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June 23, 2006

Case 13750

VIA HAND DELIVERY

Mark E. Fesmire, P.E.
Director
Oil Conservation Division
New Mexico Department of Energy, Minerals and Natural Resources
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

Re: Application of BP America Production Company for approval of a waterflood project, Eddy County, New Mexico.

Dear Mr. Fesmire:

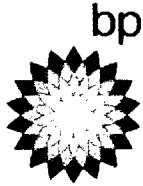
On June 2, 2006, BP America Production Company filed its application for approval of the Washington "33" State Waterflood Project on Division Form C-108. With this application, BP sought authorization to inject into the Queen-Grayburg-San Andres and the San Andres formations through six wells identified in the application. Notice was provided to all affected parties in accordance with Division rules.

A reservoir engineering review of the proposed recommendation resulted in a recommendation that the injection pattern be modified from what was originally proposed to create a more efficient waterflood and improve the secondary recovery of oil and gas from these formations. On June 20, 2006, BP requested that this case be set for hearing on July 20, 2006, sent a legal advertisement to the Division that reflected the changes in the waterflood plan, and arranged for notice of the application to be published in a newspaper of general circulation in Eddy County, New Mexico.

Attached hereto for filing is a an addendum to BP's original application that contains all data required by Form C-108 for each new injection well in the proposed waterflood area. This addendum has been provided to all affected parties as defined by Division rules. This is a lease waterflood project and the changes made by BP to its application do not change the parties who are affected by the application and entitled to notice. However, the owners of the land on which the proposed injection well is located and all leasehold operators in an area of review for a new injection well have been re-notified of the revisions to the original application.

Very truly yours,

William F. Carr
Enclosures



BP America Production Company
Mid-Con Performance Unit
Permian SENM / N. TX Resource Area
Permian 501 Westlake Park Blvd.
Houston, TX 77079

Phone: 281-366-2000

June 21, 2006

HAND DELIVERED

Mark E. Fesmire, P.E.
Director
Oil Conservation Division
New Mexico Department of Energy,
Minerals, and Natural Resources
1220 S. Saint Francis Drive
Santa Fe, NM 87505

Re: BP America Production Company's Addendum to NMOCD Form C-108 (Application for Authorization to Inject) for the proposed Washington "33" State Waterflood Project, Artesia Field, Eddy County, New Mexico

Dear Mr. Fesmire:

Please find attached BP America Production Company's Addendum to the NMOCD Form C-108, Application for Authorization to Inject, seeking authorization to convert the Washington "33" State #4, #10, and #18 to water injection in lieu of the #6, #8, and #27 wells which were part of the original application. A recent reservoir engineering review of the proposed waterflood resulted in the recommendation that the pattern be modified slightly from what was originally proposed to create a more efficient waterflood and improved secondary recovery of oil and gas reserves from the Q-GB-SA and San Andres Dolomite formations. The new waterflood pattern will require that the #6, #8, and #27 wells remain oil producers while the #4, #10, and #18 wells are converted to water injection. The Area of Review for these three wells is within the Area of Review that was part of the original application, so there will not be any additional wells in the well data table.

A copy of this addendum to the original application has been provided, via certified mail, to the surface owners of the land on which the three proposed injection wells are located and to the leasehold operators of wells within the one-half mile radius Area of Review for each of the three new injection wells. A copy of the list of leasehold operators and surface owners is included as an attachment as well as a copy of the letter and mailing affidavit.

A copy of this application has also been sent to the NMOCD Artesia District Office.

Your attention to this application is appreciated.

Sincerely,

A handwritten signature in black ink, appearing to read 'Karl Quezergue', written in a cursive style.

Karl Quezergue
Projects Engineer – SENM & N. TX
BP America Production Company

Attachments

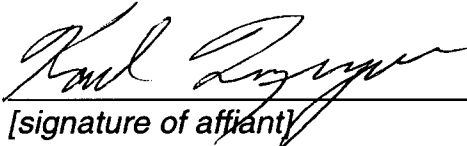
**BP America Production Company
Washington "33" State Waterflood Project
Addendum to NMOCD Form C-108
Application for Authorization to Inject**

AFFIDAVIT

Harris County, Texas

BEFORE ME, the undersigned Notary, Suzanne Jones, on this 21st day of June, 2006, personally appeared Karl Quezergue, known to me to be a credible person and of lawful age, who being by me first duly sworn, on his oath, deposes and says:

A notice and copy of BP America Production Company's Addendum to NMOCD Form C-108, Application for Authorization to Inject, to convert the Washington "33" State #4, #10, and #18 to water injection in lieu of the #6, #8, and #27 wells (part of the original application) was mailed to the interested parties (land owners and leasehold operators within the one-half mile radius Area of Review(s) for the three new proposed water injection wells) shown on the attached sheet in accordance with New Mexico Oil Conservation Division Rules. A true and correct copy of the notice letter is attached.

