



**GIANT EXPLORATION &
PRODUCTION COMPANY**

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

505 326-3325 FAX 505 327-7987

September 13, 1993

Mr. Frank Chavez
New Mexico Oil Conservation Division
1000 Rio Brazos Road
Aztec, New Mexico 87410

RECEIVED
SEP 15 1993
OIL CON. DIV.]
DIST. 3

Subject: Central Bisti Unit Well No. WI-63
1980' FNL, 660' FWL
Sec. 8, T25N, R12W E
San Juan County, New Mexico

Dear Mr. Chavez:

Enclosed for your information is our Application for
Authorization to Inject for the above referenced well. The
original Application has been sent to the New Mexico Oil
Conservation Division in Santa Fe for approval.

Sincerely,

Diane G. Jaramillo
Administrative Manager

/dgj

Enclosure

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

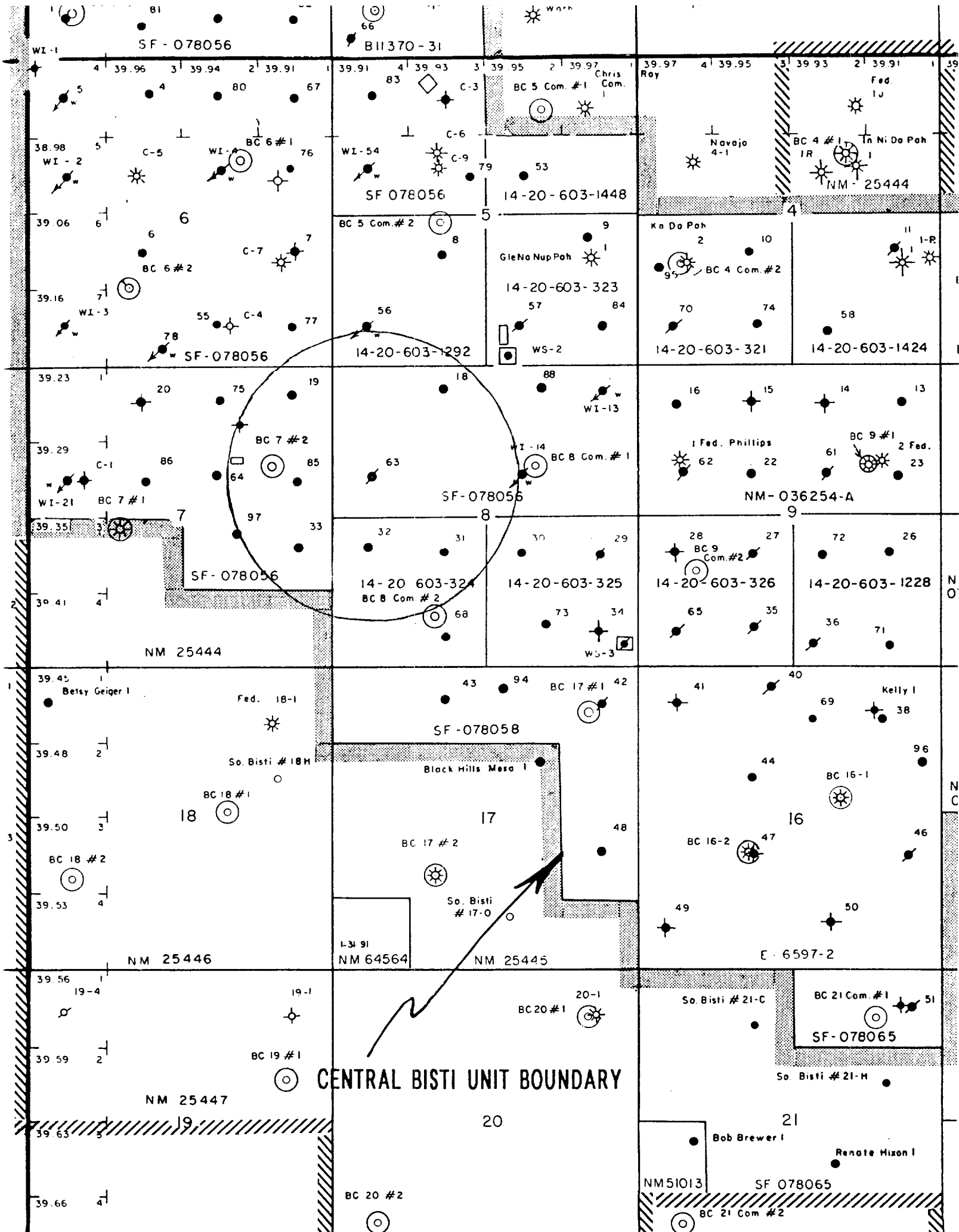
Central Bisti Unit Well No. WI-63
SW/4, NW/4, Sec. 8, T25N, R12W
San Juan County, New Mexico

- 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:
 - Central Bisti Unit No. 18
 - Central Bisti Unit No. 19
 - Central Bisti Unit No. 31
 - Central Bisti Unit No. 32
 - Central Bisti Unit No. 33
 - Central Bisti Unit No. 85
- 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 958 - 963 psi range. Maximum injection pressure will be 963 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 Central Bisti 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.

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 WFX-528
- 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: [Signature] DATE: _____
- * 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. _____

- VIII. The injection zone is the Lower Gallup sandstone. This zone is to be 10' in thickness with a top of 4806' 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 Central Bisti 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 Central Bisti Unit Well No. WI-63
LOCATION 1980' FNL, 660' FWL SECTION 8 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 @ 329' with 200 sks
cement containing 2% CaCl.

GLE 6230'

KBE 6241'

DF

FORMATION TOPS

Pictured Cliffs 1174'
Point Lookout 3620'
Mancos 3792'
Upper Gallup 4682'
Lower Gallup 4788'

WELL HISTORY

Spud date: 7/13/56
Original owner: Sunray Mid-Cont.
IP 8/31/56 BOPD 357 BWPD -
MCFD GOR
Completion Treatment:
Frac'd with 31,000 gal crude
and 15,000# sand.

CURRENT DATA

Pumping Unit
Tubing 2-3/8" (148 its.)
Pump Size
Rod string
Remarks
Formerly N.M. Fed. "C" #16.

CEMENT TOP 4010' (by T.S.)

PERFORATIONS

4806'-16'

PBD 4830'

PRODUCTION CASING

Hole Size: 7-7/8"
Casing: 5-1/2", 14#, J-55
Casing Set @ 4949' with 200 sks
50/50 Pozmix containing 2%
gel.

Packer
@4725'

4950' TD

Date Last Revised: 9/7/93

WELL DATA SHEET

Well Name:	Central Bisti Unit WI-63
Legal Description:	1980' FNL, 660' FWL Sec. 8, T25N, R12W San Juan County, N.M.
Well Type:	Water Injection
Spud Date:	07-13-56
Surface Casing Hole Size:	12-1/4"
Surface Casing Size:	8-5/8"
Surface Casing Depth:	329'
Cementing Record:	200 sks.
Production Casing Hole Size:	7-7/8"
Production Casing Size:	5-1/2"
Production Casing Depth:	4949'
Cementing Record:	200 sks.
Perforation:	4806' - 4816'
Plug Back Depth:	4826'
Total Depth:	4950'

WELL DATA SHEET

Well Name:	Central Bisti Unit #18
Legal Description:	660' FNL, 1980' FWL Sec. 8, T25N, R12W San Juan County, N.M.
Well Type:	Oil Well
Spud Date:	07-07-56
Surface Casing Hole Size:	12-1/4"
Surface Casing Size:	8-5/8"
Surface Casing Depth:	204'
Cementing Record:	175 sks.
Production Casing Hole Size:	7-7/8"
Production Casing Size:	5-1/2"
Production Casing Depth:	4960'
Cementing Record:	200 sks.
Perforation:	4796' - 4808' 4823' - 4831' 4862' - 4870' 4878' - 4884'
Plug Back Depth:	4925'
Total Depth:	4960'

WELL DATA SHEET

Well Name:	Central Bisti Unit #19
Legal Description:	660' FNL, 660' FEL Sec. 7, T25N, R12W San Juan County, N.M.
Well Type:	Oil Well
Spud Date:	07-02-56
Surface Casing Hole Size:	12-1/4"
Surface Casing Size:	8-5/8"
Surface Casing Depth:	192'
Cementing Record:	175 sks.
Production Casing Hole Size:	7-7/8"
Production Casing Size:	5-1/2"
Production Casing Depth:	5000'
Cementing Record:	200 sks.
Perforation:	4804' - 4818' 4833' - 4840' 4852' - 4858' 4871' - 4877' 4886' - 4895'
Plug Back Depth:	4969'
Total Depth:	5000'

WELL DATA SHEET

Well Name:	Central Bisti Unit #31
Legal Description:	1980' FSL, 1900' FWL Sec. 8, T25N, R12W San Juan County, N.M.
Well Type:	Oil Well
Spud Date:	08-14-59
Surface Casing Hole Size:	12-1/4"
Surface Casing Size:	8-5/8"
Surface Casing Depth:	315'
Cementing Record:	200 sks.
Production Casing Hole Size:	7-7/8"
Production Casing Size:	4-1/2"
Production Casing Depth:	4953'
Cementing Record:	250 sks.
Perforation:	4782' - 4793' 4812' - 4827' 4832' - 4841' 4852' - 4860' 4866' - 4878'
Plug Back Depth:	4920'
Total Depth:	4953'

WELL DATA SHEET

Well Name:	Central Bisti Unit #32
Legal Description:	1980' FSL, 660' FWL Sec. 8, T25N, R12W San Juan County, N.M.
Well Type:	Oil Well
Spud Date:	07-10-56
Surface Casing Hole Size:	12-1/4"
Surface Casing Size:	8-5/8"
Surface Casing Depth:	308'
Cementing Record:	150 sks.
Production Casing Hole Size:	7-7/8"
Production Casing Size:	5-1/2"
Production Casing Depth:	5054'
Cementing Record:	400 sks.
Perforation:	4831' - 4852' 4860' - 4892' 4901' - 4910' 4914' - 4926'
Plug Back Depth:	4950'
Total Depth:	5055'

WELL DATA SHEET

Well Name:	Central Bisti Unit #33
Legal Description:	1980' FSL, 660' FEL Sec. 7, T25N, R12W San Juan County, N.M.
Well Type:	Oil Well
Spud Date:	08-07-56
Surface Casing Hole Size:	12-1/4"
Surface Casing Size:	8-5/8"
Surface Casing Depth:	346'
Cementing Record:	225 sks.
Production Casing Hole Size:	7-7/8"
Production Casing Size:	5-1/2"
Production Casing Depth:	4990'
Cementing Record:	200 sks.
Perforation:	4842' - 4858' 4888' - 4898' 4908' - 4916' 4923' - 4932'
Plug Back Depth:	4953'
Total Depth:	5020'

WELL DATA SHEET

Well Name:	Central Bisti Unit #85
Legal Description:	1980' FNL, 660' FEL Sec. 7, T25N, R12W San Juan County, N.M.
Well Type:	Oil Well
Spud Date:	09-10-83
Surface Casing Hole Size:	12-1/4"
Surface Casing Size:	8-5/8"
Surface Casing Depth:	216'
Cementing Record:	135 sks.
Production Casing Hole Size:	7-7/8"
Production Casing Size:	5-1/2"
Production Casing Depth:	5030'
Cementing Record:	550 sks.
Perforation:	4833' - 4843' 4862' - 4872'
Plug Back Depth:	4976'
Total Depth:	5030'

San. in testing labo. ry, inc.

907 WEST APACHE

P O BOX 2079

FARMINGTON, NEW MEXICO

PHONE

327-4966

Date June 10, 1977

Port 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>	<u>Meg/L</u>	<u>ppm</u>
<u>Total Solids</u>	2263 ppm	<u>Cations</u>		
	7.25	Sodium	29.3	674
<u>Resistivity</u>	2.94 ohms/meter @70°F	Calcium	2.3	45
<u>Conductivity</u>	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:

