

**U.S. Department of the Interior  
Bureau of Land Management  
Glenwood Springs Energy Office  
2425 South Grand Avenue, Suite 101  
Glenwood Springs, Colorado 81601**

**Statutory Categorical Exclusion, DOI-BLM-CO-N040-2009-0047-SCX**

**Proposal:** Proposal to Change Road Access and Pipeline Serving the Planned K22NW Pad Located on Grass Mesa.

**Location:** Township 6 South, Range 93 West, Section 22, SE $\frac{1}{4}$ SW $\frac{1}{4}$ , Sixth Principal Meridian, Garfield County, Colorado.

**Project Description:** The proposed road and pipeline alignments serving the K22NW pad have been changed from the routes analyzed in the Grass Mesa Geographic Area Plan (GAP) (approved 11/4/04) which was approximately 1,000 feet in length. Figure 1 displays the initial 2004 GAP routes with a green line representing the proposed road and a purple line showing the proposed pipeline. Based on the surface landowner's request, the 20-foot-wide road and 8-inch-diameter steel gas pipeline were changed to separate alignments as shown on Figure 2 (road) and Figure 3(pipeline).

The new road alignment would be 2,060 feet in length. The reason for the road change from the initial 2004 route is that the landowner (Daniels) is pursuing a lot subdivision on his property and he wants the new road serve the new subdivided lots as well as access the K22NW pad on BLM land. The new pipeline would be 2,730 feet in length. The new pipeline would run along the eastern edge of the Daniels property to minimize impacts to the pending lots as well as provide a more direct route to the B27 connection point. The new pipeline route would follow an existing pipeline corridor through the Latil Lot (Section 27, NW $\frac{1}{4}$ NE $\frac{1}{4}$ ) for approximately 800 feet; the remaining pipeline alignment would involve new surface disturbance.

Although the road and pipeline changes result in longer routes with more total surface disturbance than originally planned, the final alignment better satisfies the surface landowners' needs for a road that best serves his property. The initial road and pipeline (Figure 2) would have disturbed 0.2 acre on public land. The new road would disturb 0.04 acre of public land and the new pipeline would disturb 0.4 acre of public land. The initial route would have a total disturbance area of 0.9 acre on Federal and private surface. The new road alignment analyzed in this report would disturb 1.2 acres on all lands. The new pipeline disturbance would amount to 2.4 acres on all lands using a 38-foot width as stipulated in the Grass Mesa GAP.

All construction activities would be conducted in accordance with the Conditions of Approval outlined in Appendix C of the Grass Mesa GAP and updated in the most recent version of the BLM/USFS "Gold Book."


**BLM Lease Stipulations and Conditions of Approval:** Specific Conditions of Approval that would be included in the Application for Permit to Drill for this action are attached.

**NEPA Compliance:** The following category of Categorical Exclusions pursuant to Section 390 of the Energy Policy Act (Act of 2005) applies to this proposal: #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.* The total disturbance area for the road and pipeline routes would be 3.6 acres. Only 0.44 acre of this disturbance would occur on the Federal lease COC54738.

**Prepared by:** Jim Byers, Natural Resource Specialist 1/12/09

**Approval:** It is my decision to approve the proposed action with the terms and conditions referenced above:

  
\_\_\_\_\_  
Allen B. Crockett, Ph.D., J.D.  
Supervisory Natural Resource Specialist

