

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ yes ☐ no

II. Operator: Sage Energy Company (Formerly Rial Oil Company)

Address: P. O. Drawer 3068, Midland, Texas 79702

Contact party: Jay Hardy/Jerry Littlefield Phone: 915 683 5271

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. Attached.

* 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: Jay H. Hardy Title Vice President - Engineering

Signature: Jay H. Hardy Date: February 6, 1985

* 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.

MAR - 5 1985

COPIES
STAMP

Attachment to/or made part of the Form C-108 dated February 6, 1985 signed by Jay H. Hardy, Vice President - Engineering, Sage Energy Company, P. O. Drawer 3068, Midland, Texas 79702.

DATA ON THE PROPOSED OPERATIONS:

- VII. 1. The average and maximum daily rate and volume of fluids to be injected will be at the rate to 500 BWP.
2. The system is open.
3. Water to be disposed of on vacuum.
4. Water analysis attached.
5. Not applicable.

VIII. The injection zone is:

Top Cisco (Bough "c"), 9128' to 9144', thickness of 16', cretaceous at 350'±.

IX. No stimulation program needed.

X. Logs and test data on file with the division.

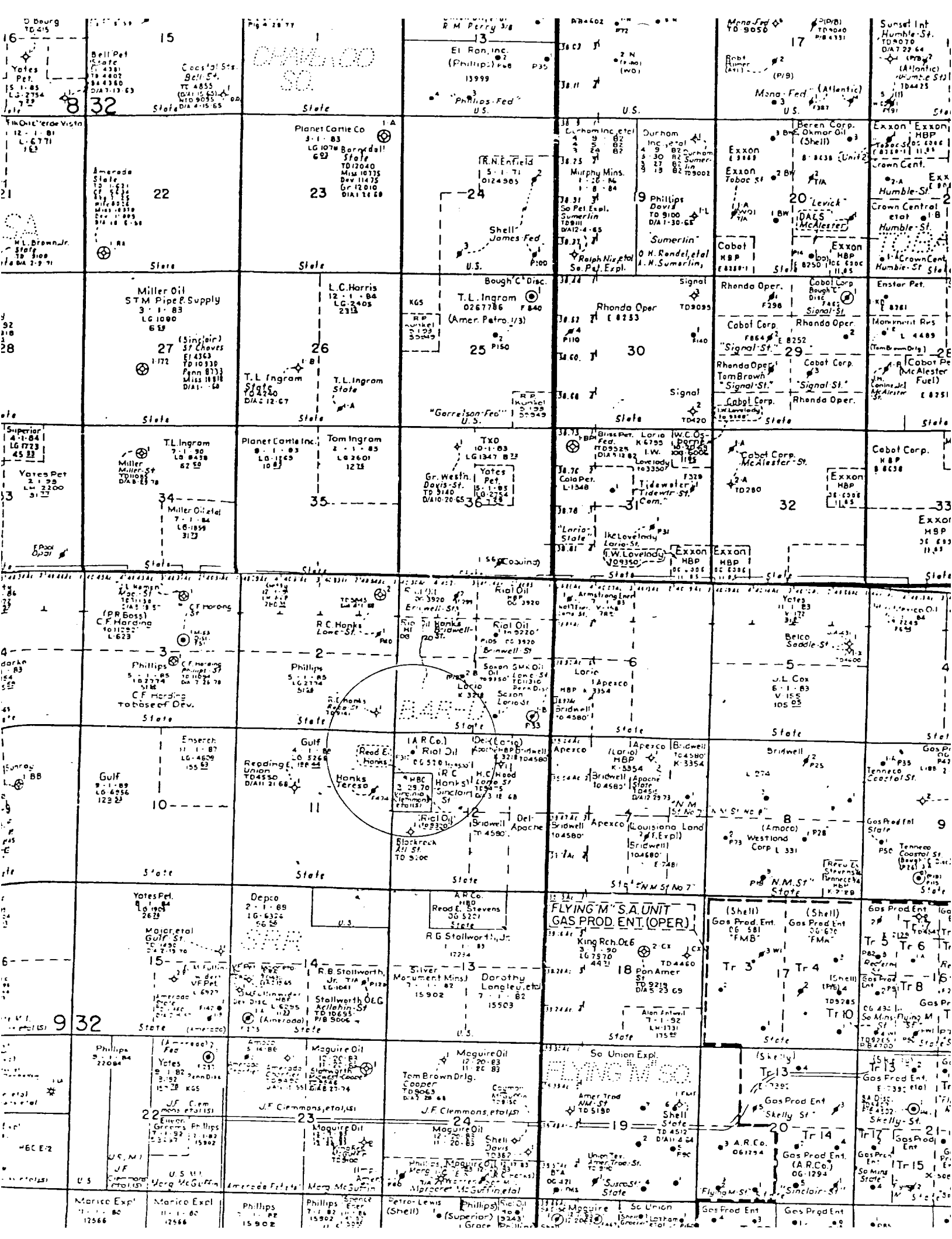
XI. Not applicable.

XII. I have no knowledge of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

RECEIVED

MAR - 5 1985

U.S. DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION



RECEIVED

MAR - 5 1985

RECEIVED OFFICE

HALLIBURTON SERVICES
MIDLAND DIVISION
HOBBS, NEW MEXICO 88240

REC. MIDLAND

JUL 11 1978

LABORATORY WATER ANALYSIS

No. W78-642

To Cleary Petroleum Company

Date 7-10-78

405 Wall Towers West

Midland, Texas 79701

This report is the property of Halliburton Company and neither it nor any part thereof nor a copy thereof is to be published or disclosed without first securing the express written approval of laboratory management; it may however, be used in the course of regular business operations by any person or concern and employees thereof receiving such report from Halliburton Company.

Submitted by _____ Date Rec. 7-10-78

Well No. Sinclair St. #1 Depth _____ Formation _____

County _____ Field _____ Source _____

Resistivity _____ 0.078 @ 74°F.

Specific Gravity _____ 1.056

pH _____ ~~XXXX~~ 6.6

Calcium (Ca) _____ 4,500 *MPL

Magnesium (Mg) _____ 120

Chlorides (Cl) _____ 47,500

Sulfates (SO₄) _____ 950

Bicarbonates (HCO₃) _____ 270

Soluble Iron (Fe) _____ Nil

Remarks: Bough C water *Milligrams per liter

Respectfully submitted,

Analyst: Brewer

HALLIBURTON COMPANY

cc:

By W. L. Brewer
CHEMIST

NOTICE

THIS REPORT IS LIMITED TO THE DESCRIBED SAMPLE TESTED. ANY USER OF THIS REPORT AGREES THAT HALLIBURTON SHALL NOT BE LIABLE FOR ANY LOSS OR DAMAGE, WHETHER IT BE TO ACT OR OMISSION, RESULTING FROM SUCH REPORT OR ITS USE.

INJECTION WELL DATA SHEET

SIDE 1

OPERATOR SAGE ENERGY COMPANY

LEASE Sinclair-State Lease

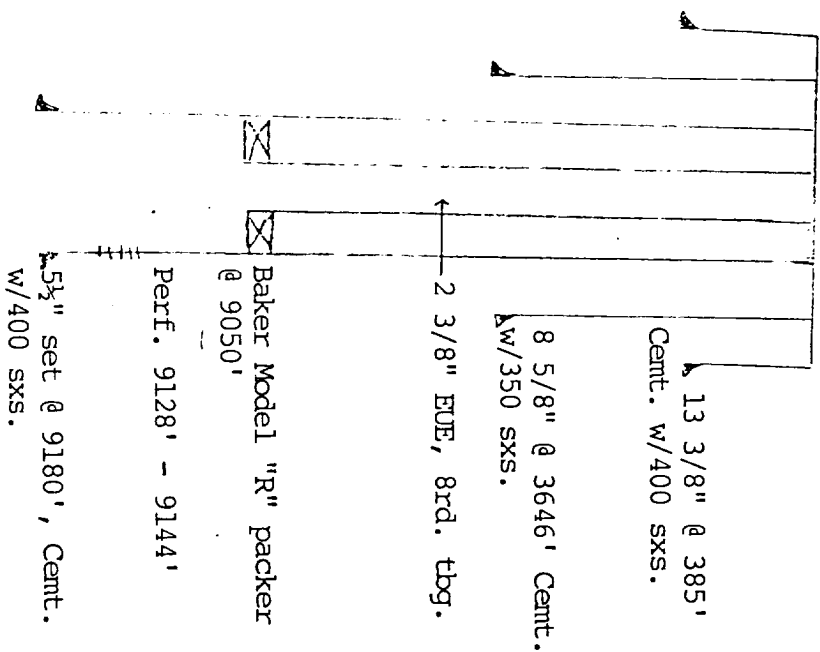
1 660' FNL and 660' FWL
WELL NO. FOOTAGE LOCATION

12
SECTION

T-9-S
TOWNSHIP

R-32-E
RANGE

Schematic



Surface Casing

Size 13 3/8" " Cemented with 400 sxs.
 TOC Ground Level feet determined by circulation
 Hole size 17"

Intermediate Casing

Size 8 5/8" " Cemented with 350 sxs.
 TOC NA feet determined by NA
 Hole size 11 1/4"

Long string

Size 5 1/2" " Cemented with 400 sxs.
 TOC NA feet determined by NA
 Hole size 7 7/8"
 Total depth 9180'

Injection interval

9128 feet to 9144 feet
 (perforated or open-hole, indicate which)

RECEIVED

MAR -5 1985

O. C. A.
HOUSE OFFICE

Tubing size 2 3/8" lined with _____ set in a _____

Baker Model "R" (brand and model) _____ packer at 9050 feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Bough "C"

2. Name of Field or Pool (if applicable) Bar "U" Penn

3. Is this a new well drilled for injection? ☐ Yes ☒ No

If no, for what purpose was the well originally drilled? Exploration for oil and gas.

4. 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): _____

No.

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. _____

None

RECEIVED

MAR - 5 1985

U.S. DEPT. OF JUSTICE

MAPS _____ CO-ORD _____
F. R. 3-6-69 OBJ 9500' RT SPUD 3-5-69
CTR Ard Drlg. LAHEE CLASS _____ ELEV D. F. 4422 L/S
LOGS _____ SPLS _____ GL _____
TD 9180' PBD _____ ABD LOC. _____ P & A _____
PAY ZONE _____ PROD INTERVAL _____ IP _____ BO _____ W _____ HRS _____ GWS _____ TCS _____

GOR	GTY	CP	TP	BHP	POT DATE	TREATMENT
637	47				5-12-69	A/1000

COUNTY LEA, N. M. FIELD BAR-U (PENN)
WELL: Roger C. Hanks #1 Sinclair State ELEV 4422 DF

The Subsurface Library
P. O. Box 942
Midland, Texas

The Suburban Library
P. O. Box 942
Midland, Texas

Midland, Texas

RECEIVED

MAR - 5 1985

O.S.B.
HUMAN RIGHTS OFFICE

COUNTY LEA, N.M. FIELD BAR U (PENN)
OPR ROGER C. HANKS
SE REBA STATE WELL NO. 1
LOC Sec 2, T-9-S, R-32-E (P)
660 FSL & FEL of Section

UNIQUE NO. 30-025-23280
MAPS 9-11-69 OBJ 9200' RT CO-ORD 9-8-69
F. R. FWA Drlg. LAHEE CLASS 4432' L/S
CTR 4429' Op
LOGS 9141' SPLS 10-6-69
TD 9141' PBD ABD LOC. P & A
PAY ZONE PROD INTERVAL IP BO W HRS CHK TEST BASIS

PAY ZONE		PROD INTERVAL		TP	SC	W			
		PLUGGED AND ABANDONED							
GOR		GTY	CP	TP	BHP	POT DATE	TREATMENT		
CSG 12 3/4 - 418 - 400									
8 5/8 - 3625 - 350									

COUNTY LEA, N.M. FIELD BAR U (PENN)
WELL: ROGER C. HANKS #1 REBA STATE ELEV 4432' DF
DATE | WELL RECORD | REACHED T. D. | SPL (LOG) MARKERS
TD 9141' P&A 10-6-69 | Anyh (1780)
DST 9054-9141, Op 3'10", Rec 465' Mud, | Yates (2368)
651' GC&XWCM, 30" ISIP 2631, FP 0-390, | S.A. (3592)
60" FSIP 1356, HP 4964-4734, | Glor (5008)
 | Tubb (6477)
 | Abo (7330)
 (11-13-69) | Bo C (9055)

The Subsurface Library
P. O. Box 942
Midland, Texas

RECEIVED

MAR - 5 1985

O. C. R.
HOUSE OFFICE

RECEIVED

MAR - 5 1985

D. D. J.
JOHN OFFICE

AFFIDAVIT OF PUBLICATION

State of New Mexico,

County of Lea.

1, _____

Robert L. Summers

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

of _____

Two weeks.

Beginning with the issue dated

February 11, 19 85

and ending with the issue dated

February 18, 19 85

Robert L. Summers

Publisher.

Sworn and subscribed to before

me this 19 day of

February, 19 85

Cara Murphy
Notary Public

My Commission expires _____

Nov. 14, 19 88

(Seal)

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

(21)

LEGAL NOTICE

FEBRUARY 11, 18, 1985

"Sage Energy Company, P. O. Drawer 3068, Midland, Texas, 79702 has applied to convert its Sinclair State No. 1 well, located 660' FNL and 660' FWL of Section 12, T-9-S, R-32-E, Lea County, New Mexico to a water disposal facility. The operator intends to inject formation water into the Bough "C", at a depth of 9128' to 9144' at the approximate rate of 500 BWPD on vacuum. Interested parties must file objections or request for hearing with the Oil Conservation Commission, P. O. Box 2088, Santa Fe, New Mexico, 87501 within 15 days of today's date."

RECEIVED

MAR - 5 1985

O.C.A.
HONORARY OFFICE