

OIL CONSERVATION DIVISION
RECEIVED

P.O Box 977
Farmington, New Mexico 87499
(505) 327-1639

MAR 22 10 54

*See Unit
Agreement
Case No.
247*



March 16, 1993

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

Re: Unorthodox Location, Administrative Approval Request
Gallegos Canyon Unit # 410
Basin Fruitland Coal
2185' FSL & 1825' FWL NE/SW Sec.35, T29N, R12W
San Juan County, New Mexico

Gentlemen:

BHP Petroleum (Americas), Inc. respectfully requests that a non-standard location be administratively approved for the GCU #410.

This non-standard location is requested due to the following topographical reasons (Refer to Exhibit 3): 1. The existing pad of the Amoco No. 170 and BMG No. 2 wells could not be used as a location for the GCU 410 well due to existing pits, surface equipment, horse barn and animal stalls. 2. The remaining acreage within the drilling window is actively being subdivided into incompatible residential areas. This is evidenced by the Greene Acres Subdivision to the west with 4 - 4 acre subdivided tracts with accompany housing, occupying the west half of the window.

The East half of the window, presently in cultivation, is planned for future subdivision into incompatible residential tracts. There are two Bureau of Reclamation Underground drainage systems within this area and an utility easement where electric, gas and water lines are installed. Crossing beneath the BOR drainage easements would hamper the practicality of bringing a pipeline north out of this area to our West Hammond Gathering System.

As shown on the Land Plat, Exhibit 1, BHP is the operator of all offsetting production units.

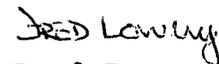
A close examination of Exhibit 3 will show that the location, as selected, is as close to the drilling window as practical due to

the surface conditions present. A 20' wide, 7' deep drainage canal runs east and west 150' south of the location and a horse barn is located 160' south of the canal.

For both economical and mechanical reasons BHP does not think that directionally drilling the proposed well to a standard location is feasible. Economically it is not feasible based on the extra expense of drilling a directional hole compared to the anticipated production. Mechanically, our experience has shown that a rod pump will have to be installed to remove excess water from the well bore and a directionally drilled hole would greatly hinder or prohibit this necessity.

Please do not hesitate to contact me if you have any questions.

Sincerely,


Fred Lowery
Operations Superintendent

Submit to Appropriate District Office
State Lease - 6 copies
Fee Lease - 5 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-101
Revised 1-1-89

OIL CONSERVATION DIVISION

310 Old Santa Fe Trail, Room 206
Santa Fe, New Mexico 87503

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

API NO. (assigned by OCD on New Wells)

30-045-28734

5. Indicate Type of Lease

STATE FEE

6. State Oil & Gas Lease No.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work:

DRILL RE-ENTER DEEPEN PLUG BACK

b. Type of Well:

OIL WELL GAS WELL OTHER
SINGLE ZONE MULTIPLE ZONE

7. Lease Name or Unit Agreement Name

Gallegos Canyon Unit

2. Name of Operator
BHP Petroleum (Americas) Inc.

8. Well No.
410

5/220

3. Address of Operator
5847 San Felipe, Ste. 3600, Houston, Texas 77057

9. Pool name or Wildcat
Basal Fruitland Coal

4. Well Location
Unit Letter K : 2185 Feet From The South Line and 1825 Feet From The West Line
Section 35 Township 29N Range 12W NMPM San Juan County

10. Proposed Depth
1525'

11. Formation
Fruitland Coal

12. Rotary or C.T.
Rotary

13. Elevations (Show whether DF, RT, GR, etc.)
5360' GR

14. Kind & Status Plug Bond
Blanket

15. Drilling Contractor
Unknown

16. Approx. Date Work will start
As soon as approved

17. PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
8-3/4"	7"	20#	+ 140'	50	surface
6-1/4"	4 1/2"	10.5#	1525'	180	surface

It is proposed to drill the subject well to 1750' with the primary production anticipated in the Fruitland Coal Formation.

Estimated Formation Tops:

Ojo Alamo	48'
Kirtland	223'
Fruitland	1014'
Upper Fruitland Coal	1165'
Basal Fruitland Coal	1302'
Pictured Cliffs	1325'
TD	1525'

RECEIVED
JUL 30 1982
OIL CON. DIV.
DIST. 2

APPROVAL EXPIRES 2-3-93
UNLESS DRILLING IS COMMENCED.
SPUD NOTICE MUST BE SUBMITTED
WITHIN 10 DAYS

B.O.P.E. will consist of a 2000# Reagan bladder type preventor, pipe rams and blind ram B.O.P.E.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVITY ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Carl Kolbe TITLE Regulatory Affairs Coordinator DATE 7/28/92

TYPE OR PRINT NAME Carl Kolbe TELEPHONE NO. 713/780-5301

(This space for State Use)

APPROVED BY [Signature] DEPUTY OIL & GAS INSPECTOR, DIST. 2 DATE AUG 03 1992

CONDITIONS OF APPROVAL, IF ANY:

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

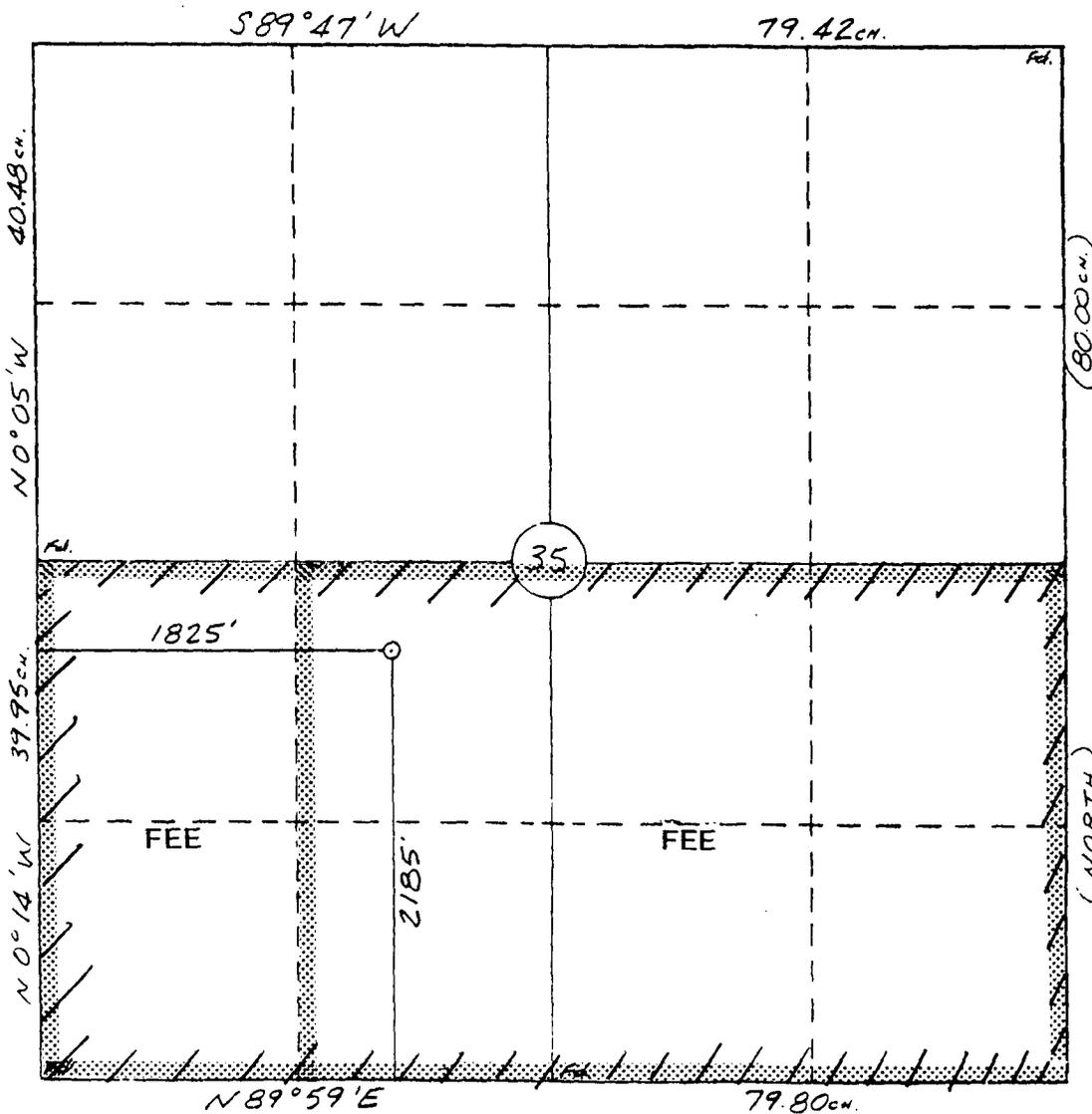
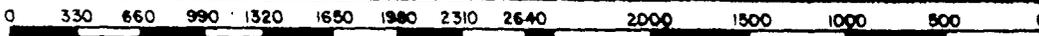
DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator BHP PETROLEUM (AMERICAS) INC.			Lease GALLEGOS CANYON UNIT		Well No. 410
Unit Letter K	Section 35	Township 29 N	Range 12 W	County San Juan	
Actual Footage Location of Well: 2185 feet from the South line and 1825 feet from the West line					
Ground level Elev. 5360	Producing Formation Fruitland Coal		Pool Basal Fruitland Coal	Dedicated Acreage 320 Acres	
<p>1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.</p> <p>2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).</p> <p>3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If answer is "yes" type of consolidation Unitization</p> <p>If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.)</p> <p>No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.</p>					