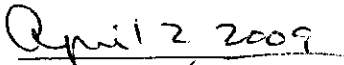
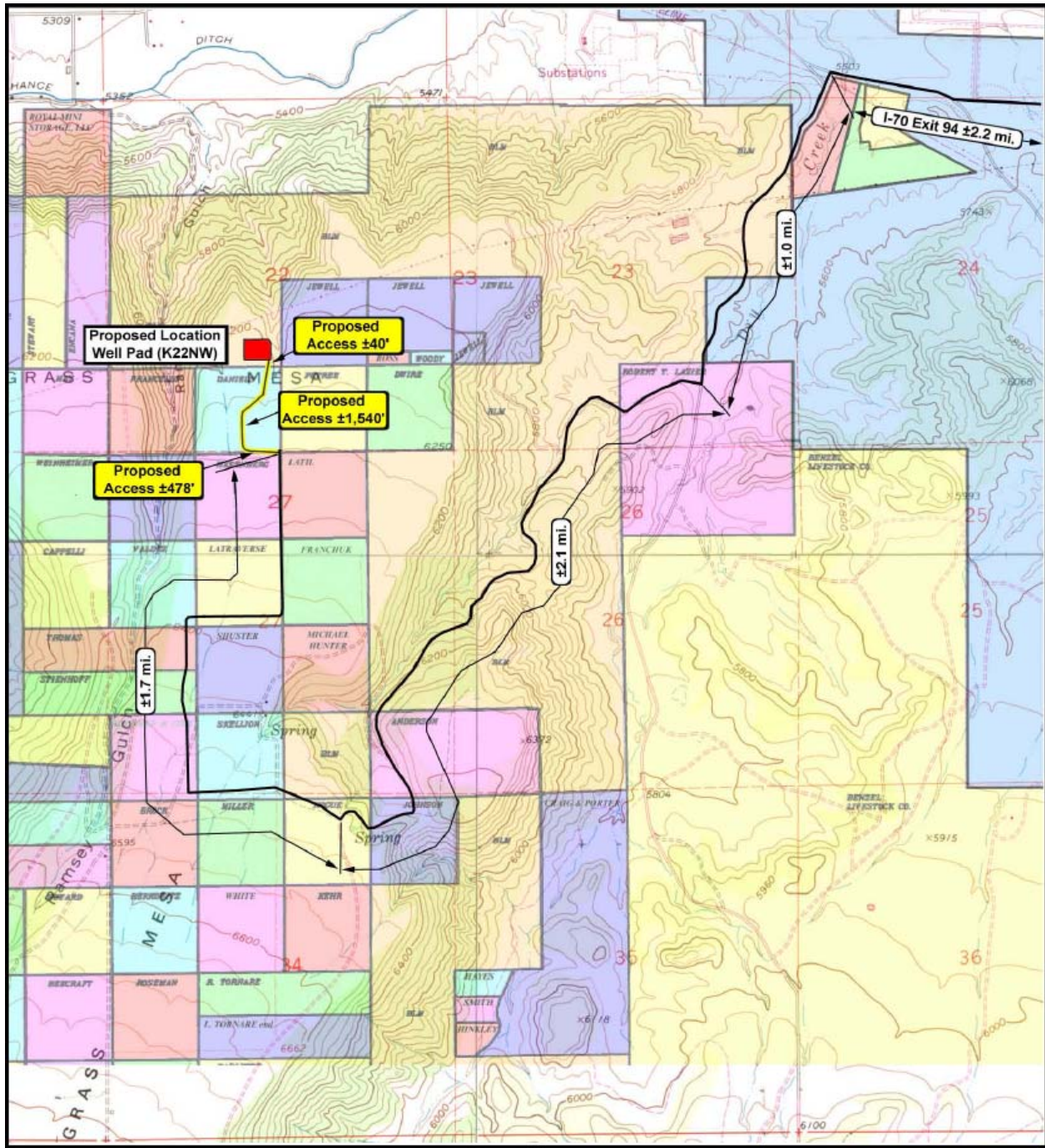
  
\_\_\_\_\_  
Date



Figure 1. Initial Road and Pipeline Route analyzed in Grass Mesa GAP



|   |  |   |  |  |
|---|--|---|--|--|
| <p><b>EnCana</b> Oil &amp; Gas Inc.</p> |  | <p><b>Tri-State</b><br/>Land Surveying Inc.<br/>(435) 781-2501<br/>180 North Vernal Ave. Vernal, Utah 84078</p> | <p><b>Legend</b></p> <p>Existing Road</p> <p>Proposed Access</p> |  |
|   |  |   | <p>Well Pad (K22NW)<br/>SEC. 22, T6S, R93W, 6th P.M.</p>         | <p>SCALE: 1" = 2,000'<br/>DRAWN BY: JAS<br/>DATE: 11-06-2006</p> |

