STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT





GOVERNOR

April 1, 1987

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87501 (505) 827-5800

Shell Western E & P Inc. P. O. Box 991 Houston, Texas 77001

Attention: A. J. Fore

Re: Administrative Order NFL-159

Dear Mr. Fore:

Reference is made to your application for an Infill Well Finding and Well-Spacing Waiver made pursuant to Section 271.305(b) of the Federal Energy Regulatory Commission regulations, Natural Gas Policy Act of 1978, and Oil Conservation Division Order No. R-6013 for the following described well:

North Hobbs Unit Well No. 342 bottom hole location 450 feet from the South line and 1540 feet from the East line (Unit 0) of Section 34, Township 18 South, Range 38 East, NMPM, Lea County, New Mexico.

THE DIVISION FINDS THAT:

- (1) Section 271.305(b) of the Federal Energy Regulatory Commission Interim Regulations promulgated pursuant to the Natural Gas Policy Act of 1978 provides that, in order for an infill well to qualify as a new onshore production well under Section 103 of said Act, the Division must find, prior to the commencement of drilling, that the well is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be so drained by any existing well within that unit, and must grant a waver of existing well-spacing requirements.
- (2) By Division Order No. R-6013, dated June 7, 1979, the Division established an administrative procedure whereby the Division Director and the Division Examiners are empowered to act for the Division and find that an infill well is necessary.

- (3) The well for which a finding is sought is to be completed in the Hobbs Grayburg San Andres Pool, and the standard spacing unit in said pool is 40 acres.
- (4) A standard 40-acre oil proration unit comprising the SW/4 SE/4 of Section 34, Township 18 South, Range 38 East, is currently dedicated to the North Hobbs Unit Well No. 341 located in Unit O of said Section 34.
- (5) Said unit is <u>not</u> being effectively and efficiently drained by the existing wells on the unit.
- (6) The drilling and completion of the well for which a finding is sought should result in the production of an additional 82,800 MCF of gas from the proration unit which would not otherwise be recovered.
- (7) All requirements of Division Order No. R-6013 have been complied with, and the well for which a finding is sought is necessary to effectively and efficiently drain a portion of the reservoir covered by said proration unit which cannot be so drained by any existing well within the unit.
- (8) In order to permit effective and efficient drainage of said proration unit, the subject application should be approved as an exception to the standard well-spacing requirements for the pool.

IT IS THEREFORE ORDERED THAT:

- (1) The applicant is hereby authorized to drill the North Hobbs Unit Well No. 342 as described above, as an infill well on the existing 40-acre oil proration unit comprising the SW/4 SE/4 of Section 34, Township 18 South, Range 38 East, NMPM, Hobbs Grayburg San Andres Pool, Lea County, New Mexico. The authorization for infill drilling granted by this order is an exception to applicable well spacing requirements and is necessary to permit the drainage of a portion of the reservoir covered by said proration unit which cannot be effectively and efficiently drained by any existing well thereon.
- (2) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

Sincerely,

Michael E. Stogner

Examiner

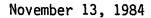


MES/et

xc: Oil Conservation Division - Hobbs

Shell Western E&P Inc.

A Subsidiary of Shell Oil Company





P.O. Box 991 Houston, TX 77001

State of New Mexico Energy and Minerals Department Oil Conservation Division ATTN R. L. Stamets, Director P. O. Box 2088 Santa FE, NM 87501

RECEIVED

NOV 15 1984

OIL CONSERVATION DIVISION

Gentlemen:

SUBJECT:

INFILL DRILLING FINDING

PURSUANT TO SECTION 271.305(b)

FEDERAL ENERGY REGULATORY COMMISSION REGULATIONS,

NATURAL GAS POLICY ACT OF 1978 AND

OIL CONSERVATION DIVISION ORDER NO. R-6013-A

Shell Western E&P Inc. respectfully requests an administrative finding, that the following infill well is necessary to effectively and efficiently drain a portion of the Grayburg/San Andres reservoir:

SHELL WESTERN E&P INC. OPERATED NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT WELL NO. 34-342 HOBBS (GRAYBURG/SAN ANDRES) POOL LEA COUNTY, NEW MEXICO.

