

ONSHORE OIL & GAS ORDER NO. 1
Approval of Operations on Onshore
Federal and Indian Oil and Gas Leases

The onsite for the subject well was conducted on Wednesday, April 20, 2011. Weather conditions were clear, cool and sunny. In attendance at the inspection were the following individuals.

Randy Smith	Field Technician	Permitco Inc.
Brett Smithers	Natural Resource Specialist	Bureau of Land Management
Bob Lange	Hydrologist	Bureau of Land Management
Matt Dupire	Rangeland Specialist	Bureau of Land Management
Ed Winter	Biologist	Division of Wildlife

This existing pad will be utilized to drill 3 additional wells, Banta Ridge Federal 4A-18-1-103, Banta Ridge Federal 5-18-1-103 and Banta Ridge Federal 6-18-1-103.

1. EXISTING ROADS

a. Directions to the location from Rangely, Colorado are as follows:

From the Loaf and Jug Gas Station at the junction of Colorado 64 and River Road, go west 11.8 miles on River Road (County Road 102). Turn left and go South 4.5 miles on Cottonwood Creek Road. Turn and head southwesterly on an existing road for 0.7 miles to a fork in the road. Stay right and continue southeasterly an additional 1.3 miles to the Banta Ridge Federal 12-18 pad. Continue southerly an additional 0.5 miles to the existing pad of the #4-18 well.

b. For access roads, see Maps "A" and "B".

c. All existing roads within a 2-mile radius are shown on Maps "A" and "B".

d. Improvement to existing roads will not be necessary. However, at the request of the BLM, wing ditches will be installed on the access road - just north of the wellpad, to divert water off the road to avoid future erosion of the access road.

e. Existing roads will be maintained and kept in good repair during all drilling and completion operations associated with this well.



- f. Existing roads and newly constructed roads on surface under the jurisdiction of any Surface Managing Agency shall be maintained in accordance with the standards of the SMA.

2. ACCESS ROADS TO BE CONSTRUCTED AND RECONSTRUCTED

- a. No new construction will be required. All roads are existing.
- b. If blading or improvements are made to the access road at any time, surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.

3. LOCATION OF EXISTING WELLS WITHIN A 1-MILE RADIUS OF THE PROPOSED LOCATION.

- a. Water Wells - none
- b. Injection or Disposal Wells - none
- c. Producing Wells - 22
- d. Drilling Wells - none
- e. Temporarily Abandoned Wells - none
- f. Shut In Wells - none
- g. Plugged and Abandoned wells - none

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES IF THE WELL IS PRODUCTIVE.

- a. All permanent structures (onsite for six months or longer) constructed or installed (including oil well pump jacks) will be painted a flat, non-reflective, Carlsbad Canyon color to match the standard environmental colors, as determined by the Rocky Mountain Five-State Interagency Committee. All facilities will be painted within six months of installation. Facilities required to comply with the Occupational Safety and Health Act (OSHA) will be excluded.



- b. Compaction and construction of the berms surrounding the tank batteries will be designed to prevent lateral movement of fluids through the utilized materials, prior to storage of fluids. The berms must be constructed to contain a minimum of 110 percent of the storage capacity of the largest tank within the berm. All loading lines will be placed inside the berm.
- c. Existing facilities are present on the location. Only if necessary will the facilities be removed during drilling. If production is established, and new facilities are anticipated, a production facility layout will be submitted via sundry notice.
- d. All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the BLM - White River Resource Area.
- e. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed.
- f. Gas meter runs for each well will be located within 500 feet of the wellhead. The gas flowline will be buried from the wellhead to the meter and 500 feet downstream of the meter run or any production facilities. Meter runs will be housed and/or fenced.
- g. The oil and gas measurement facilities will be installed on the well location. Oil and gas meters will be calibrated in place prior to any deliveries. The Resource Area Petroleum Engineer will be provided with a date and time for the initial meter calibration and all future meter proving schedules. A copy of the meter calibration and all future meter proving schedules. A copy of the meter calibration reports will be submitted to the BLM - White River Resource Area Office. All meter measurement facilities will conform with the API standards for liquid hydrocarbons and the AGA standard for natural gas measurement.
- h. A schematic facilities diagram as required by CFR 43, Part 3162.7-2, 3162.7-3, and 3162.7-4 shall be submitted to the BLM - White River Resource Area Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in CFR 43, Part 3162.7 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with 3162.7-4.
- i. Any venting or flaring of gas will be done in accordance with Notice of Lessees (NTL 4A) and may need prior approval from the Resource Area Petroleum Engineer.