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature: *Carl Kolbe*
 Printed Name: **Carl Kolbe**
 Position: **Reg. Affairs Coordinator**
 Company: **BHP Petroleum (Americas)**
 Date: **7/28/92**

SURVEYOR CERTIFICATION

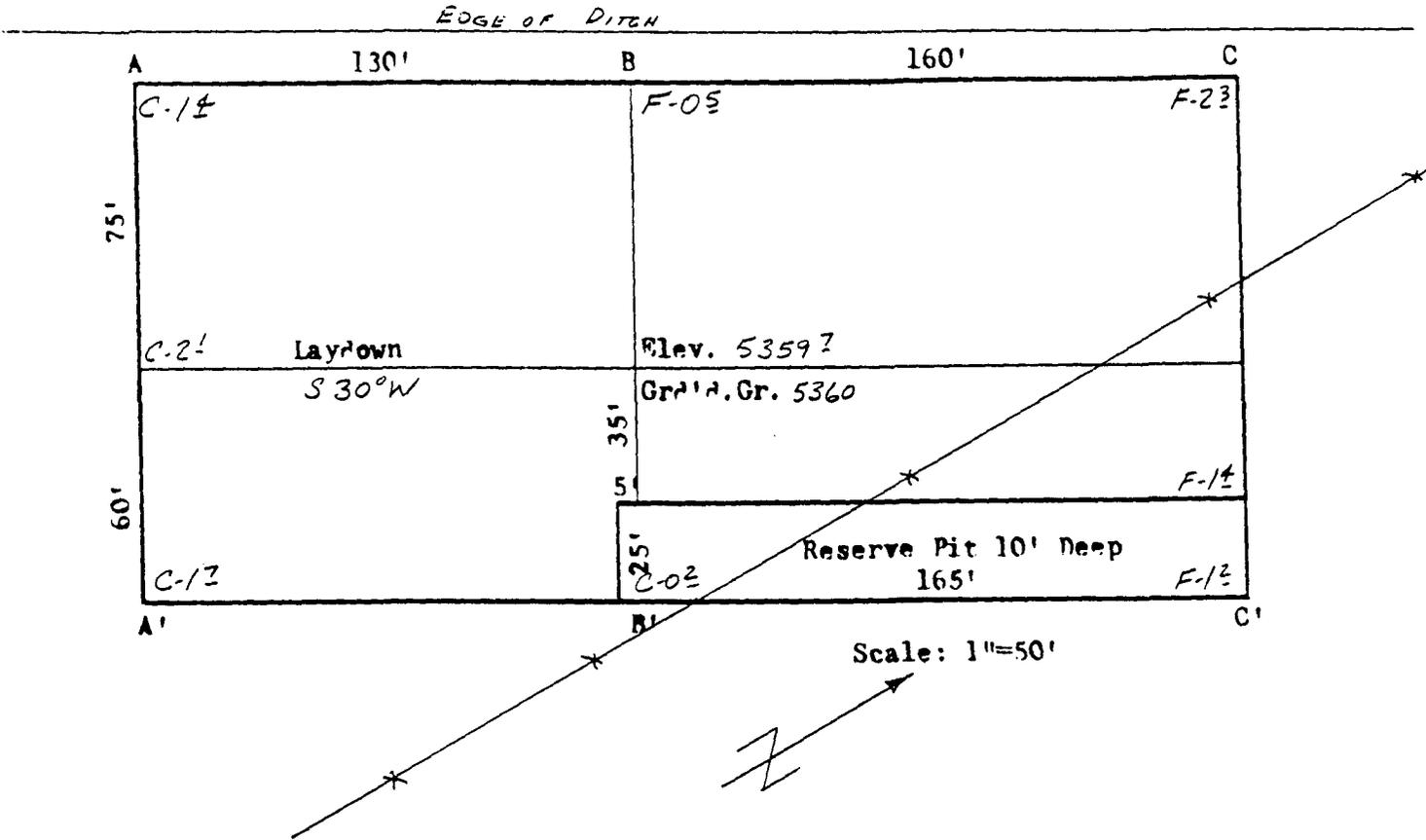
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed: **William E. Mahnke II**

Signature & Seal of Professional Surveyor:

 Certificate No. **8466**

BHP PETROLEUM (AMERICAS) INC.
 G.C.U. #410
 2185'FSL & 1825'FWL
 Sec.35, T29N, R12W
 San Juan Co., N.M.



A-A' Vert: 1"=30' Horiz: 1"=100' C/L

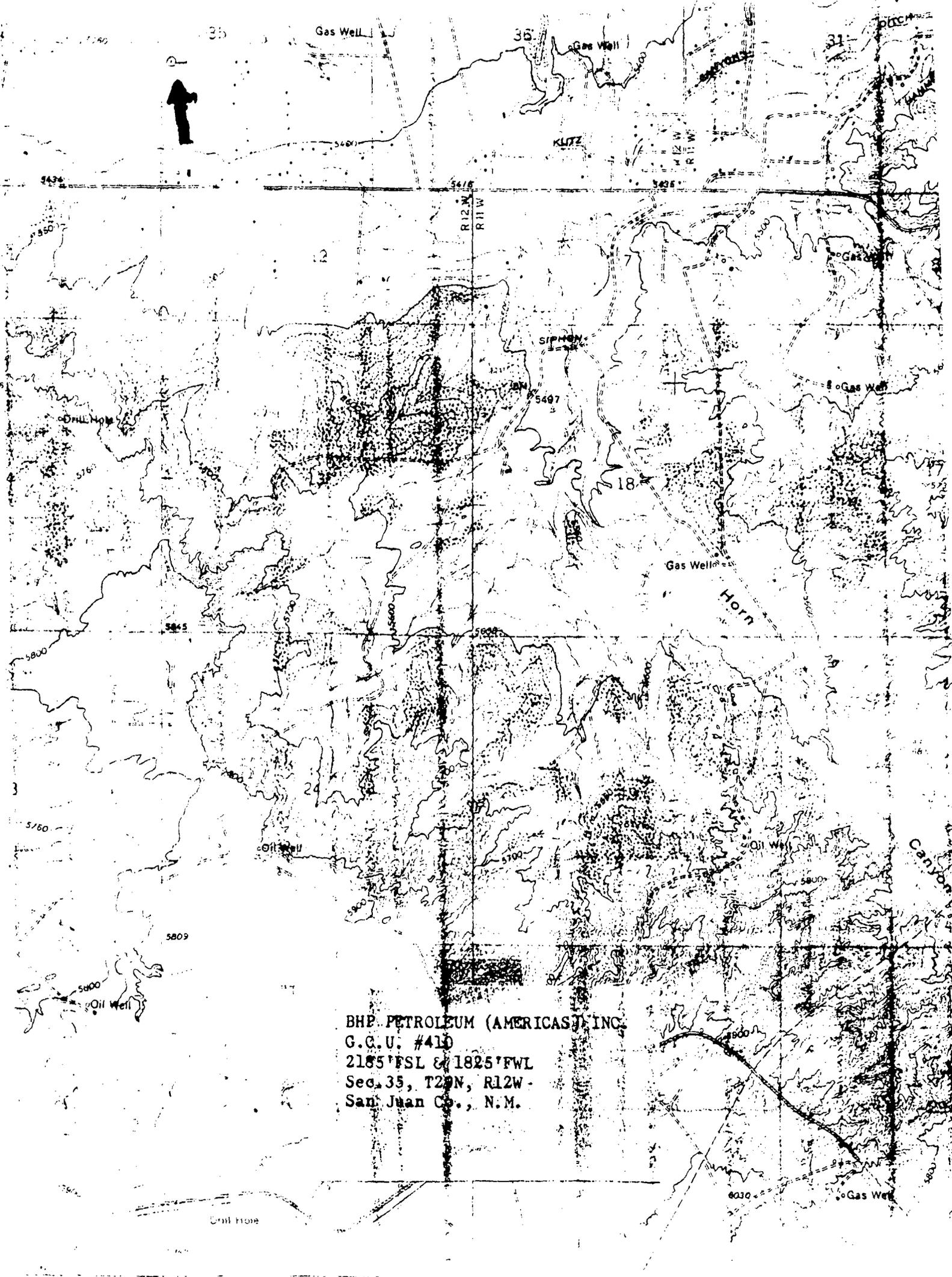
5360						
5350						

B-B'