N. Hobbs (G/SA) Unit No. 34-342 was drilled as a replacement well for well no. 34-441, which was plugged and abandoned due to irreparable casing damage at approximately 600'. NMOCD CASE No. 7856/Order No. R-7275 dated April 29, 1983, approved the directional drilling of 34-342 at an unorthodox location. Additional data in support of this request is attached.

The only operator of a proration or spacing unit offsetting the proration unit of well no. 34-342 is Amoco Production Company, which operates the South Hobbs (Grayburg/San Andres) Unit. Amoco has been notified by certified mail of this request.

If additional information is required, please advise.

Yours very truly,

A. J. Fore

Supervisor Regulatory and Permitting

Mid-Continent Division

DMU

Attachments

cc: State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 1980
Hobbs, NM 88240

Amoco Production Company P. O. Box 3092 Houston, TX 77253

(CERTIFIED MAIL P 726 891 052)

SUPPORTING DATA ADMINISTRATIVE PROCEDURE FOR EFFECTIVE AND EFFICIENT FINDING SWEPI - N. HOBBS (G/SA) UNIT NO. 34-342 UNIT LETTER "O", SECTION 34, T18S, R37E, NMPM LEA COUNTY, NEW MEXICO

SURFACE LOCATION: 305' FSL AND 1650' FEL TVD: 4370' BOTTOMHOLE LOCATION: 450' FSL AND 1540' FEL TMD: 4390'

SPUD DATE: 12-27-83 COMPLETION DATE: 03-27-84

In 1982 NHU No. 34-441, located in the SW/4 SE/4 of Section 34, experienced irreparable casing failure. By production decline curve analysis (Attachment 1) the loss of No. 34-441 resulted in some 29,000 barrels of Zone I oil being unrecovered at that location. Surface use restrictions prevented the drilling of a straight hole for the replacement well at the old location. Since it was necessary to directionally drill the replacement well (34-342), a decision was made to bottom the well in the existing proration unit of NHU No. 34-341, rather than in the proration unit for No. 34-441 (Attachment 2), based on the following reasons:

- 1. Zone I believed to be producing by a natural water drive and the well which was lost was located and completed near the estimated Zone I water oil contact at 641 feet subsea.
- 2. Zone I was the only producing zone in 34-441.
- 3. Locating the replacement well in the proration unit for No. 34-341 would:
 - a) gain some 50 feet of Zone I structure and recover the reserves left behind when No. 34-441 failed. (Attachment 3)
 - b) Develop some 20 feet of new pay in Zone II which is not present in No. 34-441, and being poorly drained by well No. 34-341.

The replacement well (34-342) was completed in March 1984 pumping 17 BO + 118 MCFG per day. The early practice of drilling near lease lines left areas of poor drainage in many of the 40-acre proration units (Attachment 4). Further support of this is shown on the production decline curve (Attachment 5) for well No. 34-341. The completion of 34-342 into the proration unit of 34-341 had no obvious effect on its production performance.

We have attributed 69,000 barrels of oil + 82.8 MMCFGas to the replacement well. The reserves were determined by decline curve analysis of well No. 34-441 and by volumertic calculations for Zone II.

Zone I - Based on Decline Curve Analysis

qi = 14 BOPD qec = 1 BOPD Annual decline = 15% $\frac{(14-1)365}{0.1625}$ = 29,200 BO Reserves

Zone II Reserves - Based on Volumetric Calculation

A = 20 ac. h = 20' 1-SW = .65 Boi = 1.2 R.E. = .17 Ø = .14

> Gas Reserves - Based on Estimated Ultimate Oil Recovery Applied to the Current Average Producing GOR (August 84) for the North Hobbs Unit

> > 69,000 B0 X 1200 cu ft/bb1 = 82,800 MCF

Based on the foregoing, it is our opinion that the reserves developed by replacement well No. 34-342 are unique and would not be recovered by any other well in the existing proration unit. Therefore, we recommend an effective and efficient finding be made for North Hobbs Unit Well No. 34-342.

