STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
P. O. Box 2088
SANTA FE, NEW MEXICO
87501

ADMINISTRATIVE ORDER

NFL 54

INFILL DRILLING FINDINGS 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-A

I.

Operator Shell Oil Company Well Name and No. Livingston Well No. 13

Location: Unit I Sec. 4 Twp. 21-S Rng. 37-E Cty. Lea

II.

THE DIVISION FINDS:

(1) That Section 271.305(b) of the Federal Energy Regulatory Commission 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 that the infill 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.

(2) That by Order No. R-6013-A, dated February 8, 1980, 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) That the well for which a finding is sought is completed in the Blinebry Oil and Gas Pool, and the standard spacing unit in said pool is 40 acres.

(4) That a 40-acre proration unit comprising the NE/4 SE/4 of Sec. 4, Twp. 21-S, Rng. 37-E, is currently dedicated to the Livingston Well No. 12 located in Unit I of said section.

(5) That this proration unit is (X) standard ( ) nonstandard; if nonstandard, said unit was previousl approved by Order No. ---.

(6) That said proration unit is not being effectively and efficiently drained by the existing well(s) on the unit.

(7) That the drilling and completion of the well for which a finding is sought should result in the production of an additional 128,000 MCF of gas from the proration unit which would not otherwise be recovered.

(8) That all the requirements of Order No. R-6013-A have been complied with, and that 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.

(9) That in order to permit effective and efficient drainage of said proration unit, the subject application should be approved.

IT IS THEREFORE ORDERED:

(1) That the applicant is hereby authorized to drill the well described in Section I above as an infill well on the existing proration unit described in Section II(4) above. The authorization for infill drilling granted by this order 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) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on this 23rd day of June, 1982.

DIVISION DIRECTOR _____ EXAMINER _____

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

June 7, 1982

Shell Oil Company
P.O. Box 991
Houston, Texas 77001

ATTENTION: Mr. A. J. Fore

Re: Application for NGPA Infill Well Findings Under Provisions of Order No. R-6013-A Livingston

Well No. 13, Unit I, Section 4,

Township 21 South, Range 37 East,

Lea County

Dear Mr. Fore:

We may not process the subject application for infill findings until the required information, forms, or plats checked on the reverse side of this letter are submitted.

Sincerely,

Michael E. Stogner

Michael E. Stogner,
Petroleum Engineer

MES/dp

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JUN 15 1982
OIL CONSERVATION DIVISION
SANTA FE

- [ ] A copy of Form C-101 must be submitted.
- [ ] A copy of Form C-102 must be submitted.
- [ ] The pool name must be shown.
- [ ] The standard spacing unit size for the pool must be shown.
- [ ] Give the Division Order No. which granted the non-standard proration unit.
- [ ] Please state whether or not the well has been spudded and give the spud date, if any.
- [ ] Information relative to other wells on the proration unit is incomplete.

- [X] The geologic and reservoir data is incomplete or insufficient.

Include in your ultimate recovery calculations the amount of gas this well is expected to produce.

- [X] Other:

Please submit three copies of this application.

NFL

Shell Oil Company

P.O. Box 991
Houston, Texas 77001

April 21, 1982

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Gentlemen:

SUBJECT: ADMINISTRATIVE PROCEDURE
EFFECTIVE AND EFFICIENT FINDING
SHELL-LIVINGSTON NO. 13
BLINEBRY AND DRINKARD POOLS
LEA COUNTY, NEW MEXICO

Shell Oil Company respectfully requests an administrative finding that its Livingston No. 13 is necessary to effectively and efficiently drain a portion of the reservoir covered by the proration unit which cannot be drained by an existing well within that proration unit. Supporting data for this request is attached. Operators of proration units offsetting the subject unit are shown on the attached mailing list and have been notified by registered mail of Shell's application.

Should you require additional information, please advise.

Yours very truly,

A. J. Fore
Supervisor Regulatory and Permitting
Mid-Continent Division

AJF/dmb

Attachments

SUPPORTING DATA
ADMINISTRATIVE PROCEDURE FOR EFFECTIVE AND EFFICIENT FINDING
SHELL-LIVINGSTON NO. 13
PRORATION UNIT LETTER I, SECTION 4, T-21-S, R-37-E
LEA COUNTY, NEW MEXICO

NAME OF POOL: BLINEBRY OIL AND GAS — CURRENT PRODUCING ZONE

40 ACRES

DRINKARD OIL AND GAS — APPLICATION TO DOWNHOLE COMMINGLE PENDING

40 ACRES

C-101, C-102, and C-105 Attached

SHELL-LIVINGSTON NO. 12 (T.A. 6-26-70)
UNIT LETTER I, 560 FEL and 4620 FSL, SECTION 4, T-21-S, R-37-E
LEA COUNTY, NEW MEXICO

SPUD: 12-22-61
TD 6750'
PBTD: 6712'
COMPLETED: 2-5-62
CASING: 3 Strings 2 7/8" tbg run to 6745' and cemented w/635 sx cmt.

Livingston No. 12 is a tubingless completion utilizing three strings of 2 7/8" casing. Completion was effected in the Blinebry, Tubb and Drinkard pools as follows:

			CUM PRODUCTION
Blinebry perfs:	5769'-5809'	TA 6-26-70	38,101 BO + 361 MMCF
Tubb perfs:	6163'-6326'	TA 5-26-62	Never Produced
Drinkard perfs:	6543'-6603'	TA 2-01-65	1,506 BO + 21 MMCF

Livingston No. 12 was TA'd in 1970 when the well ceased to produce commercial quantities of oil and gas. The Drinkard zone was abandoned in 1962, producing only 1 BOPD, and requiring regular swabbing to keep the well flowing. The Blinebry zone was abandoned in 1970 at the same production level. Due to the downhole mechanical configuration of three 2 7/8" casing strings cemented in the wellbore, installation of artifical lift (beam pump) is extremely difficult if not impossible. The slim-line tools designed for 2 7/8" casing have a history of mechanical problems. Beam pumping the well requires running a 2 1/16" tubing inside the 2 7/8" casing. The small annular space between the strings is not sufficient for venting of gas; therefore, the downhole pump will not operate efficiently. Due to the fact artifical lift cannot be installed on Livingston No. 12, the well cannot effectively and efficiently drain the reservoir and no remaining reserves can be attributed to the well. We propose to plug and abandon Livingston No. 12 in the near future.

30-025-26990

STATE OF NEW MEXICO
GY AND MINERALS DEPARTMENT

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OIL CONSERVATION DIVISION

P. O. BOX 2088
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Form C-101
Revised 10-1-78

5A. Indicate Type of Lease STATE [ ] FEE [X]

5. State Oil & Gas Lease No.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

Type of Work
DRILL [X] DEEPEN [ ] PLUG BACK [ ]

Type of Well
OIL WELL [X] GAS WELL [ ] OTHER SINGLE ZONE [X] MULTIPLE ZONE [ ]

7. Unit Agreement Name

8. Farm or Lease Name
Livingston

Name of Operator
Shell Oil Company

9. Well No.
13

Address of Operator
P.O. Box 991, T&C 237, Houston, TX 77001

10. Field and Pool, or Wildcat
~~Brunson~~/ ~~Fusselman~~
BRUNSON

Location of Well
UNIT LETTER I LOCATED 467 FEET FROM THE east LINE
3330 FEET FROM THE north LINE OF SEC. 4 TWP. 21S RGE. 37E NMPM

12. County
Lea

19. Proposed Depth	19A. Formation	20. Rotary or C.T.
8200'	Fusselman	Rotary

Elevations (Show whether DF, RT, etc.)	21A. Kind & Status Plug. Bond	21B. Drilling Contractor	22. Approx. Date Work will start
3465' GR	Blanket	Tom Brown Drilling Co.	September 1, 1980

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
22"	20"	conductor	40'	40sx Redi Mix	surface
17 1/2"	13 3/8"	54.5#K55 STC	1200'	850sxLite+250sxC	surface
12 1/4"	9 5/8"	36#K55 STC	3910'	745sxLite+250sxC	1100'
8 3/4"	7"	26#,23#, 20#	8165'	820sx ClassH	3800'

BOP 3MR - 10 SRRAG

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SANTA FE

APPROVAL VALID
FOR 90 DAYS UNLESS
DRILLING COMMENCED,
EXPIRES 11/18/80

OVE 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.

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

Signed A.J. Fore Name A.J. Fore Title Senior Engineering Technician Date 8/12/80

(This space for State Use)

APPROVED BY [signature] TITLE SUPERVISOR DISTRICT DATE

CONDITIONS OF APPROVAL, IF ANY:

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	Lease	Well No.
Shell Oil Co.	Shell-Livingston	13

Unit Letter	Section	Township	Range	County
I	4	21 South	37 East	Lea

Actual Footage Location of Well:
3330 feet from the North line and 467 feet from the East line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3452.9			Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

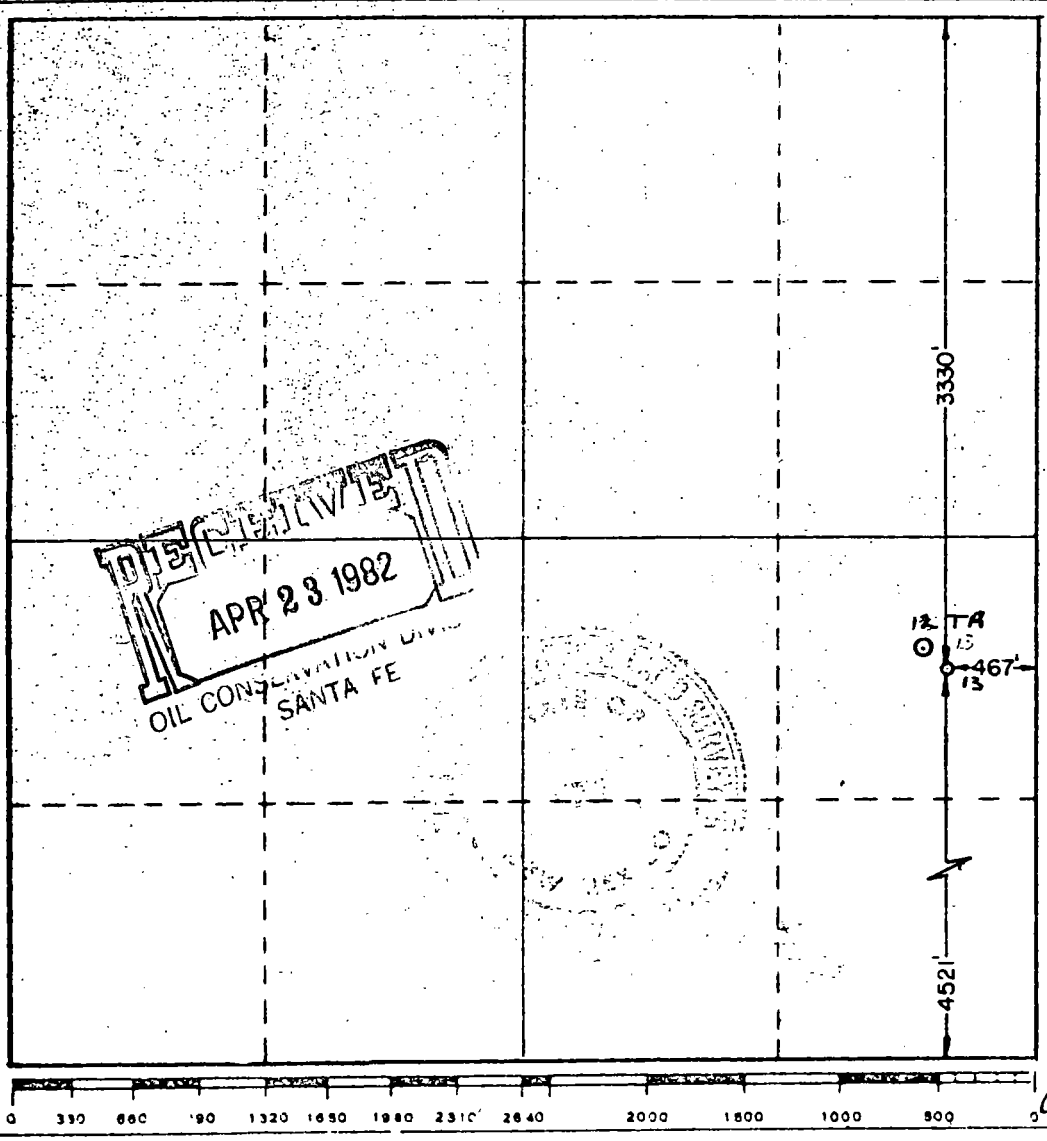
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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?

☐ Yes ☐ No 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.

Name

Position

Company

Date

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
July 16, 1980

Registered Professional Engineer and/or Land Surveyor

John W. West

Certificate No. JOHN W. WEST 676
PATRICK A. ROMERO 6668
Ronald J. Eidson 3239

Corrected Formation Tops

NEW MEXICO MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

API # 30-025-26990

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5a. Indicate Type of Lease: State [ ] Fee [ ]

5. State Oil & Gas Lease No.

1a. TYPE OF WELL: OIL WELL [XX] GAS WELL [ ] DRY [ ] OTHER

1b. TYPE OF COMPLETION: NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] DIFF. RESVR. [ ] OTHER

7. Unit Agreement Name

8. Farm or Lease Name: LIVINGSTON

2. Name of Operator: SHELL OIL COMPANY

9. Well No.: 13

3. Address of Operator: P. O. BOX 991, HOUSTON, TEXAS 77001

10. Field and Pool, or Wildcat: BLINEBRY

4. Location of Well: UNIT LETTER I LOCATED 467 FEET FROM THE EAST LINE AND 3330 FEET FROM THE NORTH LINE OF SEC. 4 TWP. 21-S RGE. 37-E NMPM

12. County: LEA

15. Date Spudded	16. Date T.D. Reached	17. Date Compl. (Ready to Prod.)	18. Elevations (DF, RKB, RT, GR, etc.)	19. Elev. Cashinghead
10-09-80	11-04-81	11-18-81	3452' GL, 3470' DF	----

20. Total Depth	21. Plug Back T.D.	22. If Multiple Compl., How Many	23. Intervals Drilled By	Rotary Tools	Cable Tools
8156'	7350'	----	→	X	

24. Producing Interval(s), of this completion — Top, Bottom, Name: 5637' - 5993' (BLINEBRY)

25. Was Directional Survey Made: NO

26. Type Electric and Other Logs Run: CNL-FDC, DLL, CBL, MLL

27. Was Well Cored: NO

CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT LB./FT.	DEPTH SET	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13 3/8"	61#	1190'	17 1/2"	735 sx LITE + 200 sx Cl C	
9 5/8"	36#	3500'	12 1/4"	1000 sx LITE + 200 sx Cl C	
7"	20, 23, 26#	8153'	8 3/8"	1720 sx Class "H"	

28. LINER RECORD					30. TUBING RECORD		
SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN	SIZE	DEPTH SET	PACKER SET
					2"	6024'	

29. Perforation Record (Interval, size and number)

5637' - 5993' (52 1/2" holes)

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SANTA FE

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED
5637' - 5993'	ACIDIZED W/8,000 GALS 15% NE ACID.

33. PRODUCTION

Date First Production	Production Method (Flowing, gas lift, pumping — Size and type pump)	Well Status (Prod. or Shut-in)
11-19-81	PUMPING 2" X 1 1/2" X 16' CONTINENTAL EMSCO PUMP	PRODUCING

Date of Test	Hours Tested	Choke Size	Prod'n. For Test Period →	Oil — Bbl.	Gas — MCF	Water — Bbl.	Gas — Oil Ratio
11-18-81	24	---		7	58	6	8285

Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate →	Oil — Bbl.	Gas — MCF	Water — Bbl.	Oil Gravity — API (Corr.)
35	40					38.2

34. Disposition of Gas (Sold, used for fuel, vented, etc.): SOLD

Test Witnessed By

35. List of Attachments: INCLINATION REPORT, LOGS, C-104

36. 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.

SIGNED Eddie Curtis for A. J. FORE TITLE SUPERVISOR REG. & PERMITTING DATE FEBRUARY 11, 1982

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radioactivity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, Items 30 through 34 shall be reported for each zone. This form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico				Northwestern New Mexico			
T. Anhy	1222'	T. Canyon		T. Ojo Alamo		T. Penn. "B"	
T. Salt		T. Strawn		T. Kirtland-Fruitland		T. Penn. "C"	
B. Salt		T. Atoka		T. Pictured Cliffs		T. Penn. "D"	
T. Yates		T. Miss		T. Cliff House		T. Leadville	
T. 7 Rivers		T. Devonian		T. Menefee		T. Madison	
T. Queen		T. Silurian		T. Point Lookout		T. Elbert	
T. Grayburg		T. Montoya	7892'	T. Mancos		T. McCracken	
T. San Andres		T. Simpson		T. Gallup		T. Ignacio Qtzte	
T. Glorieta		T. McKee		Base Greenhorn		T. Granite	
T. Paddock		T. Ellenburger		T. Dakota		T.	
T. Blinebry	5684'	T. Gr. Wash		T. Morrison		T.	
T. Tubb	6170'	T. Granite		T. Todilto		T.	
T. Drinkard	6526'	T. Delaware Sand		T. Entrada		T.	
T. Abo		T. Bone Springs		T. Wingate		T.	
T. Wolfcamp		T.	FUSSELMAN 7396 *	T. Chinle		T.	
T. Penn.		T.		T. Permian		T.	
T Cisco (Bough C)		T.		T. Penn. "A"		T.	

OIL OR GAS SANDS OR ZONES

No. 1, from _____ to _____ No. 4, from _____ to _____

No. 2, from _____ to _____ No. 5, from _____ to _____

No. 3, from _____ to _____ No. 6, from _____ to _____

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from _____ to _____ feet _____

No. 2, from _____ to _____ feet _____

No. 3, from _____ to _____ feet _____

No. 4, from _____ to _____ feet _____

FORMATION RECORD (Attach additional sheets if necessary)

From	To	Thickness in Feet	Formation	From	To	Thickness in Feet	Formation
0	1222'		RED BEDS				
1222'	2286'		ANHYDRITE & SALT				
2286'	3165'		DOLOMITE, LIME				
3165'	5684'		LIME				
5684'	6526'		DOLOMITE				

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OIL CONSERVATION DIV.

SHELL-LIVINGSTON NO. 13
UNIT LETTER I, 467 FEL and 4521 FSL, SECTION 4, T-21-S, R-37-E
LEA COUNTY, NEW MEXICO

SPUD: 10-09-80
TD: 8156'
PBTD: 7350'
COMPLETED: 11-18-81
CASING: 7" @ 8153'

Livingston No. 13 was originally permitted to test the Fusselman zone at this location. Extensive production testing failed to establish Fusselman production and the well was subsequently plugged back and completed as a marginal replacement well for No. 12. Livingston No. 13 was completed 11-18-81 pumping 7 BOPD + 58 MCF from the Blinebry. The indicated rate from the Drinkard prior to isolating with a retrievable bridge plug was 5 BOPD + Gas TSTM. An application to commingle the Blinebry and Drinkard production within the wellbore is currently pending before the NMOCD. Producing the replacement well should yield an increased expected recovery of $\pm$ 13,500 BO from the Blinebry formation and $\pm$ 2,000 BO from the Drinkard formation. Downhole commingling the production will more efficiently produce the reservoirs. The expected increase was determined using an initial production rate of 7 BO for the Blinebry and 2 BO for the Drinkard, with an effective annual decline of 15%/yr for each zone. Assuming exponential decline:

$$Q + (qo - q)(365/a)$$

Where: Q = cumulative production

qo = initial rate (bbl/day)

q = economic limit (assumed 1 bbl/day)

a = nominal annual decline

Blinebry zone: $Q = (7 - 1)(365/.162519)$

$Q = 13475$ BO

Drinkard zone: $Q = (2 - 1)(365/.162519)$

$Q = 2200$ BO

SHELL - LIVINGSTON NO. 13
(OFFSET OPERATORS)

M. R. ANTWEIL
P. O. BOX 2010
HOBBS, NEW MEXICO 88240

W. K. BYROM
P. O. BOX 147
HOBBS, NEW MEXICO 88240

CONOCO OIL COMPANY
P. O. BOX 460
HOBBS, NEW MEXICO 88240

GULF OIL COMPANY
P. O. BOX 1150
MIDLAND, TEXAS 79702

EXXON COMPANY U. S. A.
BOX 1600
MIDLAND, TEXAS 79702

P26 8680489

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)

SENT TO
GULF OIL COMPANY
STREET AND NO.
P. O. BOX 1150
P.O., STATE AND ZIP CODE
MIDLAND, TX 79702

POSTAGE		$
CONSULT POSTMASTER FOR FEES		
OPTIONAL SERVICES	CERTIFIED FEE	¢
	SPECIAL DELIVERY	¢
	RESTRICTED DELIVERY	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢
TOTAL POSTAGE AND FEES		$

POSTMARK OR DATE
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WCK 4434
APRIL 21, 1982

PS Form 3800, Apr. 1976

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SENT TO
CONOCO OIL COMPANY
STREET AND NO.
P. O. BOX 460
P.O., STATE AND ZIP CODE
HOBBS, NM 88240

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CONSULT POSTMASTER FOR FEES		
OPTIONAL SERVICES	CERTIFIED FEE	¢
	SPECIAL DELIVERY	¢
	RESTRICTED DELIVERY	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢
TOTAL POSTAGE AND FEES		$

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WCK 4434
APRIL 21, 1982

PS Form 3800, Apr. 1976

P26 8680487

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(See Reverse)

SENT TO
W. K. BYROM
STREET AND NO.
P. O. BOX 147
P.O., STATE AND ZIP CODE
HOBBS, NM 88240

POSTAGE		$
CONSULT POSTMASTER FOR FEES		
OPTIONAL SERVICES	CERTIFIED FEE	¢
	SPECIAL DELIVERY	¢
	RESTRICTED DELIVERY	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢
TOTAL POSTAGE AND FEES		$

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WCK 4434
APRIL 21, 1982

PS Form 3800, Apr. 1976

P26 8680486

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(See Reverse)

SENT TO
M. R. ANTWEIL
STREET AND NO.
P. O. BOX 2010
P.O., STATE AND ZIP CODE
HOBBS, NM 88240

POSTAGE		$
CONSULT POSTMASTER FOR FEES		
OPTIONAL SERVICES	CERTIFIED FEE	¢
	SPECIAL DELIVERY	¢
	RESTRICTED DELIVERY	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	¢
	RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	¢
TOTAL POSTAGE AND FEES		$

POSTMARK OR DATE
A. J. FORE
WCK 4434
APRIL 21, 1982

PS Form 3800, Apr. 1976

CERTIFIED MAIL P26 8680489

CERTIFIED MAIL P26 8680488

CERTIFIED MAIL P26 8680487

CERTIFIED MAIL P26 8680486

CERTIFIED MAIL P26 8680490

PS Form 3800, Apr. 1976

POSTAGE		$
CONSULT POSTMASTER FOR FEES		
OPTIONAL SERVICES	CERTIFIED FEE	
	SPECIAL DELIVERY	
	RESTRICTED DELIVERY	
	RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED	
	RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE, AND ADDRESS OF DELIVERY	
	RETURN RECEIPT SERVICE — SHOW TO WHOM AND DATE DELIVERED WITH RESTRICTED DELIVERY	
	RETURN RECEIPT SERVICE — SHOW TO WHOM, DATE AND ADDRESS OF DELIVERY WITH RESTRICTED DELIVERY	
TOTAL POSTAGE AND FEES		$

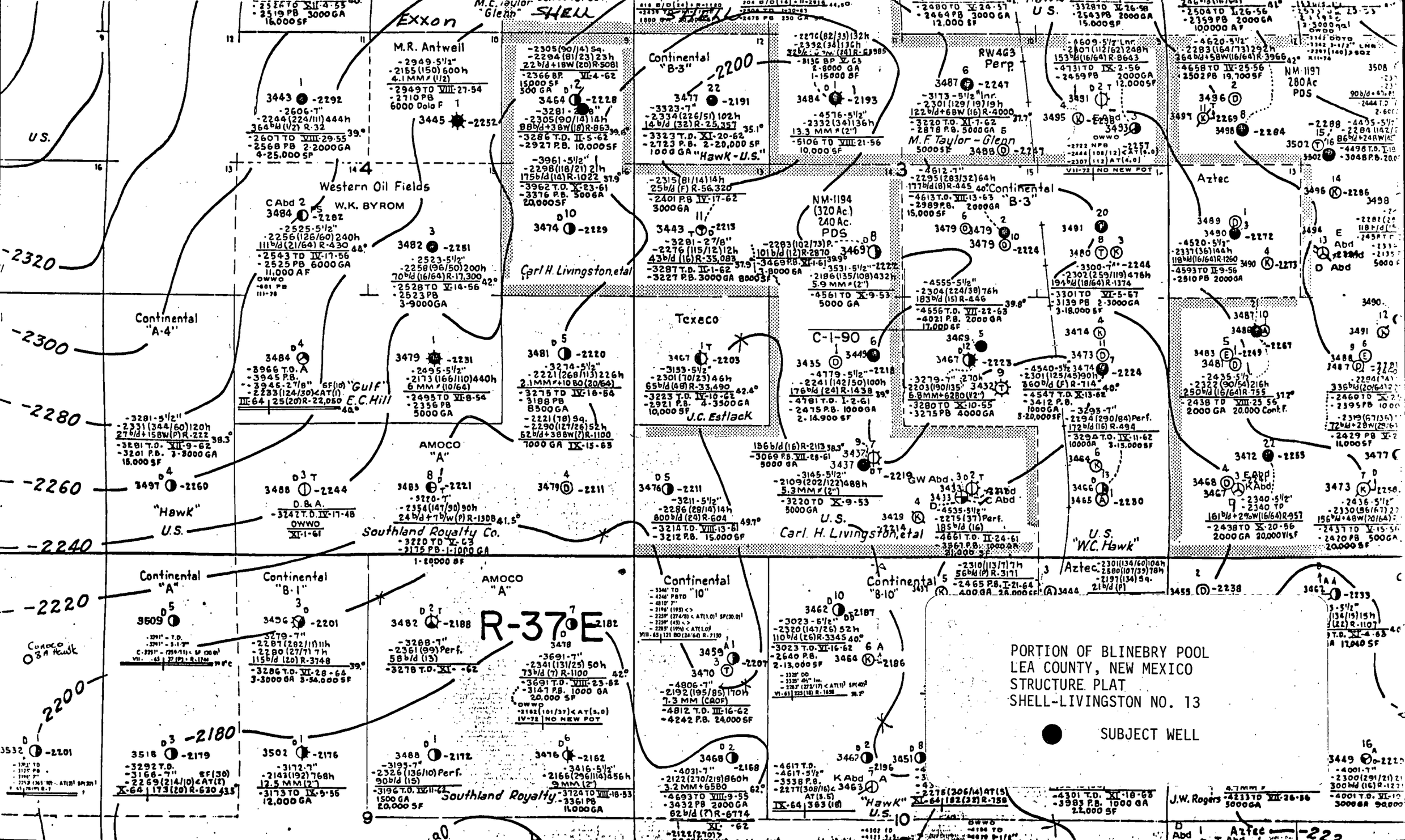
POSTMARK OR DATE
A. J. FORE
WCK 4434
APRIL 21, 1982

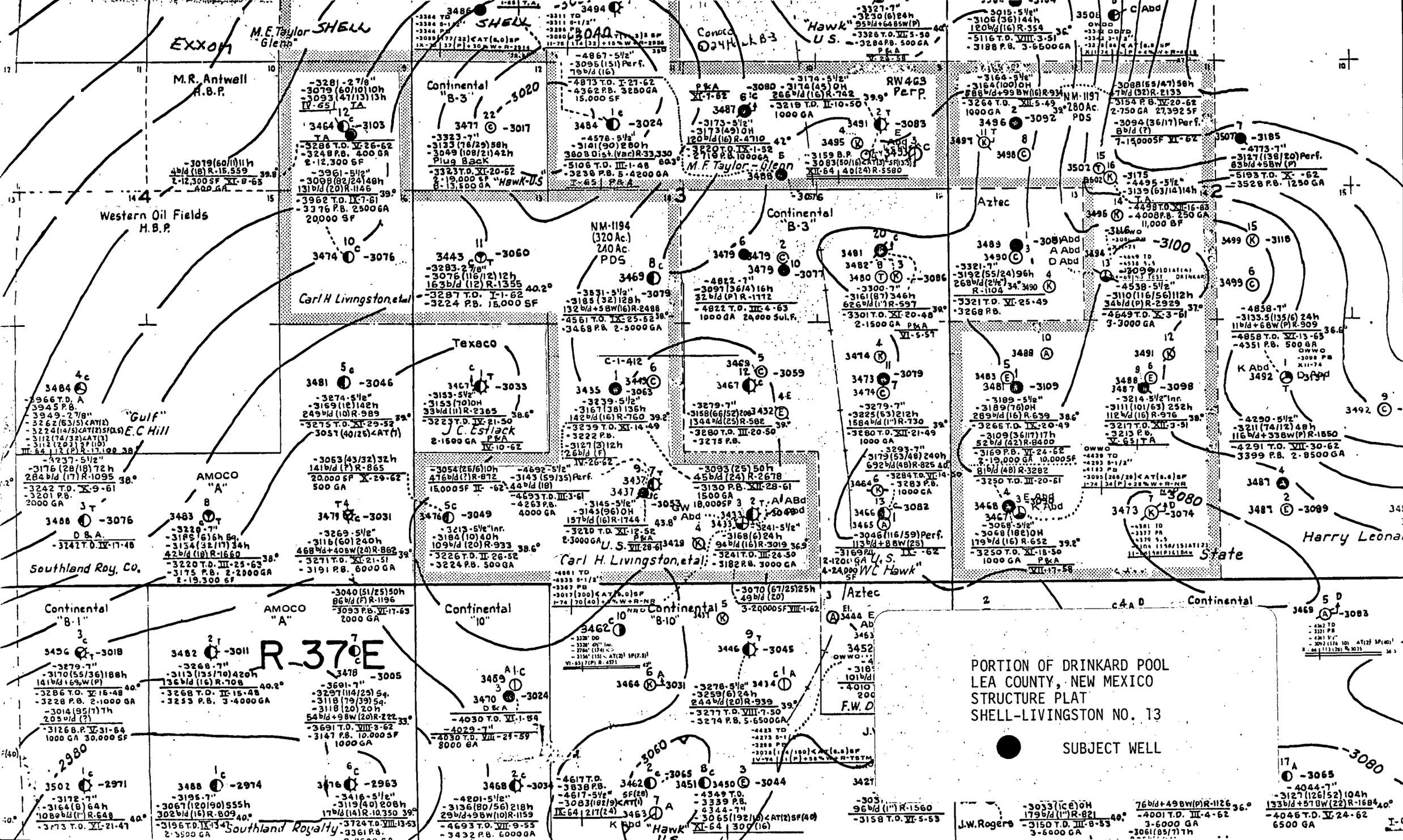
SENT TO
EXXON COMPANY U. S. A.
STREET AND NO.
BOX 1600
P.O., STATE AND ZIP CODE
MIDLAND, TX 79702

P26 8680490

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL
(See Reverse)


PORTION OF BLINEBRY POOL
LEA COUNTY, NEW MEXICO
STRUCTURE PLAT
SHELL-LIVINGSTON NO. 13
SUBJECT WELL
R-37-E
Exxon
M.R. Antwell
Western Oil Fields
W.K. BYROM
Continental "A-4"
Continental "B-3"
Continental "A"
Continental "B-1"
Continental "B-10"
Texaco
J.C. Estlack
Carl H. Livingston, etal
Southland Royalty Co.
Southland Royalty
AMOCO "A"
M.F. Taylor - Glenn
RW 463 Perp.
NM-1194 (320 Ac.) 240 Ac. PDS
NM-1197 280 Ac. PDS
C-1-90
Aztec
U.S.
"Hawk"
"Gulf" E.C. Hill
"W.C. Hawk"
J.W. Rogers


R-37-E
PORTION OF DRINKARD POOL
LEA COUNTY, NEW MEXICO
STRUCTURE PLAT
SHELL-LIVINGSTON NO. 13
SUBJECT WELL
Exxon
M.E. Taylor "Glenn"
SHELL
Conoco
"Hawk" U.S.
M.R. Antwell H.B.P.
Continental "B-3"
Western Oil Fields H.B.P.
Carl H Livingston, et al
NM-1194 (320 Ac.) 240 Ac. PDS
M.F. Taylor - Glenn
RW 463 Perp.
NM-1197 280 Ac. PDS
Aztec
Texaco
J.C. Estlack
AMOCO "A"
"Gulf" E.C. Hill
Southland Roy. Co.
U.S. "WC Hawk"
Harry Leonard
State
Continental "B-1"
Continental "10"
Continental "B-10"
F.W. D
Southland Royalty
J.W. Rogers

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

May 17, 1982

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

Shell Oil Company
P. O. Box 991
Houston, Texas 77001

Attention: Mr. A. J. Fore, Supervisor

Administrative Order No. DHC-361
Livingston Well No. 13, NE/4 SE/4
Sec. 4, T-21-S, R-37-E, NMPM,
Lea County, New Mexico
Blinebry Oil and Gas and Drinkard
Pools

Gentlemen:

Reference is made to your recent application for an exception to Rule 303-A of the Division Rules and Regulations for the subject dually completed well to permit the removal of the down-hole separation equipment and to commingle the production from both pools in the wellbore.

It appearing that the subject well qualifies for approval for such exception pursuant to the provisions of Rule 303-C, and that reservoir damage or waste will not result from such down-hole commingling, and correlative rights will not be violated thereby, you are hereby authorized to commingle the production as described above and Division Order No. MC-2865, which authorized the dual completion and required separation of the zones, is hereby placed in abeyance.

