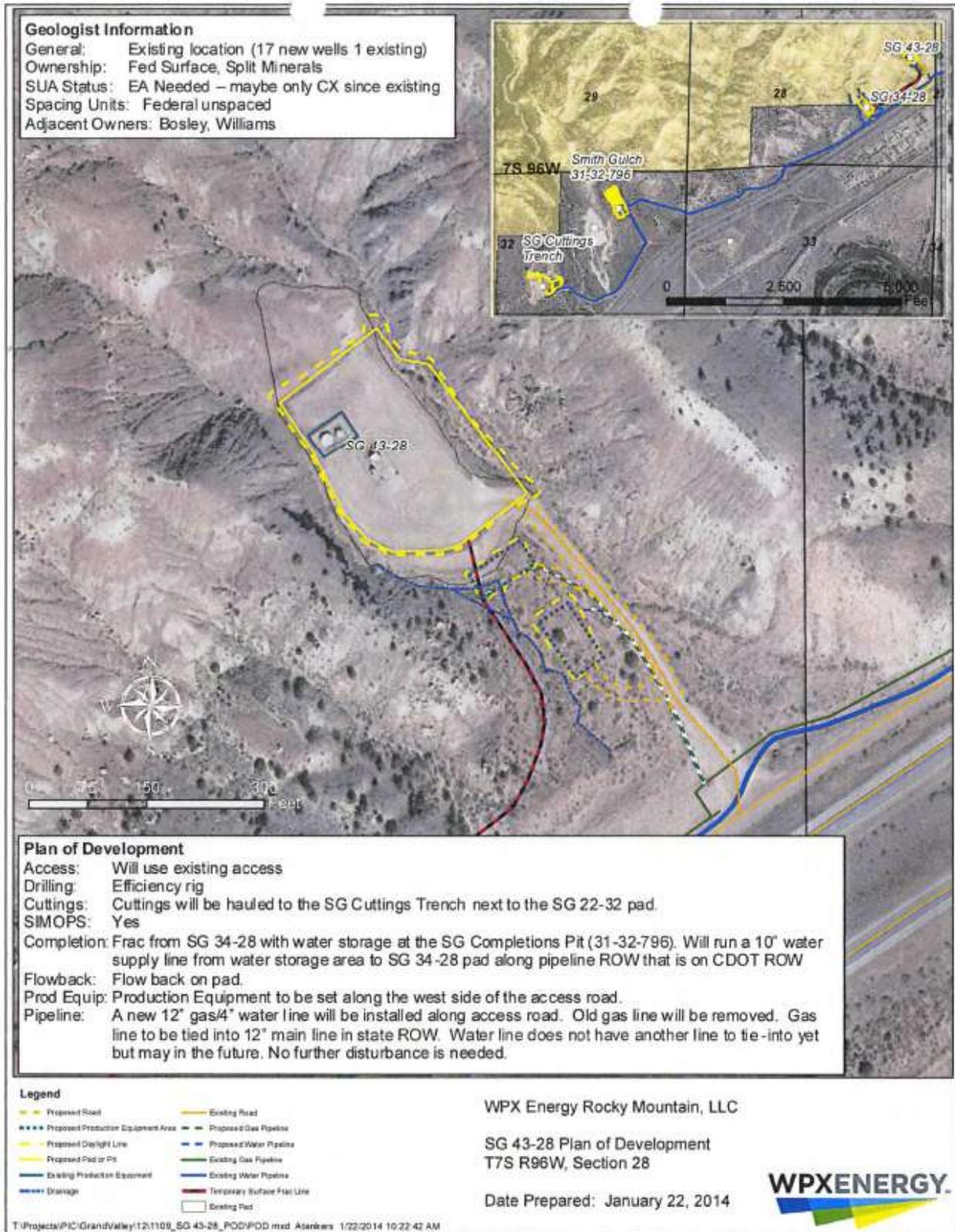


Figure 1. SG 43-28 Plan of Development

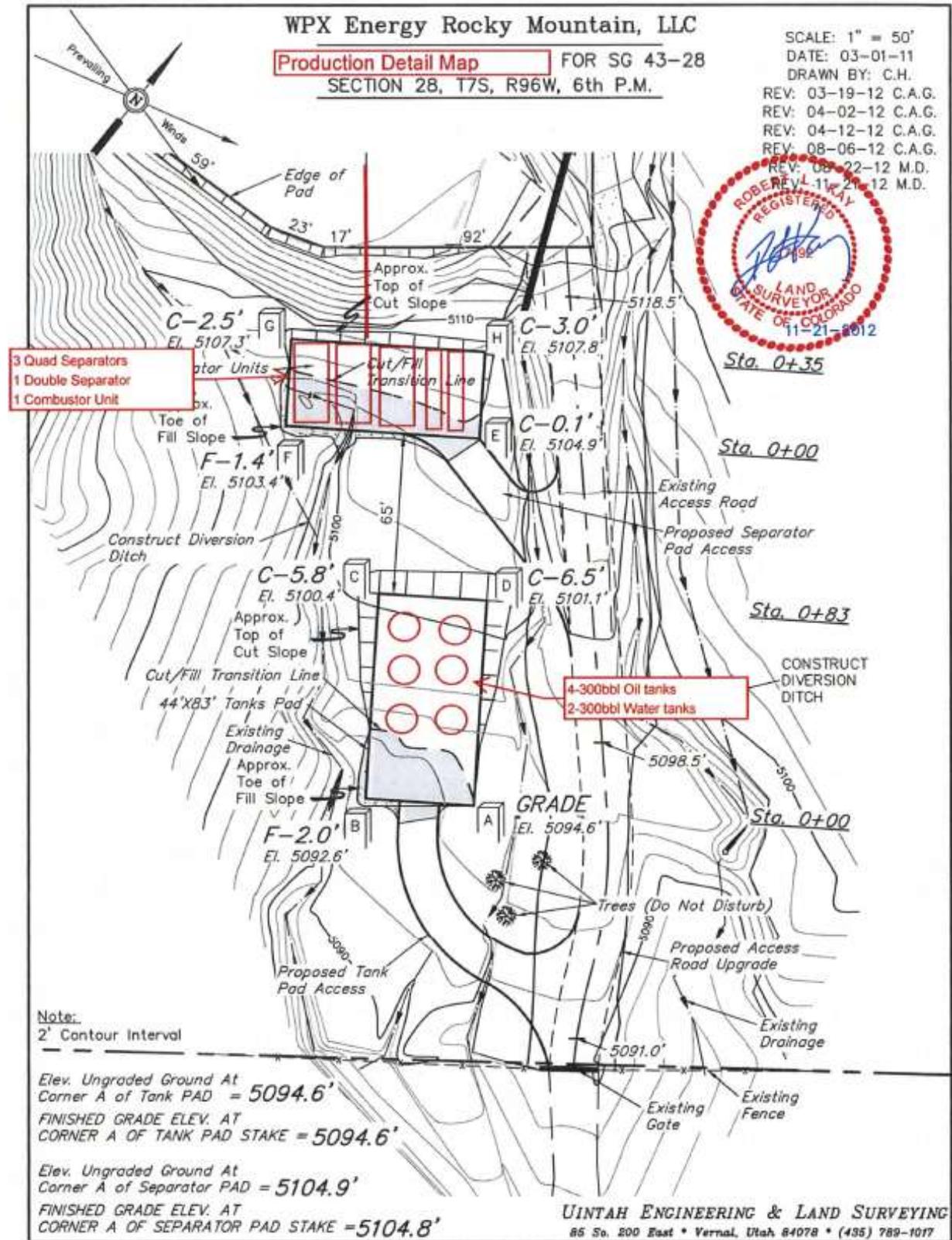


Figure 3. SG 43-28 Facilities Construction Layout

This SCX would document the change of the Federal bottomhole initially planned on the fee/fee SG21-27 pad to a new surface hole location (Federal SG 242-28 well) on the SG 43-28 pad. The bottomhole location has undergone only a slight change but remaining within Federal lease COC58673. This change effectively increases the planned number of Federal wells on the SG 43-28 by one for a total of 17 directional wells. With the deletion of the one Federal well on the SG 21-27 pad, the current drilling scheduled for that pad is limited to 3 fee wells; BLM no longer has any jurisdiction with the development work scheduled on the SG 21-27 pad.

The wells on the SG 43-28 pad, including the additional Federal well, would be completed remotely with frac operations staged on the existing nearby SG 34-28 pad. Approximately 1,519 feet of steel 4.5-inch diameter high-pressure surface pipelines would be laid from the SG 34-28 pad to the SG 43-28 pad to deliver pressurized frac fluids and provide frac flowback (1,327 feet on BLM) with negligible surface disturbance occurring.

The water source for the completions operations would come from WPX's existing Smith Gulch 31-32-796 Water Storage Facility (previously analyzed in the SG 43-28 Drilling Project, EA # DOI-BLM-CO-N040-2013-0053-EA and constructed in 2013). Additionally, the 2013 dual 14-inch buried water supply line project would also be used as the conduit to supply frac water and collect frac flowback between the remote frac operations on the SG 34-28 pad and the Smith Gulch Water Storage Facility.

Cuttings generated during the well drilling would be dried with shaker systems installed on the drill rig, mixed with inorganic materials to aid in the drying, and deposited in a temporary storage tray or piled adjacent to the rig. Periodically, and typically on a daily basis, the cuttings would be transported in dump trucks to the existing SG Cuttings Trench located on WPX property in T7S R96W Section 32, SE $\frac{1}{4}$ NW $\frac{1}{4}$, Sixth P.M. The drill cuttings would be tested at the SG Cuttings Trench in a holding area that segregates the SG 43-28 well cuttings from other cuttings piles. Once testing results show the cuttings satisfy Colorado Oil and Gas Conservation Commission (COGCC) Table 910-1 standards, they would be moved and stored in a disposal cell at the SG Cuttings Trench. After the cell is filled with cuttings, they would be covered with a minimum 3-foot deep cap of overburden and the surface reclaimed.

Resource surveys including wildlife and noxious and invasive plants were completed for this project in August 2013. Several cultural resource inventories have been conducted (including one in April 2013 by Grand River Institute. Two eligible sites were identified in the project vicinity, but no effects to historic properties are anticipated. Although portions of the expanded SG 43-28 disturbance perimeter lie in proximity to potentially suitable habitat for DeBeque phacelia (*Phacelia submutica*), temporary green plastic construction fencing has been installed (as a condition of Approval) along the construction boundary to keep equipment and personnel from treading near the special status plant habitat. The COAs identified in the original EA for the SG 43-28 project shall be included in the APD for this additional well.