NEW MEXICO OIL CONSERVATION COMMISSION WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102 Effective 1-1-65

All distances must be from the outer boundaries of the Section Shell Western E&P Inc. North Hobbs Unit 34-342 nit Letter Section Township County 34 18 South 38 East Lea Actual Footage Location of Well: 305 south 1650 east feet from the line and feet from the Ground Level Elev. Producing Formation Dedicated Acreage: 3607.51 Grayburg/San Andres Hobbs (G/SA) 1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below. 2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and rovalty). 3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc? UNITIZATION XX Yes If answer is "yes," type of consolidation ___ If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.). 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 interests, has been approved by the Commission. CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. A. J. FORE SUPERVISOR REG. & PERMITTING SHELL WESTERN E&P INC. NOV 1 3 1984 I hereby certify that the well location on this plat was plotted from field ler my supervision, and that the same true and correct to the best of my knowledge and belief. Date Surveyed March 22, 1983 Registered Professional Engineer 1650 305 John W. West, NM L.S. 676

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Form C-102 Supersedes C-128 Effective 1-1-65

All distances must be from the outer boundaries of the Section. Operator SHELL WESTERN E&P INC. N. HOBBS (G/SA) UNIT 34-341 Unit Letter Township Range County 18-S Actual Footage Location of Well: feet from the **EAST** feet from the Producing Formation Ground Level Elev. Pool Dedicated Acreage: 3620' GRAYBURG/SAN ANDRES HOBBS (G/SA) Acres 1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below. 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). 3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc? If answer is "yes," type of consolidation _____UNITIZATION X Yes If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.). 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 interests, has been approved by the Commission. **CERTIFICATION** I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. SUPERVISOR REG. & PERMITTING Company SHELL WESTERN E&P INC. NOV 1 3 1984 I heraby certify that the well location shown on this plat was plotted from field nates 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. 2310 Date Surveyed Registered Professional Engineer and/or Land Surveyor Certificate No.

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SWEPI - N. HOBBS (G/SA) UNIT NO. 34-441
UNIT LETTER "P", 400' FSL AND 1190' FEL, SECTION 34, T18S, R38E, NMPM
LEA COUNTY, NEW MEXICO

SPUD DATE: 05-11-44 COMPLETION DATE: 06-06-44 TOTAL DEPTH: 4233'

COMPLETION INTERVAL:4150-4233' OPEN HOLE

PLUGGED & ABANDONED:

Well No. 34-441 had a history of casing problesm with attendant formation damage. During a workover in June 1982 to improve production, severe casing damage was encountered requiring attempts to swage the $5\frac{1}{2}$ " production string at tight spots from 589 to 633 feet. The continuous influx of Red Bed shale through severely corroded casing led to abandonment of workover operations.

NEW MEXICO OIL CONSERVATION COMMISSION WELL LOCATION AND ACREAGE DEDICATION PLAT

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STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING ECALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

RECEIVED

NOV 15 1984

OIL CONSERVATION DIVISION CASE NO. 7856 Order No. R-7275

APPLICATION OF SHELL OIL COMPANY FOR DIRECTIONAL DRILLING AND AN UNORTHODOX LOCATION, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on April 27, 1983, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 29th day of April, 1983, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Shell Oil Company, seeks authority to directionally drill, as an infill well, its Shell-North Hobbs Unit Section 34 Well No. 342 at an unorthodox surface location 305 feet from the South line and 1650 feet from the East line of Section 34, Township 18 South, Range 38 East, to a point no more than 500 feet and no less than 400 feet from the South line and no more than 1590 feet or less than 1490 feet from the East line of Section 34, Township 18 South, Range 38 East at a true vertical depth of 4,400 feet, Hobbs Pool, Lea County, New Mexico.
- (3) That the SW/4 SE/4 of said Section 34 should be dedicated to the well.
- (4) That the applicant should be required to determine the subsurface location of the bottom of the hole by means of a continuous multi-shot directional survey conducted subsequent to said directional drilling, if said well is to be completed as a producing well.

