



July 10, 1984

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

Attention: Joe D. Ramey

RE: Application to
Down hole Commingling
Ronadero Co. Inc.
Rob Clay State #1
Unit "F", S23, T12S, R32E
Lea County, New Mexico
R001-002-001

Dear Mr. Ramey:

Ronadero Company, Inc. respectfully requests the approval of an exception to Rule 303-A to permit the down hole commingling of production from the Pennsylvanian formation with the Devonian formation in the above referenced well.

1. Initial Test Results of Each Zone Are As Follows:
Pennsylvanian FTP 820 psi 16 BOPD 820 MCFPD 0 BW
Devonian FTP 40 psi 206 BOPD 31 MCFPD 30 BW
2. The Devonian formation on recent tests produced about 15% water and is expected to increase as oil production continues. The Pennsylvanian formation does not produce any water.
3. The Penn zone will flow, but as the water increases in the Devonian, it will require some artificial lifting means for it to continue flowing.
4. Commingling of fluids from the two formations will not reduce the value of either.
5. Ownership of minerals and working interests are the same for each reservoir.

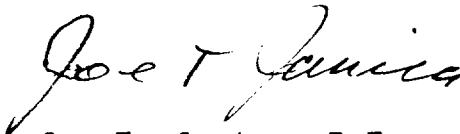
6. Commingling of these two zones will not jeopardize the effectiveness of any future secondary recovery projects. Currently the Queen reservoir just west of the referenced well is in the final stages of secondary recovery.
7. Attached is a plat showing the offset operators and the unit in which the Rob Clay State #1 is located. Also attached is a plat showing all wells within a one mile radius that produce in the Penn and Devonian formations.
8. Bottom hole pressures from each zone and datum are as follows:

Penn	24 hr. build-up	1747 psi @ 10328'
Devonian	4 hr. shut-in DST	4334 psi @ 11207'
9. To prevent cross flow between formations, gas lift valves will have one way checks in them. A standing valve will be installed in the "F" nipple at 11040'. All commingling will be done in the tubing.
10. Allocation on production is suggested as follows:

	<u>GAS</u>	<u>OIL</u>
Penn	94%	5%
Devonian	6%	95%

Attached is a list of all offset operators and certified mail receipts to verify that they have been notified. One exception - Nucorp has been notified but no receipt has been returned due to an incorrect address on the first attempt.

Sincerely yours,



Joe T. Janica, P.E.
NRE, Agents for
Ronadero Company, Inc.

Enclosures

cc: file
 chrono
 B. Hanagan

OFFSET OPERATORS
SEC. 23, T-12-S, R-32-E
LEA COUNTY, NEW MEXICO

1. Mobil Producing Texas & New Mexico, Inc.
P. O. Box 633
Midland, Texas 79702
2. Wagner & Brown
P. O. Box 1714
Midland, Texas 79701
3. Cities Service Oil & Gas Corporation
P. O. Box 1919
Midland, Texas 79702
4. Nucorp Energy, Inc.
Suite 400
1250 N. E. Loop 410
San Antonio, Texas 78209
5. Texas American Oil Corporation
300 West Wall, Suite 1012
Midland, Texas 79701

● SENDER: Complete items 1, 2, 3, and 4. Add your address in the "RETURN TO" space on reverse.	
(CONSULT POSTMASTER FOR FEES)	
1. The following service is requested (check one). ☒ Show to whom and date delivered 60 ☐ Show to whom, date, and address of delivery .. ☐ RESTRICTED DELIVERY (The restricted delivery fee is charged in addition to the return receipt fee.)	TOTAL \$ 60
ARTICLE ADDRESSED TO: Cities Service Oil & Gas Corp. P. O. Box 1919 Attn: John L Midland, TX 79702 McCartney	
4. TYPE OF SERVICE: ☐ REGISTERED ☒ CERTIFIED ☐ EXPRESS MAIL	INSURED ☐ COD ☐ ARTICLE NUMBER P497960832
(Always obtain signature of addressee or agent)	
I have received the article described above.	
SIGNATURE ☐ Addressee ☒ Authorized agent <i>H. E. Holt</i>	POSTMARK JUN 29 1984
5. DATE OF DELIVERY	6. ADDRESSEE'S ADDRESS (Only if requested)
7. UNABLE TO DELIVER BECAUSE:	7a. EMPLOYEE'S INITIALS <i>PH</i>

RETURN RECEIPT

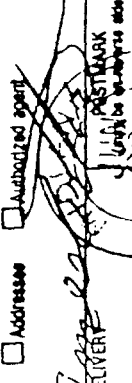
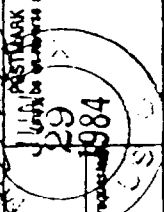
* GPO: 1982-379-593

● SENDER: Complete items 1, 2, 3, and 4. Add your address in the "RETURN TO" space on reverse.	
(CONSULT POSTMASTER FOR FEES)	
1. The following service is requested (check one). ☒ Show to whom and date delivered 60 ☐ Show to whom, date, and address of delivery .. ☐ RESTRICTED DELIVERY (The restricted delivery fee is charged in addition to the return receipt fee.)	TOTAL \$ 60
ARTICLE ADDRESSED TO: Mobil Producing P.O. Box 633 Midland, TX 79702 Lee Hurrentine	
4. TYPE OF SERVICE: ☐ REGISTERED ☒ CERTIFIED ☐ EXPRESS MAIL	INSURED ☐ COD ☐ ARTICLE NUMBER P497960833
(Always obtain signature of addressee or agent)	
I have received the article described above.	
SIGNATURE ☐ Addressee ☒ Authorized agent <i>[Signature]</i>	POSTMARK JUN 29 1984
5. DATE OF DELIVERY	6. ADDRESSEE'S ADDRESS (Only if requested)
7. UNABLE TO DELIVER BECAUSE:	7a. EMPLOYEE'S INITIALS <i>PH</i>

RETURN RECEIPT

* GPO: 1982-379-593

● SENDER: Complete items 1, 2, 3, and 4. Add your address in the "RETURN TO" space on reverse.	
(CONSULT POSTMASTER FOR FEES)	
1. The following service is requested (check one): ☒ Show to whom and date delivered 1/60 ☐ Show to whom, date, and address of delivery 2. ☐ RESTRICTED DELIVERY (The restricted delivery fee is charged in addition to the return receipt fee.)	
TOTAL \$ 1.60	
3. ARTICLE ADDRESSED TO: Texas American Oil Corp. Atten: 300 West Wall, S-1012 Charles Midland, TX 79701	
4. TYPE OF SERVICE: ARTICLE NUMBER ☐ REGISTERED ☐ INSURED P 947960834 ☒ CERTIFIED ☐ COD ☐ EXPRESS MAIL	
(Always obtain signature of addressee or agent)	
I have received the article described above.	
SIGNATURE ☐ Addressee ☐ Authorized agent <i>Henry H. Hines</i>	
5. DATE OF DELIVERY	
POSTMARK (may be on reverse side) 	
6. ADDRESSEE'S ADDRESS (only if requested)	
7. UNABLE TO DELIVER BECAUSE:	
7a. EMPLOYEE'S INITIALS 	

● SENDER: Complete items 1, 2, 3, and 4. Add your address in the "RETURN TO" space on reverse.	
(CONSULT POSTMASTER FOR FEES)	
1. The following service is requested (check one): ☒ Show to whom and date delivered 1/60 ☐ Show to whom, date, and address of delivery 2. ☐ RESTRICTED DELIVERY (The restricted delivery fee is charged in addition to the return receipt fee.)	
TOTAL \$ 1.60	
3. ARTICLE ADDRESSED TO: Wagner & Brown P. O. Box 1714 Midland, TX 79701	
4. TYPE OF SERVICE: ARTICLE NUMBER ☐ REGISTERED ☐ INSURED P 497960831 ☒ CERTIFIED ☐ COD ☐ EXPRESS MAIL	
(Always obtain signature of addressee or agent)	
I have received the article described above.	
SIGNATURE ☐ Addressee ☐ Authorized agent 	
5. DATE OF DELIVERY	
POSTMARK (may be on reverse side) 	
6. ADDRESSEE'S ADDRESS (only if requested)	
7. UNABLE TO DELIVER BECAUSE:	
7a. EMPLOYEE'S INITIALS 	

• **SENDER:** Complete items 1, 2, 3, and 4.
Add your address in the "RETURN TO" space on reverse.

(CONSULT POSTMASTER FOR FEES)

- The following service is requested (check one).
☒ Show to whom and date delivered \$ 1.60
☐ Show to whom, date, and address of delivery .. \$ _____
☐ RESTRICTED DELIVERY \$ _____
(The restricted delivery fee is charged in addition to the return receipt fee.)

TOTAL \$ 1.60

3. **NUCORP ENERGY, Inc.**
Southland Center, 2200 N. Tower
Dallas, TX 75201

4. TYPE OF SERVICE: ARTICLE NUMBER
☐ REGISTERED ☐ INSURED P497960835
☒ CERTIFIED ☐ COD
☐ EXPRESS MAIL

(Always obtain signature of addressee or agent)

I have received the article described above.

SIGNATURE ☐ Addressee ☐ Authorized agent

5. DATE OF DELIVERY

POSTMARK
(may be on reverse side)

6. ADDRESSEE'S ADDRESS (only if requested)

7. UNDELIVERED BECAUSE:

EMPLOYEE'S
INITIALS

ADDRESSEE UNKNOWN

1 * EPA-C 1982-370-003

 **natural
resources
engineering inc.**

P.O. Box 2188 • Hobbs, New Mexico 88240

TO: Nucorp Energy, Inc.
Southland Center
2200 North Tower
Dallas, TX 75201

UNK'D

ADDRESSSEE UN

RETURN
TO
WRIT

CERTIFIED

P 497 960 835

MAIL

FROM:

Natural Resources Engineering Inc.
P. O. Box 2188
Hobbs, NM 88240

Postmaster: Recipient's name

TO:

Nucorp Energy Inc.
Suite 400
1250 N. E. Loop 410
San Antonio, TX 78209

Attn: Richard Denman

• U.S. P.O. Box 400 104 Label 11-B, Apr. 1983

EXPRESS MAIL
NEXT DAY SERVICE**POST OFFICE
TO ADDRESSEE****B 53223185****SERVICE GUARANTEE**

USPS delivers your mail by the next business day. If delivery is delayed, we will refund the postage. If the item is lost or damaged, we will refund the postage and provide a replacement. See USPS Notice for details.

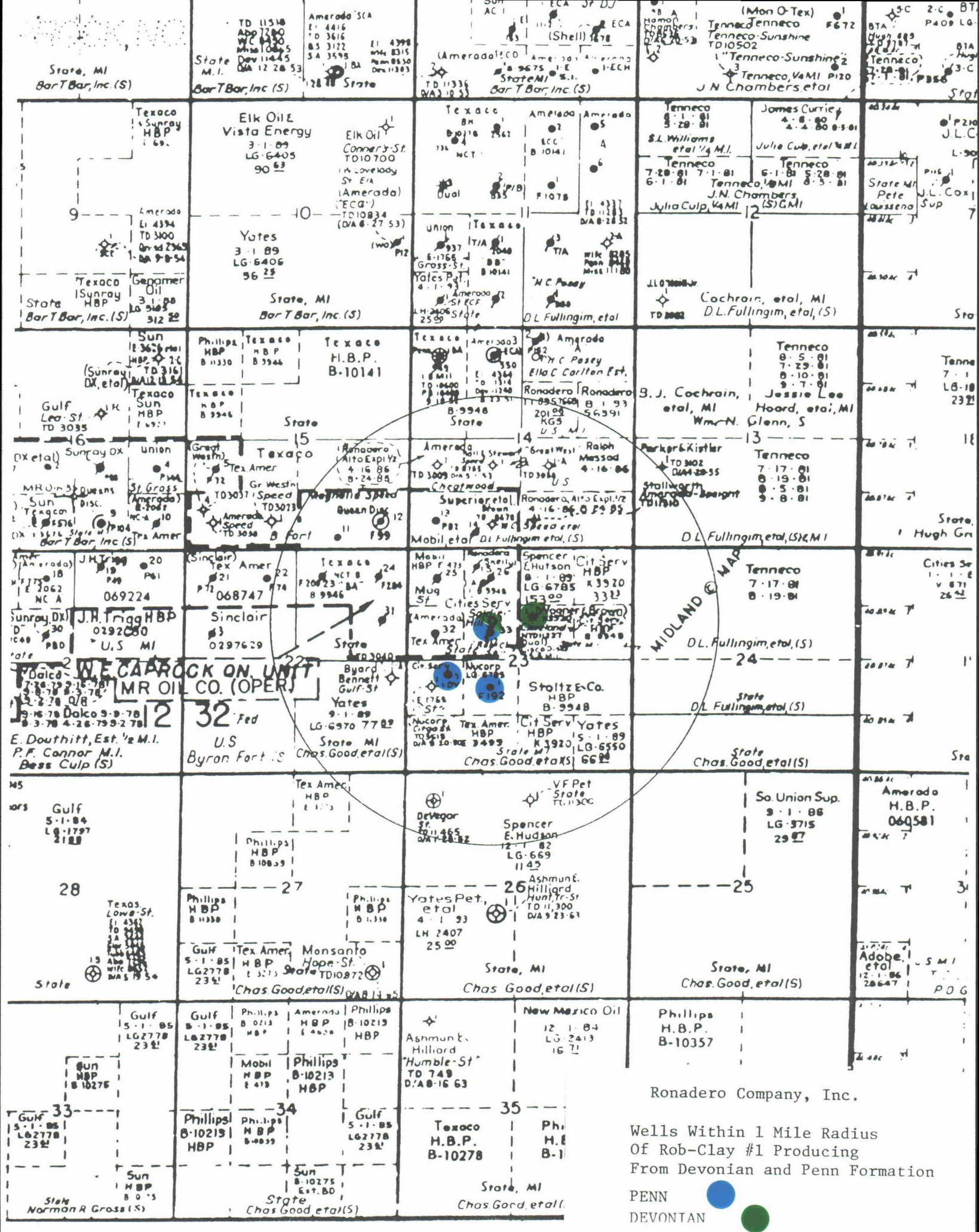
INSURANCE COVERAGE

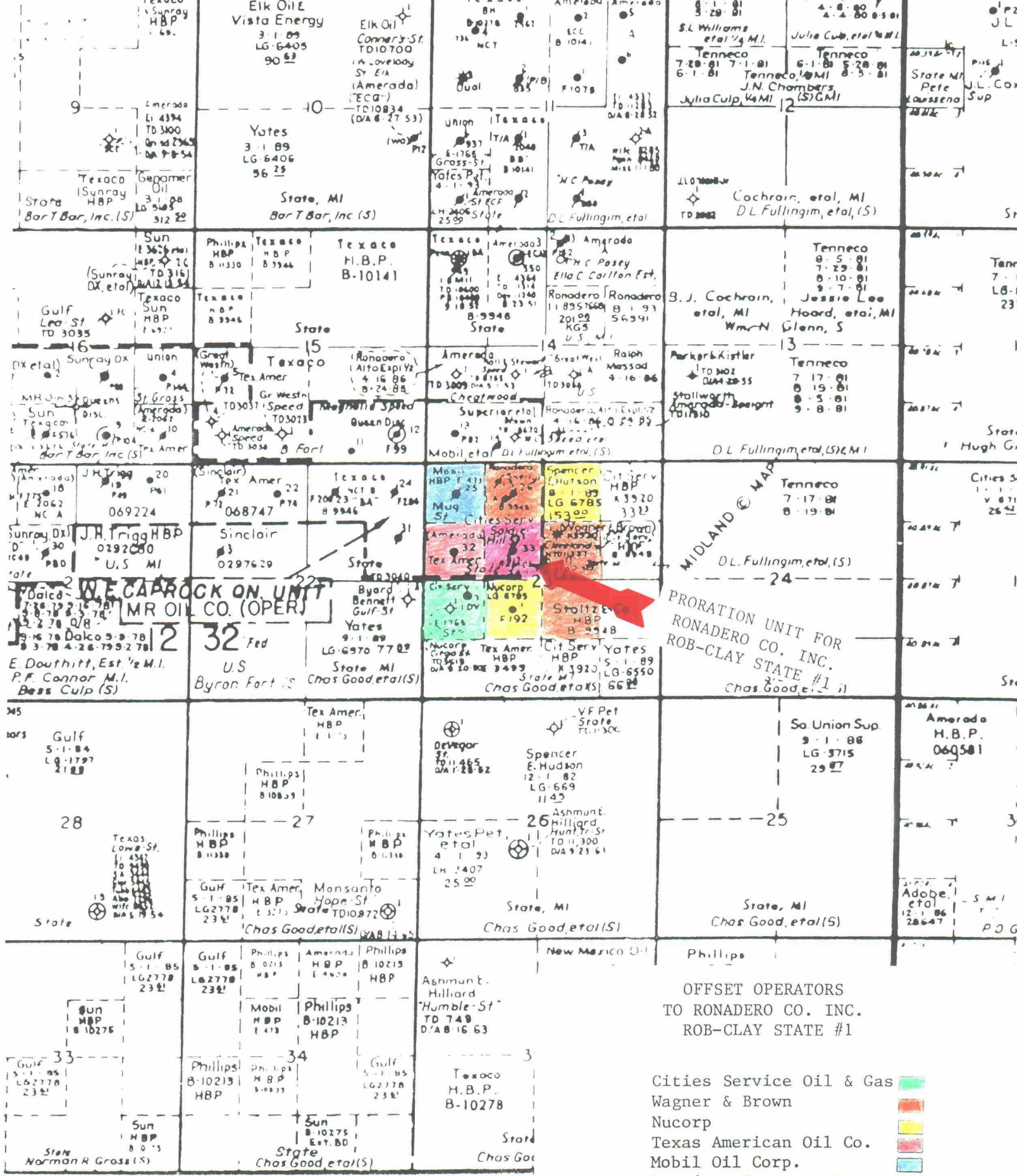
See USPS Notice for details. For every dollar of coverage, documents are insured up to \$50,000 and merchandise up to \$500,000. Merchandise insurance is required for items valued over \$500.00. Merchandise insurance is required for items valued over \$500.00.

