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 Exclusion for Oil and Gas Development

NUMBER: DOI-BLM-CO-N040-2011-0068-CX (390)

CASEFILE/PROJECT NUMBER: COC62161 and COC62162 (Federal Oil and Gas Leases)

PROJECT NAME: Proposal to drill four Federal oil and gas wells and expand the existing PA 11-28 well pad located in the Cottonwood Gulch area northeast of Parachute, Garfield County, Colorado.

LEGAL DESCRIPTION: Township 6 South (T6S), Range 95 West (R95W), Section 28, NW¼NW¼ Sixth Principal Meridian.

APPLICANT: Williams Production RMT Company

DESCRIPTION OF PROPOSED ACTION: Williams Production RMT Company proposes to drill four Federal oil and gas wells from the existing PA 11-28 pad located on public land in Cottonwood Gulch (Table 1). The project site is located approximately 6.6 miles northeast of Parachute, Colorado (Figure 1). Surface locations of the wells overlie Federal lease COC62161, and bottomhole locations would be within Federal lease COC62162. Surface disturbance would occur on lands overlying both leases.

Table 1. Surface and Bottomhole Locations of Proposed Federal Wells

Proposed Wells	***Surface Locations (COC62161)***	***Bottomhole Locations (COC62162)***
PA 41-29 (PA 11-28)	324 feet FNL, 126 feet FWL NW¼NW¼, Section 28, T6S R95W	176 feet FNL, 1007 feet FEL Lot 1 (NE¼NE¼), Section 29, T6S R95W
PA 341-29 (PA 11-28)	327 feet FNL, 141feet FWL NW¼NW¼, Section 28, T6S R95W	471 feet FNL, 882 feet FEL Lot 1 (NE¼NE¼), Section 29, T6S R95W
PA 441-29 (PA 11-28)	331 feet FNL, 156 feet FWL NW¼NW¼, Section 28, T6S R95W	789 feet FNL, 569 feet FEL Lot 1 (NE¼NE¼), Section 29, T6S R95W
PA 541-29 (PA 11-28)	335 feet FNL, 170 feet FWL NW¼NW¼, Section 28, T6S R95W	176 feet FNL, 1007 feet FEL Lot 1 (NE¼NE¼), Section 29, T6S R95W

The PA 11-28 pas was initially analyzed in the Wheeler to Webster Geographic Area Plan (GAP) (EA #CO140-2001-048) and again in 2005 version of that GAP (EA #CO140-2005-047). The PA 11-28 pad was constructed in 2005 with a total disturbance footprint of 1.98 acres, and two Federal wells were drilled in that year. The pad was re-entered in 2006, and four Federal wells were drilled with no additional surface disturbance. The pad currently supports six producing oil and gas wells. The pad was recontoured for interim reclamation, but has not been seeded.

Under the current proposal, the PA 11-28 pad would be reconstructed to accommodate the four new wells and additional production equipment. The expanded pad would include less than 3 acres total surface

disturbance, and the pad entrance road would add less than 0.1 acre of additional disturbance. The pad would cross two leases: Federal lease COC62161 would have 2.33 acres of disturbance, and Federal lease COC62162 would have 0.24 acre of disturbance (Figure 2). A summary of the surface disturbance per lease is provided in Table 2. Long-term disturbance would be 1.62 acres after the pad undergoes interim reclamation (Figure 3).

Table 2. Summary of Surface Disturbance by Lease (2/25/2011)

Lease	*Well Pads (Acres)*	*Roads and Pipelines (Acres)*	*Total Disturbance (Acres)*
COC62161	37	44	81
COC62162	34	48	82

No new roads would be constructed for this pad; the existing road would continue to service the well pad for all phases of construction, drilling, completions, and production activities. To provide safer access on and off the pad, the access road entrance would be widened to the south, providing the necessary turn radius for vehicles entering and leaving the pad and to provide safer clearance between the entrance and the production facilities. No new gas lines would be installed. Separators and water and condensate tanks for the existing wells would be located on the existing but slightly expanded (170 feet x 45 feet) production area (Figures 3, 4, and 5). A new 4-inch water line would be installed from the production equipment to the road, where a previously approved and installed 4-inch water line is buried (Figure 4). The new section of water line would be buried within the pad and/or existing access road disturbance. This water line would provide capability to pipe water from the pad to the existing Cottonwood Tank Facility.

Water used during drilling operations would be trucked via existing county, state, and/or lease roads, from approved sources. For completions, hydraulic fracturing ("fracing") would occur remotely from the existing Cottonwood Frac Pad (PA 33-28). The final alignment for temporary surface frac lines would be determined after construction but would be located to reduce surface disturbance or impacts to vegetation or drainages. An existing 10-inch temporary surface water line would feed the Cottonwood Frac Pad. This line would tie into an existing water line that supplies water from the Grand Valley Evaporation Pond. Drill cuttings generated during drilling of the proposed wells would be disposed in an onsite cuttings trench (Figure 5). At the time of interim reclamation, slopes would be recontoured (Figure 3) and seeded with a mix approved by the BLM.

An onsite evaluation of the project proposal by BLM personnel was conducted on February 28, 2011. Federal leases COC62161 and COC62162, issued in 1999, carry the special stipulations listed in Table 3.