5360						
5350						

C-C'

5360						
5350						



BHP. PETROLEUM (AMERICAS) INC.
G.C.U. #410
2185' FSL & 1825' FWL
Sec. 35, T29N, R12W -
San Juan Co., N.M.

Drill Hole

BHP PETROLEUM (AMERICAS) INC.
GALLEGOS CANYON UNIT NO.410
2185'FSL & 1825'FWL SECTION 35 T29N-R12W
SAN JUAN COUNTY, NEW MEXICO

TEN POINT PROGRAM

1. Surface Formation: Nacimiento or valley fill
2. &
3. Estimated Formation Tops:

<u>Formation</u>	<u>Top</u>	<u>Expected Production</u>
Ojo Alamo	48'	
Kirtland	223'	
Fruitland	1014'	
Upper Fruitland Coal	1165'	Gas
Basal Fruitland Coal	1302'	Gas
Pictured Cliffs	1325'	Gas
Total Depth	1525'	

4. Casing and Cementing Program: A string of 7" 20# K-55 ST&C casing will be set at ±140' in an 8-3/4" hole and cemented to the surface in a single stage with 50 sx Class "B" cement (yield 1.18 cf/sk) containing 3% CaCl₂ and 1/4 lb/sk celloflake. Slurry volume assumes 100% excess over calculated hole volume. If the cement job does not circulate to surface, cement will be topped off using 1" pipe down the 8-3/4" by 7" annulus. Centralizers will be run on the bottom two joints as long as boulders were not encountered while drilling the surface hole. If boulders are encountered while drilling the surface hole, no centralizers will be run. Minimum clearance between couplings and hole is 1.094". Prior to drilling out the shoe, casing and BOPE will be tested to a minimum of 2000 psi. Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8 or 100,000 lb overpull, whichever is greater.

A production string of 4-1/2", 10.5# K-55 ST&C casing will be run from the surface to total depth in a 6-1/4" hole. This string will be cemented to the surface with a minimum of 180 sx of 50-50 pozmix containing 2% gel, 10% salt and 1/4 lb/sk celloflake (yield = 1.26 cf/sk) followed by 50 sx of Class "B" cement containing fluid loss additive (yield = 1.18 cf/sk). Slurry volume assumes a 50% excess over calculated hole volume. Cement volume is subject to change after review and recalculation of hole volume from the open hole calipers. If the primary cement job does not circulate to surface, the cement will be topped off using 1" pipe down the 6-1/4" by 4-1/2" annulus. Centralizers will be spaced such that a minimum of two are located above and two are located below the Basal Fruitland Coal; and, a minimum of one centralizer will be run just below the base and another into the base of the Ojo

GALLEGOS CANYON UNIT #
TEN POINT PROGRAM, continued

Alamo. Minimum clearance between couplings and hole is 1.25". Prior to perforating the casing for any attempted completion, the casing will be tested to a minimum of 2500 psi. Safety factors utilized in the design of this casing string were: burst = 1.1; collapse = 1.125; and tension = 1.8 or 100,000 lb overpull, whichever is greater.

Following the completion of the cementing operations, a sundry notice detailing the cement volumes and densities for each job will be submitted.

5. Pressure Control Equipment: (See attached schematic diagrams.) A minimum of a 2M psi BOP well control system will be utilized. BOP's and choke manifold will be installed and pressure tested before drilling out under surface casing and then will be checked daily as to mechanical operation condition. Ram type preventors will be tested to 2M psi. The annular preventor will be tested to 50% of its working pressure.

A full opening internal blowout preventor or drill pipe safety valve will be on the drill floor at all times and will be capable of fitting all connections.

6. Mud Program: A fresh water low solids, non-dispersed mud system will be used to drill this well. Sufficient materials will be on location at all times to maintain mud properties and to control any unforeseen lost circulation problems or abnormal pressures in the Farmington sands within the Kirtland formation. All drilling fluids will be contained in an earthen pit. At the completion of drilling, the drilling fluid will be hauled off to be used for another well. The remaining accumulation of solids in the pit will be allowed to dry out and the pit will be covered up.

Mud program is as follows:

<u>Interval (ft)</u>	<u>Mud Weight (ppg)</u>	<u>Viscosity (sec/qt)</u>
0 - 1000	8.4 or less	30 - 38
1000 - TD	9.3 or less	40 - 55

7. Auxiliary Equipment: An upper kelly cock with handle available will be utilized. At a minimum, a flow sensor will be installed in the system and the mud volume will be visually monitored constantly.
8. Logging Program: SP-DIL and GR-FDC-CNL logs will be run from TD to surface casing shoe depth.

Coring Program: No cores are planned.

GALLEGOS CANYON UNIT #
TEN POINT PROGRAM, continued

Testing Program: No tests are planned.

Stimulation Program: Perforate the Basal Fruitland Coal with 4 JSPF and fracture stimulate with a minimum of 30,000 Bbls of 20/40 mesh sand in either a 70 quality nitrogen foam system or a cross-linked gelled water system.

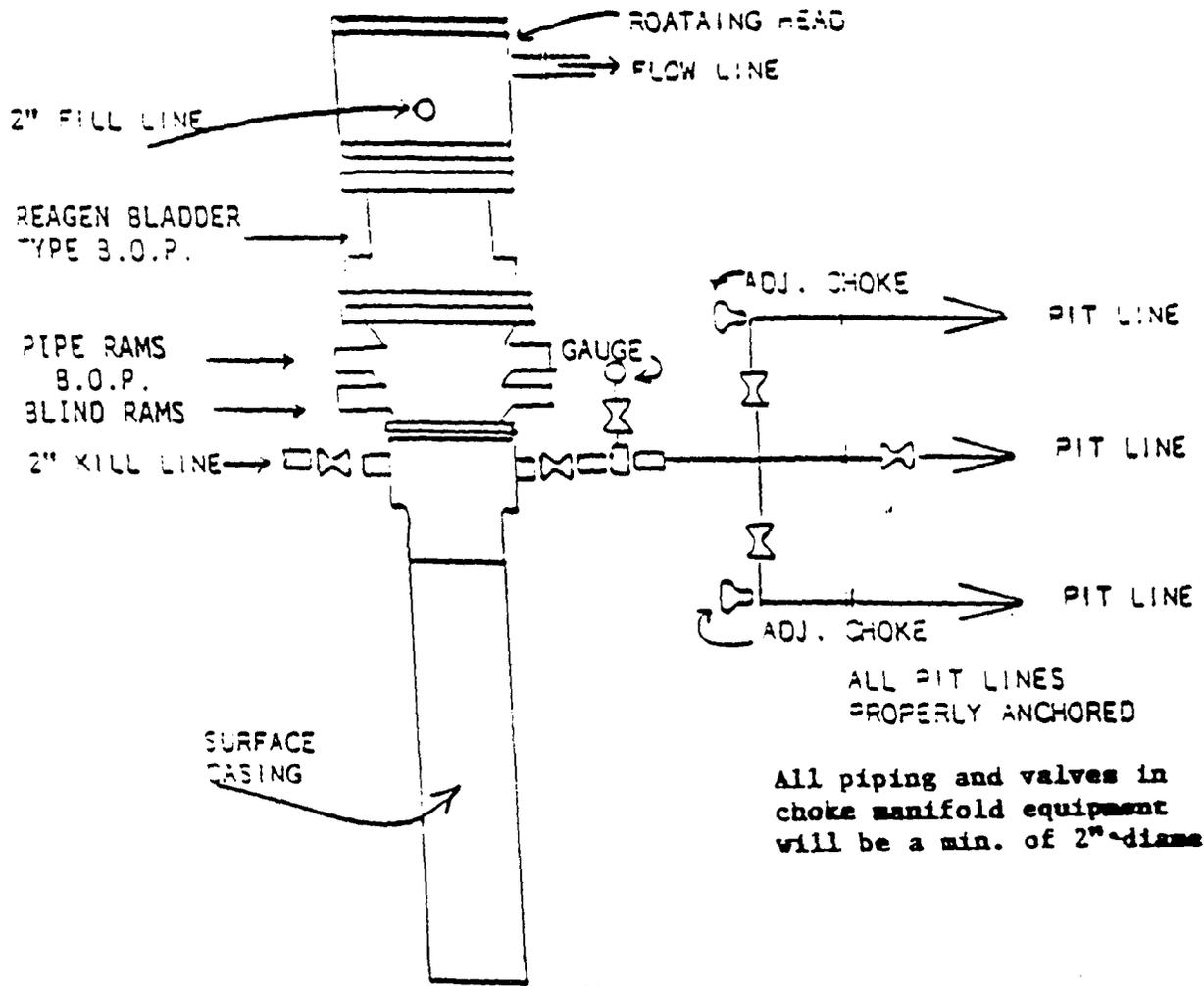
9. Abnormal Pressure: Although not expected, abnormal pressures are possible in the Farmington sands of the Kirtland formation.

