

DATE IN <u>3.7.11</u>	SUSPENSE	ENGINEER <u>WJ</u>	LOGGED IN <u>3.7.11</u>	TYPE <u>SWD</u>	APP NO. <u>1106657317</u>
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PRGW

ABOVE THIS LINE FOR DIVISION USE ONLY

6/1/11  
Last Letter From  
OGX

NEW MEXICO OIL CONSERVATION DIVISION  
- Engineering Bureau -  
1220 South St. Francis Drive, Santa Fe, NM 87505



OGX  
RECEIVED OOD

**ADMINISTRATIVE APPLICATION CHECKLIST**

MAR - 7 P 12:39

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

- [NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

- [1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]
- [A] Location - Spacing Unit - Simultaneous Dedication  
 NSL  NSP  SD
- Check One Only for [B] or [C]
- [B] Commingling - Storage - Measurement  
 DHC  CTB  PLC  PC  OLS  OLM
- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
 WFX  PMX  SWD  IPI  EOR  PPR
- [D] Other: Specify \_\_\_\_\_

*Handwritten notes and signatures:*  
 See to 4/1/11  
 Spring  
 State

- [2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or  Does Not Apply
- [A]  Working, Royalty or Overriding Royalty Interest Owners
- [B]  Offset Operators, Leaseholders or Surface Owner
- [C]  Application is One Which Requires Published Legal Notice
- [D]  Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E]  For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F]  Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Ann Ritchie  
Print or Type Name

*Ann Ritchie*  
Signature

Regulatory Agent  
Title

3-1-11  
Date

ann.wtor@gmail.com  
E-Mail Address

January 31, 2011

Energy, Minerals and Natural Resources Department  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Attention: Mr. Daniel Sanchez, Acting Director

Re: Form C-108  
OGX Resources, LLC  
Aminoil State No. 1  
API No. 30-015-24358  
590' FNL & 1980' FWL, Unit C  
Section 22, T-26S, R-28E, NMPM,  
Eddy County, New Mexico

Dear Mr. Sanchez,

Enclosed please find a Division Form C-108 (Application for Authorization to Inject) for the OGX Resources, LLC Aminoil State Well No. 1. This well was originally drilled by Hardwick Oil Company in January, 1983 to test the Bell Canyon, Cherry Canyon and Brushy Canyon members of the Delaware formation. The well tested non-productive in the Delaware formation. OGX Resources, LLC will acquire this wellbore, and proposes to utilize the well for disposal of produced water from the Bone Spring and Morrow formations originating from OGX Resources, LLC owned wells in this area. Injection is proposed to occur into the Bell Canyon, Cherry Canyon and Brushy Canyon members of the Delaware formation through the perforated interval from 2,580'-5,365'. There is no Delaware production in Township 26 South, Range 28 East, and the closet offset Delaware production appears to be 4-5 miles to the east of the subject well.

Approval of the application will prevent the drilling unnecessary wells and will not cause waste.

I believe that all the information necessary to approve the application is enclosed. If additional information is needed, please contact me at (432) 684-6381.

Sincerely,



Ann Ritchie  
Regulatory Agent

Xc: OCD-Artesia

**APPLICATION FOR AUTHORIZATION TO INJECT**

I. PURPOSE: \_\_\_\_\_ Secondary Recovery \_\_\_\_\_ Pressure Maintenance  X  Disposal \_\_\_\_\_ Storage  
Application qualifies for administrative approval?  X  Yes \_\_\_\_\_ No

II. OPERATOR:  OGX Resources, LLC (OGRID-217955)

ADDRESS:  c/o P.O. Box 953 Midland, Texas 79702

CONTACT PARTY:  Ann Ritchie, Regulatory Agent  PHONE:  (432) 684-6381

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  X  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 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.

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 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:  Ann Ritchie  TITLE:  Regulatory Agent

SIGNATURE:    DATE:  3-1-11

E-MAIL ADDRESS:  ann.wtor@gmail.com

\* 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: \_\_\_\_\_

### 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 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, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, 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.

C-108 Application  
OGX Resources, LLC  
Aminoil State Well No. 1  
API No. 30-015-24358 590' FNL & 1980' FWL (Unit C)  
Section 22, T-26S, R-28E, NMPM  
Eddy County, New Mexico

I. The purpose of the application is to request approval to convert the Aminoil State Well No. 1 to a produced water disposal well in the Bell Canyon, Cherry Canyon and Brushy Canyon members of the Delaware formation.

II. OGX Resources, LLC  
P.O. Box 953  
Midland, Texas 79702  
Contact Party: Ms. Ann Ritchie, Regulatory Agent

III. ~~Injection well data sheet is attached.~~ In addition, a wellbore schematic diagram is attached showing the proposed wellbore configuration.

IV. This is not an expansion of an existing project.

V. Maps showing all wells/leases within a ½ mile and 2-mile radius of the Aminoil State Well No. 1 is attached.

VI. Area of review well data is attached. The Sun Oil Company State of New Mexico "B" Well No. 1 is the only well within the area of review. This well was drilled in April, 1959 and was plugged in May, 1959 after testing non-productive in the upper Delaware interval. A well construction data sheet and a plugging diagram for this well are attached. This well did ~~not~~ penetrate the proposed injection interval and ~~consequently~~, will not provide a conduit for the migration of injected fluid. <sup>ENT</sup> <sub>wwwj</sub>

VII. 1. The average injection rate is anticipated to be approximately 2,500 BWPD. The maximum rate will be approximately 4,000 BWPD. If the average or maximum rates increase in the future, the Division will be notified.

2. This will be a closed system.

3. The injection pressure will initially be in conformance with the Division assigned gradient of 0.2 psi/ft. or 516 psi. If a higher injection pressure is necessary, OGX Resources, LLC will conduct a step rate injection test to determine the fracture pressure of the injection interval.

4. Produced water from the Morrow and Bone Spring formations originating from wells/leases that OGX Resources, LLC operates in this area will be injected into the subject well. A Morrow formation water analysis is

attached for your review. A Bone Spring formation water analysis will be provided to the Division prior to the commencement of injection operations.

5. Injection is to occur into the Bell Canyon, Cherry Canyon and Brushy Canyon members of the Delaware formation. A search of Division records shows that there is currently no Delaware production in Township 26 South, Range 28 East, and that the closest Delaware production occurs 4-5 miles to the east of the subject well in Township 26 South, Range 29 East. Also, Division records show that the Division has previously authorized injection into the Delaware formation in Township 26 South, Range 28 East, within the COG Operating SRO SWD Wells No. 103 and 104 located respectively in Units M of Section 17 and Unit F of Section 10. SWD-1194 authorized injection into the Delaware formation through the interval from 2,961'-5,800' in the SRO SWD No. 103, and SWD-1193 authorized injection into the Delaware interval from 4,300'-5,800' in the SRO SWD No. 104.

- VIII. The Delaware Mountain Group, which is Guadalupian Age, consists of the Bell Canyon, Cherry Canyon and Brushy Canyon members. The top of the Delaware Sand interval in this well occurs at a depth of 2,530'. The top of the Cherry Canyon and Brushy Canyon intervals occur at depths of 3,368' and 4,577', respectively. The Bell Canyon interval is composed of fine-grained thin-bedded sandstones with a number of limestone beds. The Cherry Canyon interval is composed of sandstones with some thin dark gray limestone beds.

According to data obtained from the New Mexico Office of the State Engineer, there is only one fresh water well located within a one-mile radius of the Aminoil State Well No. 1. This well is located in the SW/4 NW/4 of Section 22 and is approximately 300 feet deep with fresh water occurring at a depth of 120 feet.

- IX. 3,000 gals 15% HCl and 40,000 gal. fracture w/90,000 lb of sand.
- X. Attached is a Compensated Density/Neutron Log for the Aminoil State No. 1.
- XI. A fresh water analysis will be provided to the OCD.
- XII. Affirmative statement is attached.
- XIII. Proof of Notice is attached.

✓



## INJECTION WELL DATA SHEET

Tubing Size: 2 3/8" Lining Material: Internally Plastic Coated

Type of Packer: Baker AD-1 or similar type IPC injection packer

Packer Setting Depth: 2,480' or within 100' of the uppermost injection perforations

Other Type of Tubing/Casing Seal (if applicable): None

### Additional Data

1. Is this a new well drilled for injection:                      Yes            **X**            No

If no, for what purpose was the well originally drilled: Well was drilled in January, 1983 to test the Bell Canyon, Cherry Canyon and Brushy Canyon intervals of the Delaware formation. Well tested non-productive in these intervals and is currently shut-in. The Tecolote Peak-Delaware Gas Pool appears to have been created by the OCD due to the drilling of the Aminoil State No. 1, however, the well never produced from the Delaware interval.

2. Name of the Injection Formation: Bell Canyon, Cherry Canyon and Brushy Canyon members of the Delaware formation.

3. Name of Field or Pool (if applicable): Tecolote Peak-Delaware Gas Pool.

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.

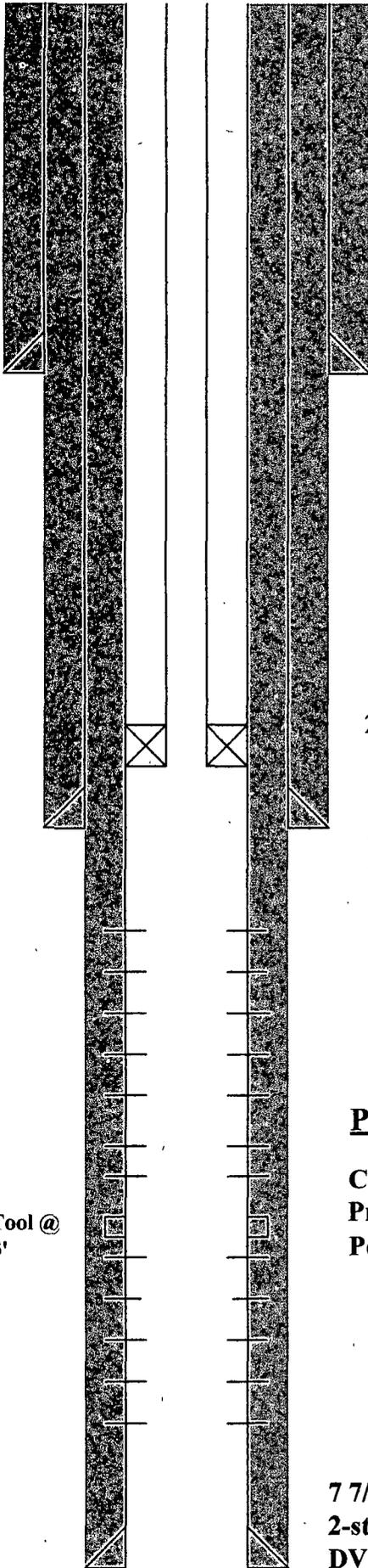
Bell Canyon perforated interval from 3,034'-3,059' was squeezed with 75 sx. of cement.