The Timing limitation on the Federal lease prohibiting construction, drilling or completion activities from December 1 through April 30 annually would be enforced.

B. Land Use Plan Conformance

Land Use Plan (LUP) Name: The current land use plan is the *Glenwood Springs Resource Management Plan* (RMP) (BLM 1984, revised 1988). Relevant amendments include the *Oil and Gas Plan Amendment to the Glenwood Springs Resource Management Plan* (BLM 1991) and the *Oil & Gas Leasing & Development Record of Decision and Resource Management Plan Amendment* (BLM 1999).

Date Approved/Amended: *Oil and Gas Plan Amendment to the Glenwood Springs Resource Management Plan* (BLM 1991) – approved November 27, 1991; *Oil & Gas Leasing & Development Record of Decision and Resource Management Plan Amendment* (BLM 1999) – approved March 24, 1999.

Determination of Conformance: The 1991 Oil and Gas Plan Amendment (BLM 1991) included the following at page 3: “697,720 acres of BLM-administered mineral estate within the Glenwood Springs Resource Area are open to oil and gas leasing and development, subject to lease terms and (as applicable) lease stipulations” (BLM 1991, page 3). This decision was carried forward unchanged in the 1999 ROD and RMP amendment at page 15 (BLM 1999b): “In areas being actively developed, the operator must submit a Geographic Area Proposal (GAP) [currently referred to as a Master Development Plan, MDP] that describes a minimum of 2 to 3 years of activity for operator controlled leases within a reasonable geographic area.”

The Proposed Action is in conformance with the 1991 and 1999 RMP amendments cited above because the Federal mineral estate proposed for development is open to oil and gas leasing and development, and Federal oil and gas lease COC58673 was duly leased pursuant thereto. The current project meets GAP exception criteria in the 1999 RMP Amendments based on its location entirely on BLM land, its relatively small size, use of the existing, expanded pad, and its location along existing access roads and pipeline corridors. Therefore, the Proposed Action is in conformance with the current land use plan.

C. Compliance with NEPA

Consistency with CX Category #3 (Table 1): “*Drilling an oil and gas well within a developed field for which an approved land use plan or any environmental document prepared pursuant to NEPA analyzed drilling as a reasonably foreseeable activity, so long as such plan or document was approved within five (5) years prior to the date of spudding the well.*”

Table 1. Project Screening Questions		
1. Does the proposed drilling take place within a developed field?	<u>Yes</u>	No
2. Was the proposed drilling adequately analyzed as a reasonably foreseeable activity in an existing activity-level or project-specific National Environmental Policy Act (NEPA) document for a developed field?	<u>Yes</u>	No
3. Was the decision based on the NEPA document made within the last 5 years?	<u>Yes</u>	No

Persons and/or Agencies Consulted: WPX: April Mestas, Kris Meil, Adam Tankersley, Justin Hall, Joe Weaver Jr., Wayne Gallahan

Interdisciplinary Review: BLM staff from the CRVFO listed in Table 2 participated in the preparation of this Section 390 CX, including review of resource survey results submitted by the Operator’s consultants, evaluation of impacts likely to occur from implementation of the proposed action, and identification of appropriate COAs.