Estimated Bottom Hole Pressure: 600 psi

10. Anticipated Starting Date: As soon as all required approvals are received.

Duration of Operation: It is estimated that a total of 4 days will be required for drilling operations and 5 days for completion operations.

CM SYSTEM



PROPERTY MANAGEMENT & CONSULTING, INC.

P. O. BOX 2596

FARMINGTON, NEW MEXICO 87499-2596

(505) 325-5220

Mr. Fred Lowery
BHP Petroleum (Americas), Inc.
P.O. Box 977
Farmington, NM 87499

Dear Fred,

Property Management & Consulting, Inc. conducted an onsite inspection of the potential locations for your GCU No. 410 well.

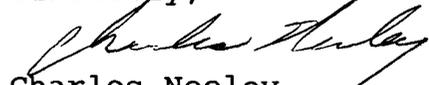
The pad area around Amoco's GCU No. 170 and BMG No.2 well was eliminated due to existing pits, surface production equipment, and the presence of a horse barn and related stalls.

All areas in the west half of the drilling window were eliminated due to incompatibility. This area is subdivided into 4-4 acre residential tracts with accompanying housing. There is an underground drainage system crossing the northwest corner.

The east half of the drilling window is presently in cultivation. According to Mr. Earl Hickam, surface owner, this area is planned for future subdivision into incompatible residential tracts. There is a utility easement on the east side of the north-south main road, which approximately defines the west boundary for the east half of the drilling window, where gas, water, and electric lines are buried. The Hammond Conservancy District office Bureau of Reclamation provided us with plats of BOR drainage systems (2) underlying this area. They have a permanent 30' wide ROW associated with each of the drainage lines which were buried approximately 7' deep at the time of installation. It is supposed that this depth defines the top of the water table. Crossing beneath these easements would hamper the practicality of bringing a pipeline north out of this area to your West Hammond Gathering System. In addition, the pipeline would have to cross the open 7' deep drainage canal running east-west approximately 150' north of the drilling window. Since the pipeline would need to be buried 3-4' below the canal, to allow for frequent dredging, this would, also, hamper the practicality of a pipeline.

Our recommendation is that, due to the topographical reasons discussed, the GCU No. 410 well be located as close to the drilling window as possible north of the open canal and east of the point where the canal turns north.

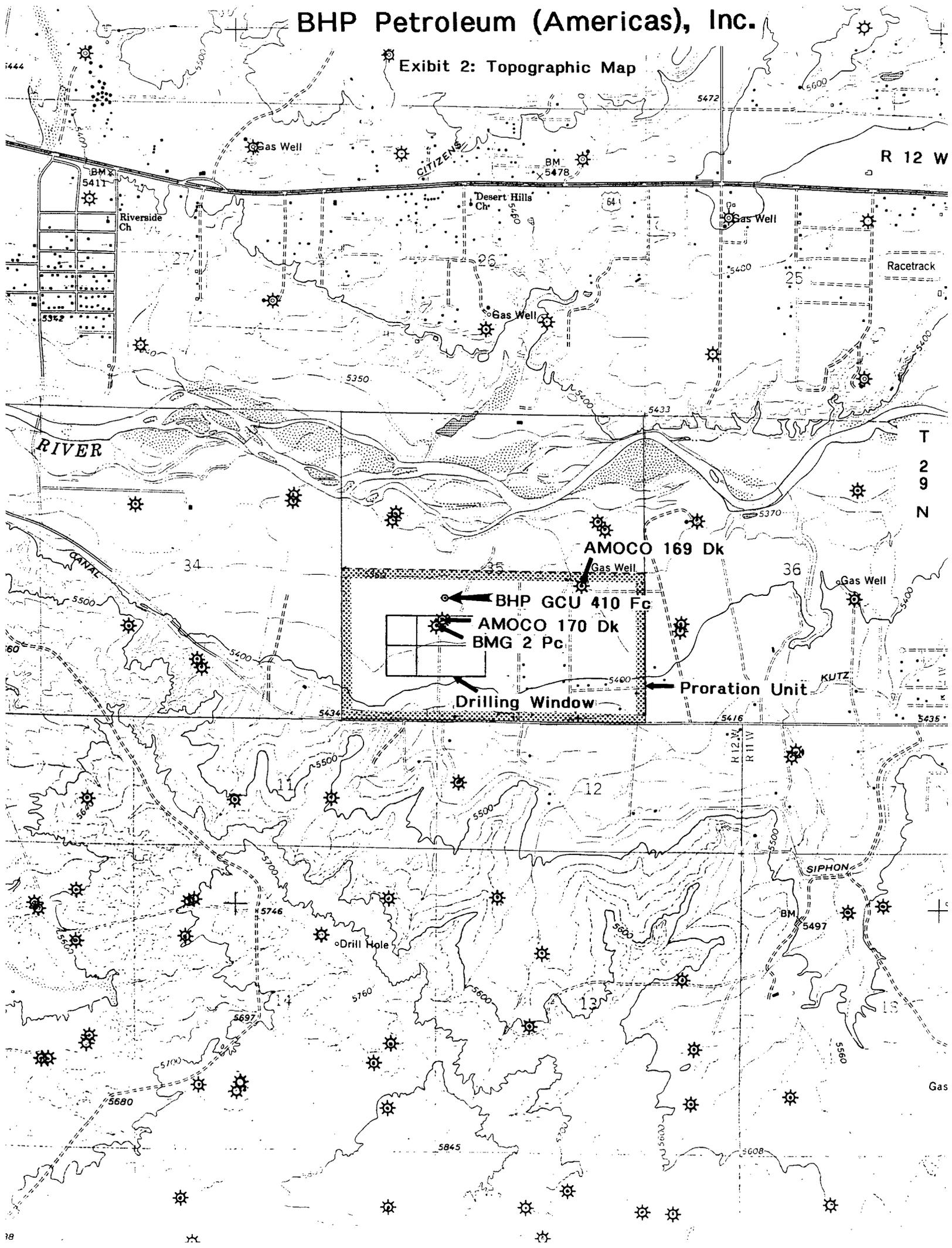
Sincerely,

A handwritten signature in cursive script, appearing to read "Charles Neeley". The signature is written in dark ink and is positioned above the typed name.