- j. All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in Notice to Lessees (NTL-3A) will be reported to the BLM - White River Resource Area. Major events will be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production (Form 3160-6, formerly 9-329).
- k. A dike will be constructed completely around the production facilities (i.e. production tanks, water tanks, and/or heater-treater). The dikes for the production facilities will be sufficiently impervious, made of a non-porous material and designed to contain one hundred and ten percent of the capacity of the largest tank. Any production pits will be fenced with at least four (4) strands of barbed wire and held in place by side posts and corner H-braces.
- l. All access roads will be upgraded and maintained as necessary to prevent erosion and accommodate year-round traffic.
- m. Any necessary pits will be fenced to prevent wildlife entry.
- n. Pursuant to Onshore Order No. 7, water produced from this well may be disposed of in an unlined pit for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90 day period. In order to meet this deadline, an application for the proposed permanent disposal method should be submitted along with any necessary water analysis, in compliance with Onshore Order No. 7 as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not be approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- o. The cuttings pit will be properly backfilled and will not be used for production operations.
- p. The BLM recommend that the operator either install a larger muffler on the proposed pump jack motor or bury the muffler. The preferred option would include burying the muffler. If approved and implemented, this action could theoretically result in 4 pump-jack motors operating at one time on this location.



5. LOCATION AND TYPE OF WATER SUPPLY

- a. Water will be trucked from a private source in Rangely.
- b. Water will be hauled to the location along the approved access roads.
- c. No water wells are to be drilled.

6. CONSTRUCTION MATERIALS

- a. Any modification of the pad will be done utilizing existing surface and subsoil materials in the immediate area.
- b. No construction materials will be removed from Federal lands.
- c. Gravel, if needed, will be bought from an existing commercial site.
- d. Any materials to be used which are under BLM jurisdiction shall be approved in advance, as per CFR 3610.2-3.

7. METHODS FOR HANDLING WASTE DISPOSAL

- a. A Sundry Notice will be submitted to the BLM WRFO if the operator decided to use an oil-based drilling mud. Currently there are no plans to use oil-based drilling fluids during the drilling phase of the well(s) on this location.
- b. Drill cuttings are to be contained and buried in the cuttings pit as shown on Figure 1.
- c. Trash and garbage will be contained in a closed receptacle. Burning and/or burying is not authorized. Contents from trash receptacle will be hauled to an approved landfill.
- d. A closed loop mud system will be utilized. Only cuttings will be put into the pit. Fluids will be hauled off at the end of drilling operations to another well, or to an approved disposal facility.



- e. The salts and/or chemicals which are an integral part of the drilling system will be disposed of in the same manner as the drilling fluid.
- f. A chemical porta-toilet will be furnished with the drilling rig.
- g. The produced fluids will be produced into a test tank until such time as construction of production facilities is completed. Any spills of oil, gas salt water or other produced fluids will be cleaned up and removed.

8. **ANCILLARY FACILITIES**

No camps, airstrips or other facilities will be necessary.

9. **WELLSITE LAYOUT**

- a. The rig layout is attached.
- b. A cross section of the well pad and cuts and fills are shown on the location layout.
- c. The location of reserve pit, trash cage, access roads onto the pad, living facilities, soil material stockpiles and orientation of the rig with respect to the pad and other facilities is shown on the location layout.
- d. Topsoil was previously removed during original construction of the pad and was stockpiled. No additional topsoil will be removed.
- e. The cuttings pit will not be lined since all cuttings will be fresh water cuttings. The cuttings pit will be off-set from the edge of location by 20' as indicated on Figure 1.
- f. Excavation of the cuttings pit will require that one-half the capacity is below the ground level.
- g. Any pits containing oily residue must be overhead flagged. These pits must be fenced with 28-inch, sheep-tight mesh wire with two strands of barbed wire above and separated by approximately 6 inches. The cuttings pit will be fenced on three sides during drilling; the fourth side must be fenced immediately after the rig is released. Berms will be required to keep runoff water out. The fence will be kept in good repair while the pit is drying.



