

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

Statutory Categorical Exclusion, DOI-BLM-CO-N040-2009-0094-SCX

Project: Proposal to Drill Two Horizontal Wells into Federal Lease COC58674 and COC64191 from the Existing P16OU Pad Located on BLM Land in the Orchard Unit (Orchard II Master Development Pad).

Location: Township 8 South, Range 96 West, Section 16, SE¼SE¼, 6th PM

Proposal: EnCana Oil & Gas (USA) Inc. (EnCana) proposes to directionally drill two horizontal Federal wells from the existing P16OU pad located on public land to access fluid minerals in Federal leases COC 58674 and COC64191 (Table 1). The pad would be expanded from its original disturbance footprint of 3.5 acres analyzed in EA#CO140-05-124, Environmental Assessment for Dakota Formation Exploratory Well (September 2005) to a revised pad footprint of 6.6 acres. The expanded disturbance would accommodate a PACE rig layout, which requires a larger pad surface. The pad is presently in a state of interim reclamation with a disturbed working area of about 1.0 acre (Figures 1 and 2).

Resource surveys including sensitive plant and cultural resources were completed relative to the 2005 APD issuance. The existing access road and pipeline would continue to serve the P16OU pad in its present condition although the road entrance onto the pad would be elevated with excess material from the construction to lessen the approach grade. Based on the onsite visit conducted July 15, 2009, the excess material stockpile would be reconfigured into various piles and/or windrows located around the edges of the proposed disturbed area instead of a single pile at the southwest end of pad. To enhance pad reclamation opportunities, storage tanks serving the wells would be staged along the access road just off the northeast corner of the pad; only wellheads and separators would remain in the working area for the life of the pad. The pig launcher presently located on the pad would be moved to the tank storage area.

Table 1. Surface and Bottomhole Locations of Proposed Federal Wells			
<i>Proposed Wells</i>	<i>Federal Lease</i>	<i>Surface Locations</i>	<i>Bottomhole Locations</i>
Orchard Unit 16-16H (P16OU)	COC58674 (BH)	579 feet FSL, 377 feet FEL SE¼SE¼, Section 16, T8S R96W	1596 feet FNL, 397 feet FEL SE¼NE¼, Section 20, T8S R96W
Orchard Unit 16-16H2 (P16OU)	COC64191(BH)	552 feet FSL, 347 feet FEL SE¼SE¼, Section 16, T8S R96W	530 feet FSL, 2560 feet FEL SW¼SE¼, Section 9, T8S R96W

Lease Stipulations: The specific stipulations listed on Federal lease COC58674 are not applicable to the P16OU surface location. In the absence of a winter timing limitation for the P16OU pad, a Condition of Approval restricting any construction, drilling, or completion activities would be invoked from January 1 through March 1 to protect wintering wildlife.

There are Lease Notices for inventory of fossil resources and biological or botanical inventory and related special mitigation measures that apply to the proposed pad location.

BLM Conditions of Approval: Conditions of Approval (COAs) that would be included on the Applications for Permit to Drill (APDs) 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:

Category #2: *"Drilling an oil and gas location or well pad at a site which drilling has occurred within five (5) years prior to the date of spudding the well."* The existing gas well (Orchard Unit 16-16) on the P16OU pad was spudded on May 9, 2007.

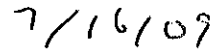
Category #3: *Drilling an oil or gas well within a developed field for which an approved land use plan or any environmental document prepared pursuant to NEPA analyzed drilling as a reasonably foreseeable activity, so long as such plan or document was approved within five (5) years prior to the date of spudding the well.* The P16OU pad was identified as an existing well pad in the Orchard II Master Development Plan (EA #CO140-2008-0032 approved on 10/14/08) and is subject to the Standard Conditions of Approval identified in that plan. Furthermore, EA #CO140-2005-124 identified and analyzed P16OU well pad development including the drilling of the existing gas well (approved 9/30/05).