The Proposed Action was presented to the Colorado River Valley Field Office interdisciplinary team on February 26, 2014.

MITIGATION: Conditions of approval to be attached to the Application for Permit to Drill for the Federal SG 242-28 well on the existing SG 43-28 pad are listed in the attachment to this Section 390 CX.

Table 2. BLM Interdisciplinary Team Authors and Reviewers		
Name	Title	Areas of Participation
John Brogan	Archaeologist	Cultural Resources, Native American Religious Concerns
Jim Byers	Natural Resource Specialist	EA Project Lead, Access & Transportation, Socioeconomics, Wastes-Hazardous or Solid,
Allen Crockett, Ph.D., J.D.	Supervisory NRS	NEPA Review
Shauna Kocman, Ph.D., P.E.	Hydrologist	Air Quality, Noise, Soils, Surface Water, Waters of the U.S.
Julie McGrew	Natural Resource Specialist	Visual Resources
Judy Perkins, Ph.D.	Botanist	Invasive Non-native Species, Special-status Species (Plants), Vegetation
Sylvia Ringer	Wildlife Biologist	Migratory Birds, Special-status Species (Animals), Wildlife, Aquatic and Terrestrial

Name of Preparer: Jim Byers, Natural Resource Specialist

Date Prepared: March 21, 2014

D. Implementation Date

The following is a COA for this project: The approval of this permit was categorically exempt from the requirements of NEPA through Section 390 (b)(3) of the Energy Policy Act of 2005, which states:

Drilling an oil and gas well within a developed field for which an approved land use plan or any environmental document prepared pursuant to NEPA analyzed drilling as a reasonably foreseeable activity, so long as such plan or document was approved within five (5) years prior to the date of spudding the well.

If the proposed well has not been spudded by **July 3, 2018**, this APD Drill will expire and the operator is to cease all operations related to preparing to drill the well.

E. Signature

The Proposed Action is statutorily categorically excluded from further NEPA documentation in accordance with Section 390 (b)(3) of the Energy Policy Act of 2005, which provides for exclusion of:

Drilling an oil and gas well within a developed field for which an approved land use plan or any environmental document prepared pursuant to NEPA analyzed drilling as a reasonably foreseeable activity, so long as such plan or document was approved within five (5) years prior to the date of spudding the well.

Authorizing Official: _____



Date: _____

3-24-14

F. Decision and Rationale for Action

I have decided to approve the drilling of the Federal SG 242-28 well on the existing, expanded SG 43-28 pad with the stipulations and conditions of approval identified in Attachment A of this form. The stipulations and COAs are required by this decision, and variance from these stipulations and COAs during project implementation may require further NEPA review.

I have reviewed Section B, Land Use Plan Conformance, and Section C, Compliance with NEPA, and have determined that the proposed activity is in conformance with the applicable land use plan(s) and referenced NEPA documents. I have also evaluated the proposal to ensure the appropriate exclusion category as described in Section 390 of the Energy Policy Act of 2005 has been correctly applied. I have determined, that no further environmental analysis is required.



Allen Crockett, Ph.D.
Supervisory Natural Resource Specialist

3-24-14

Date

G. Administrative Review or Appeal Opportunities

Applications for Permit to Drill and Sundry Notices

Under BLM regulations addressed in 43 CFR 3165, a decision to approve the Application for Permit to Drill is subject to appeal and administrative review. An administrative review must be conducted in accordance with 43 CFR 3165.3 and must take place prior to pursuing an appeal to the Interior Board of Land Appeals.

Any adversely affected party may request an administrative review, before the State Director, either with or without oral presentation. Such a request must include information required under 43 CFR 3165.3(b), State Director Review (SDR), including all supporting documentation. Such a request must be filed in writing with the BLM Colorado State Office, 2850 Youngfield Street, Lakewood, Colorado 80215 within 20 business days from the date the decision is received or considered to have been received. Upon request and showing of good cause, an extension for submitting supporting/additional data may be granted by the State Director.

Any party who is adversely affected by the State Director's decision may appeal that decision to the Interior Board of Land Appeals in accordance with 43 CFR 3165.4.

**SURFACE-USE CONDITIONS OF APPROVAL
DOI-BLM-CO-N040-2014-0048-CX(390)**

GENERAL SURFACE-USE COAS

The following surface-use COAs shall be implemented, where applicable and feasible, to reduce impacts from project activities. Site-specific surface-use COAs and downhole COAs follow these general COAs.

1. **Administrative Notification.** The operator shall notify the BLM representative at least 48 hours prior to initiation of construction. If requested by the BLM representative, the operator shall schedule a pre-construction meeting, including key operator and contractor personnel, to ensure that any unresolved issues are fully addressed prior to initiation of surface-disturbing activities or placement of production facilities. No construction activities shall commence without staking of pad construction limits, pad corners, and road/pipeline centerlines and disturbance corridors.
2. **Implementation Date.** If the proposed well has not been spudded by **July 3, 2018**, this Application for Permit to Drill will expire and the operator is to cease all operations related to preparing to drill the well.
3. **Pad Construction and Road Maintenance.** Roads shall be crowned, ditched, surfaced, drained with culverts and/or water dips, and constructed to BLM Gold Book standards. Initial gravel application shall be a minimum of 6 inches. The operator shall provide timely year-round road maintenance and cleanup on the access roads. A regular schedule for maintenance shall include, but not be limited to, blading, ditch and culvert cleaning, road surface replacement, and dust abatement. When rutting within the traveled way becomes greater than 6 inches, blading and/or gravelling shall be conducted as approved by the BLM.
4. **Drill Cuttings Management.** Cuttings generated from the numerous planned well bores shall be worked through a shaker system on the drill rig, mixed with a drying agent, if necessary, and deposited in the planned cuttings trench or piled on location against the cut slope for later burial during the interim reclamation earthwork. The cuttings shall be remediated per COGCC regulations (Table 910-1 standards) prior to earthwork reshaping related to well pad interim reclamation.
5. **Dust Abatement.** The operator shall implement dust abatement measures as needed to prevent fugitive dust from vehicular traffic, equipment operations, or wind events. The BLM may direct the operator to change the level and type of treatment (watering or application of various dust agents, surfactants, and road surfacing material) if dust abatement measures are observed to be insufficient to prevent fugitive dust.
6. **Drainage Crossings and Culverts.** Construction activities at perennial, intermittent, and ephemeral drainage crossings (e.g. burying pipelines, installing culverts) shall be timed to avoid high flow conditions. Construction that disturbs any flowing stream shall utilize either a piped stream diversion or a cofferdam and pump to divert flow around the disturbed area.

