	Logged 3/18/04 Superve 3/3/10× WF4 Dec INDICELVID PDAC0407839182 FORM C-108							
ENE	RGY, MINERALS AND NATURAL 1220 South St. Francis Dr. MAR 1 7 2004 Revised June 10, 2003 DURCES DEPARTMENT Santa Fe. New Mexico 87505							
	OIL CONSERVATION APPLICATION FOR AUTHORIZATION TO INJECT							
I.	PURPOSE:       X       Secondary Recovery       Pressure Maintenance       Disposal       Storage         Application qualifies for administrative approval?       Yest       No       IC							
П.	OPERATOR: SAGE ENERGY COMPANY							
	ADDRESS: PO DRAWER 3068, Midland, TX. 79702							
	CONTACT PARTY: GEORGE M. HARRIS, TR. PHONE: 432-683-5271							
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. Is this an expansion of an existing project? Yes If yes, give the Division order number authorizing the project: R-9359 30-025-29192							
IV.	Is this an expansion of an existing project? Yes If yes, give the Division order number authorizing the project: <b>R-9359</b>							
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:							
	<ol> <li>Proposed average and maximum daily rate and volume of fluids to be injected;</li> <li>Whether the system is open or closed;</li> <li>Proposed average and maximum injection pressure;</li> <li>Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected</li> </ol>							
	<ul> <li>produced water; and,</li> <li>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.).</li> </ul>							
*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							

IX. Describe the proposed stimulation program, if any.

known to be immediately underlying the injection interval.

- \*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 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: GEORGE TITLE: DISTRICT ENGINEER DATE: 2/26/04 SIGNATURE:

 E-MAIL ADDRESS: <u>gharris@SA6ÉMID.Com</u>
 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: <u>ORIGINAL C-108 for Protect</u>, <u>durted</u>

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

### ADDENDUM TO FORM C-108

### SAGE ENERGY COMPANY

### APPLICATION FOR AUTHORIZATION TO INJECT

- VII. 1.) Average daily injection rate is 200 bwpd, maximum daily injection rate is 450 bwpd. The total volume of fluid to be injected 1,460,000 barrels.
  - 2.) This injection system is closed.

3.) The proposed average injection pressure is 4050#, maximum proposed injection pressure is 4500#.

4.) The injection fluid will be fresh water from the Ogalalla. This water is compatible with the Abo formation as witnessed by the past performance of this flood. Fresh water analysis is attached.

IX. This well will not be stimulated.





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Company: Source : Number :	Sage Energy Fresh Water Well 593	Location: Attention: Date Sampled: Salesman:							
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Chemist

Method Determined: TEMP. SUR, بھ ھ ۍ ع Ъ. 34-E RANGE Method Determined: SIGHT Method Determined: SIGHT 2 Casing Size: 12-34" 4 1/2 1 " WELL CONSTRUCTION DATA (Perforated or Open Hole; indicate which) TOWNSHIP 8599 feet to 8642 Casing Size:\_ Casing Size: S-11 Intermediate Casing Production Casing Injection Interval Surface Casing 01 5 5 SX. SX. SX. SECTION R 80 0 Å ' 204 SET MR. B B492' Total Depth: 8789' N 70 C @ 7200 by 75 Top of Cement: 7200 250 *S*″ ", ", Cemented with: 1400 0 Top of Cement: 6L PERFORMTIONS Cemented with: Top of Cement: Cemented with: Hole Size: Hole Size: Hole Size: UNIT LETTER » ر 2 23%" 75g (univer) 1, 1910 @ 8764 ' 1 [12 ] 34 # @ NC & GL. 100 000 Ð WELL NAME & NUMBER: NUMANU 9#3 Ø OPERATOR: SALE ENERCY COMPANY 4/2" 11.6# 7 ", **Z**3 # 10, 4904 WELL LOCATION: 460 FSL, 1880 FSL ,6918 FOOTAGE LOCATION WELLBORE SCHEMATIC TD & 8789' 0000 Z REPORTIONS BSPR 8642` WITT THINK Side 1

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**INJECTION WELL DATA SHEET** 

Give the name and depths of any oil or gas zones underlying or overlying the proposed
injection zone in this area:

Side 2

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## Affidavit of Publication

STATE AND A

) ss.