Table 3. Summary of Lease Stipulations Applicable to the PA 11-28 Pad and Vicinity

Lease Number	*Description of Lands (T6S, R95W, 6th PM)*	*Lease Stipulations*
COC62161	Sec. 27: NESW, NWSE, SESE; Sec. 28: W2NW, N2SE;	**CSU-02:** To protect riparian and wetland zones within 500 feet of the outer edge of the riparian or wetland vegetation; special design, construction, and implementation measures, including relocation of operations beyond 200 meters will be required to protect the values and function of the riparian and wetland zones.

Lease Number	*Description of Lands (T6S, R95W, 6th PM)*	*Lease Stipulations*
COC62161	Sec. 27: Lots 1-8; N2S2, SESE; Sec. 28: Lots 1-4; W2W2, N2SE;	**CSU-04:** To protect erosive soils and slopes greater than 30%, special design, construction, and implementation measures will be required to limit the amount of surface disturbance, to reduce erosion potential, to maintain site stability and productivity, and to ensure successful reclamation.
COC62162	Sec. 32: N2NE, SWNE, NW; Sec. 33: NWNW, SENW;	
COC62161	Sec. 27: N2S2, SESE; Sec. 28: Lots 1-4; W2W2, N2SE;	**CSU-05:** To protect scenic values of Class II visual resource management, special design requirements, relocation of operations by more than 200 meters, and other measures to retain overall landscape character will be required.
COC62162	Sec. 32: N2NE, SWNE, NW; Sec. 33: SENW, NWNW;	
COC62161	Sec. 27: Lots 1-8; N2S2, SESE; Sec. 28: Lots 1-4; W2W2, N2SE;	**TL-01:** Big Game Winter Habitat (12/1 - 4/30). Exception may be granted under mild winter conditions for the last 60 days after consultation with CDOW.
COC62162	Sec. 32: NWNE, SWNE, NW; Sec. 33: MWMW, SEMW;	
COC62161	Sec. 27: NESW, NWSE; Sec. 28: W2NW, NWSE;	**NSO-02:** To protect riparian and wetland zones. Exception Criteria: if authorized officer determines that the activity will cause no loss of riparian vegetation, or that the vegetation lost can be replaced within 3 to 5 years with vegetation of like species and age class; and within the riparian vegetation, an exception is permitted for stream crossings, if an area analysis indicates that no suitable alternative is available.
COC62162	Sec. 32: SWNW;	
COC62161	Sec. 27: Lots 1-5, 7, 8; NESE Sec. 28: Lots 1-4; NWNW;	**NSO-15:** No surface use is allowed on steep slopes greater than 50% to maintain site stability and site productivity. This NSO does not apply to pipelines. Exception may be granted if lessee demonstrates that operations can be conducted without causing unacceptable impacts and that less restrictive measures will protect the public interest.
COC62162	Sec. 32: NWNE, N2NW, SWNW; Sec. 33: NWNW;	
COC62161	Sec. 27: Lots 1-5, 7, 8; Sec. 28: Lots 1, 2, 4;	**NSO-18:** To protect slopes over 30% with high visual sensitivity in the I-70 viewshed. Exceptions may be granted if protective measures can be designed to accomplish VRM Class II objectives.
COC62162	Sec. 32: W2NW; Sec. 33: NWNW;	

PLAN CONFORMANCE REVIEW: The Proposed Action is subject to and has been reviewed for conformance with (43 CFR 1610.5, BLM 1617.3) the following plan:

Name of Plan: The current land use plan is the *Glenwood Springs Resource Management Plan* (RMP), approved in 1984 and revised in 1988 (BLM 1984). 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 1999b).

Date Approved: *Oil and Gas Plan Amendment to the Glenwood Springs Resource Management Plan* (BLM 1991) – approved 11/27/91 and Oil *& Gas Leasing & Development Record of Decision and Resource Management Plan Amendment (*BLM 1999b) – approved March 24, 1999.

Decision (BLM 1991, page 3; BLM1999b, page 15): 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." Furthermore, Appendices A and B (BLM 1999b) list Lease Stipulations (Appendix A) and Management of Lease Development (Appendix B) features that further support the initial decision language from 1991 Resource Management Plan Amendment.

REVIEW OF EXISTING NEPA DOCUMENTS: The PA 11-28 well pad was identified as a proposed well pad in the Wheeler to Webster GAP (EA #CO140-2001-048), approved on July 24, 2002. The PA 11-28 pad was identified in the 2005 GAP (EA #CO140-2005-047), approved on May 24, 2005, as a proposed pad requiring additional mitigation measures to meet attached lease stipulations NSO 18 (I-70 Viewshed) and CSU 5 (Visual Resource Management Class II Areas). The latter EA satisfies the criterion under Section 390 of being an activity-level or project-level document prepared pursuant to the National Environmental Policy Act (NEPA).

CATEGORICAL EXCLUSION REVIEW: The proposed action is categorically excluded from further documentation in accordance with statutory NEPA categorical exclusions (CXs), as granted in Section 390 of the Energy Policy Act of 2005, for oil and gas exploration and development. The proposed action qualifies as a categorical exclusion under Section 390, based on the qualifying criteria of Category Number 1 (Table 4).

Table 4. Qualifying Criteria	Yes	No
1. Individual surface disturbances of less than five (5) acres, so long as the total surface disturbance on the lease is not greater than 150 acres and site-specific analysis in a document prepared pursuant to NEPA has been previously completed.	X	
a. Will disturb less than 5 acres; if more than one action is proposed for a lease, each activity is counted separately, and each may disturb up to 5 acres.	X	
b. The current unreclaimed surface disturbance readily visible on the entire leasehold is not greater than 150 acres, including the proposed action. See Figure 3.	X	
c. This categorical exclusion includes the requirement of a site-specific NEPA document. A site-specific NEPA analysis may be an EA/EIS for exploration and/or development, for a specific MDP, for a multi-well or a single well permit approval.	X	

None of the extraordinary circumstances described in 516 DM 2, Appendix 2, applies (Table5).

Table 5. Extraordinary Circumstances	Yes	No
1. Have significant adverse effects on public health and safety.		X
2. Have significant impacts on such natural resources and unique geographic characteristics as historic or cultural resources; park, recreation or refuge lands; wilderness areas; wild or scenic rivers; national natural landmarks; sole or principal drinking water aquifers; prime farmlands; wetlands (Executive Order 11990); floodplains (Executive Order 11988); national monuments; migratory birds; and other ecologically significant or critical areas.		X
3. Have highly controversial environmental effects or involve unresolved conflicts concerning alternative uses of available resources [NEPA Section 102(2) (E)].		X
4. Have highly uncertain and potentially significant environmental effects or involve unique or unknown environmental risks.		X

5. Establish a precedent for future action or represent a decision in principle about future actions with potentially significant environmental effects.		X
6. Have a direct relationship to other actions with individually insignificant but cumulatively significant environmental effects.		X
7. Have significant impacts on properties listed, or eligible for listing, on the National Register of Historic Places as determined by either the bureau or office.		X
8. Have significant impacts on species listed, or proposed to be listed, on the List of Endangered or Threatened Species, or have significant impacts on designated Critical Habitat for these species.		X
9. Violate a Federal law or a State, local, or tribal law or requirement imposed for the protection of the environment.		X
10. Have the potential for a disproportionately high and adverse effect on low income or minority populations (Executive Order 12898).		X
11. Limit access to and ceremonial use of Indian sacred sites on Federal lands by Indian religious practitioners or significantly adversely affect the physical integrity of such sacred sites (Executive Order 13007).		X
12. Contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area or actions that may promote the introduction, growth, or expansion of the range of such species (Federal Noxious Weed Control Act and Executive Order 13112).		X

INTERDISCIPLINARY REVIEW: The proposed action was presented to the Colorado River Valley Field Office (CRVFO) interdisciplinary team for review on March 3, 2011. A list of resource specialists who participated in this review is available upon request.

MITIGATION: Conditions of Approval (attached) would be included in the Application for Permit to Drill (APD) for each of the four proposed wells identified in this document.

NAME OF PREPARER: Julie McGrew, Natural Resource Specialist

NAME OF ENVIRONMENTAL COORDINATOR: Allen B. Crockett, Supervisory NRS

DECISION AND RATIONALE: I have reviewed this CX and have decided to approve the proposed action. This action is listed in the Instruction Memorandum Number 2005-247 and Instruction Memorandum Number 2010-118 as an action that may be categorically excluded under Section 390 of the Energy Policy Act of 2005. I have evaluated the action relative to the five qualifying criteria listed above and have determined that, as it does not represent an exception, it is therefore categorically excluded from further environmental analysis.

SIGNATURE OF AUTHORIZED OFFICIAL: Allen B Crockett
Supervisory Natural Resource Specialist

DATE SIGNED: April 6, 2011

Administrative Review or Appeal Opportunities: This decision is effective upon the date the decision or approval by the authorized officer. Under regulations addressed in 43 CFR Subpart 3165, any party adversely affected has the right to appeal this decision. An informal review of the technical or procedural aspects of the decision may be requested of this office before initiating a formal review request. You have the right to request a State Director review of this decision. You must request a State Director review prior to filing an appeal to the Interior Board of Land Appeals (IBLA) (43CFR 3165.4).

If you elect to request a State Director Review, the request must be received by the BLM Colorado State Office, 2850 Youngfield Street, Lakewood, Colorado 80215, no later than 20 business days after the date the decision was received or is considered to have been received. The request must include all supporting documentation unless a request is made for an extension of the filing of supporting documentation. For good cause, such extensions may be granted. You also have the right to appeal the decision issued by the State Director to the IBLA.

Contact Person: For additional information concerning this decision, contact Julie McGrew, Natural Resource Specialist, Colorado River Valley Field Office, 2300 River Frontage Road, Silt, CO 81652, at 970-876-9000 (telephone) or jmcgrew@blm.gov (email).

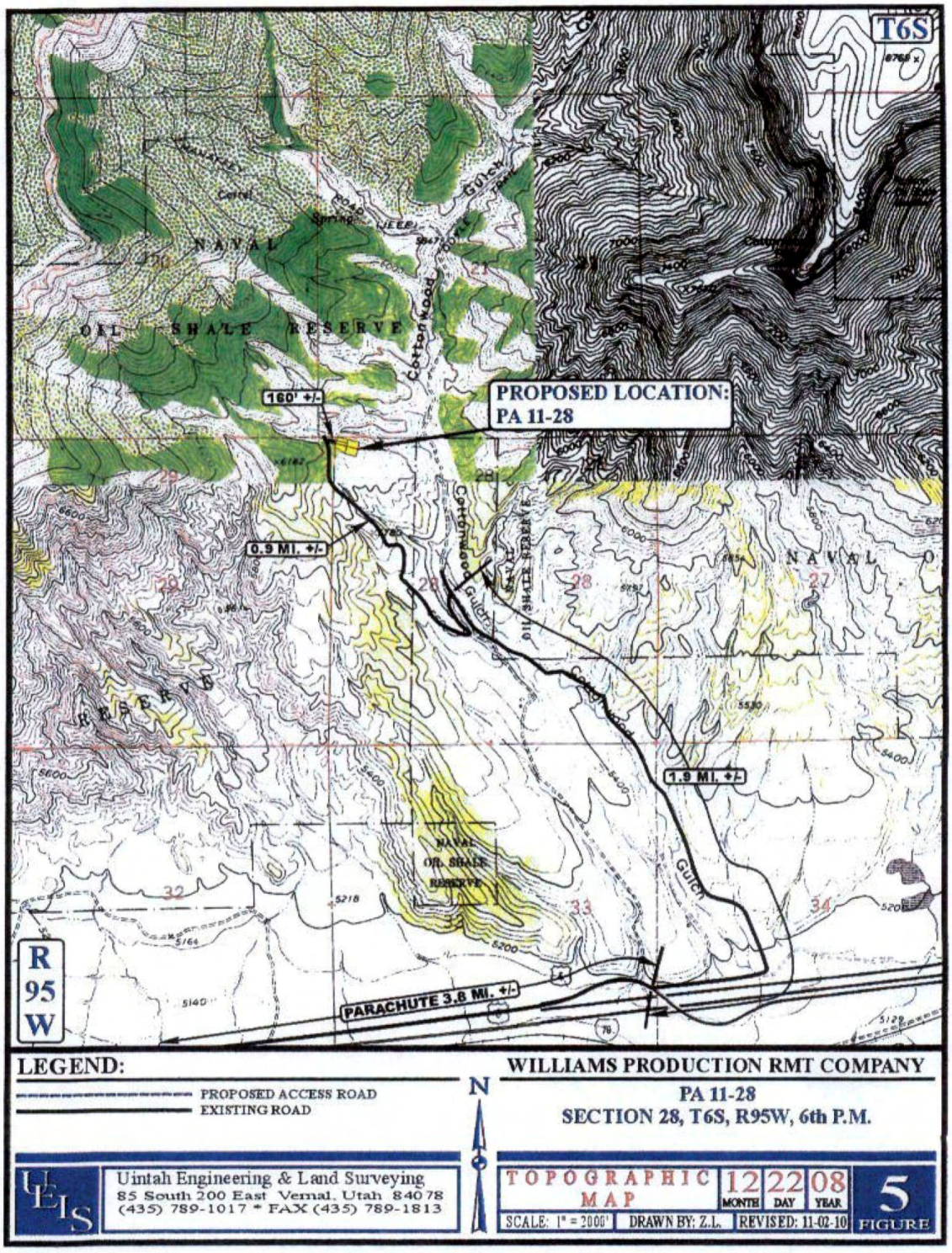

Figure 1. Project Location Map, PA 11-28 Pad Expansion

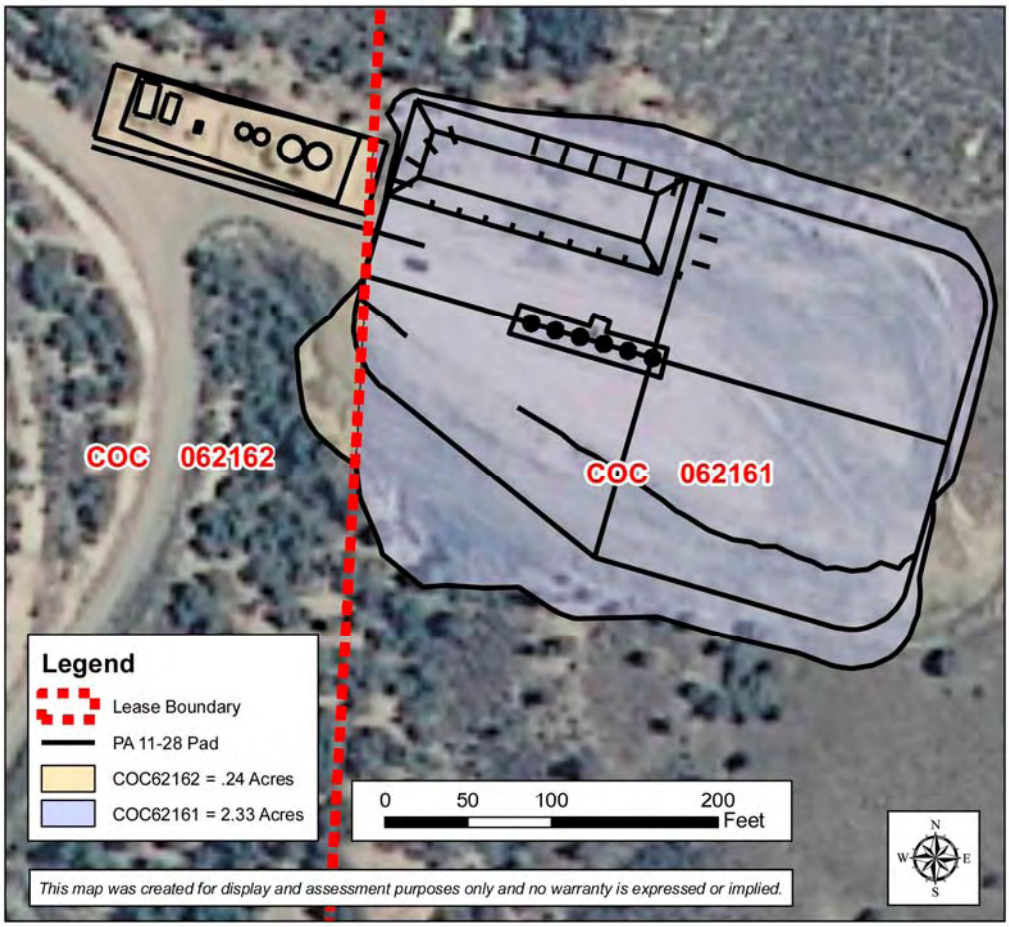

Figure 2. Location of the PA 11-28 Well Pad in Relation to Federal Leases COC62162 and COC62161