Figure 2. Proposed Road Alignment for K22NW Pad

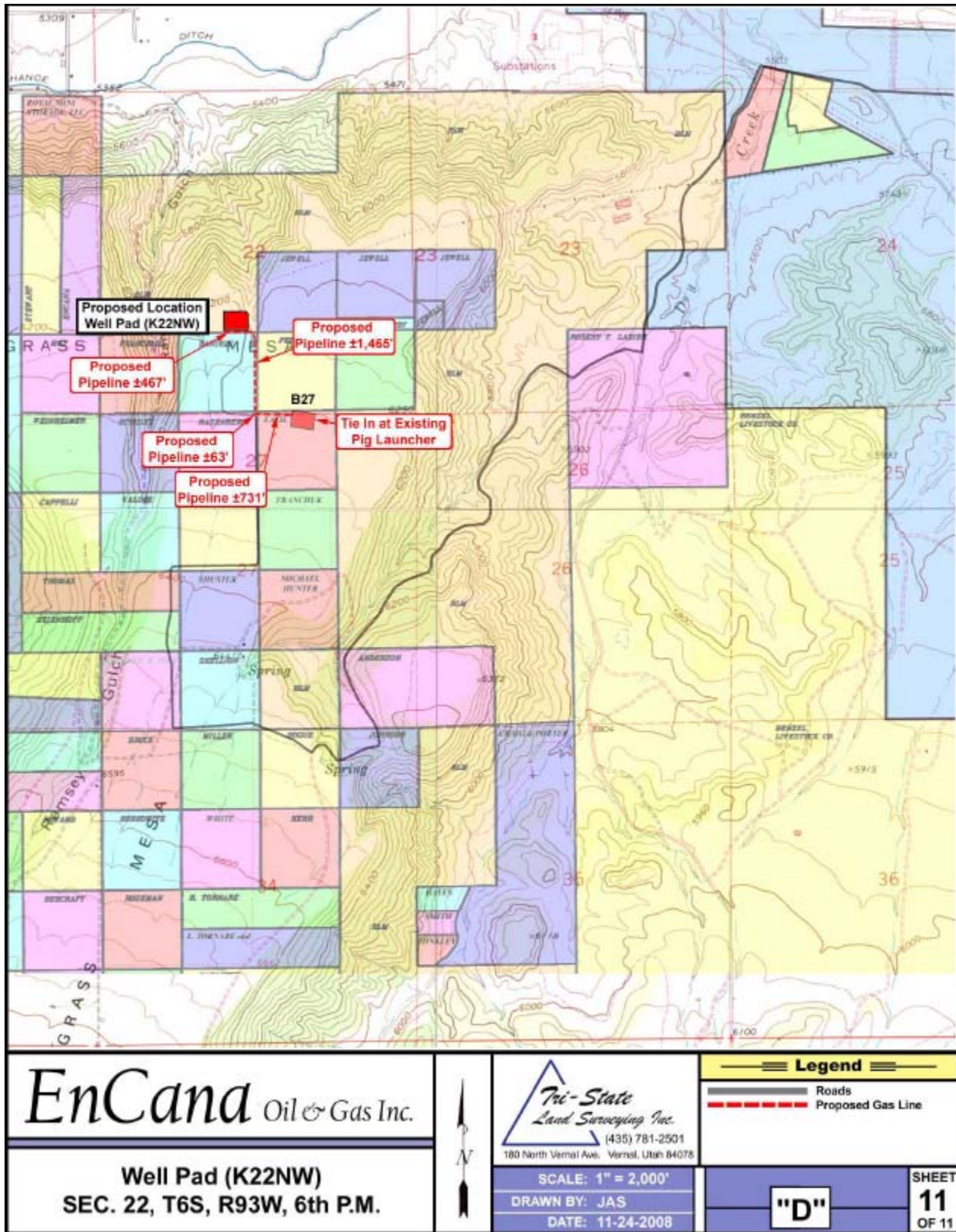


Figure 3. Proposed Pipeline Alignment for K22NW Pad

**DOWNHOLE CONDITIONS OF APPROVAL  
Applications for Permit to Drill**

**Company/Operator:** EnCana Oil & Gas (USA) Inc.

**Surface Location:** NESW, Section 22, Township 6 South, Range 93 West, 6<sup>th</sup> P.M.

| <u>Well Name</u> | <u>Well No.</u> | <u>Bottomhole Location</u>   | <u>Lease</u> |
|------------------|-----------------|------------------------------|--------------|
| GMU              | 22-6            | NESW Sec. 22, T. 6S, R. 93W. | COC54736     |
| GMU              | 22-6C           | NESW Sec. 22, T. 6S, R. 93W. | COC54736     |
| GMU              | 22-11           | NESW Sec. 22, T. 6S, R. 93W. | COC54736     |
| GMU              | 22-14A          | NESW Sec. 22, T. 6S, R. 93W. | COC54736     |

1. Twenty-four hours *prior* to (a) spudding, (b) conducting BOPE tests, (c) running casing strings, and (d) within twenty-four hours *after* spudding, the GSEO shall be notified. One of the following GSEO's inspectors shall be notified by phone: Steve Ficklin at 970-947-5213, Julie King at 970-947-5239, and Todd Sieber at 970-947-5220.
2. A GSEO 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, changes or variances to the BOPE, deviating from conditions of approval, and conducting other operations not specified within the APD. Please contact Will Howell at 970-947-5221 (office) or 970-319-5837 for verbal approvals. A secondary contact for verbal approvals is Dane Geyer at 970-947-5229 (office) or 970-589-6887 (cell).
3. If a well control issue arises (e.g. kick, blowout, or water flow), casing failure occurs, or an increase in bradenhead pressure occurs during fracturing operations, Will Howell (or Dane Geyer as a backup) shall be notified within 24 hours from the time of the event.
4. The BOPE shall be tested and conform to Onshore Order #2 for a 3M system.
5. A casinghead rated to 3,000 psi or greater shall be utilized.
6. An electrical/mechanical mud monitoring equipment shall be functional prior to drilling out the next shoe. At a minimum, this shall include a trip tank, pit volume totalizer, stroke counter, and flow sensor.