- h. The flare pit will be similarly fenced. The flare pit will have a 10' high dirt back stop. Flare pit fluids will be contained in the flare pit.
- i. The operator will provide post construction data (.dwg and GIS files of "as-built" surveys). The purpose of this request is to help BLM track total acres disturbed on a lease-by-lease basis. Ideally, the surveyor would re-visit the location after construction has ended and collect survey boundaries of the total extent of area that was disturbed to construct the well pad.

10. PLANS FOR RECLAMATION OF THE SURFACE

- a. BLM has requested that the operator inventory and treat all noxious weeds in all areas within the proposed disturbance areas in accordance with the PUP on file with the BLM WRFO. Any questions can be directed to the BLM WRFO Natural Resource Specialist. Immediately upon completion of drilling, all trash and debris will be collected from the location and surrounding area. All trash and debris will be disposed of in the trash cage and will then be hauled to an approved landfill.
- b. To help determine reclamation initiation dates, the operator shall notify the reclamation coordinator (via email, preferred or by phone) the day the drilling rig moves on to the location and inform him or her of the move. In addition, the operator shall notify the reclamation coordinator within 24 hours from the time the drilling rig moves of the location. The following information shall be provided:
 - 1. The well number
 - 2. The API number
 - 3. The rig move dates (as described above) for drilling and completion activities.

The reclamation coordinator for this project is: Brett Smithers (970-878-3818), Email: brett.smithers@blm.gov.

- c. The cuttings pit will be allowed to dry through one entire summer season (June - August) after drilling is completed, unless an alternate method of disposal is approved. The backfilling of the cuttings pit will be completed within 30 days after dry conditions exist and will meet the following requirements.



1. Backfilling will be done in such a manner that the muds and associated solids will be confined to the pit and not squeezed out and incorporated in the surface materials.
 2. There will be a minimum of 5 feet of cover (overburden) on the pit.
 3. When the work is completed, the pit area will support the weight of heavy equipment without sinking and over time shall not subside over 6-inch depth.
- d. The designated Natural Resource Specialist (NRS) will be White River Resource Area office will be given 48-hour notification prior to beginning all reclamation activities associated with this project via email or by phone. Reclamation activities may include, but are not limited to, seed bed preparation that rehires disturbance of surface soils, seeding, constructing exclosures,(e.g., fences) to exclude livestock from reclaimed areas.
- e. The operator will be required to meet with the WRFO reclamation staff in March or April of each calendar year and present a comprehensive work plan. The purpose of the plan is to provide information pertaining to reclamation activities that are expected to occur during the current growing season. The operator shall also provide a map that shows all reclamation sites where some form of reclamation actively is expected to occur during the current growing season.
- f. The operator will be required to reseed the identified area on the south side of location. It was unclear whether this area had been previously seeded. BLM will provide a shapefile to the operator that identifies the area to be reseeded. BLM will also provide guidance regarding whether or not the weed area needs to be sprayed and/or re-disturbed prior to seed application.
- g. Reclamation will be done as requested by the BLM. Interim Reclamation may include replacement of topsoil immediately following the end of completion operation.
- h. The following seed mixture will be used unless otherwise specified by the Bureau of Land Management:

Species (Variety	LBS. PLS/ Acre
Western Wheatgrass (Arriba)	3
Pubescent Wheatgrass (Luna)	2
Russian Wildry (Bozoisky)	2