(5) That approval of the subject application will prevent the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Shell Oil Company, is hereby authorized to directionally drill its Shell-North Hobbs Unit Section 34 Well No. 342, an infill well, at an unorthodox surface location, hereby approved, 305 feet from the South line and 1650 feet from the East line of Section 34, Township 18 South, Range 38 East, NMPM, Hobbs Pool, Lea County, New Mexico, to a point no more than 500 feet or less than 400 feet from the South line and no more than 1590 feet or less than 1490 feet from the East line of said Section 34.

PROVIDED HOWEVER, that prior to the above-described directional drilling, the applicant shall establish the location of the kick-off point by conducting a continuous multi-shot directional survey of the well.

PROVIDED FURTHER, that subsequent to the above-described directional drilling, should said well be a producer, a continuous multi-shot directional survey shall be made of the wellbore from total depth to the kick-off point with shot points not more than 100 feet apart; that the operator shall cause the surveying company to forward a copy of the survey report directly to the Santa Fe office of the Division, P. O. Box 2088, Santa Fe, New Mexico 87501, and that the operator shall notify the Division's Hobbs District Office of the date and time said survey is to be commenced.

- (2) That Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depth in addition to measured depths.
- (3) That the SW/4 SE/4 of said Section 34 shall be dedicated to the subject well.
- (4) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

-3-Case No. 7856 Order No. R-7275

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO QIL CONSERVATION DIVISION

JOE D. RAMEY, Director

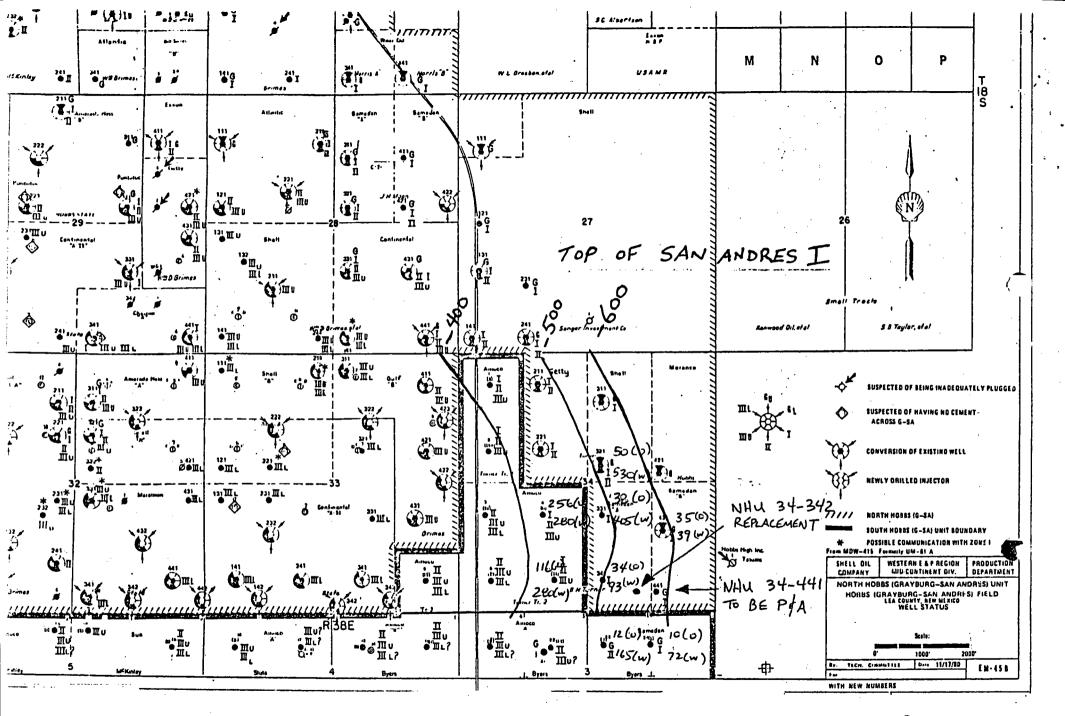
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OIL CONSERVATION DIVISION

