

Mid-Continent Region  
Exploration United States



P.O. Box 552  
Midland, Texas 79702  
Telephone 915/682-1626

April 4, 1991

State of New Mexico  
Energy & Minerals Department  
Oil Conservation Division  
State Land Office Building  
310 Old Santa Fe Trail  
Santa Fe, New Mexico 87503

AIRBORNE EXPRESS

Re: Application for Authorization to Inject  
1980' FNL & 660' FWL Section 23, T-21-S, R-23-E,  
Indian Basin Gas Com. Well #1  
Conversion to SWD in Wolfcamp formation  
Eddy County, New Mexico

Gentlemen:

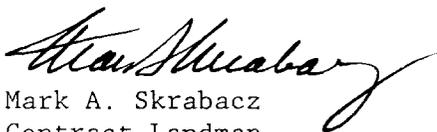
Marathon Oil Company requests administrative approval of the enclosed Application for Authorization to Inject (Form C-108). We are forwarding our application today at the suggestion of Michael Stogner to begin the expeditious processing of the matter which also involves the permitting and construction of a SWD Right-of-Way with the Carlsbad BLM.

Legal notices have already been published in the Artesia Daily Press and Carlsbad Current-Argus, however we are still awaiting their affidavits of publication which will be forwarded to you under separate cover as soon as possible. We are enclosing for your review copies of the required certified letters that were furnished with copies of the application to the surface owner (BLM) and the one offset leasehold operator (Santa Fe Energy Company). Santa Fe agreed on the telephone to sign a waiver and forward it to you shortly. Marathon operates the remaining offset leases.

Marathon appreciates your consideration of this application. Should you have any questions or comments, please advise. My direct line is (915) 687-8302.

Very truly yours,

MARATHON OIL COMPANY

  
Mark A. Skrabacz  
Contract Landman

  
cc: State of New Mexico  
Oil Conservation Division  
811 South 1st Street  
Artesia, New Mexico 88210

MAS;dlo  
Attachment

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. Operator: Marathon Oil Company  
Address: P. O. Box 552, Midland, Texas 79702  
Contact party: T. N. Tipton Phone: 915/682-1626

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: D. J. Loran Title District Engineer

Signature: *David J. Loran* Date: February 7, 1991

\* 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. Submitted completion notice April 19, 1963 (Submitted by Ralph

Lowe) Change of operatorship notice submitted March 2, 1966.

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division 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 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.

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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.

ATTACHMENT A (ITEM III, FORM C 108)

WELLBORE INFORMATION IN TABULAR FORM

INDIAN BASIN GAS COM NO. 1 (SWD)  
1,980' FNL and 660' FWL  
Section 23, T-21-S, R-23-E  
Eddy County, New Mexico

Surface Casing: 9-5/8" set @ 2,250'. Cemented w/1,000 sx. Circulated cement  
12-1/4" hole size.

Production Casing: 7" set @ 10,100'. Cemented w/1,350 sx. TOC @ 6,070' by  
temperature survey. 7-13/16" hole size.

Production Tubing/BHA: 2-3/8", 4.7#, J-55, 8rd EUE internally plastic coated  
tbg @ ±6,500'. 2-3/8" x 7" Nickel-plated Baker Model  
AD-1 tension packer @ ±6,500'.

INDIAN BASIN GAS COM WELL NO. 1 SWD  
 1980' FNL & 660' FWL  
 SECTION 23, T-21-S, R-23-E  
 INDIAN BASIN FIELD  
 EDDY COUNTY, NEW MEXICO

↑ GL:3831' DF:3842' KB:3843'

9 5/8" @ 2250' W/ 1000 SX (CIRC CMT)

12 1/4" HOLE SIZE

2 3/8" IPC TBG

BAKER MODEL AD-1 PKR @ 6500'

WOLFCAMP PERFS 6574'-6768'

BAKER CIBP @ 7325' W/2 SX

UPPER PENN PERFS 7376'-7538  
 SQUEEZED

UPPER PENN PERFS 7560'-88'  
 SQUEEZED

SQZD PERF 7670'-74'  
 7681'-88'  
 7710'-18'  
 7725'-27'  
 7736'-40'  
 7748'-54'  
 7760'-64'

MODEL "D" @7640 W/TBG DIV.