STATE OF NEW MEXICO

#### COUNTY OF LEA

Joyce Clemens being first duly sworn on oath deposes and says that she is Advertisting Director of THE LOVINGTON DAILY LEADER, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled

Legal Notice

was published in a regular and entire issue of THE LOV-

INGTON DAILY LEADER and not in any supplement there-

of, for <u>one (1) day</u>, beginning with the issue of

February 26 , 2004 and ending with the issue

of February 26 \_\_\_\_\_, 2004.

And that the cost of publishing said notice is the sum of <u>11.21</u> which sum has been (Paid) as Court Costs.

Subscribed and sworn to before me this 26th day of

February 2004.

Debbie Schilling Notary Public, Lea County, New Mexico My Commission Expires June 22, 2006 LEGAL NOTICE TERTY SI Sager Energy / Company, <sup>1</sup> P.O. Drawer 3068, Midland, Texas, 79702 (contact: George Harris,) 432-683-5271) has applied to convert the NVANU Well 9#3 to water injection service in the North Vacuum (Abo) North Unit waterflood This well is located 460 FSL 1680 FEL of Sec 2, R-34-E T-17-S, in Lea County New Mexico The operator intends to inject fresh water into the Abo for mation at a depth of 8600 3 Maximum rate is 450 bwpd at a maximum pressure of 4500#. Interested parties must file objections or request for hearing with the Oil Conservation Division. 1220[S. St. Francis Dr. , Santa Fe., New; Mexico, (87505, within 515) days of todays date 1115, 2005 - 1011, 2015 - 111 Published in the Lovington Daily

Leader February, 26 (2004, 1991)

CERTIFIED MAIL RECEIPT 3600 (Domestic Mail Only; No Insurance Coverage Provided) · · · · <sup>3</sup> For delivery information visit our website at w m 77000 27 27 7 S HOUSTON, TX Δ ŝ 0.60 UNIT ID: 0702 505% .0 FRIT 2.30 Postmark Here 1.75 97 1680 . (194) Clerk: KNMWQ3 Mag \$ 4.65 02/26/04 EDD Mobi Gree Statte XXON Street, Apt. No. or PO Box No. 800 Bz St 14400 State, ZIP+4 HOUSTON City. Si 1277002 n 3800 - Juno 200 U.S. Postal Servicem CERTIFIED MAIL RECEIPT r 361. (Domestic Mall Only; No Insurance Coverage Provided) willisne com ٦ SE Ъ Ц 87504 IΑ U santa fé \$ Sasn 0.60 UNIT ID: 0702 . <u>م</u>ن Conil d Fee 2.30 5 Here a 1.75 Se H 1600 卽 Clerk: KNHWQ3 ¢ Ô MODOX SEOS \$ 4.65 02/26/04 2003 ATE of NM-Land Office or PO Box No. BOX 1148 City State, ZIP+4 NM 87504 FE ANTA SENDER: COMPLETE THIS SECTION COMPLETE THIS SECTION ON DELIVERY Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. ature | 中国 C Agent WW Print your name and address on the second so that we can return the card to you.
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# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON Governor

April 5, 2004

Joanna Prukop Cabinet Secretary Acting Director Oil Conservation Division

Sage Energy Company P.O. Drawer 3068 Midland, Texas 79702

Attention: Mr. George M. Harris, Jr.

Re: Form C-108 NVANU "9" Well No. 3 Unit O, Section 2, T-17 South, R-34 East, NMMP, Lea County, New Mexico

Dear Mr. Harris:

I have reviewed your application dated February 26, 2004 to convert the NVANU "9" Well No. 3 to an injection well within the North Vacuum Abo North Unit Waterflood Project. I am seeking additional information with regards to Part VI of Form C-108. This project was originally approved on November 13, 1990. Please verify that within this well's area of review, nothing has changed since this data was presented in 1990. Anything that has changed during this time period, including the drilling of new wells, plugging of wells, etc. must be reported within this new application.

If you should have any questions, please contact me at (505) 476-3466. I will continue to process your application once I have received the requested material.

Sincerely,

David Catanach Engineer/Examiner