Culverts at drainage crossings shall be designed and installed to pass a 25-year or greater storm event. On perennial and intermittent streams, culverts shall be designed to allow for passage of aquatic biota. The minimum culvert diameter in any installation for a drainage crossing or road drainage shall be 24 inches. Crossings of drainages deemed to be jurisdictional Waters of the U.S. pursuant to Section 404 of the Clean Water Act may require additional culvert design capacity. Due to the flashy nature of area drainages and anticipated culvert maintenance, the U.S. Army Corps of Engineers (USACE)

recommends designing drainage crossings for the 100-year event. Contact the USACE Colorado West Regulatory Branch at 970-243-1199 ext. 17.

Pipelines installed beneath stream crossings shall be buried at a minimum depth of 4 feet below the channel substrate to avoid exposure by channel scour and degradation. Following burial, the channel grade and substrate composition shall be returned to pre-construction conditions.

7. Jurisdictional Waters of the U.S. The operator shall obtain appropriate permits from the U.S. Army Corps of Engineers (USACE) prior to discharging fill material into Waters of the U.S. in accordance with Section 404 of the Clean Water Act. Waters of the U.S. are defined in 33 CFR Section 328.3 and may include wetlands as well as perennial, intermittent, and ephemeral streams. Permanent impacts to Waters of the U.S. may require mitigation. Contact the USACE Colorado West Regulatory Branch at 970-243-1199 ext. 17. Copies of any printed or emailed approved USACE permits or verification letters shall be forwarded to the BLM.
8. Reclamation. The goals, objectives, timelines, measures, and monitoring methods for final reclamation of oil and gas disturbances are described in Appendix I (Surface Reclamation) of the 1998 Draft Supplemental EIS (DSEIS). Specific measures to follow during interim reclamation are described below.
 - a. Reclamation Plans. In areas that have low reclamation potential or are especially challenging to restore, reclamation plans will be required prior to APD approval. The plan shall contain the following components: detailed reclamation plans, which include contours and indicate irregular rather than smooth contours as appropriate for visual and ecological benefit; timeline for drilling completion, interim reclamation earthwork, and seeding; soil test results and/or a soil profile description; amendments to be used; soil treatment techniques such as roughening, pocking, and terracing; erosion control techniques such as hydromulch, blankets/matting, and wattles; and visual mitigations if in a sensitive VRM area.
 - b. Deadline for Interim Reclamation Earthwork and Seeding. Interim reclamation to reduce a well pad to the maximum size needed for production, including earthwork and seeding of the interim reclaimed areas, shall be completed within 6 months following completion of the last well planned to be drilled on that pad as part of a continuous operation. If a period of greater than one year is expected to occur between drilling episodes, BLM may require implementation of all or part of the interim reclamation program.

Reclamation, including seeding, of temporarily disturbed areas along roads and pipelines, and of topsoil piles and berms, shall be completed within 30 days following completion of construction. Any such area on which construction is completed prior to December 1 shall be seeded during the remainder of the early winter season instead of during the following spring, unless BLM approves otherwise based on weather. If road or pipeline construction occurs discontinuously (e.g., new segments installed as new pads are built) or continuously but with a total duration greater than 30 days, reclamation, including seeding, shall be phased such that no portion of the temporarily disturbed area remains in an unreclaimed condition for longer than 30 days. BLM may authorize deviation from this requirement based on the season and the amount of work remaining on the entirety of the road or pipeline when the 30-day period has expired.

If requested by the project lead NRS for a specific pad or group of pads, the operator shall contact the NRS by telephone or email approximately 72 hours before reclamation and reseeding begin.

This will allow the NRS to schedule a pre-reclamation field visit if needed to ensure that all parties are in agreement and provide time for adjustments to the plan before work is initiated.

The deadlines for seeding described above are subject to extension upon approval of the BLM based on season, timing limitations, or other constraints on a case-by-case basis. If the BLM approves an extension for seeding, the operator may be required to stabilize the reclaimed surfaces using hydromulch, erosion matting, or other method until seeding is implemented.

- c. Topsoil Stripping, Storage, and Replacement. All topsoil shall be stripped following removal of vegetation during construction of well pads, pipelines, roads, or other surface facilities. In areas of thin soil, a minimum of the upper 6 inches of surficial material shall be stripped. The BLM may specify a stripping depth during the onsite visit or based on subsequent information regarding soil thickness and suitability. The stripped topsoil shall be stored separately from subsoil or other excavated material and replaced prior to final seedbed preparation. The BLM best management practice (BMP) for the Windrowing of Topsoil shall be implemented for well pad construction whenever topography allows.
- d. Seedbed Preparation. For cut-and-fill slopes, initial seedbed preparation shall consist of backfilling and recontouring to achieve the configuration specified in the reclamation plan. For compacted areas, initial seedbed preparation shall include ripping to a minimum depth of 18 inches, with a maximum furrow spacing of 2 feet. Where practicable, ripping shall be conducted in two passes at perpendicular directions. Following final contouring, the backfilled or ripped surfaces shall be covered evenly with topsoil.

Final seedbed preparation shall consist of scarifying (raking or harrowing) the spread topsoil prior to seeding. If more than one season has elapsed between final seedbed preparation and seeding, and if the area is to be broadcast-seeded or hydroseeded, this step shall be repeated no more than 1 day prior to seeding to break up any crust that has formed.

If directed by the BLM, the operator shall implement measures following seedbed preparation (when broadcast-seeding or hydroseeding is to be used) to create small depressions to enhance capture of moisture and establishment of seeded species. Depressions shall be no deeper than 1 to 2 inches and shall not result in piles or mounds of displaced soil. Excavated depressions shall not be used unless approved by the BLM for the purpose of erosion control on slopes. Where excavated depressions are approved by the BLM, the excavated soil shall be placed only on the downslope side of the depression.

If directed by the BLM, the operator shall conduct soil testing prior to reseeding to identify if and what type of soil amendments may be required to enhance revegetation success. At a minimum, the soil tests shall include texture, pH, organic matter, sodium adsorption ratio (SAR), cation exchange capacity (CEC), alkalinity/salinity, and basic nutrients (nitrogen, phosphorus, potassium [NPK]). Depending on the outcome of the soil testing, the BLM may require the operator to submit a plan for soil amendment. Any requests to use soil amendments not directed by the BLM shall be submitted to the CRVFO for approval.

