



OIL CONSERVATION DIVISION
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**GIANT EXPLORATION &
PRODUCTION COMPANY**

2200 Bloomfield Highway
Post Office Box 2810
Farmington, New Mexico
87499-2810

	FAX
505	505
326-3325	327-7987

August 27, 1993

New Mexico Oil Conservation Division
State Land Office Building
P.O. Box 2088
Santa Fe, New Mexico 87504

Subject: Carson Unit Well No. 44-13
735' FSL, 735' FEL
Sec. 13, T25N, R12W
San Juan County, New Mexico

Dear Sir:

Enclosed for your approval is our Application for
Authorization to Inject for the above referenced well. Upon
receipt, an Affidavit of Publication will be forwarded to
you.

If you have any questions please call me at (505) 326-3325.

Sincerely,

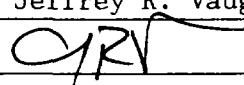
A handwritten signature in cursive script, reading "Diane G. Jaramillo".

Diane G. Jaramillo
Administrative Manager

/dgj

Enclosure

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: ☒ Secondary Recovery ☐ Pressure Maintenance ☐ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ Yes ☐ No
- II. OPERATOR: Giant Exploration & Production Company
ADDRESS: P.O. Box 2810, Farmington, New Mexico 87499
CONTACT PARTY: Jeffrey R. Vaughan PHONE: (505) 326-3325
- III. WELL DATA: Complete the data required on the reverse side of this form for each well processed 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 R-6172
- 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 sources 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: Jeffrey R. Vaughan TITLE: Vice President, Operations
SIGNATURE:  DATE: August 10, 1993
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstance of the earlier submittal. _____

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township, and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, PO Box 2088, Santa Fe, NM 87504-2088 within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

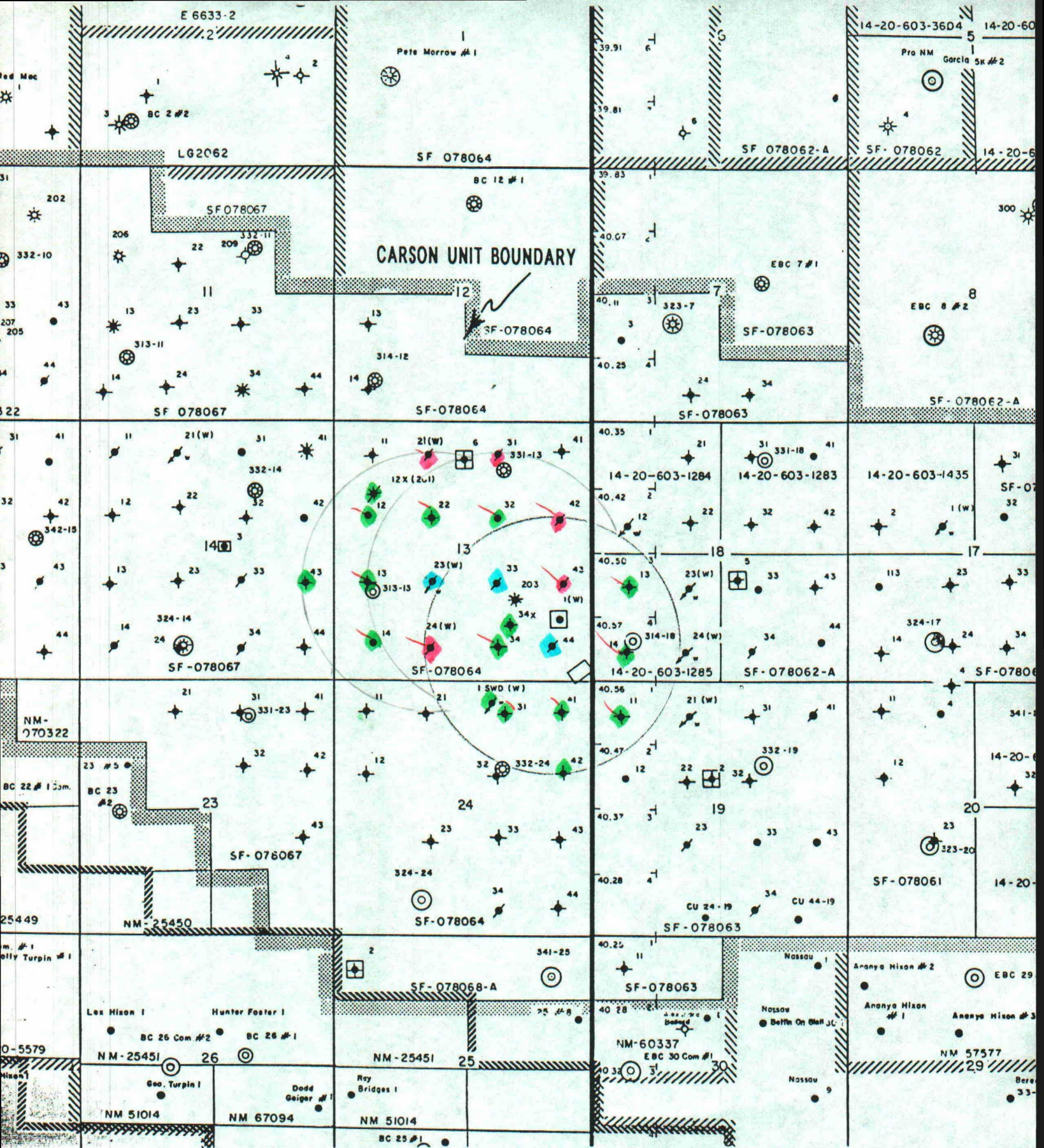
NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