Prepared by: Jim Byers, Natural Resource Specialist 7/16/09

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



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



Date

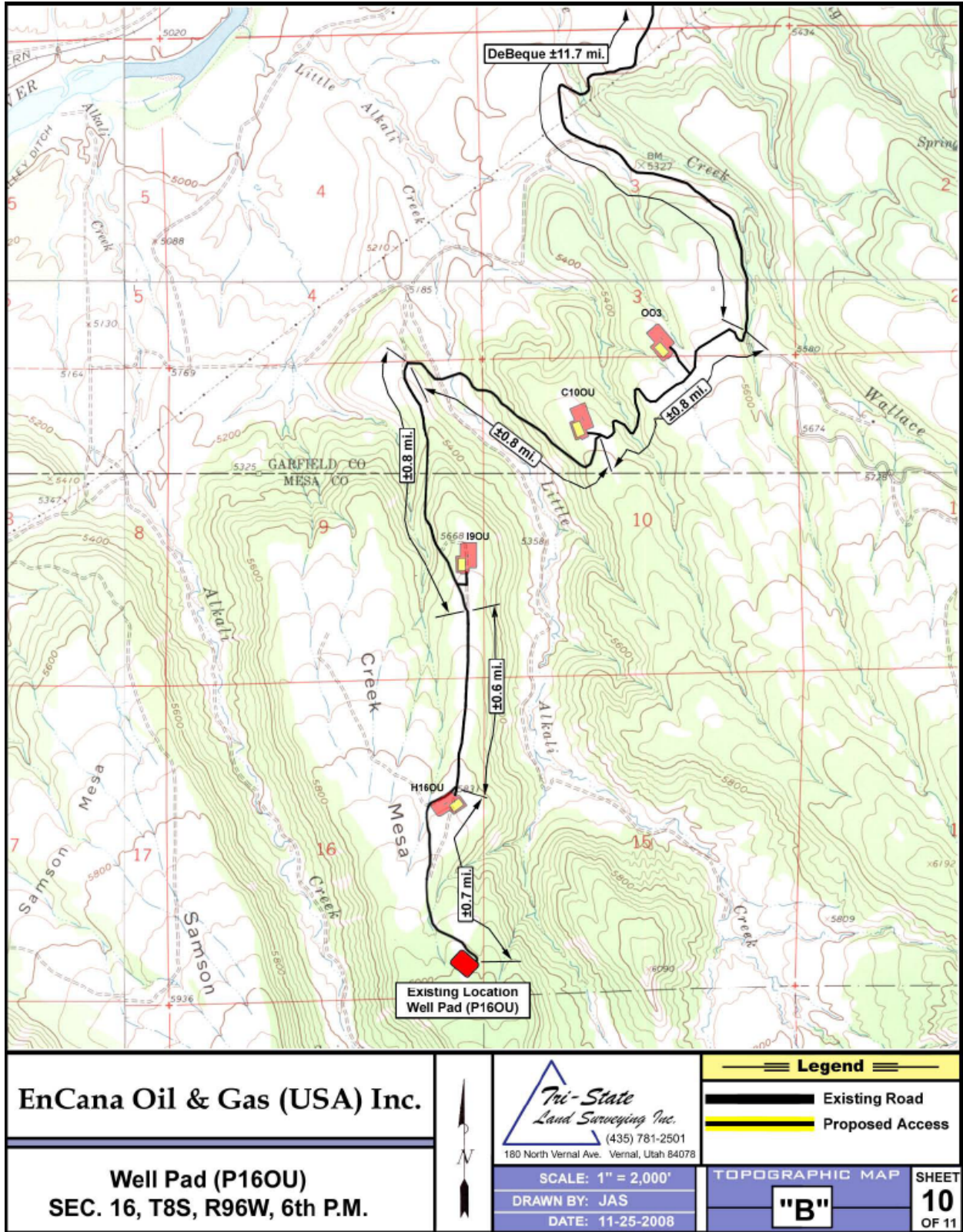
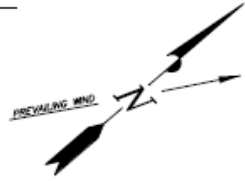


