



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
HOBBS DISTRICT OFFICE

1-11-93

BRUCE KING
GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Sec 500

RE: Proposed:

MC _____
DHC _____
NSL _____
NSP _____
SWD *X* _____
WFX _____
PMX _____

Gentlemen:

I have examined the application for the:

Ray westall Federal 30 #2-0 30-23-34
Operator Lease & Well No. Unit S-T-R

and my recommendations are as follows:

OR

Yours very truly,

Jerry Sexton
Supervisor, District 1

/ed

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ yes ☐ no
- II. Operator: Ray Westall
Address: P.O. Box 4, Loco Hills NM 88255
Contact party: Randall L. Harris Phone: (505) 677-2370
- III. Well data: Complete the data required on the reverse side of this form for each well proposed for injection. Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? ☐ yes ☒ no
If yes, give the Division order number authorizing the project _____.
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- * VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such source known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- * X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division they need not be resubmitted.)
- * XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification
- I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- Name: Randall L. Harris Title Geologist
Signature: [Signature] Date: 1/4/93
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be duplicated and resubmitted. Please show the date and circumstance of the earlier submittal. _____

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

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

- (1) The name, address, phone number, and contact party for the applicant;
- (2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) the formation name and depth with expected maximum injection rates and pressures; and
- (4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 within 15 days.

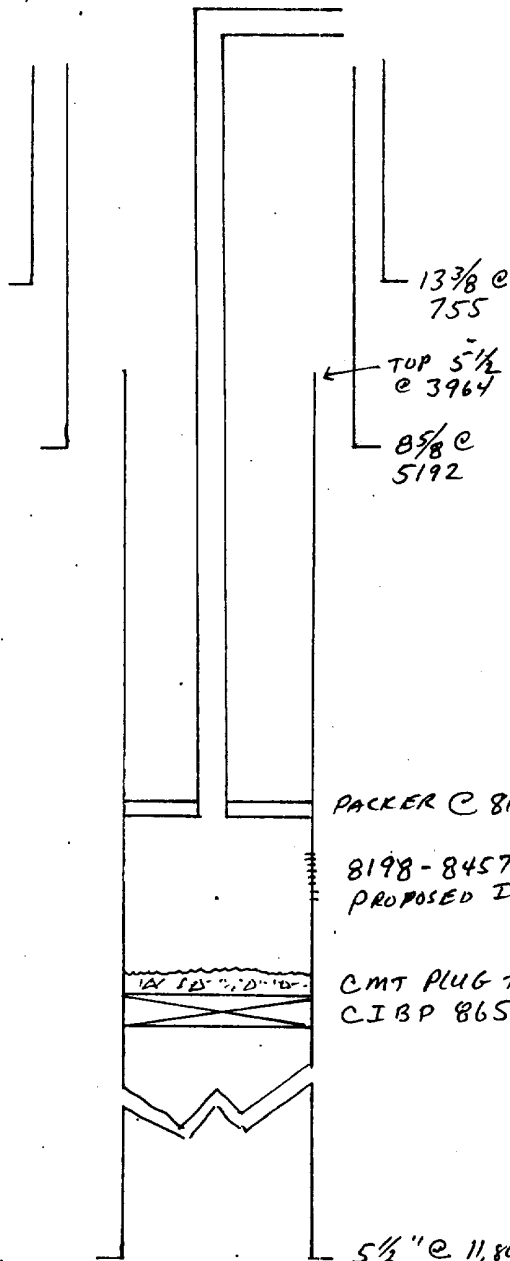
NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

III. WELL DATA

INJECTION WELL DATA SHEET

OPERATOR		LEASE		
Ray Westall		Federal "30" #2		
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE
2	330' FSL & 1650' FEL	30	23 South	34 East

Schematic 2 7/8" PLASTIC TUBING

Tabular Data

Surface Casing

Size 13 3/8 " Cemented with 1100 sx.TOC Circulated feet determined by _____Hole size 17 1/2

Intermediate Casing

Size 8 5/8 " Cemented with 1650 sx.TOC Circulated feet determined by _____Hole size 12 1/4

Long string

Size 5 1/2 " Cemented with 1500 sx.TOC 4900 feet determined by temp surveyHole size 7 7/8Total depth 11800

Injection interval

8198 feet to 8457 feet perforated
(perforated or open-hole, indicate which)

PACKER @ 8100

8198-8457
PROPOSED INT. INTERVALCMT PLUG TOP 8615'
CIBP 8650'

5 1/2" @ 11,800

Tubing size 2 7/8" lined with Plastic set in a
(material)
Baker Loc-set packer at 8100 feet
(brand and model)

(or describe any other casing-tubing seal).

Other Data

- Name of the injection formation Delaware
- Name of Field or Pool (if applicable) North Bell Lake Delaware
- Is this a new well drilled for injection? ☐ Yes ☒ No
If no, for what purpose was the well originally drilled? Wolfcamp test
- Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) See Attached Detailed Schematic
- Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. None at this location

RAY WESTALL - OPERATOR
FEDERAL "30" #2
Unit 0 Section 30
T-23 South, R-34 East
Lea County, New Mexico

13 3/8" 755'
w/1100 sxs circulated

Top 5 1/2" csng @ 3964'

TOC 4900' Temp Survey

8 5/8" @ 5192'
w/1650 sxs circulated

perfs 5254-5308
sqzd 200 sxs

perfs 7335-7345
sqzd 200 sxs
perfs 7573-7713
sqzd 150 sxs

Perfs 8198-8295
Perfs 8388-8457 } PROPOSED
INJ ZONE

Cmt plug Top 8615
CIBP @ 8650
Perfs 8712-8782

Perfs 9497-9531

Perfs 9578-9626

Cmt plug Top 9865
CIBP @ 9900
Perfs 9931-9971

Perfs 10903-10945

Perfs 11093-11098

5 1/2" @ TD 11800'
w/1500 sxs

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LIBRARY

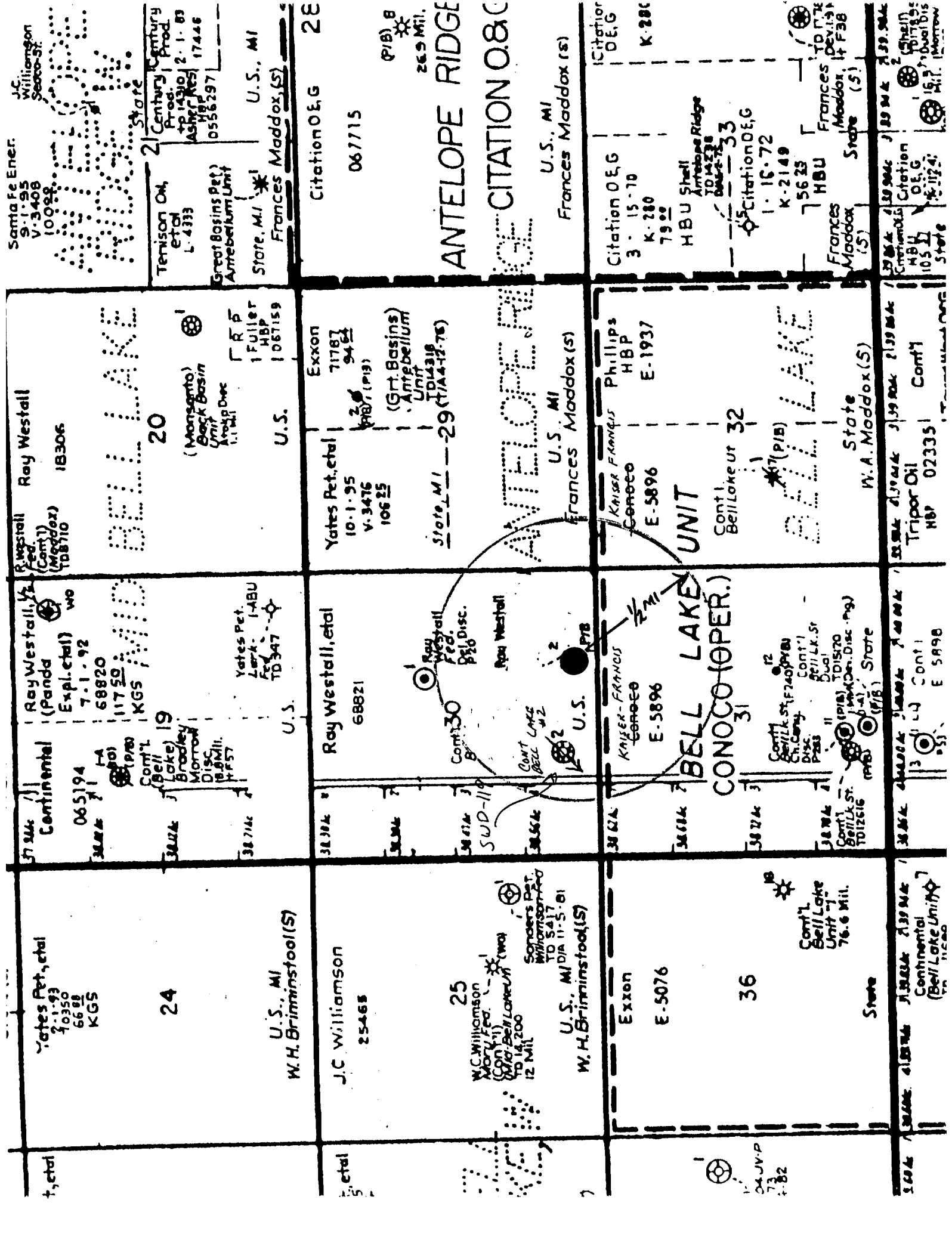
V. AREA OF REVIEW & LEASES

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DDO MOI 33 011

[illegible]



Sam Fe Ener
9-1-95
V-3408
10098
J.C. Williamson
Seaco-St

21 Century
Temison On
Prod
L-4333
Great Basins Pet
Antelope Unit
State, MI
U.S., MI
Frances Maddox (S)

Citation O.E.G
067715
Antelope Ridge
Citation O.E.G
U.S., MI
Frances Maddox (S)

Citation O.E.G
3-15-70
K-280
7900
HBU Shell
Antelope Ridge
TO 14238
04-2-72
Citation O.E.G
1-16-72
K-2149
5623
HBU
Frances Maddox
State (S)

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3-15-70
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1-16-72
K-2149
5623
HBU
Frances Maddox
State (S)

Ray Westall
18306
Bell Lake
20
(Monongahela)
Back Basin
Unit
Antelope Dnc
1-1-72
Fuller
HBP
1067159
U.S.

Yates Pet. et al
10-1-95
V-3476
10625
Exxon
71787
9464
1807 (P13)
(Grt. Basins)
Antelope Unit
State, MI -29 (TIA-42-76)
U.S.

Yates Pet. et al
10-1-95
V-3476
10625
Exxon
71787
9464
1807 (P13)
(Grt. Basins)
Antelope Unit
