

WFX

4/24/00

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

April 5, 2000

817-336-7109
FAX 817-334-0442

State of New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

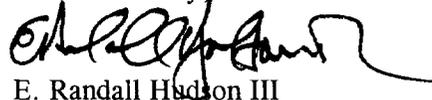
Gentlemen:

William A. & Edward R. Hudson are submitting this 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 attached classified ad was run.

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 well: Puckett A-8 located in Section 24-17S-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.**

This application is actually an expansion of a previously approved secondary project. The conversion will allow Hudson to alter the pattern to capture the reserves that have not been swept by previous waterflood attempts. Please review the attached C108 and pertinent data. If additional information is needed please do not hesitate to contact Randall Hudson at 817-336-7109 or Tony Beilman, P.E. at 972-771-6148. All efforts have been made to provide the required data. The general area has been waterflooded for years and there is no evidence of open faults or any other geological anomalies that would affect any fresh water producing horizons. Thanking you, I remain

Yours sincerely,



E. Randall Hudson III

ERHIII/vc

Enclosures

Cc: Oil Conservation Division
District 2
811 S. First St.
Artesia, NM 88210

APPLICATION FOR AUTHORIZATION TO INJECT

PURPOSE: Secondary Recovery Pressure Maintenance Disposal Storage
Application qualifies for administrative approval? yes No

II. OPERATOR: W.A. & E.R. Hudson, Inc

ADDRESS: 616 Texas Street, Fort Worth Texas 76102

CONTACT PARTY: Randal 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-8**

IV. Is this an expansion of an existing project? 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. **EXHIBIT 1**

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** **EXHIBIT 3: Original Order granting water injection authority for this lease.**

VII. Attach data on the proposed operation, including: **EXHIBIT 4**

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**

IX. Describe the proposed stimulation program, if any. **EXHIBIT 4**

*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**

*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**

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.

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: Anthony J. Beilman TITLE: Consulting Engineer

SIGNATURE: Anthony J. Beilman DATE: 2/20/2000

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: _____

.I. 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.

WELLBORE SCHEMATIC

As Of: 2-15-2000

Not To Scale

ucket-Federal A-8

(30-015-5384)

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

Date Drilled: 12/28/40

Completion: 2/26/41

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

Date	OH
Feb-41	3300-3899

Well Construction Data

Surface Casing

Hole: 12 1/2 CSG: 10 3/4" SET 606
Cemented with 100 sxs (1.15 ft³ per sack)
Circulated cement to surface

Production Casing

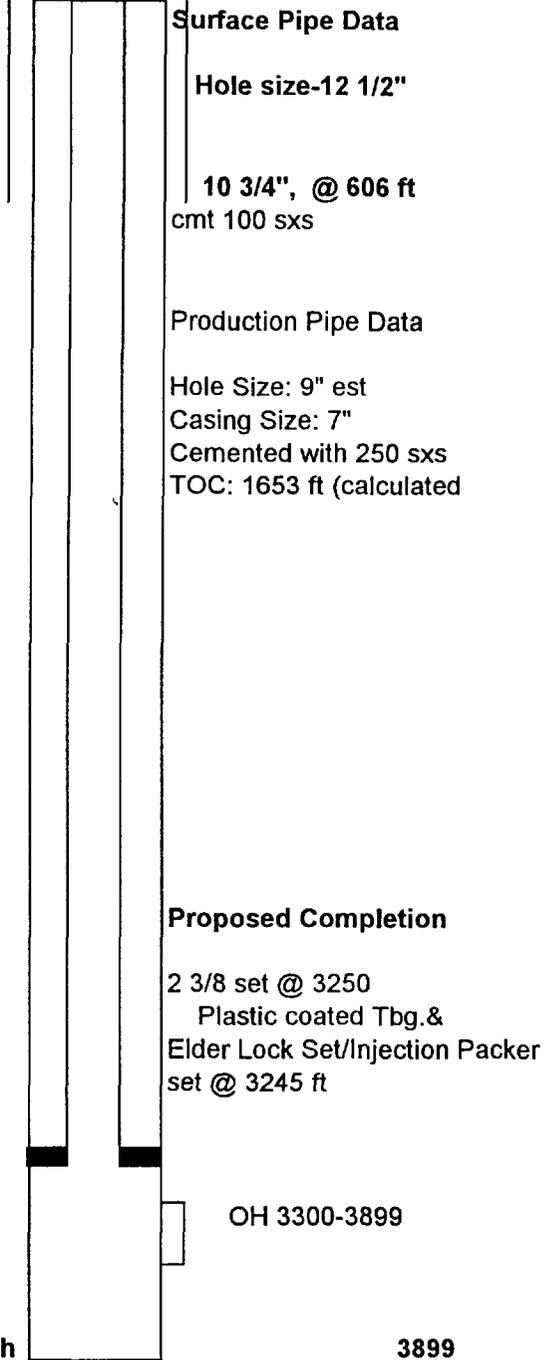
Hole: 9" Casing: 7" set @ 3300 ft
Cemented with 100 sxs (1.15 ft³ per sack)
Calculated Top of Cement: 1653 ft

Completion Interval

Open Hole: 3300-3899

Proposed Injection Data

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



Pocket "A" 8
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

Insert

Color Page/Photo

Here

Simplex mode



LTR

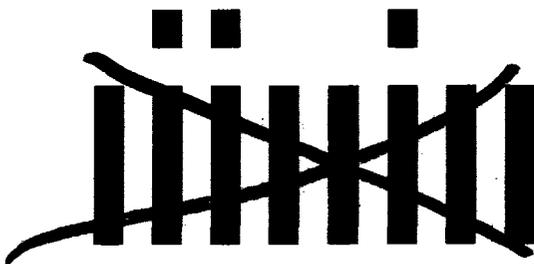
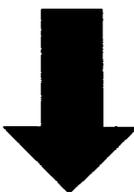


Exhibit 2 Continue (Offsetting Leases-Well Data) The Wiser Oil Company

Lease Name	Well Number	Footage	Sec/Twp/Rng	Date Drilled	Depth	Completion Interval	Type	Construction Surf Csg	Prod Csg
Skelly Unit	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
	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" @ 3947
	37	660 FNL & 660 FEL	23/17E/31E	9/30/45	3886	3290-3886	PERFORATED	8 5/8" @ 725	5 1/2" @ 3290
	70	1980 FSL & 660 FEL	23/17E/31E	12/16/40	3880	3223-3880	PERFORATED	10 3/8" @ 600	7" @ 3223
	81	810 FSL & 660 FEL	23/17E/31E	7/13/60	3840	3784-3840	PERFORATED	8 5/8" @ 799	5 1/2" @ 3784
	2	710 FNL & 660 FEL	26/17E/31E	8/31/60	4800	3584-3805	PERFORATED	8 5/8" @ 843	5 1/2" @ 3863
	3	1980 FNL & 660 FEL	26/17E/31E	10/15/60	4000	3744-3810	PERFORATED	8 5/8" @ 937	5 1/2" @ 3922
	5	1980 FSL & 660 FEL	26/17E/31E	10/30/60	3651	3811-3951	OPEN HOLE	8 5/8" @ 978	5 1/2" @ 3811
	5 WO	1980 FSL & 660 FEL	26/17E/31E	8/9/83	4034	3486-3811	OPEN HOLE	same as above well was deepened	

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

Hudson Puckett A & B Lease

Well Number	Footage	Sec/Twp/Rng	Date Drilled	Depth	Interval	Completion Type	Construction Surf Csg	Prod Csg	Cement Top Est
A-9	1980FNL & 1980 FWL	24/17E/31E	03/18/41	3976	3218-3976	OH	8 1/4 @ 665	7 @ 3218	1570 ft (250 sxs)
A-13	660 fmI & 660 fmI	24/17E/31E	03/31/45	3930	3380-3930	OH	8 1/4 @ 874	7 @ 3380	2721 ft (100 sxs)
A-10	1980 FNL & 660 FWL	24/17E/31E	09/01/44	3930	3475-3930	OH	10 @ 783	7 @ 3475	2878 ft (100 sxs)
A-8	1980 FSL & 660 FWL	24/17E/31E	02/26/41	3099	3300-3899	OH	10 3/4 @ 608	7 " @ 3300	1653 ft (250 sxs)
A-12	1980 FSL & 1980 FWL	24/17E/31E	09/20/41	3934	3300-3922	OH	8 1/4 @ 590	7 @ 3300	2312 sxs (150 sxs)
A-23W	1295 FSL & 1295 FWL	24/17E/31E	04/16/65	3944	3658-3858/OA	PERF	8 5/8 @ 587	5 1/2" @ 3938	1671 ft (300 sxs)
A-27W	2615 FSL & 1345 FWL	24/17E/31E	08/31/64	3903	3640-3881/OA	PERF	8 5/8" @ 604	5 1/2" @ 3900	1633 ft (300 sxs)
A-26W	1295 FNL & 1295 FWL	24/17E/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	24/17E/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 fmI	24/17E/31E	12/12/37	3920	3400-3920	OH	8 1/4 @ 663	7 @ 3400	2412 ft (150 sxs)
A-21W	1295 FNL & 2545 FWL	24/17E/31E	02/11/81	3945	3676-3692	PERF	8 5/8 @ 593	5 1/2 3918	1274 ft (350 sxs)
A-20W	2615 FNL & 2540 FWL	24/17E/31E	11/07/60	3963	3650-3716/OA	PERF	8 5/8 @ 604	5 1/2 @ 3959	1315 ft (350 sxs)
B-1	660 FSL & 660 FWL	24/17E/31E	04/20/41	3951	3302-3951	OH	10 @ 629	7 @ 3302	1819 ft (225 sxs)
B-5	675 FSL & 1980 FWL	24/17E/31E	02/27/42	3917	3300-3917	OH	8 1/4 @ 605	7 @ 3300	Surface (700 sxs)

** Well B-5 and A-21 were Plugged and abandoned

WMA & ER Hudson
Injection Application
Exhibit 2

Lease Name	Well Number	Location			Depth	Completion		Type	Construction	
		Footage	Sec/Twp/Rng	Drilled		Interval	Surface CSG		Production Csg	
Puckett "A"	9	1980 FNL & 1980 FWL	24/17S/31E	3/18/41	3976	3218-3976	Open Hole	8 1/4" @ 665 ft	7" @ 3218 ft	
Puckett "A"	13	660 FNL & 660 FWL	24/17S/31E	3/31/45	3930	3380-3930	Open Hole	8 1/4" @ 874 ft	7" @ 3380 ft	
Puckett "A"	10	1980 FNL & 660 FWL	24/17S/31E	Sep-44	3930	3475-3930	Open Hole	10" @ 783 ft	7" @ 3475 ft	
Puckett "A"	8	1980 FSL & 660 FWL	24/17S/31E	2/26/41	3899	3300-3899	Open Hole	10 3/4" @ 606 ft	7" @ 3300 ft	
Puckett "A"	12	1980 FSL & 1980 FWL	24/17S/31E	9/20/41	3934	3300-3922	Open Hole	8 1/4" @ 590 ft	7" @ 3300 ft	
Puckett "A"	23W	1295 FSL & 1295 FWL	24/17S/31E	4/16/65	3944	3658-72:3833-58	Perforated	8 5/8" @ 587 ft	5 1/2" @ 3938 ft	
Puckett "A"	27W	2615 FSL & 1345 FWL	24/17S/31E	8/31/64	3903	3640-52:3876-81	Perforated	8 5/8" @ 604ft	5 1/2" @ 3902ft	
Puckett "A"	26W	1295 FNL & 1295 FWL	24/17S/31E	11/17/64	5250	3640-58:3915-27	Perforated	10 3/4" @ 606 ft	7 5/8" @ 4104ft	
Puckett "A"	28W	25 FNL & 1345 FWL	24/17S/31E	11/17/64	3946	3678-3702:3916-26	Perforated	8 5/8" @ 595 ft	5 1/2" @ 3943 ft	
Puckett "A"	3	660 FNL & 1980 FWL	24/17S/31E	12/12/37	3920	3400-3920	Open Hole	8 1/4" @ 663 ft	7" @ 3400 ft	
Puckett "A"	21W	1295 FNL & 2545 FWL	24/17S/31E	2/11/61	3945	3676-3692	Perforated	8 5/8" @ 593 ft	5 1/2" @ 3910 ft	
Puckett "A"	20W	2615 FNL & 2540 FWL	24/17S/31E	11/7/60	3963	3650-60:3696-716	Perforated	8 5/8" @ 604 ft	5 1/2" @ 3959 ft	
Puckett "B"	1	660 FSL & 660 FWL	24/17S/31E	4/20/41	3951	3302-3951	Open Hole	10" @ 629 ft	7" @ 3302 ft	
Puckett "B"	5	675 FSL & 1980 FWL	24/17S/31E	2/27/42	3917	3300-3917	Open Hole	8 1/4" @ 605 ft	7" @ 3300 ft	

Exhibit 4

Purpose of Injection

It is proposed that this well be converted from an active oil producers to an injector well. By converting this well the pattern can be changed to thus allowing Hudson to capture the trapped oil reserves that will not be recovered unless this action is taken. The Puckett A lease is currently approved as a secondary enhancement project. The Original Approved Order is attached as Exhibit 3. Exhibit 4 answer 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 Wisser Oil Company, who currently operate the Lea "D" and Skelly Unit, (direct west offset currently water flooding 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 We have reviewed the available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zones and any underground sources of drinking water.

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

Wisser Skelly Units

Well Number	Footage	Sec/Twp/Rng	Date Drilled	Depth	Completion Interval	Type	Construction Surf Csg	Prod Csg	Cement Top Est
243	2616 FNL & 1343 FEL	23/17E/31E	03/10/97	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	03/19/97	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	09/30/45	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	07/13/60	3840	3784-3840	PERFORATED	8 5/8" @ 799	5 1/2" @ 3784	1102 ft/275 sxs
2	710 FNL & 660 FEL	26/17E/31E	08/31/60	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	08/09/83	4034	3486-3811	OPEN HOLE	same as above	well was deepened	

Wiser Skelly Unit 36

WELLBORE SCHEMATIC

As Of: 2-15-2000

Not To Scale

Skelly Unit 36

Location:

Section 23-17S-31E
Eddy County, New Mexico

Well Plugged: 5/87

Well Construction Data

Surface Casing

Hole: 12 1/2" CSG: 8 5/8" SET 743
Cemented with 100 sxs (1.15 ft³ per sack)
Circulated cement to surface

Production Casing

Hole: 9" Casing: 7" set @ 3318 ft
Cemented with 350 sxs (1.15 ft³ per sack)

Completion Interval

Open hole 3318-3899

Plugging Procedure

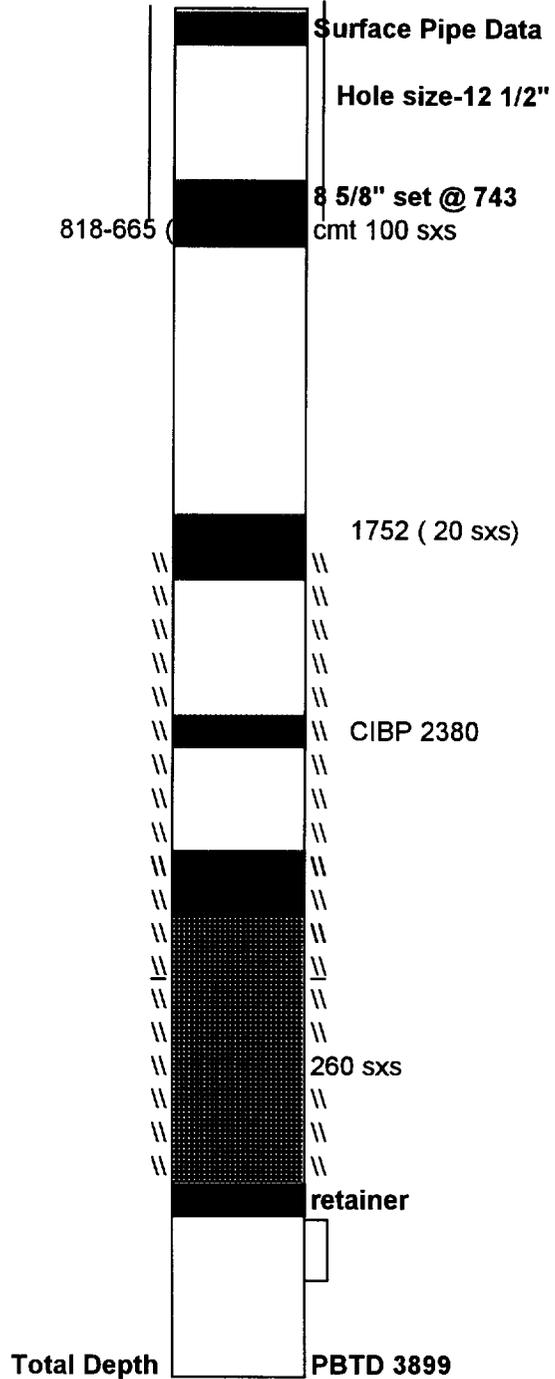
Set Retainer @ 2910
Set 260 sxs plug on top of retainer
Perf 2850 Squeezed 200 sxs
Perf 2546 Squeezed 100 sxs
Top of cement 1927
Tested 7-Rivers 2442-62

CIBP @ 2380

Plug 1 1752-1522 (20 sxs)

Plug 2 818-665 (23 sxs)

Plug 3 62-surface (5 sxs)



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

WELLBORE SCHEMATIC

As Of: 2-15-2000

Not To Scale

Puckett-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)

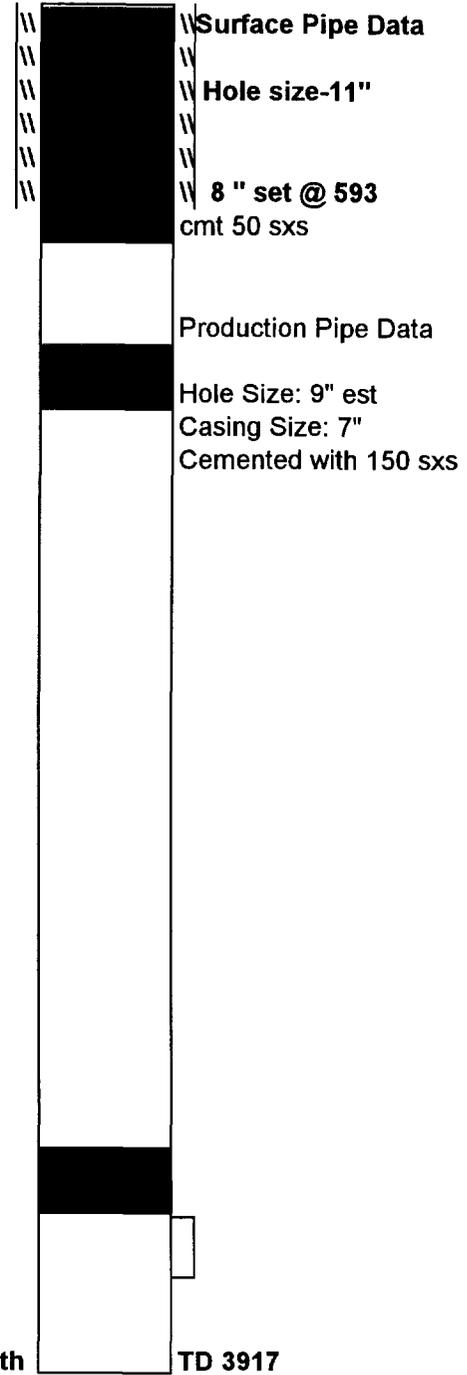
FOK: 2590' CMC

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



Pennzoil United Inc.

Puckett-Federal 24 Dry Hole
Location: 1800 FNL & 1980 FWL0
 Section 24-17S-31E
 Eddy County, New Mexico
Date Drilled and Abandoned: 2/1/69

Pluggin 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

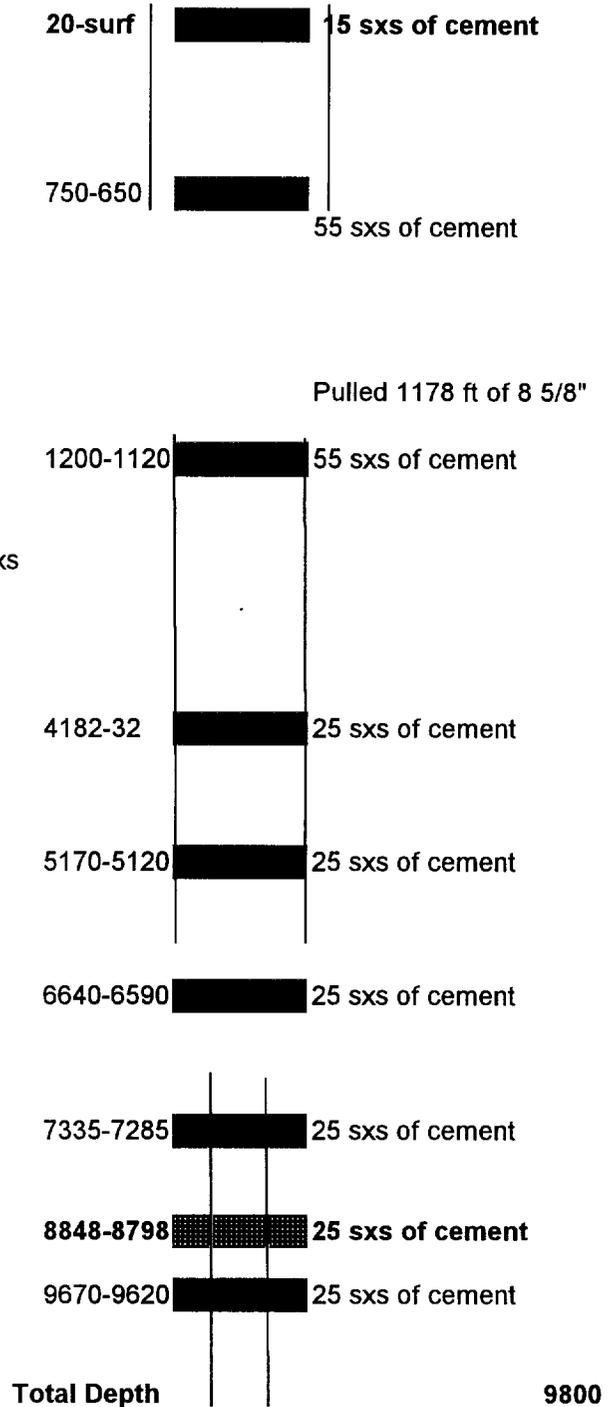
Intermediate:

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



Wiser Skelly Unit 50

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

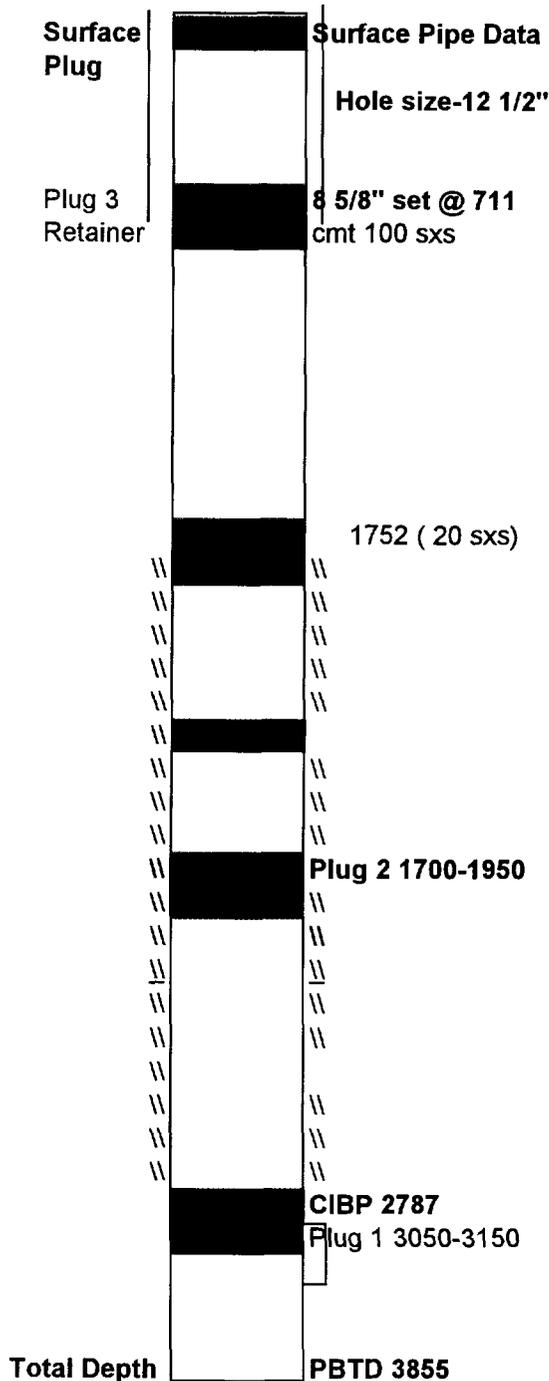
Plugging Procedure

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)

WELLBORE SCHEMATIC

As Of: 2-15-2000

Not To Scale



Wiser Skelly Unit 145 (Seven Rivers)

WELLBORE SCHEMATIC

As Of: 2-15-2000

Not To Scale

Skelly Unit 145 (Seven Rivers)

Location:

Section 23-17S-31E
Eddy County, New Mexico

Well Plugged: 2/88

Well Construction Data

Surface Casing

Hole: 12 1/2 CSG:8 5/8" SET 650

Circulated cement to surface

Production Casing

Hole: 8 5/8" Casing: 5 1/2" set @ 2650 ft

Completion Interval

Per 2407-2535

Plugging Procedure

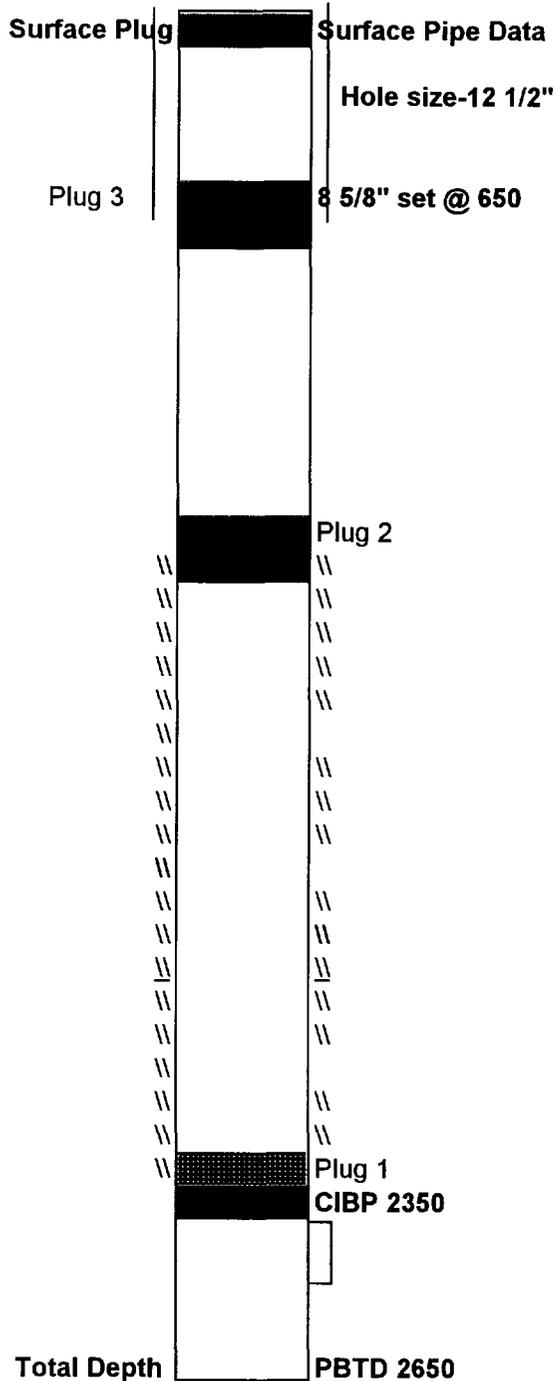
CIBP @ 2350

Plug 1 2350-2315

Plug 2 1718-1818 (12 sxs)

Plug 3 575-700 (15 sxs)

Surface: 85-surface (10 sxs)



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

WELLBORE SCHEMATIC

As Of: 2-15-2000

Not To Scale

Puckett-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

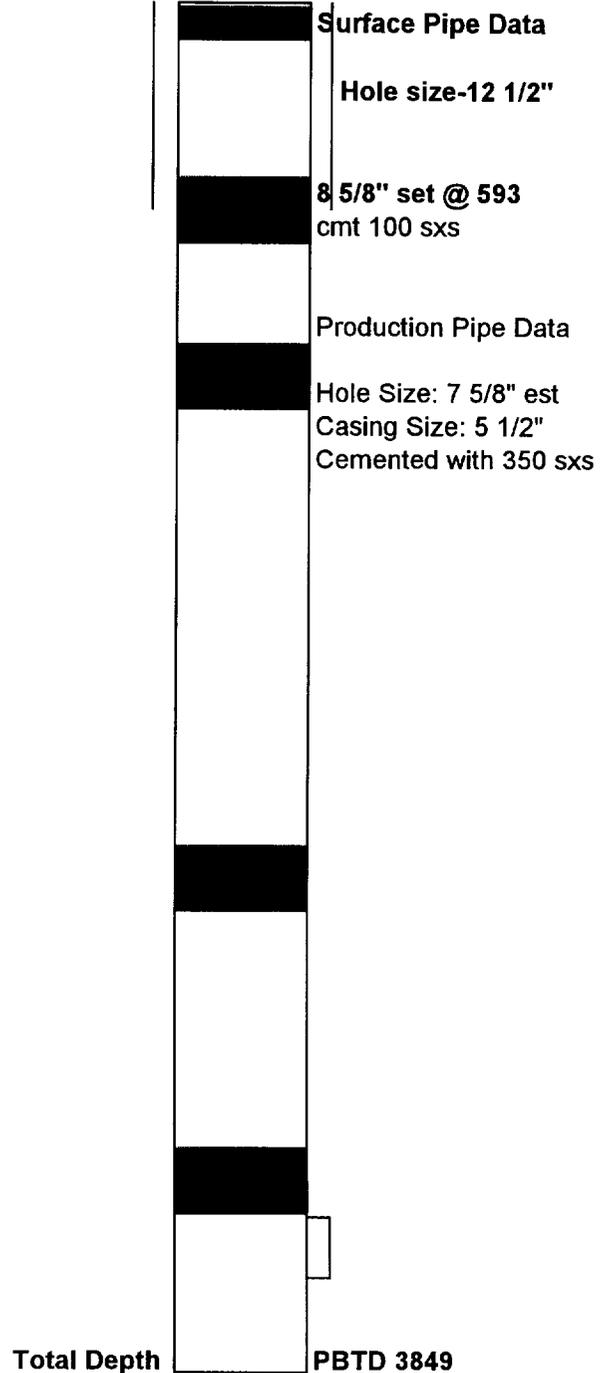
Hole: 7 5/8" Casing: 5 1/2" set @ 3910 ft
Cemented with 350 sxs (1.15 ft³ per sack)

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



UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPPLICATES
(Other instructions on reverse side)

Form approved
Budget Bureau No. 42-11424
5. LEASE DESIGNATION AND SERIAL NO.

LC029415 (A)

6. IF INDIAN, ALLEGIANE OR TRIBE NAME

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

7. UNIT AGREEMENT NAME

1. OIL WELL GAS WELL OTHER Dry Hole

8. FARM OR LEASE NAME

2. NAME OF OPERATOR Pennzoil United, Inc.

Puckett "24" Federal

9. WELL NO.

3. ADDRESS OF OPERATOR P. O. Drawer 1828 - Midland, Texas 79701

10. FIELD AND POOL, OR WILDCAT

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)
At surface

Wildcat

11. SEC. T., R., M., OR BLK. AND SURVEY OR AREA

1800 FNL & 1980 FWL of Section 24, T-17-S, R-31-E

Sec. 24, T-17-S, R-31-E

12. COUNTY OR PARISH 13. STATE

14. PERMIT NO.

15. ELEVATIONS (Show whether DF, RT, CR, etc.)

4054 GL (Est.)

Eddy

N. M.

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

SUBSEQUENT REPORT OF:

TEST WATER SHUT-OFF
FRACTURE TREAT
SHOOT OR ACIDIZE
REPAIR WELL
(Other)

PULL OR ALTER CASING
MULTIPLE COMPLETE
ABANDON*
CHANGE PLANS

WATER SHUT-OFF
FRACTURE TREATMENT
SHOOTING OR ACIDIZING
(Other)

REPAIRING WELL
ALTERING CASING
ABANDONMENT*

(NOTE: Report results of multiple completion on Well Completion or Recumpletion Report and Log form.)

17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

On 2-1-69, plugged as follows:

- Plug #1 - 25 sx 9670 - 9620'
- Plug #2 - 25 sx 8848 - 8798'
- Plug #3 - 25 sx 7335 - 7285'
- Plug #4 - 25 sx 6640 - 6590'
- Plug #5 - 25 sx 5170 - 5120'
- Plug #6 - 25 sx 4182 - 4132'
- Pulled 1178' of 8 5/8" casing
- Plug #7 - 55 sx 1200 - 1120'
- Plug #8 - 55 sx 750 - 670'
- Plug #9 - 15 sx Surface

Completed at 6:30 P.M. 2-2-69.

18. I hereby certify that the foregoing is true and correct

SIGNED [Signature]

TITLE Drilling Superintendent

DATE 2-14-69

(This space for Federal or State office use)

APPROVED BY _____
CONDITIONS OF APPROVAL, IF ANY:

TITLE _____ DATE _____

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
 DRILL DEEPEN PLUG BACK

b. TYPE OF WELL
 OIL WELL GAS WELL OTHER SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
Pennzoil United, Inc.

3. ADDRESS OF OPERATOR
P. O. Drawer 1828 - Midland, Texas 79701

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
 At surface
1800 FNL & 1980 FWL of Section 24, T-17-S, R-31-E
 At proposed prod. zone
Same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
9 mi. E/Loco Hills

16. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.
 (Also to nearest dept. unit line, if any) 1800

18. DISTANCE FROM PROPOSED LOCATION TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
440' N/Puckett

21. ELEVATIONS (Show whether DP, HT, GR, etc.)
4054 GL (Est.)

5. LEASE DESIGNATION AND SERIAL NO.
LC 029415 & (CA)

6. IF INDIVID., ALIAS OR OTHER NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Puckett "24" Federal

9. WELL NO.
1

10. FIELD AND POOL OR WILDCAT
Wildcat

11. SEC., T., R., M., OR B.L. AND SURVEY OR AREA
Sec. 24, T-17-S, R-31-E

12. COUNTY OR PARISH 13. STATE
Eddy N. M.

17. NO. OF ACRES ASSIGNED TO THIS WELL
40

20. ROTARY OR CABLE TOOL
Rotary

22. APPROX. DATE WORK WILL START

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8	48#	750	Circulate
11"	8 5/8	24# & 32#	4,000	750 sx
7 7/8"	4 1/2	11.6# & 13.5#	9,800	500 sx

4000
1178
2822

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blow-preventer program, if any.

24. SIGNED Charles P. Brown TITLE Manager of Production DATE 11-21-68

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

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

XIII. PROOF OF NOTICE

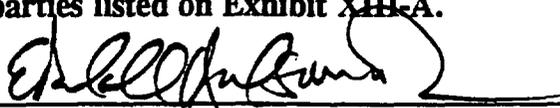
Copies of this C-108 Application have been mailed to the surface owners and to each leasehold operator within one-half mile of the proposed injection wells as identified on the mailing list attached as Exhibit XIII-A. An Affidavit of such notice is attached as Exhibit XIII-B. Copies of the certified 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.

EXHIBIT XIII-B

STATE OF TEXAS

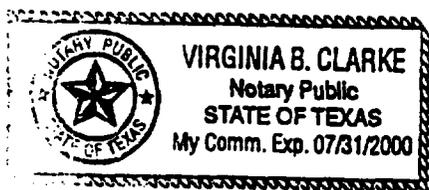
COUNTY OF TARRANT

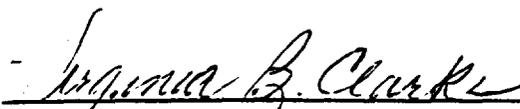
I, **E. Randall Hudson III**, do solemnly swear that a copy of this Application has been mailed by certified mail, to each of the interested parties listed on Exhibit XIII-A.



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

SWORN AND SUBSCRIBED TO before me this 12th day of May, 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

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

Surface & Grazing Lease Owners:

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

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

MacFarlane Company
205 Armstrong Building
El Dorado, Arkansas 71730

Offset Leasehold Owners:

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

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

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

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

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

Offset Well Operators

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

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

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

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

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

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

Affidavit of Publication

Copy of Publication:

NO. 16923

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

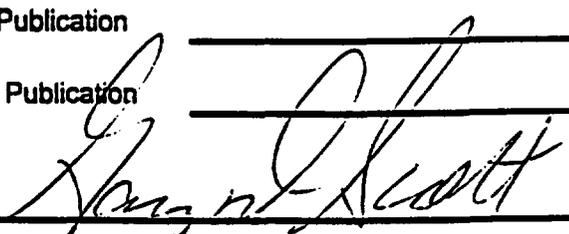
was published in a regular and entire issue of the said
Artesia Daily Press, a daily newspaper duly qualified
for that purpose within the meaning of Chapter 167 of
the 1937 Session Laws of the state of New Mexico for
1 consecutive weeks/days on the same
day as follows:

First Publication April 9 2000

Second Publication _____

Third Publication _____

Fourth Publication _____



Subscribed and sworn to before me this

10th day of April 2000

Barbara Ann Boon
Notary Public, Eddy County, New Mexico

My Commission expires September 23, 2003

LEGAL NOTICE

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 for-
mation (Depth of injection inter-
val to 3200 to 4000 feet). The pur-
pose of the application is to
expand the existing waterflood
project. The application affects
the following well: Puckett A-8
located in Section 24-17S-R31E,
Eddy County. Maximum Injection
rates will be 600 BWPD.
Maximum injection Pressure will
be 2000 psig. All interested par-
ties 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. April 9,
2000.

Legal 16923

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

April 10, 2000

817-336-7109
FAX 817-334-0442

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

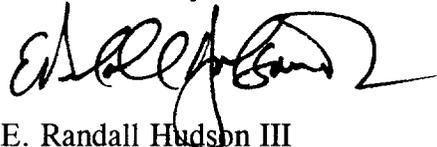
Re: Puckett A #8
T17S R24E Section 24
Sundry Notice dated April 5, 2000
Approved April 14, 2000 by BLM

Dear Mr. Ashley:

Attached is the additional information you requested to convert our Puckett A #8 well to an injector.

Thanks for your patience and help.

Yours sincerely,



E. Randall Hudson III

ERHIII/vc

Enclosures

cc: Jon Smith
P.O. Box 9
Maljamar, NM 88264

Affidavit of Publication

NO. 16923

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

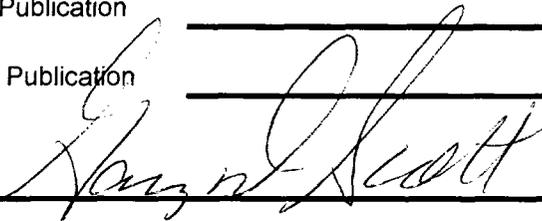
day as follows:

First Publication April 9 2000

Second Publication _____

Third Publication _____

Fourth Publication _____



Subscribed and sworn to before me this

10th day of April 2000



Notary Public, Eddy County, New Mexico

My Commission expires September 23, 2003

Copy of Publication:

LEGAL NOTICE

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 well: Puckett A-8 located in Section 24-17S-R31E, Eddy County. Maximum Injection rates will be 600 BWP/D. 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. April 9, 2000.

Legal 16923

WFX-761

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

May 12, 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
Puckett Leases Waterflood Project
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 well 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 one additional water injection well in Section 24, 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, Texas 76116

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

MacFarlane Company
205 Armstrong Building
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

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. 2536
Order No. R-2239

APPLICATION OF WILLIAM A. & EDWARD R.
HUDSON FOR A SECONDARY RECOVERY PRO-
JECT, MALJAMAR POOL, EDDY COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on April 25, 1962, at Santa Fe, New Mexico, before Elvis A. Utz, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 9th day of May, 1962, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Elvis A. Utz, 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, are the owners of the Puckett "A" and "B" Leases located in part in Sections 13, 24, and 25, Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico.

(3) That the applicants seek permission to institute a secondary recovery project in the Maljamar Pool on their Puckett "A" and "B" Leases by the injection of water into the Grayburg-San Andres formation initially through 6 wells on said leases.

(4) That the wells on the subject leases have reached an advanced stage of depletion and should be classified as "stripper" wells; that, accordingly, the subject project should be governed by the waterflood provisions of Rule 701.

IT IS THEREFORE ORDERED:

(1) That William A. and Edward R. Hudson are hereby authorized to institute a waterflood project in the Maljamar Pool on

-2-

CASE No. 2536
Order No. R-2239

their Puckett "A" and "B" Leases located in Sections 13, 24, and 25, Township 17 South, Range 31 East, NMPM, Eddy County, New Mexico, by the injection of water into the Grayburg-San Andres formation initially through the following-described wells:

Puckett "A" Well No. 19, Unit G;
Puckett "A" Well No. 20, Unit F;
Puckett "A" Well No. 21, Unit B;
Puckett "A" Well No. 22, Unit I;
Puckett "A" Well No. 23, Unit J; and
Puckett "B" Well No. 21, Unit O;

all in Section 24, Township 17 South, Range 31 East.

(2) That the subject waterflood project shall be governed by the provisions of Rule 701.

(3) 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

EDWIN L. MECHEM, Chairman

E. S. WALKER, Member

S E A L

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

esr/

Original copy

BEFORE THE OIL CONSERVATION COMMISSION
OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF
HUDSON & HUDSON FOR APPROVAL OF A
SECONDARY RECOVERY PROJECT BY WATER
INJECTION IN THE MALJAMAR OIL POOL,
EDDY COUNTY, NEW MEXICO

APPLICATION

Come now William A. Hudson and Edward R. Hudson, doing business as William A. and Edward R. Hudson, and apply to the Oil Conservation Commission of New Mexico for approval of a secondary recovery project by water injection in the Maljamar Oil Pool, Eddy County, New Mexico, and in support thereof would show the Commission:

1. Applicant proposes to conduct water flood operations on their Puckett "A" and "B" leases in Section 24, Township 17 South, Range 31, East, N.M.P.M., Eddy County, New Mexico.

2. Applicant proposes to inject water in six input wells in the pilot stage of the project, said wells being as follows:

Puckett "A" No. 19 - Unit G, Section 24, T. 17 S., R. 31 E.

Puckett "A" No. 20 - Unit F, Section 24, T. 17 S., R. 31 E.

Puckett "A" No. 21 - Unit B, Section 24, T. 17 S., R. 31 E.

Puckett "A" No. 22 - Unit I, Section 24, T. 17 S., R. 31 E.

Puckett "B" No. 21 - Unit O, Section 24, T. 17 S., R. 31 E.

Puckett "A" No. 23 - Unit J, Section 24, T. 17 S., R. 31 E.

all of which wells have heretofore been drilled with the exception of the Puckett "B" No. 21, which is presently being drilled, and the Puckett "A" No. 23, which is yet to be drilled.

3. Injection of water will be in the Grayburg-San Andres formations at approximately depths of from 3,600 to 4,000 feet.

4. It is anticipated that approximately 600 barrels of water per day will be injected into each input well until fill-up. Source of water has not been finally determined, but the applicant has water leases and water appropriations which can be used. Final plans for determining source of water will be completed prior to the hearing of this application.

There are attached hereto and made a part hereof, the following:

- A. Map of the general area showing outline of the proposed project and proposed water input wells.
- B. Diagram of the casing programs of the input wells.
- C. Logs of the input wells, insofar as available.

WHEREFORE, applicant prays that this matter be heard by the Oil Conservation Commission of New Mexico or its duly appointed examiner, and that after notice and hearing as required by law, the Commission enter its order approving the secondary recovery program of water injection, as proposed, together with provision for the assignment of allowables, and for future expansion of the project, all as provided by Rule 701 of the Commission's Rules and Regulations.

Respectfully submitted,

WILLIAM A. and EDWARD R. HUDSON

By /s/ Jason W. Kellahin

KELLAHIN & FOX
P. O. Box 1713
Santa Fe, New Mexico

ATTORNEYS FOR APPLICANT