

WFX 7/28/00
763

W. A. & E. R. HUDSON INC.
616 TEXAS STREET
FORT WORTH, TEXAS 76102-4612

EDWARD R. HUDSON, JR.
WILLIAM A. HUDSON II
E. RANDALL HUDSON III

July 10, 2000

817-336-7109
FAX 817-334-0442

JUL 13

Mark Ashley
New Mexico Energy, Minerals & Natural Resources
2040 S. Pacheco
Santa Fe, New Mexico 87505

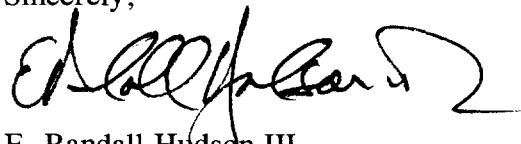
Re: Application for Authorization to Inject - C-108
Puckett A-10, Puckett A-13, Puckett A-14 & Puckett B-15
Eddy County, New Mexico

Dear Mark:

Enclosed are two copies of the captioned application that we have corrected per our telephone conversation.

We look forward to receiving your approval with these changes. Should you have any questions, please call.

Sincerely,



E. Randall Hudson III

ERHIII/vc

Enclosures

Cc: Bureau of Land Management
District Office
2901 W. Second Street
Roswell, New Mexico 88201

W. A. & E. R. HUDSON

PUCKETT A-10

PUCKETT A-13

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C-108 INJECTION APPLICATION

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C108

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APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: xx Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? xx yes No
- II. OPERATOR: W.A. & E.R. Hudson, Inc

ADDRESS: 616 Texas Street, Fort Worth Texas 76102
CONTACT PARTY: Randall Hudson PHONE: (817)/ 336-7109
- 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. **Puckett A-14, B-15, A-13, & A-10**
- IV. Is this an expansion of an existing project? XX Yes No
If yes, give the Division order number authorizing the project: R-2239
- 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. **EXHIBT 1 (Tab 3)**
- 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. **EXHIBIT 2 : Well Record (Tab 4) and Well bore Schematics (Tab 5)**
EXHIBIT 3 (Tab 6): Original Order granting water injection authority for this lease.
- VII. Attach data on the proposed operation, including: **EXHIBIT 4 (Tab 7)**
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 geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval. **EXHIBIT 4 (Tab 7)**
- IX. Describe the proposed stimulation program, if any. **EXHIBIT 4 (Tab 7)**
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
EXHIBIT 4 (Tab 7)
- *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. **EXHIBIT 4 (Tab 7)**
- 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 sources of drinking water. **EXHIBIT 4 (Tab 7)**
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form **(Tab 8)**
- 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: Anthony J. Beilman TITLE: Consulting Engineer
- SIGNATURE: *Anthony J. Beilman* DATE : 7/05/2000
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal:

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

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 the 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, 2040 South Pacheco, Santa Fe, New Mexico 87505, 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.

W.A. Hudson & E.R. Hudson Inc.

30-015-05386
Puckett-Federal A-10

Location: 1980 FNL & 660 FWL
Section 24-17S-31E
Eddy County, New Mexico

Date Drilled: 7-44

Date Completed: 9-44

Proposal: Convert existing well to SW Injection for waterflood
Existing Completion

Date	OH	Stimulation
Sep-44	3475-3930	120 quarts of nitro
Dec-72		Deepened to 3980

Well Construction Data

Surface Casing

Hole: 11 " CSG:10" SET 783
Cemented with 100 sxs (1.15 ft3 per sack)
Circulated cement to surface

Production Casing

Hole: 9" Casing: 7" set @ 3475 ft
Cemented with 100 sxs (1.15 ft3 per sack)
Calculated Top of Cement: 2878 ft

Completion Interval

Open Hole: 3475 to 3974

Misc:

1972 the well was deepened from 3930 to 3974 and was treated with 4000 gals of gelled acid. Alyne Open Hole Packer was left in the hole at 3956.

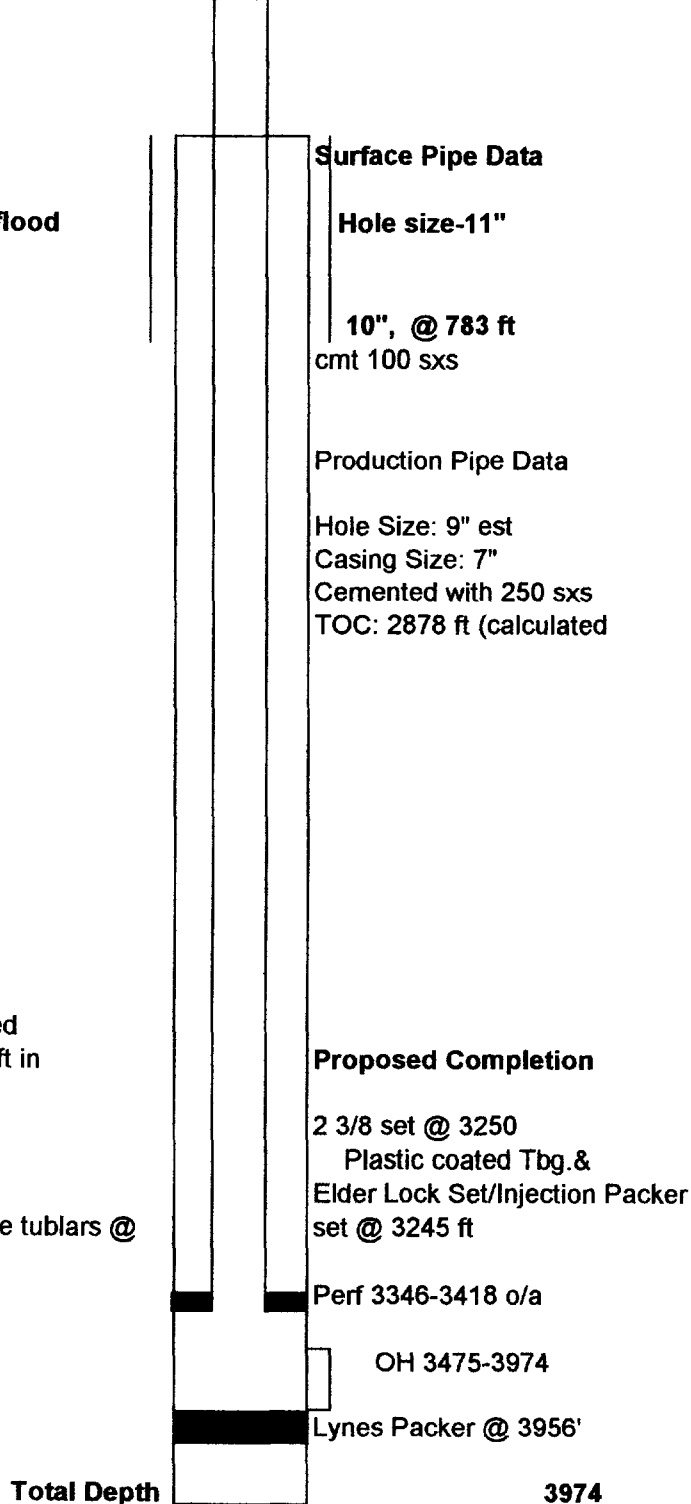
Proposed Injection Data

Perforate 3346-56,3392-3400, 3410-18
Isolate and treat new perforations, Treat open hole then set the tublars @
Run 2 3/8" Plastic coated tubing to 3250.
Set Internally Plastic Coated Baker Model R packer at 3245;

WELLBORE SCHEMATIC

As Of: 2-15-2000

Not To Scale



Pocket "A" 10
Section 24-17S-31 E
Eddy County, New Mexico

INJECTION WELL DATA SHEET

Tubing Size: 2 3/8" J-55 Lining Material: Internally Plastic Coated

Type of Packer: Elder Lock Set (Mechinally Set) (Internally Plastic Coated)

Packer Setting Depth: 3245 ft

Other Type of Tubing/Casing Seal (if applicable):

Additional Data

1. Is this a new well drilled for injection? Yes xx No

If no, for what purpose was the well originally drilled? This well was drilled as oil producer in the Maljamar Field

2. Name of the Injection Formation: Grayburg-San Andres

3. Name of Field or Pool (if applicable): Maljamar

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. no

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: About 1/2 mile to the west of Hudson' Puckett a Lease the Seven River has been tested on what is known as the Skelly Unit

W.A. Hudson & E.R. Hudson Inc.

30-015-05376

Truckett-Federal A-13

Location: 660 FNL & 660 FWL

Section 24-17S-31E

Eddy County, New Mexico

Date Drilled: 1/25/45

Completion: 3/31/45

Proposal: Convert existing well to SW Injection for waterflood

Existing Completion

Date OH

Jan-45 3380-3930

Well Construction Data

Surface Casing

Est Hole: 10" CSG: 8 1/4" SET 874

Cemented with 50 sxs (1.15 ft3 per sack)

Cement top Est 564 ft

Production Casing

Hole: 9" Casing: 7" set @ 3380 ft

Cemented with 100 sxs (1.15 ft3 per sack)

Calculated Top of Cement: 2721 ft

Completion Interval

Open Hole: 3380-3930

Proposed Injection Data

Perforate 3320-35 and treat well with 3000 gals of 15% HCL

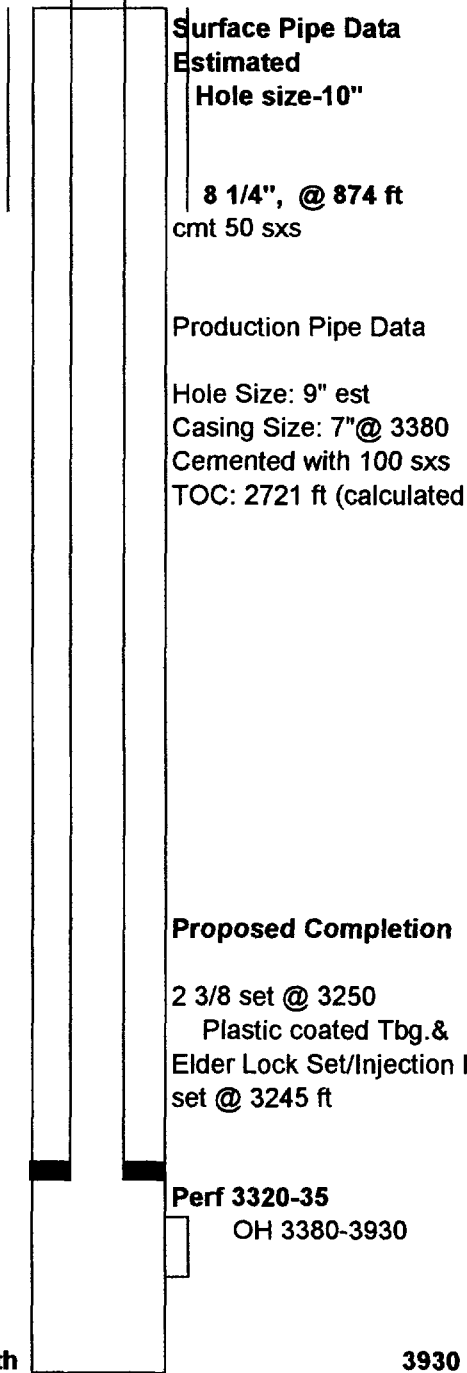
Run 2 3/8" Plastic coated tubing to 3250.

Set Internally Plastic Coated packer at 3245;

WELLBORE SCHEMATIC

As Of: 2-15-2000

Not To Scale



Total Depth

3930

Pocket "A" 13
Section 24-17S-31 E
Eddy County, New Mexico

INJECTION WELL DATA SHEET

Tubing Size: 2 3/8" J-55 **Lining Material:** Internally Plastic Coated

Type of Packer: Elder Lock Set (Mechinally Set) (Internally Plastic Coated)

Packer Setting Depth: 3245 ft

Other Type of Tubing/Casing Seal (if applicable): NA

Additional Data

1. **Is this a new well drilled for injection?**

 Yes xx No

If no, for what purpose was the well originally drilled? This well was drilled as oil producer in the Maljamar Field

2. **Name of the Injection Formation:** Grayburg-San Andres

3. **Name of Field or Pool (if applicable):** Maljamar

4. **Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.** no

5. **Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:** About 1/2 mile to the west of Hudson' Puckett a Lease the Seven River has been tested on what is known as the Skelly Unit

W.A. Hudson & E.R. Hudson Inc.

30-015-05135

Wickett-Federal A-14

Location: 660 FWL & 660 FWL
Section 13-17S-31E
Eddy County, New Mexico

Date Drilled: 4/09/45

Completion: 06/20/45

Proposal: Convert existing well to SW Injection for waterflood
Existing Completion

Date OH
Jun-45 3394-3929

Well Construction Data

Surface Casing

Est Hole: 10" CSG: 8 1/4" SET 850
Cemented with 50 sxs (1.15 ft3 per sack)
Cement top Est 540 ft

Production Casing

Hole: 9" Casing: 7" set @ 3394 ft
Cemented with 100 sxs (1.15 ft3 per sack)
Calculated Top of Cement: 2680 ft

Completion Interval

Open Hole: 3394-3929

Proposed Injection Data

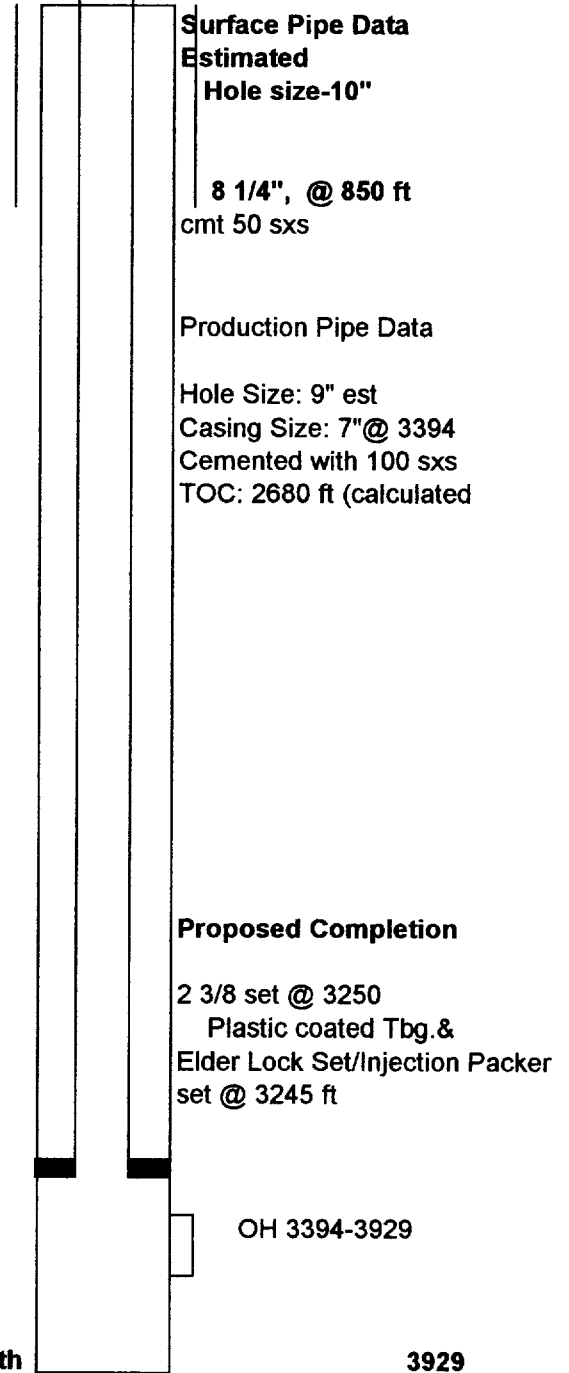
Clean well to TD and treat well with 3000 gals of 15 % HCL

Run 2 3/8" Plastic coated tubing to 3250.
Set Internally Plastic Coated packer at 3245;

WELLBORE SCHEMATIC

As Of: 2-15-2000

Not To Scale



Pocket "A" 14
Section 13-17S-31 E
Eddy County, New Mexico

INJECTION WELL DATA SHEET

Tubing Size: 2 3/8" J-55 Lining Material: Internally Plastic Coated

Type of Packer: Elder Lock Set (Mechanically Set) (Internally Plastic Coated)

Packer Setting Depth: 3245 ft

Other Type of Tubing/Casing Seal (if applicable):

Additional Data

1. Is this a new well drilled for injection? Yes xx No

If no, for what purpose was the well originally drilled? This well was drilled as oil producer in the Majamar Field

2. Name of the Injection Formation: Grayburg-San Andres

3. Name of Field or Pool (if applicable): Majamar

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used. no

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area: About 1/2 mile to the west of Hudson' Puckett a Lease the Seven River has been tested on what is known as the Skelly Unit

W.A. Hudson & E.R. Hudson Inc.

30-015-05405
Buckett-Federal B-15

Location: 1980 FNL & 660 FWL
Section 25-17S-31E
Eddy County, New Mexico

Date Drilled: 4-60

Date Completed: 7-60

Proposal: Convert existing well to SW Injection for waterflood

Existing Completion

Date	Perf	Stimulation
Jul-60	3788-3798	9660 gals of oil & 26,000 lbs
	3517-3534	15,000 gals of oil & 30,000 lbs

Set CIBP @ 3600 ft

Well Construction Data

Surface Casing

Hole: 12 1/4 CSG: 8 5/8" SET 945
Cemented with 100 sxs (1.15 ft3 per sack)
Circulated cement to surface

Production Casing

Hole: 7 7/8" Casing: 5 1/2" set @ 3937 ft
Cemented with 350 sxs (1.15 ft3 per sack)
Calculated Top of Cement: 1293 ft

Completion Interval

PERFORATED; 3788-98
CIBP @ 3600 ft
PERFORATED; 3517-34

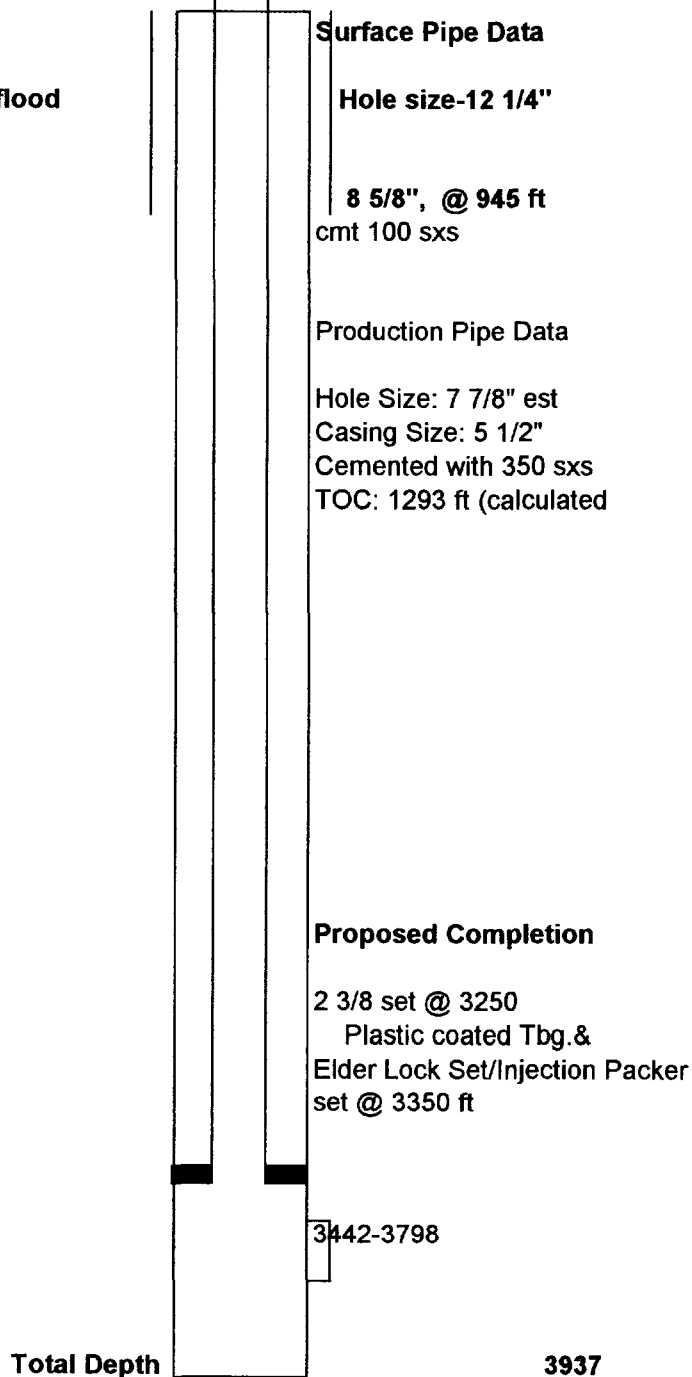
Proposed Injection Data

Drill out CIBP and Perforate 3424-36, 3496-08,
Isolate and treat perforations,
Run 2 3/8" Plastic coated tubing to 3350.
Set Internally Plastic Coated Baker Model R packer at 3350;

WELLBORE SCHEMATIC

As Of: 2-15-2000

Not To Scale



Pocket "B" 15
 Section 24-17S-31 E
 Eddy County, New Mexico

INJECTION WELL DATA SHEET

Tubing Size: 2 3/8" J-55 **Lining Material:** Internally Plastic Coated

Type of Packer: Elder Lock Set (Mechinally Set) (Internally Plastic Coated)

Packer Setting Depth: 3350 ft

Other Type of Tubing/Casing Seal (if applicable): NA

Additional Data

1. **Is this a new well drilled for injection?**

Yes xx No

If no, for what purpose was the well originally drilled? This well was drilled as oil producer in the Maljamar Field

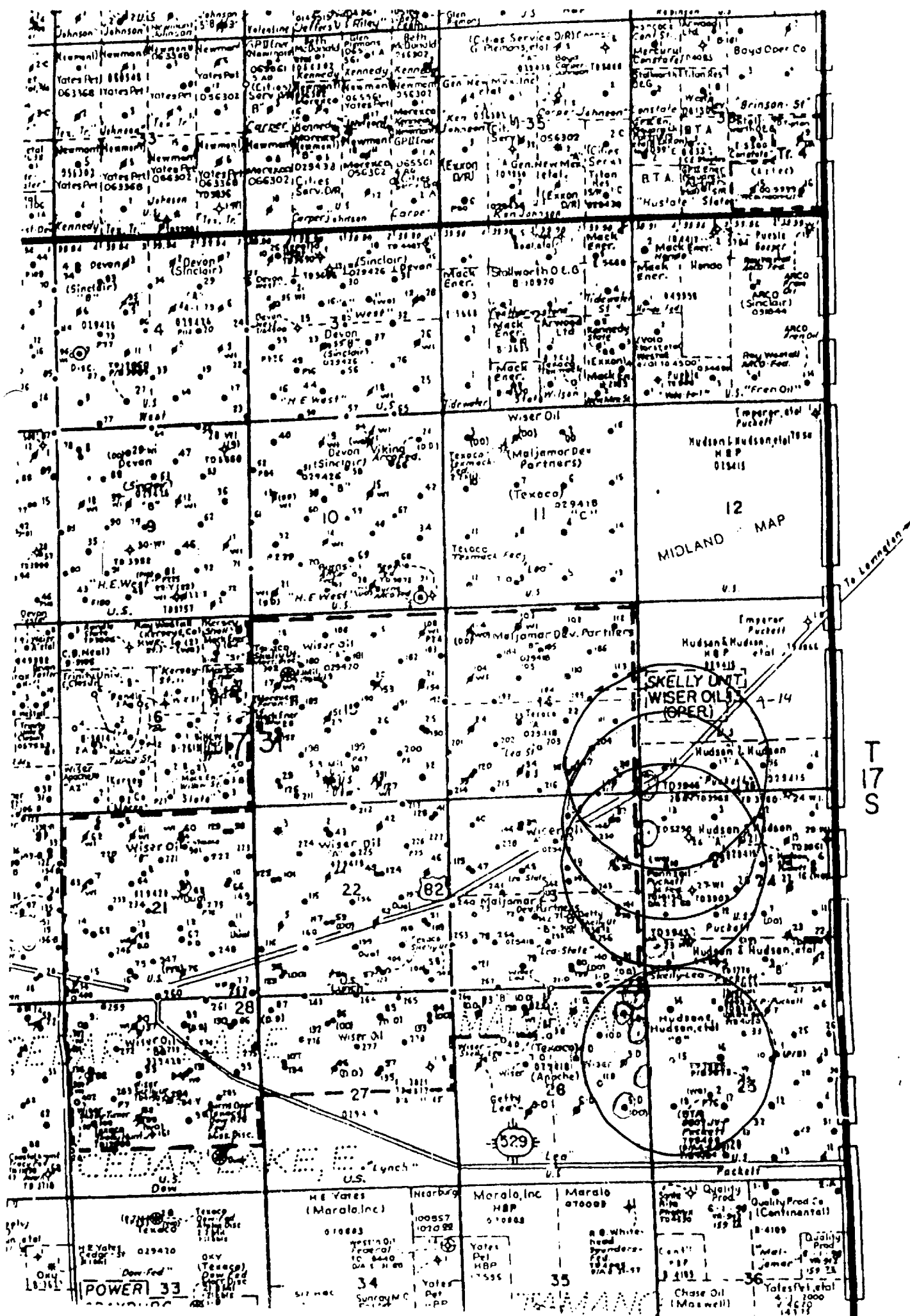
2. **Name of the Injection Formation:** Grayburg-San Andres

3. **Name of Field or Pool (if applicable):** Maljamar

4. **Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail, i.e. sacks of cement or plug(s) used.** no

5. **Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:** About 1/2 mile to the west of Hudson' Puckett a Lease the Seven River has been tested on what is known as the Skelly Unit

EXHIBIT "B"



Skelly Unit

The Wiser Oil Company

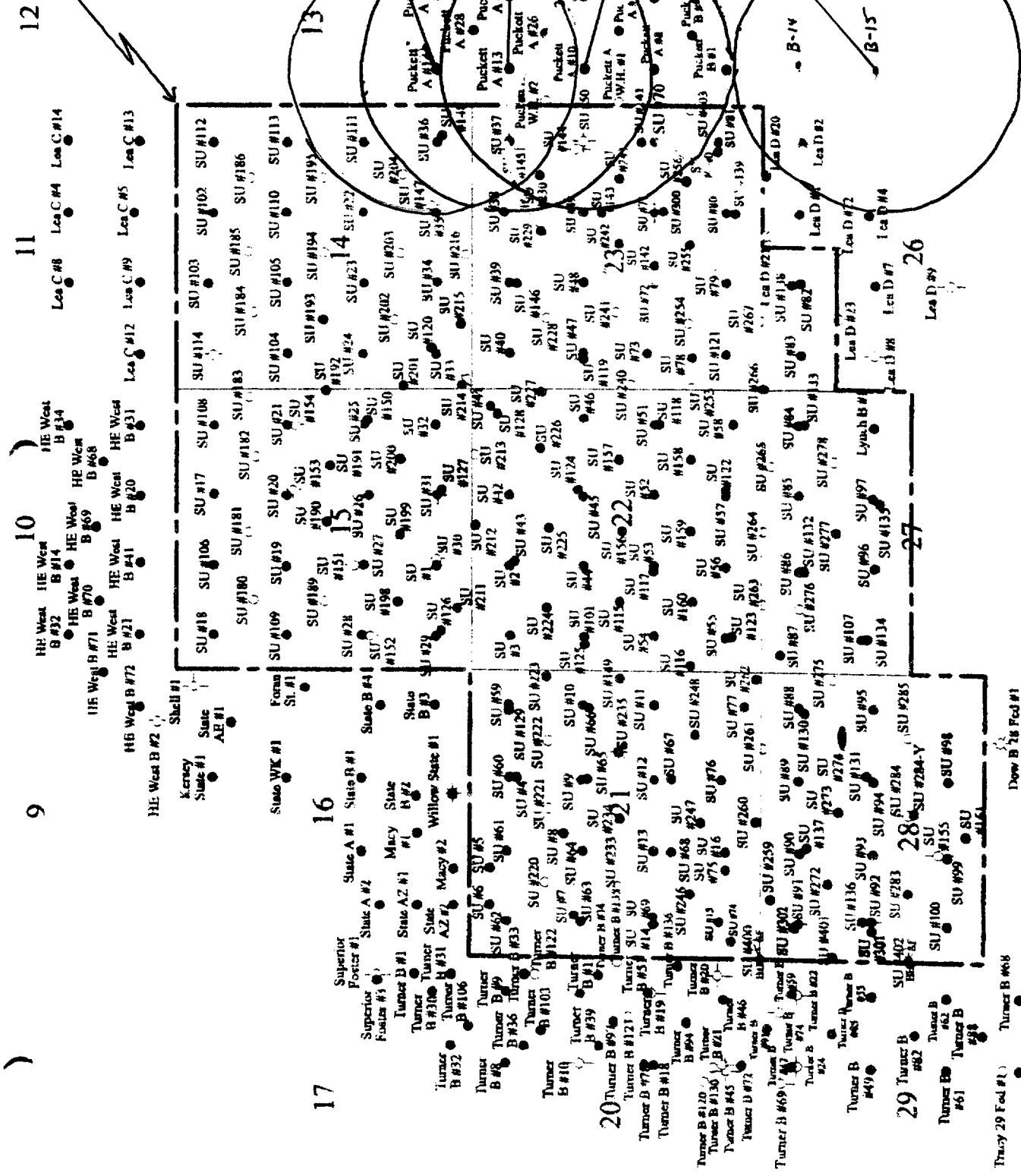
- Production Facilities
- New Water Injection Well
- Existing or Pending Water Injection Well
- Producing Oil Well
- Producing Gas Well
- Producing Oil & Gas Well
- Plugged and Abandoned Well
- Temporarily Abandoned Well

A-14 (Puckett)
1/2 Mile RAD

A-13 (Puckett)
1/2 Mile RAD

A-10 (Puckett)
1/2 Mile RAD

B-15 (Puckett)
1/2 Mile RAD



T17S - R31E

* Offset Operator (Wiser) with respect to Hudson's Injection Application

Puckett "B"

HUDSON AND HUDSON, INC.
HBP

EMPEROR
Puckett

CONOC

OHIO
1

18

Puckett "B"

HUDSON AND HUDSON, INC.

1/2 mile

Mitchell-Fede

CONOC

Puckett "A"

HUDSON AND HUDSON, INC.

MCA Unit

CONOC

Puckett "B"

HEAD
rs-Federal

1
SANTA RITA EXPI

1
TEX-STAR OIL
Mato-Malamar

MCA Unit

Al

Exhibit 2 W.R. and E.R Hudson Injection Application

Hudson Puckett A & B Lease

Well Number	Footage	Sec/Twp/Rng	Date Drilled	Depth	Interval	Completion		Construction Surf Csg	Prod Csg	Cement Top Est
						Type				
A-9	1980FNL & 1980 FWL	24/17S/31E	3/18/41	3976	3218-3976	OH		8 1/4 @ 665	7 @ 3218	1570 ft (250 sxs)
A-13	660 fnl & 660 fwl	24/17S/31E	3/31/45	3930	3380-3930	OH		8 1/4 @ 874	7 @ 3380	2721 ft (100 sxs)
A-10	1980 FNL & 660 FWL	24/17S/31E	9/1/44	3930	3475-3930	OH		10 @ 783	7 @ 3475	2878 ft (100 sxs)
A-8	1980 FSL & 660 FWL	24/17S/31E	2/26/41	3099	3300-3899	OH		10 3/4 @ 606	7 " @ 3300	1653 ft (250 sxs)
A-12	1980 FSL & 1980 FWL	24/17S/31E	9/20/41	3934	3300-3922	OH		8 1/4 @ 590	7 @ 3300	2312 ft (150 sxs)
A-15	660 FSL & 1980 FEL	13/17S/31E	12/1/47	3970	3410-3970	OH		8 1/4 @ 870	7 @ 3410	2420 ft (150 sxs)
A-17	660 FSL & 1980 FWL	13/17S/31e	2/1/60	3600	3544-3964	OH		9 5/8 @ 559	5 1/2 @ 3548	1740 ft (250 sxs)
A-25w	1980 FSL & 1980 FWL	13/17S/31E	5/1/64	3963	3337-3475	perf		8 1/4 @ 590	4 1/2 @ 3962	2185 ft (150 sxs)
A-23w	1295 FSL & 1295 FWL	24/17S/31E	4/16/65	3944	3658-3858/OA	PERF		8 5/8 @ 587	5 1/2" @ 3938	1671 ft (300 sxs)
A-27W	2615 FSL & 1345 FWL	24/17S/31E	8/31/64	3903	3640-3881/OA	PERF		8 5/8" @ 604	5 1/2" @ 3900	1633 ft (300 sxs)
A-26w	1295 FNL & 1295 FWL	24/17S/31E	11/17/64	5250	3640-3927/OA	PERF		10 3/4 @ 606	7 5/8 @ 4100	1464 ft (400 sxs)
A-28W	25 FNL & 1345 FWL	24/17S/31E	11/17/64	3946	3678-3926/OA	PERF		8 5/8 @ 595	5 1/2 @ 3943	1677 ft (300 sxs)
A-3	660 FNL & 1980 fwl	24/17S/31E	12/12/37	3920	3400-3920	OH		8 1/4 @ 663	7 @ 3400	2412 ft (150 sxs)
A-21W	1295 FNL & 2545 FWL P & A (A-21)	24/17S/31E	2/11/61	3945	3676-3692	PERF		8 5/8 @ 593	5 1/2 3918	1274 ft (350 sxs)
A-20W	2615 FNL & 2540 FWL	24/17S/31E	11/7/60	3963	3650-3716/OA	PERF		8 5/8 @ 604	5 1/2 @ 3959	1315 ft (350 sxs)
B-1	660 FSL & 660 FWL	24/17S/31E	4/20/41	3951	3302-3951	OH		10 @ 629	7 @ 3302	1819 ft (225 sxs)
B-5	675 FSL & 1980 FWL P & A (B-5)	24/17S/31E	2/27/42	3917	3300-3917	OH		8 1/4 @ 605	7 @ 3300	Surface (700 sxs)

Exhibit 2 Continue (Offsetting Leases-Well Data) The Wiser Oil Company

Wiser Skelly Units

Well Number	Footage	Sec/Twp/Rng	Date Drilled	Depth	Completion Interval	Type	Construction Surf Csg	Prod Csg	Cement Top Est
111	1980 FSL @ 660 FEL	23/17S/31E	12/29/71	3900	3354-3823	Perforated	8 5/8 @ 629	5 1/2 @ 3899	Surface (750 sxs)
113	1980 FSL & 660 FEL	23/17S/31E	1/14/72	3960	3376-3890	Perforated	8 5/8 @ 617	5 1/2 @ 3959	Surface (750 sxs)
144	1830 fml & 810 fel	23/17S/31E	9/7/78	2700	2384-2518	Perforated	8 5/8 @ 667	5 1/2 @ 2699	surf (660 sxs)
148	560 FSL & FEL	23/17S/31E	9/9/78	3730	3342-3628	Perforated	8 5/8 @ 692	5 1/2 3728	surface (1300 sxs)
230	1198 FNL & 1296 FEL	23/17S/31E	2/14/97	4100	3537-3641	Perforated	8 5/8 @ 440	5 1/2 @ 4025	Surface (1150 sxs)
243	2616 FNL & 1343 FEL	23/17E/31E	3/10/97	4050	3385-3576 (G) 3601-3871 (SAN)	PERFORATED	8 5/8" @ 447	5 1/2" @ 4050	surface/1150 sxs
255	133 FSL & 2596 FEL	23/17E/31E	3/19/97	4100	3420-3572 (G) 3611-3924 (SAN)	PERFORATED	8 5/8" @ 443	5 1/2" @ 4100	surface/800 sxs
37	660 FNL & 660 FEL	23/17E/31E	9/30/45	3886	3290-3886	PERFORATED	8 5/8" @ 725	5 1/2" @ 3290	1828 ft/150 sxs
✓ 70	1980 FSL & 660 FEL	23/17E/31E	12/16/40	3880	3223-3880	PERFORATED	10 3/8" @ 600	7 " @ 3223	1513 ft/200 sxs
✓ 81	810 FSL & 660 FEL	23/17E/31E	7/13/60	3840	3784-3840	PERFORATED	8 5/8" @ 799	5 1/2" @ 3784	1102 ft/275 sxs
2	710 FNL & 660 FEL	26/17E/31E	8/31/60	4800	3584-3805	PERFORATED	8 5/8" @ 843	5 1/2" @ 3863	200 ft/ 385 sxs
3	1980 FNL & 660 FEL	26/17E/31E	10/15/60	4000	3744-3810	PERFORATED	8 5/8" @ 937	5 1/2" @ 3922	100 ft/ 395 sxs
5	1980 FSL & 660 FEL	26/17E/31E	10/30/60	3651	3811-3951	OPEN HOLE	8 5/8" @ 978	5 1/2" @ 3811	surface/395 sxs
5 WO	1980 FSL & 660 FEL	26/17E/31E	8/9/83	4034	3486-3811	OPEN HOLE	same as above well was deepened		

Hudson Puckett A & B Lease

B-16	1980 FNL & FWL	25/17S/31E	8/2/50	4010 3776-3840/oa	Perf	13 3/8 @ 785	7 5/8" @ 4149	Surface (2300 sxs)
B-8	660 FNL & 1980 FWL	25/17S/31E	1/29/77	3924 3440-3924	OH	8' @ 775 ft	7" @ 3440	2781 (100 sxs)
JVP-1	1880 WL & EL	25/17S/31e	1/17/91	4020 PB 3741-3924	Perf	13 3/8 @ 410	8 5/8 @ 4150	surface(1500sxs)
B-20	1980 WL & 660 SL	25/17S/31e	1/19/60	4020 3862-3970	perf	8 5/8 @ 995	5 1/2 @ 3998	1550 (350 sxs)
B-19	2615 SL & WL	25/17S/31e	2/23/82	3920 3786-3824	perf	8 5/8 @ 995	5 1/2 @ 3868	1500 ft (350 SXS)
B-18	1980 SL & 660 WL	25/17S/31e	8/18/60	3934 3806-78	perf	8 5/8 @ 1000	5 1/2 @ 3934	1950 ft (250 SXS)
B-17	1980 SL & WL	25/17S/31e	5/1/60	4004 3800-3900	perf	8 5/8 @ 900	5 1/2 @ 3934	1950 ft (250 SXS)
B-15	1980 NL & 660 FWL	25/17S/31e	7/9/60	3990 3517-3534	perf	8 5/8 @ 945	5 1/2 @ 3937	1980 ft (350 SXS)
B-33	1300 FNL & 2620 FWL	25/17S/31e	10/24/95	4010 3730-3890	PERF	13 3/8 @ 611 8 5/8 @ 1908	5 1/2 @ 4054	SURF (850 SXS)
B-34	20 FNL & 2631 FEL	25/17S/31e	10/24/95	4020 3345-3628	PERF	13 3/8 @ 615 8 5/8 @ 1928	5 1/2 @ 4018	SURF (960 SXS)
B-35	20 FNL & 1340 FWL	25/17S/31e	3/4/00	4050 3427-3750	PERF	13 3/8 @ 606 8 5/8 @ 1915	5 1/2 @ 4031	SURF (535 SXS)
B-36	1340 FNL & 1340 FWL	25/17S/31e	4/6/00	4050 3477-3751	PERF	8 5/8 @ 693	5 1/2 @ 4034	SURF (960 SXS)
14	660 FNL + 660 FWL	25/17S/31	4/1/60	3920 3340	Perf	8 5/8 @ 631 19 5/8 (CRC)	5 1/2 @ 3940 390 ft @ 2793	

W.A. Hudson & E.R. Hudson Inc.

WELLBORE SCHEMATIC

As Of: 2-15-2000

Not To Scale

Druckett-Federal B-5

Location: 675 FSL & 1980 FWL
Section 24-17S-31E
Eddy County, New Mexico

Completion: 2/27/42

Well Plugged: 5/8/87

Well Construction Data

Surface Casing

Hole: 9" CSG: 8" SET 605'
Cemented with 50 sxs (1.15 ft3 per sack)

Production Casing

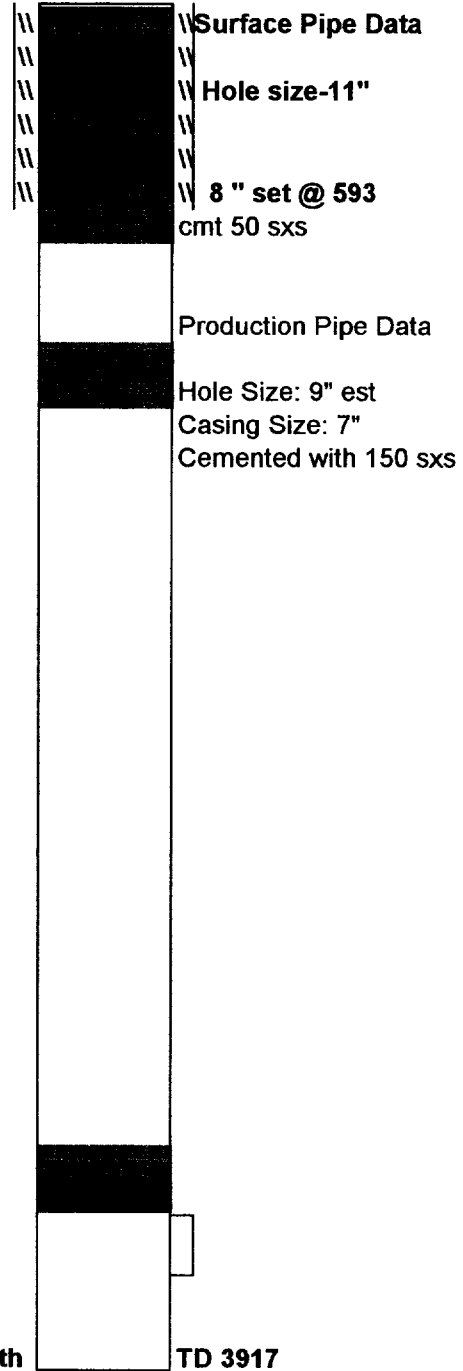
Hole: 9" Casing: 7" set @ 3300 ft
Cemented with 150 sxs (1.15 ft3 per sack)

Completion Interval

Open Hole: 3300-3917

Plugging Data

CIBP 3370
Plug 1 1810-1710
Plug 2 640 to surface Squeeze Cement backside
Surf Plug and fill to surface on inside pipe



W.A. Hudson & E.R. Hudson Inc.

WELLBORE SCHEMATIC

As Of: 2-15-2000

Not To Scale

Wuckett-Federal A-21

Location: 1295 FNL & 2545 FWL
Section 24-17S-31E
Eddy County, New Mexico

Completion: 2/11/61

Well Plugged: 3/6/90

Well Construction Data

Surface Casing

Hole: 12 1/2 CSG: 8 5/8" SET 593
Cemented with 100 sxs (1.15 ft3 per sack)
Circulated cement to surface

Production Casing

Hole: 7 5/8" Casing: 5 1/2" set @ 3910 ft
Cemented with 350 sxs (1.15 ft3 per sack)

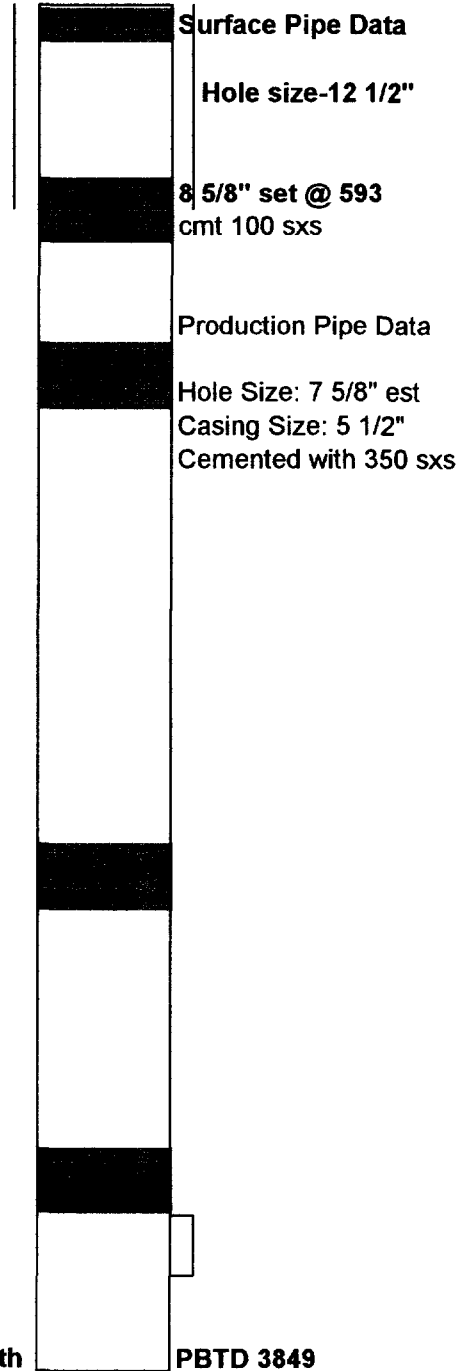
POC 2004 JLC

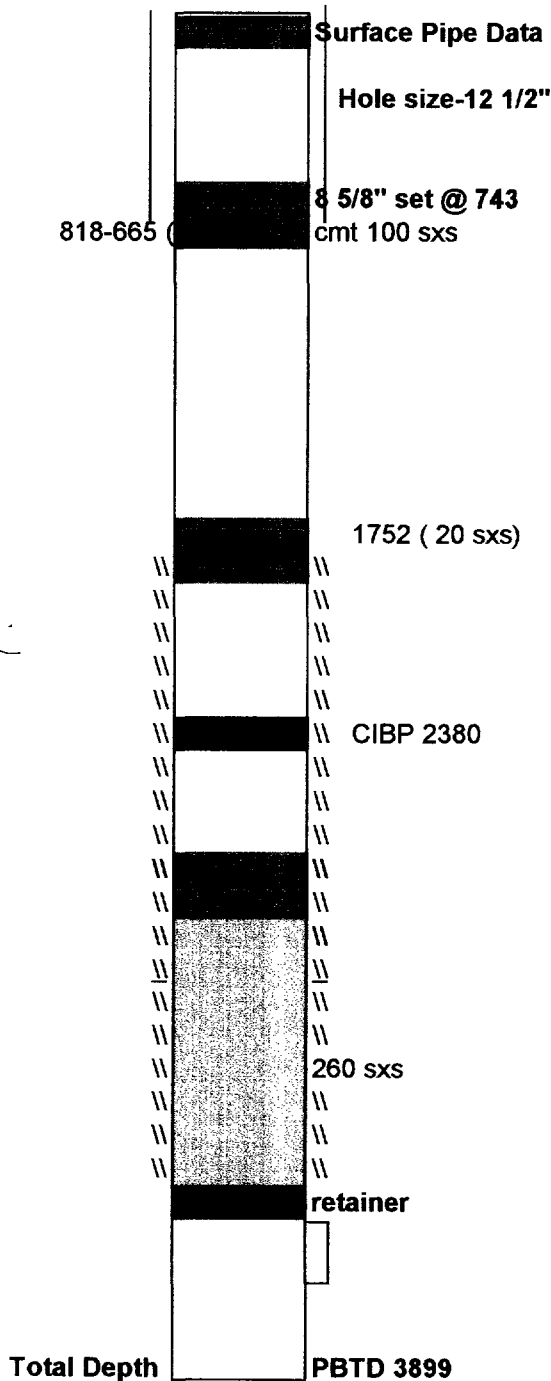
Completion Interval

Perfs: 3676-92

Plugging Data

CIBP	3256
Plug 1	3256-3175
Plug 2	2900-2800
Plug 3	1100-1600
Plug 4	650-550
Surf Plug	50-surface





Wiser Skelly Unit 50

WELLBORE SCHEMATIC

As Of: 2-15-2000

Not To Scale

Skelly Unit 50

Location:

Section 23-17S-31E

Eddy County, New Mexico

Well Plugged: 8/88

Well Construction Data

Surface Casing

Hole: 12 1/2 CSG: 8 5/8" SET 711

Cemented with 100 sxs

Production Casing

Hole: 9" Casing: 7" set @ 3265 ft

Cemented with 150 sxs

Completion Interval

Open hole 3318-3899

Plugging Procedure

Plug 1 3050-3150

CIBP @ 2787 (50 ft of cement on top CIBP)

Plug 2 1700-1950 (48 sxs)

Cement Retainer @ 650 (squeeze w/150 sxs)

Plug 3 650 (7sxs)

Surface Plug (104 to surface, 20 sxs)

Surface
Plug

Plug 3
Retainer

Surface Pipe Data

Hole size-12 1/2"

8 5/8" set @ 711
cmt 100 sxs

1752 (20 sxs)

Plug 2 1700-1950

CIBP 2787

Plug 1 3050-3150

Total Depth

PBTD 3855

W.A. Hudson & E.R. Hudson Inc.

Bruckett-Federal 24 Dry Hole
Location: 1800 FNL & 1980 FWLO
Section 24-17S-31E
Eddy County, New Mexico
Date Drilled and Abandoned: 2/1/69

Plugging Schematic
nine plugs as indicated on diagram

Well was completed as a dry hole

Well Construction Data

Surface Casing

Hole: 17 1/2 CSG:13 3/8" SET 750

Circulated cement to surface

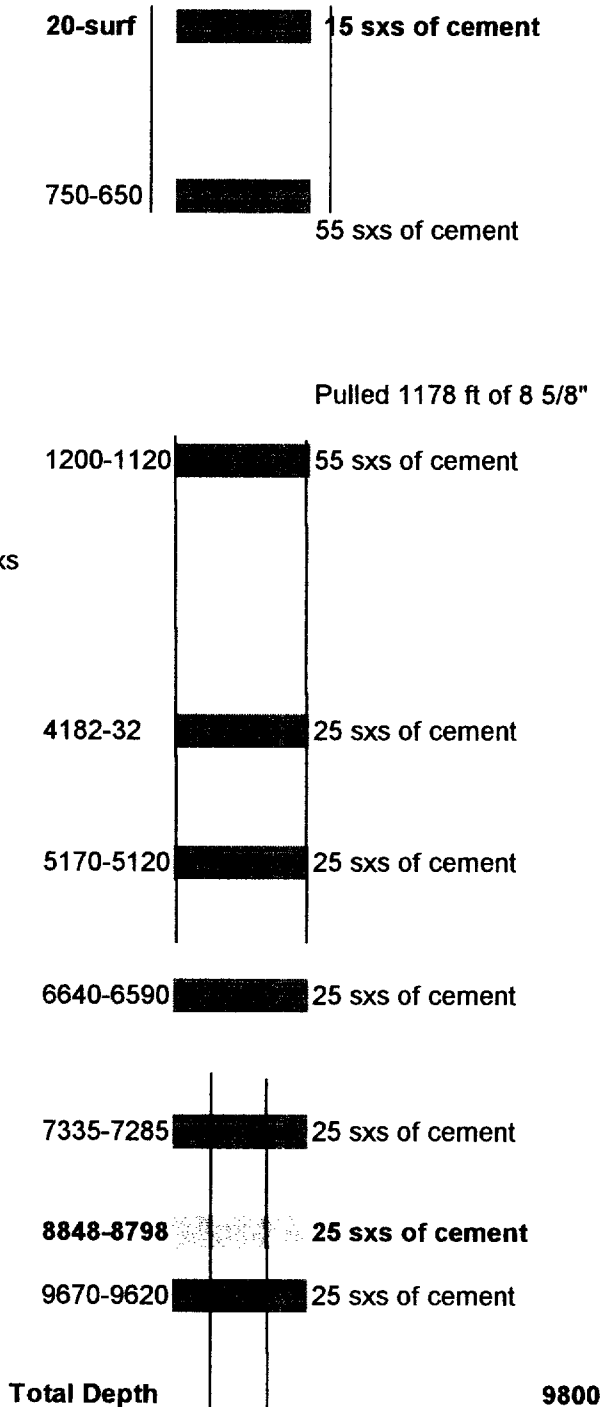
Intermediate:

Hole: 11 " CSG:8 5/8 " set @ 4000 with 750 sxs

Production Casing

Hole: 7 7/8" Casing: 4 1/2" set @ 9800 ft
Cemented with 500 sxs (1.15 ft3 per sack)

Plugging WELLBORE SCHEMATIC As Of: 2-15-2000 Not To Scale



PBTD 2650

BEFORE THE
OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF
WILLIAM A. AND EDWARD R. HUDSON TO
EXPAND THE PUCKETT WATERFLOOD
PROJECT, MALJAMAR POOL, EDDY COUNTY,
NEW MEXICO

A P P L I C A T I O N

Come now WILLIAM A. and EDWARD R. HUDSON, and apply
to the Oil Conservation Commission for permission to expand
the existing waterflood project on their Puckett lease,
Maljamar Pool, Eddy County, New Mexico, as heretofore approved
by the Commission, and in support thereof would show the
Commission:

1. Applicant proposes to expand its present
waterflood project by the conversion of ten presently pro-
ducing wells to water injection wells, as follows:

Puckett "E" #2 - Unit P, Sec. 24-17S-31E
#5 - Unit N, Sec. 24-17S-31E
#7 - Unit B, Sec. 25-17S-31E
#9 - Unit A, Sec. 25-17S-31E
#11 - Unit P, Sec. 25-17S-31E
#12 - Unit J, Sec. 25-17S-31E
#14 - Unit D, Sec. 25-17S-31E
#16 - Unit F, Sec. 25-17S-31E
#18 - Unit L, Sec. 25-17S-31E
#20 - Unit N, Sec. 25-17S-31E

2. There is attached hereto, and made a part of
this application, a plat showing the location of present in-
jection wells in the project, the location of proposed addi-
tional injection wells, and the location of all other wells
within the area, together with ownership, to the best of
applicant's knowledge and belief.

3. Attached hereto, and made a part of this application, are diagrammatic sketches of the proposed injection wells, showing casing strings, diameters of casing, setting depths, cement tops, and proposed program for recompletion of said wells for injection purposes.

4. Applicant will inject water into the Grayburg-San Andres formations at depths ranging from approximately 3600 feet to approximately 4000 feet.

5. Water will be purchased from Double Eagle Water Company, which is fresh water from their supply system.

6. It is estimated that approximately 300 barrels of water per well, per day, will be injected, with pressures ranging up to 1800 psi.

7. To facilitate further expansion of this project, applicant requests establishment of an administrative procedure for future expansion of the project, and the conversion of producing wells to water injection.

8. By copy of this application, together with all attachments thereto, the office of the State Engineer, Capitol Building, Santa Fe, New Mexico, has been notified of this application.

WHEREFORE applicant prays that this matter be set for hearing before the Commission's duly appointed examiner, and that after notice and hearing as required by law the Commission enter its order approving the expansion of applicant's waterflood project, together with establishment of an administrative procedure for further expansion of said project in the event such expansion becomes necessary.

Respectfully submitted,

WILLIAM A. and EDWARD R. HUDSON

BY: James W. Kellah
Kellahin & Fox
Post Office Box 1769
Santa Fe, New Mexico
Attorneys for Applicant

BEFORE THE OIL CONSERVATION COMMISSION
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
COMMISSION OF NEW MEXICO FOR
THE PURPOSE OF CONSIDERING:

CASE No. 3566
Order No. R-3230

APPLICATION OF WILLIAM A. AND
EDWARD R. HUDSON FOR A WATER-
FLOOD EXPANSION, EDDY COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on April 26, 1967,
at Santa Fe, New Mexico, before Examiner Elvis A. Uta.

NOW, on this 8th day of May, 1967, the Commission, a
quorum being present, having considered the testimony, the record,
and the recommendations of the Examiner, and being fully advised
in the premises,

FINDS:

(1) That due public notice having been given as required by
law, the Commission has jurisdiction of this cause and the subject
matter thereof.

(2) That the applicants, William A. and Edward R. Hudson,
seek permission to expand their Puckett Waterflood Project in
the Maljamar Pool by the injection of water into the Grayburg-
San Andres formations through ten additional wells in Sections
24 and 25, Township 17 South, Range 31 East, NMEN, Eddy County,
New Mexico.

(3) That the applicants further seek an administrative
procedure whereby said project could be expanded to include
additional lands and injection wells in the area of the said
project as may be necessary in order to complete an efficient
injection pattern; that said administrative procedure should
provide for administrative approval for conversion to water
injection in exception to the well response requirements of
Rule 701 B-5 of the Commission Rules and Regulations.

-2-

CASE No. 3566

Order No. R-3230

(4) That the wells in the proposed expanded project area are in an advanced state of depletion and should properly be classified as "stripper" wells.

(5) That the proposed expansion of the Puckett Waterflood Project should result in the recovery of otherwise unrecoverable oil, thereby preventing waste.

(6) That the subject application should be approved and the expanded project should be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations; provided however, that the showing of well response as required by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection.

IT IS THEREFORE ORDERED:

(1) That the applicants, William A. and Edward R. Hudson, are hereby authorized to expand their Puckett Waterflood Project, Maljamar Pool, by the injection of water into the Crayburg-San Andres formations through the following-described wells in Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico:

WELL	NO.	UNIT	SECTION
Puckett "A"	2	P	24
Puckett "A"	5	N	24
Puckett "B"	7	B	25
Puckett "B"	9	H	25
Puckett "B"	11	P	25
Puckett "B"	12	J	25
Puckett "A"	14	D	25
Puckett "A"	16	F	25
Puckett "B"	18	L	25
Puckett "B"	20	N	25

(2) That the expanded waterflood project shall be governed by the provisions of Rules 701, 702, and 703 of the Commission Rules and Regulations;

PROVIDED HOWEVER, that the Secretary-Director of the Commission may approve expansion of the Puckett Waterflood Project to include such additional lands and injection wells in the area of said project as may be necessary to complete an efficient water injection pattern; that the showing of well response as required

-3-

CASE No. 3566

Order No. R-1230

by Rule 701 E-5 shall not be necessary before obtaining administrative approval for the conversion of additional wells to water injection.

(3) That monthly progress reports of the expanded waterflood project herein authorized shall be submitted to the Commission in accordance with Rules 704 and 1120 of the Commission Rules and Regulations.

(4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

DAVID F. CARGO, Chairman

GUYTON B. HAYS, Member

A. L. PORTER, Jr., Member & Secretary

S E A L

SET/

Exhibit 4

Purpose of Injection

It is proposed that approval for converting this well from an active oil producers completed in the Grayburg-San Andres formation to an active injection well in the same formation. The Puckett A lease is currently an approved water flood and the conversion is only an expansion of the existing water flood. The Original Approved Order is attached as Exhibit 3. This Exhibit tabulate the noted requirements outlined on the C108.

Requirement VII (Proposed operation on Injection Well)

The proposed injection and water handling facilities is a closed system and Produced water will only be injected. The Makeup water will be purchased from Wiser Oil Company, who currently operate the Lea "D" and Skelly Unit, (direct west offset currently waterflooding the Grayburg and San Andres formations). The proposed injection rates and pressures are as follows:

Maximum Surface Pressure: 1500 psig or (0.65 psi per foot (frac gradient)-0.433 psi per foot)

Which ever is less. Once fillup is reached a Step-rate test will be

Run to determine frac gradient. Injection will always be below frac pressure

Average Surface Pressure: 800 psig subject to data from Step-Rate test

Maximum Injection Rates: 600 BWPD

Average Injection Rates: 200 BWPD

Requirement VIII

The injection zone is the Grayburg- Upper San Andres formations at approximately 3200 feet to 4000 feet. The formations consist of dolomite and sandstones, with alternating beds of silty to sandy dolomite and gray arkosic sandstone. The generally, the gross thickness of the Grayburg ranges from 300 to 450 thick. Typically, in this area, 4 separate members are productive in this area. (zone 3, zone 4 or Loco Hills, Zone 5 or Metex and zone 6 or Premier). The Upper San Andres typically ranges from 350 to 400 feet thick and typically is made up of 2 or 3 members (Zone 7 or Vacuum, Zone 8 or Lovington and Zone 9 or Jackson). Both of these formations, in this area have historically flooded very well and number of waterflood are still very successful

Requirement IX Propose Stimulations.

Once the approval is obtained on this injection application. Hudson propose to isolate the productive members by running a dual packer or packer and Retrievable Bridge Plug. Each member will be isolated and then approximately 75 to 100 gals per foot of pay of 15% HCL acid will be pump to clean up wellbore damage. The treating rates and pressures will be maintained below fracture pressure or 0.65 psi/ft.

Requirement X Logs have been filed with Division.

Requirement XI Fresh water is not developed in this area consequently, not water analysis is provided.

Requirement XII Not applicable

C-108
APPLICATION FOR AUTHORIZATION TO INJECT
PUCKETT A-8

XIII. PROOF OF NOTICE

Copies of this C-108 Application have been mailed to the surface owners and to each leasehold operator within one-half mile of the proposed injection wells as identified on the mailing list attached as Exhibit XIII-A. An Affidavit of such notice is attached as Exhibit XIII-B. Copies of the certified receipts will be furnished upon request. The notice attached as Exhibit XIII-C is being published in the *Artesia Daily Press*, and an Affidavit of Publication is attached hereto.

W. A. & E. R. HUDSON INC.

616 TEXAS STREET

FORT WORTH, TEXAS 76102-4612

EDWARD R. HUDSON, JR.
WILLIAM A. HUDSON II
E. RANDALL HUDSON III

June 19, 2000

817-336-7109
FAX 817-334-0442

Certified/Return Receipt

Wiser Oil Company
Attn: Matt Eagleston
8115 Preston Road, Suite 400
Dallas, Texas 75225

Re: Application for Authorization to Inject - C-108
Hudson/Wiser Cooperative Unit Line Injection Well
And Unit Line Infill Drilling Agreement
Puckett A-10 & A-13 Section 24
Puckett A-14 Section 13
Puckett B-15 Section 25
T17S R31E Eddy County, New Mexico

Gentlemen:

A review of public records indicates you own a leasehold interest within the area of review of the proposed injection wells as shown on the enclosed copy of the New Mexico Oil Conservation Division's form C-108, Application for Authorization to Inject. This copy is being provided to you in accordance with requirement XIII of said application, which describes William A. & Edward R. Hudson's proposed expansion of our Puckett Waterflood project by creating additional water injection wells in Sections 13, 24, and 25, Township 17 South, Range 31 East, Eddy County, New Mexico.

Should you have any technical questions regarding the proposed injection project, please contact me at the above number. Any objections to the proposed injection should be filed with the New Mexico oil Conservation Division within 15 days of receipt of this notice.

Sincerely,



E. Randall Hudson III

ERHIII/vc

Enclosures

cc: ✓ Mark Ashley
New Mexico Energy, Minerals &
Natural Resources
2040 S. Pacheco
Santa Fe, New Mexico 87505

Surface & Grazing Lease Owners:

Bureau of Land Management
District Office
2901 W. Second Street
Roswell, New Mexico 88201

Offset Leasehold Owners:

Ms. Deb E. Chase
2306 Sierra Vista Drive
Artesia, New Mexico 88210

Mr. Richard L. Chase
505 S. Bolton Road
Artesia, New Mexico 88210

Ms. Karla Chase
505 S. Bolton Road
Artesia, New Mexico 88210

Mr. Robert C. Chase
2306 Sierra Vista Drive
Artesia, New Mexico 88210

Chase Gerene Crouch
P.O. Box 693
Artesia, New Mexico 88211-0693

Chase Oil Corporation
P.O. Box 1767
Artesia, New Mexico 88211-1767

Delmar Hudson Lewis
Lindy's Living Trust
6300 Ridglea Place, Suite 1005-A
Fort Worth, TX 76116

Sterling Randolph
Burnett Oil Company
801 Cherry Street, Suite 1500
Fort Worth, Texas 76102

MacFarlane Company
106 W. Main #205
El Dorado, Arkansas 71730

Apache Corporation
2000 Post Oak, Suite 100
Houston, Texas 77056-4400

Texaco Exploration & Production Co.
P. O. Box 2100
Denver, Colorado 80201-2100

Offset Well Operators

Apache Corporation
2000 Post Oak. Suite 100
Houston, TX 77056-4400

Texaco Exploration & Production Co.
P.O. Box 2100
Denver, Colorado 80201-2100

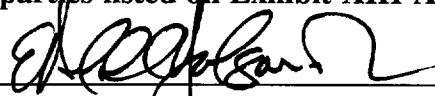
Wiser Oil Company
8115 Preston Road, Suite 400
Dallas, Texas 75225

EXHIBIT XIII-B

STATE OF TEXAS

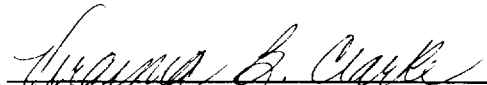
COUNTY OF TARRANT

I, E. Randall Hudson III, do solemnly swear that a copy of this Application has been mailed by certified mail, to each of the interested parties listed on Exhibit XIII-A.



**E. Randall Hudson III, Vice President
W. A. & E. R. Hudson Inc.**

SWORN AND SUBSCRIBED TO before me this 19th day of June, 2000.


Virginia B. Clarke, Notary Public

My Commission Expires:

7/31/2000

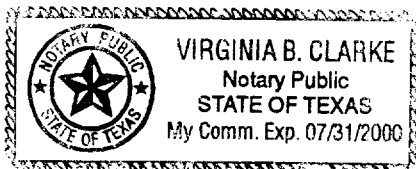


Exhibit XIII-C

Mark Ashley
New Mexico Energy, Minerals &
Natural Resources
2040 S. Pacheco
Santa Fe, New Mexico 87505

Sterling Randolph
Burnett Oil Company
801 Cherry Street, Suite 1500
Fort Worth, Texas 76102

Surface & Grazing Lease Owners:

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District Office
2901 W. Second Street
Roswell, New Mexico 88201

MacFarlane Company
106 W. Main #205
El Dorado, Arkansas 71730

Apache Corporation
2000 Post Oak, Suite 100
Houston, Texas 77056-4400

Offset Leasehold Owners:

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2306 Sierra Vista Drive
Artesia, New Mexico 88210

Texaco Exploration & Production Co.
P. O. Box 2100
Denver, Colorado 80201-2100

Mr. Richard L. Chase
505 S. Bolton Road
Artesia, New Mexico 88210

Offset Well Operators

Apache Corporation
2000 Post Oak. Suite100
Houston, TX 77056-4400

Ms. Karla Chase
505 S. Bolton Road
Artesia, New Mexico 88210

Texaco Exploration & Production Co.
P.O. Box 2100
Denver, Colorado 80201-2100

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2306 Sierra Vista Drive
Artesia, New Mexico 88210

Wiser Oil Company
8115 Preston Road, Suite 400
Dallas, Texas 75225

Chase Gerene Crouch
P.O. Box 693
Artesia, NewMexico 88211-0693

Chase Oil Corporation
P.O. Box 1767
Artesia, New Mexico 88211-1767

Delmar Hudson Lewis
Lindy's Living Trust
6300 Ridglea Place, Suite 1005-A
Fort Worth, TX 76116

Affidavit of Publication

NO. 17013

STATE OF NEW MEXICO

County of Eddy:

Gary D. 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 June 13 2000

Second Publication

Third Publication

Fourth Publication

Subscribed and sworn to before me this

13th day of June 2000

Barbara Ann Bann
Notary Public, Eddy County, New Mexico

My Commission expires September 23, 2003

Copy of Publication:

application to inject saltwater into the Grayburg and San Andres formation (Depth of injection interval to 3200 to 4000 feet). The purpose of the application is to expand the existing waterflood project. The application affects the following wells: Puckett A-10 and A-13 located in Section 24-17S-R31E; Puckett A-14 located in Section 13-17S-31East, and the Puckett B-15 located in Section 25-17S-R31E, Eddy County. Maximum Injection rates will be 600 BWPD. Maximum injection Pressure will be 2000 psig. All interested parties opposed to this application must file their objection or request for a hearing with the Oil & Gas Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505 within 15 days of this notice. Published in the Artesia Daily Press, Artesia, N.M. June 13, 2000.

LEGAL NOTICE

William A. & Edward R. Hudson, 616 Texas Street, Fort Worth, Texas (Contact Agent Randall Hudson 817-336-7109) has made

Legal 17013

W. A. & E. R. HUDSON INC.

616 TEXAS STREET

FORT WORTH, TEXAS 76102-4612

EDWARD R. HUDSON, JR.
WILLIAM A. HUDSON II
E. RANDALL HUDSON III

June 5, 2000

817-336-7109
FAX 817-334-0442

Artesia Daily Press
P.O. Box 190
Artesia, NM 88211

Dear Sir or Madam:

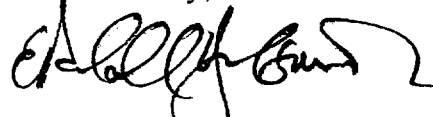
William A. & Edward R. Hudson are submitting an application to the Oil and Gas Conservation Division to convert the following well from an oil producer to an injector in order to enhance production on the Puckett A and Puckett B leases. Pursuant to the terms of the application the following classified advertisement should be placed in your paper. If you have any questions, please contact me at the above number.

Ad to be placed in the classified official notice section and to read as follows:

William A. & Edward R. Hudson, 616 Texas Street, Fort Worth, Texas (Contact Agent Randall Hudson 817-336-7109) has made application to inject saltwater into the Grayburg and San Andres formation (Depth of injection interval to 3200 to 4000 feet). The purpose of the application is to expand the existing waterflood project. The application affects the following wells: Puckett A-10 and A-13 located in Section 24-17S-R31E; Puckett A-14 located in Section 13-17S-31East, and the Puckett B-15 located in Section 25-17S-R31E, Eddy County. Maximum Injection rates will be 600 BWPD. Maximum injection Pressure will be 2000 psig. **All interested parties opposed to this application must file their objection or request for a hearing with the Oil & Gas Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505 within 15 days of this notice.**

Please send us an Affidavit of Publication along with your statement.

Yours sincerely,



E. Randall Hudson III

ERHIII/vc