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

There are no additional oil or gas producing zones in Section 22 overlying or underlying the proposed injection zone.

# Proposed Wellbore Configuration

**OGX Resources, LLC**  
Aminoil State No. 1  
API No. 30-015-24358  
590' FNL & 1980' FWL (Unit C)  
Section 22, T-26 South, R-28 East, NMPM  
Eddy County, New Mexico



17 1/2" Hole; Set 13 3/8" 65# K-55 Csg.  
@ 425' Cemented w/425 Sx. Class C.  
Cement circulated to surface.

Formation Tops (Well File)  
Delaware Sand-2,530'  
Cherry Canyon-3,368'  
Brushy Canyon-4,577'

2 3/8" IPC Tubing set in a packer @ 2,480'

11" Hole; Set 8 5/8" 32# K-55 Csg. @ 2,518'.  
Cemented w/900 Sx. Cement circulated to  
surface.

**Perforated Injection Interval: 2,580'-5,365'**

Current Perforations: 3,039'-5,365'

Proposed Additional Perforations: 2,580'-4,370'

Perforations from 3,034'-3,059' Squeezed w/75 Sx.

DV Tool @  
3,983'

7 7/8" Hole. Set 4 1/2" 11.6# J-55 Csg. @ 5,994'.

2-stage cement job. 1<sup>st</sup>-575 Sx. 2<sup>nd</sup>-800 Sx.

DV Tool @ 3,983. Cement circulated to surface.

**T.D. 6,069'**

28E

16

15

26S

21

22

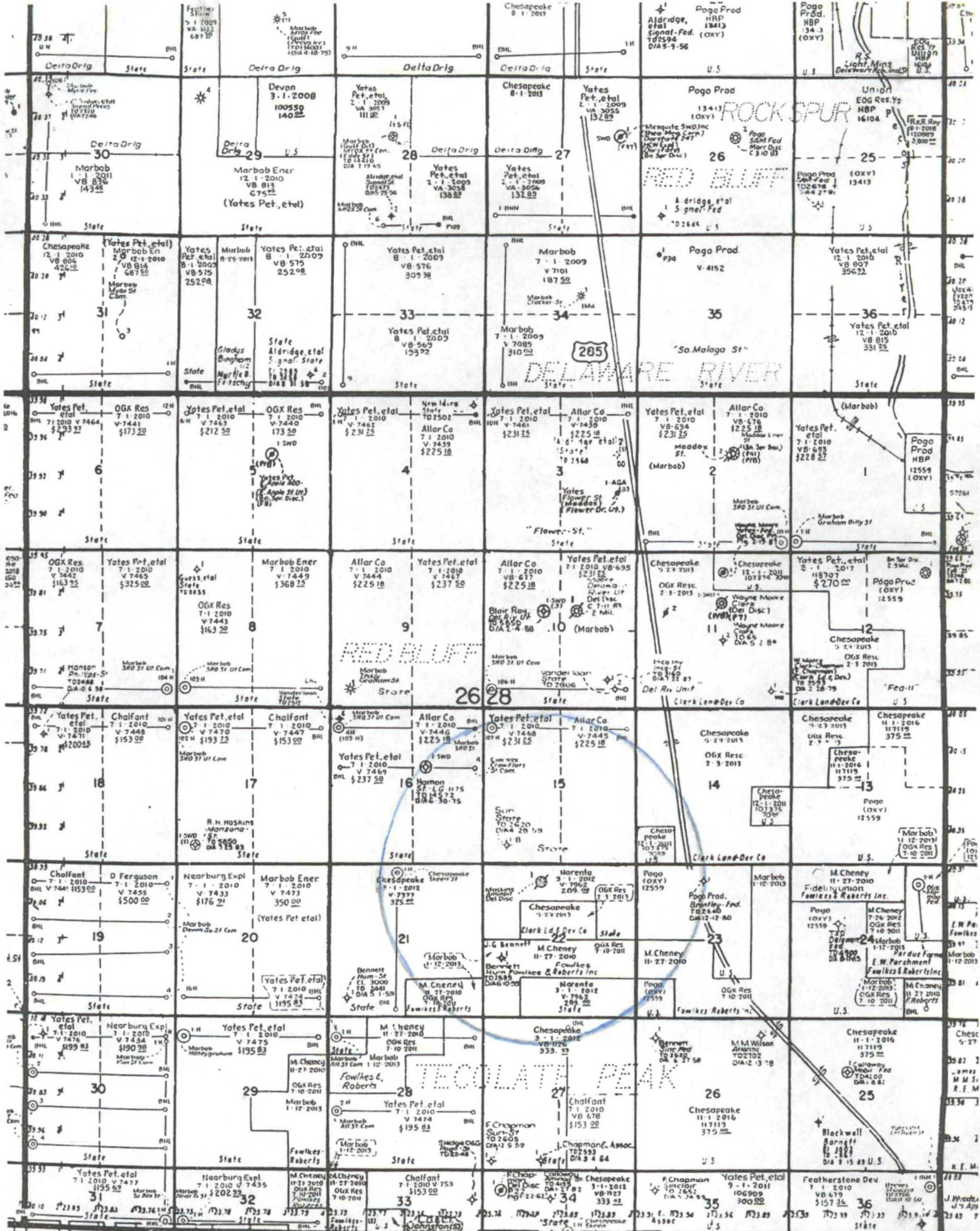
Sun Oil Company  
State of New Mexico  
"B" State No. 1