Figure 1. Project Location Map

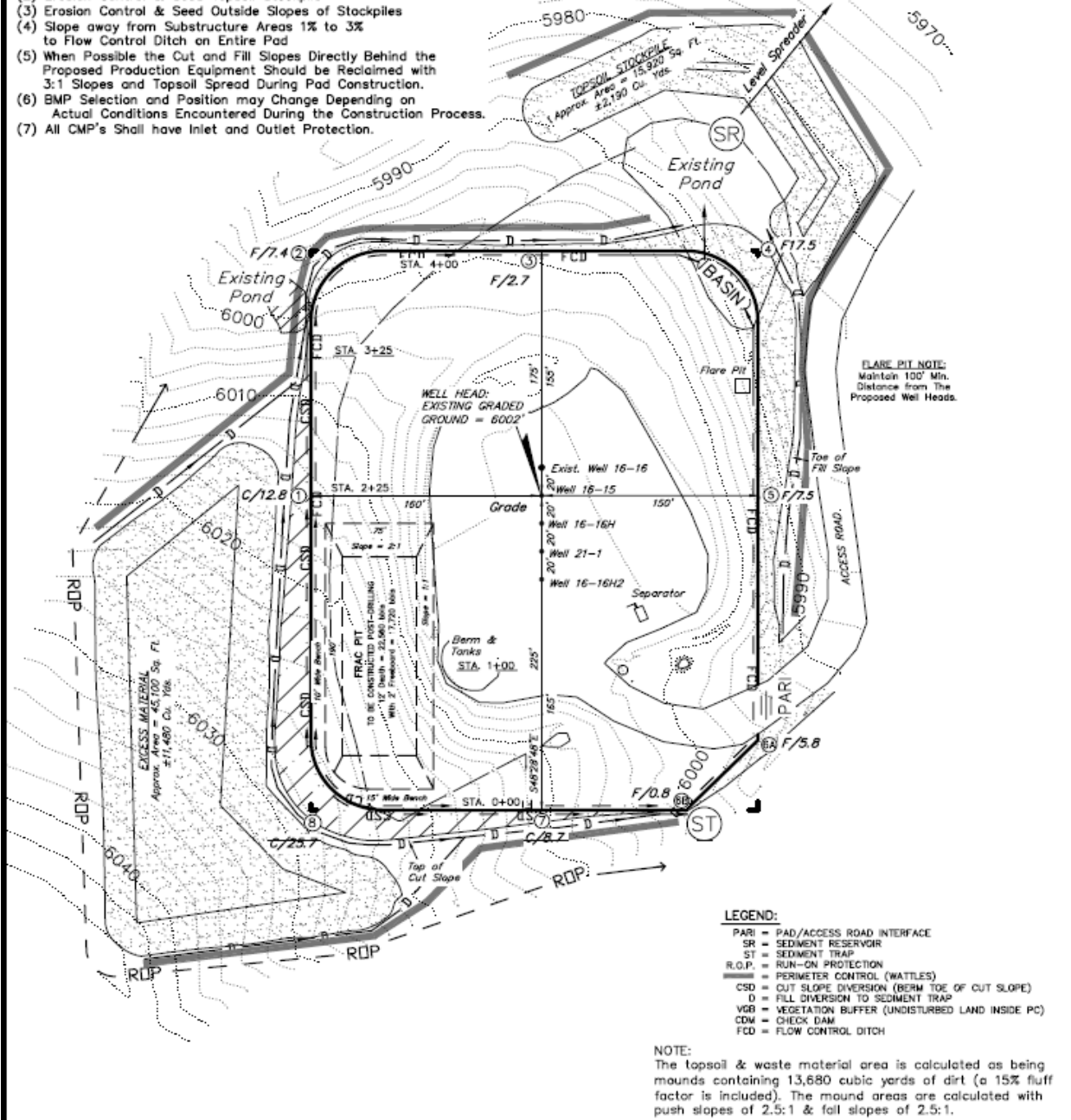
ENCANA OIL & GAS (USA) INC

WELL PAD (P160U) Section 16, T8S, R96W, 6th P.M.



NOTES:

- (1) Slope Track and/or Terrace All Slopes and Piles
- (2) Erosion Control & Seed Topsoil Stockpile
- (3) Erosion Control & Seed Outside Slopes of Stockpiles
- (4) Slope away from Substructure Areas 1% to 3% to Flow Control Ditch on Entire Pad
- (5) When Possible the Cut and Fill Slopes Directly Behind the Proposed Production Equipment Should be Reclaimed with 3:1 Slopes and Topsoil Spread During Pad Construction.
- (6) BMP Selection and Position may Change Depending on Actual Conditions Encountered During the Construction Process.
- (7) All CMP's Shall have Inlet and Outlet Protection.



SURVEYED BY: C.D.S.	DATE SURVEYED: 11-20-08
DRAWN BY: R.V.C.	DATE DRAWN: 11-23-08
SCALE: 1" = 100'	REVISED: L.C.S. 04-24-09

(435) 781-2501

Tri State
Land Surveying, Inc.