- i. All seed tags will be submitted to the designated Natural Resource Specialist within 14 calendar days from the time the seeding activities have ended via Sundry Notice. The Sundry will include the purpose of the seeding activity (i.e., seeding well pad cut and fill slopes, seeding pipeline corridor, etc.)/. In addition, the Sundry Notice will include the well or wellpad number associated with the seeding activity, if applicable, the name of the contractor that performed the work, his or her phone number, the method used to apply the seed (e.g., broadcast, hydro seeded, drilled), whether the seeding activity represents interim or final reclamation, an estimate of the total acres seeded, an attached map that clearly identifies all disturbed areas that were seeded, and the date the seed was applied.
- j. In the event a producing well is completed, the unused areas of the well location will be recontoured to appropriate configuration (that allows lease operations and alleviates steep cut and fill slopes, minimizing accelerated erosion). Some of the stockpiled topsoil will be redistributed over the unused area and seeded with an approved seed mixture. This will be done the fall season after proper backfilling of the reserve pit has occurred. A seed mixture will be provided by the BLM in the Conditions or Approval, or prior to reclamation.
- k. In the event of a dry hole, the location will be recontoured to the original grade, top soiled, seeded with an approved seed mixture. The stockpiled brush and topsoil will be evenly distributed over the location.
- l. All pits, cellars, rat holes and other bore holes unnecessary for further lease operations, excluding the reserve pit, will be backfilled immediately after the drilling rig is released. Pits, cellars and/or bore holes that remain on location must be fenced as specified for the reserve pit.
- m. The lessee/operator is required to use the reclamation practices necessary to reclaim all disturbed areas. Reclamation will ensure surface and subsurface stability, growth of a self-regenerating permanent vegetative cover and compatibility with post land use. The vegetation will be diverse and of the same seasonal growth as adjoining vegetation. Post land use will be determined by the authorized officer but normally will be the same as adjoining uses.
- n. Submission of the Final Abandonment Notice (FAN) will include the data collected and used to determine this reclamation standard has been met.
- o. Waste materials will be disposed of as stated in #7 of this Surface Use Plan.



- p. Control of noxious weeds will be required through successful vegetation establishment and/or herbicide application. Applications of herbicide are prescribed, however, it is the responsibility of the lease operator to insure compliance with the local, state and Federal laws and regulations, as well as labeling directions specific to the use of any given herbicide.

11. SURFACE AND MINERAL OWNERSHIP

- a. Surface Ownership
Federal
- b. Mineral Ownership
Federal

12. OTHER INFORMATION

- a. There will be no change from the proposed drilling and/or workover program without prior approval from the District Manager. Safe drilling and operating practices must be used. All wells, whether drilling, producing, suspended, or abandoned will be identified in accordance with 43 CFR 3162.2.
- b. "Sundry Notice and Report on Wells" (Form 3160-5) will be filed for approval for all changes of plans and other operations in accordance with 43 CFR 3164.
- c. All contractors employed to perform work on this location will be furnished and have onsite, a copy of the Surface Use Program and a copy of any supplemental conditions.
- d. The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials, and contact the authorized officer (AO). Within five working days the AO will inform the operator as to:
- whether the materials appear eligible for the National Register of Historic Places;



- the mitigation measures the operator will likely have to undertake before the site can be used (assuring in situ preservation is not necessary); and,
- a time frame for the AO to complete an expedited review under 36 CFR 800.11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.
- e. This permit will be valid for a period of one year from the date of approval. After permit termination, a new application will be filed for approval for any future operations.
- f. We are requesting that any additional archeological requirements for this pad be waived since the pad is existing.
- g. All state and local permits required for proposed operations will be obtained prior to commencing any activity that may be affected by such authorization.
- h. The operator will provide 24-hr. notification of drilling and completion operations
 - when the Drilling Rig moves on and off the pad.
 - when the Completion Rig moves on and off the pad.

13. **LESSEE'S OR OPERATOR'S REPRESENTATIVE AND CERTIFICATION**

Permit Matters

PERMITCO INC.
Lisa L. Smith
PO Box 99
Eastlake, CO 80614
303/857-9999 (office)
303/450-9200 (fax)
e-mail: LSPermitco@aol.com

Drilling & Completion Matters

FOUNDATION ENERGY MANAGEMENT
321 South Boston, Suite 950
Tulsa, OK 74103
918-585-1650 - Main
918-585-1661 - Fax
Rick Payne - VP of Operations
rpayne@foundationenergy.com



FEDERAL STIPULATIONS

Any timing restrictions which apply to this lease shall be stipulated as a
Condition of Approval by the Bureau of Land Management



Archeology

Foundation Energy Management requests that any additional archeological requirements be waived since this is on an existing wellpad.