Charles Neeley
Petroleum Engineer

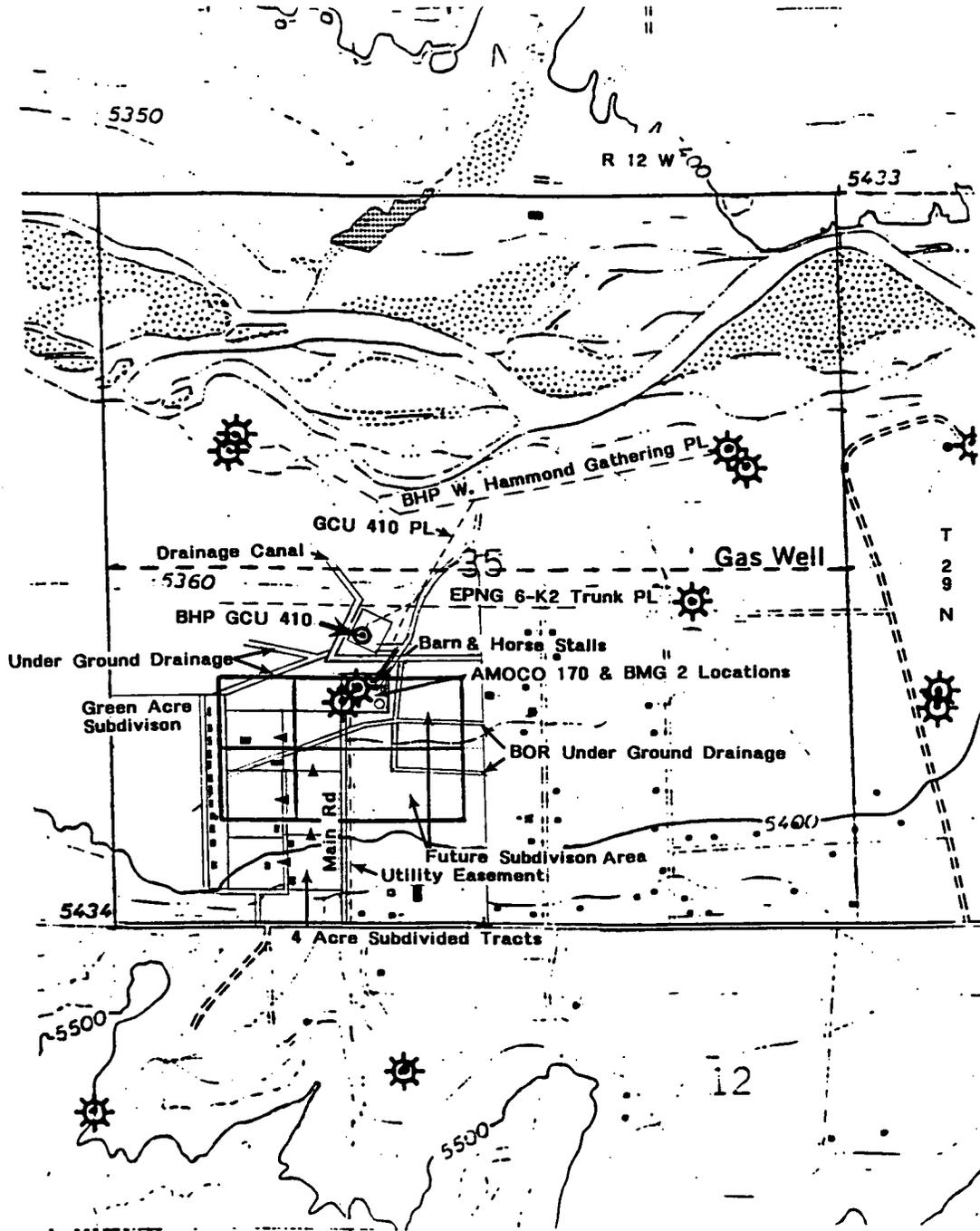
BHP Petroleum (Americas), Inc.

Exhibit 2: Topographic Map



BHP Petroleum (Americas), Inc.

Exhibit 3: Enlarged Topo Map



OIL CONSERVATION DIVISION
RECEIVED

'93 MAR 4 AM 8 52

P.O Box 977
Farmington, New Mexico 87499
(505) 327-1639

March 02, 1993



BHP
Petroleum
(Americas) Inc

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

Re: Unorthodox Location, Administrative Approval Request
Gallegos Canyon Unit #410
Basin Fruitland Coal
2185' FSL & 1825' FWL NE/SW Sec.35, T29N, R12W
San Juan county, New Mexico

Gentlemen:

BHP Petroleum respectfully requests that a non standard location be administratively approved for the G.C.U.#410.

The non standard location is requested due to topographical reasons. A standard location is not possible due to cultivated fields. This location is immediately adjacent to the cultivated fields edge.

BHP is the operator of all offsetting proration units.

For both economical and mechanical reasons BHP does not think that directionally drilling the proposed well to a standard location is feasible. Economically it is not feasible based on the extra expense of drilling a directional hole compared to the anticipated production. Our experience has shown that a rod pump will have to be installed to remove excess water from the well bore and a directionally drilled hole would greatly hinder or prohibit that.

Please do not hesitate to contact me if you have any questions.

Sincerely,

Fred Lowery
Fred Lowery
Operations Superintendent

cc: Ernie Busch
Carl Kolbe



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

No. 1-90

MEMORANDUM

TO: All Operators

FROM: William J. LeMay, Director *WJL*

SUBJECT: Administrative Applications for Unorthodox Locations

DATE: March 21, 1990

Division Memorandum No. 3-89, dated March 24, 1989, advised the industry that the OCD would no longer automatically approve unopposed unorthodox location applications. Unorthodox locations can be approved administratively in accordance with the Rules and Regulations or applicable special pool rules if surface conditions truly prevent the use of a legal location and if directional drilling to a legal location is not feasible.

Topographic conditions which will be considered to justify an unorthodox location include such traditional factors as terrain features (steep slopes, arroyos, etc.) which make drilling impractical. In addition, approval may be given to avoid archeological sites which may not be disturbed without substantial mitigation, incompatible surface uses such as buildings, recreation areas, etc. Applications should fully document the reason an unorthodox location is required.

The attached guidelines state the minimum information which should be submitted with applications for administrative approval of unorthodox locations. Failure to provide the necessary information will probably result in processing delays.

If the surface of the proration unit or proposed drill site is controlled by a Federal Surface Management Agency, a copy of the application must be sent to the appropriate agency office.

If there are legal locations within the proration unit which are drillable, but the operator chooses not to drill those locations for geological reasons the application cannot be approved administratively and a hearing will be required.

NEW MEXICO OIL CONSERVATION DIVISION

**SUBMITTAL GUIDELINES FOR ADMINISTRATIVE APPROVAL
OF NON-STANDARD LOCATION APPLICATIONS**

- I. If the well is located on Federal or Indian Lands, the Federal Surface Management Agency must be notified and an on-site inspection conducted prior to filing the application. If an Application for Permit to drill or a Notice of Staking has been prepared, a copy must be submitted.
- II. Completed C-102 showing the well location, proration unit, leases within the unit and other required information.
- III. Land plat showing offset operators and working interest owners and any offsetting wells producing from the same pool or formation.
 - A. This information may be shown on the topo map if it does not impair the readability of the map.
 - B. The operator should certify that the information is current and correct.
- IV. Original or clear copy of topographic map, preferably 7.5 minute quad, showing contours and other mapped features impacting the location, with the following information marked thereon (In order to be able to adequately show all of the necessary surface conditions it may be necessary to enlarge the relevant portion of the topo map to provide room for detail):
 - A. The proposed well location and proration unit;
 - B. An outline of the orthodox drilling windows as provided in the applicable rules for the subject application;
 - C. The location of any wells to any formation within the area of the proration unit and a statement as to whether an existing pad can be used to drill the proposed well;
- V. An enlargement of the topo map showing the subject area with the applicable additional information:
 - A. Terrain features not shown on the map which make an orthodox location unusable;
 - B. Proposed access roads and pipelines if they affect the location selection;
 - C. The location of any surface uses which prevent use of a legal location;

- D. The location of any archeological sites identified in the archeological survey;
 - E. The location and nature of any other surface conditions which prevent the use of an orthodox location.
- VI. If archeological sites are a reason for the unorthodox location request, a copy of the archeological survey, or a summary, identifying sites which cannot be disturbed or which must have any disturbance mitigated. In addition, the location of such areas should be marked on the enlarged topo so they can be clearly identified.
- VII. A narrative report of any on-site inspection of the potential locations. If such on-site has resulted in elimination of legal locations due to surface conditions, such information should also be noted on the enlarged topo.
- VIII. A statement of why directional drilling to reach a legal bottom-hole location is not feasible.
- IX. An affidavit that notice has been sent to all parties entitled thereto, under the Divisions Rules and Regulations with return receipt cards showing date of receipt of notice.