Giant Exploration & Production Company
Application for Authorization to Inject
Form C-108 Supplemental Information

Carson Unit Well No. 44-13
SE/4, SE/4, Sec. 13, T25N, R12W
San Juan County, New Mexico

- I. Shown on Application
- II. Shown on Application
- III. Well data attached
- IV. Shown on Application
- V. Area of review is shown on attached map
- VI. Information for wells located in area of review are as follows:
 - Carson Unit No. 11-19
 - Carson Unit No. 13-18
 - Carson Unit No. 14-18
 - Carson Unit No. 24-13
 - Carson Unit No. 31-24
 - Carson Unit No. 33-13
 - Carson Unit No. 34-13
 - Carson Unit No. 41-24
 - Carson Unit No. 42-13
 - Carson Unit No. 42-24
 - Carson Unit No. 43-13
- VII.
 - 1. Proposed average injection rate is 600 bwpd, expected maximum injection rate is 1200 bwpd.
 - 2. This system will be closed.
 - 3. Average injection pressures are expected to be in the 954 - 979 psi range. Maximum injection pressure will be 979 psi.
 - 4. Refer to the attached water analysis report. Since the formation water to be encountered is primarily previously injected water, no problems are expected in mixing the two waters.
 - 5. This well is part of an extensive waterflood project active in the Carson Unit since 1959. All produced water is reinjected into the oil productive Lower Gallup sand to maintain pressure. Injection into the Lower Gallup sand is for waterflooding, not disposal.

- VIII. The injection zone is the Lower Gallup sandstone. This zone is to be 26' in thickness with a top of 4869' as shown on the SP log previously submitted. No known sources of drinking water exist in this area. Water well drilling in this area has shown the Ojo Alamo to be dry.
- IX. The well will be acidized if required to maintain injection rate and pressure.
- X. Logs were previously submitted.
- XI. No known sources of drinking water exist in this area.
- XII. This well is part of the existing approved waterflood operation for the Carson Unit. It is not a disposal well.
- XIII. Proof of notification is attached.
- XIV. Certification shown on Application.



Giant Exploration & Production
Company
Well Bore Diagram

WELL NAME Carson Unit Well No. 44-13
LOCATION 735' FSL, 735' FEL SECTION 13 T 25 N R 12 W
COUNTY San Juan STATE New Mexico

SURFACE CASING

Hole Size: 12-1/4"
Casing: 8-5/8", 24#, J-55
Casing Set @ 106' with 100 sx
cement containing 2% CaCl.

FORMATION TOPS

<u>Pictured Cliffs</u>	<u>1211'</u>
<u>Lewis</u>	<u>1418'</u>
<u>Cliffhouse</u>	<u>1584'</u>
<u>Menefee</u>	<u>2096'</u>
<u>Point Lookout</u>	<u>3688'</u>
<u>Mancos</u>	<u>3848'</u>
<u>Upper Gallup</u>	<u>4774'</u>

CEMENT TOP 4240' (Calc.)

PERFORATIONS

4869'-95'

PBD 4900' Proposed

PRODUCTION CASING

Hole Size: 7-7/8"
Casing: 4-1/2", 9.5#, J-55
Casing Set @ 5013' with 150 sx
cement containing 4% gel.

GLE 6412.28'

KBE 6420.88'

DF 6419.68'

WELL HISTORY

Spud date: 7/11/59

Original owner: Shell Oil Co.

IP 7/29/59 BOPD 137 BWPD -

MCFD 266 GOR 1940

Completion Treatment:

Spot 200 gal acid. Frac with
50,000 gal crude, 1#/gal sand

CURRENT DATA

Pumping Unit

Tubing 2-3/8" @4852'

Pump Size

Rod string

Remarks

Proposed water injection
schematic.

Packer
@4770'

5025' TD

Date Last Revised: 8/18/93

WELL DATA SHEET

Well Name:	Carson Unit #44-13
Legal Description:	735' FSL, 735' FEL Sec. 13, T25N, R12W San Juan County, N.M.
Well Type:	Water Injection Well (Waiting on Approval)
Spud Date:	07-11-59
Surface Casing Hole Size:	12-1/4"
Surface Casing Size:	8-5/8"
Surface Casing Depth:	106'
Cementing Record:	100 sks.
Production Casing Hole Size:	7-7/8"
Production Casing Size:	4-1/2"
Production Casing Depth:	5013'
Cementing Record:	150 sks.
Perforation:	4869' - 4895'
Plug Back Depth:	4900'
Total Depth:	5025'

Hixon Development Company,
Well Bore Diagram

WELL NAME Carson Unit Well No. 13-18

LOCATION 1980' FSL, 750' FWL

SECTION 18 T 25 N R 11 W

COUNTY San Juan

STATE New Mexico

SURFACE CASING

Hole Size: 12-1/4"

Casing: 8-5/8, 24#

Casing Set @ 109'

GLE 6386.3'

KBE 6395.3'

DF 6393.8'

FORMATION TOPS

Pictured Cliffs 1190'

Lewis 1407'

Cliff House 1575'

Allison-Menefee 2030'

Point Lookout 3702'

Mancos 3863'

Gallup 4773'

CEMENT TOP

PERFORATIONS

4874'-90'

4892'-98'

4904'-12'

4954'-68'

4974'-84'

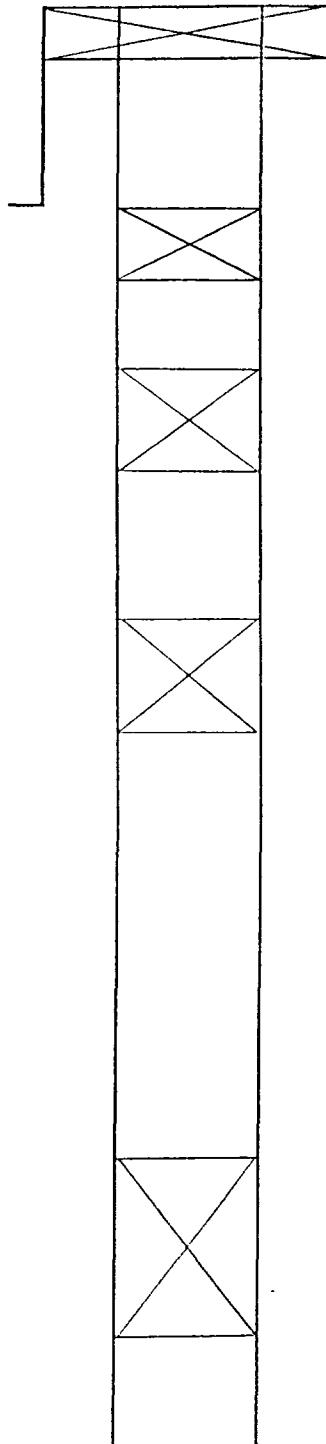
PBD 5038'

PRODUCTION CASING

Hole Size: 7-7/8"

Casing: 4-1/2", 9.5#

Casing Set @ 5038'



WELL HISTORY

Spud date: 1/11/60

Original owner: Shell Oil Co.

IP 3/7/60 BOPD 25 BWPD 0

MCFD 57 GOR 2280

Completion Treatment: _____

Fraced with 50,000 gal crude,
1 #/gal sand and 120 balls

CURRENT DATA

Pumping Unit _____

Tubing _____

Pump Size _____

Rod string _____

Remarks _____

Plug and abandoned 10/12/77

10 sk cmt plug at surface

25 sk cmt plug set at 180'

35 sk cmt plug set at 380'

50 sk cmt plug set at 1240'

20 sk cmt plug set across
perforations (4874'-4984')

5040' TD

Date Last Revised: 2/2/90

Hixon Development Company,
Well Bore Diagram

WELL NAME Carson Unit Well No. 14-18

LOCATION 660 FSL, 662.8' FWL

SECTION 18 T 25 N R 11 W

COUNTY San Juan

STATE New Mexico

SURFACE CASING

Hole Size: 12-1/4"
Casing: 8-5/8", 24#
Casing Set @ 100.5' with 100
sks of cement

FORMATION TOPS

Pictured Cliffs 1230'
Lewis 1421'
Cliff House 1592'
Allison-Menefee 2073'
Point Lookout 3710'
Mancos 3867'
Gallup 4780'

CEMENT TOP

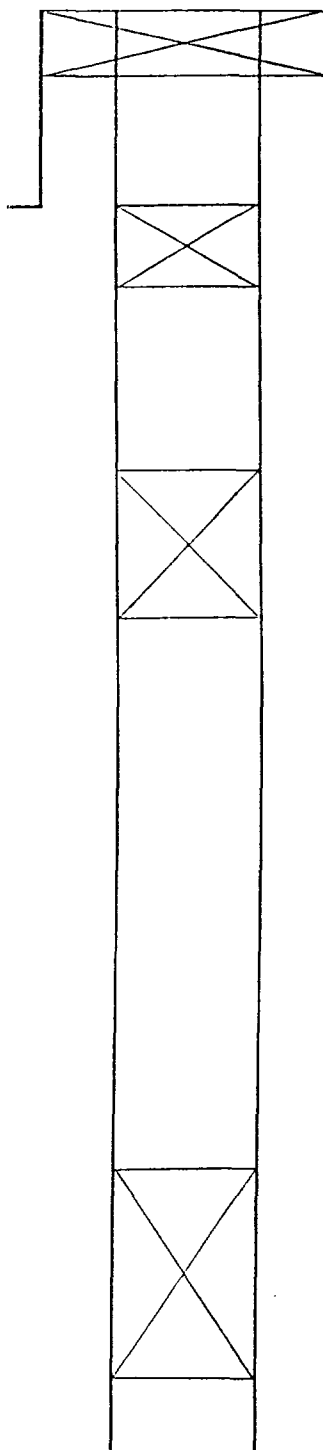
PERFORATIONS

4877'-4904'
4911'-23'
4951'-57'
4962'-76'
4980'-97'