Aminoil State No. 1  
(Proposed SWD)



**OGX Resources, LLC**  
**Form C-108; Aminoil State Well No. 1**  
**½ Mile AOR Map**



R-28-E

CULBERSON, East

January 31, 2011

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

TO: OFFSET LEASEHOLD OPERATORS & SURFACE OWNER

Re: OGX Resources, LLC  
Form C-108 (Application for Authorization to Inject)  
Aminoil State No. 1  
API No. 30-015-24358  
590' FNL & 1980' FWL, Unit C, Section 22, T-26S, R-28E, NMPM,  
Eddy County, New Mexico

Ladies & Gentlemen:

Enclosed please find a copy of Oil Conservation Division Form C-108 (Application for Authorization to Inject) for the OGX Resources, LLC Aminoil State Well No. 1. You are being provided a copy of the application as an offset operator, offset leaseholder or surface owner. OGX Resources, LLC proposes to convert the well to a disposal well, injection to occur into the Bell Canyon, Cherry Canyon and Brushy Canyon members of the Delaware formation through perforations from 2,580'-5,365'.

Objections must be filed with the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico 87505, within 15 days.

If you should have any questions, please contact me at (432) 684-6381.

Sincerely,



3-1-11

Ann Ritchie  
Regulatory Agent, OGX Resources, LLC  
P.O. Box 953  
Midland, Texas 79702

Enclosure

**Offset Operators to the Aminoil State #1 SWD**

**Location 1980' FWL & 590' FNL, Section 22, T-26-S, R-28-E, Eddy Co NM**

**The Allar Company**

**P.O. Box 1567**

**Graham, Texas 76450**

**Chesapeake Exploration L.L.C.**

**P.O. Box 18496**

**Oklahoma City, OK 73154**

**COG Operating LLC**

**550 West Texas, Ste. 100**

**Midland, Texas 79701**

**OXY USA Inc.**

**P.O. Box 4294**

**Houston, Texas 77046**

**Occidental Permian Limited Partnership**

**P.O. Box 4294**

**Houston, Texas 77046**

**Yates Petroleum Company**

**105 4th Street**

**Artesia, New Mexico 88210**

**State of New Mexico Surface Tenant**

**Martha Skeen**

**P.O. Box 696**

**Loving, New Mexico 88256**

2125 5552 2532 5202

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Return Receipt Fee (Endorsement Required)	\$ 2.30
Restricted Delivery Fee (Endorsement Required)	\$ 0.00
Total Postage & Fees	\$ 5.71

Sent To: The Allar Company  
Street, Apt. No., or PO Box No.: P.O. Box 1567  
City, State, ZIP+4: Graham, TX 76450

PS Form 3800, August 2006 See Reverse for Instructions

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Return Receipt Fee (Endorsement Required)	\$ 2.30
Restricted Delivery Fee (Endorsement Required)	\$ 0.00
Total Postage & Fees	\$ 5.71

Sent To: COB Operating LLC  
Street, Apt. No., or PO Box No.: 550 W. Texas, Ste. 100  
City, State, ZIP+4: Midland, TX 79701

PS Form 3800, August 2006 See Reverse for Instructions

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Total Postage & Fees	\$ 5.71

Sent To: Chesapeake Exploration LLC  
Street, Apt. No., or PO Box No.: P.O. Box 18496  
City, State, ZIP+4: OKLAHOMA CITY, OK 73154

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Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.71

Sent To: Decidental Permian Limited Partnership  
Street, Apt. No., or PO Box No.: P.O. Box 4294  
City, State, ZIP+4: Houston, TX 77046

PS Form 3800, August 2006 See Reverse for Instructions

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Sent To: Yates Petroleum Company  
Street, Apt. No., or PO Box No.: 105 4th Street  
City, State, ZIP+4: Artesia, New Mexico 88210

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Return Receipt Fee (Endorsement Required)	\$ 2.30
Restricted Delivery Fee (Endorsement Required)	\$ 0.00
Total Postage & Fees	\$ 5.71

Sent To: MARtha Skeen  
Street, Apt. No., or PO Box No.: P.O. Box 496  
City, State, ZIP+4: Loving, New Mexico 88256

PS Form 3800, August 2006 See Reverse for Instructions

4125 5552 4000 0390 7008

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Certified Fee	\$ 2.80
Return Receipt Fee (Endorsement Required)	\$ 2.30
Restricted Delivery Fee (Endorsement Required)	\$ 0.00
Total Postage & Fees	\$ 5.71

Sent To: OXY USA Inc.  
Street, Apt. No., or PO Box No.: P.O. Box 4294  
City, State, ZIP+4: Houston, TX 77046

PS Form 3800, August 2006 See Reverse for Instructions

**OGX Resources, LLC**  
**Form C-108; Aminoil State No. 1**  
**Area of Review Well Construction Data**

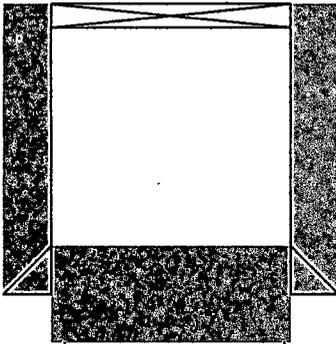
*AOR WFL*

Operator: Sun Oil Company  
Well Name: State of New Mexico "B" No. 1  
API No. 30-015-02527  
Well Location: 600' FSL & 860' FWL (M) Section 15, T-26S, R-28E  
Date Drilled: April, 1959  
Date Plugged: May, 1959  
Total Depth: 2,620'

Hole Size: 12 1/4"  
Casing Size: 8 5/8"  
Setting Depth: 250'  
Cement Data: Cemented w/ 150 Sx. Cement circulated to surface.

Hole Size: 6 3/4" Hole drilled to a total depth of 2,620'  
Casing Size: N/A  
Setting Depth: N/A  
Cement Data: N/A

Sun Oil Company  
State of New Mexico "B" No. 1  
API No. 30-015-02527  
600' FSL & 860' FWL, Unit M  
Section 15, T-26S, R-28E



Installed 8 5/8" bull plug  
w/ 1/2" valve in top.

12 1/4" Hole; 8 5/8" Csg. Set @  
250'. Cemented w/150 Sx.  
Cement circulated to surface.

Set 15 Sx. cement plug  
225'-275'

**Drilled: 4/59**

**Plugged: 5/59**

Set 25 Sx. cement plug  
2,520'-2,620' ✓

**T.D. 2,620'**

**6 3/4" Hole drilled to a total depth of 2,620'**

NEW MEXICO OIL CONSERVATION COMMISSION

FORM C-103  
(Rev 3-55)

MISCELLANEOUS REPORTS ON WELLS

(Submit to appropriate District Office as per Commission Rule 1106)

Name of Company <b>Sun Oil Company</b>		Address <b>Box 2792, Odessa, Texas</b>				
Lease <b>State of New Mexico "B"</b>	Well No. <b>1</b>	Unit Letter <b>N</b>	Section <b>15</b>	Township <b>26 S</b>	Range <b>28 E</b>	
Date Work Performed <b>4-23-59</b>	Pool <b>Wildcat</b>	County <b>Eddy</b>				

THIS IS A REPORT OF: (Check appropriate block)

- Beginning Drilling Operations   
  Casing Test and Cement Job   
  Other (Explain):  
 Plugging   
  Remedial Work

Detailed account of work done, nature and quantity of materials used, and results obtained.

Drilled well to 2620'. Set 237.50' of 8 5/8" OD surface casing and circulated. Cored from 2525-2620'. Spotted 25 sack plug from 2620-2520'. Spotted 15 sack plug from 275-225'. Installed 8 5/8" bull plug with 1/2" valve in top and installed well marker.

This location has been cleared of all material, pits filled, levelled and cleaned off.

30-015-02527

AOR WELL

Witnessed by <b>H. L. Patterson</b>	Position <b>Foreman</b>	Company <b>Sun Oil Company</b>
--	----------------------------	-----------------------------------

FILL IN BELOW FOR REMEDIAL WORK REPORTS ONLY

ORIGINAL WELL DATA

D F Elev.	T D	P B T D	Producing Interval	Completion Date
Tubing Diameter	Tubing Depth	Oil String Diameter	Oil String Depth	
Perforated Interval(s)				
Open Hole Interval		Producing Formation(s)		

RESULTS OF WORKOVER

Test	Date of Test	Oil Production BPD	Gas Production MCFPD	Water Production BPD	GOR Cubic feet/Bbl	Gas Well Potential MCFPD
Before Workover						
After Workover						

OIL CONSERVATION COMMISSION		I hereby certify that the information given above is true and complete to the best of my knowledge.	
Approved by <i>W. A. Gissett</i>	Name <i>W. D. [Signature]</i>		
Title <b>OIL AND GAS INSPECTOR</b>	Position <b>Area Superintendent</b>		
Date <b>MAY 19 1959</b>	Company <b>Sun Oil Company, Box 2792, Odessa, Texas</b>		

# Affidavit of Publication

NO. 21531

STATE OF NEW MEXICO

County of Eddy:

Walter L. Green *Walter L. Green*

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/days on the same

day as follows:

- First Publication February 3, 2011
- Second Publication \_\_\_\_\_
- Third Publication \_\_\_\_\_
- Fourth Publication \_\_\_\_\_
- Fifth Publication \_\_\_\_\_

Subscribed and sworn to before me this

4nd day of February 2011



**OFFICIAL SEAL**  
**Danny Scott**  
**NOTARY PUBLIC STATE OF NEW MEXICO**

My commission expires: 3/18/2014

*Danny Scott*  
\_\_\_\_\_  
Danny Scott  
Notary Public, Eddy County, New Mexico

# Copy of Publication:

## LEGAL NOTICE

### NOTICE OF INJECTION APPLICATION

OGX Resources, LLC do P.O. Box 953, Midland, TX 79702 will file the New Mexico

Conservation Division Form C-108, Application for Authorization to Inject, with the NMOCD

seeking administrative approval for injection into the Aminoil State, Well No. 1, API 30-0 15-

24358, located 590' FNL & 1980' FWL, Unit letter C, Section 22, T26S, R28E, NMPM, Eddy

County, New Mexico. The application is to inject into the Bell Canyon, Cherry Canyon and

Brushy Canyon members of the Delaware formation through perforations from 25805365T.

The proposed maximum surface pressure is 561 psi, with maximum injection rate of 4000 bbls water per day per well.

The injection water will be sourced from the Bone Springs formation at approx 7000' and Morrow at approx 11000'.

All interested parties opposing the application must file objection with the New Mexico Oil Conservation Division,

1220 South St. Francis Drive, Santa Fe NM 87505 within 15 days of this notice.

Additional information can be obtained by contacting Ann Ritchie, Regulatory Agent, OGX Resources, LLC, do P.O. Box 953, Midland, TX 79702, (432) 684-6381.

Published in the Artesia Daily Press, Artesia, N.M., February 3, 2011. Legal No. 21531.







# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	Sub basin	Use	County	Q	Q	Q	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column		
C 02160 S7	IRR	ED	64	16	4	3	3	1	22	26S	28E	586638	3543998*	300	120	180
												Average Depth to Water: 120 feet				
												Minimum Depth: 120 feet				
												Maximum Depth: 120 feet				

**Record Count: 1**

**PLSS Search:**

**Section(s): 21-23**

**Township: 26S**

**Range: 28E**

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number:	Sub basin	Use	County	Q 64	Q 16	Q 4	Sec	Tws	Range	X	Y	Depth Well	Depth Water	Water Column
C 02160	IRR	ED	ED	4	1	2	14	26S	28E	589243	3546044*	300	120	180
C 02160 S	IRR	ED	ED	1	1	2	14	26S	28E	589043	3546244*	300	120	180
C 02160 S2	IRR	ED	ED	1	1	2	14	26S	28E	589043	3546244*	300	120	180
C 02160 S3	IRR	ED	ED	2	2	1	14	26S	28E	588834	3546241*	300	120	180
C 02160 S4	IRR	ED	ED	2	2	1	14	26S	28E	588834	3546241*	300	120	180
C 02160 S5	IRR	ED	ED	1	1	1	14	26S	28E	588225	3546237*	300	120	180
C 02160 S6	IRR	ED	ED	3	3	1	14	26S	28E	588232	3545635*	300	120	180
C 02481	CUB	PLS	ED	1	1	14	26S	28E	588326	3546138*	200			

Average Depth to Water: **120 feet**

Minimum Depth: **120 feet**

Maximum Depth: **120 feet**

**Record Count: 8**

**PLSS Search:**

Section(s): 14-16

Township: 26S

Range: 28E

\*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

Form C-108  
Affirmative Statement  
OGX Resources, LLC  
Aminoil State No. 1  
API No. 30-015-24358 590' FNL & 1980' FWL (Unit C)  
Section 22, T-26S, R-28E, NMPM  
Eddy County, New Mexico

Available geologic and engineering data have been examined and no evidence of open faults or hydrological connection between the disposal zone and any underground sources of drinking water has been found.



\_\_\_\_\_  
Ann Ritchie  
Regulatory Agent  
OGX Resources, LLC

3-1-11

\_\_\_\_\_  
Date

**Jones, William V., EMNRD**

---

**From:** Jones, William V., EMNRD  
**Sent:** Wednesday, March 30, 2011 1:14 PM  
**To:** 'Ann Ritchie'  
**Cc:** Reeves, Jacqueta, EMNRD; Ezeanyim, Richard, EMNRD  
**Subject:** Disposal application from OGX Resources, LLC: Aminoil State #1 30-015-24358  
Bell/Cherry/Brushy 2580 to 5365

Hello Ann:

Thanks for this application. I can't tell if you work for OGX on salary or have a consulting firm of your own?

I only can think of two concerns with this application.

- a. The offsetting plugged well did penetrate the top of the proposed disposal interval. It does have a cement plug in the bottom, but water could possibly enter that old well above the plug and charge up the salt. Please ask OGX to consider beginning disposal at least 100 feet deeper in the Delaware than is currently proposed. I could suggest a specific depth, but it is better to come from a geologist or engineer with OGX. They may have other reasoning to convey?
- b. The other concern is that the meager hydrocarbons in the Delaware in this area appear to be a gas at reservoir conditions – so any disposal would likely negate any possible future recovery. Please ask OGX to send an “opinion” from a reservoir engineer or engineer specializing in reservoir analysis as to what any possibilities are of future recovery of this gas. As you know petroleum engineers come in all types, in this case, it would be best to hear from the reservoir department.

Thanks Again,

William V Jones, P.E.  
Engineering, Oil Conservation Division  
1220 South St. Francis Drive, Santa Fe, NM 87505  
Tel 505.476.3448 ~ Fax 505.476.3462



**Jones, William V., EMNRD**

---

**From:** Ann Ritchie [ann.wtor@gmail.com]  
**Sent:** Wednesday, March 30, 2011 3:09 PM  
**To:** Jones, William V., EMNRD  
**Subject:** Re: Disposal application from OGX Resources, LLC: Aminoil State #1 30-015-24358 Bell/Cherry/Brushy 2580 to 5365

I am a consultant - West Texas Oil Reports. We have been in business since 1948 (my dad was a petroleum engineer and started it after he got out of the Air Force/WWII, he asked me to work for him one summer after college - that was 34 years ago....).