Submit to Appropriate District Office
 State Lease - 6 copies
 Fee Lease - 5 copies
 DISTRICT I
 P.O. Box 1980, Hobbs, NM 88240

State of New Mexico
 Energy, Minerals and Natural Resources Department

Form C-105
 Revised 1-1-89

OIL CONSERVATION DIVISION

DISTRICT II
 P.O. Drawer DD, Artesia, NM 88210

P.O. Box 2088
 Santa Fe, New Mexico 87504-2088

DISTRICT III
 1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION
 RECEIVED FEB 13 1993

OIL CON. DIV.

WELL API NO.
 30-045-28734

5. Indicate Type of Lease
 STATE FEE

6. State Oil & Gas Lease No.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well:
 OIL WELL GAS WELL DRY OTHER _____

b. Type of Completion:
 NEW WELL WORK OVER DEEPEN PLUG BACK DIFF RESVR OTHER _____

7. Lease Name or Unit Agreement Name
 Gallegos Canyon Unit

2. Name of Operator
 BHP Petroleum (Americas) Inc.

8. Well No.
 410

3. Address of Operator
 5847 San Felipe Suite 3600, Houston, Texas 77057

9. Pool name or Wildcat
 Basin Fruitland Coal

4. Well Location
 Unit Letter K : 2185 Feet From The South Line and 1825 Feet From The West Line
 Section 35 Township 29N Range 12W NMPM San Juan County

10. Date Spudded 10/15/92
 11. Date T.D. Reached 10/16/92
 12. Date Compl. (Ready to Prod.) 12/20/92
 13. Elevations (DF & RKB, RT, GR, etc.) 5360 GR
 14. Elev. Casinghead

15. Total Depth 1512'
 16. Plug Back T.D. 1426'
 17. If Multiple Compl. How Many Zones?
 18. Intervals Drilled By Rotary Tools Cable Tools
 0-TD

19. Producing Interval(s), of this completion - Top, Bottom, Name
 1314'-1326' Fruitland Coal

20. Was Directional Survey Made
 Yes

21. Type Electric and Other Logs Run
 DIL/FDC, CNL/GR

22. Was Well Cored
 No

23. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB/FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
7"	20#	143'	8-3/4"	225 sx Class B	
4-1/2"	10.5#	1508'	6-1/4"	210 sx 50-50 Poz	

24. LINER RECORD					25. TUBING RECORD		
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					2-3/8"	1377"	No Packer

26. Perforation record (interval, size, and number)
 1314'-1326' - w/3-1/8" csg. gun loaded
 4 JSPF 90deg. phasing shooting a.38 hole.

27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.
 DEPTH INTERVAL AMOUNT AND KIND MATERIAL USED
 1314'-1326' 195bbl. of 30# linear gel
 70-60 quality n/2 foam
 & 46,400# 20/40 Brady sand@ 15 BPM.

28. PRODUCTION

Date First Production _____ Production Method (Flowing, gas lift, pumping - Size and type pump) Flowing Well Status (Prod. or Shut-in) Shut-in

Date of Test	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl.	Gas - MCF	Water - Bbl.	Gas - Oil Ratio
12/11/92	24	3/8"		0	500	52-load	

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API - (Corr.)
165#	225#		0	500	52-load	

29. Disposition of Gas (Sold, used for fuel, vented, etc.)
 vented

Test Witnessed By
 Fred Lowery

30. List Attachments

31. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief

Signature Carl Kolbe Printed Name Carl Kolbe Title Reg. Aff. Rep. Date 2/16/93

DISTRICT I P.O. Box 1980, Hobbs, NM 88240

OIL CONSERVATION DIVISION Old Santa Fe Trail, Room 206 Santa Fe New Mexico 87503

DISTRICT II P.O. Drawer DD, Artesia, NM 88210

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410

'93 FEB 28 AM 8 52

WELL API NO. 30-045-28734

5. Indicate Type of Lease STATE FEE

6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE 'APPLICATION FOR PERMIT' (FORM C-101) FOR SUCH PROPOSALS.)

7. Lease Name or Unit Agreement Name

Gallegos Canyon Unit

1. Type of Well: OIL WELL GAS WELL OTHER

8. Well No. 410

2. Name of Operator BHP Petroleum (Americas) Inc.

9. Pool name or Wildcat Basin Fruitland Coal

3. Address of Operator 5847 San Felipe Suite 3600, Houston, Texas 77057

4. Well Location Unit Letter K : 2185 Feet From The South Line and 1825 Feet From The West Line Section 35 Township 29N Range 12W NMPM San Juan County

10. Elevation (Show whether DF, RKB, RT, GR, etc.) 5360' GR

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

- PERFORM REMEDIAL WORK PLUG AND ABANDON TEMPORARILY ABANDON CHANGE PLANS PULL OR ALTER CASING OTHER:

- REMEDIAL WORK ALTERING CASING COMMENCE DRILLING OPNS. PLUG AND ABANDONMENT CASING TEST AND CEMENT JOB OTHER: Completion

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

SEE ATTACHED - WELL COMPLETION HISTORY

RECEIVED FEB 17 1993 OIL CON. DIV. DIST. 3

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE [Signature] TITLE Regulatory Affairs Rep. DATE 2/16/93

TYPE OR PRINT NAME Carl Kolbe TELEPHONE NO. (713) 780-5301

(This space for State Use) APPROVED BY [Signature] TITLE SUPERVISOR DISTRICT # 3 DATE FEB 17 1993

CONDITIONS OF APPROVAL, IF ANY:

GCU No. 410 Basin Fruitland Coal San Juan, New Mexico BHP WI 50%

AFE: #9301102 \$138,000

10/16/92- MIRU Aztec Well Serv Rig NO. 184. Spud well @ 2:15 PM on 10/15/92. Drl 8 3/4" hole to 146' KB w/one survey. POH RU and ran 3 jts 7" 20# J-55 R-3 8R R-3 csg and landed at 143' KB. RU Western and cmtd w/225 sxs Class "B" w/3% CaCl and 1/4# per sk cello seal. Obtained full returns w/8 bbl good cmt circ to surf. Plug dn at 9:00 pm on 10/15/92. WOC NU BOPE. Bit #1 8 3/4" HTC J11 Ser No BE770 in @ 15' out @ 146'. WOB all RPM 90 psi 300 SPM 104 DC: \$15,350 CC: \$15,350

10/17/92- Press test blind and pipe rams to 2000 psi, (ok). Test Hydrill to 500 psi (ok). Drl 70' of cmt in 7" and 6 1/4" hole to 1512' with 3 surveys. Gas show at 460' w/ a wtr flow. Mud up at 1250'. TD well at 12:45 am circ and cond hole, short trip 10 stands. POH and spot 10.5# pill at 550'. RU Schlumberger and ran DIL/FDC/CNL/GR tools from 1412' to 145'. RD loggers and TIH w/DP. Bit #2 6 1/4" Varel V517 Ser No 55707 in @ 146' out @ 1512'. WOB 20 RPM 75 psi 1000 SPM 104 MW 8.6 Vis 58 PV/YP 16/12 Gels 8/25 WL 9.4 pH 10.0 FC/32 2 Solids % 4 % Sand 1/2 DC: \$19,900 CC: \$35,250

10/18/92- Finish TIH circ & cond hole. POH LD drl pipe. RU & ran 36 jts 4 1/2" 10.5# K-55 8R R-3 ST&C csg and landed at 1508'KB. RUWestern cmtd w/210 sxs 50-50 Poz plus 2% gel, 10% salt, 1/4# per sk cello seal then tailed with 25 sxs Class "B" low fluid loss. Obtained full returns w/10 bbl good cmt circ to surf. Plug dn at 1:30 am on 10/17/92 and float held. ND BoPE and jet pits. Rel rig at 3:30 pm on 10/17/92. MW 8.4 Vis 57 PV/YP 15/12 Gels 8/24 WL 9.6 pH 10.0 FC/32 2 Solids % 4 % Sand 1/2 DC: \$23,250 CC: \$58,500

12/03/92- MIRU JC Well Serv. ND well head and NU BOPE. FU bit and csg scraper on 2 3/8" tbg and tally in hole. Found PBTD at 1426'. Circ hole cl w/2% KCl wtr and additives. Press test csg and BOPE to 2500 psi, OK. MI set, fill and filter frac tank. SDFN. Day 1 DC: \$4,600 TACC: \$4,600 CC: \$63,100

12/04/92- POOH w/tbg. RU Elect Line and ran a GR/CCL log from 1427' to 1070'. POH and LD tools. Perf the Fruitland Coal from 1314' to 1326' w/ a 3 1/8" csg gun loaded 4 JSPF 90° phasing shooting a .38 hole. All shots fired. No pressure to surf. Heat frac tank. WO frac crew. Day 2 DC: \$3,700 TACC: \$8,300 CC: \$66,800