State, MI -29 (TIA-42-76)
U.S.

Kniser Francis
Phillips
HBP
E-1937
Conoco
E-5896
Bell Lake 32
Cont'l
Bell Lake 32
State
W.A. Maddox (S)

Kniser Francis
Phillips
HBP
E-1937
Conoco
E-5896
Bell Lake 32
Cont'l
Bell Lake 32
State
W.A. Maddox (S)

Ray Westall, et al
(Panda)
Expl. et al
7-1-92
68820
11750
KGS
Yates Pet.
Lar-A-1-ABU
Fed
TD 347
U.S.

Ray Westall, et al
68821
Cont'l
Bell Lake 30
Bell Lake 29
Bell Lake 28
Bell Lake 27
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Bell Lake 25
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Bell Lake 19
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Bell Lake 1

Ray Westall, et al
68821
Cont'l
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Bell Lake 1

Kniser Francis
Phillips
HBP
E-1937
Conoco
E-5896
Bell Lake 32
Cont'l
Bell Lake 32
State
W.A. Maddox (S)

Kniser Francis
Phillips
HBP
E-1937
Conoco
E-5896
Bell Lake 32
Cont'l
Bell Lake 32
State
W.A. Maddox (S)

Yates Pet. et al
7-1-93
70350
6688
KGS
24
U.S., MI
W.H. Brimminstool (S)

J.C. Williamson
25468
W.C. Williamson
Cont'l
Bell Lake 25
Bell Lake 24
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J.C. Williamson
25468
W.C. Williamson
Cont'l
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Exxon
E-5076
36
Cont'l
Bell Lake
Unit-1
76.6 Mil.
State

Exxon
E-5076
36
Cont'l
Bell Lake
Unit-1
76.6 Mil.
State

IV. One well has penetrated the proposed injection zone within the $\frac{1}{2}$ mile radius of the proposed injection well. This is the Continental Oil Co. Bell Lake Unit #2. This is a disposal water disposal well in the Delaware formation. NMOCD SWD 119.

VII. The average daily volume 400 BWPD at 2 BPM.
Expected maximum of 600 BWPD.

The system will be closed.

Average injection pressure of 600 PSI, maximum of 1200 PSI.

Source of injection water is from the Delaware Formation from the Ray Westall Federal 19 and Federal 30 wells. Analysis attached.

VIII. The proposed injection zone is the Delaware formation. The top of the Delaware is at 5156' and is 3536 feet thick. The Delaware is comprised of sands and shales.

There is no source of fresh water immediately underlying or overlying the proposed injection interval.

IX. No stimulation program is proposed.

X. Logs and data have been filed with the Division.

XI. There is no fresh water wells within one mile of the proposed injection well.

XII. All available geologic and engineering data has been examined. No evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water has been found.

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VI. WELL HISTORIES IN AREA OF REVIEW

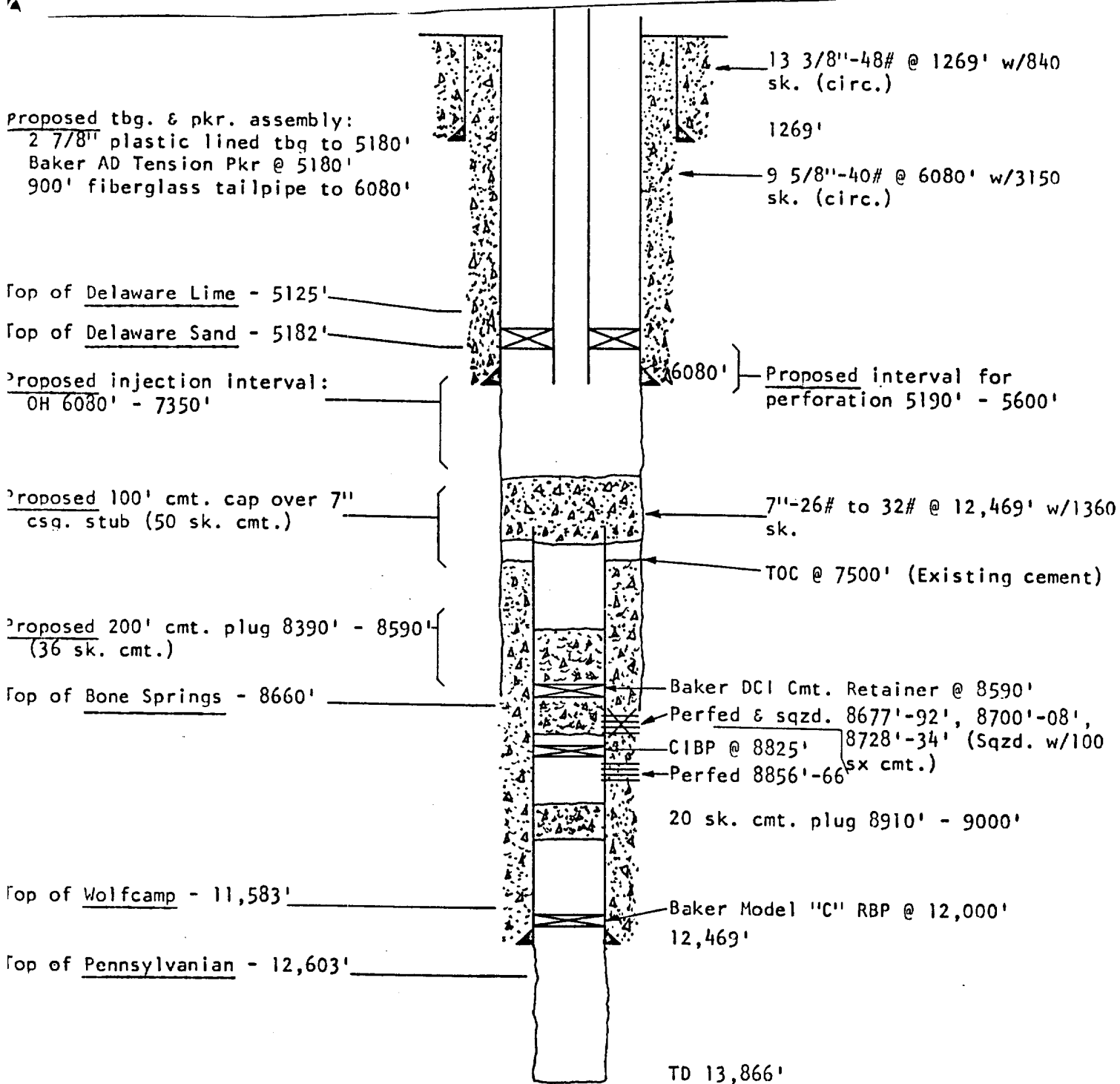
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OOD HOBBS CT

APPLICATION TO DISPOSE OF SALT WATER BY INJECTION INTO A POROUS FORMATION

NOTE: Should waivers from the surface owner and all operators within one-half mile of the proposed injection well not accompany this application, the New Mexico Oil Conservation Commission will hold the application for a period of 15 days from the date of receipt by the Commission's Santa Fe office. If at the end of the 15-day waiting period no protest has been received by the Santa Fe office, the application will be processed. If a protest is received, the application will be set for hearing, if the applicant so requests. SEE RULE 701.



Bell Lake Unit No. 2

660' FSL & 3300' FEL Sec 30-T23S-R34E

(DF 3517', 19' AGL)

FEK 5-27-71

erw

Form C-100 shall be submitted by the operator before an initial allowable will be assigned to any completed Oil or Gas well. Form C-100 is to be submitted in **QUADRUPPLICATE** to the same District Office to which Form C-101 was sent. The allowable will be assigned effective 7:00 A.M. on date of completion or recompletion, provided this form is filed during calendar month of completion or recompletion. The completion date shall be that date in the case of an oil well when oil is delivered into the stock tanks. Gas must be reported on 15.025 psia at 60° Fahrenheit.

Albuquerque, New Mexico November 1, 1954

(Date)

Address.....Box 437, Hobbs, New Mexico

VII. SOURCE & ANALYSIS OF INJECTION FLUID

THE WESTERN COMPANY OF NORTH AMERICA

WATER ANALYSIS

HOBBS, NEW MEXICO LAB

ANALYSIS #: HB010227

GENERAL INFORMATION

OPERATOR: RAY WESTALL
 WELL: FEDERAL 30
 FIELD: North Bell Lake
 FORMATION: Delaware
 COUNTY: Lea
 STATE: NM

DEPTH: 0
 DATE SAMPLED: 10-25-92
 DATE RECEIVED: 10-26-92
 SUBMITTED BY: PUMPER??
 WORKED BY: D. SHEPHERD
 PHONE #: 505-392-5556

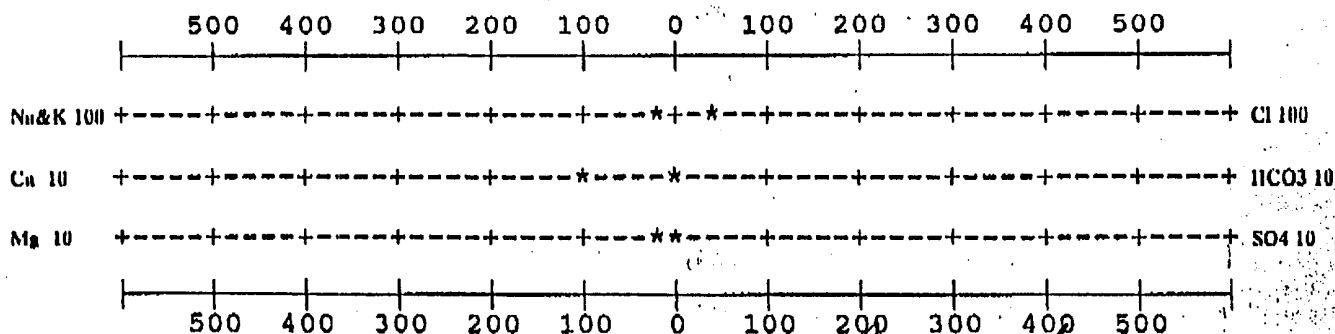
SAMPLE DESCRIPTION: ALL WATER FOR ANALYSIS

PHYSICAL AND CHEMICAL DETERMINATIONS

SPECIFIC GRAVITY: 1.167 @ 78 °F	PH: 5.59
RESISTIVITY (CALC.): .045 OHMS @ 75 °F	
IRON (FE++): 25 PPM	SULFATE: 266 PPM
CALCIUM: 20497 PPM	TOTAL HARDNESS: 58612 PPM
MAGNESIUM: 1791 PPM	BICARBONATE: 105 PPM
CHLORIDE: 132789 PPM	SODIUM CHLORIDE (CALC) 218438 PPM
SODIUM+POTASS: 59384 PPM	TOT. DISSOLVED SOLIDS: 251155 PPM
PERCENT OIL :00	H2S: NO TRACE

REMARKS:

STIFF TYPE PLOT (IN MEQ/L)



ANALYST

D. SHEPHERD

PROOF OF NOTICE

Surface Owner

State Of New Mexico
Office of Commissioner of Public Lands
P.O. Box 1148
Santa Fe, NM 87504-1148

Leasehold Operators

Kaiser-Francis Oil Company
P.O. Box 21468
Tulsa, OK 74121-1468

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SCD 10000 577