180 NORTH VERNAL AVE. VERNAL, UTAH 84078

SHEET
4
OF 11

Figure 2. Pad Layout with Expanded Disturbance Area

DOWNHOLE CONDITIONS OF APPROVAL
Applications for Permit to Drill

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

Surface Location: SESE, Section 16, Township 8 South, Range 96 West, 6th P.M.

<u>Well Name</u>	<u>Well No.</u>	<u>Bottomhole Location</u>	<u>Lease</u>
Keinath Federal	16-16H (P16OU)	SENE Sec. 20, T. 8S., R. 96W.	COC64191
Keinath Federal	16-16H2 (P16OU)	SWSE Sec. 9, T. 8S., R. 96W.	COC58674

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 Glenwood Springs Energy Office (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, or 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. Contact, Will Howell at 970-947-5221 (office) or 970-319-5837 for verbal approvals. As a secondary contact, Dane Geyer at 970-947-5229 (office) or 970-589-6887 (cell) for verbal approvals.
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 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 **5M** system.
5. A casinghead rated to 5,000 psi or greater shall be utilized.
6. An electrical/mechanical mud monitoring equipment shall be functional prior to drilling out the surface casing shoe. As 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 surface casing 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. 1500 feet of Surface Casing will be required on this well to insure kick tolerance, trip margin, and well bore integrity.

10. After the surface casing (and/or intermediate casing string) is cemented, a pressure integrity test will be performed in accordance with OOGO No. 2; Sec. III, B.1. i. in order to make sure the casing is set in a competent formation. Submit the results from the test via email (william_howell@blm.gov) or Glenwood Springs Field Office, 2300 River Frontage Rd; Silt, CO 81652 Attn: Will Howell on the first well drilled on the pad.
11. 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.
12. 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 feet 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.
13. On the first well drilled on this pad, a triple combo open whole log shall be run from the base of the surface borehole to surface and from TD to bottom of surface casing shoe in order to determine downhole resources such as fresh water or potentially productive zones. Each log shall be submitted to the GSEO within 24 hours of completion, and shall be submitted digitally in .las format, along with either an image (.tif, .pdf) file or paper copy. If a previous open hole surface log exists for the subject well pad, it may be submitted in lieu of the open hole surface log requirement. This log must be submitted to the GSEO prior to spudding of additional wells on the well pad, and must be of good quality. Contact Karen Conrath at 970-947-5235 or karen_conrath@blm.gov for clarification.
14. Submit the (a) mud logger's log/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 with the well completion report to: Glenwood Springs Field Office, 2300 River Frontage Rd; Silt, CO 81652; Attn: Will Howell . Contact Will Howell at 970-947-5221 (office) or 970-319-5837 for clarification.

**SURFACE USE CONDITIONS OF APPROVAL
DOI-BLM-CO-N040-2009-0079-SCX**

1. Startup Notification. The operator shall notify the BLM representative at least at 48 hours prior to initiation of construction.
2. Application of GAP COAs. Standard Conditions of Approval outlined in Appendix D (pp. D-13 through D-24) of the Orchard II Master Development Plan will apply and remain in full force and effect.
3. Production Facility Placement and Paint Color. The final location of separators will be determined during a meeting with BLM and EnCana personnel after the pad has been constructed. The paint color to be used on all surface facilities including the metal containment rings surrounding the tank battery and pipeline risers shall be Shale Green (5Y 4/2). Storage tanks serving the wells shall be staged in a new containment footprint to be constructed west of the access road and north of the level spreader just off the northeast corner of the pad with an approximate dimension of 75 feet by 75 feet. The access road shall be widened at the tank facility to provide truck access to tanks and allow other traffic to pass on the road; truck traffic shall enter the working area of the pad to turnaround and access the storage tank site.
4. Changes to Excess Material Pile (Sheet 4 of 11). In order to reduce the overall surface disturbance associated with the pad expansion, the 11,480 cubic yard excess material pile shall be reconfigured into smaller piles or windrows staged around the pad perimeter during the construction work. The smaller piles shall remain within the previously disturbed area from the initial pad construction unless otherwise approved by the BLM Authorized Officer. Furthermore, excess material shall be used to improve the road grade approach onto the pad and develop a suitable working surface on the pad while allowing for the existing well to be hibernated.
5. Pig Launcher Repositioning. The existing pig launcher located near the road entrance onto the pad shall be relocated near the proposed storage tank site along the existing access road and pipeline.