- e. Seed Mixes. A seed mix consistent with BLM standards in terms of species and seeding rate for the specific habitat type shall be used on all BLM lands affected by the project (see Attachments 1 and 2 of the letter provided to operators dated April 23, 2012).

For private surfaces, the menu-based seed mixes are recommended, but the surface landowner has ultimate authority over the seed mix to be used in reclamation. The seed shall contain no prohibited or restricted noxious weed seeds and shall contain no more than 0.5 percent by weight of other weed seeds. Seed may contain up to 2.0 percent of “other crop” seed by weight, including the seed of other agronomic crops and native plants; however, a lower percentage of other crop seed is recommended. Seed tags or other official documentation shall be submitted to BLM at least 14 days before the date of proposed seeding for acceptance. Seed that does not meet the above criteria shall not be applied to public lands.

- f. Seeding Procedures. Seeding shall be conducted no more than 24 hours following completion of final seedbed preparation.

Where practicable, seed shall be installed by drill-seeding to a depth of 0.25 to 0.5 inch. Where drill-seeding is impracticable, seed may be installed by broadcast-seeding at twice the drill-seeding rate, followed by raking or harrowing to provide 0.25 to 0.5 inch of soil cover or by hydroseeding and hydromulching. Hydroseeding and hydromulching shall be conducted in two separate applications to ensure adequate contact of seeds with the soil.

If interim revegetation is unsuccessful, the operator shall implement subsequent reseeding until interim reclamation standards are met.

- g. Mulch. Mulch shall be applied within 24 hours following completion of seeding. Mulch may consist of either hydromulch or of certified weed-free straw or certified weed-free native grass hay crimped into the soil.

NOTE: Mulch is not required in areas where erosion potential mandates use of a biodegradable erosion-control blanket (straw matting).

- h. Erosion Control. Cut-and-fill slopes shall be protected against erosion with the use of water bars, lateral furrows, or other BMPs approved by the BLM. Additional BMPs such as biodegradable wattles, weed-free straw bales, or silt fences shall have be employed as necessary to reduce transport of sediments into the drainages. The BLM may, in areas with high erosion potential, require use of hydromulch or biodegradable blankets/matting to ensure adequate protection from slope erosion and offsite transport of sediments and to improve reclamation success.
- i. Site Protection. The pad shall be fenced to BLM standards to exclude livestock grazing for the first two growing seasons or until seeded species are firmly established, whichever comes later. The seeded species will be considered firmly established when at least 50 percent of the new plants are producing seed. The BLM will approve the type of fencing.
- j. Monitoring. The operator shall conduct annual monitoring surveys of all sites categorized as “operator reclamation in progress” and shall submit an annual monitoring report of these sites, including monitoring methods used, to the BLM by **December 31** of each year. The monitoring program shall use the four Reclamation Categories defined in Appendix I of the 1998 DSEIS to assess progress toward reclamation objectives. The annual report shall document whether attainment of reclamation objectives appears likely. If one or more objectives appear unlikely to be achieved, the report shall identify appropriate corrective actions. Upon review and approval of the report by the BLM, the operator shall be responsible for implementing the corrective actions or other measures specified by the BLM.

9. Weed Control. The operator shall regularly monitor and promptly control noxious weeds or other undesirable plant species as set forth in the Glenwood Springs Field Office *Noxious and Invasive Weed Management Plan for Oil and Gas Operators*, dated March 2007. A Pesticide Use Proposal (PUP) must be approved by the BLM prior to the use of herbicides. Annual weed monitoring reports, including GPS shapefiles of treatment areas and Pesticide Application Records (PARs) (see the letter provided to operators dated February 27, 2014), shall be submitted to BLM by **December 1**.
10. Big Game Winter Range Timing Limitation. To minimize impacts to wintering big game, no construction, drilling or completion activities shall occur during a Timing Limitation (TL) period from **December 1 through April 30 annually**.
11. Bald and Golden Eagles. It shall be the responsibility of the operator to comply with the Bald and Golden Eagle Protection Act (Eagle Act) with respect to “take” of either eagle species. Under the Eagle Act, “take” includes to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest and disturb. “Disturb” means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle; (2) a decrease in its productivity by substantially interfering with normal breeding, feeding, or sheltering behavior; or (3) nest abandonment by substantially interfering with normal breeding, feeding, or sheltering behavior. Avoidance of eagle nest sites, particularly during the nesting season, is the primary and preferred method to avoid a take. Any oil or gas construction, drilling, or completion activities planned within 0.5 mile of a bald or golden eagle nest, or other associated activities greater than 0.5 miles from a nest that may disturb eagles, shall be coordinated with the BLM project lead and BLM wildlife biologist and the USFWS representative to the BLM Field Office (970-876-9051).
12. Raptor Nesting. Raptor nest surveys in the project vicinity resulted in the location of one or more raptor nest structures within 0.25 mile of a well pad or 0.125 mile of an access road, pipeline, or other surface facility. To protect nesting raptors, initiation of construction, drilling, or completion activities shall not occur during the 2013 nesting season until the raptor nest is no longer in active use (containing eggs or nestlings). If all or a portion of the project is postponed until a subsequent year (2014 or later), the initiation of construction, drilling, or completion activities shall not occur during a 60-day Timing Limitation from **April 1 through May 31**. An exception to this TL may be granted for any year in which a subsequent survey determines one of the following: (a) all nests within the specified buffer widths are in a severely dilapidated condition or has been destroyed due to natural causes, (b) no nests within the buffer widths are occupied during the normal raptor nesting period, (c) a nest was occupied but subsequently failed due to natural causes, or (d) a nest was occupied, but the nestlings have fledged and dispersed.

If project-related activities are initiated within the specified buffer distance of any active nest, even if outside the 60-day TL period, the operator remains responsible for compliance with the MBTA with respect to a “take” of birds or of active nests (those containing eggs or young), including nest failure caused by human activity (see COA for Migratory Birds).
13. Migratory Birds – Birds of Conservation Concern. Pursuant to BLM Instruction Memorandum 2008-050, all vegetation removal or surface disturbance in previously undisturbed lands providing potential nesting habitat for Birds of Conservation Concern (BCC) is prohibited from **May 1 through June 30**. An exception to this TL may be granted if nesting surveys conducted no more than one week prior to surface-disturbing activities indicate that no BCC species are nesting within 30 meters (100 feet) of the area to be disturbed. Nesting shall be deemed to be occurring if a territorial (singing) male is present within the distance specified above. Nesting surveys shall include an auidial survey for diagnostic vocalizations in conjunction with a visual survey for adults and nests. Surveys shall be

conducted by a qualified breeding bird surveyor between sunrise and 10:00 AM under favorable conditions for detecting and identifying a BCC species. This provision does not apply to ongoing construction, drilling, or completion activities that are initiated prior to May 1 and continue into the 60-day period at the same location.