7. Gas detecting equipment shall be installed in the mud return system, prior to drilling out the next shoe, and hydrocarbon gas shall be monitored for pore pressure changes.
8. A gas buster shall be functional and all flare lines effectively anchored in place, prior to drilling out the next 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.

9. Prior to commencing fracturing operations, the production casing shall be tested to the maximum anticipated surface fracture pressure and held for 15 minutes. 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 a quarter of the chart per test. The chart shall be submitted with the well completion report.
10. On the first well drilled on this pad, a triple combo (open hole logs) shall be run from the base of the surface borehole to surface, and another run from TD to the surface casing shoe. Each open hole log shall be submitted to the GSEO within 24 hours after running. These logs shall be submitted digitally in LAS. format. Please contact Karen Conrath at 970-947-5235 or karen\_conrath@blm.gov for clarification.
11. As a minimum, cement shall be brought to 200 feet above the Mesaverde. Prior to commencing fracturing operations, a CBL shall be run (from TD to 200' above the TOC) and an electronic copy submitted to the GSEO. If the TOC is lower than required or the cement sheath of poor quality, then, within 48 hours from running the CBL and prior to commencing fracturing operations, a GSEO petroleum engineer shall be notified for further instruction.
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) Formation Integrity Test results with the well completion report. Please contact Will Howell for clarification.
13. After the surface casing is cemented, a leak-off test/casing shoe integrity test will be performed on the first drilled well in accordance with OOGO No. 2; Sec. III, B.1. i. in order to make sure the surface casing is set in a competent formation. Submit the results from the test via email (william\_howell@blm.gov) on the first well drilled on the pad.