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NEW MEXICO OIL CONSERVATION COMMISSION WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-122 Supervedes C-128 Effective 1-1-45

All distances must be from the outer boundaries of the Section , \$ et 3° 71 34-342 North Hobbs Unit SHELL WESTERN E&P INC. 18 South 38 East Lea SURFACE LOCATION/BOTTOMHOLE LOCATION up the trae Location of Well: 305/450 feet ten the 1650/1540 south east line and Grans Level Flev. Freducing Formation Desirates Amesaes 3604.5 GRAYBURG/SAN ANDRES HOBBS (GRAYBURG/SAN ANDRES) 1. Quiling the acreage dedicated to the aubject well by colored pencil or hachure marks on the plat believe. 2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and rovalist 3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consult. dated by communitization, unitization, force-pooling, etc? X Yes -- : No If answer is "yes!" type of consolidation _ UNITIZATION If answer is "no," list the owners and tract descriptions which have actually been consolidated it so reverse side of this form if necessary)_ No allowable will be assigned to the well until all interests have been consolidated the communitization, and vary in forced-pooling, or otherwise for until a non-standard unit, eliminating such interests, has been approved by the Commis-CERTIFICATION I hereby cert to that the information can best of my knowledge and belief & PERMITTING SHELL WESTERN E&P INC MAY 21, 1984 1320'FS- 23/0' FEL North Holbs 66-84 Unit Well No. 341 Shell Western EAF Inc NIHOBER GISA UT SEC 34 Date Surveye: April 2,1934 March 22, 1983 NIHOBBS CLSA Registered i miteasionol Engineer Cummulative prod. 15 04 12 31 84 995 - 680460MIF OIL - 974832 A. C 303

Shell Western E&P Inc.

RECEIVED,

NOV 15 1984

OIL CONSERVATION DIVISION

A Subsidiary of Shell Oil Company



November 13, 1984

P.O. Box 991 Houston, TX 77001

State of New Mexico Energy and Minerals Department Oil Conservation Division ATTN R. L. Stamets, Director P. O. Box 2088 Santa FE, NM 87501

Gentlemen:

SUBJECT: INFILL DRILLING FINDING

PURSUANT TO SECTION 271.305(b)

FEDERAL ENERGY REGULATORY COMMISSION REGULATIONS.

NATURAL GAS POLICY ACT OF 1978 AND

OIL CONSERVATION DIVISION ORDER NO. R-6013-A

Shell Western E&P Inc. respectfully requests an administrative finding, that the following infill well is necessary to effectively and efficiently drain a portion of the Grayburg/San Andres reservoir:

SHELL WESTERN E&P INC. OPERATED
NORTH HOBBS (GRAYBURG/SAN ANDRES) UNIT
WELL NO. 34-342
HOBBS (GRAYBURG/SAN ANDRES) POOL
LEA COUNTY, NEW MEXICO.

N. Hobbs (G/SA) Unit No. 34-342 was drilled as a replacement well for well no. 34-441, which was plugged and abandoned due to irreparable casing damage at approximately 600'. NMOCD CASE No. 7856/Order No. R-7275 dated April 29, 1983, approved the directional drilling of 34-342 at an unorthodox location. Addtional data in support of this request is attached.

The only operator of a proration or spacing unit offsetting the proration unit of well no. 34-342 is Amoco Production Company, which operates the South Hobbs (Grayburg/San Andres) Unit. Amoco has been notified by certified mail of this request.

If additional information is required, please advise.