14. Migratory Birds – General. It shall be the responsibility of the operator to comply with the Migratory Bird Treaty Act (MBTA) with respect to “take” of migratory bird species, which includes injury and direct mortality resulting from human actions not intended to have such result. To minimize the potential for the take of a migratory bird, the operator shall take reasonable steps to prevent use by birds of fluid-containing pits associated with oil or gas operations, including but not limited to reserve pits, produced-water pits, hydraulic fracturing flowback pits, evaporation pits, and cuttings trenches. Liquids in these pits—whether placed or accumulating from precipitation—may pose a risk to birds as a result of ingestion, absorption through the skin, or interference with buoyancy and temperature regulation.

Based on low effectiveness of brightly colored flagging or spheres suspended over a pit, the operator shall install netting with a mesh size of 1 to 1.5 inches, and suspended at least 4 feet above the fluid surface, on all pits into which fluids are placed, except for storage of fresh water in a pit that contains no other material. The netting shall be installed within 24 hours of placement of fluids into a pit. The requirement for netting does not apply to pits during periods of continuous, intensive human activity at the pad, such as drilling and hydraulic fracturing phases or, as pertains to cuttings trenches, during periods of active manipulation for cuttings management, remediation of contaminated materials, or other purposes.

15. Fossil Resources. All persons associated with operations under this authorization shall be informed that any objects or sites of paleontological or scientific value, such as vertebrate or scientifically important invertebrate fossils, shall not be damaged, destroyed, removed, moved, or disturbed. If in connection with operations under this authorization any of the above resources are encountered the operator shall immediately suspend all activities in the immediate vicinity of the discovery that might further disturb such materials and notify the BLM of the findings. The discovery must be protected until notified to proceed by the BLM.

Where feasible, the operator shall suspend ground-disturbing activities at the discovery site and immediately notify the BLM of any finds. The BLM would, as soon as feasible, have a BLM-permitted paleontologist check out the find and record and collect it if warranted. If ground-disturbing activities cannot be immediately suspended, the operator shall work around or set the discovery aside in a safe place to be accessed by the BLM-permitted paleontologist.

16. Cultural Education/Discovery. All persons in the area who are associated with this project shall be informed that if anyone is found disturbing historic, archaeological, or scientific resources, including collecting artifacts, the person or persons would be subject to prosecution.

Pursuant to 43 CFR 10.4(g), the BLM shall be notified by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4 (c) and (d), activities shall stop in the vicinity of the discovery, and the discovery shall be protected for 30 days or until notified by the BLM to proceed.

If in connection with operations under this contract, the operator, its contractors, their subcontractors, or the employees of any of them discovers, encounters, or becomes aware of any objects or sites of

cultural value or scientific interest such as historic ruins or prehistoric ruins, graves or grave markers, fossils, or artifacts, the operator shall immediately suspend all operations in the vicinity of the cultural resource and shall notify the BLM of the findings (16 USC 470h-3, 36 CFR 800.112). Operations may resume at the discovery site upon receipt of written instructions and authorization by the BLM. Approval to proceed would be based upon evaluation of the resource. Evaluation shall be by a qualified professional selected by the BLM from a Federal agency insofar as practicable. When not practicable, the operator shall bear the cost of the services of a non-Federal professional.

Within five working days, the BLM would inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places
- what mitigation measures the holder would likely have to undertake before the site can be used (assuming that *in-situ* preservation is not necessary)
- the timeframe for the BLM to complete an expedited review under 36 CFR 800.11, or any agreements in lieu thereof, to confirm through the SHPO State Historic Preservation Officer that the findings of the BLM are correct and that mitigation is appropriate

The operator may relocate activities to avoid the expense of mitigation and delays associated with this process, as long as the new area has been appropriately cleared of resources and the exposed materials are recorded and stabilized. Otherwise, the operator shall be responsible for mitigation costs. The BLM would provide technical and procedural guidelines for relocation and/or to conduct mitigation. Upon verification from the BLM that the required mitigation has been completed, the operator would be allowed to resume construction.

Antiquities, historic ruins, prehistoric ruins, and other cultural or paleontological objects of scientific interest that are outside the authorization boundaries but potentially affected, either directly or indirectly, by the Proposed Action shall also be included in this evaluation or mitigation. Impacts that occur to such resources as a result of the authorized activities shall be mitigated at the operator's cost, including the cost of consultation with Native American groups.

Any person who, without a permit, injures, destroys, excavates, appropriates or removes any historic or prehistoric ruin, artifact, object of antiquity, Native American remains, Native American cultural item, or archaeological resources on public lands is subject to arrest and penalty of law (16 USC 433, 16 USC 470, 18 USC 641, 18 USC 1170, and 18 USC 1361).

17. Interim Reclamation Related to Drilling Phases. Within 1 year of completion of all exploratory wells proposed on a pad or within one year of completion of all development wells on a pad (whichever the situation may be), the operator would stabilize the disturbed area by recontouring, mulching, providing run-off and erosion control, replacing topsoil as directed, and seeding with BLM-prescribed native seed mixes (or landowner requested seed mix on Fee surface), and conducting weed control, as necessary. In cases where the exploratory drilling and development drilling on a single pad occur more than 1 year apart, slopes shall be recontoured to the extent necessary to accommodate seeding, and seed mixes required by BLM or requested by the private landowner shall be applied to stabilize the soil between visits per direction of the BLM.

SITE-SPECIFIC COAS APPLICABLE TO THE SG 43 28 PROJECT

The following site-specific surface use COAs are in addition to the standard COAs listed above and all relevant stipulations attached to the respective Federal leases.