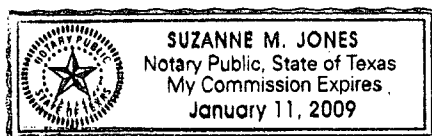

[signature of affiant]

Karl Quezergue

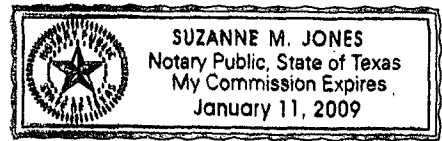
501 Westlake Park Blvd., Room 6.182
Houston, TX 77079

Subscribed and sworn to before me, this 21st day of ~~May~~ June, 2006

[Notary Seal:]



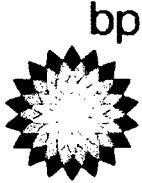
Suzanne M. Jones
[signature of Notary]



Suzanne Jones
[typed name of Notary]

NOTARY PUBLIC

My commission expires: JAN. 11, 20 09.



BP America Production Company
Mid-Con Performance Unit
Permian SENM / N. TX Resource Area
Permian 501 Westlake Park Blvd.
Houston, TX 77079

Phone: 281-366-2000

June 21, 2006

**VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

**LAND OWNERS
OFFSET OPERATORS**
(List Attached)

Re: BP America Production Company's Addendum to NMOCD Form C-108 (Application for Authorization to Inject) for the proposed Washington "33" State Waterflood Project, Artesia Field, Eddy County, New Mexico

Ladies and Gentlemen:

This letter is to advise you that BP America Production Company is in the process of filing an Addendum to the original C-108 application with the New Mexico Oil Conservation Division seeking authorization to convert the Washington "33" State #4, #10, and #18 to water injection in lieu of the #6, #8, and #27 wells which were part of the original application. A recent reservoir engineering review of the proposed waterflood resulted in the recommendation that the pattern be modified slightly from what was originally proposed to create a more efficient waterflood and improved secondary recovery of oil and gas reserves from the Q-GB-SA and San Andres Dolomite formations. The new waterflood pattern will require that the #6, #8, and #27 wells remain oil producers while the #4, #10, and #18 wells are converted to water injection. The Area of Review for these three wells is within the Area of Review that was part of the original application, so there will not be any additional wells in the well data table.

If you have any questions regarding this addendum to the original application, please feel free to contact me at 281-366-4343 or at BP America Production Company, 501 Westlake Park Blvd., Office 6.182, Houston, TX 77079.

Sincerely,

A handwritten signature in black ink, appearing to read "Karl Quezergue".

Karl Quezergue
Projects Engineer – SENM & N. TX
BP America Production Company

**BP America Production Company
Washington "33" State Waterflood Project
NMOCD Form C-108
Application for Authorization to Inject
Artesia Field, Eddy County, New Mexico**

Offset Operators

Hanson Energy
R342
S. Haldeman Road
Artesia, NM 88210

Melrose Resources
5813 NW Grand Blvd.
Suite "B"
Oklahoma City, OK 73118

Marbob Energy
2208 W. Main Street
Artesia, NM 88210

Edge Petroleum Corporation
1301 Travis Street
Suite 2000
Houston, TX 77002

Dominion Oklahoma Texas Exploration
14000 Quail Springs Parkway
Suite 600
Oklahoma City, Ok. 73134

SDX Resources Incorporated
511 W. Ohio Street
Suite 601
Midland, TX 79701

Devon Energy Production Company
20 North Broadway
Suite 1500
Oklahoma City, Ok 73102

Mewbourne Oil Company
3901 S. Broadway
Tyler, TX 75701

Mack Energy Corporation
11352 Lovington Highway
Artesia, NM 88210

Jackie Brewer
HC-60
Lovington, NM 88260

Land Owners

Bogle Ltd.
7331 Cherokee Road
Dexter, NM 88230

State of New Mexico
Commissioner of Public Lands
310 Old Santa Fe Trail
Santa Fe, NM 87501

**BP America Production Company
Washington "33" State Waterflood Project
Addendum TO NMOCD Form C-108
Application for Authorization to Inject
(C-108 Continuation Sheet)**

This C-108 continuation sheet is being provided as part of the Addendum to BP America's NMOCD C-108, Application for Authorization to Inject, to convert the Washington "33" State #4, #10, and #18 to water injection in lieu of the #6, #8, and #27 wells which were part of the original application.