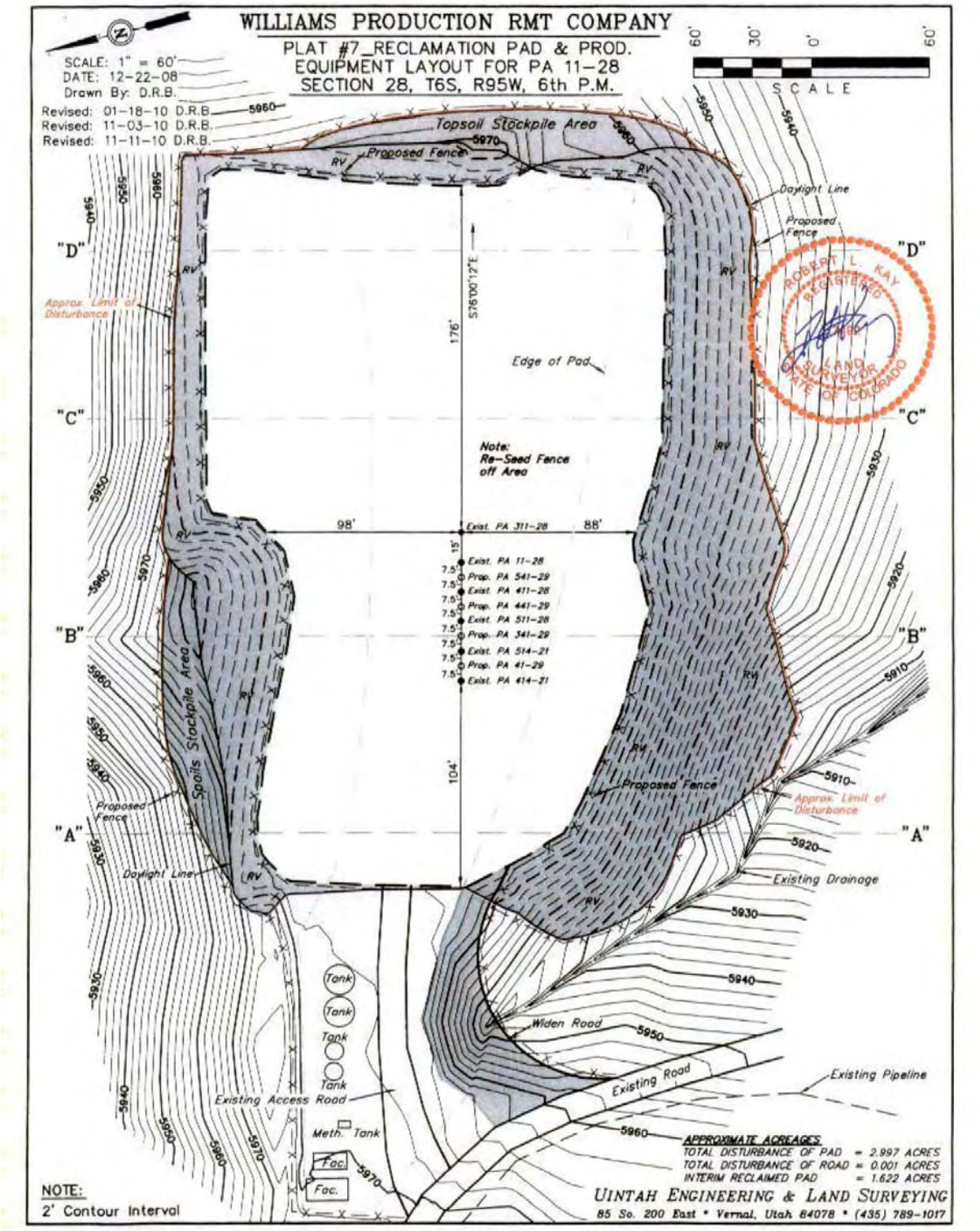

Figure 3. Reclamation and Production Equipment Layout, PA 11-28 Pad Expansion

Figure 4. Plan of Development, PA 11-28 Pad Expansion

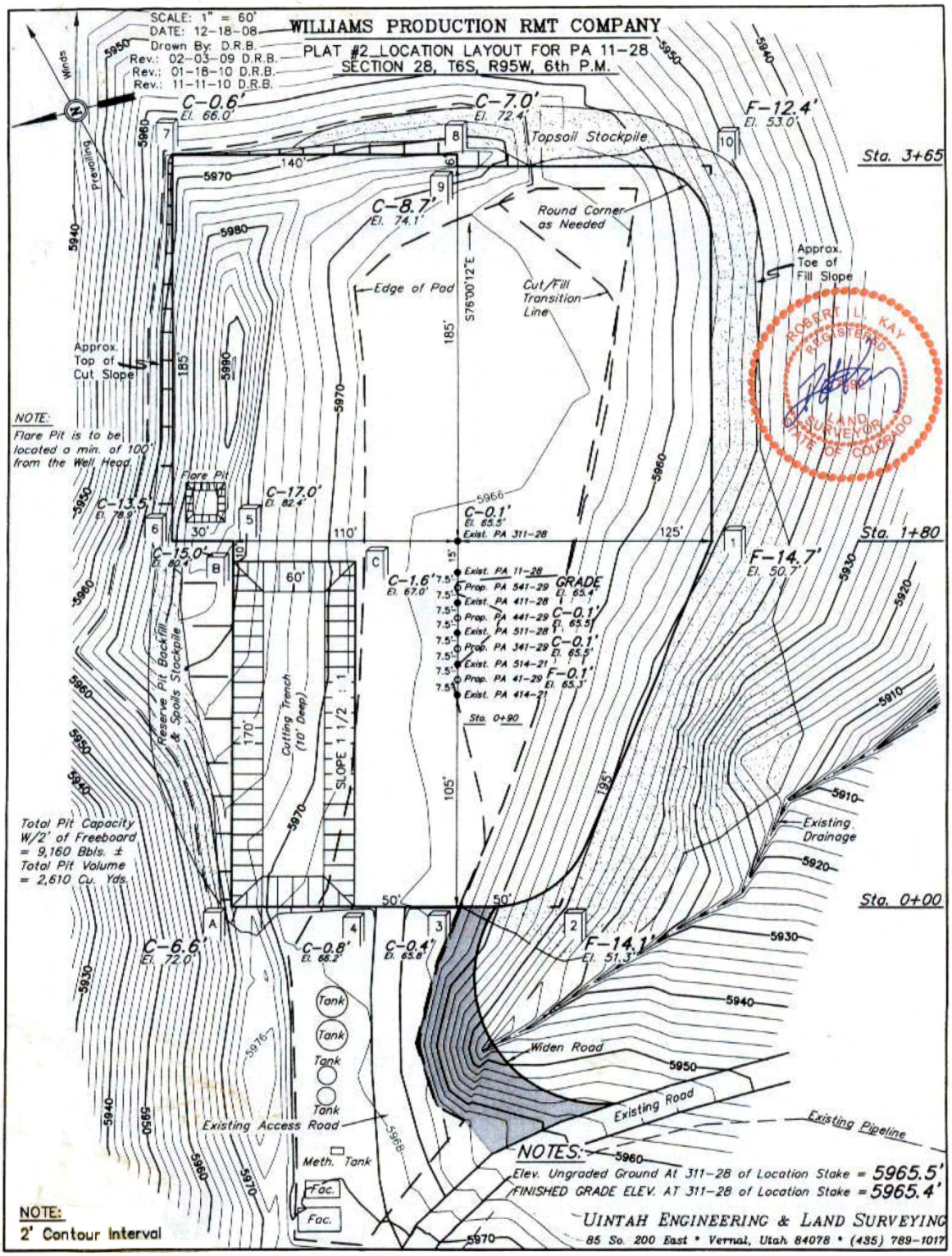

Figure 5. Construction Layout, PA 11-28 Pad Expansion

Surface-Use Conditions of Approval (COAs)
DOI-BLM-CO-N040-2011-PA 11-28-CX (390)

Standard Surface-Use 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.

2. Road Construction and 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.

3. 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.

4. 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 (Travis Morse).

   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.

5. 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 (Travis Morse). Copies of any printed or emailed approved USACE permits or verification letters shall be forwarded to the BLM.

6. Wetlands and Riparian Zones. The operator shall restore temporarily disturbed wetlands or riparian areas. The operator shall consult with the BLM Colorado River Valley Field Office to determine appropriate mitigation, including verification of native plant species to be used in restoration.

7. 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 and temporary (pre-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 plats, 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 surface 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 (COA #19) 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.

Seedbed preparation is not required for topsoil storage piles or other areas of temporary seeding.

Requests for use of soil amendments, including basic product information, shall be submitted to the BLM 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 May 1, 2008). Note that temporary seeding no longer allows the use of sterile hybrid non-native species.

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 noxious, prohibited, or restricted 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 reseedings 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 measures approved by the BLM. Cut-and-fill slopes along drainages or in areas with high erosion potential shall also be protected from erosion using hydromulch designed specifically for erosion control or biodegradable blankets/matting, bales, or wattles of weed-free straw or weed-free native grass hay. A well-anchored fabric silt fence shall also be placed at the toe of cut-and-fill slopes along drainages or to protect other sensitive areas from deposition of soils eroded off the slopes. Additional BMPs shall be employed as necessary to reduce soil erosion and offsite transport of sediments.

