Form 3160-5 (June 1990)

1. Type of Well

Oil Gas Well Name of Operator

3. Address and Telephone No.

BHP Petroleum (Americas) Inc.

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

 $NE_{4}^{1}$ ,  $SE_{4}^{1}$ , Sec. 19, T29N, R12W

2015 FALL 830 FEL

5847 San Felipe #3600 Houston, Texas 77057

## **UNITED STATES** DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED Budget Bureau No. 1004-0135 Expires: March 31, 1993

5. Lease Designation and Serial No.

6. If Indian, Allottee or Tribe Name

SF 080723

11. County or Parish, State

SUNDRY	NOTICES AND	KEPUK15	UN	MELL2	

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

SUBMIT IN TRIPLICATE

7. If Unit or CA, Agreement Designation
Gallegos Canyon Unit_
8. Well Name and No.
306
9. API Well No.
30-045-24286
10. Field, and Pool, or Exploratory Area
Fruitland & Mesaverde

San Juan, NM. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF ACTION TYPE OF SURMISSION

THE OF CODMICCION		
X 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
	X Othe Increase perf. density	Dispose Water
	in SWD formation	(Note: Report results of multiple completion on Well 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.)\*

See attached



4. I hereby certify that the foregoing is true/and correct Signed Mulle Mulleman	Title Field Services Adm			
(This space for Federal or State office use)		ACCEPTED FOR RECORD		
Approved by	Title	MAR	0 <del>7 1991</del>	
		FARMINGTON	RESOURCE AREA	
itle 18 U.S.C. Section 1001, makes it a crime for any person know	vingly and willfully to make to any department or ager	ncy of the United States any fa	ilse, fictitious or fraudulent statemen	

or representations as to any matter within its jurisdiction

Gallegos Canyon Unit #306
Fruitland & Mesaverde Formation
NE¼, SE¼, Sec. 19, T29N, R12W
San Juan County, New Mexico
SF 080723

-- X

Due to increased water production in the Gallegos Canyon Unit, it has become necessary to increase the density and area of perforations in the Mesaverde formation. BHP proposes to increase the density of existing perforations from 2 spf to 4 spf and add perforations to additional areas in the Mesaverde formation at 4 spf as described below. Approval has been requested from the N.M.O.C.D., copy attached.

Existing perforations: @ 2 spf	3022' - 3042' 3102' - 3108' 3145' - 3152'	(20') (6') (7')
propose to add 2 spf	3175' - 3190' 3306' - 3314' 3342' - 3368'	(15') (8') (26')
	3520' - 3546' 3574' - 3600'	(26') (26')
Proposed new perforation: (4spf)	3317' - 3323' 3329' - 3333' 3400' - 3407' 3412' - 3418' 3473' - 3500'	(6') (4') (7') (6') (27')

5847 San Felipe Suite 3600 Houston, Texas 77057 Telephone: (713) **780-5000** FAX (713) 780-5273 Telex 9108813603

February 28, 1991

State of New Mexico Oil Conservation Division P O Box 2088 Santa Fe, New Mexico 87504-2088

Attention: Mr. David Catanach

RE: Gallegos Canyon Unit #306 (SWD)

NE1, SE1, Sec. 19, T29N, R12W

San Juan, New Mexico

Dear Mr. Catanach:

The above referenced well was authorized to be used as a salt water disposal well by Order No. SWD - 225 on May 21, 1980.

BHP Petroleum respectfully requests authorization to increase the density of the existing perforations and to perforate additional areas within the previously authorized Mesaverde formation.

This request is necessary to accommodate increased produced water volumes in the Gallegos Canyon Unit.

I have enclosed the original and one copy of completed Form C-108 and 2 copies of the Dual Induction log showing where the existing perforations are located and the areas where we propose to add perforations.

The existing perforation density is two shots per foot. We propose to increase this density to four shots per foot in the previously perforated areas.

We propose to perforate additional areas within the Mesaverde formation at a rate of four shots per foot.

The existing and proposed perforation areas are listed below and indicated on the enclosed log.

Existing perforations: (@ 2 spf)	3022' - 3042' 3102' - 3108' 3145' - 3152'	(20') (6') (7')
(propose to add 2 spf)	3175' - 3190' 3306' - 3314' 3342' - 3368'	(15') (8') (26')
	3520' - 3546' 3574' - 3600'	(26') (26')
Proposed new perforation: (4spf)	3317' - 3323' 3329' - 3333' 3400' - 3407' 3412' - 3418' 3473' - 3500'	(6') (4') (7') (6') (27')



Mr. David Catanach February 28, 1991 Page 2

Please don't hesitate to contact me, if any additional information is required.

.... ---

Sincerely,

Chuck Williams

Field Services Administrator

Inland Business Unit

CW: rm

Enclosure - Dual Induction log & Form C-108

cc: Mr. Ernie Busch, N.M.O.C.D., Aztec, NM.

BLM Farmington, NM.

Fred Lowery - BHP Farmington, NM.

Well File

SANTA FE. NEW MEXICO 8/501

with the control of the property of the control of

of the earlier submittal.

APPLICATION FOR AUTHORIZATION TO INJECT Secondary Recovery Pressure Maintenance X Disposal Purpose: Storage Application qualifies for administrative approval? x yes II. BHP Petroleum (Americas) Inc. 5847 San Felipe #3600 Houston, Texas 77057 Address: Contact party: Chuck Williams, Field Services Admin Phone: (713) 780-5448 III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary. IV. y yes Is this an expansion of an existing project? no If yes, give the Division order number authorizing the project SWD - 225 Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review. VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail. VII. Attach data on the proposed operation, including: Proposed average and maximum daily rate and volume of fluids to be injected; Whether the system is open or closed; 3. Proposed average and maximum injection pressure;4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.). \*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval. Describe the proposed stimulation program, if any. IX. Χ. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.) Attach a chemical analysis of fresh water from two or more fresh water wells (if XI. available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken. Applicants for disposal wells must make an affirmative statement that they have XII. examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water. Applicants must complete the "Proof of Notice" section on the reverse side of this form. XIII. XIV. Certification I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief. Name: Chuck Williams Title Field Services Administrator Signature: Auck Date: <u>February 28, 1991</u> \* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance