

# CENTRAL

---

RESOURCES, INC.

WEX 4/28/98

April 9, 1998

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

Subject: Central Bisti Unit Well No. 67  
660' FNL, 660' FEL  
NE/4, NE/4, Sec. 6, T25N, R12W  
San Juan County, New Mexico

Dear Sirs:

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

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

Sincerely,



Diane G. Jaramillo  
Office Supervisor

DGJ/

Enclosure

cc: Bureau of Land Management  
Farmington District Office

Central Resources, Inc.  
Application for Authorization to Inject  
Form C-108 Supplemental Information

Central Bisti Unit Well No. 67  
660' FNL, 660' FEL  
NE/4, NE/4, Sec. 6, 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 Well No. WI-4  
Central Bisti Unit Well No. 4  
Central Bisti Unit Well No. 52  
Central Bisti Unit Well No. WI-54  
Central Bisti Unit Well No. 66  
Central Bisti Unit Well No. 76  
Central Bisti Unit Well No. 80  
Central Bisti Unit Well No. 82  
Central Bisti Unit Well No. 83  
Federal "C" Well No. 3 (renamed CBU 2)

Wells in area of review but not penetrating injection zone:

Federal "C" Well No. 6 - P&A	TD - 711'
Federal "C" Well No. 7 - P&A	TD - 870'
Federal "C" Well No. 9 - P&A	TD - 1330'
North Bisti Coal 32 Well No. 2 - Prod.	TD - 1300'

- 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 700 - 965 psi range. Maximum injection pressure will be 965 psi.
  4. Refer to the attached water analysis reports. 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
- VIII. The injection zone is the Lower Gallup sandstone. This zone is to be 74' in thickness with a top of 4810' 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.

## 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 schematic 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.

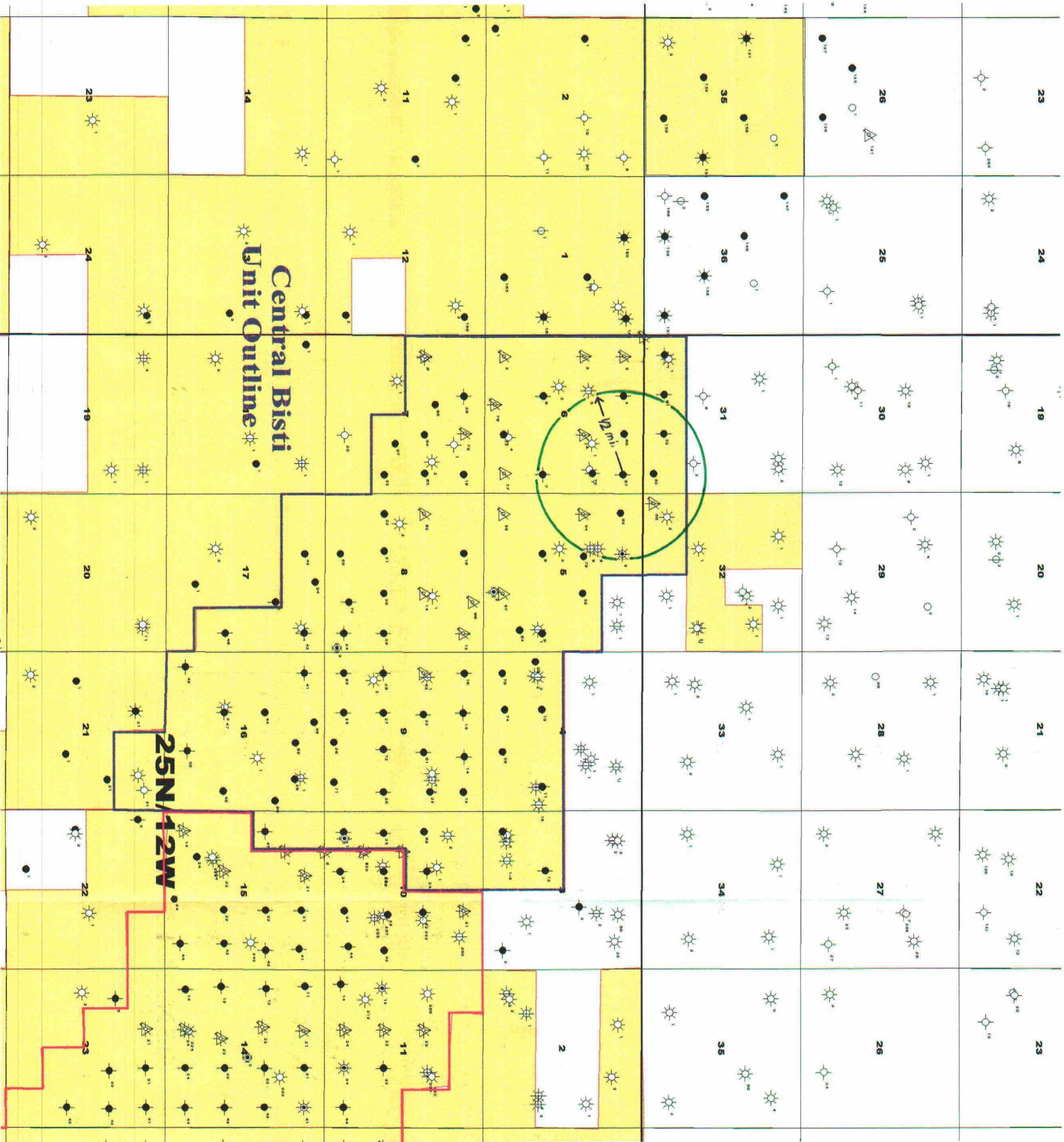
Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (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, P.O. Box 2088, Santa Fe, New Mexico 87501 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 request for hearing of administrative applications within 15 days from the date this application was mailed to them.



CENTRAL RESOURCES, INCORPORATED			
Central Bisti Unit			
San Juan County, New Mexico			
Base Map w/ CRI's Acreage			
Match Meyer			2/11/98
	1" = 4,000'		

## INJECTION WELL DATA SHEET -- SIDE 2

Tubing size 2-3/8" lined with Fiberglass/plastic set in a  
(material)  
Baker Model AD-1 or equivalent packer at 4741 feet  
(brand and model)

(or describe any other casing-tubing seal).

### Other Data

1. Name of the injection formation Lower Gallup
2. Name of field or Pool (if applicable) Central Bisti Unit
3. Is this a new well drilled for injection? ☐ Yes ☒ No  
 If no, for what purpose was the well originally drilled? Oil Well
4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) N/A
5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Pictured Cliffs 1114'

# Central Resources, Inc.

## Well Bore Diagram

WELL NAME Central Bisti Unit Well No. 67  
LOCATION 660' FNL, 660' FEL SECTION 6 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 @ 200.33' with 175  
sks cement containing 2%  
gel and 2% CaCl.

GLE 6158'

KBE 6170'

DF 6169'

### FORMATION TOPS

Pictured Cliffs 1114'  
Point Lookout 3715'  
Mancos 3800'  
Upper Gallup 4690'  
Lower Gallup 4810'

CEMENT TOP 3613' (by T.S.)

### PERFORATIONS

4816'-32'  
4873'-80'  
4885'-90'  
(6 JSPF)

PBD 4952' (orig.), 4940' (tag)

### PRODUCTION CASING

Hole Size: 7-7/8"  
Casing: 5-1/2", 14#, J-55  
Casing Set @ 4998' with 100 sks  
pozmix and 2% gel; tailed in  
with 100 sks neat cement.

### WELL HISTORY

Spud date: 6/13/56  
Original owner: Sunray Mid-Cont.  
IP 7/2/56 BOPD 408 BWPD         
MCFD        GOR         
Completion Treatment:         
2 stage frac with 30,000 gal  
crude and 30,000# 20/40 sand.

### CURRENT DATA

Pumping Unit         
Tubing 2-3/8" (157 jts.)  
Pump Size (no-go)  
Rod string (192) 3/4"  
Remarks         
Formerly N.M. Federal C #9  
7/59 - Renamed CBU #3  
3/63 - Converted to WI. Re-  
named CBU #WI-10.  
7/65 - Plugged back to 4848'.  
12/66 - Acidized w/1000 gal.  
10/75 - Converted to prod.  
1/78 - Acidized w/2000 gal.  
10/85 - CO to PBD. Acidized w/  
1500 gal.  
4/90 - Squeezed leaks 2787'-  
2847'. Acidized w/1000 gal.  
7/93 - Shut well in

5000' TD

Date Last Revised: 7/11/96

## INJECTION WELL DATA SHEET

SIDE 1

Central Resources, Inc.	Central Bisti Unit			
OPERATOR	LEASE			
67	660' FSL, 660' FEL	6	25N	12W
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE
San Juan County, New Mexico				

Tabular DataSurface Casing

Size	8-5/8"	Cemented with	175	sx.
TOC	surface	feet determined by	cement to surface	
Hole size	12-1/4"			

Intermediate Casing

Size		Cemented with		sx.
TOC		feet determined by		
Hole size				

Long string

Size	5-1/2"	Cemented with	200	sx.
TOC	3613'	feet determined by	temperature survey	
Hole size	7-7/8"			
Total depth	5000'			

## Perforated interval

4816' - 4832'

4873' - 4880'

4885' - 4890'

# Central Resources, Inc.

## Well Bore Diagram

WELL NAME Central Bisti Unit Well No. WI-4  
LOCATION 1980' FNL, 1980' FEL SECTION 6 T 25 N R 12 W  
COUNTY San Juan STATE New Mexico

### SURFACE CASING

Hole Size: 13-3/4"  
Casing: 8-5/8", 24#, J-55  
Casing Set @ 194' with 200 sks  
cement containing 2% CaCl.

GLE 6178'

KBE         

DF 6189'

### FORMATION TOPS

Pictured Cliffs 1188'  
Point Lookout 3640'  
Mancos 3800'  
Gallup 4710'  
Lower Gallup 4805'

**CEMENT TOP** 3900' (by T.S.)

### PERFORATIONS

4819'-39'  
  
(4882'-88' and 4897'-4900'  
plugged back)

**PBD** [4962' origl, 4866' (new)]

### PRODUCTION CASING

Hole Size: 7-7/8"  
Casing: 5-1/2", 14#, J-55  
Casing Set @ 4999' with 200 sks  
1-1 pozmix.

### WELL HISTORY

Spud date: 5/12/56  
Original owner: Sunray Mid-Cont.  
IP 6/9/56 BOPD 480 BWPD -  
MCFD          GOR           
Completion Treatment:           
2 stage frac w/35,000 gal oil  
and 35,000# sand

### CURRENT DATA

Pumping Unit           
Tubing 2-3/8" plastic coated  
Pump Size [pkr @ 4788']  
Rod string           
Remarks           
Formerly New Mexico Federal  
"C" #4 and CBU #GI-4.  
  
10/82 Cleaned out to 4920'.  
Set plug w/ 1 sk of cement  
at 4870'. Model AD-1  
packer set at 4703'.  
  
8/93 - Squeezed csg leak  
3567'-98'. Cemented  
broken head. Acidized  
perfs. Installed inj.  
tbq string.  
  
5000' TD Date Last Revised: 1/19/96

## INJECTION WELL DATA SHEET

SIDE 1

Central Resources, Inc.	Central Bisti Unit			
OPERATOR	LEASE			
WI-4	1980' FNL, 1980' FEL	6	25N	12W
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE
San Juan County, New Mexico				

Tabular DataSurface Casing

Size	8-5/8"	Cemented with	200	sx.
TOC	surface	feet determined by	cement to surface	
Hole size	13-3/4"			

Intermediate Casing

Size		Cemented with		sx.
TOC		feet determined by		
Hole size				

Long string

Size	5-1/2"	Cemented with	200	sx.
TOC	3900'	feet determined by	temperature survey	
Hole size	7-7/8"			
Total depth	5000'			

## Perforated interval

4819' - 4839'

# Central Resources, Inc.

## Well Bore Diagram

WELL NAME Central Bisti Unit Well No. 4  
LOCATION 660' FNL, 1980' FWL SECTION 6 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, ST&C  
Casing Set @ 311' with 200 sks  
cement containing 2% CaCl.

GLE 6164'

KBE 6175'

DF         

### FORMATION TOPS

Mancos 3806'  
Upper Gallup 4552'  
Lower Gallup 4814'

CEMENT TOP 3500' (T.S.)

### PERFORATIONS

4818'-20', 4827'-44'  
4852'-56', 4861'-68'  
4882'-92', 4896'-4908'  
4916'-24'  
(4 JSPF)

PBD 4968' (orig.), 4948' (new)

### PRODUCTION CASING

Hole Size: 7-7/8"  
Casing: 4-1/2", 9.5#, J-55  
Casing Set @ 5000' with 300 sks  
Pozmix cement containing 2% gel.

### WELL HISTORY

Spud date: 7/28/59

Original owner: Sunray Mid-Cont.

IP 8/17/59 BOPD 216 BWPD         

MCFD          GOR         

Completion Treatment:         

Frac'd w/20,000 gal oil and  
1 #/gal sand with balls.

### CURRENT DATA

Pumping Unit         

Tubing 2-3/8" (160 jts.)

Pump Size 2" x 1-1/2" x 16' RWAC

Rod string (54) 7/8", (139) 3/4"

Remarks         

10/62 - Refrac'd w/40,000 gal  
oil, 30,000# 20/40, & 20,000  
# 10/20 sand.

6/71 - Tagged fill at 4800',  
bailed to 4820'.

5/74 - Acidized w/500 gal.

3/79 - Squeezed casing leaks  
3466'-3589', CO to 4930'.  
Acidized w/2000 gal.

1/81 - Acidized w/1000 gal.

2/84 - CO to 4948'

2/86 - Acidized w/1500 gal.

9/91 - Acidized w/1000 gal.

5000' TD

Date Last Revised: 7/3/96

## INJECTION WELL DATA SHEET

SIDE 1

Central Resources, Inc.	Central Bisti Unit			
OPERATOR	LEASE			
4	660' FNL, 1980' FWL	6	25N	12W
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE
San Juan County, New Mexico				

Tabular DataSurface Casing

Size	8-5/8"	Cemented with	200	sx.
TOC	surface	feet determined by	cement to surface	
Hole size	12-1/4"			

Intermediate Casing

Size		Cemented with		sx.
TOC		feet determined by		
Hole size				

Long string

Size	4-1/2"	Cemented with	300	sx.
TOC	3500'	feet determined by	temperature survey	
Hole size	7-7/8"			
Total depth	5000'			

## Perforated interval

4818' - 4820'  
 4827' - 4844'  
 4852' - 4856'  
 4861' - 4868'  
 4882' - 4892'  
 4896' - 4908'  
 4916' - 4824'

# Central Resources, Inc.

## Well Bore Diagram

WELL NAME Central Bisti Unit Well No. 52  
LOCATION 660' FSL, 1980' FEL SECTION 31 T 26 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 @ 196' with 175 sks  
cement containing 2% gel.

GLE 6150'

KBE         

DF 6162'

### FORMATION TOPS

Pictured Cliffs 1112'  
Point Lookout 3640'  
Mancos 3832'  
Upper Gallup 4722'  
Lower Gallup 4820'

### WELL HISTORY

Spud date: 5/28/56  
Original owner: Sunray Mid-Cont.  
IP 6/22/56 BOPD 374 BWPD -  
MCFD          GOR           
Completion Treatment:           
Frac'd w/35,000 gal oil and  
35,000# sand (2 stages).

### CURRENT DATA

Pumping Unit           
Tubing 2-3/8"  
Pump Size           
Rod string           
Remarks           
Formerly N.M. Fed. C #7  
6/59 - Perf'd 4846'-50'. Set  
Model D @4800'. Converted to  
GI (named CBU #GI-1).  
1963? - Converted to WI.  
12/63 - Converted from WI to  
production.  
8/79 - CO to 4898'. Frac'd  
well w/900 bbl gelled oil &  
40,000# 20/40 sand.  
10/86 - Squeezed casing leaks.  
1/90 - CO to 4912'. Squeezed  
casing leaks. Acidized  
perfs.

CEMENT TOP 3750' (T.S.)

### PERFORATIONS

4829'-46'  
4846'-50'  
4886'-91'  
4896'-4907'

PBD 4912' (tag)

### PRODUCTION CASING

Hole Size: 7-7/8"  
Casing: 5-1/2", 14#, J-55, 8rd  
Casing Set @ 5002' with 200 sks  
1:1 Pozmix (14.3 ppg).

## INJECTION WELL DATA SHEET

SIDE 1

Central Resources, Inc.		Central Bisti Unit		
OPERATOR		LEASE		
52	660' FSL, 1980' FEL	31	26N	12W
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE
San Juan County, New Mexico				

Tabular DataSurface Casing

Size	8-5/8"	Cemented with	175	sx.
TOC	surface	feet determined by	cement to surface	
Hole size	12-1/4"			

Intermediate Casing

Size		Cemented with		sx.
TOC		feet determined by		
Hole size				

Long string

Size	5-1/2"	Cemented with	200	sx.
TOC	3750'	feet determined by	temperature survey	
Hole size	7-7/8"			
Total depth	5002'			

## Perforated interval

4829' - 4846'  
 4846' - 4850'  
 4886' - 4891'  
 4896' - 4907'

# Central Resources, Inc.

## Well Bore Diagram

WELL NAME Central Bisti Unit Well No. WI-54  
LOCATION 1980' FNL, 660' FWL SECTION 5 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 @ 192' with 175 sks  
cement containing 2% gel

GLE \_\_\_\_\_

KBE 6168'

DF \_\_\_\_\_

### FORMATION TOPS

Pictured Cliffs 1102'  
Point Lookout 3607'  
Mancos 3800'  
Upper Gallup 4676'  
Lower Gallup 4788'

### WELL HISTORY

Spud date: 6/26/56  
Original owner: Sunray Mid-Cont.  
IP 7/27/56 BOPD 225 BWPD -  
MCFD \_\_\_\_\_ GOR \_\_\_\_\_  
Completion Treatment: \_\_\_\_\_  
2 stage frac w/35,000 gal oil  
and 35,000# 20-40 mesh sand

### CURRENT DATA

Pumping Unit \_\_\_\_\_  
Tubing 2-7/8" @4751'  
Pump Size \_\_\_\_\_  
Rod string \_\_\_\_\_  
Remarks \_\_\_\_\_  
12/63 Model D packer driven  
to 4893'.  
10/82 Perfs squeezed with 175  
sks cement. Reperforated  
4810'-22'

CEMENT TOP 3880' (by T.S.)

### PERFORATIONS

4810'-22'  
(4862'-70' and 4876'-82'  
squeezed off)

PBD 4969' (old), 4844' (new)

### PRODUCTION CASING

Hole Size: 7-7/8"  
Casing: 5-1/2", 14#, J-55  
Casing Set @ 5000' with 100 sks  
50/50 pozmix with 2% gel and 100  
sks regular cement.

(Well has 17# welding nipple on  
top of 14# casing.)

## INJECTION WELL DATA SHEET

SIDE 1

Central Resources, Inc.		Central Bisti Unit		
OPERATOR		LEASE		
WI-54	1980' FNL, 660' FWL	5	25N	12W
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE
San Juan County, New Mexico				

Tabular DataSurface Casing

Size	8-5/8"	Cemented with	175	sx.
TOC	surface	feet determined by	cement to surface	
Hole size	12-1/4"			

Intermediate Casing

Size		Cemented with		sx.
TOC		feet determined by		
Hole size				

Long string

Size	5-1/2"	Cemented with	200	sx.
TOC	3880'	feet determined by	temperature survey	
Hole size	7-7/8"			
Total depth	5003'			

Perforated interval

4810' - 4822'

# Central Resources, Inc.

## Well Bore Diagram

WELL NAME Central Bisti Unit Well No. 66 (WI)  
LOCATION 330' FSL, 330' FWL SECTION 32 T 26 N R 12 W  
COUNTY San Juan STATE New Mexico

### SURFACE CASING

Hole Size: 12-1/4"  
Casing: 8-5/8", 24#, J-55, ST&C  
Casing Set @ 155' with 150 sks  
cement containing 2% CaCl.

### FORMATION TOPS

Pictured Cliffs 1146'  
Lewis 1315'  
Mesaverde 1882'  
Point Lookout 3615'  
Mancos 3768'  
Upper Gallup 4700'  
Lower Gallup 4807'

CEMENT TOP 4150' (Calc.)

### PERFORATIONS

4804'-26'  
4864'-68'  
4874'-84'  
(4 JSPF)

PBD 4924'

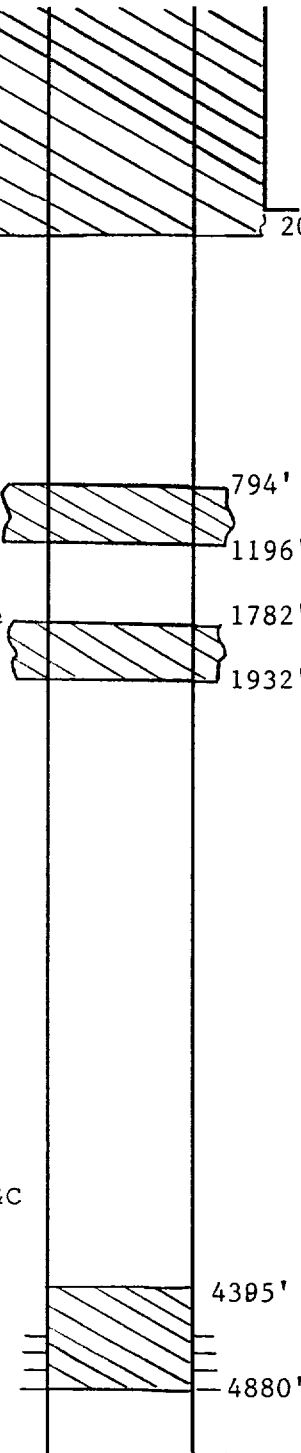
### PRODUCTION CASING

Hole Size: 7-5/8" (?)  
Casing: 4-1/2", 9.5#, J-55, Smls, ST&C  
Casing Set @ 4925' with Lead: 100  
sks cement containing 8%  
gel and Tail: 50 sks regular  
cement.

Fruitland  
Top

MesaVerde  
Top

Gallup  
Top



GLE 6149'

KBE 6158'

DF 6156'

### WELL HISTORY

Spud date: 12/12/57  
Original owner: Val R. Reese, Assoc.  
IP 1/7/58 BOPD 192 BWPD -  
MCFD          GOR           
Completion Treatment:           
Frac'd w/28,560 gal crude and  
20,000# sand.

### CURRENT DATA

Pumping Unit           
Tubing           
Pump Size           
Rod string           
Remarks           
Formerly Hickman #1  
Purchased by Sunray 7/1/59.  
9/60 - Converted to gas inj.  
Set Model D pkr @4757'.  
Renamed CBU #GI-20.  
7/72 - Converted to flowing  
producer.  
12/76 - Hung on pump. (7/77-  
FL @372', 5% oil cut)  
5/80 - Pulled rods and tubing.  
4/84 - Applied for approval  
to water inject. No evidence  
of this work taking place in  
the wellfiles. (Ranamed CBU  
#WI-66).

Date Last Revised: 6/19/96

## INJECTION WELL DATA SHEET

SIDE 1

Central Resources, Inc.	Central Bisti Unit	(Plugged & Abandoned 11/5/97)		
OPERATOR	LEASE			
WI-66	330' FSL, 330' FWL	32	26N	12W
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE
San Juan County, New Mexico				

Tabular DataSurface Casing

Size	8-5/8"	Cemented with	150	sx.
TOC	surface	feet determined by	cement to surface	
Hole size	12-1/4"			

Intermediate Casing

Size		Cemented with		sx.
TOC		feet determined by		
Hole size				

Long string

Size	4-1/2"	Cemented with	150	sx.
TOC	4150'	feet determined by	calculation	
Hole size	7-5/8"			
Total depth	4925'			

## Perforated interval

4804' - 4826'

4864' - 4868'

4874' - 4884'

# Central Resources, Inc.

## Well Bore Diagram

WELL NAME Central Bisti Unit Well No. 76  
LOCATION 1700' FNL, 660' FEL, SECTION 6 T 25 N R 12 W  
COUNTY San Juan STATE New Mexico

### SURFACE CASING

Hole Size: 12-1/4"  
Casing: 8-5/8", 24#, K-55, 8rd  
Casing Set @ 217.12' with 130 sx  
Class B cement containing  
2% CaCl and 1/4 #/sk cello-  
phane flakes.

### FORMATION TOPS

<u>Fruitland</u>	<u>1127'</u>
<u>Pictured Cliffs</u>	<u>1167'</u>
<u>Lewis</u>	<u>1369'</u>
<u>Cliffhouse</u>	<u>1523'</u>
<u>Menefee</u>	<u>2581'</u>
<u>Point Lookout</u>	<u>3673'</u>
<u>Mancos</u>	<u>3813'</u>
<u>Upper Gallup</u>	<u>4727'</u>
<u>Lower Gallup</u>	<u>4812'</u>

CEMENT TOP 3120' (Primary Cmt)

### PERFORATIONS

4829'-57' (2 JSPP)  
4892'-4900'  
4904'-12'

PBD 5042' (Tag)

### PRODUCTION CASING

Hole Size: 7-7/8"  
Casing: 4-1/2", 10.5#, K-55, 8rd  
Casing Set @ 5081.96' with 75 sks  
65:35 Litepoz 6 with 12%  
Bentonite and 1/4 #/sk celloflake,  
300 sks 50:50 Litepoz 6 with 2%  
CaCl and 6% Bentonite, tail in  
with 150 sks Class B cement with  
1/4 #/sk cellophane flakes.

GLE 6205'

KBE 6218'

DF

### WELL HISTORY

Spud date: 5/19/82  
Original owner: Hixon Development  
IP 6/23/82 BOPD 33 BWPD 34  
MCFD 8 GOR 246  
Completion Treatment:   
Frac with 50,000# 20-40 sand  
1310 bbl slick water

### CURRENT DATA

Pumping Unit Lufkin 160D  
Tubing 2-3/8" w/ packer @ 4779'  
Pump Size 2" x 1-1/2" x 16' RWAC  
Rod string (141) 3/4", (48) 7/8"  
Remarks   
6/82 - Original completion.  
11/82 - Cleaned out fill.  
10/83 - Perf'd 4892' to 4912'.  
Acidized and balled off,  
hung on pump.  
3/90 - Squeezed casing leaks  
2120'-2148', 2688'-2722'.  
Acidized with 2000 gal.  
6/92 - Tested for a casing  
leak, held pressure. Acid-  
ized perfs with 500 gal.  
10/97 - RTP  
  
  
  
Date Last Revised: 1/19/98

5120' TD

## INJECTION WELL DATA SHEET

SIDE 1

Central Resources, Inc.	Central Bisti Unit			
OPERATOR	LEASE			
76	1700' FNL, 660' FEL	6	25N	12W
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE
San Juan County, New Mexico				

Tabular DataSurface Casing

Size	8-5/8"	Cemented with	130	SX.
TOC	surface	feet determined by	cement to surface	
Hole size	12-1/4"			

Intermediate Casing

Size		Cemented with		SX.
TOC		feet determined by		
Hole size				

Long string

Size	4-1/2"	Cemented with	525	SX.
TOC	3120'	feet determined by	calculation	
Hole size	7-7/8"			
Total depth	5120'			

## Perforated interval

4829' - 4857'

4892' - 4900'

4904' - 4912'

# Central Resources, Inc.

## Well Bore Diagram

WELL NAME Central Bisti Unit Well No. 80  
LOCATION 660' FNL, 1980' FEL SECTION 6 T 25 N R 12 W  
COUNTY San Juan STATE New Mexico

### SURFACE CASING

Hole Size: 12-1/4"  
Casing: 8-5/8", 24#, K-55, 8rd  
Casing Set @ 216.36' with 130  
sks Class B containing 2%  
CaCl and 1/4 #/sk Flocele.

### FORMATION TOPS

<u>Fruitland Coal</u>	<u>1119'</u>
<u>Pictured Cliffs</u>	<u>1181'</u>
<u>Lewis</u>	<u>1331'</u>
<u>Cliffhouse</u>	<u>1503'</u>
<u>Menefee</u>	<u>2584'</u>
<u>Point Lookout</u>	<u>3624'</u>
<u>Mancos</u>	<u>3789'</u>
<u>Upper Gallup</u>	<u>4720'</u>
<u>Lower Gallup</u>	<u>4802'</u>

CEMENT TOP 3710' (by CBL)

### PERFORATIONS

4817'-43' (2 JSPF)

PBD 5006' (tag w/CBL)

### PRODUCTION CASING

Hole Size: 7-7/8"  
Casing: 4-1/2", 10.5#, K-55  
Casing Set @ 5067.74' w/ 75 sks  
65:35 Litepoz 6 w/12% gel, 1/4  
#/sk Flocele; 109 bbl mud; 20 bbl  
CW 100; 300 sks 50:50 Litepoz 6  
w/2% CaCl, 1/4#/sk Flocele; and  
150 sks Class B w/2% CaCl and  
1/4 #/sk Flocele.

GLE 6171'

KBE 6184'

DF

### WELL HISTORY

Spud date: 5/26/82  
Original owner: Hixon Development  
IP 6/29/82 BOPD 27 BWPD 10.1  
MCFD 8 GOR 291  
Completion Treatment:   
Frac w/54,967 gal 2% KCl and  
50,000# 20-40 sand.

### CURRENT DATA

Pumping Unit 2-3/8" x 2-1/16"  
Tubing   
Pump Size 1-1/2" tbg pump  
Rod string (193) 3/4"  
Remarks   
9/84 - Acidized with 1000 gal  
  
4/87 - Ran casing insp log;  
bad casing 2650'- 3000'.  
Returned well to prod.  
under packer.  
8/90 - Tested csg leaks  
2682'-3526'. Well returned  
prod. under packer.  
12/90 - Well shut in.  
5/95 - Ran 3-1/2" scab liner  
2054'-3610'. Acidized  
perfs. RTP.  
  
  
Date Last Revised: 1/19/96

5090' TD

## INJECTION WELL DATA SHEET

SIDE 1

Central Resources, Inc.		Central Bisti Unit		
OPERATOR		LEASE		
80	660' FNL, 1980' FEL	6	25N	12W
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE
San Juan County, New Mexico				

Tabular DataSurface Casing

Size	8-5/8"	Cemented with	130	sx.
TOC	surface	feet determined by	cement to surface	
Hole size	12-1/4"			

Intermediate Casing

Size		Cemented with		sx.
TOC		feet determined by		
Hole size				

Long string

Size	4-1/2"	Cemented with	525	sx.
TOC	3710'	feet determined by	cement bond log	
Hole size	7-7/8"			
Total depth	5090'			

Perforated interval

4817' - 4843'

# Central Resources, Inc.

## Well Bore Diagram

WELL NAME Central Bisti Unit Well No. 82  
LOCATION 330' FSL, 660' FEL SECTION 31 T 25 N R 12 W  
COUNTY San Juan STATE New Mexico

### SURFACE CASING

Hole Size: 12-1/4"  
Casing: 8-5/8", 24#  
Casing Set @ 214.85' w/135 sks  
Class B containing 2% CaCl.  
(159 cu.ft.)

### FORMATION TOPS

<u>Fruitland</u>	<u>708'</u>
<u>Pictured Cliffs</u>	<u>1142'</u>
<u>Lewis</u>	<u>1350'</u>
<u>Cliffhouse</u>	<u>1510'</u>
<u>Menefee</u>	<u>2596'</u>
<u>Point Lookout</u>	<u>3629'</u>
<u>Mancos</u>	<u>3792'</u>
<u>Upper Gallup</u>	<u>4720'</u>
<u>Lower Gallup</u>	<u>4816'</u>

CEMENT TOP 500' by TS

### PERFORATIONS

4828'-48'  
4878'-84'  
4890'-4904'  
(2 JSPF)

PBD 5011' (tag)

### PRODUCTION CASING

Hole Size: 7-7/8"  
Casing: 5-1/2", 15.5#, K-55, ST&C  
Casing Set @ 5038.97' w/Lead:  
400 sks (1500 cu.ft.) Highlift  
I; Tail: 200 sks (236 cu.ft.)  
Class B w/2% CaCl.

GLE 6165'

KBE 6178'

DF

### WELL HISTORY

Spud date: 9/25/83  
Original owner: Hixon Development  
IP 11/4/83 BOPD 94 BWPD 0  
MCFD 43 GOR 462  
Completion Treatment:   
Frac w/2,048 bbl 2% KCl slick-  
water & 100,000# 20/40 sand.

### CURRENT DATA

Pumping Unit   
Tubing 2-3/8" (156 jts.)  
Pump Size 2" x 1-1/2" x 16' RWAC  
Rod string (194) 3/4"  
Remarks   
7/84 - Paraffin plugging, pump  
change.  
2/94 - Tagged fill @4942'.  
Hydrotest tubing, pump  
change.

## INJECTION WELL DATA SHEET

SIDE 1

Central Resources, Inc.		Central Bisti Unit		
OPERATOR		LEASE		
82	330' FSL, 660' FEL	31	25N	12W
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE
San Juan County, New Mexico				

Tabular DataSurface Casing

Size	8-5/8"	Cemented with	135	sx.
TOC	surface	feet determined by	cement to surface	
Hole size	12-1/4"			

Intermediate Casing

Size		Cemented with		sx.
TOC		feet determined by		
Hole size				

Long string

Size	5-1/2"	Cemented with	600	sx.
TOC	500'	feet determined by	temperature survey	
Hole size	7-7/8"			
Total depth	5040'			

## Perforated interval

4828' - 4848'  
4878' - 4884'  
4890' - 4904'

# Central Resources, Inc.

## Well Bore Diagram

WELL NAME Central Bisti Unit Well No. 83  
LOCATION 760' FNL, 660' FWL SECTION 5 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, ST&C  
Casing Set @ 216.2' with 150  
skts Class B containing 2%  
CaCl.

### FORMATION TOPS

<u>Fruitland</u>	<u>638'</u>
<u>Pictured Cliffs</u>	<u>1125'</u>
<u>Lewis</u>	<u>1320'</u>
<u>Cliffhouse</u>	<u>1500'</u>
<u>Menefee</u>	<u>2561'</u>
<u>Point Lookout</u>	<u>3613'</u>
<u>Mancos</u>	<u>3785'</u>
<u>Upper Gallup</u>	<u>4700'</u>
<u>Lower Gallup</u>	<u>4795'</u>

CEMENT TOP (Circ. to surf.)

### PERFORATIONS

4788'-92'  
4810'-30'  
4862'-68'  
4872'-86'  
(2 JSPE)

PBD 4981' (tag)

### PRODUCTION CASING

Hole Size: 7-7/8"  
Casing: 5-1/2", 15.5#, K-55, ST&C  
Casing Set @ 5018.97' with 400 skts  
(1500 cu.ft.) Highlift I and  
200 skts (236 cu.ft.) Class B  
w/2% CaCl.

GLE 6159'

KBE 6172'

DF

### WELL HISTORY

Spud date: 10/1/83  
Original owner: Hixon Development  
IP 11/7/83 BOPD 66 BWPD 1.4  
MCFD 25.2 GOR 382  
Completion Treatment:   
Frac w/2,123 bbl 2% KCl slick-  
water and 79,000# 20/40 sand.

### CURRENT DATA

Pumping Unit   
Tubing 2-3/8" (156 jts.)  
Pump Size 2" x 1-1/2" x 16'  
Rod string (188) 3/4" rods  
Remarks   
8/95 - Acidized perms with  
1000 gal 15% HCl.

## INJECTION WELL DATA SHEET

SIDE 1

Central Resources, Inc.	Central Bisti Unit			
OPERATOR	LEASE			
83	760' FNL, 660' FWL	5	25N	12W
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE
San Juan County, New Mexico				

Tabular DataSurface Casing

Size	8-5/8"	Cemented with	150	sx.
TOC	surface	feet determined by	cement to surface	
Hole size	12-1/4"			

Intermediate Casing

Size		Cemented with		sx.
TOC		feet determined by		
Hole size				

Long string

Size	5-1/2"	Cemented with	600	sx.
TOC	surface	feet determined by	circulated to surface	
Hole size	7-7/8"			
Total depth	5020'			

## Perforated interval

4788' - 4792'

4810' - 4830'

4862' - 4868'

4872' - 4886'

Giant Exploration & Production  
Company  
Well Bore Diagram

WELL NAME Central Bisti Unit Well No. 2 a.k.a Federal #C-3  
LOCATION 660' FNL, 1980' FWL SECTION 5 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, ST&C  
Casing Set @ 298.63' with 175  
sks cement.

**FORMATION TOPS**

Pictured Cliffs 1040'  
Lewis 1300'  
Point Lookout 3580'  
Mancos 3772'  
Gallup 4786'  
Lower Gallup 4796'

Pictured  
Cliffs  
Top

**CEMENT TOP** 3600' (T.S.)

**PERFORATIONS**

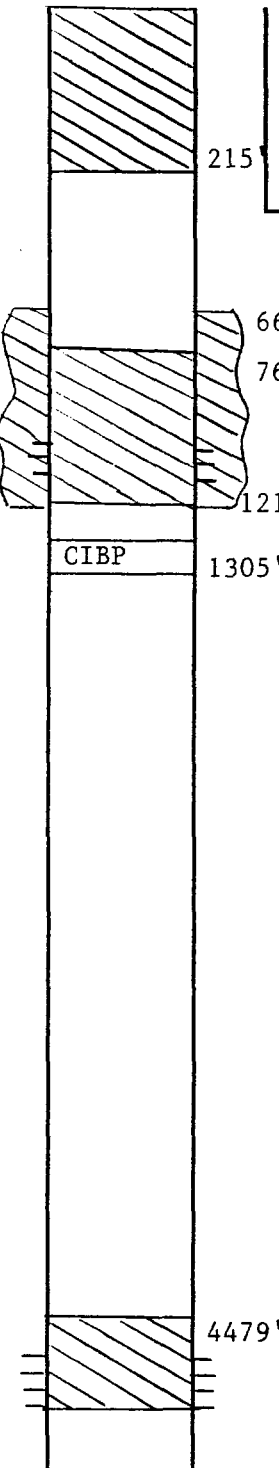
PC: 1125'-35'  
1132'-42'  
Gallup: 4796'-4804'

**PBD**

**PRODUCTION CASING**

Hole Size: 7-7/8"  
Casing: 5-1/2", 14#, J-55, ST&C  
Casing Set @ 4947' with 200 sks  
50/50 Pozmix containing 2% gel.

Gallup  
Top



GLE 6145'

KBE 6154'

DF \_\_\_\_\_

**WELL HISTORY**

Spud date: 7/5/58  
Original owner: Sunray Mid-Cont.  
IP 8/3/58 BOPD 35 BWPD 0  
MCFD \_\_\_\_\_ GOR 474  
Completion Treatment: \_\_\_\_\_  
Frac'd w/15,000 gal crude  
and 15,000# sand.

**CURRENT DATA**

Pumping Unit \_\_\_\_\_  
Tubing \_\_\_\_\_  
Pump Size \_\_\_\_\_  
Rod string \_\_\_\_\_  
Remarks \_\_\_\_\_  
Formerly N.M. Fed. C #22  
7/76 - Set 220' cmt plug  
above Gallup (4479'-4701').  
Set CIBP @1305'. Perf'd  
@1210', cmt w/160 sks (TOC  
@664' by CBL). Perf'd 1125'  
to 1135' w/2 JSPF. Acidized  
and swabbed dry. Perf'd  
1132'-42', swabbed dry.  
Renamed 'Federal #C-3'  
7/79 - Spotted cmt 763'-1200'  
and squeezed into perfs.  
Spotted 25 sks from surface  
to 215'. Installed P&A  
marker. Well abandoned.  
Date Last Revised: 1/22/96

## INJECTION WELL DATA SHEET

SIDE 1

Hixon Development Company	Federal "C" (Plugged & Abandoned 7/16/79)			
OPERATOR	LEASE			
3	660' FNL, 1980' FWL	5	25N	12W
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE
San Juan County, New Mexico				

Tabular DataSurface Casing

Size	8-5/8"	Cemented with	175	sx.
TOC	surface	feet determined by	cement to surface	
Hole size	12-1/4"			

Intermediate Casing

Size		Cemented with		sx.
TOC		feet determined by		
Hole size				

Long string

Size	5-1/2"	Cemented with	200	sx.
TOC	3600'	feet determined by	temperature survey	
Hole size	7-7/8"			
Total depth	4950'			

## Perforated interval

PC: 1125' - 1142'

Gallup: 4796' - 4804'

FW01W076

**BJ SERVICES COMPANY**  
**WATER ANALYSIS #FW01W076**  
**FARMINGTON LAB**

**GENERAL INFORMATION**

OPERATOR:	CENTRAL RESOURCES	DEPTH:	
WELL:	C.B.U. WATER FLOOD STATI	DATE SAMPLED:	03/05/98
FIELD:		DATE RECEIVED:	03/05/98
SUBMITTED BY:	GREG MCINTOSH	COUNTY:	SAN JUAN
WORKED BY	:D. SHEPHERD	STATE:	NM
PHONE NUMBER:		FORMATION:	

**SAMPLE DESCRIPTION**

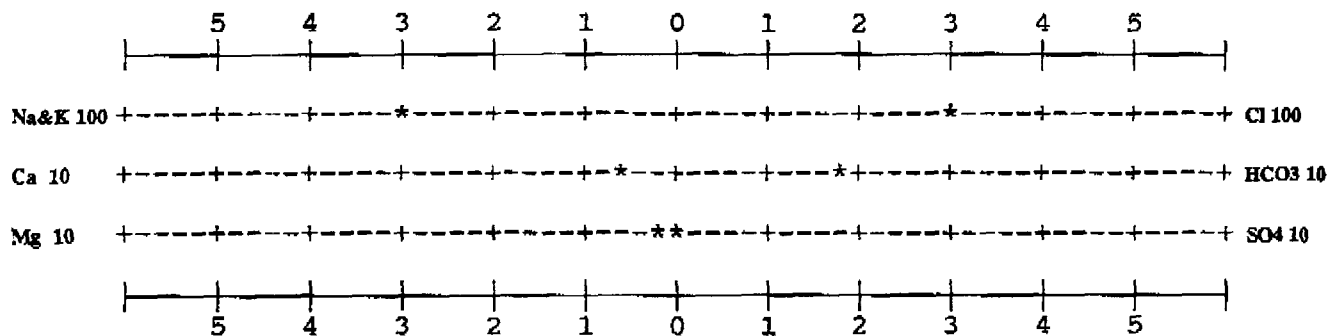
sample for analysis

**PHYSICAL AND CHEMICAL DETERMINATIONS**

SPECIFIC GRAVITY:	1.007	@ 74°F	PH:	6.97
RESISTIVITY (MEASURED ):	0.300	ohms @ 75°F		
IRON (FE++) :	0 ppm	SULFATE:		20 ppm
CALCIUM:	135 ppm	TOTAL HARDNESS		447 ppm
MAGNESIUM:	27 ppm	BICARBONATE:		1,090 ppm
CHLORIDE:	10,562 ppm	SODIUM CHLORIDE (Calc)		17,374 ppm
SODIUM+POTASS:	7,063 ppm	TOT. DISSOLVED SOLIDS:		19,182 ppm
H2S: STRONG TRACE		POTASSIUM CHLORIDE:		28 (PPM)

**REMARKS**

TANK LEVEL 7.5' @ 3:40 PM.

**STIFF TYPE PLOT (IN MEQ/L)**

ANALYST

D. SHEPHERD

# CENTRAL

## RESOURCES, INC.

---

April 9, 1998

Farmington Daily Times  
P.O. Box 450  
Farmington, New Mexico 87499

Subject: Legal Notice

Gentlemen/Madam:

Central Resources, Inc. requests that the attached legal notices be published in the Farmington Daily Times. Please forward an Affidavit of Publication, along with an invoice, to me at the letterhead address.

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

Sincerely,



Diane G. Jaramillo  
Office Supervisor

DGJ/

Enclosure

Central Resources, Inc., P.O. Box 2810, Farmington, New Mexico 87499, (505) 326-3325, whose agent is Thomas DeLong 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 4816' to 4890'. Maximum rate will be 1200 BWPD at less than 965 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.

Central Bisti Unit Well No. 67  
660' FNL, 660' FEL  
NE/4, NE/4, Sec. 6, T25N, R12W  
San Juan County, New Mexico

# CENTRAL

# RESOURCES, INC.

---

April 23, 1998

New Mexico Oil Conservation Division  
State Land Office Building  
2040 South Pacheco  
Santa Fe, New Mexico 87504

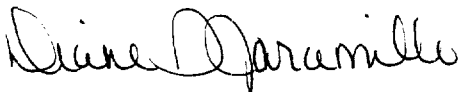
Subject: Central Bisti Unit Well No. 67  
660' FNL, 660' FEL  
NE/4, NE/4, Sec. 6, T25N, R12W  
San Juan County, New Mexico

Dear Sirs:

Enclosed please find the a copy of the Affidavit of Publication for the above referenced well. A copy of the Application for Authorization for Inject was forwarded to your office on April 9, 1998.

If you have any question please do not hesitate to call.

Sincerely,



Diane G. Jaramillo  
Office Supervisor

Enclosure

# AFFIDAVIT OF PUBLICATION

No. 39370

COPY OF PUBLICATION

STATE OF NEW MEXICO

County of San Juan:

CONNIE PRUITT being duly sworn says:  
That she is the acting Classified Manager  
of THE DAILY TIMES, a daily newspaper  
of general circulation published in English  
at Farmington, said county and state, and  
that the hereto attached Legal Notice was  
published in a regular and entire issue of  
the said DAILY TIMES, a daily newspaper  
duly qualified for the purpose within the  
meaning of Chapter 167 of the 1937  
Session Laws of the State of New Mexico  
for publication on the following day(s)

Tuesday, April 14, 1998

and the cost of publication is: \$18.91

Connie Pruitt

On 4-15-98 CONNIE PRUITT

appeared before me, whom I know  
personally to be the person who signed the  
above document.

Boese Nelson

My Commission Expires November 1, 2000

## Legals



### NOTICE

Central Resources, Inc., P.O.  
Box 2810, Farmington, New  
Mexico 87499, (505) 326-  
3325, whose agent is Thomas  
DeLong hereby notifies inter-  
ested parties that the following  
well is to be converted to a wa-  
ter injection well. Injection will  
be into the Lower Gallup per-  
forated interval from 4816' to  
4890'. Maximum rate will be  
1200 BWPD at less than 965  
psi. Any request for informa-  
tion or objections should be  
filed with the Oil Conservation  
Division, State Land Office  
Building, P.O. Box 2088, San-  
ta Fe, New Mexico 87504  
within 15 days.

Central Bisti Unit Well No. 67  
660' FNL, 660' FEL  
NE/4, NE/4, Sec. 6, T25N,  
R12W  
San Juan County, New Mexico

Legal No. 39370, published in  
The Daily Times, Farmington,  
New Mexico on Tuesday, April  
14, 1998.