**SURFACE USE CONDITIONS OF APPROVAL  
DOI-BLM-CO-N040-2009-0047-SCX**

1. Construction Startup Notification. The operator shall notify the BLM representative at least at 48 hours prior to initiation of construction. Field representative serving as the cultural monitor for the construction work shall attend the prework meeting.
2. Applicability of Grass Mesa GAP. Standard Conditions of Approval outlined in Appendix C of the Grass Mesa GAP will apply and remain in full force and effect. Furthermore, as addressed on page 1 of Grass Mesa GAP EA, width of surface disturbance for new road construction and/or pipeline installations will not exceed 38 feet unless approved by Authorized Officer.
3. Installation of Pipeline (Size and Types). A maximum 8-inch diameter steel natural gas pipeline shall be installed into the buried trench as shown on Revised Survey Plat (Sheet 11 of 11) prior to covering with soil and reclaiming unless otherwise approved by the Authorized Officer.
4. Weed Control. Prior to pad construction, the Russian knapweed on the southwestern corner (between PT 5 and 6) of K22NW shall be treated, if timing is appropriate, and the perimeter of the knapweed infestation shall be flagged by the GSEO Ecologist. During the pre-construction meeting, if it is determined that the knapweed lies within the proposed disturbance, the topsoil from this area shall be isolated to prevent spreading weed propagules and seeds across the disturbed area.

All construction equipment to be used during pad construction shall be power washed prior to leaving the constructed pad to avoid spreading weed seeds to other non-infested sites.

5. Cultural Resource Survey Requirement. Prior to any surface disturbing activities including those on private land, cultural resource survey shall be conducted and a written report of the survey findings shall be submitted to the BLM archeologist.
6. Cultural Resource Monitoring. Monitoring and salvage of any cultural material or features shall occur during the construction of the well location, pipeline, and/or access road. Monitoring will be conducted by a qualified archaeologist, who will mitigate or salvage any and all cultural features discovered during ground disturbing activities and report the results of any findings in writing to the Authorized Officer.

To provide adequate time to complete cultural monitoring and potential excavation work, pad construction will commence 30 days prior to anticipated initial spud date for wells on a pad. Cultural resource monitoring of excavation work, to be conducted by a qualified archeologist, will occur throughout the pad construction period. Delays in construction may be expected if cultural materials or features are discovered. Discovery clause in standard COAs will be followed.

7. Frac Pit Restriction. To help reduce hydrocarbon odors affecting nearby residence(s), no frac pit construction or use will be allowed. Only standard reserve pits of a size to support the number of planned wells will be allowed within ½ mile of residences (B16W, E9W, G22NW H27NW H34NW, K4D, K22NW, and K33NW).
8. Drilling Season and Pit Closures. To avoid extending visual and hydrocarbon odor impacts from pits and soil loss from wind erosion related to excess material piles, operator is encouraged to drill, complete and conduct interim reclamation on all planned wells as portrayed on GAP Map in one

drilling season. If operator chooses to drill wells on pad beyond one drilling season, then all pits will be closed and interim pad reclamation will be completed prior to December 1 of each year.

9. Measures to Reduce Noise. To help mitigate noise impacts from drilling to nearby residence(s), operator will use noise-reducing drill rig that is powered by electricity generated from diesel engine(s). A shallow hydraulic drill rig will also be allowed to drill the surface casing holes in advance of the primary drill rig referenced above. Sound barriers will be installed to provide additional noise relief to residence(s).
10. Facility Placement and Color. The paint color to be used on all surface facilities including the metal containment rings surrounding the tank battery, pipeline risers and gate installations is Shale Green (5Y 4/2). Size and placement of surface facilities shall be determined by BLM and EnCana personnel after the pad has been constructed.
11. 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. Deadline for Temporary Seeding and Interim Reclamation. Topsoil storage piles, stormwater control features, and cut-and-fill slopes shall undergo temporary seeding to stabilize the material and minimize weed infestations within 30 days following completion of construction. Interim reclamation to reduce a well pad to the maximum size needed for production shall be completed within 6 months following completion of the last well planned for the pad.

