

*Release Date.
May 20, 1988*

PADILLA & SNYDER

ATTORNEYS AT LAW

200 W. MARCY, SUITE 212

P.O. BOX 2523

SANTA FE, NEW MEXICO 87504-2523

(505) 988-7577

May 6, 1988

HAND-DELIVERED

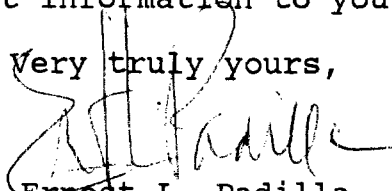
Mr. William LeMay
Director
Oil Conservation Division
Land Office Building
Santa Fe, New Mexico 87501

Re: Application of Corinne B. Grace for
Salt Water Disposal

Dear Mr. LeMay:

Enclosed please find the Application for Salt Water Disposal of Corinne B. Grace, Eddy County, New Mexico. We request that the application be approved administratively. Should you require anything further after your staff's review of the application, please do not hesitate to call upon us to supply that information to you.

Very truly yours,


Ernest L. Padilla

ELP:crk

Enclosure as stated

cc: Corinne B. Grace

APPLICATION FOR AUTHORIZATION TO INJECT

Original Filed No. 3
Corinne B. Grace

~~Jess~~ SWD #1

73' FEL & 2326' FNL

Sec. 24, T.26S., R.30E. NMPM

Eddy County, New Mexico

Name changed

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ yes ☐ no

II. Operator: Corinne B. Grace

Address: P. O. Box 1418, Carlsbad, NM 88220

Contact party: Mike Butts Phone: 887-5581

III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? ☐ yes ☒ no
If yes, give the Division order number authorizing the project _____

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.

IX. Describe the proposed stimulation program, if any.

X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)

XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.

XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Mike Butts

Title: Agent

Signature: Mike Butts

Date: 4/15/88

* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal.

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

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- IX. Proposed Stimulation Program
- X. Logging and Test Data
- XI. Fresh Water Analysis
- XII. Affirmative Statement
- XIII. Proof of Notice
- XIV. Certification

Section I

Purpose

I. Purpose

- A. To inject disposal water from area wells into non-productive Bell Canyon Formation. Operator may accept disposal water from other operators.
- B. This application qualifies for administrative approval.

Section II

Operator

II. Operator

Corinne B. Grace
P. O. Box 1418
Carlsbad, New Mexico 88220

Contact Party: Mike Butts
Phone: (505) 887-5581

Section III

Well Data

III. Well Data (Injection Well Data Sheet)

A.

1. Corinne B. Grace - Operator

Jess SWD #1

73' FEL & 2326' FNL

Sec. 24, T.26S., R.30E., NMPM

Eddy County, New Mexico

2. Casing Strings

a. Surface

- (1) Hole Size: 12 $\frac{1}{4}$ "
- (2) Casing Size: 8 5/8"
- (3) Casing Weight: 24#
- (4) Setting Depth: 900'
- (5) Cement Data: Halliburton Proposal
Hole Volume = 372 cu. ft.
figured 200% excess
1158 cu. ft. of slurry
lead w/450 sx Hal-Lite + $\frac{1}{4}$ # flocele/sx
Yield = 1.84 cu. ft./sx
Weight = 12.4#/gal.
Water = 9.9 gal/sx
Tail w/250 sx Class "C" + 2% CaCl
Yield = 1.32 cu. ft./sx
Weight = 14.8#/gal.
Water = 6.3 gal/sx
Circulate Cement to Surface

b. Production

- (1) Hole Size: 7 7/8"
- (2) Casing Size: 5 $\frac{1}{2}$ "
- (3) Casing Weight: 17#
- (4) Setting Depth: 4600'
- (5) DV Tool Depth: 3300'
- (6) Cement Data: Halliburton Proposal
1st Stage: Hole Volume: 225 cu. ft.
figured 50% excess
337 cu. ft. of slurry
Pump 240 sx 65/35 Class C/PozA mix
+2% gel + .4% CFR-3 + .4% Halad 4
+ 5# Salt/sx
Yield = 1.39 cu. ft./sx
Weight = 14.26#/gal
Water = 6.5 gal./sx
2nd Stage: Hole Volume: 589 cu. ft.
figured 100% excess
1006 cu. ft. of slurry
Lead 475 sx Hal-Lite + $\frac{1}{4}$ # Flocele/sx
Yield: 1.84 cu. ft./sx
Weight: 12.4#/gal
Water: 9.9 gal/sx.
Tail 100 sx Class "C"

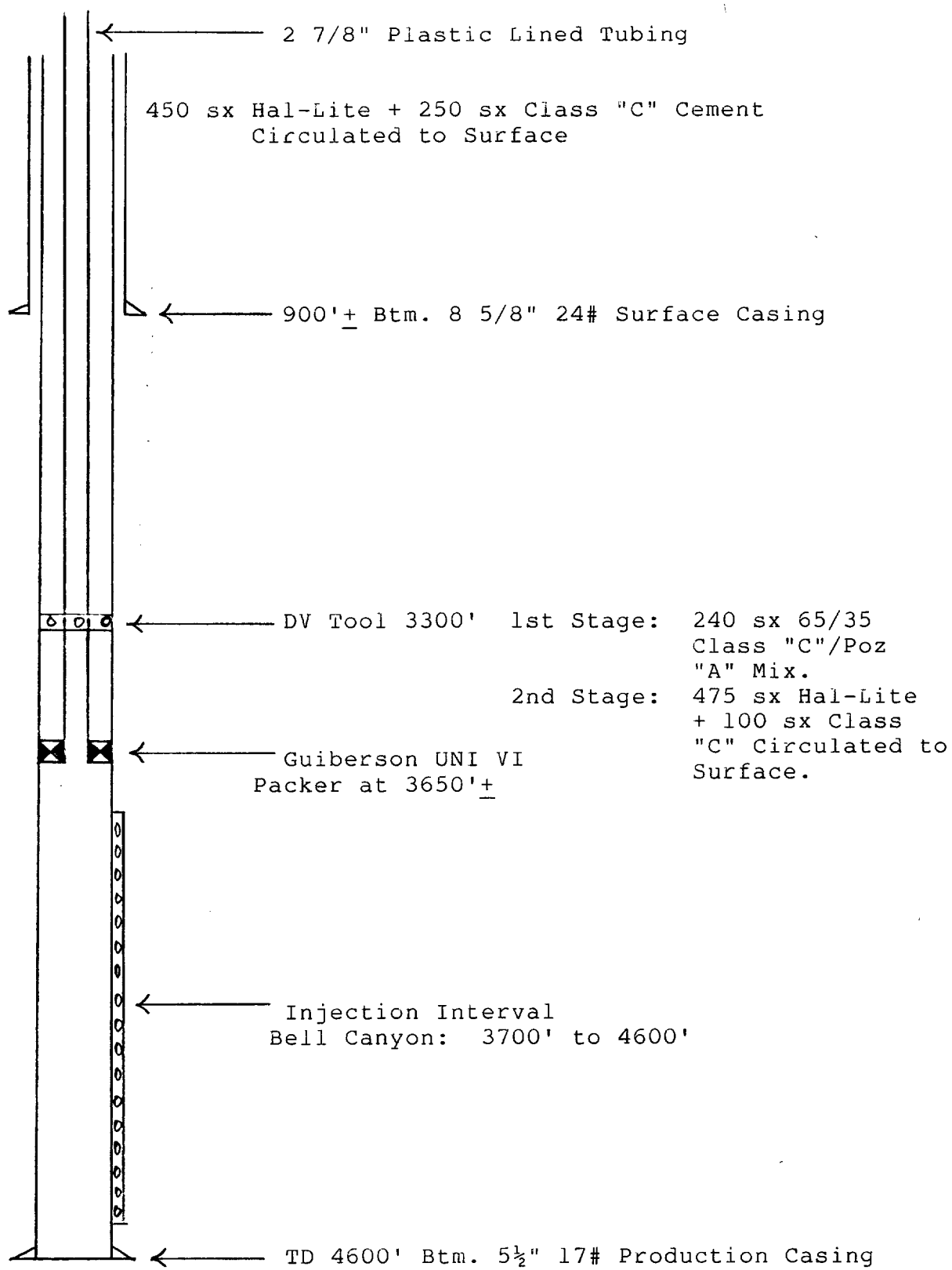
Yield: 1.32 cu. ft./sx
Weight: 14.8#/gal.
Water: 6.3 gal/sx
Circulate Cement to Surface

3. Tubing: 2 7/8" plastic lined to be set at 3650'±
4. Packer: Guiberson UNI VI Retrievable to be set at 3650'±

B.

1. Formation: Bell Canyon
Pool: East Ross Draw Delaware
2. Interval: 3700'± to 4600'±
Individual zones within interval to be perforated will be picked from open hole logs to be run consisting of CNL, LDT, DLL, MSFL.
3. Well drilled for injection.
4. No other perforated intervals.
5. Next producing zone in area: Williamson Sand, top at 5700'.