1. SG 43-28 Pad Construction Details

- a. Pad Containment Berm Spill Prevention Measures: With the pad being in direct proximity to drainages on all but the north side, attention shall be given to installing a solid containment berm system around the perimeter of the pad working area. Sediment basins shall be located and designed to readily accept pad drainage with focus of locating these basins near the cut/fill balance line of the pad surface. Using windrowed topsoil as sediment controls and/or basin catchments shall be incorporated into the storm water control plan. Sediment basin outlets with drop-down black piping are discouraged and, if used, such piping shall not feed directly into the nearby drainages. As a minimum, a hand-drawn schematic on Plat #2 shall provide the details for the storm water control plan for this pad. This plan shall be presented to the BLM and approved prior to completion of pad construction earthwork.
- b. Road Entrance onto Pad. The existing road entrance onto the SG 43-28 pad shall be reduced in grade as much as feasible to improve the sight distance for vehicles entering and leaving the pad. The existing and future gas gathering lines serving this pad shall be re-aligned to allow the road grade reduction. Furthermore, the existing 36-inch diameter culvert located at the pad entrance shall be removed from the road way during pad construction work since the culvert would not be needed with the drainage changes related to the pad expansion.
- c. West-Side Diversion Ditch Considerations. At the time of pad construction, the existing diversion ditch around the west edge of the pad shall be excavated to remove silted material and the excess material shall be placed along the existing pad berm to minimum 3 feet in height. At the time of earthwork related to the interim reclamation of the SG 43-28 pad as shown on Plat 7 in the APD, the west-side drainage ditch shall be reconstructed and pulled into the working are of the pad as much as feasible and the new pad perimeter berm along the western edge shall be minimum 5 feet in height to keep debris from flowing on to the pad surface.
- d. East-Side Drainage Realignment Details. The diversion ditch details shown on Plat 2A of the APD shall be modified to establish a new drainage channel between Corners 9 and 11, per Cross Section Schematic in the APD prepared by Fox Engineering Solutions 2/28/13. South of Corner 11, the existing drainage shown on Plat 2A shall remain the future drainage channel throughout the operating period of the SG 43-28 pad. On Plat 2B the “Construct Diversion Ditch” notation shall be followed allowing the existing drainage to be slightly shifted east to provide the space for the expanded road fill slopes. Any excavation material generated from the establishment of the diversion ditch along the east edge of the pad shall be used for fill material on the pad or pad access road to reduce the steep road grade.
- e. New Production Equipment Pad Construction. The existing trees located near the storage tank pad shall remain undisturbed and continue to serve as visual barrier for the equipment placements below the SG 43-28 pad.

2. SG 43-28 Cuttings Storage. Cuttings generated at the SG 43-28 well pad shall be transported to the SG Cuttings Trench, located at the SG 22-32 well pad, placed within the site boundary, and managed separately from cuttings generated at location other than SG 43-28 well pad. Cuttings piles, consisting of no more than 1,000 cubic yards, shall be sampled prior to disposal into the trench to demonstrate that the drill cuttings do not exceed COGCC Table 910-1 concentration levels for soils. If the drill cuttings do not meet these Table 910-1 concentration levels, the cuttings shall be treated until the allowable concentration levels are met before being moved and stored in a disposal

cell in the Cuttings Storage site. After the cell is filled with cuttings, they would be covered with a minimum 3-foot deep cap of overburden and the surface reclaimed.

3. Visual Resource Protection Measures for the SG 43-28 Pad. All woody vegetation (live and dead) shall remain standing between the oil and gas field development access road and the fill slope of the well pad to provide texture and visual screening. Woody vegetation shall be protected and remain standing and undamaged during construction, facility installation, and interim reclamation.

Above-ground facilities shall be painted **Shadow Gray** to minimize contrast with existing surrounding vegetation or rock outcrops.

To reduce contrast in color between imported road surface materials and surrounding native soils, application of gravel shall be kept to the minimum thickness needed for safe all-weather travel.

4. Special Status Plant Protections

The following specific conservation and mitigation measures shall be implemented for this project:

Sclerocactus glaucus: No herbicide shall be applied within 100 meters of any known occurrences of Colorado hookless cactus. Within this 100-meter buffer, noxious weeds shall be controlled using manual treatments.

Phacelia submutica: If project construction for SG 43-28 is delayed until the 2014 growing season, DeBeque phacelia surveys shall be performed in accordance with standard survey protocols. If plants are detected, consultation with USFWS shall be reinitiated, which could result in changes to the project construction area and recommended conservation measures outlined below.

If construction occurs prior to the next DeBeque phacelia growing season, the following conservation measures shall be applied to project construction.

- a. To prevent accidental trampling or vehicle impacts, a temporary plastic fence (a minimum of 42 inches in height) or flagged wooden lath, or other marking systems acceptable to the BLM shall be installed along the edge of disturbed areas where mapped potential habitat is within 20 meters of disturbance or at locations designated by the BLM to restrict foot traffic or equipment use.
- b. WPX shall restrict all personnel to areas within the boundary of project disturbance on all BLM lands. Exceptions require prior approval by the BLM botanist.
- c. The proposed construction within a 100-meter buffer of mapped potential habitat shall only occur outside of the plant growth period of DeBeque phacelia of April through June (Spackman et al. 1997) during flowering years. Determination of a non-flowering year shall be made by the BLM botanist, in conjunction with the USFWS.
- d. Surface-disturbing activities located within 100 meters of mapped delineated DeBeque phacelia habitats shall have dust control measures implemented. Dust abatement applications shall be limited to water only to prevent negative impacts from additives.
- e. To prevent impacts from herbicide drift and from noxious weeds, no herbicide shall be applied within 20 meters of any mapped DeBeque phacelia habitat. Within these herbicide prohibition buffers, noxious weeds in these areas shall be controlled by manual treatments. In areas between 20 meters and 100 meters of mapped DeBeque phacelia habitat, spot treatments of noxious weeds may be made using herbicide, only when no DeBeque phacelia plants are present within mapped habitat areas. A BLM approved Pesticide Use Proposal (PUP) noting this sensitive area restriction must be obtained prior to any herbicide use. All mapped habitat areas within 100

meters of planned herbicide use shall be surveyed for DeBeque phacelia plants by a BLM approved botanist prior to any herbicide application. If DeBeque phacelia plants are found, the BLM botanist shall be notified immediately, and consultation with USFWS shall be reopened.

- f. To prevent impacts from herbicide drift on Colorado hookless cactus, no herbicide shall be applied within 100 meters of any Colorado hookless cactus plant. Noxious weeds within this 100 meter buffer shall be treated manually.
- g. If botany surveys are conducted at the appropriate time of year, in a year when DeBeque phacelia plants are present at known sites of similar elevation and moisture conditions, and no DeBeque phacelia plants are found within the mapped habitat areas, the protections listed above shall no longer be necessary.

BUREAU OF LAND MANAGEMENT

Colorado River Valley Field Office
2300 River Frontage Road
Silt, CO 81652

DOWNHOLE CONDITIONS OF APPROVAL Applications for Permit to Drill

Operator: WPX Energy Rocky Mountain LLC.
Lease Number: COC 58673
Pad(s): SG 43-28
Engineer: Peter Cowan
Surface Location: Garfield County; NESE Sec. 28 T7S R96W

See list of wells following the COAs.

