	UNITED STATES ARTMENT OF THE INTERIOI EAU OF LAND MANAGEMEN	HANNA NINI 000	DI. FORM APPROVED Budget Bureau No. 1004-0135 Expires: March 31, 1993 5. Lease Designation and Serial No.
Do not use this form for propos	OTICES AND REPORTS ON sals to drill or to deepen or ree TION FOR PERMIT—" for sucl	entry to a different reservoi	NM-67986 6. If Indian, Allottee or Tribe Name r.
	SUBMIT IN TRIPLICATE		7. If Unit or CA, Agreement Designation
1 Type of Well Coll Gas Well Well Other 2 Name of Operator			8. Well Name and No. Xion Federal #2
Manzano Oil Corporati 3. Address and Telephone No. D. D. Day 2107 Decycl		(505) 623-1996	9. API Well No. 30-025-31793 10. Field and Pool, or Exploratory Area
P.O. Box 2107, Roswel 4 Location of Well (Footage, Sec., T., R., M. 2310'FNL & 330'FEL Section 18, T18S, R32	, or Survey Description)		Young Queen 11. County or Parish, State Lea County, NM
12 CHECK APPROPRIA	TE BOX(s) TO INDICATE NA	ATURE OF NOTICE, REP	
TYPE OF SUBMISSION		TYPE OF ACTIC	DN .
X Notice of Intent		ndonment mpletion	Change of Plans
Subsequent Report	Phugg	ging Back	Non-Routine Fracturing Water Shut-Off
Final Abandonment Notice	רים י	ing Casing	Conversion to Injection Dispose Water (Note: Report results of multiple completion on Wel Completion or Recompletion Report and Log form.

Request approval for produced water disposal per attached. 6/27/00

			23	
			1917	<b>F</b>
		-	24	
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			5 <u>8</u>	
			177 <b>4</b>	-0
14. I hereby certify that the foregoing is true and correct				
signed aller turned	Title	Engineering Technician	Date _	6/27/00
Pis part for Federal or Some offer COURLEY				AUG 0 7 2000
APPORT SUD. CATTO	Title		Date _	
CONTROLEUM ENGINEER				
$\int \mathcal{N}$				
File 18 U.S.C. Section 1001, makes it a crime for any person know or representations as to any matter within its jurisdiction.	ingly and willfull	ty to make to any department or agency of the United	States any false	, fictitious or fraudulent statements

## Water Production & disposal Information

In order to process your disposal request, the following information must be completed:

1. Name of formations producing water on the lease. Queen
2. Amount of water produced from all formations in barrels per day
#1 = 2 BOPD; #2 = 3 BOPD
3. Attach a current water analysis of produced water from all zones showing at least the total dissolved solids, ph, and the concentrations of chlorides and sulfates. ( one sample will suffice if the water is commingled )
Attached. 500 bbl fiberglass tank
4. How water is stored on the lease. 500 bbl fiberglass tank
5. How water is moved to the disposal facility. trucked
6. Identify the Disposal Facility by :
A. Facility operators name Manzano Oil Corporation
B. Name of facility or well name & number. BSWU #34
C. Type of facility or well (WDW)(WIW) etcSWD
D. Location by 1/4 1/4 NESW section 30 township 18S range 31E

Submit to this office, **414 West Taylor, Hobbs, NM 88240**, the above required information on a Sundry Notice 3160-5. Submit 1 original and 5 copies, within the required time frame. (This form may be used as an attachment to the Sundry Notice.) Call me at 505-393-3612 if you need to further discuss this matter.

<sup>7.</sup> Attach a copy of the State issued permit for the Disposal Facility. Attached.



# MILLER CHEMICALS, INC.

Post Office Box 298 Artesia, N.M. 88211-0298 (505) 746-1919 Artesia Office (505) 393-2893 Hobbs Office (505) 746-1918 Fax

WATER ANALYSIS REPORT

Address Lease Well	y : NANZANC OIL C : : : XION FED : 2 Pt. :	с.	Date Date Sampled Analysis No.	: 06/26/			
	ANALYSIS		mg/L		* meq/L		
		<i>·</i> ·					
	рН H2S	6.1 0					
_	Bpecific Gravity	0					
	Total Dissolved Solid		231952.9				
	Suspended Solids		NR				
ē.	Dissolved Oxygen		NR				
	Dissolved CO2		NR				
8.	Oll In Water		NR				
9.	Phenolphthalein Alkal	inity (CaCO3)	)				
10.							
11.	Bicarbonate		3 109.0	FC03	1.8		
12.	Chloride	Cl	140580.0	Cl I	3965.б		
13.	Sulfate	S0 <b>4</b>	2250.0	S04	46.9		
14.	Calcium	Ca	11160.0		556.9		
15.	Magnesium	Mg	1829.0	Mg	150.5		
10.	Sodium (calculated)	Na		Na	3306.9		
	Iron	Te					
	Barium	Ba					
	Strontium	Sr	0.0				
20.	Total Hardness (CaCO)	3)	35400.0				

### PROBABLE MINERAL COMPOSITION

*milli equivalents per Lit	Compound	Equiv wt	X iseq/L	= mg/L	
+ <b>-</b> +	++				
557 *Ca < *HCO3	1 21	Ca (HCO3) 2	81.0	1.8	145
/>		CaSO4	66 1	46.9	3189
150 *Mg> *SO4	471	CaCl2	55.5	508.2	28202
</td <td>†I</td> <td>Mg (HCO3) 2</td> <td>73.2</td> <td></td> <td></td>	†I	Mg (HCO3) 2	73.2		
3307: *Na> *Cl	3966	MgSO4	60.2		
÷*	++	MgC12	47.6	150.5	7163
Saturation Values Dist. Wa	ter 20 C	NaHCO3	84.0		
CaC03 13	mg/L	Na2SO4	71.0		
CaSO4 * 2H2O 2090	mg/L	NaCl	58.4	3305.9	193253
BaSO4 2.4	mg/L				

#### REMARKS:

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SCALE TENDENCY REPORT

Company	: MANZANO OIL CO.	Date	;	06/27/00
Address	:	Date Sampled	:	06/26/00
Lease	: XICN FED	Analysis No.	:	
Well	: 2	Analyst	:	STEVE TIGERT
Sample Pt.	:			

### STABILITY INDEX CALCULATIONS (Stiff-Davis Method) CaCO3 Scaling Tendency

S.I.	z	0.1	at	70	deg.	F	or	21	deg.	С
3.I.	=	0.1	at	90	deg.	F	or	32	deg.	С
s.1.	=	0.1	at	110	deg.	F	or	43	deg.	С
s.I.	=	0.2	at	130	deg.	F	or	54	deg.	С
s.I.	=	0.2	at	150	deg.	F	or	66	deg.	С

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CALCIUM SULFATE SCALING TENDENCY CALCULATIONS (Skillman-McDonald-Stiff Method) Calcium Sulfate

s	=	1480 a	t	70	deg.	F	or	21	deg	С
s	=	1590 a	it	90	deg.	F	or	32	deg	Ç
s	=	1666 a	it	110	deg.	F	or	43	deg	С
s	=	1695 a	at	130	deg.	F	or	54	deg	С
S	≠	1696 a	at	1.50	deg.	F	or	66	deg	С

Respectfully submitted, STEVE TIGERT



& NATURAL RL\_OURCES DEPARTMENT

UIL CONSERVATION DIVISION 2040 South Pachaco Street Santa Fe, New Mexico 87505 (505) 827-7131

ADMINISTRATIVE ORDER SWD-701  $S_1^{-1}(e)$ 

# APPLICATION OF MANZANO OIL CORPORATION FOR SALT WATER DISPOSAL, EDDY COUNTY, NEW MEXICO.

## ADMINISTRATIVE ORDER OF THE OIL CONSERVATION DIVISION

Under the provisions of Rule 701(B), Manzano Oil Corporation made application to the New Mexico Oil Conservation Division on November 24, 1997, for permission to complete for salt water disposal its Benson Shugart Waterflood Unit Well No.34 (formerly the Kenwood Well No.4) located 2310 feet from the South line and 2160 feet from the West line (Unit K) of Section 30, Township 18 South, Range 31 East, NMPM, Eddy County, New Mexico.

## THE DIVISION DIRECTOR FINDS THAT:

(1) The application has been duly filed under the provisions of Rule 701(B) of the Division Rules and Regulations;

(2) Satisfactory information has been provided that all offset operators and surface owners have been duly notified;

(3) The applicant has presented satisfactory evidence that all requirements prescribed in Rule 701 will be met;

(4) When designated as the Kenwood Well No.4, the well had been authorized for salt water disposal by Division Order R-4741, but had been converted back to production by a previous operator; and,

(5) No objections have been received within the waiting period prescribed by said rule.

## IT IS THEREFORE ORDERED THAT:

The applicant herein, Manzano Oil Corporation, is hereby authorized to complete its Benson Shugart Waterflood Unit Well No.34 located 2310 feet from the South line and 2160 feet from the West line (Unit K) of Section 30, Township 18 South, Range 31 East, NMPM, Eddy County, New Mexico, in such manner as to permit the injection of salt water for disposal purposes into the Queen and Grayburg formations at approximately 3378 feet to 3614 feet through 2 3/8-inch plastic-lined tubing set in a packer located at approximately 3310 feet.

## IT IS FURTHER ORDERED THAT:

The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

Prior to commencing injection operations into the well, the casing shall be pressure tested from the surface to the packer setting depth to assure the integrity of said casing.

The casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge at the surface or left open to the atmosphere to facilitate detection of leakage in the casing, tubing, or packer.

The injection well or system shall be equipped with a pressure limiting device which will limit the wellhead pressure on the injection well to no more than 1850 psi.

The Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Queen or Grayburg formations. Such proper showing shall consist of a valid step-rate test run in accordance with and acceptable to this office.

The operator shall notify the supervisor of the Artesia district office of the Division of the date and time of the installation of disposal equipment and of the mechanical integrity test so that the same may be inspected and witnessed.

The operator shall immediately notify the supervisor of the Artesia district office of the Division of the failure of the tubing, casing, or packer in said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

<u>PROVIDED FURTHER THAT</u>, jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh water or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing, terminate the injection authority granted herein.

The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Rule Nos. 706 and 1120 of the Division Rules and Regulations.

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

Administrative Order SWD-701 Manzano Oil Company April 15, 1998 Page 3

Approved at Santa Fe, New Mexico, on this 15th day April, 1998.

TOL <u>LORI WROTENBERY, Director</u>

LW/BES/kv

cc: Oil Conservation Division - Artesia