Yours very truly,

A. J. Fore

Supervisor Regulatory and Permitting

Mid-Continent Division

DMU

Attachments

cc: State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 1980
Hobbs, NM 88240

Amoco Production Company P. O. Box 3092 Houston, TX 77253

(CERTIFIED MAIL P 726 891 052)

SUPPORTING DATA ADMINISTRATIVE PROCEDURE FOR EFFECTIVE AND EFFICIENT FINDING SWEPI - N. HOBBS (G/SA) UNIT NO. 34-342 UNIT LETTER "O", SECTION 34, T18S, R37E, NMPM LEA COUNTY, NEW MEXICO

SURFACE LOCATION: 305' FSL AND 1650' FEL TVD: 4370' BOTTOMHOLE LOCATION: 450' FSL AND 1540' FEL TMD: 4390'

SPUD DATE: 12-27-83 COMPLETION DATE: 03-27-84

In 1982 NHU No. 34-441, located in the SW/4 SE/4 of Section 34, experienced irreparable casing failure. By production decline curve analysis (Attachment 1) the loss of No. 34-441 resulted in some 29,000 barrels of Zone I oil being unrecovered at that location. Surface use restrictions prevented the drilling of a straight hole for the replacement well at the old location. Since it was necessary to directionally drill the replacement well (34-342), a decision was made to bottom the well in the existing proration unit of NHU No. 34-341, rather than in the proration unit for No. 34-441 (Attachment 2), based on the following reasons:

- 1. Zone I believed to be producing by a natural water drive and the well which was lost was located and completed near the estimated Zone I water oil contact at 641 feet subsea.
- 2. Zone I was the only producing zone in 34-441.
- 3. Locating the replacement well in the proration unit for No. 34-341 would:
 - a) gain some 50 feet of Zone I structure and recover the reserves left behind when No. 34-441 failed. (Attachment 3)
 - b) Develop some 20 feet of new pay in Zone II which is not present in No. 34-441, and being poorly drained by well No. 34-341.

The replacement well (34-342) was completed in March 1984 pumping 17 BO + 118 MCFG per day. The early practice of drilling near lease lines left areas of poor drainage in many of the 40-acre proration units (Attachment 4). Further support of this is shown on the production decline curve (Attachment 5) for well No. 34-341. The completion of 34-342 into the proration unit of 34-341 had no obvious effect on its production performance.

We have attributed 69,000 barrels of oil + 82.8 MMCFGas to the replacement well. The reserves were determined by decline curve analysis of well No. 34-441 and by volumertic calculations for Zone II.

Zone I - Based on Decline Curve Analysis

qi = 14 BOPD qec = 1 BOPD $\frac{(14-1)365}{0.1625}$ = 29,200 BO Reserves Annual decline = 15%

Zone II Reserves - Based on Volumetric Calculation

A = 20 ac. h = 20' 1-SW = .65 Boi = 1.2 R.E. = .17 Ø = .14

Gas Reserves - Based on Estimated Ultimate Oil Recovery Applied to the Current Average Producing GOR (August 84) for the North Hobbs Unit

69,000 B0 X 1200 cu ft/bbl = 82,800 MCF

Based on the foregoing, it is our opinion that the reserves developed by replacement well No. 34-342 are unique and would not be recovered by any other well in the existing proration unit. Therefore, we recommend an effective and efficient finding be made for North Hobbs Unit Well No. 34-342.

SWEPI - N. HOBBS (G/SA) UNIT NO. 34-441
UNIT LETTER "P", 400' FSL AND 1190' FEL, SECTION 34, T18S, R38E, NMPM
LEA COUNTY, NEW MEXICO

SPUD DATE: 05-11-44 COMPLETION DATE: 06-06-44 TOTAL DEPTH: 4233'

COMPLETION INTERVAL: 4150-4233' OPEN HOLE

PLUGGED & ABANDONED:

Well No. 34-441 had a history of casing problesm with attendant formation damage. During a workover in June 1982 to improve production, severe casing damage was encountered requiring attempts to swage the $5\frac{1}{2}$ " production string at tight spots from 589 to 633 feet. The continuous influx of Red Bed shale through severely corroded casing led to abandonment of workover operations.

NEW MEXICO OIL CONSERVATION COMMISSION WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C+102 Supersedes C+128 Effective 1-1-65

All distances must be from the outer boundaries of the Section Well No. North Hobbs Unit 34 - 342Shell Western E&P Inc. init Letter Township County 18 South 38 East Lea Actual Footage Location of Well: 305 1650 south east feet from the feet from the Ground Level Elev. Producing Formation Dedicated Acreage: 3607.51 Grayburg/San Andres Hobbs (G/SA) 1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below. 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). 3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc? UNITIZATION XX Yes If answer is "yes," type of consolidation _ If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use-reverse side of this form if necessary.). 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 interests, has been approved by the Commission. CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. A. J. FORE SUPERVISOR REG. & PERMITTING Company SHELL WESTERN E&P INC. NOV 13 1984 I hereby certify that the well location shown on this plat was platted 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 March 22, 1983 Registered Professional Engineer and/or Land Surveyor 1650 305' John W. West, NM L.S. 676

NEW MEXICO OIL CONSERVATION COMMISSION WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102 Supersedes C-128 Effective 1-1-65

All distances must be from the outer boundaries of the Section. Operator N. HOBBS (G/SA) UNIT SHELL WESTERN E&P INC. 34-341 Unit Letter Section Township 18**-**S 38-E LEA Actual Footage Location of Well: feet from the feet from the Producing Formation Ground Level Elev. Dedicated Acreage: 3620' **GRAYBURG/SAN ANDRES** HOBBS_(G/SA) Acres 1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below. 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). 3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc? If answer is "yes," type of consolidation _____UNITIZATION X Yes No If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.). 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 interests, has been approved by the Commis-**CERTIFICATION** I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. SUPERVISOR REG. & PERMITTING SHELL WESTERN E&P INC. NOV 1 3 1984 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 Registered Professional Engineer and/or Land Surveyor Certificate No.

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NEW MEXICO OIL CONSERVATION COMMISSION WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102 Supersedes C-128 Effective 1-1-65

All distances must be from the outer boundaries of the Section.

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Unit Letter	Section	Township		Rang		County		
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STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 7856 Order No. R-7275

APPLICATION OF SHELL OIL COMPANY FOR DIRECTIONAL DRILLING AND AN UNORTHODOX LOCATION, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on April 27, 1983, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this <u>29th</u> day of April, 1983, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Shell Oil Company, seeks authority to directionally drill, as an infill well, its Shell-North Hobbs Unit Section 34 Well No. 342 at an unorthodox surface location 305 feet from the South line and 1650 feet from the East line of Section 34, Township 18 South, Range 38 East, to a point no more than 500 feet and no less than 400 feet from the South line and no more than 1590 feet or less than 1490 feet from the East line of Section 34, Township 18 South, Range 38 East at a true vertical depth of 4,400 feet, Hobbs Pool, Lea County, New Mexico.
- (3) That the SW/4 SE/4 of said Section 34 should be dedicated to the well.
- (4) That the applicant should be required to determine the subsurface location of the boutom of the hole by means of a continuous multi-shot directional survey conducted subsequent to said directional drilling, if said well is to be completed as a producing well.

(5) That approval of the subject application will prevent the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Shell Oil Company, is hereby authorized to directionally drill its Shell-North Hobbs Unit Section 34 Well No. 342, an infill well, at an unorthodox surface location, hereby approved, 305 feet from the South line and 1650 feet from the East line of Section 34, Township 18 South, Range 38 East, NMPM, Hobbs Pool, Lea County, New Mexico, to a point no more than 500 feet or less than 400 feet from the South line and no more than 1590 feet or less than 1490 feet from the East line of said Section 34.

PROVIDED HOWEVER, that prior to the above-described directional drilling, the applicant shall establish the location of the kick-off point by conducting a continuous multi-shot directional survey of the well.

PROVIDED FURTHER, that subsequent to the above-described directional drilling, should said well be a producer, a continuous multi-shot directional survey shall be made of the wellbore from total depth to the kick-off point with shot points not more than 100 feet apart; that the operator shall cause the surveying company to forward a copy of the survey report directly to the Santa Fe office of the Division, P. O. Box 2088, Santa Fe, New Mexico 87501, and that the operator shall notify the Division's Hobbs District Office of the date and time said survey is to be commenced.