JESS SWD #1



UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>			5. LEASE DESIGNATION AND SERIAL NO. NM-18626
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER <input type="checkbox"/> Disposal SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>			6. IF INDIAN, ALLOTTEE OR TRIBE NAME N/A
2. NAME OF OPERATOR Corinne B. Grace			7. UNIT AGREEMENT NAME N/A
3. ADDRESS OF OPERATOR P. O. Box 1418, Carlsbad, New Mexico 88220			8. FARM OR LEASE NAME Jess SWD
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)* At surface: 73' FEL & 2326' FNL At proposed prod. zone: Same			9. WELL NO. 1
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 21 Miles Southeast of Malaga, NM			10. FIELD AND POOL, OR WILDCAT East Ross Draw Dela.
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any)	140	16. NO. OF ACRES IN LEASE 1000	17. NO. OF ACRES ASSIGNED TO THIS WELL
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	2113.5	19. PROPOSED DEPTH 4600'±	20. ROTARY OR CABLE TOOLS Rotary
21. ELEVATIONS (Show whether DF, RT, GR, etc.) 3160 GR			22. APPROX. DATE WORK WILL START* When Approved

23. PROPOSED CASING AND CEMENTING PROGRAM				
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4	8 5/8	24#	900	700sx
7 7/8	5 1/2	17#	4600	715sx

Exhibits Attached:

- A. Drilling Fluid Program
- B. BOP Program
- C. Drilling Equipment Inventory
- D. Multi-Point Surface use and Operational Plan
- E. Ten Point Compliance Program
- F. Acreage Dedication Plat
- G. Location Plat
- H. Topographical Map
- I. Archeological Survey Report

RECEIVED
MAY 4 3 44 PM '83
BUREAU OF LAND MANAGEMENT
WASHINGTON, D.C.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED Mike Butts TITLE Agent DATE 4/15/88

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

Section IV

Expansion of Existing Project
(Not-Applicable)

Section V

Area Maps

26 30
J.C. Williamson
to top of 8m. Sprall.
27649
Sun-Fed. UT.
U.S.

U.S.
Sun
11-1-86
27981

U.S.
Sun
11-1-86
66028
Monterey
Blades
TD 3972
DA 611-59

U.S.
Adobe
(Union)
0438001

U.S.
Sohio
8-1-94
53060
G.M. Deven
Port
(10-31-89)
10-25-89

ROSS DEPAW/M
J.C. Williamson
to top of 8m. Sprall.
27649
Sun-Fed. UT.
U.S.

U.S.
Sun
11-1-86
27981

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Monterey
Blades
TD 3972
DA 611-59

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(Union)
0438001

U.S.
Sohio
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G.M. Deven
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(10-31-89)
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Estoril, et al
J.C. Williamson
20369
Sun-Fed. UT.
U.S.

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U.S.
Sohio
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G.M. Deven
Port
(10-31-89)
10-25-89

J.C. Williamson et al
0480904
22
Sun-Fed. UT.
U.S.

U.S.
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TD 3972
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(10-31-89)
10-25-89

J.C. Williamson et al
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(Union)
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G.M. Deven
Port
(10-31-89)
10-25-89

J.C. Williamson et al
0554443
27
Sun-Fed. UT.
U.S.

U.S.
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27981

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Blades
TD 3972
DA 611-59

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Adobe
(Union)
0438001

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G.M. Deven
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(10-31-89)
10-25-89

J.C. Williamson et al
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U.S.

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Monterey
Blades
TD 3972
DA 611-59

U.S.
Adobe
(Union)
0438001

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G.M. Deven
Port
(10-31-89)
10-25-89

J.C. Williamson et al
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Sun-Fed. UT.
U.S.

U.S.
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27981

U.S.
Sun
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66028
Monterey
Blades
TD 3972
DA 611-59

U.S.
Adobe
(Union)
0438001

U.S.
Sohio
8-1-94
53060
G.M. Deven
Port
(10-31-89)
10-25-89

J.C. Williamson
Sun-Fed. U.T. 14

Meridian
2-11-82
TD 6226
D/A 12-19-83
U.S.

APC Oper.
ACX Pet. 2/3
8-1-82
16348

Meridian Oil
15311
HBP

Lockhart
King
TD 3829

Meridian Oil

15311

1.3 Mil.

Barnett
King
TD 4651
APC Oper.
ACX Pet.
8-1-82
16343

J.C. Williamson
et al
HBP
11042
A.R.Co.
8-1-74
0554499

J.C. WILLIAMSON (OPER)
SUN EX UNIT

13

U.S.

Amoco
HBP
18626

24

U.S.

Corine
Groce
Finger-
Fed.

E.M. Craig, Jr.

E.M. Craig, Jr.
Bel. 7245

JFGent.
Amoco-Fed.

16375

(Mobil)

27650

Corine
Groce
Fed.

Union
Phantom
Boraks Unit-Fed
TD 4087
T/A 10-12-73

Union
Phantom
Boraks Unit-Fed
TD 4087
T/A 10-12-73

U.S. "Softfire/B"

Union
0459862

Adobe,
Softfire
2.9 Mil.