Both of these deadlines are subject to being extended upon approval of the authorized officer based on season, timing limitations, or other constraints on a case-by-case basis.

- b. Topsoil Stripping, Storage, and Replacement. Topsoil shall be stripped following removal of vegetation during construction of well pads, pipelines, roads, or other surface facilities. This shall include, at a minimum, the upper 6 inches of soil. Any additional topsoil present at a site, such as indicated by color or texture, shall also be stripped. The authorized officer may specify a stripping depth during the onsite visit. The stripped topsoil shall be stored separately from subsoil or other excavated material and replaced prior to final seedbed preparation.
- c. 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.

- d. 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 allows use of a seed mix containing sterile hybrid non-native species in addition to native perennial 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 supplied to the BLM Glenwood Springs Energy Office Ecologist (Beth Brenneman, 970-947-5232 or beth\_brenneman@blm.gov) 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.

- e. 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. Hydroseeding and hydromulching may be used in temporary seeding or in areas where drill-seeding or broadcast-seeding/raking are impracticable. Hydroseeding and hydromulching must 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. Requirements for reseeding of unsuccessful temporary seeding will be considered on a case-by-case basis.

- f. Mulch. Mulch shall be applied within 24 hours following completion of seeding. In areas of interim reclamation that used drill-seeding or broadcast-seeding/raking, mulch shall consist of crimping certified weed-free straw or certified weed-free native grass hay into the soil. Hydromulching shall be used in areas of interim reclamation where crimping is impractical, in areas of interim reclamation that were hydroseeded, and in areas of temporary seeding regardless of seeding method.

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

- g. 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 authorized officer. Biodegradable matting, bales, or wattles of weed-free straw or weed-free native grass hay, or well-anchored fabric silt fence shall be used on cut-and-fill slopes and along drainages to protect against soil erosion. Additional BMPs shall be employed as necessary to reduce erosion and offsite transport of sediment.

- h. 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 authorized officer will approve the type of fencing.
  - i. 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 authorized officer 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 authorized officer.
11. 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 authorized officer of the findings. The discovery must be protected until notified to proceed by the BLM authorized officer.
- Where feasible, the operator shall suspend ground-disturbing activities at the discovery site and immediately notify the BLM authorized officer of any finds. The BLM authorized officer 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.
12. 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 authorized officer.
  13. Raptors. In order to protect nesting raptors, prior to any new construction, drilling or completion activities planned between February 1 and August 15, all pinyon-juniper woodlands within 0.25 miles of the proposed disturbance will be surveyed for the presence of active raptor nests. The inventory would be completed no more than 10 days prior to initiation of the surface activity. If an active raptor nest(s) is documented within 0.25-miles of proposed construction, drilling or completion, the activity would be delayed by a 60-day timing limitation, or until the nest has successfully fledged (whichever occurs first). If an active nest is located in an area that is specifically listed in lease stipulations, the lease language will be implemented full force and effect.
  14. Terrestrial Wildlife. As required by lease stipulation, EnCana will avoid construction or drilling activities within their federal leases from December 1 to April 30 in order to minimize impacts to wintering big game animals. Compliance with this timing limitation is required for all drilling and

construction activities on all federal lease parcels accessed with the BLM Grass Mesa Road. Exceptions to this lease stipulation could be granted for federal surface locations during the last 60-days (i.e., March 1 – April 30) of the timing limitation under mild winter conditions. Severity of winter conditions will be determined on the basis of snow depth, snow crusting, daily mean temperatures, and whether big game were concentrated on winter range within the area during the winter months.

15. Birds of Conservation Concern. Pursuant to BLM Instruction Memorandum 2008-050, all surface-disturbing activities are prohibited from May 1 to June 30 to reduce impacts to Birds of Conservation Concern (BCC). An exception to this COA will be granted if nesting surveys conducted no more than one week prior to surface-disturbing activities indicate that no BCC species are nesting or otherwise present within 10 meters of the area to be disturbed. Nesting surveys shall include an audial 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.