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 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.

8. 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 shall be submitted to BLM by **December 1**.

9. 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 **January 1 to April 30 annually (Lease Stipulation TL-01)**.

10. 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, should be coordinated with the BLM project lead and BLM wildlife biologist and the USFWS representative in the BLM Field Office (970-876-9051).

11. 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, a 60-day Timing Limitation (TL) shall be applied to construction, drilling, or completion activities within the buffer widths specified above, if the activities would be initiated during the nesting period of May 1 to July 1. An exception to this TL may be granted for any year in which a subsequent survey determines one of the following: (a) the nest is in a severely dilapidated condition or has been destroyed due to natural causes, (b) the nest is not occupied during the normal nesting period for that species, (c) the nest was occupied but subsequently failed due to natural causes, or (d) the nest was occupied but the nestlings have fledged and dispersed from the nest. In the case of a dilapidated nest or one that was destroyed due to natural causes, the TL shall apply to any alternate or replacement nest within the buffer widths specified above, unless an exception is granted for the alternate or replacement nest for one of the reasons listed.

12. Migratory Birds. 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. Under the MBTA, "take" means to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The operator shall prevent use by migratory birds of any pit containing fluids associated with oil or gas operations, including but not limited to reserve pits, produced water pits, frac-water pits, cuttings trenches (if covered by water or other fluid), and evaporation pits. Fluids in these pits may pose a risk to migratory birds (e.g., waterfowl, shorebirds, wading birds, songbirds, and raptors) as a result of ingestion, absorption through the skin, or interference with buoyancy and temperature regulation. Regardless of the method used, it shall be in place within 24 hours following the placement of fluids into a pit. Because of high toxicity to birds, oil slicks and oil sheens should immediately be skimmed off the surface of any pit that is not netted. The most effective way to eliminate risk to migratory birds is prompt drainage, closure, and reclamation of pits, which is strongly encouraged. All mortality or injury to species protected by the MBTA shall be reported immediately to the BLM project lead and to the USFWS representative to the CRVFO at 970-876-9051 (Creed Clayton) and visit http://www.fws.gov/mountain-prairie/contaminants/oilpits.htm.

13. Birds of Conservation Concern. This COA does not apply, owing to a lack of suitable nesting habitat for BCC species within proximity to the project area.

14. Range Management. Range improvements (fences, gates, reservoirs, pipelines, etc) shall be avoided during development of natural gas resources to the maximum extent possible. If range improvements are damaged during exploration and development, the operator will be responsible for repairing or replacing the damaged range improvements. If a new or improved access road bisects an existing livestock fence, steel frame gate(s) or a cattleguard with associated bypass gate shall be installed across the roadway to control grazing livestock.

15. *Ips* Beetle. To avoid mortality of pinyon pines due to infestations of the *Ips* beetle, any pinyon trees damaged during road, pad, or pipeline construction shall be chipped after being severed from the

stump or grubbed from the ground, buried in the toe of fill slopes (if feasible), or cut and removed from the site within 24 hours to a location approved by the Colorado State Forest Service.

16. Paleontological 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 will, 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.

17. 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 will 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 will 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 will inform the operator as to:

    - whether the materials appear eligible for the National Register of Historic Places
    - what mitigation measures the holder will 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 will 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 will 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).

18. Visual Resources.

    Production facilities shall be placed to avoid or minimize visibility from travel corridors, residential areas, and other sensitive observation points—unless directed otherwise by the BLM due to other resource concerns—and shall be placed to maximize reshaping of cut-and-fill slopes and interim reclamation of the pad.

    To the extent practicable, existing vegetation shall be preserved when clearing and grading for pads, roads, and pipelines. The BLM may direct that cleared trees and rocks be salvaged and redistributed over reshaped cut-and-fill slopes or along linear features.

    Above-ground facilities shall be painted a natural color selected to minimize contrast with adjacent vegetation or rock outcrops. The color shall be specified by the BLM and attached as a COA to individual APDs.

19. Windrowing of Topsoil. Topsoil shall be windrowed around the pad perimeter to create a berm that limits and redirects stormwater runoff and extends the viability of the topsoil per BLM Topsoil Best Management Practices (BLM 2009 PowerPoint presentation available upon request from Glenwood Springs Field Office). Topsoil shall also be windrowed, segregated, and stored along pipelines and roads for later spreading across the disturbed corridor during final reclamation. Topsoil berms shall be promptly seeded to maintain soil microbial activity, reduce erosion, and minimize weed establishment.

20. Reserve Pit. A minimum of 2 feet of freeboard shall be maintained in the reserve pit. Freeboard is measured from the highest level of drilling fluids and cuttings in the reserve pit to the lowest surface elevation of ground at the reserve pit perimeter.

21. Soils. Cuts and fills shall be minimized when working on erosive soils and slopes in excess of 30 percent. Cut-and-fill slopes shall be stabilized through revegetation practices with an approved seed mix shortly following construction activities to minimize the potential for slope failures and excessive erosion. Fill slopes adjacent to drainages shall be protected with well-anchored silt fences, straw wattles, or other acceptable BMPs designed to minimize the potential for sediment transport. On slopes greater than 50 percent, BLM personnel may request a professional geotechnical analysis prior to construction.