19

U.S.

Sohio
1-1-90
60355

Union

3438001

30

Tex. Pac.
Phantom Draw
U.T.-Fed.
TD 12820

H.E.

043

Wilson
Hanson-Fed.
TD 5509
D/A 2-25-83
19.7 Mil.
+96 Bbls.

H.E.
HBI
043

26

J.C. Williamson
et al
HBP
11042

0554499

0554499

0554499

Section VI

Tabulation of Well Data

Ginger Federal #1
1880' FEL & 460' FSL
Sec. 24, T.26S., R.30E. NMPM
Eddy County, New Mexico

Operator: Corinne B. Grace
Address: P. O. Box 1418
Carlsbad, NM 88220

600 sx "LW" & 250 sx Class "C" Cmt.
Circulated to Surf.

Spud: 7/28/87.
TD: 7060'
Comp. Interval: 5809'-5817'
Formation: Delaware
Type: Oil

Surface
906' - 13 3/8" 54.50-68# Csg.

1550 sx "LW" Cmt.
Circulated to Surf.

Intermediate
3545'-8 5/8" 24-32# Csg.

D.V. Tool 5270' 1st Stage: 470 sx 50/50 POZ "H".
2nd Stage: 330 sx Hal/Lite + 200 sx Class "C"
Top of Cement above 3500' by Bond Log.

Williamson Sand Perfs:
5809'-5817'

Production
7060'-5 1/2" 17# Csg.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
SUBMIT IN DUPLICATE

(See other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0137
Expires August 31, 1985

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1. TYPE OF WELL: OIL WELL ☒ GAS WELL ☐ DRY ☐ Other ☐
2. TYPE OF COMPLETION: NEW WELL ☒ WORK OVER ☐ DEEP-EN ☐ PEEK BACK ☐ DIFF. REVER. ☐ Other ☐

2. NAME OF OPERATOR
Corinne B. Grace

3. ADDRESS OF OPERATOR
P. O. Box 1418, Carlsbad, NM 88220

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)*
At surface 1880' FEL & 460' FSL
At top prod. interval reported below Same
At total depth Same

14. PERMIT NO. DATE ISSUED
4-14-87

15. DATE SPUDDED 16. DATE T.D. REACHED 17. DATE COMPL. (Ready to prod.) 18. ELEVATIONS (OF, RKS, RT, OR, ETC.)* 19. SLEV. CASINGHEAD
7-28-87 8-22-87 11-15-87 3113.4 GR 3113.4

20. TOTAL DEPTH MD & TVD 21. PLUG, BACK T.D., MD & TVD 22. IF MULTIPLE COMPL., HOW MANY* 23. INTERVAL DRILLED BY 24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* 25. FAR DIRECTIONAL SURVEY MADE
7060 MD 6980 MD X No

26. TYPE ELECTRIC AND OTHER LOGS RUN
CNL-DLL-MSFL

27. WAS WELL CORRED
Yes

CASING RECORD (Report all strings set in well)					
CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
13 3/8"	54.50-68.00	906	17 1/2"	600 sx LW & 250 sx "C"	-0-
8 5/8"	24.00-32.00	3545	12 1/4"	1550 sx LW	-0-
5 1/2"	17.00	7060	7 7/8"	470sx "H" 330sx LW 200sx "C"	-0-

LINER RECORD					TUBING RECORD		
SIZE	TOP (MD)	BOTTOM (MD)	BACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	SCREEN SET (MD)
					2 7/8"	4564	4437

PERFORATION RECORD (Interval, size and number)				ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.	
5809-5817' 9 holes-.50 dia.				DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
					No treatment

PRODUCTION							
DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)				WELL STATUS (Producing or shut-in)	
11-15-87		Pumping 2 1/2"x1 1/2"x24' Insert Pump				Producing	
DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
11-18-87	24			147	102	0	694
FLOW, TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)	
50	50						

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)
Fuel & Vented

35. LIST OF ATTACHMENTS
Inclination Report

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records
SIGNED Mike Butts TITLE Agent DATE 11-19-87

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL
WELL ☒

GAS
WELL ☐

OTHER

SINGLE
ZONE ☐

MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Corinne B. Grace

3. ADDRESS OF OPERATOR

P. O. Box 1418, Carlsbad, NM 88220

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
At surface

1980' FSL & 1980' FEL
At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

21 Miles Southeast of Malaga, NM

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drig. unit line, if any)

1980'

16. NO. OF ACRES IN LEASE

1000

17. NO. OF ACRES ASSIGNED
TO THIS WELL

40

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

1523'

19. PROPOSED DEPTH

7025

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

3145.4' GR

22. APPROX. DATE WORK WILL START*

May 1, 1988

23.