12/05/92- No press on well. RU Western and frac stimulate the Fruitland Coal dn 4 1/2" csg w/195 clean bbl of 30# linear gel, 70 to 60 quality N/2 foam and 46,400# 20/40 Brady sand at 15 BPM. Max press 1410 psi avg 1200 psi avg rate 15 BPM max sand conc 5 ppg ISIP 960 psi. Bleed back for closure. RD Western Well shut in 5 hrs for gel break. 5 hr SICP 660 psi. Open well to tank of 3/8" pos choke. Press decreased to 45# in 4 hrs and then increased to 142 psi in 11 hrs. Rec 103 bbl load wter in 15 hrs w/ an estimated gas rate of 300 MCF/D. TBLR 103 BLTR 92 Day 3 DC: \$15,400 TACC: 23,700 CC: \$82,200

12/06/92- 24 hrs flowing on a 3/8" pos choke rec 106 bbl wtr w/ an est gas rate of 450 MCF/D. FCP 195 psi. TBLR 209 BLTR +14 Day 4 DC: \$100 TACC: \$23,800 CC: \$82,300

12/07/92- 24 hrs flowing on a 3/8" choke. Rec 43 bbl wtr w/ an est gas rate of 550 MCF/D FCP 210 psi. TBLR 252 BLTR +57 Day 5 DC: \$100 TACC: \$23,900 CC: \$82,400

12/08/92- 24 hrs flowing on a 3/8" pos choke. Rec 33 bbl wtr w/ an

estimated gas rate of 550 MCF/D. FCP 210 psi. Kill well w/2% KCL wtr. TIH w/tbg and tag fill at 1326'. Cl out to PBTD w/ N/2. PU and land tbg w/46 jts of 2 3/8" 4.7# 8R J-55 EUE at 1377' KB. Kill well w/2% KCL wtr. ND BOPE and NU well head. Unload well w/N/2 and left flowing on a 3/8" choke. Used a total of 90 bbl 2% KCL wtr. TBLR 305 BLTR 70 Day 6 DC: \$8,400 TACC: \$32,300 CC: \$90,800

12/09/92- 24 hrs flowing on a 3/8" pos choke. Rec 128 bbl wtr w/ an estimated gas rate of 550 MCF/D. FTP 180 psi Csg 252 psi. TBLR 433 BLTR +58 Day 7 DC: \$600 TACC: \$32,900 CC: \$91,400

12/10/92- 24 hrs flowing on a 3/8" pos choke. Rec 62 bbl wtr w/ an estimated gas rate of 550 MCF/D. FTP 170 psi Csg 242 psi. Change out choke insert. TBLR 495 BLTR +120 Day 8 DC: \$000 TACC: \$32,900 CC: \$91,400

12/11/92- 24 hrs flowing on a 3/8" pos choke. Rec 52 bbl wtr w/ an estimated gas rate of 500 MCF/D. FTP 165 psi Csg 225 psi. Change out choke insert. TBLR 547 BLTR +172 Day 9 DC: \$000 TACC: \$32,900 CC: \$91,400

12/12/92- 15 hrs flowing thru a 2-phase test separator w/ a 2" metr run. FTP 135 psi csg 196 psi. Rec 48 bbl wtr w/ a gas rate of 485 MCF/d. TBLR 595 BLTR +220 Day 10 DC: \$2,000 TACC: \$34,900 CC: \$93,400

12/13/92- 15 hrs flowing thru a 2-phase test separator w/ a 2" meter run. FTP 138 psi csg 190 psi. Recovered 50 bbl water w/ a gas rate of 450 MCF/D. TBLR 645 BLTR +270 Day 11 DC: \$100 TACC: \$35,000 CC: \$93,500

12/14/92- 24 hrs flowing thru a 2-phase test separator w/ a 2" meter run. FTP 130 psi csg 190 psi. Rec 60 bbl wtr w/ a gas rate of 425 MCF/D. TBLR 705 BLTR +330 Day 12 DC: \$100 TACC: \$35,100 CC: \$93,600

12/15/92- 24 hrs flowing thru a 2-phase test separator w/ a 2" meter run. FTP 134 psi csg 185 psi. Rec 58 bbl wtr w/ a gas rate of 440 MCF/D. Pull water and gas samples, shut well in. TBLR 763 BLTR +388 Day 13 DC: \$12,400 TACC: \$47,500 CC: \$106,000

12/16/92- 24 hrs SITP 300 psi SICP 340 psi. TBLR 763 BLTR +388 Day 14 DC: \$000 TACC: \$47,500 CC: \$106,000

12/17/92- 24 hrs SITP 325 psi SICP 365 psi. TBLR 763 BLTR +388 Day 15 DC: \$000 TACC: \$47,500 CC: \$106,000

12/18/92- 72 hrs SITP 330 psi SICP 385 psi. TBLR 763 BLTR +388 Day 16 DC: \$000 TACC: \$47,500 CC: \$106,000

12/19/92- 96 hrs SITP 345 psi SICP 385 psi. TBLR 763 BLTR +388 Day 17 DC: \$000 TACC: \$47,500 CC: \$106,000

12/20/92- 120 hrs SITP 345 psi SICP 385 psi. TBLR 763 BLTR +388 Day 18 DC: \$000 TACC: \$47,500 CC: \$106,000

******FINAL REPORT******

MIRU and spud well on 15 Oct 92. Drill 8-3/4" hole to 146' KB. RU and ran 3 jts 7" 20# J-55 R-3 8R csg and landed @ 143' KB. RU Western and cemented with 225 sks cement. Obtained full returns with 8 bbls good cement to surface. Plug down on 15 Oct 92. PU 6-1/4" bit and TIH. Drill 6-1/4" hole to 1,512'. Gas show @ 460'. RandIL/FDC/CNL/GR & Coal logs. C&C. RU and ran 36 jts 4-1/2" 10.5# K-55 R3 ST&C csg. Landed at 1,508' KB. Cement with 210 sks. Tail with 25 sks. Obtained full returns. PD on 17 Oct 92. Release rig on 17 Oct 92. RU 3 Dec 92. NU BOPE. Clean out. Perf'd Fruitland Coal from 1,314'-1,326' 4 jspf, 90 degree phasing. Frac down csg

with 195 bbls 70 quality foam and 46,400# 20/40 Brady sand. Flow well back after frac. Test on 15 Dec 92 was through a two phase separator flowing 440 Mcfpd, 58 bwpd. FTP = 134 psi, Csg = 185 psi. Shut well in. Waiting on pipeline. TAC: \$106,000

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION
RECEIVED

WELL API NO. 30-045-28734
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
6. State Oil & Gas Lease No.

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER	7. Lease Name or Unit Agreement Name GALLEGOS CANYON UNIT
2. Name of Operator BHP PETROLEUM (AMERICAS) INC.	8. Well No. 410
3. Address of Operator P.O. BOX 977 FARMINGTON, NM 87499	9. Pool name or Wildcat BASAL FRUITLAND COAL
4. Well Location Unit Letter <u>K</u> : <u>2185</u> Feet From The <u>SOUTH</u> Line and <u>1825</u> Feet From The <u>WEST</u> Line Section <u>35</u> Township <u>29N</u> Range <u>12W</u> NMPM <u>SAN JUAN</u> County	
10. Elevation (Show whether DF, RKB, RT, GR, etc.) 5360 GR	

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input checked="" type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>		CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER: _____ <input type="checkbox"/>		OTHER: _____ <input type="checkbox"/>	

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

SPUD WELL AT 2:15^{pm} ON 10-15-92

RECEIVED
OCT 19 1992
OIL CON. DIV.
DIST. 3

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE FRED LOWERY TITLE OPERATIONS SUPERINTENDENT DATE 10-16-92
TYPE OR PRINT NAME FRED LOWERY TELEPHONE NO. _____

(This space for State Use)
APPROVED BY [Signature] TITLE SUPERVISOR DISTRICT # 3 DATE OCT 15 1992
CONDITIONS OF APPROVAL, IF ANY: _____

Submit to Appropriate District Office
 State Lease - 6 copies
 Fee Lease - 5 copies