Site-Specific COAs Applicable to the PA 11-28 Well Pad

The following site-specific surface use COAs are in addition to the standard COAs applicable to all wells within the PA 11-28 Pad and all stipulations attached to the respective Federal leases.

1. Interim Reclamation Related to Drilling Phases. Within 1 year of completion of the four development wells in the cellarhole configuration as shown on Figure 4 or within one year of completion of all development wells on a pad (whichever situation arises), the operator shall 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 development drilling, conducted in phases on a single pad, occurs 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.

2. A pre-construction onsite meeting shall be held **prior to pad construction**. Attendees will include the appropriate operator representatives, construction contractors, and BLM specialists including the natural resource specialist, hydrologist, and ecologist.

3. An onsite meeting shall also be held **prior to interim reclamation of the pad**. Attendees will include the appropriate operators' representatives, construction contractors, and BLM specialists including the natural resource specialist, hydrologist, and ecologist.

4. Entrance to Pad: There shall be **no** disturbance beyond the southern arc of the road entering the pad to protect the ephemeral drainage. Road arc shall be surveyed and staked prior to construction.

5. Existing windrow of trees on the south slope of the pad and in drainage shall be preserved to hold the fill slope in place, reduce erosion and prevent sediment transport into the drainage.

6. To protect the ephemeral drainage, disturbance along the southwest corner of the pad shall not go beyond the existing limit of disturbance. The fill slope shall be pulled back from the blue stakes to the existing windrow of trees. The fill slope shall be further stabilized against erosion by the use of a retaining structure, such as a gabion wall.

7. Topsoil from the north side (cut) shall be preserved and stockpiled along the eastern edge of the pad. Trees removed shall be saved and placed in the drainage at the toe of the slope.

8. To protect the ephemeral drainage, the existing earthen berm containment structure shall be upgraded to a lined secondary containment system.

9. Visual Resources: All woody vegetation (live and dead) shall remain standing at the toe of the south fill slope to provide visual screening and to break up the texture of the exposed fill slope. During interim reclamation, the vegetation shall be protected and remain standing and undamaged when fill material is pulled back to recontour the pad. The disturbed and constructed slopes shall have a roughened and undulating finish to encourage vegetation growth and reflect light in an irregular pattern to break up the texture and color of the exposed slopes. Excess woody debris or rocks not used for the drainage shall be re-placed onto the fill slope to supplement the effect created by the roughened and undulating finish.

   Facilities shall be painted using BLM standard color "Shadow Gray."

DOWNHOLE CONDITIONS OF APPROVAL
Applications for Permit to Drill

Company/Operator: Williams Production RMT Co.

Surface Location: NWNW, Section 28, Township 6 South, Range 95 West, 6th P.M.

Field	Well No./Pad	Bottomhole Location	Lease/Unit
Parachute	PA 41-29/PA11-28	NENE, Sec 29, T6S, R95W	COC62162
Parachute	PA 341-29/PA11-28	NENE, Sec 29, T6S, R95W	COC62162
Parachute	PA 441-29/PA11-28	NENE, Sec 29, T6S, R95W	COC62162
Parachute	PA 541-29/PA11-28	NENE, Sec 29, T6S, R95W	COC62162

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; and Alan White, 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 Will Howell at 970-876-9049 (office) or 970-319-5837 (cell) for verbal approvals.

3. If a well control issue (e.g. kick, blowout, water flow, casing failure, or a bradenhead pressure increase) arises during drilling or completions operations, Will Howell shall be contacted at 970-876-9049 (office) or 970-319-5837 (cell) within 24 hours from the time of the event. IADC/Driller's Logs and Pason Logs (mud logs) shall be forwarded to CRVFO, Will Howell, 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 utilized.

5. 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 trip tank, pit volume totalizer, stroke counter, and flow sensor.

6. 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.

7. 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 well head 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.

8. After the surface casing is cemented, in order to make sure the surface casing is set in a competent formation, a Pressure Integrity Test/Mud Equivalency Test/FIT will be performed on the first well drilled in accordance with OOGO No. 2; Sec. III, B.1. i.. This is not a Leak-off Test, but a formation competency test, insuring the formation at the shoe is tested to the minimum mud weight equivalent anticipated to control the formation pressure to the next casing shoe depth or TD. Submit the results from the test via email (whowell@blm.gov) on the first well drilled on the pad and record results in the IADC log.

9. 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 will be submitted to CRVFO, Will Howell, 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 the 200-foot cement coverage requirement, adjust cement volume to compensate for low TOC/cement coverage.

10. 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, Will Howell/Todd Sieber; 2300 River Frontage Road, Silt, CO 81652. Contact Todd Sieber at 970-876-9000 or asieber@blm.gov for clarification.

11. 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). Contact Will Howell for clarification.

12. 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, Will Howell 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 25 percent of the chart per test. The chart shall be submitted with the well completion report.

13. Submit a monthly report of operations or production per 43 CFR 3162.4-3 including any production from these wells in MCFPD, BOPD, BWPD with FTP/SITP until the completion report (Form 3160-4) is filed.

14. Per 43 CFR 3162.4-1(c), not later than the fifth 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.