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17½	13 3/8	54.50	900	800 sx circulate
12½	8 5/8	24-32	3550	950 sx
7 7/8	5½	17	7060	850 sx

Exhibits Attached:

- A. Drilling Fluid Program
- B. BOP Program
- C. Drilling Equipment Inventory
- D. Multi-point Surface Use and Operational Plan
- E. Ten Point Compliance Program
- F. Acreage Dedication Plat
- G. Location Plat
- H. Topographical Map
- I. Archeological Survey Report

*OK
Should be
approved 2700 feet
by C. Butler*

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED Mike Butts TITLE Agent DATE 3/28/88

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Section VII

Proposed Operation Data

VII. Proposed Operation Data

1. Injection Rate
 - a. Average Daily: 1500 Bbls. per day.
 - B. Maximum Daily: 7500 Bbls. per day.
2. System will be closed.
3. Injection Pressure
 - a. Average: Unknown
 - b. Maximum: 830#
4. Injection fluids will be disposal water from area wells.
5. Disposal zone formation water is very similar to all produced Delaware waters. (See Attached water analyses.)

HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES

MIDLAND DIVISION

ARTESIA, NEW MEXICO 88210

LABORATORY WATER ANALYSIS

No. W200, W201, & W202-87To Corinne GraceDate October 19, 1987P. O. Box 1418Carlsbad, NM 88220

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management. It may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Company.

Submitted by Danny HarveyDate Rec. October 19, 1987Well No. _____ Depth 5700'Formation DelawareCounty Eddy Field Sec. 25, 26S, 30ESource Heater Treater

C. G. Fed. #1

Zac Fed. #1

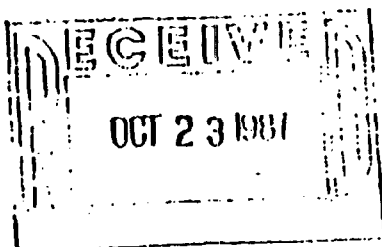
Resistivity 0.048 @ 72°0.048 @ 72°Specific Gravity 1.211.21pH 6.36.1Calcium (Ca) 38,21237,720

*MPL

Magnesium (Mg) 6,2695,970Chlorides (Cl) 191,000192,000Sulfates (SO₄) N11N11Bicarbonates (HCO₃) 3268Soluble Iron (Fe) ModerateModerate

Remarks:

*Milligrams per liter



Rocky Chambers
Respectfully submitted,

Analyst: Rocky Chambers - Special Operator

HALLIBURTON COMPANY

cc:

NOTICE

This report is limited to the described sample tested. It is not to be used for any other purpose. Halliburton shall not be liable for any other use.

HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES

MIDLAND DIVISION

HOBBS, NEW MEXICO 88240

LABORATORY WATER ANALYSIS

No. WB3-929

To BDC, Inc.

Date 8-4-83

105 E. Marland

Hobbs, New Mexico

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management. It may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Company.

Submitted by

Date Rec. 8-4-83

Well No. Not Designated

Depth

Formation As Marked

County

Field

Source

	Cherry Canyon	Bell Canyon	
Resistivity	0.049 @ 74°F.	0.070 @ 74°F.	
Specific Gravity	1.181	1.086	
pH	5.4	6.9	
Calcium (Ca)	23,700	8,000	*MPL
Magnesium (Mg)	6,240	1,500	
Chlorides (Cl)	169,000	76,000	
Sulfates (SO ₄)	310	1,640	
Bicarbonates (HCO ₃)	75	145	
Soluble Iron (Fe)	5	Nil	
Sodium, Na (Calc.)	70,766	38,122	
Total Dissolved Solids (Calc.)	270,096	125,407	

Remarks:

*Milligrams per liter

Respectfully submitted,

Analyst: Brewer

HALLIBURTON COMPANY

cc:

By

W. L. Brewer

CHEMIST

NOTICE

THIS REPORT IS LIMITED TO THE DESCRIBED SAMPLE TESTED. ANY USER OF THIS REPORT AGREES THAT HALLIBURTON SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE, WHETHER IT BE TO ACT OR OMISSION, RESULTING FROM SUCH REPORT OR ITS USE.

HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES

MIDLAND DIVISION

HOBBS, NEW MEXICO 88240

LABORATORY WATER ANALYSIS

No. W83-928By BBC, Inc.Date 8-4-83103 5. MarlandHobbs, New Mexico

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management. It may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Company.

