

WFX 12/28/99

757

DEC 13 1999

APPLICATION FOR AUTHORIZATION TO INJECT

- ✓ I. Purpose: Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? yes no
- ✓ II. Operator: Manzano Oil Corporation
Address: P.O. Box 2107, Roswell, NM 88202-2107
Contact party: David Sweeney Phone: (505) 623-1996
- ✓ 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 R-9895
- ✓ 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: Donnie E. Brown Title VP Engineering

Signature: *Donnie E. Brown* Date: 11/18/99

• 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.

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, 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 requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

C-108
Application for Authorization to Inject
Manzano Oil Corporation
Lea County, New Mexico

Existing Producing Well
Benson Shugart Waterflood Unit Well #8
Unit A, Sec 35, T18S, R30E

- I. The purpose of this application is to request authorization to inject into the Penrose and Grayburg formation on the above mentioned well.
- II. Operator: Manzano Oil Corporation
P.O. Box 2107
Roswell, NM 88202-2107
David Sweeney (505) 623-1996
- III. Well Data: See Exhibit A.
- IV. This is an expansion of the Benson Shugart Waterflood Unit case No. 10686, Order No. R-9895.
- V. See attached map. Exhibit B.
- VI. See Exhibit C.
- VII.
 1. Proposed average daily injection volume, approximately 400 BWPD per injection well in the Penrose and Grayburg formation. Maximum daily injection volume for the Penrose and Grayburg formation approximately 600 BWPD per injection well.
 2. This will be a closed system.
 3. A step rate test will be run on the Penrose and Grayburg formation. Proposed maximum injection pressure 2000 psi.
 4. The source for the injection water, will be from the Double Eagle water system, along with produced water from the producing wells within the Benson Shugart Waterflood Unit. See Exhibit D for analysis on water and compatability with a producing well.
 5. Not applicable.
- VIII. This information was previously submitted on Form C-108 February 18, 1993 under Hanson Operating Co., Inc.
- IX. The proposed injection interval in the BSWU Well #8 Penrose and Middle Grayburg, are open and producing and should not require stimulation at this time. If it is needed, 2000-3000 gal of acid should be sufficient and a small sand water frac.
- X. Logs have been submitted.
- XI. This information was previously submitted on Form C-108 February 18, 1993 under Hanson Operating Co., Inc.
- XII. All relevant data available was examined to determine if any open faults or any other hydrologic connection between the injection zones and any underground source of drinking water existed and it was determined that these geologic or engineering conditions do not exist in the flood area

C-108
Application for Authorization to Inject
Manzano Oil Corporation
Lea County, New Mexico

Existing Producing Well
Benson Shugart Waterflood Unit Well #8
Unit A, Sec 35, T18S, R30E

(The purpose of this application is to request authorization to inject into the Penrose and Grayburg formation on the above mentioned well.)

XIII. Proof of Notice:

1. Certified letters sent to the surface owner and offset operators are attached as Exhibit E.
2. Copy of legal advertisement attached as Exhibit F.

XIV. Certification is signed.

Offset Operators:

Mr. Ray Westall
P.O. Box 4
Loco Hills, NM 88255

J&G Enterprises
P.O. Box 100
Artesia, NM 88211-0100

LaRue & Muncy
P.O. Box 196
Artesia, NM 88211-0196

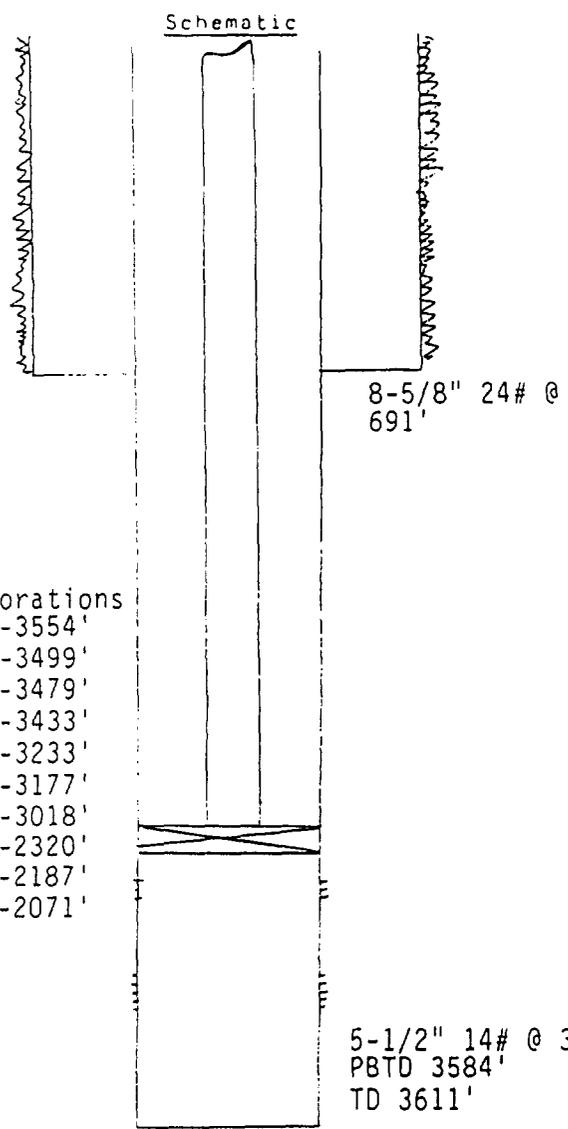
Yates Petroleum Corporation
105 South Fourth Street
Artesia, NM 88210

Casa Petroleum
P.O. Box 4
Loco Hills, NM 88255

Land Owner:

Richardson Cattle Co.
P.O. Box 487
Carlsbad, NM 88222

Manzano Oil Corporation OPERATOR Benson Shugart Waterflood Unit LEASE
 8 330' FNL & 990' FEL 35 18 South 30 East
 WELL NO. FOOTAGE LOCATION SECTION TOWNSHIP RANGE



Perforations
 3537-3554'
 3494-3499'
 3476-3479'
 3426-3433'
 3226-3233'
 3156-3177'
 3012-3018'
 2243-2320'
 2144-2187'
 1935-2071'

Tabular Data

Surface Casing
 Size 8-5/8" " Cemented with 275 s
 TOC Surface feet determined by circ 45 sks
 Hole size 11"

Intermediate Casing
 Size _____ " Cemented with _____ s
 TOC _____ feet determined by _____
 Hole size _____

Long string
 Size 5-1/2 " Cemented with 895 s
 TOC Surface feet determined by circ 105 sks
 Hole size 7-7/8"
 Total depth 3611'

Injection interval
3226 feet to 3233 feet
 (perforated ~~xxxxxxx~~)
3537 feet to 3554 feet (perforated)
3512 feet to 3516 feet (need to open)

Squeeze all perforations that are open except 3226-3233' & 3537-3554'.
 Propose to open 3512-3516'.
 Drill out CIBP @ 3460'.

Spud 11/29/79
 TD 12/09/79
 Completion 2/14/80

Tubing size 2-3/8" lined with plastic set in a
 (material)
Baker Model AD-1 packer at 3180'+ feet
 (brand and model)
 (or describe any other casing-tubing seal).

- Other Data
- Name of the injection formation Penrose, Grayburg
 - Name of field or Pool (if applicable) Shugart-Yates-Seven-Rivers-Queen-Grayburg
 - Is this a new well drilled for injection? Yes No
 If no, for what purpose was the well originally drilled? Developmental oil well.
 - 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) (3557-3554) (3494-3499) (3476-3479) (3426-3433) (3226-3233) (3156-3177) (2243-2320) (2144-2187) (1935-2071)
 - Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Overlying - Yates; Underlying - Grayburg.



RETRIEVABLE PACKER SYSTEMS



MODEL "AD-1"™ TENSION PACKER

Product No. 739-08

The "AD-1" Tension Packer is a compact, economical, retrievable packer. Primarily used in waterflood applications, this packer can also be used for production and/or treating operations. It is used where a set-down packer is impractical. Since the "AD-1" is tension set, it is ideally suited for shallow wells where set-down weight is not available.

FEATURES/BENEFITS

- Utilizes Baker's rugged rocker-type slips.
- Bore through the packer mandrel is larger than drift.
- Simple, low-cost packer for fluid injection.
- Three release methods insure retrievability.
- Uses proven one-piece packing element.

ACCESSORIES

Model "C-1"™ Tandem Tension™ Packer, (Prod. No. 602-26)
Cup-Type Packer with Unloader, (Prod. Nos. 602-30 & 675-07)
Unloading Subs, (Prod. No. 675-10)

MODEL "ADL-1"™ LARGE-BORE TENSION PACKER

Product No. 739-12

The "ADL-1" Tension Packer is a large-bore version of the Model "AD-1." The packer offers the same features and benefits as the Model "AD-1" and running and retrieving operations are the same.

TO SET PACKER:

Run packer to desired setting depth, making the last movement downward. Rotate the tubing to the left one-quarter turn at the tool. Then, pick up and pack-off.

TO RETRIEVE PACKER:

Lower the tubing at least one foot (0,31 m) more than is needed to remove applied tension so that the J-pin will move fully to the top of the J-slot.

Rotate the tubing to the right one-quarter turn at the packer so slips will now be in the running position. Packer can be moved to a new position and reset or it can be retrieved.

TO SHEAR RELEASE PACKER:

As an alternate release method, the Tension Packer has shear rings designed to part at tensions varying from 13,000-100,000 lb (5,89 - 45,35 t). The cone, packing element and guide drop down and are carried out of hole by the bottom sub.

TO RELEASE IN EMERGENCY:

Left-hand square threads on the top sub of the packer allow the tubing to be retrieved when the packer will not otherwise release.

Packer Size	Upstrain	
	Lb	Kg
41	2,000	907
43 & 45	5,000	2268
47	7,500	3402
49-55	15,000	6804

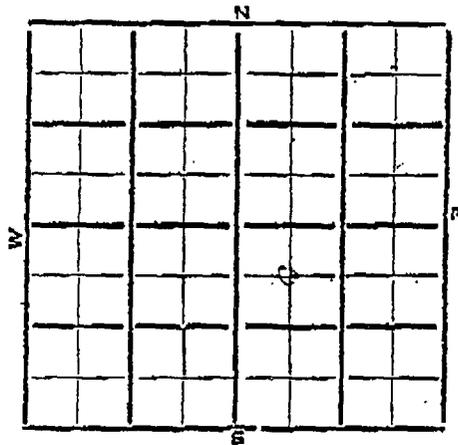
ORDERING EXAMPLE:
PRODUCT NO. 739-08
SIZE: 45A4 (5-1/2" OD 15,5-20 lb/ft Casing)
MODEL "AD-1" TENSION PACKER w/2-3/8" OD EU
Ø RD Box (1-55, 4.7 lb/ft Tubing x 2-3/8" OD
NU 10 RD Pin (1-55 4.6 lb/ft Tubing.

ORDERING EXAMPLE:
PRODUCT NO. 739-12
SIZE: 45B x 2.90 (5-1/2" OD 13-17 lb/ft Casing)
MODEL "ADL-1" LARGE-BORE TENSION
PACKER w/3-1/2" OD EU Ø RD Box x Pin (1-55
9.3 lb/ft Tubing.

Manzano Oil Corporation
 Benson Shugart Waterflood #8
 Well Data Information
 Exhibit C - Page 1

<u>Well Name</u>	<u>Operator</u>	<u>Type</u>	<u>Spud</u> <u>Reentry</u>	<u>Completion</u>	<u>Total</u> <u>Depth</u>	<u>Producing</u> <u>Zone</u>	<u>Perforations</u>	<u>Completion Information</u>	<u>Other</u> <u>Comments</u>
Arco #2 E, Sec 36, T18S, R30E SW/4NW/4	Ray Westall	Oil	9/18/84	10/07/84	3950'	7-Rivers Penrose Grayburg	2412-18' 2464-2470' 3152-66' 3232-38' 3286-94'	8-5/8" 23# @ 761' w/364 sks (circl 15 sks) 5-1/2" 17# @ 3950' w/300 sks (TOC 2750' calc)	Rotary
Ritz #3 G, Sec 35, T18S, R30E SW/4NE/4	Ray Westall	Oil	9/21/84	10/01/84	4000'	Queen Grayburg	3078-3213' 3844-74'	8-5/8" 23# @ 485' w/280 sks (circl 10 sks) 5-1/2" 17# @ 4000' w/1980 sks Circulated to surface	Rotary
Ritz #4 B, Sec 35, T18S, R30E NW/4NE/4	Ray Westall	Oil	1/01/85	4/01/85	3988'	Penrose	3314-42'	8-5/8" 23# @ 521' w/300 sks (circl 40 sks) 5-1/2" 17# @ 3972' 300 sks (TOC 2700 calculated)	

**SCOUT REPORT,
NEW MEXICO
OIL CONSERVATION COMMISSION**



Company Yates & Dooley
 Farm Name Creek Permit Well No. 1
 Land Classification Government
 Sec. 35 Twp. 18 Range 30 County Edley
 Feet from Line: 1980 N. 1980 S. 1980 E. W.
 Elevation _____ Method Maoh
 Contractor F, W & Y Scout
 Spudded 6-24-38 Completed _____ Initial Production _____
 Bond Status _____

AMOUNT CASING AND CEMENTING RECORD

SIZE	FEET	INCHES	SAX CEMENT
978	350		set
10	507		set
8 1/2	742		50

ACID RECORD

Gals. _____

Top Pay _____ TD _____

TA
TX
BX
TRB
TY
TBL
TWL

TUBING RECORD

PACKER _____

SHOOTING RECORD

No. of Quarts	From	To
S/	S/	S/
S/	S/	S/

DATE		DATE	
6-14	Maoh On Ground		
6-21	Loc		
6-28	TD 15' SD Repair		
7-12	Ø 485 RR		
7-19	TD 565 RR Rng 8" csg		
7-26	TD 565 RR Rng 10"		
8-2	TD 570 RR Csg 0 548		
8-9	Ø 695 RR		
8-16	Ø 960 X		
8-23	Ø 1720 A		
8-30	Ø 2167 A		
9-7	Ø 2435 A		
9-12	Ø 2750 L & A		
9-19	Ø 3007 L		
9-26	Ø 3070 L		
10-4	Ø 3383 L		
10-11	TD 3407 S 200' sulphur. Wtr		
	2 hrs 3404-C7		

SCALE PROGRAM FOR MIXING 2 WATERS

MANZANO OIL CO. ~~City of CARLSBAD~~
 DOUBLE EAGLE
 BSWU Well #11

TEMPERATURE (F) = 75.0

ION	CONCENTRATION (MG/L)	
	(DOUBLE EAGLE) WATER NO. 1	WATER NO. 2 (BSWU #11)
SODIUM	187.	44827.
CALCIUM	120.	6954.
MAGNESIUM	19.	1998.
CHLORIDE	426.	86000.
BICARBONATE	195.	427.
CARBONATE	0.	0.
SULFATE	25.	1400.
PH	7.20	7.10
SPECIFIC GRAVITY	1.0000	1.0990
RESISTIVITY	-1.00	0.06
IONIC STRENGTH	0.0198	2.7324
TDS	973.	141606.

TYPE OF SCALE	SOLUBILITY (PTB)	SCALE INDEX	SCALE (PTB)	SCALING TENDENCY
100.0 % WATER NO. 1 0.0 % WATER NO. 2				
CALCIUM SULFATE	675.	-2.30	-659.	NONE
CALCIUM CARBONATE	94.	0.09	11.	SLIGHT
90.0 % WATER NO. 1 10.0 % WATER NO. 2				
CALCIUM SULFATE	1117.	-1.30	-1015.	NONE
CALCIUM CARBONATE	106.	0.08	19.	SLIGHT
80.0 % WATER NO. 1 20.0 % WATER NO. 2				
CALCIUM SULFATE	1268.	-1.00	-1080.	NONE
CALCIUM CARBONATE	113.	0.10	25.	SLIGHT
70.0 % WATER NO. 1 30.0 % WATER NO. 2				
CALCIUM SULFATE	1327.	-0.81	-1053.	NONE
CALCIUM CARBONATE	108.	0.16	44.	SLIGHT

NOTE: PTB = POUNDS PER THOUSAND BARRELS

MANZANO OIL Corp
 Double East "City of Carsboro"
 B500 Well #11

TYPE OF SCALE	SOLUBILITY (PTB)	SCALE INDEX	SCALE (PTB)	SCALING TENDENCY
60.0 % WATER NO. 1	40.0 % WATER NO. 2			
CALCIUM SULFATE	1337.	-0.66	-976.	NONE
CALCIUM CARBONATE	96.	0.25	69.	SLIGHT
50.0 % WATER NO. 1	50.0 % WATER NO. 2			
CALCIUM SULFATE	1321.	-0.54	-874.	NONE
CALCIUM CARBONATE	83.	0.35	96.	SLIGHT
40.0 % WATER NO. 1	60.0 % WATER NO. 2			
CALCIUM SULFATE	1285.	-0.43	-752.	NONE
CALCIUM CARBONATE	67.	0.47	125.	MODERATE
30.0 % WATER NO. 1	70.0 % WATER NO. 2			
CALCIUM SULFATE	1237.	-0.34	-617.	NONE
CALCIUM CARBONATE	53.	0.60	152.	MODERATE
20.0 % WATER NO. 1	80.0 % WATER NO. 2			
CALCIUM SULFATE	1179.	-0.25	-473.	NONE
CALCIUM CARBONATE	41.	0.74	177.	MODERATE
10.0 % WATER NO. 1	90.0 % WATER NO. 2			
CALCIUM SULFATE	1115.	-0.16	-323.	NONE
CALCIUM CARBONATE	32.	0.88	200.	MODERATE
0.0 % WATER NO. 1	100.0 % WATER NO. 2			
CALCIUM SULFATE	1047.	-0.08	-168.	NONE
CALCIUM CARBONATE	24.	1.03	221.	MODERATE

NOTE: PTB = POUNDS PER THOUSAND BARRELS

N. M. O. G. C. CORE

NOTED
JUL 5 - 1962
HANSON

UNITED STATES
DEPARTMENT OF THE INTERIOR
Geological Survey
P. O. Drawer U
Artesia, New Mexico

Mr. Ernest A. Hanson
P.O. Box 1515
Roswell, N.M.

July 3, 1962
RECEIVED

JUL 6 1962

U. S. GEOLOGICAL SURVEY

ARTESIA, NEW MEXICO

Re: Oil and Gas Lease
NM 025503,

Gentlemen:

We have not yet received the reports checked below pertaining to your well No. 3-Ginsberg located in SW 1/4 NE 1/4 sec. 35, T. 18 S., R. 30 E., Eddy County, New Mexico:

Sundry Notice Form 9-331a, "Report of Setting and/or Cementing _____ Casing". (3 copies) _____

Sundry Notice Form 9-331a, "Subsequent Report of Treating Well". (3 copies) _____

Sundry Notice Form 9-331a, "Subsequent Report of Workover or Drill Deeper". (5 copies) X

Form 9-330, "Log of Oil or Gas Well" covering all drilling operations. (4 copies) _____

Geologic logs (30 CFR 221.59 requires that duplicate copies of all electrical logs, sample logs, drilling time logs, temperature, deviation, and other well surveys must be filed.) (2 copies) _____

Sundry Notice Form 9-331a "Subsequent Report of Abandonment" or Subsequent Report of Temporary Abandonment". (5 copies) _____

Please submit these delinquent reports to this office at your earliest convenience.

NOTED
JUL 9 1962
KNAUF

U. S. Geological Survey

Roswell 7-5-62

memo for Mr. Jim Knauff

We have performed no work of any kind on oil well which was drilled by OT

Form 9-881a
(Feb. 1961)

N. M. O. C. C. COPE

Budget Bureau No. 42-R338.4
Approval expires 12-31-60.

(SUBMIT IN TRIPLICATE)

Land Office Santa Fe, N.M.

Lease No. N.M. 025503

Unit _____

APPROVED
MAY 27 1961
RONNIE E. SMOOK
ACTING DISTRICT ENGINEER

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

RECEIVED

NOV 30 1961

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL.....	<input checked="" type="checkbox"/>	SUBSEQUENT REPORT OF WATER SHUT-OFF.....	<u>ARTESIA, OFFICE</u>
NOTICE OF INTENTION TO CHANGE PLANS.....	<input type="checkbox"/>	SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING.....	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF.....	<input type="checkbox"/>	SUBSEQUENT REPORT OF ALTERING CASING.....	
NOTICE OF INTENTION TO RE-DRILL OR REPAIR WELL.....	<input type="checkbox"/>	SUBSEQUENT REPORT OF RE-DRILLING OR REPAIR.....	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE.....	<input type="checkbox"/>	SUBSEQUENT REPORT OF ABANDONMENT.....	
NOTICE OF INTENTION TO PULL OR ALTER CASING.....	<input type="checkbox"/>	SUPPLEMENTARY WELL HISTORY.....	
NOTICE OF INTENTION TO ABANDON WELL.....	<input type="checkbox"/>		

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

November 15, 1961

#3 Ginsberg Federal

Well No. _____ is located 1980 ft. from N line and 1980 ft. from E line of sec. 35

C SW 1 NE 1, Sec. 35 T. 18 S., R. 30 E. N.M.P.M.

Wildcat Eddy New Mexico

The elevation of the derrick floor above sea level is 3420 ft.

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work):

It is proposed to re-enter the old hole formerly known as the Yates & Dooley - #1 Creek to a total depth of 3200' with cable tools in order to test the Queen Formation. The following casing and cementing program is proposed:

- 7" @ 750' w/50 sx. (Top of Salt @ 700')
- 4-1/2" @ 3200' w/150 sx. (Cmt. back to Base of Salt)

Heavy mud to be circulated ahead of cement.

RECEIVED
NOV 17 1961
U. S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company Ernest A. Hanson

Address P. O. Box 1515

Roswell, New Mexico

By [Signature]

Title Geologist

**NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT**

FORM C-128
Revised 5/1/57

SEE INSTRUCTIONS FOR COMPLETING THIS FORM ON THE REVERSE SIDE

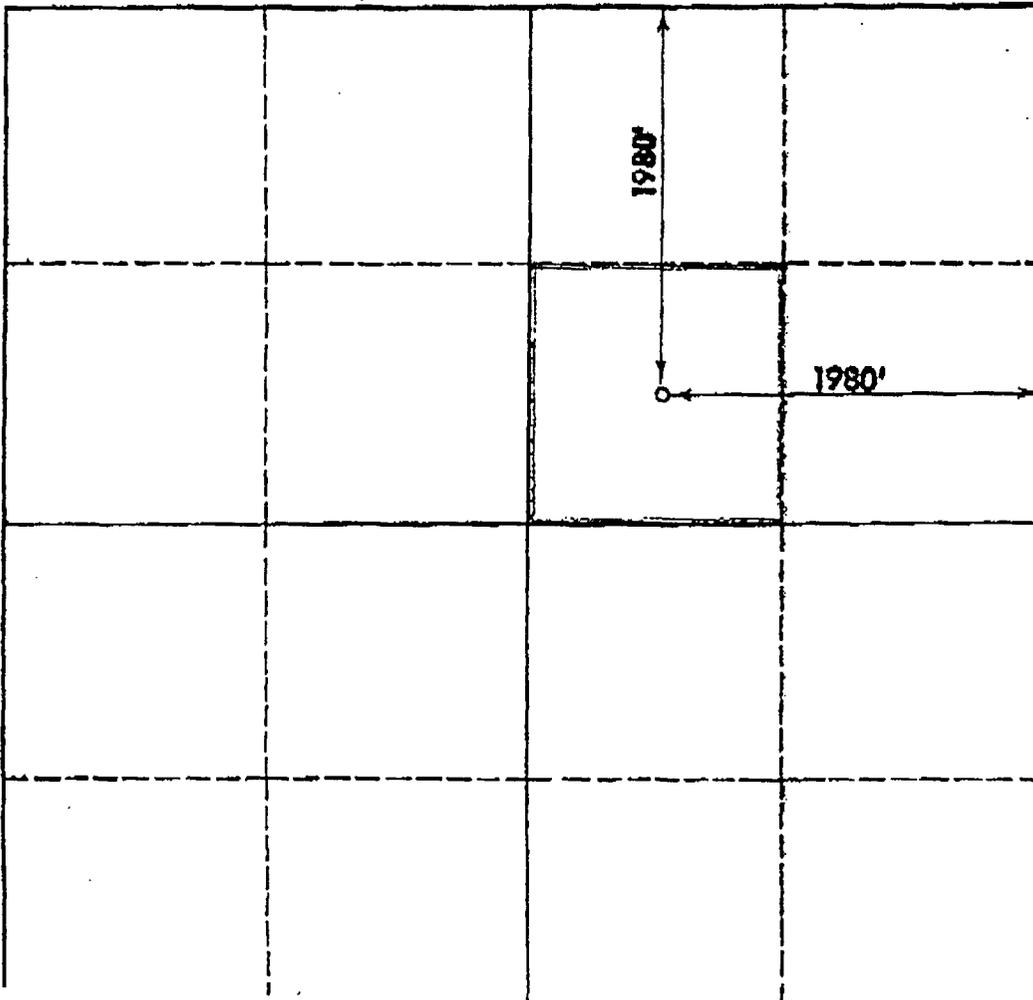
SECTION A

Operator Ernest A. Hanson		Lease Ginsberg Federal		Well No. 3
Unit Letter G	Section 35	Township T. 18 S.	Range R. 30 E.	County Eddy
Actual Footage Location of Well: 1980 feet from the North line and 1980 feet from the East line				
Ground Level Elev. 3418	Producing Formation Yates	Pool Without Underside	Dedicated Acreage: 40 Acres	

1. Is the Operator the only owner in the dedicated acreage outlined on the plat below? YES NO . ("Owner" means the person who has the right to drill into and to produce from any pool and to appropriate the production either for himself or for himself and another. (65-3-29 (e) NMSA 1935 Comp.)
2. If the answer to question one is "no," have the interests of all the owners been consolidated by communitization agreement or otherwise? YES NO . If answer is "yes," Type of Consolidation _____
3. If the answer to question two is "no," list all the owners and their respective interests below:

Owner	Land Description

SECTION B



CERTIFICATION

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

Name <i>Ernest A. Hanson</i>
Position Geologist
Company Ernest A. Hanson
Date Nov. 20, 1961

I hereby certify that the well location shown on the plat in SECTION B was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed Nov. 17, 1961
Registered Professional Engineer and/or Land Surveyor <i>[Signature]</i>



Manzano Oil Corporation

P.O. Box 2107
Roswell, New Mexico 88202-2107
(505) 623-1996
FAX (505) 625-2620

November 18, 1999

CERTIFIED MAIL #Z 263 855 550
RETURN RECEIPT REQUESTED

Mr. Ray Westall
P.O. Box 4
Loco Hills, New Mexico 88255

Re: Benson Shugart Waterflood Unit Well #8
Lea County, New Mexico

Dear Mr. Westall:

In accordance with the requirements of the New Mexico Oil Conservation Division Form C-108 (Application for Authorization to Inject), please find attached a copy for Manzano Oil Corporation's, Benson Shugart Waterflood Unit Well #8, located in Section 35, T18S, R30E, Lea County, New Mexico.

If you have any questions, please feel free to contact me at (505) 623-1996.

Very truly yours

Donnie E. Brack
VP Engineerin

:ah

Enclosure

Is your RETURN ADDRESS completed on the reverse side?	SENDER: <ul style="list-style-type: none"> ■ Complete items 1 and/or 2 for additional services. ■ Complete items 3, 4a, and 4b. ■ Print your name and address on the reverse of this form so that we can return this card to you. ■ Attach this form to the front of the mailpiece, or on the back if space does not permit. ■ Write "Return Receipt Requested" on the mailpiece below the article number. ■ The Return Receipt will show to whom the article was delivered and the date delivered. 		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.
	3. Article Addressed to: Ray Westall P.O. Box 4 Loco Hills, NM 88255		4a. Article Number Z 263 855 550
			4b. Service Type <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD
	5. Received By: (Print Name) Stacy Tolle		7. Date of Delivery 11-22-99
	6. Signature: (Addressee or Agent) <input checked="" type="checkbox"/> Stacy Tolle		8. Addressee's Address (Only if requested and fee is paid)

Thank you for using Return Receipt Service.



Manzano Oil Corporation

P.O. Box 2107
Roswell, New Mexico 88202-2107
(505) 623-1996
FAX (505) 625-2620

November 18, 1999

CERTIFIED MAIL #Z 263 855 551
RETURN RECEIPT REQUESTED

J & G Enterprises
P.O. Box 100
Artesia, New Mexico 88211-0100

Re: Benson Shugart Waterflood Unit Well #8
Lea County, New Mexico

Gentlemen:

In accordance with the requirements of the New Mexico Oil Conservation Division Form C-108 (Application for Authorization to Inject), please find attached a copy for Manzano Oil Corporation's, Benson Shugart Waterflood Unit Well #8, located in Section 35, T18S, R30E, Lea County, New Mexico.

If you have any questions, please feel free to contact me at (505) 623-1996.

Very truly y

Donnie E. B.
VP Engineer

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Enclosure

Is your RETURN ADDRESS completed on the reverse side?	SENDER: <ul style="list-style-type: none"> ■ Complete items 1 and/or 2 for additional services. ■ Complete items 3, 4a, and 4b. ■ Print your name and address on the reverse of this form so that we can return this card to you. ■ Attach this form to the front of the mailpiece, or on the back if space does not permit. ■ Write "Return Receipt Requested" on the mailpiece below the article number. ■ The Return Receipt will show to whom the article was delivered and the date delivered. 		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.
	3. Article Addressed to: J & G Enterprises P.O. Box 100 Artesia, NM 88211-0100	4a. Article Number Z 263 855 551	4b. Service Type <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD
	5. Received By: (Print Name) James Cox	7. Date of Delivery 11-22-99	
	6. Signature: (Addressee or Agent) X	8. Addressee's Address (Only if requested and fee is paid)	



Manzano Oil Corporation

P.O. Box 2107
Roswell, New Mexico 88202-2107
(505) 623-1996
FAX (505) 625-2620

November 18, 1999

CERTIFIED MAIL #Z 263 855 552
RETURN RECEIPT REQUESTED

LaRue & Muncy
P.O. Box 196
Artesia, New Mexico 88211-0196

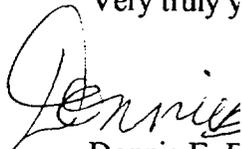
Re: Benson Shugart Waterflood Unit Well #8
Lea County, New Mexico

Gentlemen:

In accordance with the requirements of the New Mexico Oil Conservation Division Form C-108 (Application for Authorization to Inject), please find attached a copy for Manzano Oil Corporation's, Benson Shugart Waterflood Unit Well #8, located in Section 35, T18S, R30E, Lea County, New Mexico.

If you have any questions, please feel free to contact me at (505) 623-1996.

Very truly y


Donnie E. E
VP Engineer

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Enclosure

Is your RETURN ADDRESS completed on the reverse side?	SENDER: <ul style="list-style-type: none"> ■ Complete items 1 and/or 2 for additional services. ■ Complete items 3, 4a, and 4b. ■ Print your name and address on the reverse of this form so that we can return this card to you. ■ Attach this form to the front of the mailpiece, or on the back if space does not permit. ■ Write "Return Receipt Requested" on the mailpiece below the article number. ■ The Return Receipt will show to whom the article was delivered and the date delivered. 		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.
	3. Article Addressed to: LaRue & Muncy P.O. Box 196 Artesia, NM 88211-0196	4a. Article Number Z 263 855 552	
		4b. Service Type <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD	
	5. Received By: (Print Name) 	7. Date of Delivery 11-22-99	8. Addressee's Address (Only if requested and fee is paid) P.O. Box 206 ARTESIA, N.M. 88211-0206



Manzano Oil Corporation

P.O. Box 2107
Roswell, New Mexico 88202-2107
(505) 623-1996
FAX (505) 625-2620

November 18, 1999

CERTIFIED MAIL #Z 263 855 553
RETURN RECEIPT REQUESTED

Yates Petroleum Corporation
105 South Fourth Street
Artesia, New Mexico 88210

Re: Benson Shugart Waterflood Unit Well #8
Lea County, New Mexico

Gentlemen:

In accordance with the requirements of the New Mexico Oil Conservation Division Form C-108 (Application for Authorization to Inject), please find attached a copy for Manzano Oil Corporation's, Benson Shugart Waterflood Unit Well #8, located in Section 35, T18S, R30E, Lea County, New Mexico.

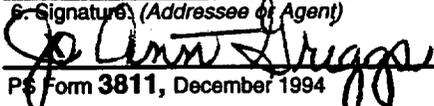
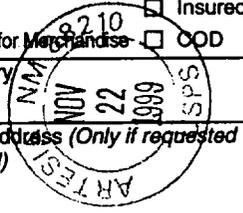
If you have any questions, please feel free to contact me at (505) 623-1996.

Very truly yours


Donnie E. Blum
VP Engineer

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Enclosure

Is your RETURN ADDRESS completed on the reverse side?	SENDER: <ul style="list-style-type: none"> ■ Complete items 1 and/or 2 for additional services. ■ Complete items 3, 4a, and 4b. ■ Print your name and address on the reverse of this form so that we can return this card to you. ■ Attach this form to the front of the mailpiece, or on the back if space does not permit. ■ Write "Return Receipt Requested" on the mailpiece below the article number. ■ The Return Receipt will show to whom the article was delivered and the date delivered. 		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.	
	3. Article Addressed to: Yates Petroleum Corporation 105 South Fourth Street Artesia, NM 88210		4a. Article Number Z 263 855 553	
	5. Received By: (Print Name) JOANN GRIGGS		4b. Service Type <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD	
	6. Signature (Addressee or Agent) 		7. Date of Delivery 	
8. Addressee's Address (Only if requested and fee is paid)				

Thank you for using Return Receipt Service.



Manzano Oil Corporation

P.O. Box 2107
Roswell, New Mexico 88202-2107
(505) 623-1996
FAX (505) 625-2620

November 18, 1999

CERTIFIED MAIL #Z 263 855 554
RETURN RECEIPT REQUESTED

Casa Petroleum
P.O. Box 4
Loco Hills, NM 88255

Re: Benson Shugart Waterflood Unit Well #8
Lea County, New Mexico

Gentlemen:

In accordance with the requirements of the New Mexico Oil Conservation Division Form C-108 (Application for Authorization to Inject), please find attached a copy for Manzano Oil Corporation's, Benson Shugart Waterflood Unit Well #8, located in Section 35, T18S, R30E, Lea County, New Mexico.

If you have any questions, please feel free to contact me at (505) 623-1996.

Very truly yours

Donnie E. Blum
VP Engineer

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Enclosure

Is your RETURN ADDRESS completed on the reverse side?	SENDER:		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.	
	<ul style="list-style-type: none"> ■ Complete items 1 and/or 2 for additional services. ■ Complete items 3, 4a, and 4b. ■ Print your name and address on the reverse of this form so that we can return this card to you. ■ Attach this form to the front of the mailpiece, or on the back if space does not permit. ■ Write "Return Receipt Requested" on the mailpiece below the article number. ■ The Return Receipt will show to whom the article was delivered and the date delivered. 			
	3. Article Addressed to:			4a. Article Number
	Casa Petroleum P.O. Box 4 Loco Hills, NM 88255			Z 263 855 554
	5. Received By: (Print Name)			4b. Service Type
Stacy Tolle		<input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD		
6. Signature: (Addressee or Agent)		7. Date of Delivery	8. Addressee's Address (Only if requested and fee is paid)	
X Stacy Tolle		11-22-99		

Thank you for using Return Receipt Service.



Manzano Oil Corporation

P.O. Box 2107
Roswell, New Mexico 88202-2107
(505) 623-1996
FAX (505) 625-2620

November 18, 1999

CERTIFIED MAIL #Z 263 855 555
RETURN RECEIPT REQUESTED

Richardson Cattle Company
P.O. Box 487
Carlsbad, New Mexico 88222

Re: Benson Shugart Waterflood Unit Well #8
Lea County, New Mexico

Gentlemen:

In accordance with the requirements of the New Mexico Oil Conservation Division Form C-108 (Application for Authorization to Inject), please find attached a copy for Manzano Oil Corporation's, Benson Shugart Waterflood Unit Well #8, located in Section 35, T18S, R30E, Lea County, New Mexico.

If you have any questions, please feel free to contact me at (505) 623-1996.

Very truly yours,

Donnie E. Brumby
VP Engineer

ah

Enclosure

Is your RETURN ADDRESS completed on the reverse side?	SENDER: ■ Complete items 1 and/or 2 for additional services. ■ Complete items 3, 4a, and 4b. ■ Print your name and address on the reverse of this form so that we can return this card to you. ■ Attach this form to the front of the mailpiece, or on the back if space does not permit. ■ Write "Return Receipt Requested" on the mailpiece below the article number. ■ The Return Receipt will show to whom the article was delivered and the date delivered.	I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.
	3. Article Addressed to: Richardson Cattle Company P.O. Box 487 Carlsbad, NM 88222	4a. Article Number Z 263 855 555 4b. Service Type <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD
5. Received By: (Print Name) 6. Signature: (Addressee or Agent)	7. Date of Delivery 	8. Addressee's Address (Only if requested and fee is paid)

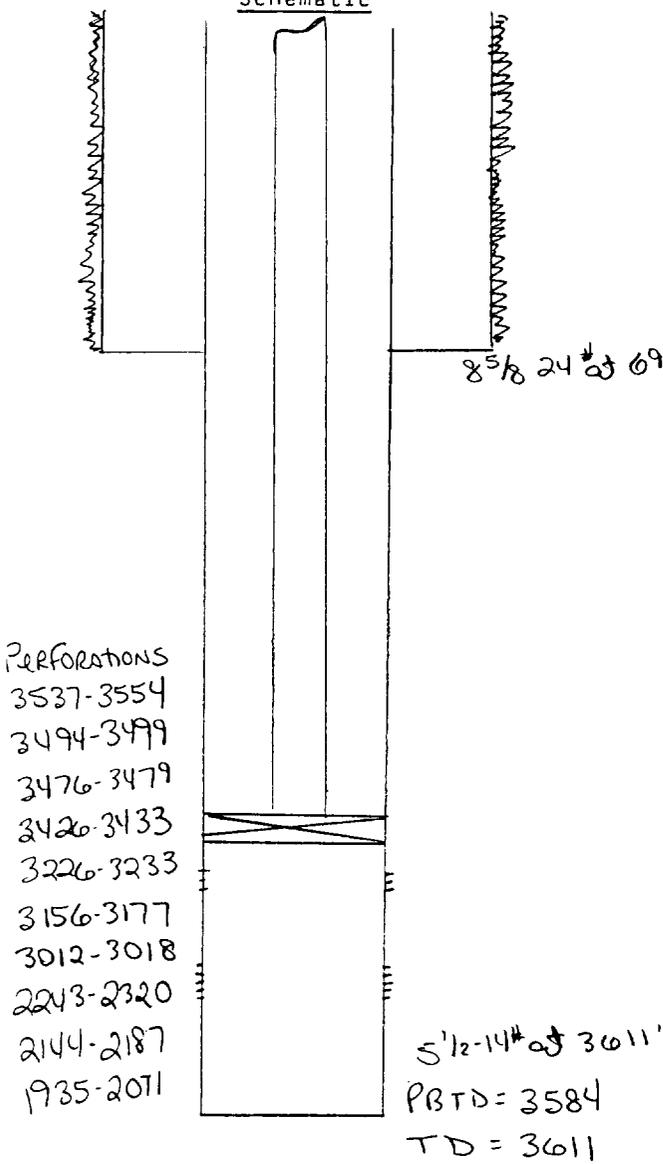
Thank you for using Return Receipt Service.

INJECTION WELL DATA SHEET

Manzano Oil Corporation OPERATOR Benson Shugart Waterflood Unit LEASE
 8 WELL NO. 330' FNL & 990' FEL FOOTAGE LOCATION 35 SECTION 18 South TOWNSHIP 30 East RANGE

Schematic

Tabular Data



Surface Casing
 Size 8-5/8" " Cemented with 275 sx.
 TOC Surface feet determined by circ 45 sks
 Hole size 11"

Intermediate Casing
 Size _____ " Cemented with _____ sx.
 TOC _____ feet determined by _____
 Hole size _____

Long string
 Size 5-1/2 " Cemented with 895 sx.
 TOC Surface feet determined by circ 105 sks
 Hole size 7-7/8"
 Total depth 3611'

Injection interval
3226 feet to 3233 feet
 (perforated ~~at xxxxxxxxxx~~)
3537 feet to 3554 feet (perforated)
3512 feet to 3516 feet (need to open)

Squeeze All Perforations that are open.
 Except 3226-3233, 3537-3554.
 Propose to open 3512-3516
 Drill out CIBP at 3460'

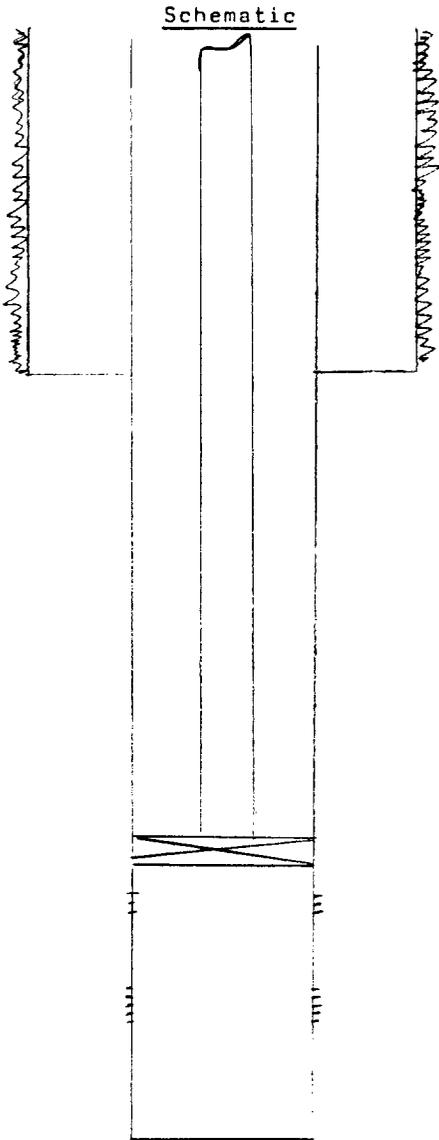
SPUD - 11-29-79
 TD - 12-9-79
 Completion - 2-14-80

Tubing size 2-3/8" lined with plastic (material) set in a
Baker Model AD-1 packer at 3180'+ feet
 (brand and model)
 (or describe any other casing-tubing seal).

- Other Data
- Name of the injection formation Penrose, Grayburg
 - Name of Field or Pool (if applicable) Shugart-Yates-Seven-Rivers-Queen-Grayburg
 - Is this a new well drilled for injection? Yes No
 If no, for what purpose was the well originally drilled? Developmental oil well.
 - 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) (3557-3554) (3494-3499) (3476-3479) (3426-3433) (3226-3233) (3156-3177) (2243-2320) (2144-2187) (1935-2071)
 - Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Overlying - Yates; Underlying - Grayburg.

INJECTION WELL DATA SHEET

Manzano Oil Corporation OPERATOR Benson Shugart Waterflood Unit LEASE
 8 WELL NO. 330'FNL & 990'FEL FOOTAGE LOCATION 35 SECTION 18 South TOWNSHIP 30 East RANGE



Tabular Data

Surface Casing
 Size 8-5/8" " Cemented with 275 sx.
 TOC Surface feet determined by circ 45 sks
 Hole size 11"
Intermediate Casing
 Size _____ " Cemented with _____ sx.
 TOC _____ feet determined by _____
 Hole size _____
Long string
 Size 5-1/2 " Cemented with 895 sx.
 TOC Surface feet determined by circ 105 sks
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 Total depth 3611'
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 (perforated ~~at xxxxxxxxxx~~)
3537 feet to 3554 feet (perforated)
3512 feet to 3516 feet (need to open)

Tubing size 2-3/8" lined with plastic set in a
 Baker Model AD-1 packer at 3180'+ feet
 (brand and model)
 (or describe any other casing-tubing seal).

Other Data

- Name of the injection formation Penrose, Grayburg
- Name of Field or Pool (if applicable) Shugart-Yates-Seven-Rivers-Queen-Grayburg
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(3476-3479) (3426-3433) (3226-3233) (3156-3177) (2243-2320) (2144-2187) (1935-2071)
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Overlying - Yates; Underlying - Grayburg.

Affidavit of Publication

NO. 16782

STATE OF NEW MEXICO

County of Eddy:

Gary 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 county and state, and that the here to 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 consecutive weeks/days on the same

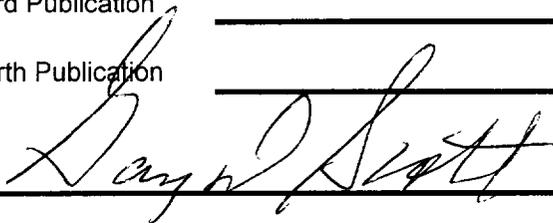
day as follows:

First Publication November 21 1999

Second Publication _____

Third Publication _____

Fourth Publication _____



Subscribed and sworn to before me this

22nd day of November 1999

Barbara Ann Beans
Notary Public, Eddy County, New Mexico

My Commission expires September 23, 2003

Copy of Publication:

LEGAL NOTICE

Manzano Oil Corporation, P.O. Box 2107, Roswell, New Mexico 88202-2107, has filed a Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking Administrative Approval to expand the existing Benson Shugart Waterflood Unit. This expansion includes converting an existing well (B.S.W.U well #8) from a producing oil well to an injecting well located in the NE/4 NE/4, 330' FNL & 990' FEL in Section 35, T18S. R30E, Eddy County, New Mexico and will be used for pressure maintenance. Produced water from the Seven Rivers, Penrose and Grayburg formations, along with make up water from the Double Eagle water system will be injected into the Grayburg formation at a depth of 3357'-3554' and the Penrose formation at a depth of 3226' - 3233' with a maximum pressure of 2000 psi and a maximum rate of 600 BWPD. All interested parties opposing the aforementioned must file objections with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501 within 15 days. Additional information can be obtained by contacting Donnie Brown at (505) 623-1996.

Published in the Artesia Daily Press, Artesia, N.M. November 21, 1999.

Legal 16782

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, KATHI BEARDEN

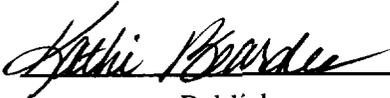
Publisher

of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published once a week in the regular and entire issue of said paper, and not a supplement thereof for a period.

of 6 weeks.

Beginning with the issue dated November 21 1999 and ending with the issue dated

November 27 1999


Publisher

Sworn and subscribed to before

me this 29th day of

November 1999


Notary Public.

My Commission expires
October 18, 2000
(Seal)

LEGAL NOTICE

November 21, 23, 24,
25, 26, 27, 1999

Manzano Oil Corporation, P.O. Box 2107, Roswell, New Mexico 88202-2107, has filed a Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking Administrative Approval to expand the existing Benson Shugart Waterflood Unit. This expansion includes converting an existing well (B.S.W.U well #8) from a producing oil well to an injection well located in the NE/4NE/4, 330' FNL & 990' FEL in Section 35, T18S, R30E, Eddy County, New Mexico and will be used for pressure maintenance. Produced water from the Seven Rivers, Penrose and Grayburg formations, along with make up water from the Double Eagle water system will be injected in the Grayburg formation at a depth of 3537' - 3554', and the Penrose formation at a depth of 3226' - 3233' with a maximum pressure of 2000 psi and a maximum rate of 600 BWPD. All interested parties opposing the aforementioned must file objections with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501 within 15 days. Additional information can be obtained by contacting Donnie Brown at (505) 623-1996. #17015

This newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3, Chapter 167, Laws of 1937, and payment of fees for said publication has been made.

01101555000 02533171
Manzano Oil Corporation
P.O. Box 2107
Roswell, NM 88202-2107