I really appreciate the way you handle injection/disposal wells. Have to say Texas is lacking on the engineering end of things....

I have forwarded on to the OGX engineer - Jeff Birklebach, he should get back to me in the next few days.

Thank you,

Ann

On Wed, Mar 30, 2011 at 2:14 PM, Jones, William V., EMNRD <[William.V.Jones@state.nm.us](mailto:William.V.Jones@state.nm.us)> wrote:

Hello Ann:

Thanks for this application. I can't tell if you work for OGX on salary or have a consulting firm of your own?

I only can think of two concerns with this application.

a. The offsetting plugged well did penetrate the top of the proposed disposal interval. It does have a cement plug in the bottom, but water could possibly enter that old well above the plug and charge up the salt. Please ask OGX to consider beginning disposal at least 100 feet deeper in the Delaware than is currently proposed. I could suggest a specific depth, but it is better to come from a geologist or engineer with OGX. They may have other reasoning to convey?

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Thanks Again,

William V Jones, P.E.

----- Forwarded message -----

From: **Bill Hardie** <[hardie@ogxresources.com](mailto:hardie@ogxresources.com)>

Date: Fri, Apr 1, 2011 at 10:03 AM

Subject: RE: Disposal application from OGX Resources, LLC: Aminoil State #1 30-015-24358 Bell/Cherry/Brushy 2580 to 5365

To: Jeff Birkelbach <[jbirkelbach@ogxresources.com](mailto:jbirkelbach@ogxresources.com)>, Ann Ritchie <[ann.wtor@gmail.com](mailto:ann.wtor@gmail.com)>

*Ann/WTOR & Mr. Jones/OCD*

*I have no problem amending our recommended perforations to accommodate Mr. Jones' concern "a" below. I have looked more closely at the history of this well and concur with his concern "b". The zone in question was perforated 3039' to 3094'. It tested 150 mcfgpd + 100 bwpd back in 1983, but was never produced due to a lack of gas market at this remote location. OGX would agree to test this zone to determine its deliverability. After testing, we would either produce the zone or avoid perforating it as part of our overall water disposal interval. We would keep the OCD informed with the results. Do I need to draft a letter to the OCD ?*

William Hardie

Exploration Manager

OGX Resources

400 N. Marienfeld, Suite 200

Midland, TX 79701

Wk [\(432\) 685-1287](tel:(432)685-1287)

Cell [\(432\) 553-0259](tel:(432)553-0259)

---

**From:** Jeff Birkelbach

**Sent:** Wednesday, March 30, 2011 4:37 PM

**To:** Bill Hardie

**Subject:** FW: Disposal application from OGX Resources, LLC: Aminoil State #1 30-015-24358 Bell/Cherry/Brushy 2580 to 5365

----- Forwarded message -----

From: **Jones, William V., EMNRD** <[William.V.Jones@state.nm.us](mailto:William.V.Jones@state.nm.us)>

**Jones, William V., EMNRD**

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**From:** Jones, William V., EMNRD  
**Sent:** Friday, April 01, 2011 10:45 AM  
**To:** 'Ann Ritchie'  
**Cc:** Ezeanyim, Richard, EMNRD; Warnell, Terry G, EMNRD  
**Subject:** RE: Disposal application from OGX Resources, LLC: Aminoil State #1 30-015-24358 Bell/Cherry/Brushy 2580 to 5365

<b>Tracking:</b>	<b>Recipient</b>	<b>Read</b>
	'Ann Ritchie'	
	Ezeanyim, Richard, EMNRD	Read: 4/1/2011 12:43 PM
	Warnell, Terry G, EMNRD	Read: 4/1/2011 11:30 AM

Ann;  
Thanks for this reply.  
Gas prices are still not the best and I don't know what the gas pipeline situation is in this remote area – and we already know this well is marginal with no other wells around it.  
But since 1983, other things have changed, which may possibly make a difference. I am not sure that the possible gas depths in this well only extend from 3039 to 3094 without a log analysis or mudlog or other.

I prefer to let OGX re-test/evaluate this Delaware and then if it still does not work, re-submit an application for disposal. This type of situation is a bit beyond the realm of an administrative application. In lieu of additional testing or even afterwards, OGX could appear at an examiner hearing to present some evidence (testimony and exhibits) on the record that this Delaware interval should best be used for water disposal, waste will not occur, and correlative rights not violated - that would be, I believe the best approach. We have other operators do this all the time i.e. a hearing in Santa Fe is not that bad.

Nice dealing with you on this,

Will Jones  
New Mexico  
Oil Conservation Division  
Images Contacts

---

**From:** Ann Ritchie [mailto:ann.wtor@gmail.com]  
**Sent:** Friday, April 01, 2011 9:50 AM  
**To:** Jones, William V., EMNRD  
**Subject:** Fwd: Disposal application from OGX Resources, LLC: Aminoil State #1 30-015-24358 Bell/Cherry/Brushy 2580 to 5365

Will,  
Please see below. Please let me know if you would prefer this in letter format. Not sure about OCD policy on e-mail correspondence.  
Thank you,  
Ann

West Texas Oil Reports  
"Since 1948"  
P.O. Box 953  
Midland, TX 79702  
432 684-6381

**Jones, William V., EMNRD**

---

**From:** Ann Ritchie [ann.wtor@gmail.com]  
**Sent:** Wednesday, June 01, 2011 8:08 AM  
**To:** Jones, William V., EMNRD  
**Subject:** Disposal application from OGX Resources, LLC: Aminoil State #1 30-015-24358 Bell/Cherry/Brushy 2580 to 5365

Will,  
Please see e-mail below from the geologist at OGX. Please let us know how to proceed. Sorry it has taken so long to get back to you on this application.