• Signature is required upon delivery.
• Claims for delay, loss, damage or theft must be made within 60 days. Claim forms may be obtained at the post office or the nearest post office.
• This receipt must be presented when a claim is filed.

EXPRESS MAIL SERVICE
Customer Receipt

6/24/83
88.240
7-6-84/6:00
Return Receipt Service
✓
To Whom Date
& Address of Del
60
7
9.95





- Offset Operators to Ronadero Co. Inc. Rob-Clay State #1
- Cities Service Oil & Gas
 - Wagner & Brown
 - Nucorp
 - Texas American Oil Co.
 - Mobil Oil Corp.
 - Ronadero Company, Inc.

WELL BORE SKETCH

OPERATOR/LEASE/WELL Ronadero Company/Rob Clay State #1 DATE July 9, 1984
NRE JOB NUMBER R001-002-001
FIELD/POOL East Caprock / Devonian
PLUG BACK DEPTH 11210' KB 17' ELEVATION 4335.9'

Hole Size 17-1/2"

SURFACE CASING:
Size 13-3/8" Weight 61# Grade J-55
Set at 378' with 425 Sacks Cement
Circulate 100 Sacks to Surface
Remarks: Tested O.K.

Hole Size 12-1/4"

INTERMEDIATE CASING:
Size 8-5/8" Weight 32# Grade J-55
Set at 3650' with 1750 Sacks Cement
Circulate 30 Sacks to Surface
Cement Top: Calculated _____ Temperature Survey _____
Remarks: Tested O.K. Centralized 3620' to 3500'

Hole Size 7-7/8"

PRODUCTION CASING:
Size 5-1/2" Weight 17# Grade N-80
Set at 11210' with 600 Sacks Cement
Cement Top: Calculated _____ Temperature Survey 8500'
Remarks: Centralizers on casing 11180-11048',
10400-10238', 9660-9577', 8925-8760', 8596-8430'

TUBING:
Size 2-7/8 Weight 6.5# Grade N-80
Number of Joints 365 Set at 11200'
Packer Set at 11040'
Bottom Arrangement: Bull Plug, 30' Mud Anchor,
7' Perf Nipple, 4 jnts. Tubing, Packer, Baker "F"
Nipple, 26 jnts. Tubing Sliding Sleeve, 334 jnts.

RODS:
Size _____ Number _____
Gas Anchor Set at _____
Pump Set at _____
Arrangement: _____

Gas Lift Valves
2043-6779'

Sliding Sleeve @
10241'

Perfs
10316-10340'

Baker "F" Nipple @ 11036'

Lok-Set Packer @ 11040'

Perforated Nipple @ 11167'

Perfs 11188-11205'

RONADERO COMPANY, INC.
ROB CLAY STATE #1
COST ESTIMATES FOR DIFFERENT
ARTIFICIAL LIFT SYSTEMS

1. Beam and Rod Pumping Installation	\$78,000
2. Gas Lift System Using Penn Gas	\$17,000
3. Submersible Pumping System	\$62,500

Schlumberger

COMPENSATED NEUTRON LOG

CASED HOLE

COUNTY LEA, N.M.
FIELD E. CAPROCK DEV.
LOCATION ROB-CLAY STATE #1
WELL ROB-CLAY STATE #1
COMPANY RONADERO CO., INC.

COMPANY RONADERO COMPANY, INC.

WELL ROB-CLAY STATE #1

FIELD EAST CAPROCK DEVONIAN

COUNTY LEA STATE NEW MEXICO

LOCATION 1980' FWL 1650' FNL

Other Services:

PERF.

API SERIAL NO.	SEC.	TWP	RANGE
	23	12-S	32-E

Permanent Datum: G.L. ; Elev.: 4336
Log Measured From K.B. 17.0 Ft. Above Perm. Datum
Drilling Measured From K.B.

Elev.: K.B. 4353
D.F.
G.L. 4336

Date	5-25-84			
Run No.	ONE			
Depth-Driller	11212			
Depth-Logger (Schl.)				
Btm. Log Interval	11202			
Top Log Interval	8000			
Type fluid in hole				
Salinity ppm Na Cl.				
Density				
Fluid level				
Max. rec. temp., deg F.				
Operating rig time	153			
Truck no. [D Truck no.	5891			
Location	HOBBS-PSD			
Recorded by	SCROGGS			
Witnessed by	JANICA			

RUN No.	BORE-HOLE RECORD			CASING & TUBING RECORD				
	Bit	From	To	Size	Wgt.	Remarks	From	To
1	7 7/8			8 5/8			SURF	3650
				5 1/2			SURF	11210

The well name, location and borehole reference data were furnished by the customer.

FOLD HERE

GAS-OIL RATIO TESTS

Operator Ronadero Company, Inc.		Pool Caprock Devonian East		County Lea											
Address P. O. Box 2188 Hobbs, New Mexico 88240		TYPE OF TEST - (X)		Completion ☒ Scheduled ☐ Special ☐											
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU.FT/BB		
		U	S	T						R	WATER BBL'S.	GRAV. OIL		OIL BBL'S.	GAS M.C.F.
Rob Clay State	1	F	23	12S	32E	6/15/84	F 16/64	40	365	12	15	45	203	16	150:1

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Division.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Division in accordance with Rule 301 and appropriate pool rules.

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

Jose T. Gonzalez
(Signature)
NRE, Agents for Ronadero Company

(Title)

July 1, 1984

GAS-OIL RATIO TESTS

Operator		Ronadero Company, Inc.		Pool	Caprock Penn East		County		Lea						
Address		P. O. Box 2188		Hobbs, New Mexico 88240		TYPE OF TEST - (X)		Completion ☒ Special ☐							
LEASE NAME	WELL NO.	LOCATION			DATE OF TEST	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST			GAS - OIL RATIO CU.FT/BBL		
		U	S	T						R	WATER BBLs.	GRAV. OIL		OIL BBLs.	GAS M.C.F.
Rob Clay State	1	F	23	12S	32E	6-8-84	14/64	820	320	4 hr.	0	48	3	137	45667:1

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Division.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Division in accordance with Rule 301 and appropriate pool rules.

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

Carl T. Gueco
(Signature)

NRE, Agents for Ronadero Co., Inc.

(Title)

July 1, 1984