Submitted by _____ Date Rec. 8-4-83Well No. Not Designated Depth _____ Formation As Marked

County _____ Field _____ Source _____

	<u>Brushy Canyon</u>	<u>Wolfcamp</u>	
Resistivity	<u>0.048 @ 74°F.</u>	<u>0.089 @ 74°F.</u>	
Specific Gravity	<u>1.209</u>	<u>1.057</u>	
pH	<u>5.3</u>	<u>6.0</u>	
Calcium (Ca)	<u>32,200</u>	<u>1,800</u>	<u>*MPL</u>
Magnesium (Mg)	<u>5,760</u>	<u>840</u>	
Chlorides (Cl)	<u>197,000</u>	<u>48,000</u>	
Sulfates (SO ₄)	<u>160</u>	<u>185</u>	
Bicarbonates (HCO ₃)	<u>95</u>	<u>230</u>	
Soluble Iron (Fe)	<u>Nil</u>	<u>5</u>	
Sodium, Na (Calc.)	<u>80,067</u>	<u>27,657</u>	
Total Dissolved Solids (Calc.)	<u>315,282</u>	<u>78,717</u>	

Remarks:

*Milligrams per liter

Respectfully submitted,

Analyst: Brewer

HALLIBURTON COMPANY

C:

By W. D. Brewer
CHEMIST

NOTICE

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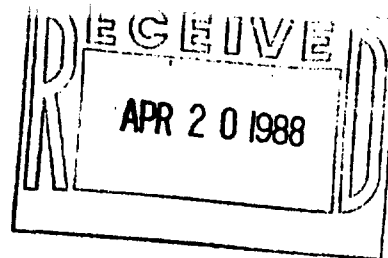
Section VIII

Geological Data

HARRY L. GUNN
Consulting Geologist

TELEPHONE 505/748-9012

813 S. FOURTH
ARTESIA, N.M. 88210



GRACE OIL COMPANY
CARLSBAD, NEW MEXICO

TO WHOM IT MAY CONCERN

FORM C-108 Oil Conservation Division, Energy and Minerals
Department, State of New Mexico

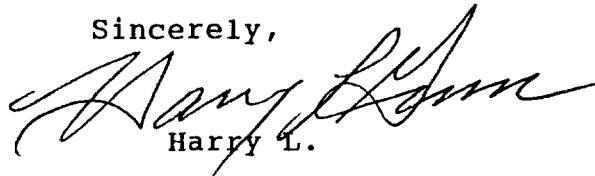
VIII. A new well planned for water disposal purposes, the Grace oil. Co., Jess, SWD #1, 73' FEL, 2326' FNL, Section 24, T-26-S,R-30-E, Eddy County, New Mexico, will be drilled to a depth of 4600'. Casing to be set is planned for 85/8" to 900 feet and 5½" to 4600 feet. Perforations will be in the Bell Canyon Sand of the Delaware Mountain Group from 3700' to 4600'. These bell Canyon sands are composed of very fine to fine grained quartz sands. Core examination from the Grace Oil Co. No. 1 Ginger Federal, at 4078 to 4,108', confirmed the grain size and revealed the presence of a few thin shale laminations. The highly porous sands, 19% to 25%. have very little carbonate cementing material with slight varying amounts of clay and feldspar content. The sands with the higher porosity are usually more permeable. This sand interval should be suited for disposal water. There is no known oil or gas production nearby from this interval.

The overall thickness of this sand is around 920 feet, beginning at 3,670 feet, down to the top of the Cherry Canyon Formation at 4,570 feet. This sand lies below 2,000' of anhydrite and salt of the Castile Formation.

XII.. There are no open faults in evidence throughout the Delaware Sands in this area. nor are there any possible geologic connections to any source of drinking water.

There is no palatable water below the injection interval, all these waters will be either salty or brackish sulfur water.

Sincerely,



Harry L.

Section IX

Proposed Stimulation Program

IX. Proposed Stimulation Program

- A. Acidize sands with 10,000 gallons 15% acid.
- B. Fracture treat sands with 200,000 gallons gelled produced water and 240,000 pounds 12/20 sand.

Section X

Logging Data

X. Logging Data: To be run before casing.

1. CNL-Density(Porosity)

2. Dual Lateralog/Micro SFL (Resistivity)

(Electric logs to be submitted to OCD and BLM on completion of logging)

Section XI

Fresh Water

XI. Fresh Water: There is one (1) fresh water well within one (1) mile of proposed injection well. It was drilled 5/2/88. Total depth is 440'. It is located approximately, 1750' FEL & 380' FSL, Section 24, T26S, R30E, Eddy County, New Mexico.