- (2) That Form C-105 shall be filed in accordance with Division Rule 1105 and the operator shall indicate thereon true vertical depth in addition to measured depths.
- (3) That the SW/4 SE/4 of said Section 34 shall be dedicated to the subject well.
- (4) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

-3-Case No. 7856 Order No. R-7275

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO TO TO SERVATION DIVISION

JOE D. RAMEY Director

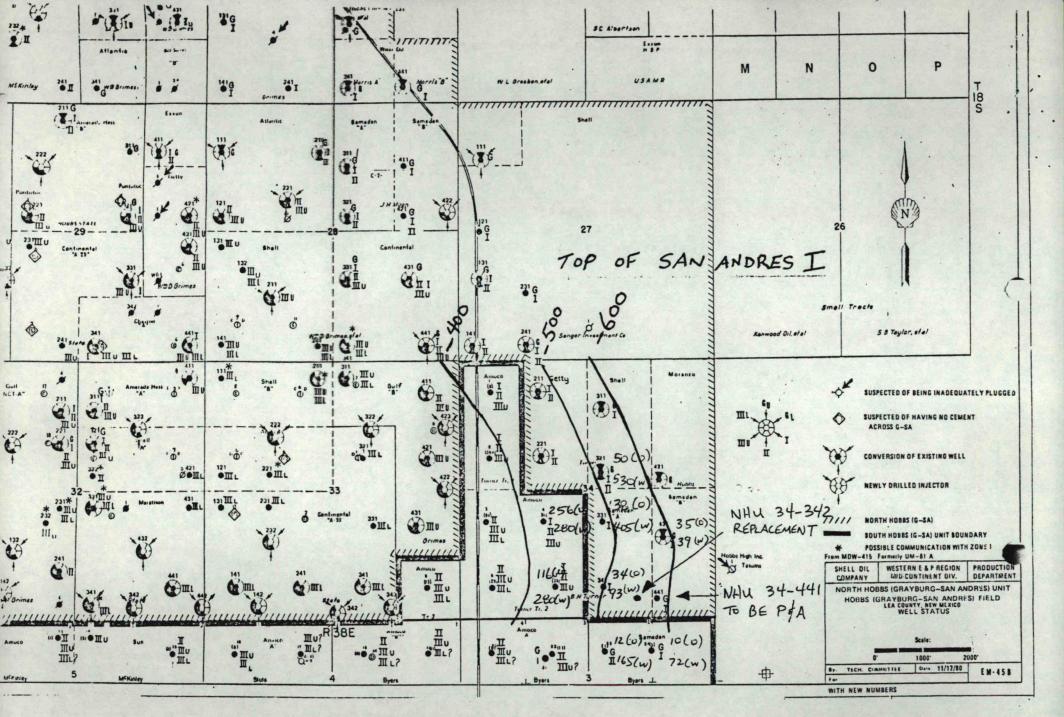
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2. Name of Operator	•	8. Form or Lease Name
	ERN E&P INC.	SECTION 34
J. Address of Opera	tor	9. Well No.
P. O. BOX	991, HOUSTON, TX 77001	441
4. Location of Well		IC. Field and Fool, or Wildcat
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17. Describe Propo wprk; SEE RUS	sed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including . £ 1703.	extimated date of starting any propose-
	Filled hole w/10# brine water. Tagged TD @ 4233'. Spotted f "C" cmt. WOC 2 hrs. Tagged TOC @ 4150' (bottom of 5-1/2" cs tional 6 sx Class "C" cmt w/ bottom of tubing @ 4133'. TOC @ plug w/23 sx Class "C" cmt w/ bottom of tubing @ 3573'. TOC plug w/11 sx Class "C" cmt w/ bottom of tubing @ 2746'. TOC hole clean.	g). Spotted an addi- 3950'. Spotted second @ 3357'. Spotted third
6-01-84:	Perforated @ Top of Salt (1750') w/ a 4-way jet gun. Spotted surface. Cut casing off 4' below surface and welded on a dry and leveled location. Well is now plugged and abandoned.	plug from 1765' to hole marker. Cleaned
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OCTOBER 25, 1984

& PERMITTING

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



Attachment 3

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