1. Twenty-four hours *prior* to (a) spudding, (b) conducting BOPE tests, (c) cementing/running casing strings, and (d) within 24 hours *after* spudding, the CRVFO shall be notified. One of the following CRVFO inspectors shall be notified by phone. The contact number for all notifications is: 970-876-9064. The BLM CRVFO inspectors are Julie King, Lead PET; David Giboo, PET; Greg Rios, PET; Tim Barrett, PET; Alex Provstgaard, PET; Brandon Jamison, PET.
2. A CRVFO petroleum engineer shall be contacted for a verbal approval prior to commencing remedial work, plugging operations on newly drilled boreholes, changes within the drilling plan, sidetracks, changes or variances to the BOPE, deviating from conditions of approval, and conducting other operations not specified within the APD. Contact Shauna Kocman or Peter Cowan for verbal approvals (contact information below).
3. If a well control issue or failed test (e.g. kick, blowout, water flow, casing failure, or a bradenhead pressure increase) arises during drilling or completions operations, Shauna Kocman or Peter Cowan shall be notified within 24 hours from the time of the event. IADC/Driller's Logs and Pason Logs (mud logs) shall be forwarded to CRVFO – Petroleum Engineer, 2300 River Frontage Road, Silt, CO 81652 within 24 hours of a well control event.
4. The BOPE shall be tested and conform to Onshore Order No. 2 for a **3M** system and recorded in the IADC/Driller's log. A casing head rated to 3,000 psi or greater shall be used.
5. Flexible choke lines shall meet or exceed the API SPEC 16C requirements. Flexible choke lines shall have flanged connections and configured to the manufacturer's specifications. The flexible choke lines shall be anchored in a safe and workmanlike manner. At minimum, all connections shall be effectively anchored in place for safety of the personal on location. Manufacturer specifications shall be kept with the drilling rig at all times and immediately supplied to the authorized officer/inspector upon request. Specifications at a minimum shall include acceptable bend radius, heat range, anchoring, and the working pressure. All flexible choke lines shall be free of gouges, deformations, and as straight/short as possible.
6. An electrical/mechanical mud monitoring equipment shall be function tested prior to drilling out the surface casing shoe. As a minimum, this equipment shall include a pit volume totalizer, stroke counter, and flow sensor.
7. Prior to drilling out the surface casing shoe, gas detecting equipment shall be installed in the mud return system. The mud system shall be monitored for hydrocarbon gas/pore pressure changes, rate

of penetration, and fluid loss.

8. A gas buster shall be functional and all flare lines effectively anchored in place, prior to drilling out the surface casing shoe. The discharge of the flare lines shall be a minimum of 100 feet from the wellhead and targeted at bends. The panic line shall be a separate line (not open inside the buffer tank) and effectively anchored. All lines shall be downwind of the prevailing wind direction and directed into a flare pit, which cannot be the reserve pit. The flare system shall use an automatic ignition. Where noncombustible gas is likely or expected to be vented, the system shall be provided supplemental fuel for ignition and maintain a continuous flare.
9. After the surface/intermediate casing is cemented, a Pressure Integrity Test/Mud Equivalency Test/FIT shall be performed on the first well drilled in accordance with OOGO No. 2; Sec. III, B.1.i. to ensure that the surface/intermediate casing is set in a competent formation. This is not a Leak-off Test, but a formation competency test, insuring the formation at the shoe is tested to the highest anticipated mud weight equivalent necessary to control the formation pressure to the next casing shoe depth or TD. Submit the results from the test via email (picowan@blm.gov) on the first well drilled on the pad or any horizontal well and record results in the IADC log. Report failed test to Shauna Kocman or Peter Cowan. A failed pressure integrity test is more than 10% pressure bleed off in 15 minutes.
10. As a minimum, cement shall be brought to 200 feet above the Mesaverde. After WOC for the production casing, a CBL shall be run to verify the TOC and an electronic copy in .las and .pdf format shall be submitted to CRVFO – Petroleum Engineer, 2300 River Frontage Road, Silt, CO 81652 within 48 hours. If the TOC is lower than required or the cement sheath of poor quality, a CRVFO petroleum engineer shall be notified for remedial operations within 48 hours from running the CBL and prior to commencing fracturing operations,

A greater volume of cement may be required to meet the 200-foot cement coverage requirement for the Williams Fork Formation /Mesaverde Group. Evaluate the top of cement on the first cement job on the pad (Temperature Log). If cement is below 200-foot cement coverage requirement, adjust cement volume to compensate for low TOC/cement coverage.
11. On the first well drilled on this pad, a triple combo open-hole log shall be run from the base of the surface borehole to surface and from TD to bottom of surface casing shoe. This log shall be in submitted within 48 hours in .las and .pdf format to: CRVFO – Todd Sieber, 2300 River Frontage Road, Silt, CO 81652. Contact Todd Sieber at 970-876-9000 or asieber@blm.gov for clarification.
12. Submit the (a) mud/drilling log (e.g. Pason disc), (b) driller's event log/operations summary report, (c) production test volumes, (d) directional survey, and (e) Pressure Integrity Test results within 30 days of completed operations (i.e. landing tubing) per 43 CRF 3160-9 (a).
13. Prior to commencing fracturing operations, the production casing shall be tested to the maximum anticipated surface treating/fracture pressure and held for 15 minutes without a 2% leak-off. If leak-off is found, Shauna Kocman or Peter Cowan shall be notified within 24 hours of the failed test, but prior to proceeding with fracturing operations. The test shall be charted and set to a time increment as to take up no less than a quarter of the chart per test. The chart shall be submitted with the well completion report.
14. During hydraulic frac operations, monitor the bradenhead/casing head pressures throughout the frac job. Frac operations shall be terminated upon any sharp rise in annular pressure (+/- 40 psi or greater) in order to determine well/wellbore integrity. Notify Shauna Kocman or Peter Cowan immediately.

15. Per 43 CFR 3162.4-1(c), no later than the 5th business day after any well begins production on which royalty is due anywhere on a lease site or allocated to a lease site, or resumes production in a case of a well which has been off production for more than 90 days, the operator shall notify the authorized officer by letter or sundry notice, Form 3160-5, or orally to be followed by a letter or sundry notice, of the date on which such production has begun or resumed.

Contact Information

Shauna Kocman, PhD, PE
Petroleum/ Environmental Engineer

Office: (970) 876-9061
Cell: (970) 456-5602
skocman@blm.gov

Peter Cowan
Petroleum Engineer

Office: (970) 876-9049
Cell: (970) 309-8548
picowan@blm.gov

List of Wells			
Proposed Pads	Proposed Wells	Surface Locations	Bottom Hole Locations
SG 43-28 (BLM Surface)	Federal SG 242-28	T7S R96W, Sect. 28 NESE	T7S R96W, Sect. 28 Lot 1