PBD 5020'

PRODUCTION CASING

Hole Size: 7-7/8"
Casing: 4-1/2", 9.5#
Casing Set @ 5023' with 150
sks of cement



GLE 6413.62'

KBE 6423.12'

DF 6421.95'

WELL HISTORY

Spud date: 1/17/58
Original owner: Shell Oil Co.
IP 3/19/58 BOPD 290 BWPD 0
MCFD 137 GOR 470
Completion Treatment: Fraced with 50,000 gal crude,
1 #/gal 20-40 mesh sand.

CURRENT DATA

Pumping Unit _____
Tubing _____
Pump Size _____
Rod string _____
Remarks Plug and abandoned 3/27/75
Casing shot off at 1400'
25 sk cmt set at surface
35 sk cmt plug set at 320'
45 sk cmt plug set at 1400'
25 sk cmt plug set across
perforations (4877'-4997')

5025' TD

Date Last Revised: 2/2/90

WELL DATA SHEET

Well Name:	Carson Unit #24-13
Legal Description:	660' FSL, 1980' FWL Sec. 13, T25N, R12W San Juan County, N.M.
Well Type:	Water Injection
Spud Date:	12-01-59
Surface Casing Hole Size:	12-1/4"
Surface Casing Size:	8-5/8"
Surface Casing Depth:	111'
Cementing Record:	100 sks.
Production Casing Hole Size:	7-7/8"
Production Casing Size:	4-1/2"
Production Casing Depth:	5031'
Cementing Record:	150 sks.
Perforation:	4864' - 4888' 4897' - 4905' 4932' - 4938' 4946' - 4958' 4964' - 4978'
Plug Back Depth:	5031'
Total Depth:	5035'

WELL DATA SHEET

Well Name:	Carson Unit #33-13
Legal Description:	1980' FSL, 1980' FEL Sec. 13, T25N, R12W San Juan County, N.M.
Well Type:	Oil Well
Spud Date:	07-03-59
Surface Casing Hole Size:	12-1/4"
Surface Casing Size:	8-5/8"
Surface Casing Depth:	104'
Cementing Record:	100 sks.
Production Casing Hole Size:	7-7/8"
Production Casing Size:	4-1/2"
Production Casing Depth:	5038'
Cementing Record:	150 sks.
Perforation:	4876' - 4898' 4907' - 4914' 4945' - 4951' 4959' - 4968' 4978' - 4982'
Plug Back Depth:	5000'
Total Depth:	5040'

Giant Exploration & Production
Company
Well Bore Diagram

WELL NAME Carson Unit Well No. 34-13
LOCATION 660' FSL, 1976' FEL SECTION 13 T 25 N R 12 W
COUNTY San Juan STATE New Mexico

SURFACE CASING

Hole Size: 12-1/4"
Casing: 8-5/8", 24#, J-55
Casing Set @ 218' with 130 sks
cement containing 2% CaCl.

FORMATION TOPS

<u>Pictured Cliffs</u>	<u>1213'</u>
<u>Lewis</u>	<u>1417'</u>
<u>Cliffhouse</u>	<u>1590'</u>
<u>Menefee</u>	<u>2068'</u>
<u>Point Lookout</u>	<u>3693'</u>
<u>Mancos</u>	<u>3874'</u>
<u>Gallup</u>	<u>4778'</u>

CEMENT TOP 4100' (Calc.)

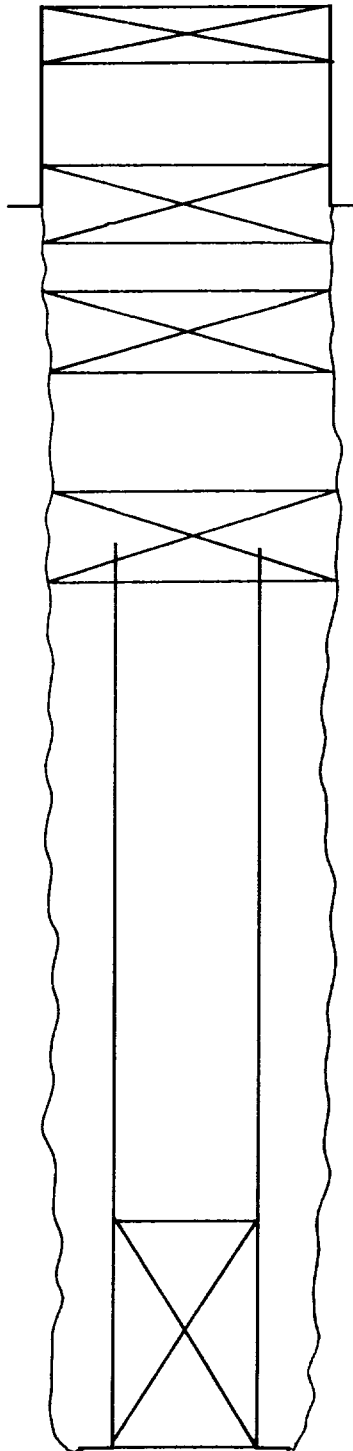
PERFORATIONS

4876'-4900'
4908'-16'
4944'-52'
4958'-72'
4976'-94'

PBD 5036'

PRODUCTION CASING

Hole Size: 7-7/8"
Casing: 4-1/2", 9.5#
Casing Set @ 5096' with 150 sks
cement containing 4% gel.