State of New Mexico
 Energy, Minerals and Natural Resources Department

Form C-101
 Revised 1-1-89

DISTRICT I
 P.O. Box 1980, Hobbs, NM 88240

OIL CONSERVATION DIVISION
 310 Old Santa Fe Trail, Room 206
 Santa Fe, New Mexico 87503

DISTRICT II
 P.O. Drawer DD, Artesia, NM 88210

'92 AUG 12 AM 8 54

DISTRICT III
 1000 Rio Brazos Rd., Aztec, NM 87410

API NO. (assigned by OCD on New Wells)
30-045-28734

5. Indicate Type of Lease
 STATE FEE

6. State Oil & Gas Lease No.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK					
1a. Type of Work: DRILL <input checked="" type="checkbox"/> RE-ENTER <input type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>			7. Lease Name or Unit Agreement Name Gallegos Canyon Unit		
b. Type of Well: OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>			8. Well No. 410 <u>5/320</u>		
2. Name of Operator BHP Petroleum (Americas) Inc.			9. Pool name or Wildcat Basal Fruitland Coal		
3. Address of Operator 5847 San Felipe, Ste. 3600, Houston, Texas 77057					
4. Well Location Unit Letter <u>K</u> : <u>2185</u> Feet From The <u>South</u> Line and <u>1825</u> Feet From The <u>West</u> Line Section <u>35</u> Township <u>29N</u> Range <u>12W</u> NMPM <u>San Juan</u> County					
10. Proposed Depth 1525'		11. Formation Fruitland Coal		12. Rotary or C.T. Rotary	
13. Elevations (Show whether DF, RT, GR, etc.) 5360' GR		14. Kind & Status Plug Bond Blanket		15. Drilling Contractor Unknown	
16. Approx. Date Work will start As soon as approved					
17. PROPOSED CASING AND CEMENT PROGRAM					
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
8-3/4"	7"	20#	+ 140'	50	surface
6-1/4"	4 1/2"	10.5#	1525'	180	surface

It is proposed to drill the subject well to 1750' with the primary production anticipated in the Fruitland Coal Formation.

Estimated Formation Tops:

Ojo Alamo 48'
 Kirtland 223'
 Fruitland 1014'
 Upper Fruitland Coal 1165'
 Basal Fruitland Coal 1302'
 Pictured Cliffs 1325'
 TD 1525'

RECEIVED
 JUL 30 1992
 OIL CON. DIV.
 DIST. 3

APPROVAL EXPIRES 2-3-93
 UNLESS DRILLING IS COMMENCED.
 SPUD NOTICE MUST BE SUBMITTED
 WITHIN 10 DAYS.

B.O.P.E. will consist of a 2000# Reagan bladder type preventor, pipe rams and blind ram B.O.P.E.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Carl Kolbe TITLE Regulatory Affairs Coordinator DATE 7/28/92
 TYPE OR PRINT NAME Carl Kolbe TELEPHONE NO. 713/780-5301

(This space for State Use)

APPROVED BY Ernie Busch TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #3 DATE AUG 03 1992
 CONDITIONS OF APPROVAL, IF ANY:

Submit to Appropriate District Office
 State Lease - 4 copies
 Fee Lease - 3 copies

State of New Mexico
 Energy, Minerals and Natural Resources Department

Form C-102
 Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088
 Santa Fe, New Mexico 87504-2088

DISTRICT I
 P.O. Box 1980, Hobbs, NM 88240

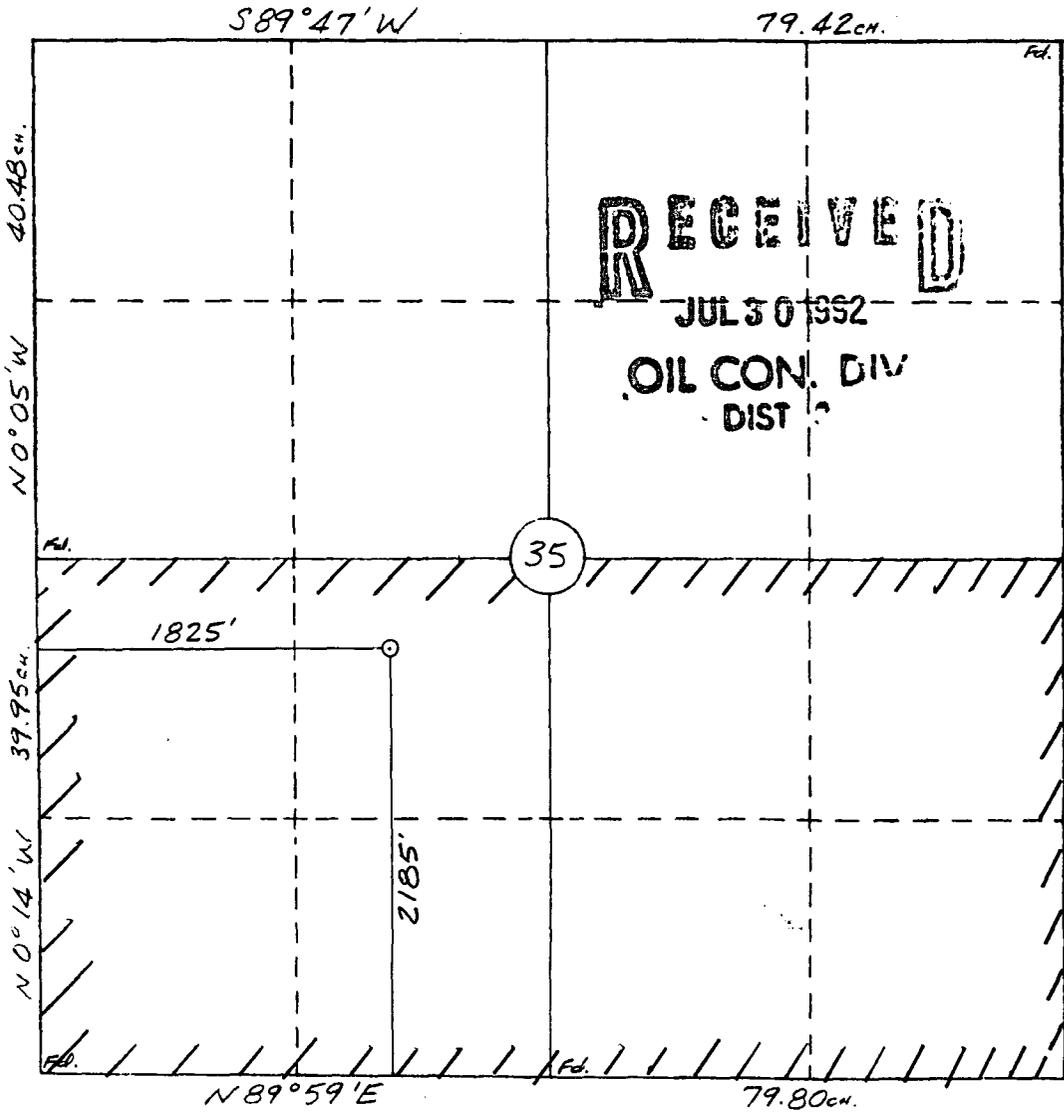
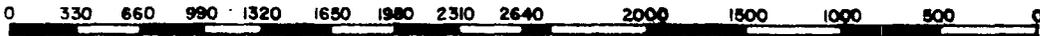
DISTRICT II
 P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
 1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator BHP PETROLEUM (AMERICAS) INC.			Lease GALLEGOS CANYON UNIT		Well No. 410
Unit Letter K	Section 35	Township 29 N	Range 12 W	County San Juan	
Actual Footage Location of Well: 2185 feet from the South line and 1825 feet from the West line					
Ground level Elev. 5360	Producing Formation Fruitland Coal		Pool Basal Fruitland Coal	Dedicated Acreage: 320 Acres	
<p>1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.</p> <p>2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).</p> <p>3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.? <input type="checkbox"/> Yes <input type="checkbox"/> No If answer is "yes" type of consolidation _____</p> <p>If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____</p> <p>No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.</p>					



OPERATOR CERTIFICATION
 I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature: *Carl Kolbe*
 Printed Name: Carl Kolbe
 Position: Reg. Affairs Coordinator
 Company: BHP Petroleum (Americas) Inc.
 Date: 7/28/92

SURVEYOR CERTIFICATION
 I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.
 6-16-92

Date Surveyed: William E. Mahnke II
 Signature & Seal of Professional Surveyor: *William E. Mahnke II*
 Seal: WILLIAM E. MAHNKE II, NEW MEXICO, #8466
 Certificate No. 8466