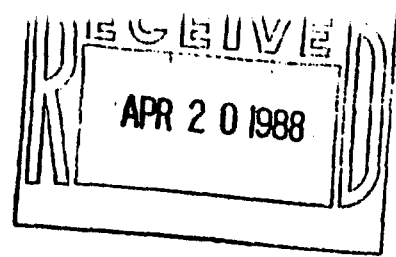
Section XII

Affirmative Statement

HARRY L. GUNN
Consulting Geologist

TELEPHONE 505/748-9012

813 S. FOURTH
ARTESIA, N.M. 88210



GRACE OIL COMPANY
CARLSBAD, NEW MEXICO

TO WHOM IT MAY CONCERN

FORM C-108 Oil Conservation Division, Energy and Minerals
Department, State of New Mexico

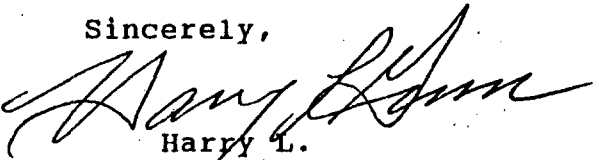
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There is no palatable water below the injection interval, all these waters will be either salty or brackish sulfur water.

Sincerely,



Harry L.

Section XIII

Proof of Notice

XIII. Proof of Notice

A. Certified Mail

1. Surface Owner

a. Bureau of Land Management
P. O. Box 1778
Carlsbad, New Mexico 88220

2. Operators within $\frac{1}{2}$ mile of proposed
injection well.

- a. Amoco Production Company
Houston Region
501 Westlake Park Blvd.
P. O. Box 3092
Houston, Texas 77253
- b. Craig, LTD.
c/o Earle M. Craig, Jr. Corporation
P. O. Box 1351
Midland, Texas 79702-1351
- c. Sun Exploration and Production Co.
Box 1861
Midland, Texas 79702-1861
- d. Sohio Petroleum Co.
5420 LBJ Freeway
Suite 1000
Dallas, Texas 75240

B. Legal Notice

1. Date of Publication: 5/4/88
2. Name and Address of Publication:
Artesia Daily Press
503 West Main Street
Artesia, New Mexico 88210

Corinne B. Grace
Post Office Box 1418
Carlsbad, New Mexico 88220
Phone 505-887-5581

April 21, 1988

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Bureau of Land Management
P. O. Box 1778
Carlsbad, New Mexico 88220

Re: Jess SWD No. 1 Well
Section 24, T26S, R30E, N.M.P.M.,
Eddy County, New Mexico

Dear Sir:

Enclosed, please find a copy of our Application of Corinne Grace for a Salt Water Disposal Well, Eddy County, New Mexico, together with a copy of the Form C-108.

Should you have any questions concerning the Application you may contact the undersigned at this office.

The intended purpose of the injection well, located 73 feet from the east line and 2326 feet from the north line of Section 24, Township 26 South, Range 30 East, N.M.P.M., is for the disposal of disposal water in the Bell Canyon formation, with a planned injection interval of 3700 feet to 4600 feet. The expected maximum injection rate is 7500 barrels per day, with the maximum injection pressure to be 830 PSIG.

Surface owners or offset operators must file any objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501, within 15 days from the date hereof.

Very truly yours,

Mike Butts
Agent

Enclosures
MB/lm

P-484 859 281

RECEIPT FOR CERTIFIED MAIL

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

U.S.G.P.O. 153-506

PS Form 3800, June 1985

Sent to Bureau of Land Management	
Street and P.O. P. O. Box 1778	
P.O. State and ZIP Code Carlsbad, NM 88220	
Postage	\$2.05
Certified Fee	85
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt, showing to whom and Date Delivered	90
Return Receipt, showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	3.40
Postmark of Date JUN 1 1985	

Corinne B. Grace
Post Office Box 1418
Carlsbad, New Mexico 88220
Phone 505-887-5581

April 21, 1988

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Amoco Production Company
Houston Region
501 Westlake Park Blvd.
P. O. Box 3092
Houston, Texas 77253

Re: Jess SWD No. 1 Well
Section 24, T26S, R30E, N.M.P.M.,
Eddy County, New Mexico

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Mike Butts
Agent

Enclosures
MB/lm

RECEIVED FOR CERTIFIED MAIL
BY RETURNING A POSTAGE PROVIDED
BY THE ADDRESSEE ONLY MAIL
(See Reverse)

PS Form 3300, June 1985

P. O. Box 3092, Houston, TX

77253

A -

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[Contact](#)
[Privacy](#)

2. *Abstract* *presented* *as* *long* 2

90

267

10/10/10

$$\{t_1, t_2, \dots, t_n\} \rightarrow \{t_1, t_2, \dots, t_n\}$$

Corinne B. Grace
Post Office Box 1418
Carlsbad, New Mexico 88220
Phone 505-887-5581

April 21, 1988

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Craig, LTD.
c/o Earle M. Craig, Jr. Corporation
P. O. Box 1351
Midland, Texas 79702-1351

Re: Jess SWD No. 1 Well
Section 24, T26S, R30E, N.M.P.M.,
Eddy County, New Mexico

Dear Sir:

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Enclosures
MB/lm

P-484 859 283

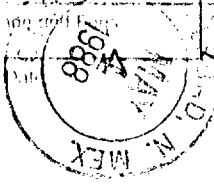
UNITED STATES CERTIFIED MAIL

POSTAGE WILL BE PAID BY ADDRESSEE
FOR CERTIFIED MAIL

(For Reverse)

U.S.G.P.O. 150-308

PS Form 3800, June 1985

Sent to	
Craig, LTD.	
c/o Earle M. Craig, Jr.	
P. o. Box 1351	
P.O. State and ZIP Code	
Midland, TX 79702-1351	
Postage	105-
Certified Fee	95-
Special Delivery Fee	
Registered Delivery Fee	
Return Receipt showing to whom and Date Delivered	9c
Return Receipt showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	260
Postmark or Date	

Corinne B. Grace
Post Office Box 1418
Carlsbad, New Mexico 88220
Phone 505-887-5581

April 21, 1988

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Sun Exploration and Production Co.
Box 1861
Midland, Texas 79702-1861

Re: Jess SWD No. 1 Well
Section 24, T26S, R30E, N.M.P.M.,
Eddy County, New Mexico

Dear Sir:

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Very truly yours,

Mike Butts
Agent

Enclosures
MB/lm

P-484 859 284

REGISTERED MAIL CERTIFIED MAIL

INSURANCE COVERAGE PROVIDED
FOR REGISTERED MAIL

(See Reverse)

U.S.G.P.O. 153-609

PS Form 3800, June 1985

Sent to	
Sun Exploration & Production	
Box 1861	
P.O., State and ZIP Code	
Midland, TX 79702-1861	
Postage	\$ 1.00
Certified Fee	\$ 1.00
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt by Air to whom and by whom delivered	\$ 0
Return Receipt by Air to addressee by whom and by whom delivered	
TOTAL Postage and Fees	\$ 2.00
Postmark	

Corinne B. Grace
Post Office Box 1418
Carlsbad, New Mexico 88220
Phone 505-887-5581

April 21, 1988

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Sohio Petroleum Company
5420 LBJ Freeway
Suite 1000
Dallas, Texas 75240

Re: Jess SWD No. 1 Well
Section 24, T26S, R30E, N.M.P.M.,
Eddy County, New Mexico

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Very truly yours,

Mike Butts
Agent

Enclosures
MB/lm

P-484 859 285

INSTRUCTIONS FOR CERTIFIED MAIL
POSTAGE AND FEE REQUIRED
FOR FIRST CLASS MAIL
(See Reverse)

U.S. G.P.O. 150-505

PS Form 3800, June 1985

To: Sohio Petroleum Co.	
Address: 5420 LBJ Freeway, Suite 1000	
P.O. Box and ZIP Code Dallas, TX 75240	
Postage	\$ 1.85
Certified Fee	0.50
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt (if any) to whom it is delivered	90
Return Receipt (if any) to whom it is delivered by	
TOTAL Postage and Fees	\$ 3.60
Postmark Date	

Affidavit of Publication

Copy of Publication

No. 12325

STATE OF NEW MEXICO,
County of Eddy:

Gary D. Scott being duly
sworn, says: That he is the Publisher of The
Artesia Daily Press, a daily newspaper of general circulation,
published in English at Artesia, said county and state, and that
the hereto attached Legal Notice

was published in a regular and entire issue of the said Artesia
Daily Press, a daily newspaper duly qualified for that purpose
within the meaning of Chapter 167 of the 1937 Session Laws of
the State of New Mexico for 1 days
the same day as follows:

First Publication May 4, 1988

Second Publication

Third Publication

Fourth Publication

and that payment therefore in the amount of \$

has been made.

Subscribed and sworn to before me this 4th day
of May, 1988.

Barbara Ann Boon
Notary Public, Eddy County, New Mexico

My Commission expires September 23, 1991

LEGAL NOTICE

LEGAL NOTICE
Notice is hereby given that:
Complaints have been applied
to the New Mexico Conserva-
tion Department for a water
right in the Rio Grande
in Section 26
South of East,
New Mexico, New
Mexico. All drill
the disposal
water will
be in the Rio Grande
form. The water
3700
Mike Bots, New Oil Com-
pany, P.O. Box 1418,
Carrizozo, New Mexico,
88220, phone number (505)
887-3581.
Interested parties must file ob-
jections or request a hearing
with the Oil Conservation
Division, P.O. Box 2088,
Santa Fe, New Mexico,
87501, within 15 days.
Published in the Artesia Daily
Press, Artesia, N.M. May 4,
1988.

Legal 12325

Section XIV

Certification

XIV. Certification

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Mike Butts Title: Agent

Signature: Mike Butts Date: 5/2/88