GLE 6412.1'

KBE 6421.1'

DF 6420'

WELL HISTORY

Spud date: 5/13/57
Original owner: Shell Oil Co.
IP 2/13/58 BOPD 100 BWPD -
MCFD 360 GOR 356
Completion Treatment: 2 Stage frac w/72,000 gal oil
and 1 #/gal 20/40 mesh sand.

CURRENT DATA

Pumping Unit _____
Tubing _____
Pump Size _____
Rod string _____
Remarks Well was P&A'd in 1977.
Gallup perforations were
plugged in 1975. Cement top
in casing calculated at
4585'.
Casing shot off at 1180'
50 sk plug set across casing
stub, Pictured Cliffs, and
Fruitland Coal.
35 sk plug placed over Ojo
Alamo.
25 sk plug placed over surface
casing shoe.
10 sk plug set at surface.
Date Last Revised: 8/9/93

5104' TD

WELL DATA SHEET

Well Name:	Carson Unit #42-13
Legal Description:	1980' FNL, 660' FEL Sec. 13, T25N, R12W San Juan County, N.M.
Well Type:	Oil Well
Spud Date:	08-09-59
Surface Casing Hole Size:	12-1/4"
Surface Casing Size:	8-5/8"
Surface Casing Depth:	106'
Cementing Record:	100 sks.
Production Casing Hole Size:	7-7/8"
Production Casing Size:	4-1/2"
Production Casing Depth:	4903'
Cementing Record:	150 sks.
Perforation:	4886' - 4898'
Plug Back Depth:	4902'
Total Depth:	4903'

WELL DATA SHEET

Well Name:	Carson Unit #43-13
Legal Description:	1980' FSL, 660' FEL Sec. 13, T25N, R12W San Juan County, N.M.
Well Type:	Oil Well
Spud Date:	01-12-57
Surface Casing Hole Size:	12-1/4"
Surface Casing Size:	8-5/8"
Surface Casing Depth:	234'
Cementing Record:	150 sks.
Production Casing Hole Size:	7-7/8"
Production Casing Size:	4-1/2"
Production Casing Depth:	5033'
Cementing Record:	200 sks.
Perforation:	4889' - 4897' 4900' - 4914' 4922' - 4927'
Plug Back Depth:	4965'
Total Depth:	5054'

Hixon Development Company
Well Bore Diagram

WELL NAME Carson Unit Well No. 41-24

LOCATION 660 FNL, 660' FEL

SECTION 24 T 25 N R 12 W

COUNTY San Juan

STATE New Mexico

SURFACE CASING

Hole Size: _____
Casing: 8-5/8", 32#
Casing Set @ 228' with 100 sks
of cement

FORMATION TOPS

<u>Pictured Cliffs</u>	<u>1259'</u>
<u>Lewis</u>	<u>1428'</u>
<u>Cliff House</u>	<u>1580'</u>
<u>Allison-Menefee</u>	<u>2057'</u>
<u>Point Lookout</u>	<u>3700'</u>
<u>Mancos</u>	<u>3872'</u>
<u>Gallup</u>	<u>4772'</u>
<u>Sanastee</u>	<u>5232'</u>
<u>Greenhorn</u>	<u>5597'</u>
<u>Dakota</u>	<u>5680'</u>
<u>Morrison</u>	<u>5906'</u>

CEMENT TOP

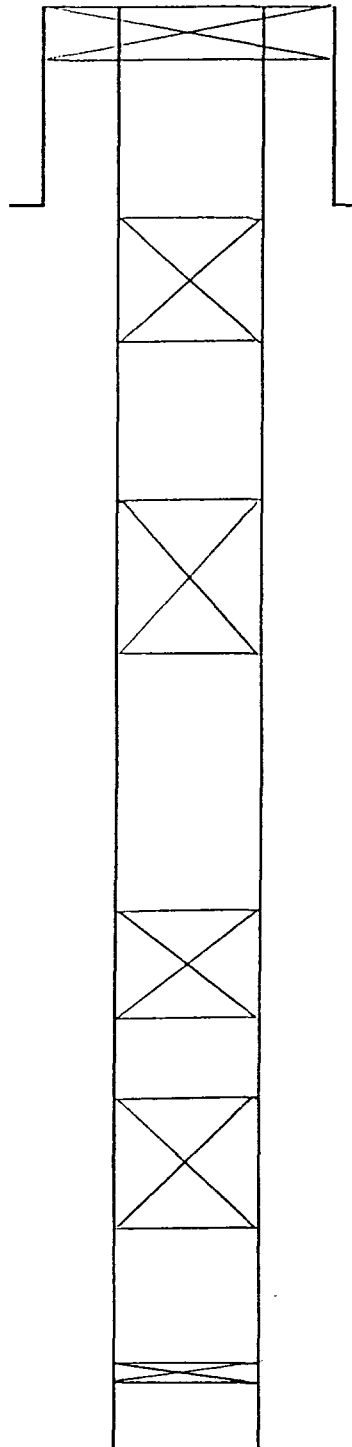
PERFORATIONS

5585'-77'
4875'-95'

PBD 5924'

PRODUCTION CASING

Hole Size: _____
Casing: 5-1/2", 14.5#, J-55
Casing Set @ 5967' with 300
sks of cement



5983' TD

GLE 6427.80'

KBE 6436.89'

DF 6436.02'

WELL HISTORY

Spud date: 7/19/56
Original owner: Shell Oil Co.
IP _____ BOPD _____ BWPD _____
MCFD _____ GOR _____
Completion Treatment: _____

CURRENT DATA

Pumping Unit _____
Tubing _____
Pump Size _____
Rod string _____
Remarks _____
Plug and abandoned 10/12/77
10 sk cmt plug at surface
50 sk cmt plug set at 380'
50 sk cmt plug set at 1247'
11/11/76: 35 sk cmt plug set
at 3900'
Squeezed Gallup perfs with
150 sks cmt 11/5/76
Bridge plug with 1 sk cmt at
5100'

Date Last Revised: 2/2/90

Giant Exploration & Production
Company
Well Bore Diagram

WELL NAME Carson Unit Well No. 42-24
LOCATION 1880' FSL, 560' FEL SECTION 24 T 25N R 12W
COUNTY San Juan STATE New Mexico

SURFACE CASING

Hole Size: 12-1/4"
Casing: 8-5/8", 24#, J-55
Casing Set @ 110' with 100 sks
cement containing 2% CaCl.

FORMATION TOPS

<u>Pictured Cliffs</u>	<u>1247'</u>
<u>Lewis</u>	<u>1426'</u>
<u>Cliffhouse</u>	<u>1591'</u>
<u>Menefee</u>	<u>2479'</u>
<u>Point Lookout</u>	<u>3680'</u>
<u>Mancos</u>	<u>3862'</u>
<u>Gallup</u>	<u>4782'</u>

CEMENT TOP

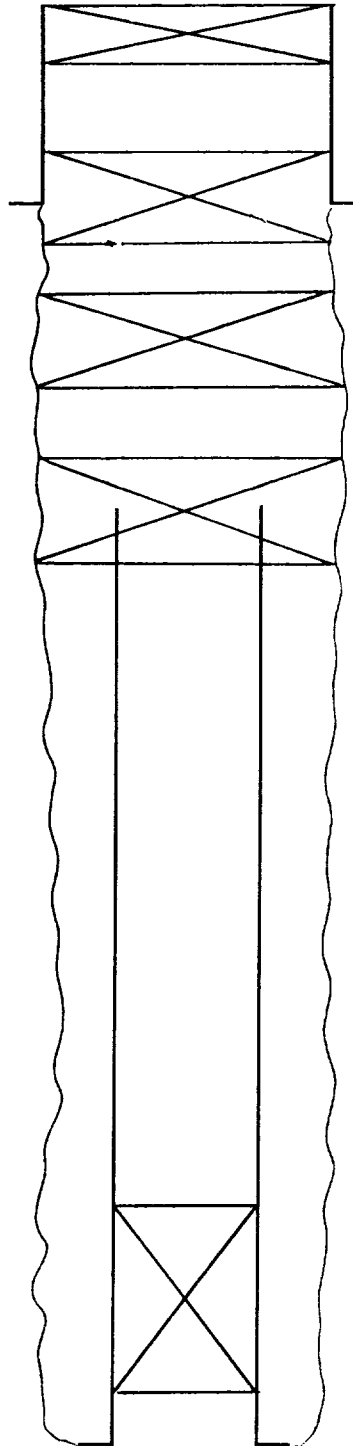
PERFORATIONS

4880'-99'
4913'-26'
4944'-55'
4964'-72'
4982'-86'

PBD

PRODUCTION CASING

Hole Size: 7-7/8"
Casing: 4-1/2", 9.5#
Casing Set @ 5009' with 150 sks
cement containing 4% gel
(220 cu.ft.)



GLE 6456.27'

KBE 6464.97'

DF 6463.77'

WELL HISTORY

Spud date: 8/17/59
Original owner: Shell Oil Co.
IP 9/11/59 BOPD 101 BWPD 0
MCFD 440 GOR 4350
Completion Treatment: _____
Frac w/ 50,000 gal crude and
1 #/gal sand.

CURRENT DATA

Pumping Unit _____
Tubing _____
Pump Size _____
Rod string _____
Remarks _____
Well was plug and abandoned
in 10/75 as follows:
Set a 35 sk plug across the
Gallup perforations.
Shot the casing off at 1131'.
Placed a 35 sk plug across
the casing stub.
Set a 45 sk plug at 400'.
Set a 35 sk plug at 180'.
Set a 10 sk plug at surface.

5010' TD

Date Last Revised: 8/12/93

Hixon Development Company,
Well Bore Diagram

WELL NAME Carson Unit Well No. 31-24

LOCATION 660' FNL, 1980' FEL

SECTION 24 T 25 N R 12 W

COUNTY San Juan

STATE New Mexico

SURFACE CASING

Hole Size: _____

Casing: 8-5/8", 32#, J-55

Casing Set @ 105'

FORMATION TOPS

Pictured Cliffs 1227'

Lewis 1415'

Cliff House 1587'

Allison-Menefee 2070'

Point Lookout 3694'

Mancos 3859'

Gallup 4780'

CEMENT TOP

PERFORATIONS

4876'-94'

4919'-24'

4943'-51'

4960'-68'

4976'-86'

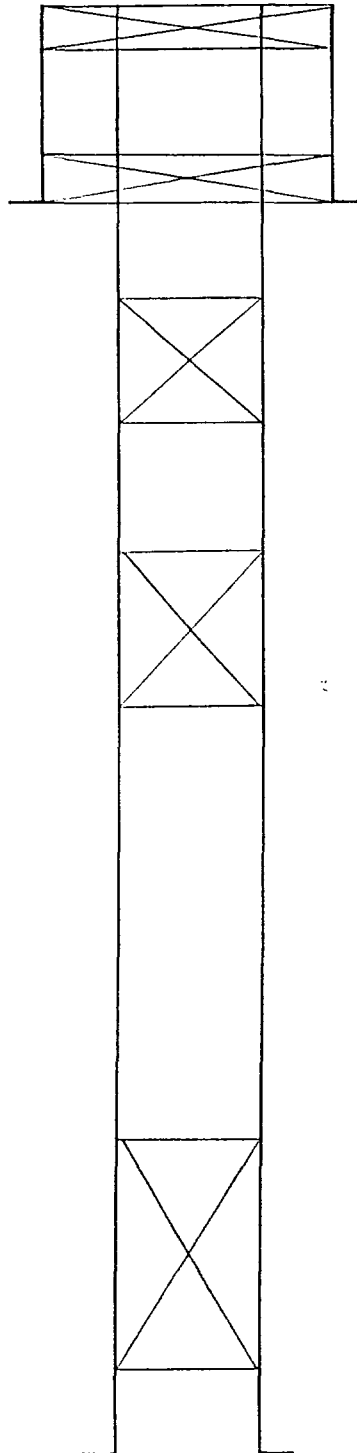
PBD 5029

PRODUCTION CASING

Hole Size: _____

Casing: 4-1/2", 9.5#

Casing Set @ 5029'



GLE 6429.0'

KBE 6438.2'

DF 6436.7'

WELL HISTORY

Spud date: 3/21/60

Original owner: Shell Oil Co.

IP 4/15/60 BOPD 196 BHPD 0

MCFD 643 GOR 3280

Completion Treatment: _____

Fraced with 50,000 gal crude,
1#/gal sand, and 100 balls.

CURRENT DATA

Pumping Unit _____

Tubing _____

Pump Size _____

Rod string _____

Remarks _____

Plug and abandoned 8/8/77

10 sk cmt plug at surface

35 sk cmt plug set at 177'

50 sk cmt plug set at 275'

50 sk cmt plug set at 1182'

20 sk cmt plug set across
perforations (4876'-4986')

Date Last Revised: 2/1/90

5030' TD

Hixon Development Company,
Well Bore Diagram

WELL NAME Carson Unit Well No. 11-19

LOCATION 660' FNL, 662.8' FWL

SECTION 19 T 25 N R 11 W

COUNTY San Juan

STATE New Mexico

SURFACE CASING

Hole Size: 12-1/4"

Casing: 8-5/8", 24#, J-55

Casing Set @ 103' with 100 sks
of cement

GLE 6422.6'

KBE 6431.6'

DF 6430.1'

FORMATION TOPS

Pictured Cliffs	1234'
Lewis	1406'
Cliff House	1576'
Allison-Menefee	2050'
Point Lookout	3686'
Mancos	3858'
Gallup	4761'

CEMENT TOP

PERFORATIONS

4854'-80'
4889'-96'
4927'-32'
4940'-52'
4959'-70'

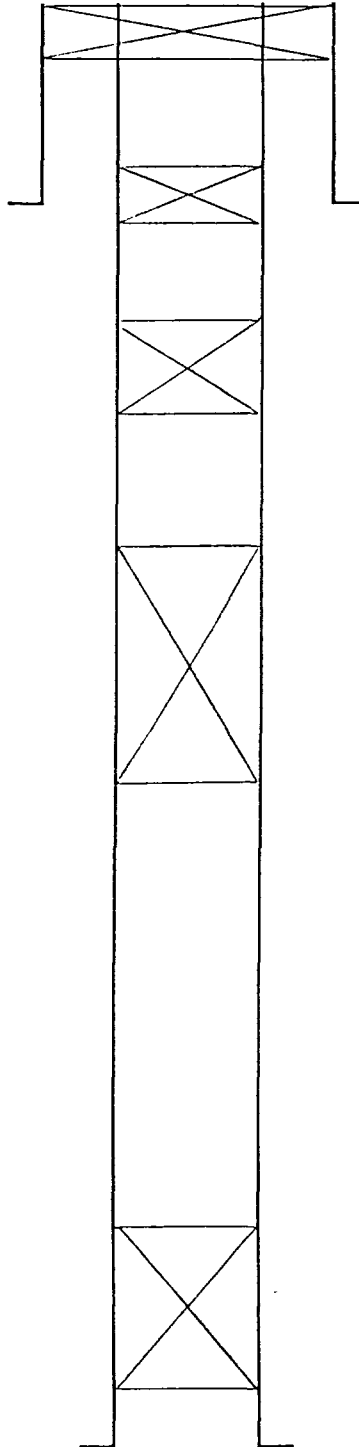
PBD 5016'

PRODUCTION CASING

Hole Size: 7-7/8"

Casing: 4-1/2", 9.5#

Casing Set @ 5016' with 150
sks of cement



5020' TD

WELL HISTORY

Spud date: 6/9/59

Original owner: Shell Oil Co.

IP 6/26/59 BOPD 96 BWPD 0

MCFD 89 GOR 930

Completion Treatment: _____
fraced with 50,000 gal crude,
1 #/gal sand, and 270 balls

CURRENT DATA

Pumping Unit _____

Tubing _____

Pump Size _____

Rod string _____

Remarks _____

Plug and abandoned 10/19/77

Casing shot off at 1225'

10 sk cmt plug at surface

25 sk cmt plug set at 172'

35 sk cmt plug set at 375'

50 sk cmt plug set at 1225'

25 sk cmt plug set across
perforations (4854'-4970')

Date Last Revised: 2/2/90

san. in testing labo. ry, inc.

907 WEST APACHE

P O BOX 2079

FARMINGTON, NEW MEXICO

PHONE

327-4966

Date June 10, 1977

Report to Hixon Development Company
Requested by A. Kuchera, Mgr. Sampled by Hixon Personnel
Project CBU #5 Location NW NW Sec. 6, T25N, R12W
Source of Material Lower Gallup Produced Water

Lab No. 24509 Water Analysis for Petroleum Engineering

TEST RESULTS

WATER ANALYSIS FOR PETROLEUM
ENGINEERING

<u>Constituent</u>		<u>Constituents</u>		
Total Solids	2263 ppm	Cations	Meg/L	ppm
pH	7.25	Sodium	29.3	674
Resistivity	2.94 ohms/meter @70°F	Calcium	2.3	45
Conductivity	3,400 micromhos/cm @ 70°F	Magnesium	0.5	6
		Iron	neg.	3
		Barium	0	0
<u>Comments</u>		<u>Anions</u>		
Essentially this is a 0.2% sodium sulfate solution.		Chloride	4.1	145
		Bicarbonate	4.0	244
		Carbonate	0	0
		Hydroxide	0	0
		Sulfate	24.0	1150

Copies to Hixon Development Co. (3)
P.O. Box 2810
Farmington, New Mexico 87401

Certified by:



AFFIDAVIT OF PUBLICATION

No. 32184

STATE OF NEW MEXICO,
County of San Juan:

C.J. SALAZAR being duly
sworn, says: "That she is the
CLASSIFIED MANAGER of
The Farmington Daily Times, a daily
newspaper of general circulation
published in English in Farmington,
said county and state, and that the
hereto attached LEGAL NOTICE

was published in a regular and entire
issue of the said Farmington Daily
Times, a daily newspaper duly quali-
fied for the purpose within the
meaning of Chapter 167 of the 1937
Session Laws of the State of New
Mexico for ONE consecutive
(days) (//////) on the same day as
follows:

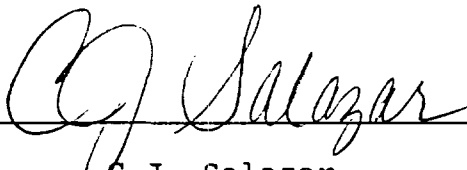
First Publication SATURDAY, AUGUST 21, 1993

Second Publication _____

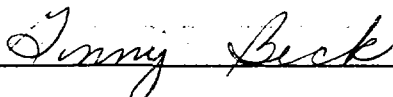
Third Publication _____

Fourth Publication _____

and the cost of publication was \$ 19.99



On 8-27-93 C.J. Salazar
appeared before me, whom I know personally to be
the person who signed the above document.



Notary Public, San Juan County,
New Mexico

My Comm expires: April 2, 1996

COPY OF PUBLICATI

PUBLIC NOTICE

Giant Exploration &
Production Company,
P.O. Box 2810,
Farmington, New Mexico
87499, (505) 326-3325,
whose agent is Jeffery R.
Vaughan hereby notifies
interested parties that the
following well is to be
converted to a water
injection well. Injection
will be into the Lower
Gallup perforated interval
from 4869' to 4895'.
Maximum rate will be
1200 BWPD at less than
979 psi. Any request for
information or objections
should be filed with the
Oil Conservation Division,
State Land Office
Building, P.O. Box 2088,
Santa Fe, New Mexico
87504 within 15 days.

Carson Unit No. 44-13
SE/4, SE/4
Sec. 13, T25N, R12W

Legal No. 32184
published in the
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1993.