Thank you,  
Ann Ritchie, for OGX Resources, LLC

---

**From:** Bill Hardie  
**To:** Jeff Birkelbach; Ann Ritchie  
**Subject:** RE: Disposal application from OGX Resources, LLC: Aminoil State #1 30-015-24358 Bell/Cherry/Brushy 2580 to 5365

Ann

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Will the injection application stay intact?

William Hardie

Exploration Manager

OGX Resources

400 N. Marienfeld, Suite 200

Midland, TX 79701

Wk (432) 685-1287

## Jones, William V., EMNRD

---

**From:** Jones, William V., EMNRD  
**Sent:** Wednesday, June 01, 2011 1:59 PM  
**To:** 'Ann Ritchie'  
**Subject:** RE: Disposal application from OGX Resources, LLC: Aminoil State #1 30-015-24358 Bell/Cherry/Brushy 2580 to 5365

OK – let me try to find this application and I will process it as per the Exploration Managers plans.  
If I can't find it, I will let you know.

Maybe a couple additional weeks to get to this one.

---

**From:** Ann Ritchie [<mailto:ann.wtor@gmail.com>]  
**Sent:** Wednesday, June 01, 2011 8:08 AM  
**To:** Jones, William V., EMNRD  
**Subject:** Disposal application from OGX Resources, LLC: Aminoil State #1 30-015-24358 Bell/Cherry/Brushy 2580 to 5365

Will,  
Please see e-mail below from the geologist at OGX. Please let us know how to proceed. Sorry it has taken so long to get back to you on this application.  
Thank you,  
Ann Ritchie, for OGX Resources, LLC

---

---

**From:** Bill Hardie  
**To:** Jeff Birkelbach; Ann Ritchie  
**Subject:** RE: Disposal application from OGX Resources, LLC: Aminoil State #1 30-015-24358 Bell/Cherry/Brushy 2580 to 5365

Ann

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Will the injection application stay intact?

Injection Permit Checklist (07/9/2010)

WFX PMX SWD 1290 Permit Date 6/16/11 UIC Qtr (A)(M)(J)

# Wells 1 Well Name(s): AMINOIL State #1

API Num. 30-015-24358 Spud Date: 1/83 New/Old N (UIC primacy March 7, 1982)

Footages 590 FUL/1980 FUL Unit C Sec 22 Tsp 265 Rge 28E County EDDY

General Location: Near State Line, West of Red BLUFF Res.

Operator: OGX RESOURCES, LLC Contact ANN RITCHIE

OGRID: 217955 RULE 5 9 Compliance (Wells) 0/36 (Finan Assur) OK IS 5 9 OK? OK

Well File Reviewed  Current Status: SHUT-IN (3054-3059 SIZED)

Planned Work to Well: Perf more / DISPOSE DELAVARE GAS ZONE

Diagrams: Before Conversion After Conversion Elogs in Imaging File

Well Details:	Sizes Hole.....Pipe	Setting Depths	Stage Tool	Cement Sx or Cf	Cement Top and Determination Method
New Existing Surface	17 1/2 13 5/8	425	—	425	CIRC
New Existing Interm	11 8 5/8	2518'	—	900	CIRC
New Existing LongSt	7 7/8 4 1/2	5,994'	3983	575/800	CIRC
New Existing Liner		TD = 6069'			
New Existing OpenHole					

Depths/Formations:	Depths, Ft.	Formation	Tops?
Formation(s) Above	<u>2530</u>	<u>DEL SNO</u>	<input checked="" type="checkbox"/>
Injection TOP:	<u>2580</u>	<u>Bell Canyon</u>	Max. PSI <u>516</u>
Injection BOTTOM:	<u>5365</u>	<u>CH. C. BRUSHY C.</u>	Tubing Size <u>2 3/8</u>
Formation(s) Below			

*STAY LOWER?*  
*TECOLOTE Peak DELAWARE GAS Pool*  
*516*  
*Open Hole Perfs*   
*Packer Depth 2480'*  
*5365*  
*420 - 2480*

Capitan Reef? (Potash? Noticed?) [WIPP? Noticed?] Salado Top/Bot CMT House?

Fresh Water Depths: 120-300' Formation Wells? yes Analysis?  Affirmative Statement

Disposal Fluid Analysis? Sources: BS/mover will be sent later

Disposal Interval: Analysis? 24,000 CL Production Potential/Testing

Notice: Newspaper Date 2/3/11 Surface Owner SLO/Mark Starn Mineral Owner(s)

RULE 26.7(A) Affected Persons: ALLAR/Chang/OGX/OGX/YPC

AOR: Map? Well List? Active Wells  Producing in Interval? Repairs Which Wells?

.....P&A Wells Diagrams? Repairs Which Wells? Done RE Perf Gas Zone

Questions: Done by Survey within 1 year Request Sent Reply: