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Bureau of Land Management FORM APPROVED Form 3160-5 UNITED STATES Durango, Colorado (June 1990) Budget Bureau No. 1004-0135 DEPARTMENT OF THE INTERIOR Expires: March 31, 1993 BUREAU OF LAND MANAGEMENT 5. Lease Designation and Serial No. SF-080614 SUNDRY NOTICES AND REPORTS ON WELLS 6. If Indian, Allottee or Tribe Name Do not use this form for proposals to drill or to deepen or reentry to a different reservoir. Use "APPLICATION FOR PERMIT-" for such proposals 7. If Unit or CA, Agreement Designation SUBMIT IN TRIPLICATE 1. Type of Well Oil Well Gas Well 8. Well Name and No. Gallegos Canyon Unit #102E 2. Name of Operator 9. API Well No. Amoco Production Company Attn: J.L. Hampton 3. Address and Telephone No. P.O. Box 800 80201 Denver, CO 10. Field and l'ool, or Exploratory Area 4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Basin Dakota 11. County or Parish, State Sec. 13, T29N-R13W NE/NE 1030' FEL 870' FNL, San Juan, NM 12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION Notice of Intent Abandonment Change of Plans Recompletion **New Construction** 」 Subsequent Report Plugging Back Non-Routine Fracturing Casing Repair Water Shut-Off Final Abandonment Notice Altering Casing Conversion to Injection Other Cathodic Protection Disnose Water Completion or Recompletion Report and Log form.) 13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)* Amoco requests permission to drill a ground bed cathodic protection well at the above location to service the producing well. Please see the attached procedures. ACCEPTED FOR RECORD NOV 2 2 1991 FARMINGION RESOURCE AREA OIL CON. DIV. Please contact Cindy Burton (303)830-5119 if you have any questions. 14. I hereby certify that the foregoing is true and correct

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Approved by

Federal and Indian lands pursuant to applicable Federal law and regulations, and, if approved or accepted by any State, on all lands in such State, pursuant to applicable State law and regulations. Any necessary special in-

submitted, particularly with regard to local area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

SPECIFIC INSTRUCTIONS

Item 4—If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 13—Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by local Federal and/or State offices. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones, or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to top of any left in the hole; method of closing top of well; and date well site conditioned for final inspection looking to approval of the abandonment.

NOTICE

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et. seq., 351 et. seq., 25 U.S.C. et. seq.; 43 CFR 3160.

PRINCIPAL PURPOSE — The information is to be used to evaluate, when appropriate, approve applications, and report completion of secondary well operations, on a Federal or Indian lease. ROUTINE USES:

- (1) Evaluate the equipment and procedures used during the proposed or completed subsequent well operations.
- (2) Request and grant approval to perform those actions covered by 43 CFR 3162.3-2(2).
- (3) Analyze future applications to drill or modify operations in light of data obtained and methods used.
- (4)(5) Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions.

EFFECT OF NOT PROVIDING INFORMATION — Filing of this notice and report and disclosure of the information is mandatory once an oil or gas well is drilled.

The Paperwork Reduction Act of 1980 (44 U.S.C. 3501, et. seq.) requires us to inform you that: This information is being collected in order to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

This information will be used to report subsequent operations once work is completed and when requested, to obtain approval for subsequent operations not previously authorized.

Response to this request is mandatory for the specific types of activities specified in 43 CFR Part 3160.

BURDEN HOURS STATEMENT

Public reporting burden for this form is estimated to average 25 minutes per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management, (Alternate) Bureau Clearance Officer, (WO-771), 18 and C Streets, N.W., Washington, D.C. 20240, and the Office of Management and Budget, Paperwork Reduction Project (1004-0135), Washington, D.C. 20303.

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Attachment 2: Deep Groundbed Installation

Construction Practices for the installation of deep groundbeds will include, but are not limited to the following:

- 1. MIRSU. Trench out pit for drill cuttings and drilling fluid. Holes should be drilled with air, if possible. If it becomes necessary to drill with mud, water used to drill must be readily identified as potable.
- 2. Drill a 6 3/4 inch hole to a depth of 320 feet. Monitor and document drill cuttings to characterize subsurface strata from surface to TD.
- 3. If hole will stand open, no casing shall be used. If hole will not stand open, 100 feet of 6" PVC casing shall be installed and cemented behind pipe for the total length of the casing. This will be an adder where necessary; please include cost as a separate item.
- 4. Load hole with water if it was not required for drilling. If water was used for drilling, circulate the hole bottoms up to clean out the drill cuttings and to displace drilling muds with fresh water. All water used must meet the requirements outlined in step #1.
- 5. Log the hole with an anode utilizing a portable power supply with a minimum voltage of 12V DC at 5 foot intervals beginning at 50 feet to TD, recording both voltage and amperage at each point.
- 6. From the log, choose 12 anode locations meeting the following criteria:
 - a. Minimum anode spacing 10 feet center to center.
 - b. Balanced current distribution along anode string.
- c. Insure top anode is below water table.
 Please include cost of further drilling if require

Please include cost of further drilling if required to meet the above criteria.

- 7. Anodes will be 2" x 60" high silicon cast iron. Lower PVC vent pipe (bottom plugged) to TD. Vent pipe will be slotted below the water table, with no perforations at or above the water table. Lower each anode to its desired depth. Carefully inspect each anode cable for defects; care should be taken to insure that the anode and its cable does not become damaged during installation. Confirm the exact location of each anode to its desired depth by matching its current output to the amperage taken during the logging operation.
- 8. Rig up coke breeze pumping unit and carefully lower discharge hose to the bottom of the hole. With hose in place, begin pumping slurried backfill while monitoring bottom anode's current output. When backfill reaches the bottom anode, slowly retract the discharge hose at a rate roughly equal to the rate that the

backfill is rising in the hole. Move the applied power to the next anode and continue this process until the backfill is 50 feet above the top aquifer, or to surface, whichever is lower. If 50 feet above the top aquifer leaves the hole open, fill the remaining hole with metallurgical coke breeze/30% portland cement mix by volume.

- 9. Wire the anodes and power supply leads into the junction box. Each junction box will be equipped with numbered 0.01 ohm shunts, and provisions to allow for connection of groundbed supply leads from old or future parallel groundbeds. Securely attach the junction box to a 4" x 4" treated hardwood post in close proximity to the groundbed with the top of the junction box 24" above grade. Conduit should be provided for the entrance of anode and power supply leads into the junction box from below grade.
- 10. Within 10 days of completing each groundbed (deep or conventional), provide as-built drawings showing exact cable and anode locations and depths, resistance logs, groundbed anode placement, subsurface strata findings, as well as initial operational data of the cathodic pretection system.
- 11. Backfill all trenches, pits and augured holes to grade and remove all debris generated during the installation.