In accordance with the provisions of Rule 303-C, total commingled oil production from the subject well shall not exceed 40 barrels per day, and total water production from the well shall not exceed 80 barrels per day. The maximum amount of gas which may be produced daily from the well shall be determined by multiplying 4000 by top unit allowable for the Blinebry Oil and Gas Pool.

Assignment of allowable to the well and allocation of production from the well shall be on the following basis:

Upper Pool: Oil 75%, Gas 100%
Lower Pool: Oil 25%, Gas 0%

Pursuant to Rule 303-C 5, the commingling authority granted by this order may be rescinded by the Division Director if, in his opinion, conservation is not being best served by such commingling.

Very truly yours,

JOE D. RAMEY,
Division Director

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

LARRY KEHOE
SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-2434

June 7, 1982

Shell Oil Company
P.O. Box 991
Houston, Texas 77001

ATTENTION: Mr. A. J. Fore

Re: Application for NGPA Infill Well Findings Under Provisions of Order No. R-6013-A Livingston

Well No. 13, Unit I, Section 4,

Township 21 South, Range 37 East,

Lea County

Dear Mr. Fore:

We may not process the subject application for infill findings until the required information, forms, or plats checked on the reverse side of this letter are submitted.

Sincerely,

Michael E. Stogner

Michael E. Stogner,
Petroleum Engineer

MES/dp

☐ A copy of Form C-101 must be submitted.

☐ A copy of Form C-102 must be submitted.

☐ The pool name must be shown.

☐ The standard spacing unit size for the pool must be shown.

☐ Give the Division Order No. which granted the non-standard proration unit.

☐ Please state whether or not the well has been spudded and give the spud date, if any.

☐ Information relative to other wells on the proration unit is incomplete.

☒ The geologic and reservoir data is incomplete or insufficient.

Include in your ultimate recovery calculations the amount of gas this well is expected to produce.

☒ Other:

Please submit three copies of this application.

Shell Oil Company

P.O. Box 991
Houston, Texas 77001

June 10, 1982

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
Attn: Mr. Michael E. Stogner
P. O. Box 2088
Santa Fe, New Mexico 87501

Dear Mr. Stogner:

SUBJECT: APPLICATION FOR NGPA INFILL WELL FINDINGS
UNDER PROVISIONS OF ORDER NO. R-6013-A
SHELL-LIVINGSTON NO. 13
UNIT I, SECTION 4, T-21-S, R-37-E
LEA COUNTY, NEW MEXICO

Please find attached three (3) copies of our calculations for the ultimate gas recovery for the subject well as requested in your letter dated June 7, 1982.

Yours very truly,

A. J. Fore
Supervisor Regulatory and Permitting
Mid-Continent Division

AJF:dmb

Attachments

SHELL-LIVINGSTON NO. 13
UNIT LETTER I, 467 FEL AND 4521 FSL, SECTION 4, T-21-S, R-37-E
LEA COUNTY, NEW MEXICO

SPUD: 10-09-80
TD: 8156'
PBTD: 7350'
COMPLETED: 11-18-81
CASING: 7" @ 8153'

Livingston No. 13 was originally permitted to test the Fusselman zone at this location. Extensive production testing failed to establish Fusselman production and the well was subsequently plugged back and completed as a marginal replacement well for No. 12. Livingston No. 13 was completed 11-18-81 pumping 7 BOPD + 58 MCF from the Blinebry. The indicated rate from the Drinkard Prior to isolating with a retrievable bridge plug was 5 BOPD + Gas TSTM. An application to commingle the Blinebry and Drinkard production within the wellbore is currently pending before the NMOCD. Producing the replacement well should yield an increased expected recovery of ± 13,500 BO from the Blinebry formation and ± 2,000 BO from the Drinkard formation. Downhole commingling the production will more efficiently produce the reservoirs. The expected increase was determined using an initial production rate of 7 BO for the Blinebry and 2 BO for the Drinkard, with an effective annual decline of 15%/yr for each zone. Assuming exponential decline:

$$Q + (qo - q)(365/a)$$

Where: Q = cumulative production

qo = initial rate (bbl/day)

q = economic limit (assumed 1 bbl/day)

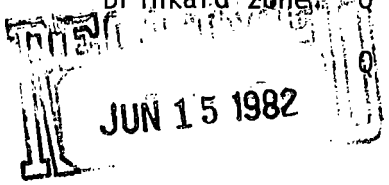
a = nominal annual decline

Blinebry zone: $Q = (7 - 1)(365/.162519)$

$Q = 13475$ BO

Drinkard zone: $Q = (2-1)(365/.162519)$

$Q = 2200$ BO



GAS RESERVE CALCULATIONS

Gas reserves for Shell-Livingston No. 13 was estimated by applying the lifetime GOR of Livingston No. 12, the TA'd well being replaced, to the estimated oil reserves of No. 13 as follows:

Ultimate Recovery - Livingston No. 12

MMCF Gas	Barrels Oil	GOR
361.1	38,100	9478

Estimated Recovery - Livingston No. 13
(Livingston No. 12)

13,475 BO X 9478 (Lifetime GOR) = 128 MMCF