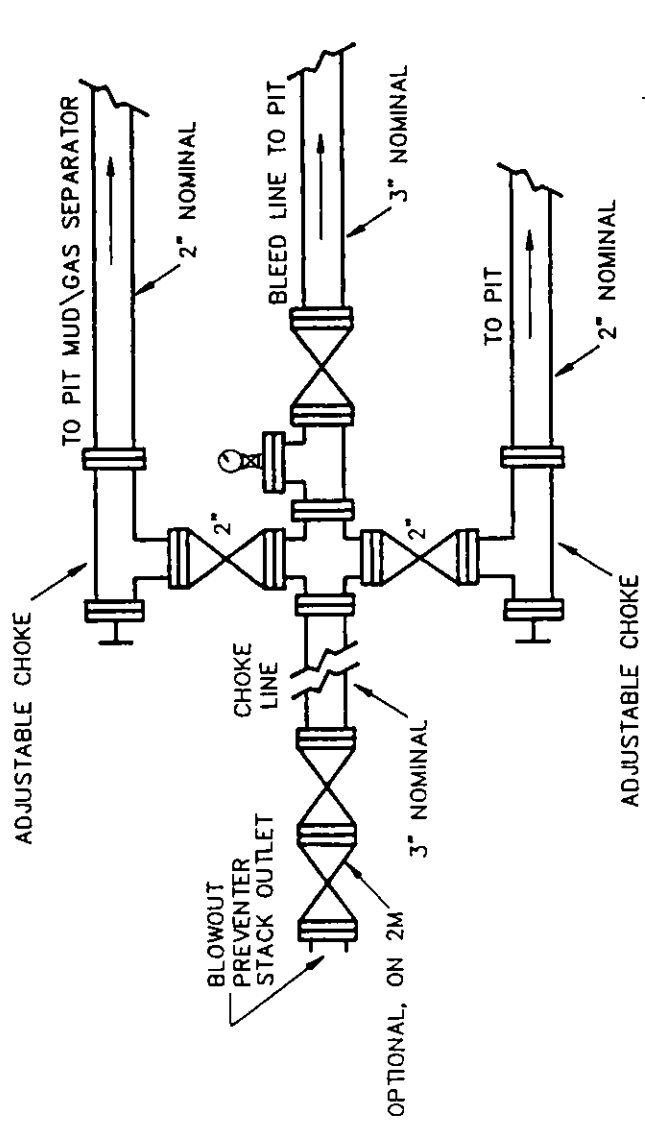
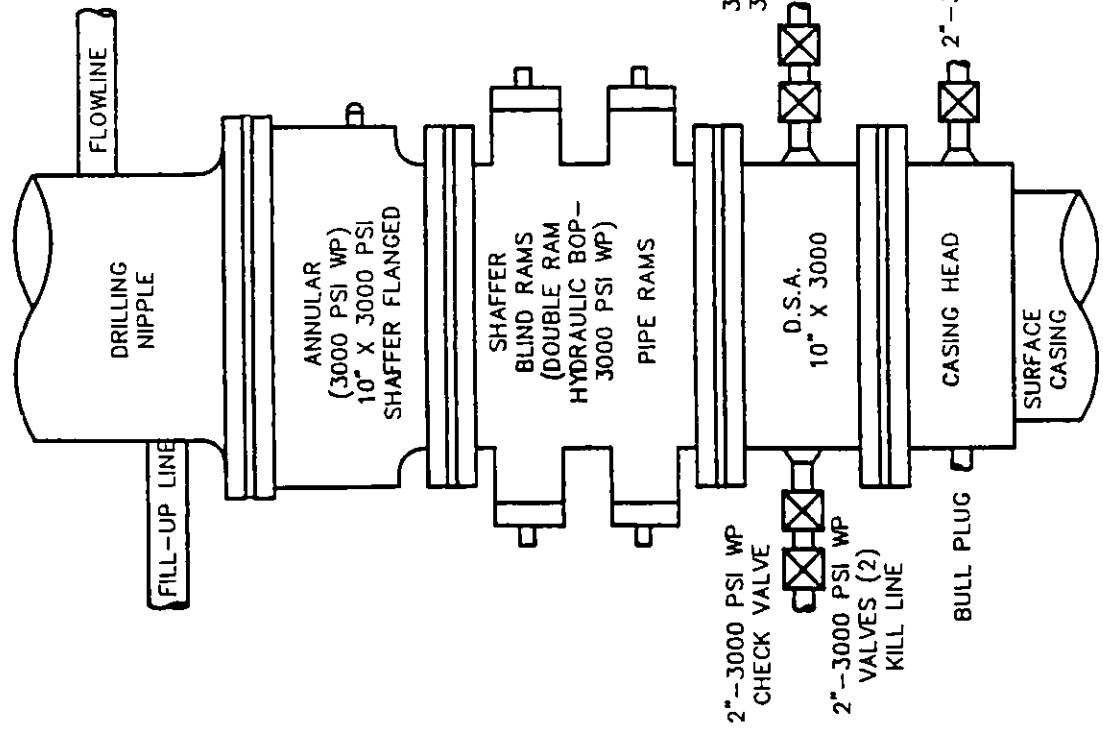


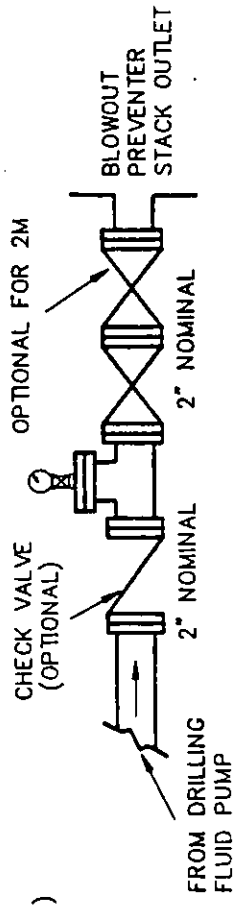
081-06968

**BOP SCHEMATIC
3000 PSI WORKING PRESSURE**



TYPICAL CHOKES MANIFOLD ASSEMBLY
FOR 3M RATED WORKING
PRESSURE SERVICE - SURFACE INSTALLATION

- 3\"-3000 PSI WP VALVE
- 3\"-3000 PSI WP VALVE
- 3\"-3000 PSI AUTOMATIC CHOKES
- CHOKES LINE (3\" I.D.)
- 2\"-3000 PSI WP CHECK VALVE
- 2\"-3000 PSI WP VALVES (2) KILL LINE
- 2\"-3000 PSI WP VALVE



TYPICAL KILL LINE ASSEMBLY FOR 3M RATED
WORKING PRESSURE SERVICE - SURFACE INSTALLATION

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**Approval of Operations on Onshore
Federal and Indian Oil and Gas Leases**

An onsite inspection of the subject well was conducted on Tuesday, December 15, 1998 at approximately 10:50 a.m. Weather conditions were cool and clear. Almost all remaining snow on location had melted. In attendance at the onsite inspection were the following individuals:

Fred Conrath
Robert Kay
Lisa Smith

Bureau of Land Management
Uintah Engineering and Land Surveying
Permitco Inc.

1. Existing Roads

a. Directions to the location from Baggs, Wyoming are as follows:

From Baggs, proceed south on Highway 13/789 for 7.3 miles. Turn left onto an existing oilfield road and proceed westerly for approximately 400 feet. The turn south for 0.3 miles to the Sand Hills Federal #23-4 producing location. Turn left and proceed westerly on an existing two-track road for 0.4 miles. Continue westerly and then southerly for 0.3 miles along the new access (flagged) to the location.

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

e. 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.



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2. Access Roads to be Constructed and Reconstructed

- a. Minimal improvement will be made to the 0.4 miles of existing two-track road after leaving the SHF #23-4 location. Approximately 0.3 miles of new access will be necessary as shown Map "B".
- b. The new access will be flatbladed with a running surface of approximately 14-18 feet. Drainage/water turnouts will be installed where necessary.
- c. 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.
- d. The maximum grade of the new access will be approximately 5%.
- e. No turnouts are planned.
- f. Three culverts (2-18" and 1-30") will be installed as shown on Map "B".
- g. The new access was centerline flagged at the time of staking.
- h. The use of additional surfacing material is not anticipated, however, it may be necessary depending on weather conditions.
- i. No gates or cattleguards will be necessary.
- k. A road right of way will be not be necessary as all access (after leaving the highway) is within the lease boundaries.

3. Location of Existing Wells Within a 1-Mile Radius of the Proposed Location. (See Map "C").

- a. Water Wells - none
- b. Injection or Disposal Wells -two



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- c. Producing Wells - five
- d. Drilling Wells - none
- e. Temporarily Abandoned Wells - none
- f. Abandoned Wells - two

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, earthtone color (Carlsbad Canyon) 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. If the well is productive a production facility layout will be submitted. All portions of the pad not required for production operations will be reclaimed.
- d. All off-lease storage, off-lease measurement, or commingling on-lease or off-lease will have prior written approval from the BLM - Craig Field Office.
- 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.



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- 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 - Craig Field 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 3162.7-5, (b.9.d.) shall be submitted to the BLM - Craig Field Office within sixty (60) days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Order No. 3, shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with 3162.7-5 (b.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 - Craig Field Office. 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. 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 to prevent wildlife entry.
- l. All access roads will be upgraded and maintained as necessary to prevent erosion and accommodate year-round traffic.
- m. 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



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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 been 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.

- n. The reserve pit will be properly backfilled and will not be used for production operations. No fluids, other than drilling fluids, will be placed in the reserve pit.

5. Location and Type of Water Supply

- a. All water needed for drilling purposes will be obtained from the town of Baggs, Wyoming.
- b. Water will be hauled to the location along the approved access roads.
- c. No water wells are to be drilled.
- d. Permission will be received from the appropriate authorities, prior to use of this water source.

6. Construction Materials

- a. Surface and subsoil materials in the immediate area will be utilized.
- b. No construction materials will be removed from Federal lands.
- c. All surfacing material will be purchased from a private or commercial source.
- 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. Drill cuttings are to be contained and buried in the reserve pit.
- b. Trash and garbage will be contained in a closed receptacle. Burning and/or burying is not authorized unless previously approved by the Authorized Officer during winter conditions. Contents from trash receptacle will be hauled to an approved landfill.
- c. Reserve pit fluids will evaporate or authorization for removal and disposal will be requested from the AO prior to backfilling the reserve pit.
- d. 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.
- e. Chemical porta-toilets will be furnished with the drilling rig and their contents hauled to an approved disposal site at the end of drilling operations.
- f. 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.



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- d. Any areas to be disturbed will be stripped of brush and 6 inches of topsoil. Topsoil will be stockpiled separate from the brush and subsoil.
- e. A pit liner will not be required.
- f. Excavation of the reserve pit will require that at least one-half the fluid capacity is below the ground level.
- g. The reserve pit must be fenced on three sides during drilling; the fourth side must be fenced immediately after the rig is released. All fences will be constructed with corner H Braces to ensure stability. The fence will be kept in good repair while the pit is drying.

10. Plans for Reclamation of the Surface

- a. 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. The reserve pit fluids will be allowed to evaporate through one entire summer season (June - August) after drilling is completed, unless an alternate method of disposal is approved. After the fluids disappear, the reserve pit muds will be allowed to dry sufficiently to allow backfilling. The backfilling of the reserve 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.



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- [REDACTED]
- c. The Craig Field Office will be given 48-hour notification prior to construction and prior to any backfilling and/or recontouring activities.
 - d. The location will be reseeded with native grasses. A seed mixture and application rates will be furnished by the BLM.
 - e. 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.
 - f. In the event of a dry hole, the location will be recontoured to the original grade, topsoiled and seeded. The stockpiled brush and topsoil will be evenly distributed over the location.
 - g. 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.
 - h. 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.
 - i. Submission of the Final Abandonment Notice (FAN) will include the data collected and used to determine this reclamation standard has been met.
 - j. Waste materials will be disposed of as stated in #7 of this Surface Use Plan.



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11. Surface Ownership
Federal

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 Area 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. A Class III archeological survey has been conducted by Metcalf Archeology. No cultural resources were found and clearance for the project has been recommended. A copy of this report will be submitted directly to the appropriate agencies by Metcalf Archeology.
- e. 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;



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- 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.

- f. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the authorized officer, 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), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.
- 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.

13. Lessee's or Operator's Representative and Certification

PERMIT MATTERS

PERMITCO INC.
Lisa L. Smith
14421 Weld County Road 10
Ft. Lupton, CO 80621
303/857-9999

DRILLING & COMPLETION MATTERS

MERIT ENERGY COMPANY
12222 Merit Drive, Suite 1500
Dallas, TX 75251
972/383-6561 (W) Jake Plunk
972/335-9803 (H)

CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Merit Energy Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under



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which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

January 13, 1999
Date:

Lisa L. Smith - PERMITCO INC.
Authorized Agent for:
MERIT ENERGY COMPANY



Federal Stipulations



CO-9 No surface use is allowed from December 1 through April 30 for the purpose of protecting big game (mule deer, elk, pronghorn antelope, and bighorn sheep) winter range, including crucial winter habitat and other definable winter range as mapped by the Colorado Division of Wildlife.

This stipulation does not apply to operation and maintenance of production facilities and an exception may be granted under mild winter conditions for the last 60 days of the closure.

LS-12 Surface use may be prohibited during portions of the lambing season. Closure will be determined on a case-by-case basis, but will generally be for six weeks within the season (typically between April 10 and June 30). A lambing waiver must be requested from the grazing lessee if drilling is to occur during this time period.





A Class III Archeological Survey has been conducted by Metcalf Archeology. No cultural resources were found and clearance has been recommended. A copy of the report will be submitted directly by Metcalf Archeology.