III. Injection Well Data

Injection well data sheets for each of the three new proposed water injection wells are attached with this addendum. The three new proposed water injection wells are:

1. Washington "33" State #4
2. Washington "33" State #10
3. Washington "33" State #18

V. Land Map

A surface map that identifies all wells and leases within 2 miles of the three new proposed water injection wells was included in the original application. (The Area of Review for the three wells lies within the Area of Review in the original application.)

VI. Well Data Table for wells in Area of Review

Since the Area of Review for the three new proposed water injection wells lies within the Area of Review in the original application, there are no additional wells to be included in a well data table and there are no additional P&A wells that require P&A wellbore schematics.

VII. Proposed Water Injection Operations

1. The proposed maximum daily injection rate for each injection well is 2000 bwpd. After reservoir fill-up (gas saturation = 0%), the average daily injection rate for each well is expected to be 500 bwpd.
2. The water injection system will be closed.
3. The proposed initial maximum wellhead injection pressure is $.2 \text{ psi/ft} \times \text{depth of top perforation}$ for the six proposed water injection wells:

<u>Injection Well</u>	<u>Top Perf</u>	<u>Max Inj P</u>
Washington "33" State #4	1414'	283 psig
Washington "33" State #10	1411'	282 psig

If necessary, step-rate tests will be performed on the proposed injection wells to determine the formation parting pressure and follow-up requests will be made to the NMOCD to request higher injection pressures.

4. As described in the original application, the source of injection water will be produced water from the Washington "33" State lease, produced water from the ~~SDX Resources operated North West Artesia Unit, and produced water from the BP America Production Company operated Empire Abo Unit.~~ A copy of the water analysis report (Baker Petrolite analysis 36266) for produced water from the Empire Abo Unit (sample 36113) was attached to the original application. The one page report also includes results of the analysis of produced water that is stored at the Washington "33" State tank battery (sample 36116). Sample 36116 consists of produced water from the North West Artesia Unit and the Washington "33" State lease which are combined in a water tank at the tank battery facility. The water analysis report also includes a scale prediction analysis of various mixtures of Empire Abo Unit water and water from the Washington "33" State tank battery. ✓

VIII. Geologic Data

As described in the original application, the Queen-Grayburg-San Andres (Q-GB-SA) series is primarily limestone (Queen) and dolomite (Grayburg-San Andres) with thin, continuous, clastic intervals of sand and shale which make up the five oil productive members that will be waterflooded with the six proposed injection wells. The lower San Andres reservoir is dolomitic and appears to be geologically distinct from the upper radioactive sands that are collectively referred to as the Q-GB-SA. The formation tops picked from the Washington "33" State #12 well are listed below. The #12 well is located in the geographic center of the Washington "33" State lease.

Formation	Depth (TVD)	Thickness
Rustler	475'	75'
Yates	550'	125'
Seven Rivers	675'	585'
Queen	1260'	435'
Grayburg	1695'	305'
San Andres	2000'	1520'
Glorieta	3520'	110'
Yeso	3630'	2170'

Fresh Water: Fresh water is found in the Triassic Sand. The base of the fresh water-bearing rock is estimated to be 350' in the Washington "33" State lease area of the Artesia Field. There is no known source of fresh water sands below the proposed injection intervals.

IX. Proposed Stimulation Program

The three new proposed water injection wells will not require any additional completion or stimulation work.

X. Logs and Test Data

All log and well test data for the six proposed water injection wells has been previously filed with the NMOCD.

XI. Water Analysis from Fresh Water Wells in Area of Review

A copy of the Baker Petrolite water analysis reports for the two known active fresh water wells within the one-half mile Area of Review(s) was attached to the original application.

Washington "33" State #4 - CURRENT

Elevation: 3672' Status: Oil Producer
 KB: 3679' Zone: Q-GB-SA / San Andres
 Meas. TD: 4000' Interval: 1414'-2862'
 TVD: 4000' API: 30-015-30188
 PBD: 3946' Field: Artesia
 Surf. Loc: 990' FNL
 2270' FEL
 Sec: 33 Operator: BP America Prod. Co.
 Twn: 17 S County: Eddy
 Range: 28 E State: NM

Casing	Weight	Depth	Cmt Sx	Hole	TOC	Determine
8-5/8"	24#	510'	325	12-1/4"	Surface	Circ.
5-1/2"	15.5#	4000'	760	7-7/8"	Surface	Circ.

Q-GB-SA Perfs 1414'-2059'

San Andres Perfs 2314'-2862'

Additional Data:

A) This well was originally drilled and completed as a San Andres oil producer.

B) Potential oil / gas prod formations that OVERLY proposed injection interval:

Formation	Depth
7-Rivers	700'

C) Potential oil / gas prod formations that UNDERLY proposed injection interval:

Formation	Depth
Yeso	3560'
Abo	5700'

12-1/4" Hole

8-5/8" 24# @ 510' cmt'd w/ 325 sx TOC @ surf (circ)

7-7/8" Hole

2-7/8" tubing

Q-GB-SA perfs: 1414'-2059'

San Andres perfs: 2314'-2862'

5-1/2" 15.5# @ 4000' cmt'd w/ 760 sx TOC @ surf (circ)

TD @ 4000'

Washington "33" State #4W - PROPOSED

Elevation: 3672' Status: Oil Producer
 KB: 3679' Zone: Q-GB-SA / San Andres
 Meas. TD: 4000' Interval: 1414'-2862'
 TVD: 4000' API: 30-015-30188
 PBD: 3946' Field: Artesia
 Surf. Loc: 990' FNL
 2270' FEL
 Sec: 33 Operator: BP America Prod. Co.
 Twn: 17 S County: Eddy
 Range: 28 E State: NM

Casing	Weight	Depth	Cmt Sx	Hole	TOC	Determine
8-5/8"	24#	510'	325	12-1/4"	Surface	Circ.
5-1/2"	15.5#	4000'	760	7-7/8"	Surface	Circ.

Q-GB-SA Perfs 1414'-2059'

San Andres Perfs 2314'-2862'

12-1/4" Hole

8-5/8" 24# @ 510' cmt'd w/ 325 sx TOC @ surf (circ)

7-7/8" Hole

2-3/8" IPC inj tbg w/ 5-1/2" IPC ret tens pkt set @ +/- 1350'

Q-GB-SA perfs: 1414'-2059'

San Andres perfs: 2314'-2862'

5-1/2" 15.5# @ 4000' cmt'd w/ 760 sx TOC @ surf (circ)

TD @ 4000'

Washington "33" State #10 - CURRENT

Elevation: 3673 Status: Oil Producer
 KB: 3680 Zone: Q-GB-SA / San Andres
 Meas. TD: 4000 Interval: 1411'-2876'
 TVD: 4000
 PBD: 3956' API: 30-015-30192
 Surf. Loc: 2267' FNL Field: Artesia

Sec: 33 Operator: BP America Prod. Co.
 Twn: 17 S County: Eddy
 Range: 28 E State: NM

Casing	Weight	Depth	Cmt Sx	Hole	TOC	Determine
8-5/8"	24#	530'	325	12-1/4"	Surface	Circ.
5-1/2"	15.5#	4000'	810	7-7/8"	Surface	Circ.

Q-GB-SA Perfs 1411'-2084'
 San Andres Perfs 2364'-2876'

Additional Data:
 A) This well was originally drilled and completed as a San Andres oil producer.
 B) Potential oil / gas prod formations that OVERLY proposed injection interval:
 Formation Depth
 7-Rivers 700'
 C) Potential oil / gas prod formations that UNDERLY proposed injection interval:
 Formation Depth
 Yeso 3560'
 Abo 5700'

12-1/4" Hole

8-5/8" 24# @ 530'
 cmt'd w/ 325 sx
 TOC @ surf (circ)

7-7/8" Hole

2-7/8" tubing

Q-GB-SA perfs:
 1411'-2084'

San Andres perfs:
 2364'-2876'

TD @ 4000'

Washington "33" State #10W - PROPOSED

Elevation: 3673 Status: Oil Producer
 KB: 3680 Zone: Q-GB-SA / San Andres
 Meas. TD: 4000 Interval: 1411'-2876'
 TVD: 4000
 PBD: 3956' API: 30-015-30192
 Surf. Loc: 2267' FNL Field: Artesia

Sec: 33 Operator: BP America Prod. Co.
 Twn: 17 S County: Eddy
 Range: 28 E State: NM

Casing	Weight	Depth	Cmt Sx	Hole	TOC	Determine
8-5/8"	24#	530'	325	12-1/4"	Surface	Circ.
5-1/2"	15.5#	4000'	810	7-7/8"	Surface	Circ.

Q-GB-SA Perfs 1411'-2084'
 San Andres Perfs 2364'-2876'

12-1/4" Hole

8-5/8" 24# @ 530'
 cmt'd w/ 325 sx
 TOC @ surf (circ)

7-7/8" Hole

2-3/8" IPC inj tbg w/
 5-1/2" IPC ret tens pkr
 set @ +/- 1350'

Q-GB-SA perfs:
 1411'-2084'

San Andres perfs:
 2364'-2876'

TD @ 4000'