MODEL "D" @ 8980'

MORROW PERFS 9039'-49'  
 9199'-207'  
 9227'-35'  
 9238'-46'  
 9251-63'

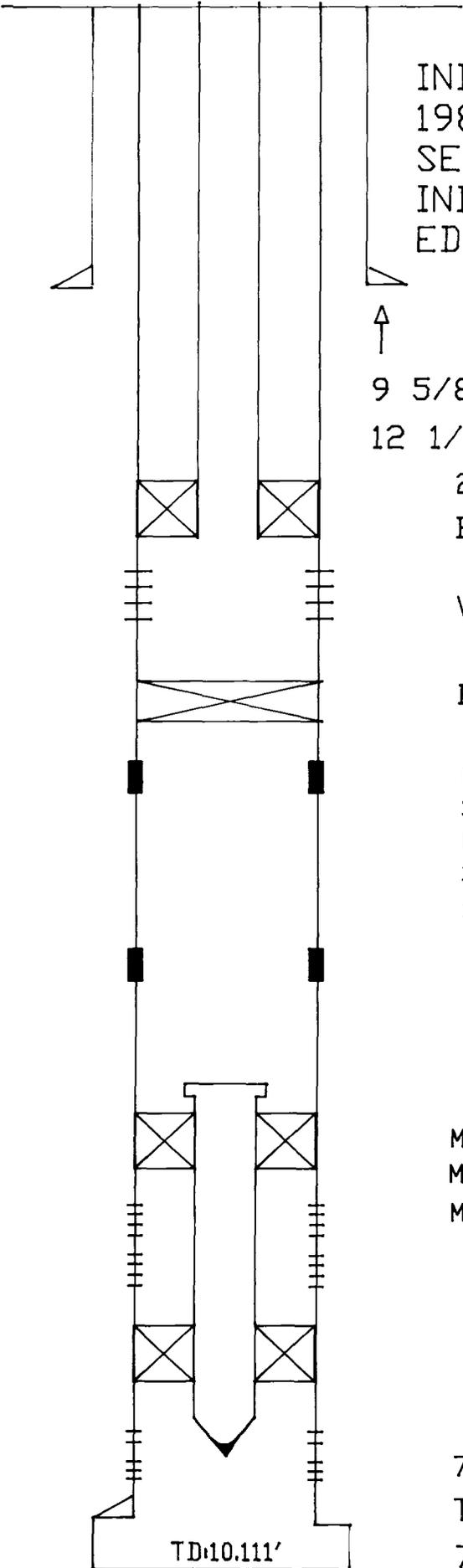
RESHOT 9227'-63'  
 W/ 4JSPF

7" @ 10100' W/ 1350 SX

TOC @ 6070' BY TEMP SURVEY

7 13/16" HOLE SIZE

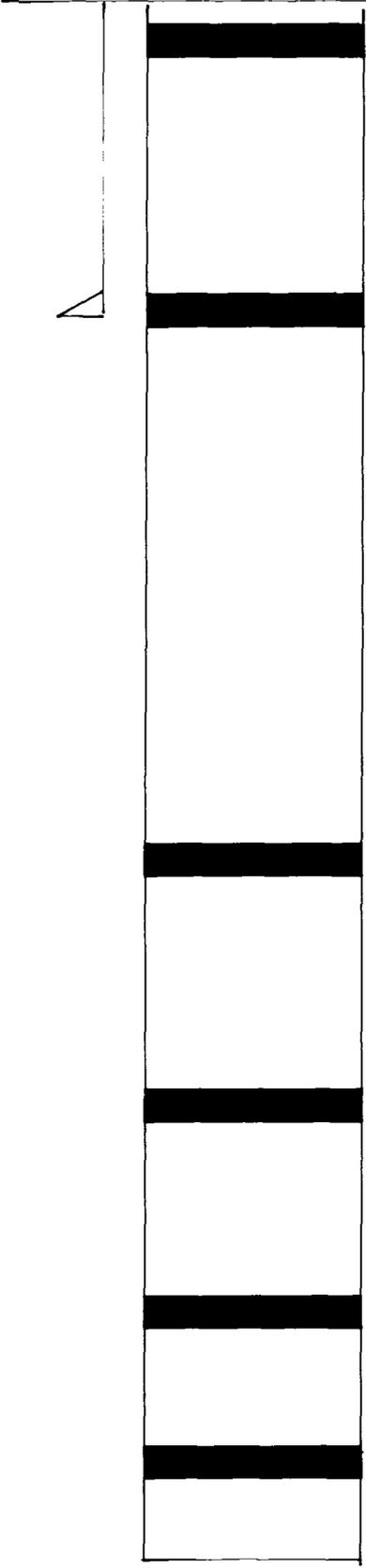
TD:10.111'



Alma Carter 5-1-32 51040 5 U.S.	HBP 0384625 CA 2027 Marathon HBU 05607 No. Indian Basin Unit U.S.	3-26-65(3) 0384623 CA 1930 Marathon HBU 05608 "No. Indian Basin Unit" U.S.	4-1-67(3) 04827 HBU Marathon HBU 1600 E-7906 Marathon HBU 05609 U.S.	Phillips 4-1-68(3) 04827 HBU U.S.	Shell-Fed U.S.
Santa Fe Ener 11-1-65 59975 6752 KGS Marathon HBU 05607 NO. INDIAN BASIN UNIT 1832 MARATHON (OPER.) U.S.	Marathon HBU 05608 "No. Indian Basin Unit" U.S.	Marathon HBU 05609 "No. Indian Basin Unit" U.S.	Marathon HBU 05609 "No. Indian Basin Unit" U.S.	Phillips 4-1-68(3) 04827 HBU U.S.	Phillips 4-1-68(3) 04827 HBU U.S.
WEST INDIAN BASIN UNIT 17 Odeco HBU 05607 U.S.	Marathon HBU 05608 U.S.	Marathon HBU 05609 U.S.	Santa Fe Ener 76919 14 Marathon HBU 05609 U.S.	Santa Fe Ener 76919 13 Solor HBU 05609 U.S.	Montano 6-19-66 10162 HBU U.S.
Chevron HBU 05607 ENFIELD (OPER.) U.S.	Marathon HBU 05608 U.S.	Marathon HBU 05609 U.S.	Amoco HBU 05609 U.S.	Amoco HBU 05609 U.S.	Hondo U.S. 0384628 U.S.
Gulf HBU 05607 CA 1988 Marathon HBU 05607 Fed. IBC Gas Com U.S.	Union 022531 28 U.S.	Marathon (Amoco) 070522 27 Indian Basin U.S.	Marathon Amoco 070522 26 Indian Basin U.S.	Bill Fenn 070522 25 Indian Basin U.S.	Kerr-McGee 02930 Kerr-McGee 02930 U.S.
32 U.S.	33 Chevron 05609 U.S.	34 U.S.	35 U.S.	36 Marathon HBU 05609 U.S.	37 U.S.
5 Boyle Flats Unit U.S.	4 Chevron 04527 Boyle Flats Unit U.S.	Amoco HBP 06983 Boyle Flats Unit U.S.	2 Conoco HBU 05609 Boyle Flats Unit U.S.	1 A.R. Co. HBU 0281099 Smith-Fed U.S.	6 Amoco 05609 U.S.
8 Boyle Flats U.S.	9 Chevron 04527 Boyle Flats U.S.	10 Chevron 04527 Boyle Flats Unit U.S.	11 Amoco 0281099 Boyle Flats Unit U.S.	12 Superior HBU 0339448 U.S. Smith 12 Gas Unit U.S.	7 Amoco 05609 U.S.

ATTACHMENT C (ITEM VI, FORM C 108)

1. Marathon Oil Company  
Indian Basin Gas Com No. 2  
732' FSL and 1,173' FWL, Section 23, T-21-S, R-23-E  
Date Drilled: May 25, 1990  
Dry hole - Plugged and Abandoned June 25, 1990  
Total Depth - 9,500'  
Plugging Record and Schematic: See attached
  
2. Marathon Oil Company  
Indian Basin "A" No. 1  
1,650' FSL and 1,650' FEL, Section 22, T-21-S, R-23-E  
Date Drilled: October 8, 1962  
Temporarily abandoned gas well (Upper Penn 7,360' -7,420')  
(Morrow 9,118' -9,266' is depleted and abandoned)  
Total depth: 9,450'  
Surface Casing: 9-5/8" set to 1,925'. Cemented w/1,000 sx. Circulated  
cement.  
Production Casing: 7" set to 9,385'. Cemented w/625 sx. TOC 7,350'  
(1962) 1,988 squeezed w/900 sx cmt. Shot perfs @  
6,750' -6,768' (had isolation) TOC unknown.



PLUG #6:220'-320' (30SX)

8 5/8" CASING TO @ 2000'

PLUG #5:1945'-2135' (70SX)

INDIAN BASIN GAS COM NO. 2  
732' FSL & 1173' FWL  
SECTION 23, T-21-S, R-23-E  
INDIAN BASIN FIELD  
EDDY COUNTY, NEW MEXICO  
(PLUGGED AND ABANDONED - 6/25/90)

PLUG #4:5975'-6150' (62SX)

PLUG #3:7145'-7495' (150SX)

PLUG #2:7600'-8750' (154SX)

PLUG #1:8910'-9085' (64SX)

TD:9500'

7 7/8" HOLE SIZE

ATTACHMENT D (ITEM VII, FORM C 108)

1. Proposed average and maximum injection rates: 800 BWPD and 1,200 BWPD, respectively.
2. Type of system: This will be a closed system.
3. Proposed average and maximum injection pressures: 1,250 psig and 1,750 psig, respectively (estimated).

\*A step rate test will be performed following conversion of the aforementioned well to better define expected average injection and maximum pressures.

4. See attached (Attachment D-1). The source water is from the Upper Penn formation from wells in the Indian Basin Field .
5. No water analysis is presently available for the Wolfcamp. A sample will be obtained at the time of conversion.

HALLIBURTON DIVISION LABORATORY  
HALLIBURTON SERVICES  
MIDLAND DIVISION  
HOBBS, NEW MEXICO 88240  
LABORATORY WATER ANALYSIS

No. W83-908

Marathon Oil Company

Date 7-28-83

Box 2409

Hobbs, New Mexico

ATTN: Mr. Calvin Saathoff

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. 7-28-83

Well No. N. Indian Basin #5 Depth \_\_\_\_\_ Formation Cisco

County \_\_\_\_\_ Field \_\_\_\_\_ Source \_\_\_\_\_

Resistivity \_\_\_\_\_ 0.272 @ 74°F.

Specific Gravity \_\_\_\_\_ 1.022

pH \_\_\_\_\_ 7.1

Calcium (Ca) \_\_\_\_\_ 1,400 \*MPL

Magnesium (Mg) \_\_\_\_\_ 60

Chlorides (Cl) \_\_\_\_\_ 14,000

Sulfates (SO<sub>4</sub>) \_\_\_\_\_ 3,650

Bicarbonates (HCO<sub>3</sub>) \_\_\_\_\_ 875

Soluble Iron (Fe) \_\_\_\_\_ Nil

Remarks: \_\_\_\_\_ \*Milligrams per liter

*W A H*

**RECEIVED**

Respectfully submitted,

Analyst: Brewer

HALLIBURTON COMPANY

cc: MARATHON OIL CO.  
HOBBS OILFIELD OFFICE  
HOBBS, NEW MEXICO

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.

HALLIBURTON DIVISION LABORATORY

HALLIBURTON SERVICES

ARTESIA DISTRICT

LABORATORY REPORT

No. W2-90

TO Marathon Oil Company  
P. O. Box 552  
Midland, TX 79702

Date January 2, 1990

This report is the property of Halliburton Services 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 Services

Submitted by Darrell Fear Date Rec. January 2, 1990

Well No. Marathon Federal SWD #1 Depth \_\_\_\_\_ Formation \_\_\_\_\_

Field \_\_\_\_\_ County Eddy Source \_\_\_\_\_

Resistivity .....	<u>0.26 @ 70°</u>	_____	_____
Specific Gravity ..	<u>1.012</u>	_____	_____
pH .....	<u>8.7</u>	_____	_____
Calcium .....	<u>652</u>	_____	_____
Magnesium .....	<u>264</u>	_____	_____
Chlorides .....	<u>10,000</u>	_____	_____
Sulfates .....	<u>200</u>	_____	_____
Bicarbonates .....	<u>397</u>	_____	_____
Soluble Iron .....	<u>0</u>	_____	_____
-----	_____	_____	_____
-----	_____	_____	_____
-----	_____	_____	_____

Remarks:

Rocky Chambers  
Respectfully submitted

Analyst: Rocky Chambers - Field Engineer

HALLIBURTON SERVICES

ATTACHMENT E (ITEM VIII, FORM C 108)

1. Injection zone: Wolfcamp

Lithology: Limestone

Top: 6,080' (-2,237)

Bottom: 7,370' (-3,527)

Thickness: 1,290' (Gross)

Perforations: 6,574'-6,768' (Selectively)

2. Fresh Water Zone: Grayburg

Depth to bottom:  $\pm 181'$  to  $217'$  (Section 22, 23, 9 - 17 ppm, Cond 728-822 M-Mhos).

Fresh water data obtained from Ken Fresquez, Water Specialist, with the State Engineers Office, Roswell, New Mexico.

Aquifer w/dissolved solids concentration less than 10,000 mg/L: Paddock  
Depth to bottom  $\pm 2,800'$  (Section 23, 3,600 ppm, 1.009 specific gravity).

ATTACHMENT F (ITEM IX, FORM C 108)

STIMULATION PROGRAM

The proposed stimulation will consist of two separate treatments.

Treatment 1: Acidize Wolfcamp perforations from 6,670'-6,768' w/5,000 gallons 15% gelled HCl acid using 164 - 1.3 SP GR ball sealers for divert.

Treatment 2: Acidize Wolfcamp perforation from 6,574'-6,632 w/ 4,000 gallons 15% gelled HCl acid using 160 - 1.3 SP GR ball sealers for divert.

ATTACHMENT G (ITEM XI, FORM C 108)

Fresh Water Zone: Grayburg

Chlorides: Ranges from 9-17 ppm.

Conductivity: Ranges from 728-822 M-Mhos

Fresh water data obtained from Ken Fresquez, Water Specialist, with the State Engineers Office, Roswell, New Mexico.

ATTACHMENT H (ITEM XII, FORM C 108)

Marathon Oil Company has examined available geologic and engineering data. Marathon finds no evidence of open faults or any other hydrologic connection between the proposed disposal zone (Wolfcamp) and the underground source of drinking water (Grayburg).

ATTACHMENT I (ITEM XIII, FORM C 108)

Marathon Oil Company has published Legal Notices in the Artesia Daily Press and Carlsbad Current-Argus, however the papers have not yet furnished Marathon with affidavits of publication. These will be forthcoming.



P.O. Box 552  
Midland, Texas 79702  
Telephone 915/682-1626

April 4, 1991

Bureau of Land Management  
P. O. Box 1778  
Carlsbad, New Mexico 88220-1778

CERTIFIED MAIL & RETURN  
RECEIPT REQUESTED

Attention: Mr. Shannon Shaw

Re: Application for Authorization to Inject  
Our Lease NM-4761 - U.S. Lease NM-0384628  
Indian Basin Gas Com #1 Well  
conversion to SWD in Wolfcamp  
1980' FNL & 660' FWL Section 23,  
T-21-S, R-23-E, N.M.P.M.,  
Eddy County, New Mexico

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Gentlemen:

Attached is a copy of our Application for Authorization to Inject (Form C-108) to be filed for administrative approval with the New Mexico Oil Conservation Division. This notice is being sent to you as surface owner under the captioned land.

Should the BLM have any objections or desire a hearing, please contact the NMOCD within 15 days.

We have spoken with Mr. Adrian Garcia of your office regarding the necessary procedures to obtain a site-specific bond and new R-O-W for this proposed project. We will be sending the appropriate documentation shortly.

Should you have any questions, please advise.

Very truly yours,

MARATHON OIL COMPANY

A handwritten signature in cursive script, appearing to read 'Mark A. Skrabacz'.

Mark A. Skrabacz  
Contract Landman

MAS;mmc'  
Attachment

xc: State of New Mexico  
Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501-2088

Thank you for using  
Return Receipt Service.

**SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4. Put your address in the "RETURN TO" space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check boxes for additional service(s) requested.

1.  Show to whom delivered, date, and addressee's address. 2.  Restricted Delivery (Extra charge)

3. Article Addressed to:  
Bureau of Land Management  
Attn: Mr. Shannon Shaw  
P.O. Box 1778  
Carlsbad, New Mexico 88220-1778

4. Article Number  
P 451 328 556

Type of Service:  
 Registered  Insured  
 Certified  COD  
 Express Mail  Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature - Address  
X

6. Signature - Agent  
X

7. Date of Delivery

8. Addressee's Address (ONLY if requested and fee paid)

PS Form 3811, Mar. 1988 \* U.S.G.P.O. 1988-212-865 DOMESTIC RETURN RECEIPT

Is your RETURN ADDRESS completed on the reverse side?

REMOVE TO EXPOSE ADHESIVE REMOVE TO EXPOSE ADHESIVE  
 REMOVE TO EXPOSE ADHESIVE REMOVE TO EXPOSE ADHESIVE



PENALTY FOR PRIVATE USE, \$300

UNITED STATES POSTAL SERVICE  
OFFICIAL BUSINESS

**SENDER INSTRUCTIONS**  
Print your name, address and ZIP Code in the space below.  
 • Complete items 1, 2, 3, and 4 on the reverse.  
 • Attach to front of article if space permits, otherwise affix to back of article.  
 • Endorse article "Return Receipt Requested" adjacent to number.

RETURN TO

Print Sender's name, address, and ZIP Code in the space below.

Marathon Oil Company  
Land Department  
P.O. Box 552  
Midland, TX 79702

REMOVE TO EXPOSE ADHESIVE REMOVE TO EXPOSE ADHESIVE  
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Mid-Continent Region  
Exploration United States



P.O. Box 552  
Midland, Texas 79702  
Telephone 915/682-1626

April 4, 1991

Santa Fe Energy Company  
550 West Texas, Suite 1330  
Midland, Texas 79701

CERTIFIED MAIL & RETURN  
RECEIPT REQUESTED

Attn: Mr. Gary V. Green

Re: Application for Authorization to Inject  
Indian Basin Gas Com #1 Well  
conversion to SWD in Wolfcamp  
1980' FNL & 660' FWL Section 23, T-21-S, R-23-E,  
Eddy County, New Mexico

Gentlemen:

Attached is a copy of our Application for Authorization to Inject (Form C-108) to be filed for administrative approval with the New Mexico Oil Conservation Division. This notice is being sent to you as offset leasehold operator in Section 14, T-21-S, R-23-E, one-half mile north of the proposed SWD well.

Should you have any objections or desire a hearing, please contact the NMOCD within 15 days. However, if you have no objections, Marathon requests that you sign the attached waiver and forward it to the NMOCD. Thereby enabling Marathon to expedite this matter.

Very truly yours,

MARATHON OIL COMPANY

A handwritten signature in cursive script, appearing to read 'Mark A. Skrabacz', written over a horizontal line.

Mark A. Skrabacz  
Contract Landman

MAS;mmc'  
Attachment

xc: State of New Mexico  
Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87501-2088

WAIVER

An an offset operator, SANTA FE ENERGY COMPANY has no objections to Marathon Oil Company's Application for Authorization to Inject as described on the attached letter dated April 4, 1991.

By: \_\_\_\_\_

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

Thank you for using  
Return Receipt Service.

REMOVE TO EXPOSE ADHESIVE REMOVE TO EXPOSE ADHESIVE  
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● **SENDER:** Complete items 1 and 2 when additional services are desired, and complete items 3 and 4. Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.

1.  Show to whom delivered, date, and addressee's address. 2.  Restricted Delivery (Extra charge)

3. Article Addressed to:  
 Santa Fe Energy Company  
 550 West Texas, Suite 1330  
 Midland, TX 79701  
 Attn: Mr. Gary V. Green

4. Article Number  
 P 451 328 557

Type of Service:  
 Registered  Insured  COD  
 Certified  Express Mail  Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

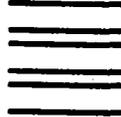
5. Signature — Address  
 X

6. Signature — Agent  
 X

7. Date of Delivery

8. Addressee's Address (ONLY if requested and fee paid)

PS Form 3811, Mar. 1988 \* U.S.G.P.O. 1988-212-965 DOMESTIC RETURN RECEIPT



UNITED STATES POSTAL SERVICE  
OFFICIAL BUSINESS



PENALTY FOR PRIVATE USE, \$300

**SENDER INSTRUCTIONS**  
 Print your name, address and ZIP Code in the space below.  
 • Complete items 1, 2, 3, and 4 on the reverse.  
 • Attach to front of article if space permits, otherwise affix to back of article.  
 • Endorse article "Return Receipt Requested" adjacent to number.

RETURN TO

Print Sender's name, address, and ZIP Code in the space below.

Marathon Oil Company  
 Land Department  
 P. O. Box 552  
 Midland, TX 79702

Is your RETURN ADDRESS completed on the reverse side?

O EXPOSE ADHESIVE REMOVE TO EXPOSE ADHESIVE  
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Mid-Continent Region  
Exploration United States



P.O. Box 552  
Midland, Texas 79702  
Telephone 915/682-1626

March 27, 1991

Artesia Daily Press  
P. O. Drawer 179  
Artesia, New MExico 88210-0179

(505) 746-3524

Re: Oil & Gas Legal Notice  
Eddy County, New Mexico

Gentlemen:

In accordance with our telephone conversation I am enclosing copy to be published in the paper as a notice. Please publish the item once as soon as possible.

In order to comply with the New Mexico Oil Conservation Division rules, please return your affidavit of notice (proof of publication) to me along with your invoice.

Should you have any questions, please call me at (915) 687-8302.

Thank you.

Very truly yours,

MARATHON OIL COMPANY

A handwritten signature in cursive script, appearing to read 'Mark A. Skrabacz'.

Mark A. Skrabacz  
Contract Landman

MAS;mmc'  
Attachment

LEGAL NOTICE

Marathon Oil Company, P. O. Box 552, Midland, Texas 79702-0552, Attention: Mr. R. W. Tracy, hereby informs the public that it intends to establish a salt water disposal well at the following location : 1980' FNL, 660' FWL, Section 23, T-21-S, R-23-E, N.M.P.M., Eddy County, New Mexico. Produced water will be disposed into the Wolfcamp formation at a depth of 6,574'-6,768' with maximum injection rate of 1200 BWPD and maximum injection pressure of 1750 psi. All interested parties must file objections or requests for hearing within 15 days of this Notice with the New Mexico Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501-2088.

Mid-Continent Region  
Exploration United States



**Marathon  
Oil Company**

P.O. Box 552  
Midland, Texas 79702  
Telephone 915/682-1626

March 27, 1991

Carlsbad Current-Argus  
620 South Main  
Carlsbad, New Mexico 88221

(505) 887-5501  
Fax # (505) 885-1066

Attention: Carmen Flynn

Re: Oil & Gas Legal Notice  
Eddy County, New Mexico

Gentlemen:

In accordance with our telephone conversation I am enclosing copy to be published in the paper as a notice. Please publish the item once as soon as possible.

In order to comply with the New Mexico Oil Conservation Division rules, please return your affidavit of notice (proof of publication) to me along with your invoice.

Should you have any questions, please call me at (915) 687-8302.

Thank you.

Very truly yours,

MARATHON OIL COMPANY

A handwritten signature in cursive script, appearing to read 'Mark A. Skrabacz'.

Mark A. Skrabacz  
Contract Landman

MAS;mmc'  
Attachment

## LEGAL NOTICE

Marathon Oil Company, P. O. Box 552, Midland, Texas 79702-0552, Attention: Mr. R. W. Tracy, hereby informs the public that it intends to establish a salt water disposal well at the following location : 1980' FNL, 660' FWL, Section 23, T-21-S, R-23-E, N.M.P.M., Eddy County, New Mexico. Produced water will be disposed into the Wolfcamp formation at a depth of 6,574'-6,768' with maximum injection rate of 1200 BWPD and maximum injection pressure of 1750 psi. All interested parties must file objections or requests for hearing within 15 days of this Notice with the New Mexico Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501-2088.



OIL CONSERVATION DIVISION  
RECEIVED

Mid-Continent Region  
Exploration United States



**Marathon  
Oil Company**

'91 APR 23 AM 9 38

P.O. Box 552  
Midland, Texas 79702  
Telephone 915/682-1626

April 19, 1991

CERTIFIED MAIL & RETURN  
RECEIPT REQUESTED

State of New Mexico  
Energy & Minerals Department  
Oil Conservation Division  
State Land Office Building  
310 Old Santa Fe Trail  
Santa Fe, New Mexico 87503

Re: Application for Authorization to Inject  
1980' FNL & 660' FWL Section 23, T-21-S, R-23-E,  
Indian Basin Gas Com Well #1  
Conversion to SWD in Wolfcamp formation  
Eddy County, New Mexico

Gentlemen:

In accordance with our request for administrative approval per form C-108 mailed to your office on April 4, 1991, we are enclosing two (2) Affidavits of Publication to complete the application as to Section XIV Proof of Notice. Note that Legal Notices were published in the Artesia Daily Press on March 29, 1991 and in the Carlsbad Current-Argus on April 1, 1991.

We respectfully request your expediting our application since we require your approval in order to begin permitting the BLM right-of-way for the pipeline to the proposed SWD well. We have spoken with Mr. Robinson of your Artesia office who has reviewed his copy of the C-108 and found no objections.

Should you have any questions or comments, please advise.

Very truly yours,

MARATHON OIL COMPANY

A handwritten signature in cursive script, appearing to read 'Mark A. Skrabacz'.

Mark A. Skrabacz  
Contract Landman

MAS;mmc'  
Attachments

xc: State of New Mexico  
Oil Conservation Division  
811 South 1st Street  
Artesia, New Mexico 88210

# Affidavit of Publication

State of New Mexico,  
County of Eddy, ss.

E. C. Cantwell, being first duly sworn,  
on oath says:

That he is publisher of the Carlsbad Current-Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the state wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

April 1 , 19 91  
\_\_\_\_\_, 19 \_\_\_\_  
\_\_\_\_\_, 19 \_\_\_\_  
\_\_\_\_\_, 19 \_\_\_\_

that the cost of publication is \$ 7.70 ,  
and that payment thereof has been made  
and will be assessed as court costs.

E C Cantwell

Subscribed and sworn to before me this

1st day of April , 19 91

Donella Taylor

My commission expires 06-01-92

Notary Public

April 1, 1991

### LEGAL NOTICE

Marathon Oil Company, P.O. Box 552, Midland, Texas 79702-0552, Attention: Mr. R.W. Tracy, hereby informs the public that it intends to establish a salt water disposal well at the following location: 1980' FNL, 680' FNL, Section 23 T-21-S, R-23-E, N.M.P.M., Eddy County, New Mexico. Produced water will be disposed into the Wolfcamp formation at a depth of 6,574'-6,768' with maximum injection rate of 1200 BWPD and maximum injection pressure of 1750 psi. All interested parties must file objections or requests for hearing within 15 days of this Notice with the New Mexico Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501-2088.



# Affidavit of Publication

No. 13476

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 state, and that the hereto 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 on the same day as follows:

First Publication March 29, 1991

Second Publication \_\_\_\_\_

Third Publication \_\_\_\_\_

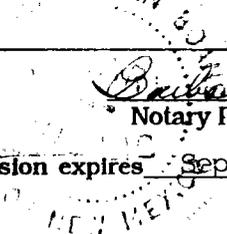
Fourth Publication \_\_\_\_\_

Gary D. Scott

Subscribed and sworn to before me this 18th day of April 19 91

Barbara Ann Beens  
Notary Public, Eddy County, New Mexico

My Commission expires September 23, 1991



# Copy of Publication

## LEGAL NOTICE

Marathon Oil Company, P.O. Box 552, Midland, Texas 79702-0552, Attention: Mr. R. W. Tracy, hereby informs the public that it intends to establish a salt water disposal well at the following location: 1980' FNL, 660' FWL, Section 23, T-21-S, R-23-E, N.M.P.M., Eddy County, New Mexico. Produced water will be disposed into the Wolfcamp formation at a depth of 6,574'-6,768' with maximum injection rate of 1200 BWPD and maximum injection pressure of 1750 psi. All interested parties must file objections or requests for hearing within 15 days of this Notice with the New Mexico Oil Conservation Division, P.O.

Box 2088, Santa Fe, New Mexico 87501-2088

Published in the Artesia Daily Press, Artesia, N.M. March 29, 1991.

Legal 13476



P.O. Box 552  
Midland, Texas 79702  
Telephone 915/682-1626

'91 AUG 21 AM 8 50

August 19, 1991

State of New Mexico  
Oil Conservation Division  
State Land Office Building  
310 Old Santa Fe Trail  
Santa Fe, New Mexico 87503

CERTIFIED MAIL & RETURN  
RECEIPT REQUESTED

Attention: Mr. David Catanach

Re: Application for Authorization to Inject  
1980' FNL & 660' FWL Section 23, T-21-S, R-23-E,  
Indian Basin Gas Com Well #1  
Conversion to SWD in Devonian formation  
Eddy County, New Mexico

Dear David:

Pursuant to your telephone conversation with Tim Robertson of our office on August 5th and our subsequent C-108 dated August 8th for the captioned SWD well, we are forwarding herewith two (2) Affidavits of Publication to complete the application as to Section XIV Proof of Notice. Note that the legal notices were published in the Artesia Daily Press on August 7th and the Carlsbad Current-Argus on August 9th.

We respectfully request your expediting our application.

Should you have any questions, please advise.

Very truly yours,

MARATHON OIL COMPANY

A handwritten signature in cursive script, appearing to read 'Mark A. Skrabacz'.

Mark A. Skrabacz  
Contract Landman

MAS;mmc'  
Encls.

# Affidavit of Publication

No. 13645

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 state, and that the hereto 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 days consecutive weeks on the same day as follows:

First Publication August 7, 1991

Second Publication \_\_\_\_\_

Third Publication \_\_\_\_\_

Fourth Publication \_\_\_\_\_

Subscribed and sworn to before me this 7th day of August 1991



Barbara Ann B...  
Notary Public, Eddy County, New Mexico

My Commission expires September 23, 1991

# Copy of Publication

## LEGAL NOTICE

Marathon Oil Company, P.O. Box 732, Midland, Texas 79707-0732. Attention: Mr. R. W. Tracy. Hereto begins the public that it intends to establish a salt water disposal well at the following location: 1980' FNL # 607 FWL, Section 23, T-21-S. R-23-E, N.M.P.M., Eddy County, New Mexico. Produced water will be disposed into the Devonian formation consisting of 10,100' of thickness minimum in the 600 BWPD and maximum injection capacity of 40,000 gpd. All interested parties should file objections or requests for hearing with the Notary Public in the office with the Notary Public. Oil Conservation Division, P.O. Box 2008, Midland, Texas 79701-2008. Published in the Artesia Daily Press, Artesia, N.M. August 7, 1991.

Legal 13645

# RECEIVED

AUG 09 1991

MARATHON OIL COMPANY  
LAND DEPARTMENT  
MIDLAND, TEXAS

# Affidavit of Publication

State of New Mexico,  
County of Eddy, ss.

E. C. Cantwell, being first duly sworn,  
on oath says:

That he is publisher of the Carlsbad Current-Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the state wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

          AUGUST 9          , 19 91  
                                  , 19         
                                  , 19         
                                  , 19       

that the cost of publication is \$ 7.99 ,  
and that payment thereof has been made  
and will be assessed as court costs.

          E C Cantwell          

Subscribed and sworn to before me this

9 day of           AUGUST          , 19 91

          Dorella Taylor          

My commission expires 6/01/92  
Notary Public



**August 8, 1991**  
**LEGAL NOTICE**  
Marathon Oil Company, P.O. Box 552, Midland, Texas 79702-0552, Attention: Mr. R. W. Tracy, hereby informs the public that it intends to establish a salt water disposal well at the following location: 1900' FNL & 600' FWL, Section 23, T-21-S, R-23-E, N.M.P.M., Eddy County, New Mexico. Produced water will be disposed into the Devonian formation at a depth of 10,100'-10,400' with maximum injection rate of 2000 BHPD and maximum injection pressure of 2000 psi. All interested parties must file objections or requests for hearing within 15 days of this Notice with the New Mexico Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501-2088.

**RECEIVED**

AUG 14 1991

MARATHON OIL COMPANY  
LAND DEPARTMENT  
MIDLAND, TEXAS