

Revised March 23, 2017

RECEIVED: <u>7/10/2018</u>	REVIEWER:	TYPE: <u>SWD</u> <u>2192</u>	APP NO: <u>PMAM18-200 56178</u>
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ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

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

**ADMINISTRATIVE APPLICATION CHECKLIST**

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

Applicant: <u>BOPCO, LP</u>	OGRID Number: <u>260737</u>
Well Name: <u>Poker Lake Unit Big Sinks 32 State SWD # 11</u>	API: <u>30-015-44569</u>
Pool: <u>SWD; Devonian</u>	Pool Code: <u>97803</u>

**SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION
 INDICATED BELOW**

- 1) **TYPE OF APPLICATION:** Check those which apply for [A]
- A. Location - Spacing Unit - Simultaneous Dedication
- ☐ NSL ☐ NSP (PROJECT AREA) ☐ NSP (PRORATION UNIT) ☐ SD
- B. Check one only for [I] or [II]
- [I] Commingling - Storage - Measurement
- ☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM
- [II] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
- ☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR
- 2) **NOTIFICATION REQUIRED TO:** Check those which apply.
- A. ☐ Offset operators or lease holders
- B. ☐ Royalty, overriding royalty owners, revenue owners
- C. ☒ Application requires published notice
- D. ☒ Notification and/or concurrent approval by SLO
- E. ☐ Notification and/or concurrent approval by BLM
- F. ☒ Surface owner
- G. ☒ For all of the above, proof of notification or publication is attached, and/or,
- H. ☐ No notice required

FOR OCD ONLY

- ☐ Notice Complete
- ☐ Application
Content
Complete

*Proof of publication will be sent
 under separate cover*

- 3) **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.

Tracie J. Cherry

Print or Type Name

Signature

07/06/18

Date

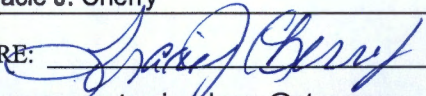
432-221-7379

Phone Number

tracie_cherry@xtoenergy.com

e-mail Address

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: Secondary Recovery Pressure Maintenance XX Disposal Storage
Application qualifies for administrative approval? XX Yes No
- II. OPERATOR: BOPCO, LP
ADDRESS: 6401 Holiday Hill Rd. Bldg 5, Midland, TX 79707
CONTACT PARTY: Tracie J. Cherry PHONE: 432-221-7379
- 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 XX 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: Tracie J. Cherry TITLE: Regulatory Analyst
SIGNATURE:  DATE: 07/04/18
E-MAIL ADDRESS: tracie_cherry@xtoenergy.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.

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

III. Well Data

A. 1) Lease name: **Poker Lake Unit Big Sinks 32 SWD**
Well #: **11** API # **30-015-44569**
Section: **32**
Township: **25S**
Range: **31E**
Footage: **2524 FNL & 607 FEL**

2) Casing Info:

Casing size	Set depth	Sacks cmt	Hole size	TOC	Method
18-5/8", 87.5# J-55 BTC	900	1,550	24	Surface	Circulate
13-3/8" 68# HCL-80 BTC	3,980	3,365	17-1/2	Surface	Circulate
9-5/8" 53.5# L-80 LTC	12,080	2,325	12-1/4	3380	CBL
7" 32# P-110 BTC	11,880-16,810	740	8-1/2"	11880	Circulate

3) Tubing to be used (size, lining material, setting depth):

Tapered tbg string: **5-1/2, 17#, P110 IPC tubing to 11,200**
4-1/2, 13.5#, P110 IPC tubing 11,200 - 16,720

4) Name, model, and depth of packer to be used:

Baker Series F nickle plated permanent packer (or equivalent) @ 16,710'

B. 1) Name of the injection formation and, if applicable, the field or pool name:

SWD; Devonian (97803) Target disposal formations Siluro-Devonian & Fusselman

2) The injection interval and whether it is perforated or open hole:

Open hole 16,810 - 18,250

The TD of the well will be determined as geologic formation tops come in on the mud log. Mud logging through the interval will ensure the target interval will remain in the Siluro-Devonian and Fusselman formations.

3) State if the well was drilled for injection or, if not, the original purpose of the well:

This well is being drilled for the purpose of injection

4) Give the depths of any other perforated intervals and detail on the sacks of cement or BPs used to seal off such perforations:

N/A

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:

Higher: Within a 2 mile radius of the proposed well, production has been reported from the Delaware (+/-4000'), Bone Spring (+/-8000') and Wolfcamp (+/- 11400') formations.

Lower: None

C-108 DATA

- 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.

Map attached.

- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

There are no wells penetrating the injection zone within the one mile area of review

There is one plugged and abandoned well within the one mile area of review.

Operator: Perry R. Bass/BEPCO

Well Name and Number: Poker Lake Unit, # 60

API: 30-015-24480 **Type:** Oil

Location: UL F, Sec 33 25S-31E 1980 FNL & 1980 FWL

Surface Csg: 12.25" Hole, 9.625" 36# csg @ 801'

Cmt 550 sx. Circ to surf

Int Csg: 8.75" hole, 7" 23# csg @ 4100'

Cmt 2550 sx Circ. to surf

Prod Csg: 6.25" hole, 4.5", 11.6# 10.5# & 9.25# @ 6180'

Cmt 300 sx. TOC 4710' by temp survey

- VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected:

20,000 average, 40,000 maximum BWPD

2. Whether the system is open or closed:

Closed

3. Proposed average and maximum injection pressure:

2,000 psi average, 3,362 psi maximum (or as limited by depth)

4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water:

This well will be part of a multi well pressurized SWD system.

Producing wells connected to the system will be contributing Permian waters, the majority of which is produced from Delaware, Bone Spring and Wolfcamp formations with a small amount of water from other formations. Attached is an analysis of the water currently being disposed into the existing wells/system and is representative of the disposal water into this well

5. If injection is for disposal purposes into a zone not productive of oil & gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water:

N/A

- 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 TDS 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:

Lithologic Detail: Carbonate

Geological Name: Siluro-Devonian & Fusselman

Thickness: 1456'

Depth: 16,794' - 18,250'

The Rustler Formation is a known source of fresh water throughout this geographic area. Average depth of Rustler is 830'TVD.

No sources of fresh water are known to exist below the proposed disposal zone.

Devonian is not expected to be oil bearing in this area and there are no wells producing from the Devonian within a 2 mile radius.

- IX. Describe the proposed stimulation program, if any:
Acid stimulate with approximately 5000 gallons of 15% NEFE HCL acid.
- X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted.)
Logs will be submitted with completion papers when well is drilled.
- 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.
No water wells within 1 mile of well. A search of the New Mexico Office of State Engineer water rights database returned one permit approved for livestock. The permit is expired.
- 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 hydrology connection between the disposal zone and any underground sources of drinking water.
(See attached affidavit)

PLU Big Sinks 32 SWD #11

Proposed SWD Schematic (July 1, 2018)

County: Eddy
SHL: 2524' FNL, 607' FEL
Sec 32, T 25S, R 31E

BHL: 2524' FNL, 607' FEL
Sec 32, T 25S, R 31E



AFE # 1705815
XTO ID # 735204
API # 30-015-44569
Elevation GL 3282', KB 3309' (27' AGL)
Rig: TBD (RKB 27')

Geology	Casing & Cement	Wellhead	Hole Size	General Notes
<i>TVD Formation</i>		(Tech Data Sheet)		
834' Rustler	<u>Lead (100% OH excess)</u> 680 sx 12.6ppg Poz/C Top of Lead @ 0 <u>Tail (100% OH excess)</u> 870 sx 14.8ppg Class C Top of Tail @ 500' 18-5/8" 87.5# J-55 BTC	900' MD	24"	
1,194' Top Salt	<u>Lead (150% OH excess)</u> 2680 sx 12.8ppg Poz/C Top of Lead @ 0 <u>Tail (100% OH excess)</u> 685 sx 14.8ppg Class C Top of Tail @ 3380' 13-3/8" 68# HCL-80 BTC	3980' MD	17-1/2"	
4,089' Delaware	<u>Lead (100% OH excess)</u> 1925 sx 11.5ppg Poz/H Top of Lead @ 3360' <u>Tail (100% OH excess)</u> 400 sx 14.8ppg Poz/H Top of Tail @ 11380' 9-5/8" 53.5# P-110 BTC	11880' MD	12-1/4"	5-1/2", 17#, P-110 TK15XT Coated tbg Set @ +/- 11,200' 5-1/2" x 4-1/2" crossover @ +/- 11,200' TOL @ 11,700'
8,029' Bone Spring				
11,399' Wolfcamp				
11,994' Wolfcamp B		12080' MD		
13,949' Strawn			8-1/2"	
14,099' Atoka				7" Baker Series F Retainer Production Packer @ +/- 16,710' (see attached detail, nickel coated)
14,544' Morrow	<u>Tail (40% OH excess)</u> 740 sx 14.5ppg Poz/H Top of Tail @ 11880' 7" 32# P-110 BTC	16810' MD		4-1/2", 13.50#, P-110 TK15XT Coated tbg Set @ +/- 16,720'
16,159' Mississippian Lm				
16,674' Woodford				
16,794' Devonian				
18,239' Simpson	Open hole completion	18,250' MD 18,250' TVD	6"	
18,250' TVD at BHL				

Approvals

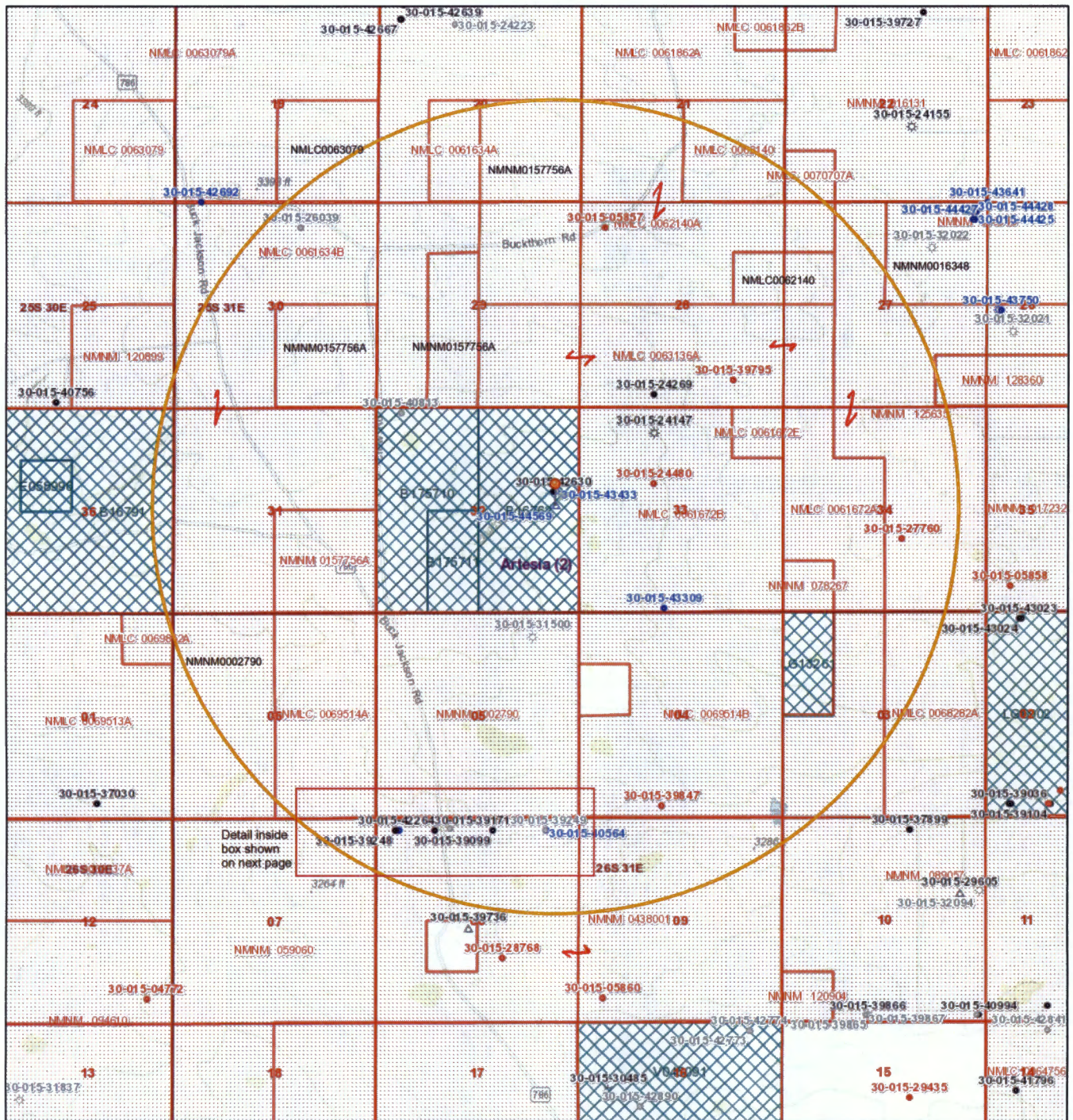
Prepared by: _____

Peer Reviewed by: _____ Date

Reviewed by: _____

Approved by: _____

2 Mile Review



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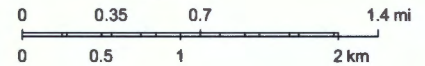
Well Locations - Large Scale

- Miscellaneous
- CO2 Active
- CO2 Cancelled
- CO2 New
- CO2, Plugged
- CO2, Temporarily Abandoned
- Gas Active
- Gas, Cancelled, Never Drilled
- Gas, New
- Gas, Plugged
- Gas, Temporarily Abandoned
- Injection, Active
- Injection, Cancelled
- Injection, New
- Injection, Plugged
- Injection, Temporarily Abandoned
- Oil, Active
- Oil, Cancelled
- Oil, New
- Oil, Plugged
- Oil, Temporarily Abandoned
- Salt Water Injection, Active
- Salt Water Injection, Cancelled
- Salt Water Injection, New
- Salt Water Injection, Plugged
- Salt Water Injection Temporarily Abandoned

- Water, Active
- Water, Cancelled
- Water, New
- Water, Plugged
- Water, Temporarily Abandoned

Well Locations - Small Scale

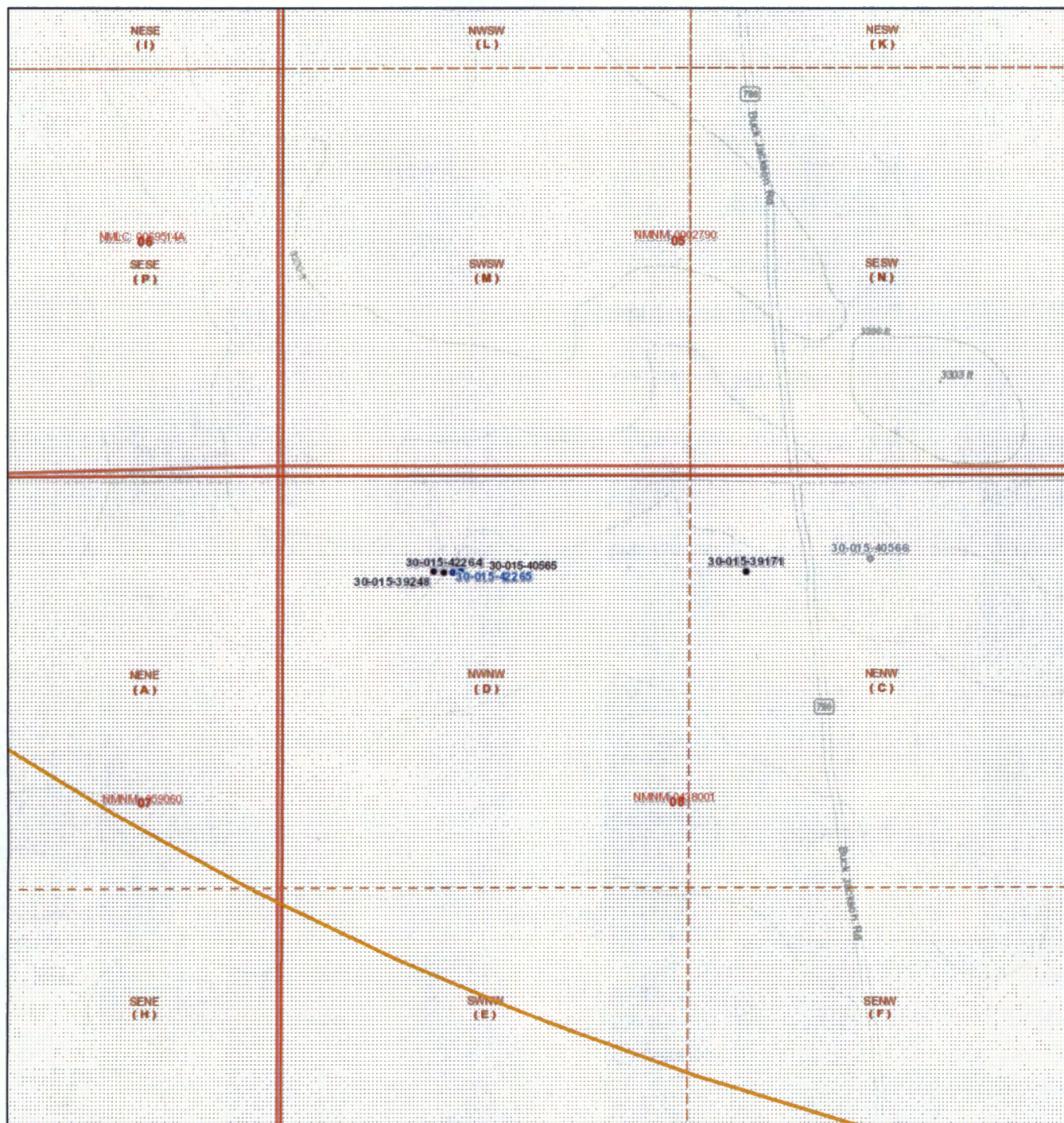
- Active
- New
- Plugged
- Cancelled
- Temporarily Abandoned
- OCD Districts
- OCD District Offices
- PLSS First Division



Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA, OCD, BLM

New Mexico Oil Conservation Division
NM OCD Oil and Gas Map. <http://nm-emrdr.maps.arcgis.com/apps/webappviewer/> New Mexico Oil Conservation Division

2 Mile Review - Inset



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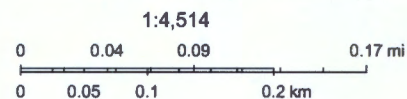
Well Locations - Large Scale

- Miscellaneous
- CO2 Active
- CO2 Cancelled
- CO2 New
- CO2 Plugged
- CO2 Temporarily Abandoned
- Gas Active
- Gas, Cancelled, Never Drilled
- Gas, New
- Gas, Plugged
- Gas, Temporarily Abandoned
- Injection, Active
- Injection, Cancelled
- Injection, New
- Injection, Plugged
- Injection, Temporarily Abandoned
- Oil, Active
- Oil, Cancelled
- Oil, New
- Oil, Plugged
- Oil, Temporarily Abandoned
- Salt Water Injection, Active
- Salt Water Injection, Cancelled
- Salt Water Injection, New
- Salt Water Injection, Plugged
- Salt Water Injection Temporarily Abandoned

- Water, Active
- Water, Cancelled
- Water, New
- Water, Plugged
- Water, Temporarily Abandoned

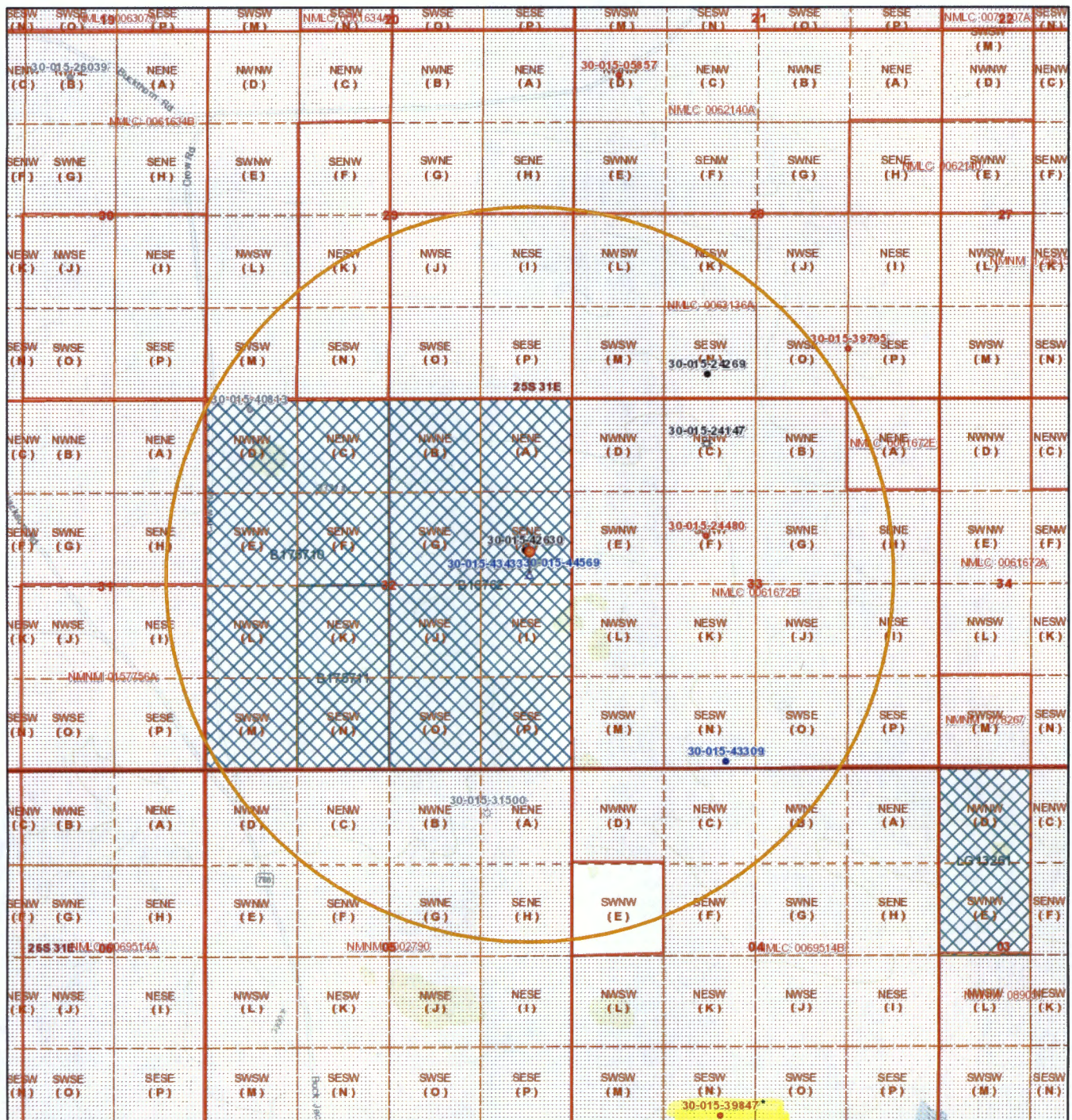
Well Locations - Small Scale

- Active
- New
- Plugged
- Cancelled
- Temporarily Abandoned
- OCD Districts
- OCD District Offices
- PLSS First Division



Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, OCD, BLM

One Mile AOR



6/22/2018 9:26:49 AM

Well Locations - Large Scale

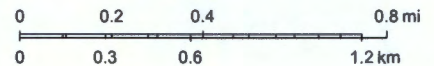
- Miscellaneous
- CO2 Active
- CO2 Cancelled
- CO2 New
- CO2, Plugged
- CO2, Temporarily Abandoned
- Gas Active
- Gas, Cancelled, Never Drilled
- Gas, New
- Gas, Plugged
- Gas, Temporarily Abandoned
- Injection, Active
- Injection, Cancelled
- Injection, New
- Injection, Plugged
- Injection, Temporarily Abandoned
- Oil, Active
- Oil, Cancelled
- Oil, New
- Oil, Plugged
- Oil, Temporarily Abandoned
- Salt Water Injection, Active
- Salt Water Injection, Cancelled
- Salt Water Injection, New
- Salt Water Injection, Plugged
- Salt Water Injection Temporarily Abandoned

- Water, Active
- Water, Cancelled
- Water, New
- Water, Plugged
- Water, Temporarily Abandoned

Well Locations - Small Scale

- Active
- New
- Plugged
- Cancelled
- Temporarily Abandoned
- OCD Districts
- OCD District Offices
- PLSS First Division

1:20,000



*This is a horizontal well. BHL lands inside the 1 mile AOR but does not penetrate the proposed injection interval

Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, USGS, METI/NASA, EPA, USDA, OCD, BLM

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Oil Co. 15.
N.M. Div-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

FORM APPROVED
Budget Bureau No. 1004-0135
Expires July 31, 1996
Lease Serial No.

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Bass Enterprises Production Co.

3a. Address

P.O. Box 2760, Midland, TX 79702-2760

3b. Phone No. (include area code)

(915) 683-2270 - ARTESIA

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1980' FWL & 1980' FNL, Section 33, T25S-R31E, Unit Letter F

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and/or No.

8. Well Name and No.

Poker Lake #60

9. API Well No.

30-015-24480

10. Field and Pool, or Exploratory Area

Big Sinks (Delaware)

11. County or Parish, State

Eddy, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ Notice of Intent
☒ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- | | | | |
|---|--|--|---|
| ☐ Acidize | ☐ Deepen | ☐ Production (Start/Resume) | ☐ Water Shut-Off |
| ☐ Alter Casing | ☐ Fracture Treat | ☐ Reclamation | ☐ Well Integrity |
| ☐ Casing Repair | ☐ New Construction | ☐ Recomplete | ☐ Other |
| ☐ Change Plans | ☒ Plug and Abandon | ☐ Temporarily Abandon | |
| ☐ Convert to Injection | ☐ Plug Back | ☐ Water Disposal | |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

The referenced well has recently been plugged and abandoned. The plugging procedure went as follows:

2/25/02: MIRU, dig pit, line & install fence. Unseat pump, POOH & LD rods & pump. Release TAC.

2/26/02: NU BOP Tally tbg while POH. RIH w/4-1/2" CIBP set @ 6000'. RIBH w/tbg, Pump 50 bbls 10 ppg mud laden fluid. Pump 5 BFW. Mix & spot 15 sx Class C neat w/additives. Est TOC @ 5773'.

2/27/02: ND BOP ND WH, weld on 4-1/2" PN, PU on csg. Csg free @ 4150 +/- RIH w/jet cutter to 4100'. POH & LD 120 jts of csg. RIH on tbg to 4157'. Mix & spot 100 sx Class C Neat w/additives. Est. TOC @ 3528'. POH & stand back all tbg. WOC.

2/28/02: NU WH NU BOP, TIH w/tbg & tag TOC @ 3875'. RU pump truck to tbg, mix & spot 233 sx Class C Neat w/additives. Displace w/9 bbls FW. Est TOC @ 2487'. POH & LD 51 jts tbg. EOT @ 2231'. WOC. RIH w/tbg to 2489' reverse tbg clean w/ 15 bbls BW. Mix & spot 115 sx Class C Neat cement w/additives Est TOC @ 1803'. POH & stand back 28 jts of tbg. LD remainder.

3/1/02: RIBH w/tbg to 1804' Mix & spot 180 sx Class C Neat w/additives. Displace w/2 bbls FW. Est. TOC @ 727'. POH & LD tbg, ND BOP. RIH w/tbg to 50'. Mix & spot 10 sx surface plug using same cement. POOH & LD tubing.

3/7/02: RDPU. Cut off WH and install New Mexico dry hole marker. Remove deadmen. Clean location.

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Tami Wilber

Tami Wilber

Accepted for record - NMOCD

Title

Production Clerk

Date 3/8/02

Approved as to plugging of the well bore,
liability under bond is retained until
surface restoration is completed.

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

(ORIG. SGD.) ALEXIS C. SWOBODA

PETROLEUM ENGINEER

Date

MAR 15 2002

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on reverse)

LEASE: **POKER LAKE UNIT P&A'D**

WELL #: **60**

FIELD: **BIG SINKS WOLFCAMP**

LOCATION: **1980' FNL & 1980' FWL, SEC 33, T25S, R31E, UNIT F**

COUNTY: **EDDY** ST: **NM**

API: **30-015-24480**

SURFACE CASING

Size: 9-5/8"
Wt: 36#
Set @: 801'
Sx cmt: 550
Circ: YES
TOC: SURF
Hole Size: 12-1/4" 0-801'

INTERMEDIATE CASING

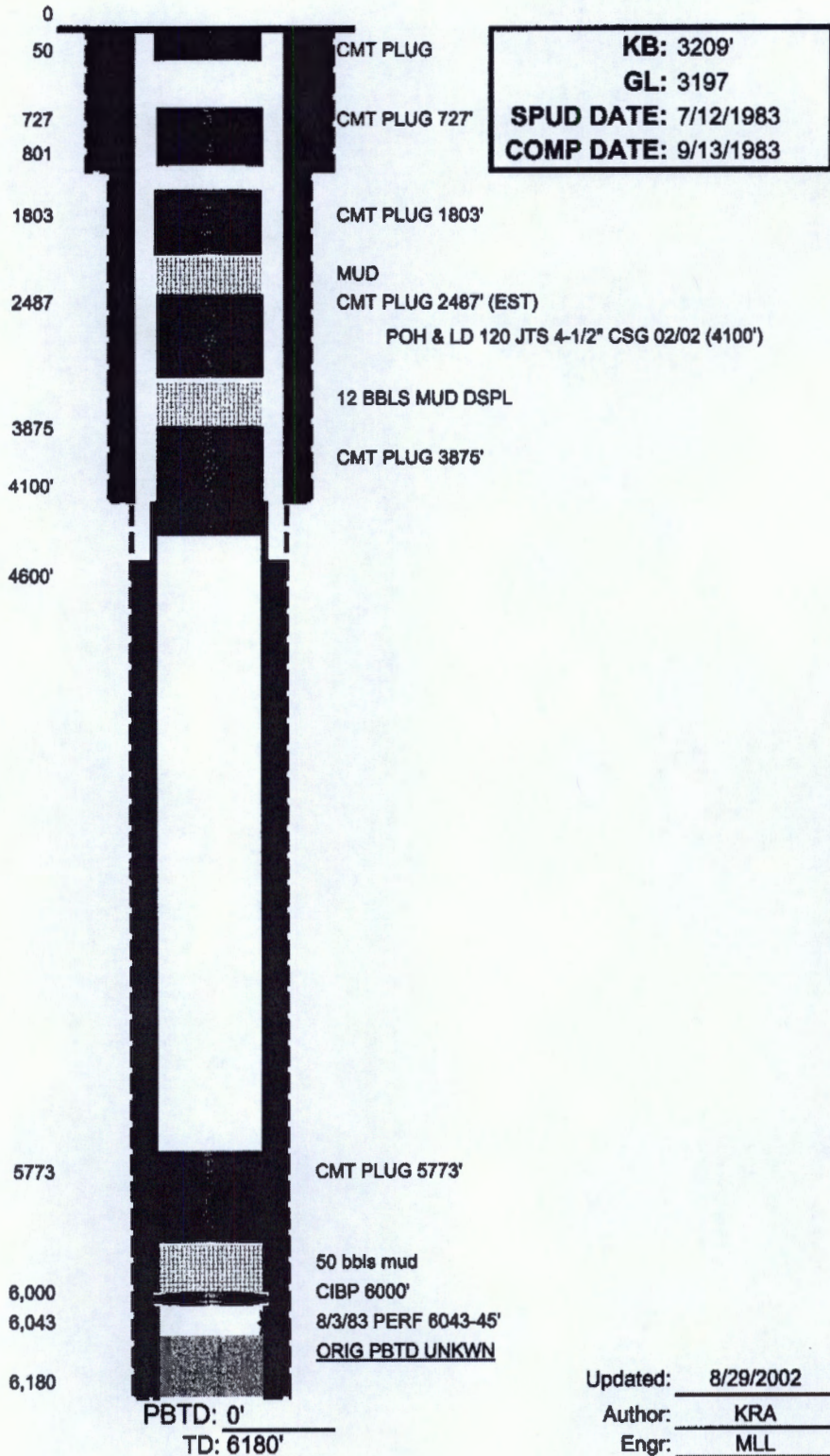
Size: 7"
Wt: 23#
Set @: 4100'
Sx cmt: 2550
Circ: YES
TOC: SURF
Hole Size: 8-3/4" 801-4100'

PRODUCTION CASING

Size: 4-1/2"
Wt: 12#
Set @: 6180'
Sx cmt: 300
Circ: NO
TOC: 4732' TS
Hole Size: 6-1/4" 4100-6180'

LOG TOP'S

SALT	1200'
BASE SALT	3684'
DELAWARE LIME	4171'
DELAWARE SAND	4203'
CHERRY CANYON	5947'

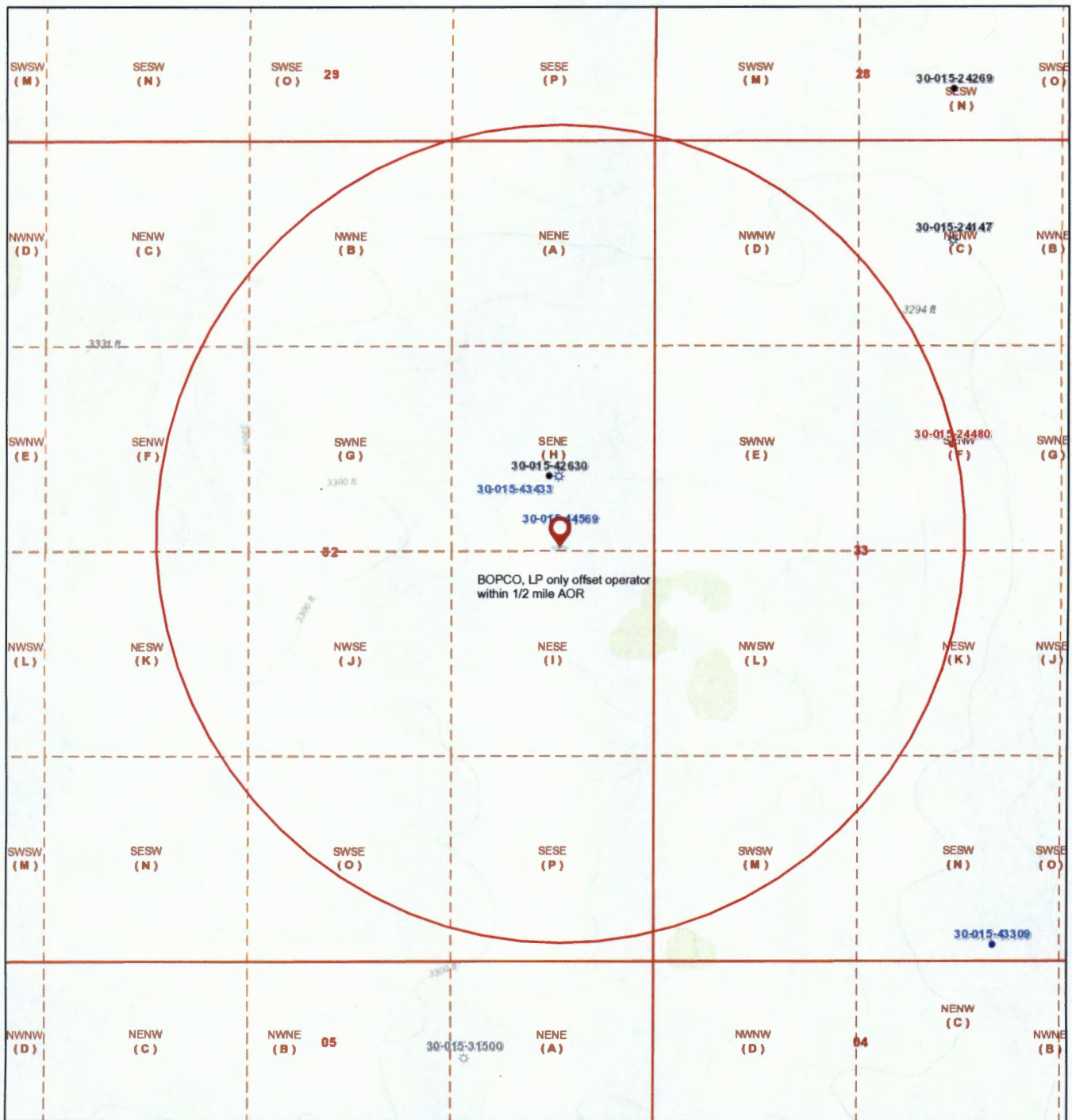


Updated: 8/29/2002

Author: KRA

Engr: MLL

1/2 mile leasehold



6/21/2018 2:54:57 PM

1:9,028

Well Locations - Small Scale

- Active
- New
- Plugged
- Cancelled
- Temporarily Abandoned

Well Locations - Large Scale

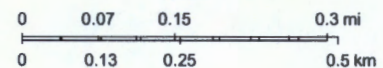
- Miscellaneous
- CO2 Active
- CO2 Cancelled
- CO2 New
- CO2 Plugged
- CO2 Temporarily Abandoned
- Gas Active

- Gas, Cancelled, Never Drilled
- Gas, New
- Gas, Plugged
- Gas, Temporarily Abandoned
- Injection, Active
- Injection, Cancelled
- Injection, New
- Injection, Plugged
- Injection, Temporarily Abandoned

- Oil, Active
- Oil, Cancelled
- Oil, New
- Oil, Plugged

- Oil, Temporarily Abandoned
- Salt Water Injection, Active
- Salt Water Injection, Cancelled
- Salt Water Injection, New
- Salt Water Injection, Plugged
- Salt Water Injection Temporarily Abandoned

- Water, Active
- Water, Cancelled
- Water, New
- Water, Plugged
- Water, Temporarily Abandoned
- OCD Districts
- ★ OCD District Offices



OCD, BLM, Texas Parks & Wildlife, Esri, HERE, Garmin, INCREMENT P, Intermap, USGS, METI/NASA, EPA, USDA

Complete Water Analysis Report

Customer: **XTO ENERGY INC**

Region: **Carlsbad, NM**

Location: **Nash Draw 8**

System: **Production System**

Equipment: **NASH DRAW 8 FEDERAL001H SWD**

Sample Point: **Well Head**

Sample ID: **AL07041**

Acct Rep Email: **Anthony.Baeza@ecolab.com**

Collection Date: **06/08/2018**

Receive Date: **06/21/2018**

Report Date: **06/25/2018**

Location Code: **343691**

Field Analysis

Bicarbonate	48 mg/L	Dissolved CO2	400 mg/L	Dissolved H2S	9 mg/L
Pressure Surface	20 psi	Temperature	97 ° F	pH of Water	6.3
Oil per Day	0 B/D	Gas per Day	0 Mcf/D	Water per Day	6500 B/D

Sample Analysis

Calculated Gaseous CO2	0.81 %	Calculated pH	6.30	Conductivity (Calculated)	319277 µS - cm3
Ionic Strength	4.15	Resistivity	0.031 ohms - m	Specific Gravity	1.175
Total Dissolved Solids	204372.5 mg/L				

Cations

Iron	30.5 mg/L	Manganese	4.8 mg/L	Barium	5.18 mg/L
Strontium	1420 mg/L	Calcium	19900 mg/L	Magnesium	2960 mg/L
Sodium	44800.00 mg/L	Potassium	1340 mg/L	Boron	25 mg/L
Lithium	15.2 mg/L	Copper	0.037 mg/L	Nickel	0.019 mg/L
Zinc	0.377 mg/L	Lead	0.084 mg/L	Cobalt	0.014 mg/L
Chromium	0.002 mg/L	Silicon	5.26 mg/L	Aluminum	0.078 mg/L
Molybdenum	0.02 mg/L	Phosphorus	0.857 mg/L		

Anions

Bromide	1407.806 mg/L	Chloride	134917 mg/L	Sulfate	286.045 mg/L
---------	---------------	----------	-------------	---------	--------------

PTB Value

	Barite PTB	Calcite PTB	Celestite PTB	Gypsum PTB	Halite PTB	Iron Carbonate PTB	Iron Sulfide PTB
50°	2.87	6.39	117.45	0.00	0.00	0.00	5.48
75°	2.61	5.62	97.91	0.00	0.00	0.00	4.88
100°	2.20	5.35	85.10	0.00	0.00	0.00	4.42
125°	1.59	5.00	78.13	0.00	0.00	0.00	4.08
150°	0.77	4.80	75.51	0.00	0.00	0.00	3.86
175°	0.00	4.74	75.65	0.00	0.00	0.00	3.75
200°	0.00	4.80	77.23	0.00	0.00	0.00	3.73
225°	0.00	4.97	79.36	0.00	0.00	0.00	3.78
250°	0.00	5.23	81.43	0.00	0.00	0.00	3.90
275°	0.00	5.55	83.16	0.00	0.00	0.00	4.05
300°	0.00	5.91	84.45	0.00	0.00	0.00	4.22
325°	0.00	6.29	85.31	0.00	0.00	0.00	4.40
350°	0.00	6.68	85.77	0.00	0.00	0.00	4.58
375°	0.00	7.04	85.77	0.00	0.00	0.00	4.74
400°	0.00	8.16	84.99	0.00	0.00	0.00	5.87

Saturation Index

	Barite SI	Calcite SI	Celestite SI	Gypsum SI	Halite SI	Iron Carbonate SI	Iron Sulfide SI
50°	1.15	0.77	0.46	-0.06	-0.80	-0.74	1.77
75°	0.82	0.69	0.35	-0.18	-0.82	-0.72	1.47
100°	0.56	0.62	0.29	-0.24	-0.84	-0.69	1.25
125°	0.32	0.58	0.26	-0.26	-0.85	-0.68	1.10
150°	0.13	0.55	0.25	-0.33	-0.87	-0.63	1.00
175°	-0.04	0.54	0.25	-0.38	-0.88	-0.60	0.94
200°	-0.18	0.55	0.25	-0.44	-0.89	-0.57	0.91
225°	-0.30	0.56	0.27	-0.51	-0.90	-0.55	0.92
250°	-0.41	0.58	0.28	-0.58	-0.91	-0.53	0.94
275°	-0.52	0.63	0.28	-0.66	-0.92	-0.53	0.97
300°	-0.63	0.66	0.29	-0.72	-0.92	-0.54	1.01
325°	-0.73	0.70	0.28	-0.76	-0.93	-0.57	1.06
350°	-0.84	0.73	0.28	-0.76	-0.93	-0.61	1.10
375°	-0.96	0.76	0.29	-0.88	-0.94	-0.68	1.13
400°	-1.09	0.92	0.29	-0.52	-0.94	-0.63	1.48

Scaling predictions calculated using Scale Soft Pitzer 2017

Scaling predictions dependent on provided field data. Incomplete/partial field data may impact results generated by scaling software.

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06/27/2018

Page 1 of 2

Complete Water Analysis Report

Customer: XTO ENERGY INC

Region: Carlsbad, NM

Location: Nash Draw 8

System: Production System

Equipment: NASH DRAW 8 FEDERAL001H SWD

Sample Point: Well Head

Sample ID: AL07041

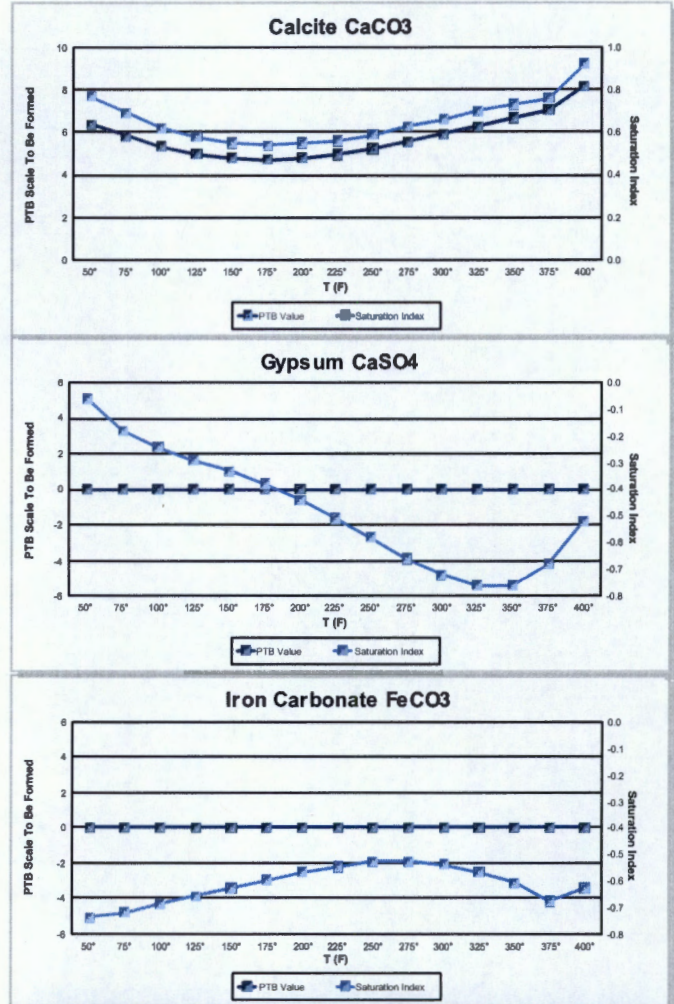
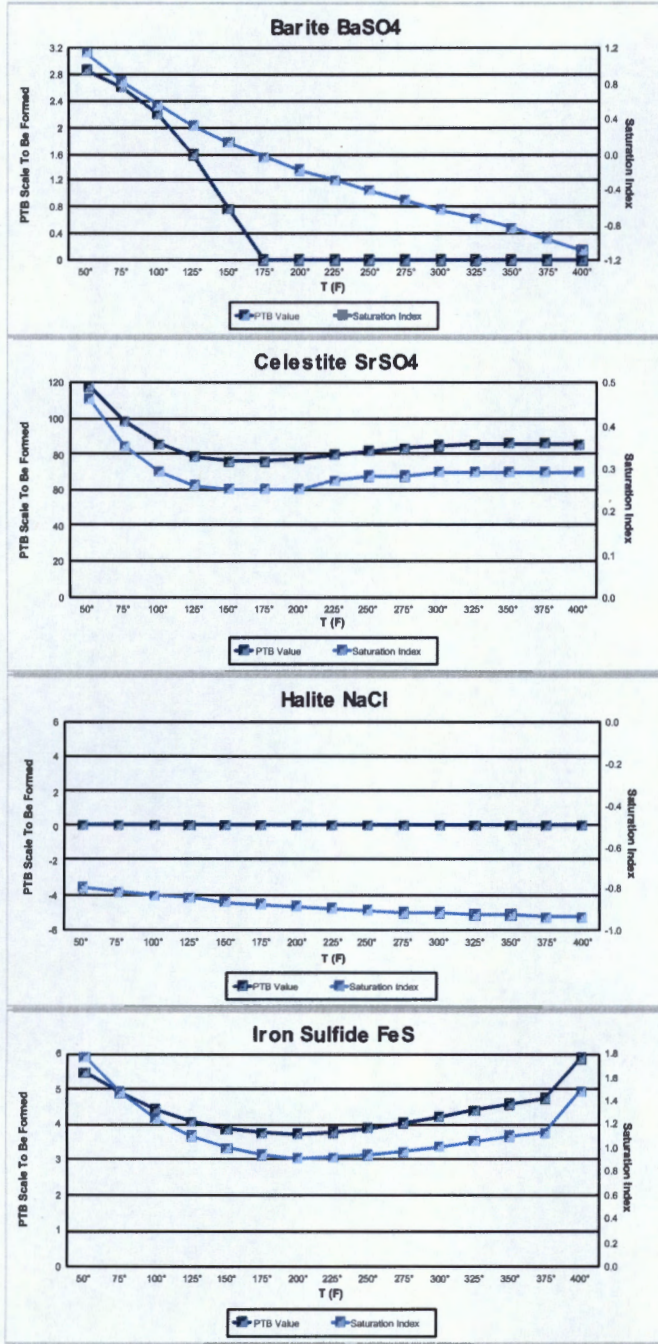
Acct Rep Email: Anthony.Baeza@ecolab.com

Collection Date: 06/08/2018

Receive Date: 06/21/2018

Report Date: 06/25/2018

Location Code: 343691



Comments

Scaling predictions calculated using Scale Soft Pitzer 2017

Scaling predictions dependent on provided field data. Incomplete/partial field data may impact results generated by scaling software.

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06/27/2018

Page 2 of 2

C-108 Application for Authorization to Inject

**XTO Energy
Poker Lake Unit 32 SWD #11
T25S-R31E
Eddy County, New Mexico**

XTO Energy, Inc has examined the geological data in connection with PLU Big Sinks 32 #1 (a well to be located 2524 FNL & 607 FEL Section 32 in T25S 31E in Eddy County NM) and has determined that there are no open faults or other hydrologic connections between the disposal zone and any underground drinking water/ potable aquifers.



Kesli Ivy
Geologist
XTO ENERGY INC., an ExxonMobil subsidiary
22777 Springwoods Village Pkwy.
Spring, TX 77389



New Mexico Office of the State Engineer
Active & Inactive Points of Diversion
(with Ownership Information)

No PODs found.

PLSS Search:

Section(s): 31-34

Township: 25S

Range: 31E

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.

7/5/18 12:09 PM

ACTIVE & INACTIVE POINTS OF DIVERSION



New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)					(R=POD has been replaced and no longer serves this file, C=the file is closed)		(quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters)							
Sub					County		q q q		X		Y			
WR File Nbr	basin	Use	Diversion	Owner	POD Number	Code	Grant	Source	6416 4	Sec	Tws	Rng		
C 03623	C	STK	0	WORTH ROSS	ED C 03623 POD1				3 3 1	04	26S	31E	614210	3549265

Record Count: 1

PLSS Search:

Section(s): 04-05

Township: 26S

Range: 31E

Sorted by: File Number

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.

7/5/18 12:11 PM

ACTIVE & INACTIVE POINTS OF DIVERSION



New Mexico Office of the State Engineer

Water Right Summary


[get image list](#)

WR File Number: C 03623 **Subbasin:** C **Cross Reference:** -
Primary Purpose: STK 72-12-1 LIVESTOCK WATERING
Primary Status: EXP EXPIRED
Total Acres: **Subfile:** -
Total Diversion: 0 **Cause/Case:** -
Owner: WORTH ROSS

Documents on File

Trn #	Doc	File/Act	Status		Transaction Desc.	From/ To	Acres	Diversion	Consumptive
			1	2					
get images	526088	72121	2013-04-12	EXP	EXP	C 03623	T		3

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Source	Q	64Q16Q4Sec	Tws	Rng	X	Y	Other Location Desc
C 03623 POD1		3	3	1	04 26S 31E	614211	3549265	

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.

7/6/18 11:39 AM

 WATER RIGHT
SUMMARY

CERTIFIED MAILING LIST
BOPCO, LP
Poker Lake Unit Big Sinks 32 State SWD #11

Surface Owner/Mineral Owner

Certified #7016 1970 0000 4404 3589

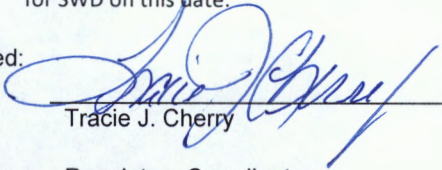
State of New Mexico
C/O Faith Crosby
310 Old Santa Fe Trail
Santa Fe, New Mexico 87504

Offset Operators with 1 mile

None

I, Tracie J Cherry, do hereby certify the interest owners in the wells shown were notified, via certified mail, of XTO/BOPCO, LP's application for SWD on this date.

Signed:


Tracie J. Cherry

Title: Regulatory Coordinator

Date:

07/06/18



JUL 12 2018 PM01:18

Tracie J Cherry
Regulatory Analyst
XTO Energy Inc.
6401 Holiday Hill Rd, Bldg 5
Midland, TX 79707
(432) 221-7379

Certified Mail 7016 1970 0000 4404 3596

July 06, 2018

Oil Conservation Division
Attention: Michael McMillan
1220 S. St. Francis
Santa Fe, New Mexico 87505

Re: Notice of Application for Authorization to Dispose
Poker Lake Unit Big Sinks 32 State SWD #11
Sec. 32, T25S, 31E
Eddy County, New Mexico

Mr. McMillan:

Enclosed please find BOPCO, L.P.'s **Application for Authorization for Disposal** for disposal purposes only into the subject well.

The well is on State of New Mexico trust lands; the New Mexico State Land Office has been sent a copy of this application via certified mail. There are no other offset operators that require notice. A Legal Notice was published in the *Carlsbad Current Argus* on Friday, July 06; the original Publisher's Affidavit will be forwarded to you when it is received in our office.

If you should have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Tracie J Cherry'.

Tracie J Cherry
Regulatory Coordinator

7/14/2018
 RECEIVED: 7/14/2018 REVIEWER: TYPE: SWD APP NO: DMAM182005617K
 ABOVE THIS TABLE FOR OGD DIVISION USE ONLY

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



ADMINISTRATIVE APPLICATION CHECKLIST

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

Applicant: BOPCO, LP **OGRID Number:** 260737
Well Name: Poker Lake Unit Big Sinks 32 State SWD **API:** 30-015-44569
Pool: SWD; Devonian **Pool Code:** 97803

SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED BELOW

SWD — 2152

1) TYPE OF APPLICATION: Check those which apply for [A]

A. Location – Spacing Unit – Simultaneous Dedication

☐ NSL ☐ NSP (PROJECT AREA) ☐ NSP (PRORATION UNIT) ☐ SD

B. Check one only for [I] or [II]

[I] Commingling – Storage – Measurement

☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[II] Injection – Disposal – Pressure Increase – Enhanced Oil Recovery

☐ WFX ☐ PMX ☒ SWD ☐ IPI ☐ EOR ☐ PPR

2) NOTIFICATION REQUIRED TO: Check those which apply.

- A. ☐ Offset operators or lease holders
 B. ☐ Royalty, overriding royalty owners, revenue owners
 C. ☒ Application requires published notice
 D. ☒ Notification and/or concurrent approval by SLO
 E. ☐ Notification and/or concurrent approval by BLM
 F. ☒ Surface owner
 G. ☒ For all of the above, proof of notification or publication is attached, and/or,
 H. ☐ No notice required

Proof of publication will be sent under separate cover

FOR OCD ONLY

- ☐ Notice Complete
☐ Application Content Complete

3) 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.

Tracie J. Cherry

Print or Type Name

Signature

07/06/18

Date

432-221-7379

Phone Number

tracie_cherry@xtoenergy.com

e-mail Address

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. OPERATOR: BOPCO, LP

ADDRESS: 6401 Holiday Hill Rd. Bldg 5, Midland, TX 79707

CONTACT PARTY: Tracie J. Cherry

PHONE: 432-221-7379

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 XX 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.

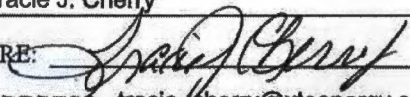
XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

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: Tracie J. Cherry

TITLE: Regulatory Analyst

SIGNATURE: 

DATE: 07/04/18

E-MAIL ADDRESS: tracie_cherry@xtoenergy.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: _____

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

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

III. Well Data

- A. 1) Lease name: **Poker Lake Unit Big Sinks 32 SWD**
Well #: **11** API # **30-015-44569**
Section: **32**
Township: **25S**
Range: **31E**
Footage: **2524 FNL & 607 FEL**

- 2) Casing Info:

Casing size	Set depth	Sacks cmt	Hole size	TOC	Method
18-5/8", 87.5# J-55 BTC	900	1,550	24	Surface	Circulate
13-3/8" 68# HCL-80 BTC	3,980	3,365	17-1/2	Surface	Circulate
9-5/8" 53.5# L-80 LTC	12,080	2,325	12-1/4	3380	CBL
7" 32# P-110 BTC	11,880-16,810	740	8-1/2"	11880	Circulate

- 3) Tubing to be used (size, lining material, setting depth):
Tapered tbq string: **5-1/2, 17#, P110 IPC tubing to 11,200**
4-1/2, 13.5#, P110 IPC tubing 11,200 - 16,720

- 4) Name, model, and depth of packer to be used:
Baker Series F nickle plated permanent packer (or equivalent) @ 16,710'

- B. 1) Name of the injection formation and, if applicable, the field or pool name:
SWD; Devonian (97803) Target disposal formations Siluro-Devonian & Fusselman
- 2) The injection interval and whether it is perforated or open hole:
Open hole 16,810 - 18,250

The TD of the well will be determined as geologic formation tops come in on the mud log. Mud logging through the interval will ensure the target interval will remain in the Siluro-Devonian and Fusselman formations.

- 3) State if the well was drilled for injection or, if not, the original purpose of the well:
This well is being drilled for the purpose of injection
- 4) Give the depths of any other perforated intervals and detail on the sacks of cement or BPs used to seal off such perforations:
N/A
- 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:
Higher: Within a 2 mile radius of the proposed well, production has been reported from the Delaware (+/-4000'), Bone Spring (+/-8000') and Wolfcamp (+/- 11400') formations.
Lower: None

C-108 DATA

- 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.

Map attached.

- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

There are no wells penetrating the injection zone within the one mile area of review

There is one plugged and abandoned well within the one mile area of review.

Operator: Perry R. Bass/BEPCO

Well Name and Number: Poker Lake Unit, # 60

API: 30-015-24480

Type: Oil

Location: UL F, Sec 33 25S-31E 1980 FNL & 1980 FWL

Surface Csg: 12.25" Hole, 9.625" 36# csg @ 801'

Cmt 550 sx. Circ to surf

Int Csg: 8.75" hole, 7" 23# csg @ 4100'

Cmt 2550 sx Circ. to surf

Prod Csg: 6.25" hole, 4.5", 11.6# 10.5# & 9.25# @ 6180'

Cmt 300 sx. TOC 4710' by temp survey

- VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected:

20,000 average, 40,000 maximum BWPD

2. Whether the system is open or closed:

Closed

3. Proposed average and maximum injection pressure:

2,000 psi average, 3,362 psi maximum (or as limited by depth)

4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water:

This well will be part of a multi well pressurized SWD system.

Producing wells connected to the system will be contributing Permian waters, the majority of which is produced from Delaware, Bone Spring and Wolfcamp formations with a small amount of water from other formations. Attached is an analysis of the water currently being disposed into the existing wells/system and is representative of the disposal water into this well

5. If injection is for disposal purposes into a zone not productive of oil & gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water:

N/A

- 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 TDS 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:

Lithologic Detail: Carbonate

Geological Name: Siluro-Devonian & Fusselman

Thickness: 1456'

Depth: 16,794' - 18,250'

The Rustler Formation is a known source of fresh water throughout this geographic area. Average depth of Rustler is 830'TVD.

No sources of fresh water are known to exist below the proposed disposal zone.

Devonian is not expected to be oil bearing in this area and there are no wells producing from the Devonian within a 2 mile radius.

PLU Big Sinks 32 SWD #11

Proposed SWD Schematic (July 1, 2018)

County: Eddy
 BHL: 2524' FNL, 607' FEL
 Sec 32, T 25S, R 31E

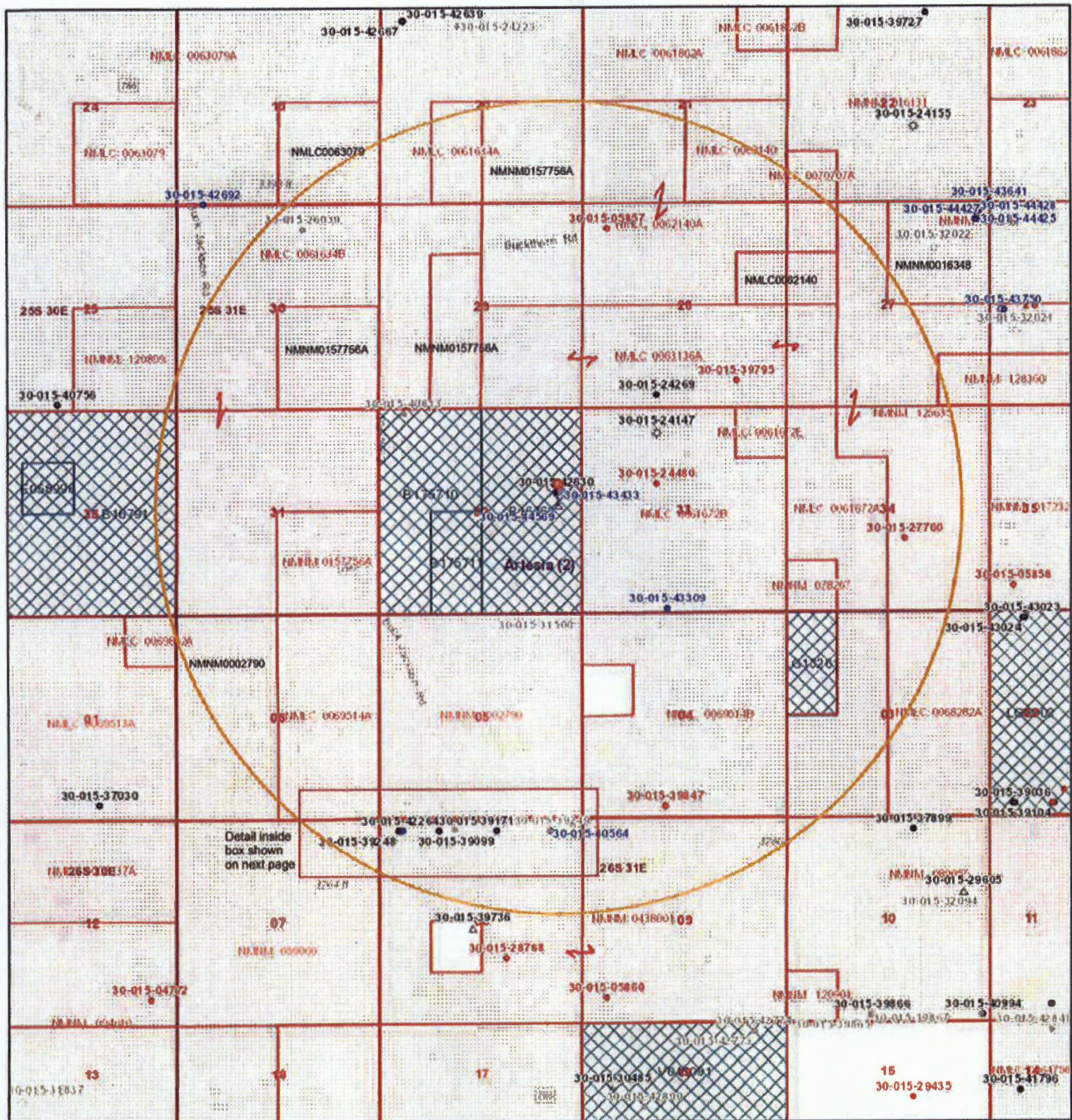
BHL: 2524' FNL, 607' FEL
 Sec 32, T 25S, R 31E



AFE # 1705815
 XTO ID # 735204
 API # 30-015-44569
 Elevation GL 3282', KB 3309' (27' AGL)
 Rig: TBD (RKB 27')

Geology	Casing & Cement	Wellhead	Hole Size	General Notes
(Tech Data Sheet)				
TVD Formation			24"	
834' Rustler	<u>Lead (100% OH excess)</u> 680 ex 12.8ppg Poz/C Top of Lead @ 0 <u>Tail (100% OH excess)</u> 870 ex 14.8ppg Class C Top of Tail @ 500' 18-5/8" 87.5# J-55 BTC	900' MD		
1,194' Top Salt	<u>Lead (150% OH excess)</u> 2680 ex 12.8ppg Poz/C Top of Lead @ 0 <u>Tail (100% OH excess)</u> 685 ex 14.8ppg Class C Top of Tail @ 3380' 13-3/8" 68# HCL-80 BTC	3980' MD	17-1/2"	
3,869' Base Salt				
4,089' Delaware	<u>Lead (100% OH excess)</u> 1925 ex 11.5ppg Poz/H Top of Lead @ 3380' <u>Tail (100% OH excess)</u> 400 ex 14.8ppg Poz/H Top of Tail @ 11380'	11380' MD	12-1/4"	5-1/2", 17#, P-110 TK15XT Coated tbg Set @ +/- 11,200' 5-1/2" x 4-1/2" crossover @ +/- 11,200' TOL @ 11,700'
8,029' Bone Spring				
11,399' Wolfcamp				
11,994' Wolfcamp B	9-5/8" 53.5# P-110 BTC	12080' MD		
13,949' Strawn			8-1/2"	
14,069' Aloka				7" Baker Series F Retainer Production Packer @ +/- 16,710' (see attached detail, nickel coated)
14,544' Morrow	<u>Tail (100% OH excess)</u> 740 ex 14.8ppg Poz/H Top of Tail @ 11880'	16810' MD		4-1/2", 13.50#, P-110 TK15XT Coated tbg Set @ +/- 16,720'
16,169' Mississippian Lm				
16,674' Woodford				
16,794' Devonian	7" 32# P-110 BTC			
18,239' Simpson	Open hole completion	18,250' MD	6"	
18,250' TVD at BHL		18,250' TVD		
Approvals				
Prepared by: _____		Peer Reviewed by: _____ Date _____		
Reviewed by: _____		Approved by: _____		

2 Mile Review



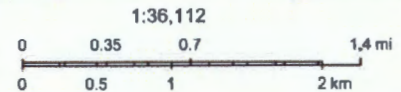
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Well Locations - Large Scale

- Miscellaneous
- ✱ CO2 Active
- ✱ CO2 Cancelled
- ✱ CO2 New
- ✱ CO2 Plugged
- ✱ CO2 Temporarily Abandoned
- ✱ Gas Active
- ✱ Gas Cancelled, Never Drilled
- ✱ Gas, New
- ✱ Gas, Plugged
- ✱ Gas, Temporarily Abandoned
- ✱ Injection, Active
- ✱ Injection, Cancelled
- ✱ Injection, New
- ✱ Injection, Plugged
- ✱ Injection, Temporarily Abandoned
- Oil, Active
- Oil, Cancelled
- Oil, New
- Oil, Plugged
- Oil, Temporarily Abandoned
- △ Salt Water Injection, Active
- △ Salt Water Injection, Cancelled
- △ Salt Water Injection, New
- △ Salt Water Injection, Plugged
- △ Salt Water Injection Temporarily Abandoned

Well Locations - Small Scale

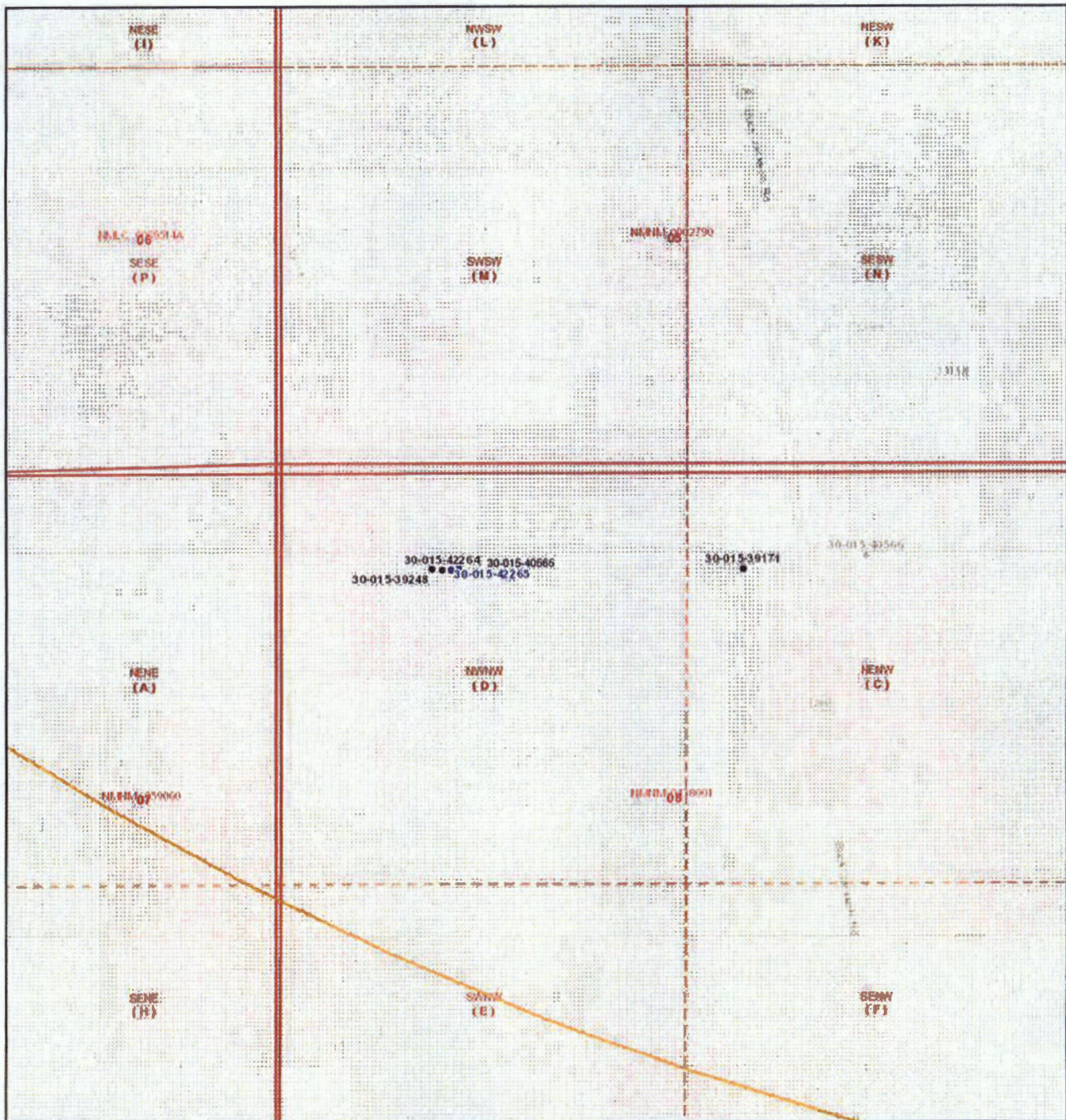
- Active
- New
- Plugged
- Cancelled
- Temporarily Abandoned
- OCD Districts
- ★ OCD District Offices
- PLSS First Division



Texas Parks & Wildlife, Earl, HERE, Garmin, INCREMENT P, USGS, METANASA, EPA, USDA, OCD, BLM

New Mexico Oil Conservation Division
New Mexico Oil Conservation Division

2 Mile Review - Inset



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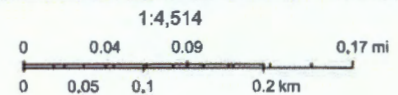
Well Locations - Large Scale

- Miscellaneous
- ★ CO2 Active
- ★ CO2 Cancelled
- ★ CO2 New
- ★ CO2 Plugged
- ★ CO2 Temporarily Abandoned
- ★ Gas Active
- ★ Gas Cancelled, Never Drilled
- ★ Gas New
- ★ Gas Plugged
- ★ Gas Temporarily Abandoned
- ★ Injection, Active
- ★ Injection, Cancelled
- ★ Injection, New
- ★ Injection, Plugged
- ★ Injection, Temporarily Abandoned
- Oil, Active
- Oil, Cancelled
- Oil, New
- Oil, Plugged
- Oil, Temporarily Abandoned
- △ Salt Water Injection, Active
- △ Salt Water Injection, Cancelled
- △ Salt Water Injection, New
- △ Salt Water Injection, Plugged
- △ Salt Water Injection Temporarily Abandoned

Well Locations - Small Scale

- Active
- New
- Plugged
- Cancelled
- Temporarily Abandoned
- OCD Districts
- ★ OCD District Offices
- PLSS First Division

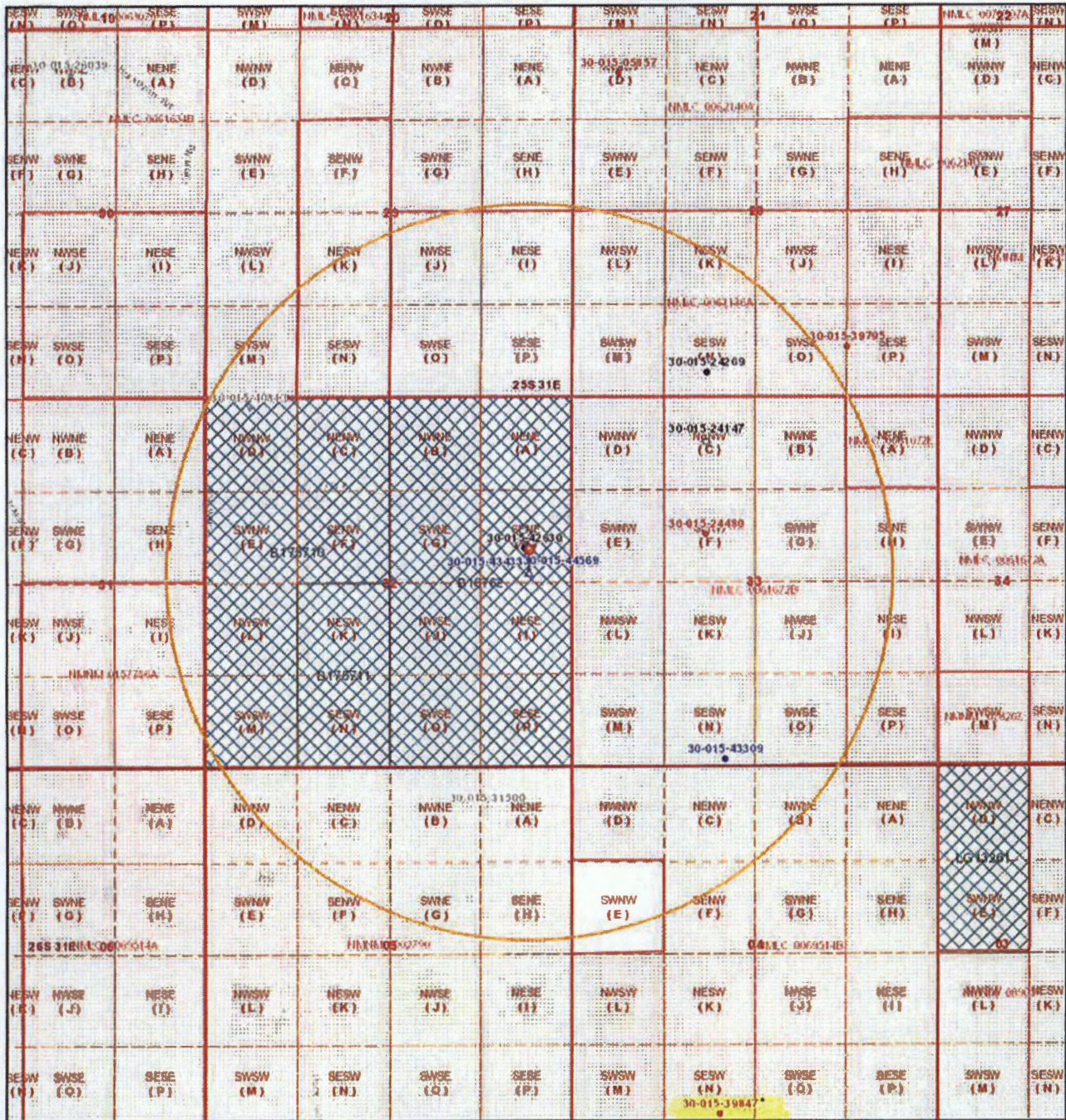
NM OCD Oil and Gas Map. <http://nm-emrld.maps.arcgis.com/apps/webappviewer/>



Texas Parks & Wildlife, Eeri, HERE, Garmin, INCREMENT P, USGS, EPA, USDA, OCD, BLM

New Mexico Oil Conservation Division
New Mexico Oil Conservation Division

One Mile AOR



6/22/2018 9:26:49 AM

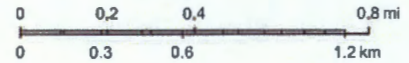
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Well Locations - Large Scale

- Miscellaneous
- CO2 Active
- CO2 Cancelled
- CO2 New
- CO2, Plugged
- CO2, Temporarily Abandoned
- Gas Active
- Gas, Cancelled, Never Drilled
- Gas, New
- Gas, Plugged
- Gas, Temporarily Abandoned
- Injection, Active
- Injection, Cancelled

- Injection, New
- Injection, Plugged
- Injection, Temporarily Abandoned
- Oil, Active
- Oil, Cancelled
- Oil, New
- Oil, Plugged
- Oil, Temporarily Abandoned
- Salt Water Injection, Active
- Salt Water Injection, Cancelled
- Salt Water Injection, New
- Salt Water Injection, Plugged
- Salt Water Injection Temporarily Abandoned

- Water, Active
- Water, Cancelled
- Water, New
- Water, Plugged
- Water, Temporarily Abandoned
- Well Locations - Small Scale
- Active
- New
- Plugged
- Cancelled
- Temporarily Abandoned
- OCD Districts
- OCD District Offices
- PLSS First Division

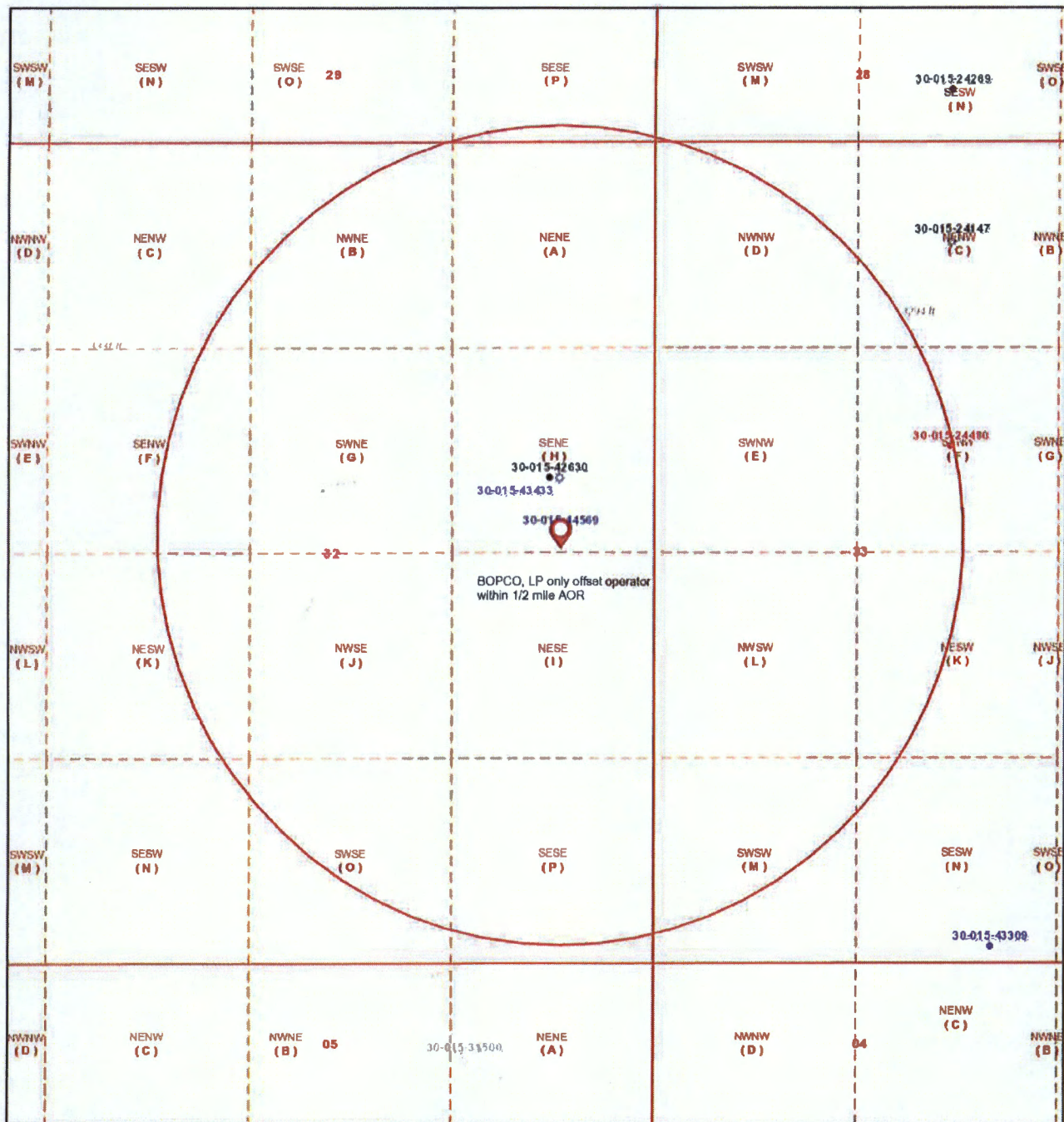


*This is a horizontal well. BHL lands inside the 1 mile AOR but does not penetrate the proposed injection interval

Texas Parks & Wildlife, Eari, HERE, Garmin, INCREMENT P, USGS, METANASA, EPA, USDA, OCD, BLM

New Mexico Oil Conservation Division
NM OCD Oil and Gas Map, <http://nm-emnrd.maps.arcgis.com/apps/webappviewer/> New Mexico Oil Conservation Division

1/2 mile leasehold



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Well Locations - Small Scale

- Active
- New
- Plugged
- Cancelled
- Temporarily Abandoned

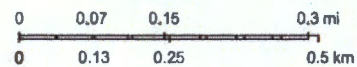
Well Locations - Large Scale

- Miscellaneous
- ✱ CO2 Active
- ✱ CO2 Cancelled
- ✱ CO2 New
- ✱ CO2 Plugged
- ✱ CO2 Temporarily Abandoned
- ✱ Gas Active

- Gas, Cancelled, Never Drilled
- Gas, New
- Gas, Plugged
- Gas, Temporarily Abandoned
- Injection, Active
- Injection, Cancelled
- Injection, New
- Injection, Plugged
- Injection, Temporarily Abandoned
- Oil, Active
- Oil, Cancelled
- Oil, New
- Oil, Plugged

- Oil, Temporarily Abandoned
- △ Salt Water Injection, Active
- △ Salt Water Injection, Cancelled
- △ Salt Water Injection, New
- △ Salt Water Injection, Plugged
- △ Salt Water Injection Temporarily Abandoned
- Water, Active
- Water, Cancelled
- Water, New
- Water, Plugged
- Water, Temporarily Abandoned
- OCD Districts
- ★ OCD District Offices

1:9,028



OCD, BLM, Texas Parks & Wildlife, Eari, HERE, Garmin, INCREMENT P, Intermap, USGS, METANASA, EPA, USDA

- IX. Describe the proposed stimulation program, if any:
Acid stimulate with approximately 5000 gallons of 15% NEFE HCL acid.
- X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted.)
Logs will be submitted with completion papers when well is drilled.
- 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.
No water wells within 1 mile of well. A search of the New Mexico Office of State Engineer water rights database returned one permit approved for livestock. The permit is expired.
- 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 hydrology connection between the disposal zone and any underground sources of drinking water.
(See attached affidavit)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Oil Co. is.
N.M. Div-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

FORM APPROVED
Budget Bureau No. 1004-0135
Expires July 31, 1996
Lease Serial No.

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

Bass Enterprises Production Co.

3a. Address

P.O. Box 2760, Midland, TX 79702-2760

3b. Phone No. (include area code)

(915) 683-2270 - ARTESIA

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1980' FWL & 1980' FNL, Section 33, T25S-R31E, Unit Letter F

6. If Indian, Allottee or Tribe Name

7. If Unit or CA Agreement, Name and/or No.

8. Well Name and No.

Poker Lake #60

9. API Well No.

30-015-24480

10. Field and Pool, or Exploratory Area

Big Sinks (Delaware)

11. County or Parish, State

Eddy, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☐ Notice of Intent
☒ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- | | | | |
|---|--|--|---|
| ☐ Acidize | ☐ Deepen | ☐ Production (Start/Resume) | ☐ Water Shut-Off |
| ☐ Alter Casing | ☐ Fracture Treat | ☐ Reclamation | ☐ Well Integrity |
| ☐ Casing Repair | ☐ New Construction | ☐ Recomplete | ☐ Other |
| ☐ Change Plans | ☒ Plug and Abandon | ☐ Temporarily Abandon | |
| ☐ Convert to Injection | ☐ Plug Back | ☐ Water Disposal | |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

The referenced well has recently been plugged and abandoned. The plugging procedure went as follows:

2/25/02: MIRU, dig pit, line & install fence. Unseat pump, POOH & LD rods & pump. Release TAC.
2/26/02: NU BOP Tally tbq while POH. RIH w/4-1/2" CIBP set @ 6000'. RBIH w/tbg, Pump 50 bbls 10 ppg mud laden fluid. Pump 5 BFW. Mix & spot 15 sx Class C neat w/additives. Est TOC @ 5773'.
2/27/02: ND BOP ND WH, weld on 4-1/2" PN, PU on csg. Csg free @ 4150 +/- . RIH w/jet cutter to 4100'. POH & LD 120 jts of csg. RIH on tbq to 4157', Mix & spot 100 sx Class C Neat w/additives. Est. TOC @ 3528'. POH & stand back all tbq. WOC.
2/28/02: NU WH NU BOP, TIH w/tbg & tag TOC @ 3875'. RU pump truck to tbq, mix & spot 233 sx Class C Neat w/additives. Displace w/9 bbls FW. Est TOC @ 2487'. POH & LD 51 jts tbq. EOT @ 2231'. WOC. RIH w/tbg to 2489' reverse tbq clean w/ 15 bbls BW. Mix & spot 115 sx Class C Neat cement w/additives Est TOC @ 1803'. POH & stand back 28 jts of tbq. LD remainder.
3/1/02: RBIH w/tbg to 1804' Mix & spot 180 sx Class C Neat w/additives. Displace w/2 bbls FW. Est. TOC @ 727'. POH & LD tbq, ND BOP. RIH w/tbg to 50', Mix & spot 10 sx surface plug using same cement. POOH & LD tubing.
3/7/02: RDP. Cut off WH and install New Mexico dry hole marker. Remove deadmen. Clean location.

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Tami Wilber

Tami Wilber

Title

Production Clerk

Date 3/8/02

Approved as to plugging of the well bore.
Liability under bond is retained until
surface restoration is completed.

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

(ORIG. SGD.) ALEXIS C. SWOBODA

SE

PETROLEUM ENGINEER

Date MAR 15 2002

Condition of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on reverse)

LEASE: **POKER LAKE UNIT P&A'D**

WELL #: **60**

FIELD: **BIG SINKS WOLFCAMP**

LOCATION: **1980' FNL & 1980' FWL, SEC 33, T25S, R31E, UNIT F**

COUNTY: **EDDY** ST: **NM**

API: **30-015-24480**

SURFACE CASING

Size: **9-5/8"**
Wt: **36#**
Set @: **801'**
Sx cmt: **550**
Circ: **YES**
TOC: **SURF**
Hole Size: **12-1/4" 0-801'**

INTERMEDIATE CASING

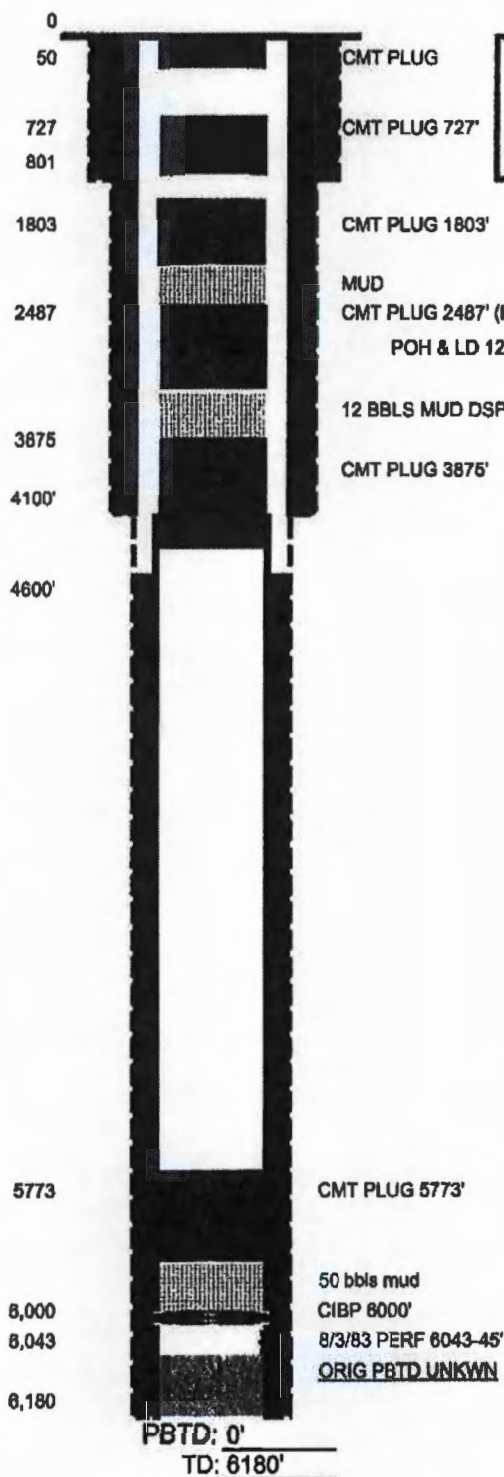
Size: **7"**
Wt: **23#**
Set @: **4100'**
Sx cmt: **2550**
Circ: **YES**
TOC: **SURF**
Hole Size: **8-3/4" 801-4100'**

PRODUCTION CASING

Size: **4-1/2"**
Wt: **12#**
Set @: **6180'**
Sx cmt: **300**
Circ: **NO**
TOC: **4732' TS**
Hole Size: **6-1/4" 4100-6180'**

LOG TOP'S

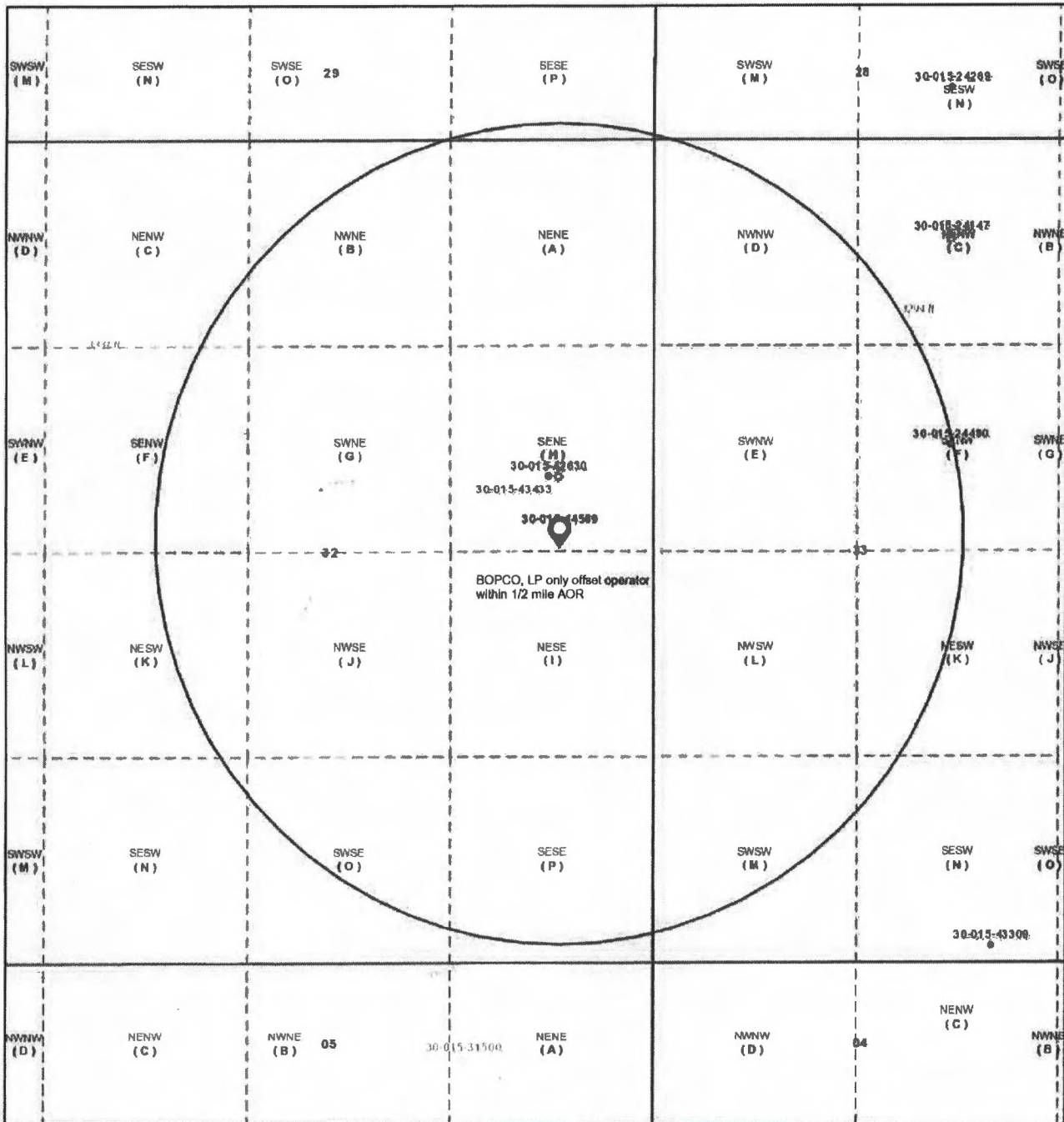
SALT	1200'
BASE SALT	3684'
DELAWARE LIME	4171'
DELAWARE SAND	4203'
CHERRY CANYON	5947'



KB: 3209'
GL: 3197
SPUD DATE: 7/12/1983
COMP DATE: 9/13/1983

Updated: **8/29/2002**
Author: **KRA**
Engr: **MLL**

1/2 mile leasehold



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Well Locations - Small Scale

- Active
- New
- Plugged
- Cancelled
- Temporarily Abandoned

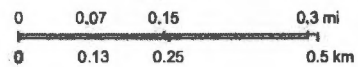
Well Locations - Large Scale

- Miscellaneous
- CO2 Active
- CO2 Cancelled
- CO2 New
- CO2 Plugged
- CO2, Temporarily Abandoned
- Gas Active

- Gas, Cancelled, Never Drilled
- Gas, New
- Gas, Plugged
- Gas, Temporarily Abandoned
- Injection, Active
- Injection, Cancelled
- Injection, New
- Injection, Plugged
- Injection, Temporarily Abandoned

- Oil, Active
- Oil, Cancelled
- Oil, New
- Oil, Plugged

- Oil, Temporarily Abandoned
- Salt Water Injection, Active
- Salt Water Injection, Cancelled
- Salt Water Injection, New
- Salt Water Injection, Plugged
- Salt Water Injection Temporarily Abandoned
- Water, Active
- Water, Cancelled
- Water, New
- Water, Plugged
- Water, Temporarily Abandoned
- OCD Districts
- OCD District Offices



OCD, BLM, Texas Parks & Wildlife, Eari, HERE, Garmin, INCREMENT P, Intermap, USGS, METUNASA, EPA, USDA

Complete Water Analysis Report

Customer: XTO ENERGY INC

Region: Carlsbad, NM

Location: Nash Draw 8

System: Production System

Equipment: NASH DRAW 8 FEDERAL001H SWD

Sample Point: Well Head

Sample ID: AL07041

Acct Rep Email: Anthony.Baeza@ecolab.com

Collection Date: 06/08/2018

Receive Date: 06/21/2018

Report Date: 06/25/2018

Location Code: 343691

Field Analysis

Bicarbonate	48 mg/L	Dissolved CO2	400 mg/L	Dissolved H2S	9 mg/L
Pressure Surface	20 psi	Temperature	97° F	pH of Water	6.3
Oil per Day	0 B/D	Gas per Day	0 Mcf/D	Water per Day	6500 B/D

Sample Analysis

Calculated Gaseous CO2	0.81 %	Calculated pH	8.30	Conductivity (Calculated)	319277 µS - cm3
Ionic Strength	4.15	Resistivity	0.031 ohms - m	Specific Gravity	1.175
Total Dissolved Solids	204372.5 mg/L				

Cations

Iron	30.5 mg/L	Manganese	4.8 mg/L	Barium	5.18 mg/L
Strontium	1420 mg/L	Calcium	19900 mg/L	Magnesium	2960 mg/L
Sodium	44800.00 mg/L	Potassium	1340 mg/L	Boron	25 mg/L
Lithium	15.2 mg/L	Copper	0.037 mg/L	Nickel	0.019 mg/L
Zinc	0.377 mg/L	Lead	0.084 mg/L	Cobalt	0.014 mg/L
Chromium	0.002 mg/L	Silicon	5.26 mg/L	Aluminum	0.078 mg/L
Molybdenum	0.02 mg/L	Phosphorus	0.857 mg/L		

Anions

Bromide	1407.806 mg/L	Chloride	134917 mg/L	Sulfate	286.045 mg/L
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PTB Value

	Barite PTB	Calcite PTB	Celestite PTB	Gypsum PTB	Halite PTB	Iron Carbonate PTB	Iron Sulfide PTB
50°	2.87	6.39	117.45	0.00	0.00	0.00	5.48
75°	2.61	5.82	97.91	0.00	0.00	0.00	4.88
100°	2.20	5.35	85.10	0.00	0.00	0.00	4.42
125°	1.69	5.00	78.13	0.00	0.00	0.00	4.08
150°	0.77	4.80	75.51	0.00	0.00	0.00	3.88
175°	0.00	4.74	75.85	0.00	0.00	0.00	3.75
200°	0.00	4.80	77.23	0.00	0.00	0.00	3.73
225°	0.00	4.97	79.35	0.00	0.00	0.00	3.78
250°	0.00	5.23	81.43	0.00	0.00	0.00	3.90
275°	0.00	5.55	83.16	0.00	0.00	0.00	4.05
300°	0.00	5.91	84.45	0.00	0.00	0.00	4.22
325°	0.00	6.29	85.31	0.00	0.00	0.00	4.40
350°	0.00	6.68	85.77	0.00	0.00	0.00	4.58
375°	0.00	7.04	85.77	0.00	0.00	0.00	4.74
400°	0.00	8.16	84.99	0.00	0.00	0.00	5.87

Saturation Index

	Barite SI	Calcite SI	Celestite SI	Gypsum SI	Halite SI	Iron Carbonate SI	Iron Sulfide SI
50°	1.15	0.77	0.48	-0.06	-0.80	-0.74	1.77
75°	0.82	0.69	0.36	-0.18	-0.82	-0.72	1.47
100°	0.56	0.82	0.29	-0.24	-0.84	-0.69	1.25
125°	0.32	0.58	0.26	-0.29	-0.85	-0.66	1.10
150°	0.13	0.56	0.25	-0.33	-0.87	-0.63	1.00
175°	-0.04	0.54	0.25	-0.38	-0.88	-0.60	0.94
200°	-0.18	0.55	0.25	-0.44	-0.89	-0.57	0.91
225°	-0.30	0.58	0.27	-0.51	-0.90	-0.55	0.92
250°	-0.41	0.59	0.28	-0.58	-0.91	-0.53	0.94
275°	-0.52	0.63	0.28	-0.66	-0.92	-0.53	0.97
300°	-0.63	0.66	0.29	-0.72	-0.92	-0.54	1.01
325°	-0.73	0.70	0.29	-0.78	-0.93	-0.57	1.08
350°	-0.84	0.73	0.29	-0.76	-0.93	-0.61	1.10
375°	-0.96	0.78	0.29	-0.88	-0.94	-0.68	1.13
400°	-1.09	0.92	0.29	-0.52	-0.94	-0.63	1.48

Scaling predictions calculated using Scale Soft Pitzer 2017

Scaling predictions dependent on provided field data. Incomplete/partial field data may impact results generated by scaling software.

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06/27/2018

Page 1 of 2

NALCO Champion

An Ecolab Company

Complete Water Analysis Report

Customer: XTO ENERGY INC

Region: Carlsbad, NM

Location: Nash Draw 8

System: Production System

Equipment: NASH DRAW 8 FEDERAL001H SWD

Sample Point: Well Head

Sample ID: AL07041

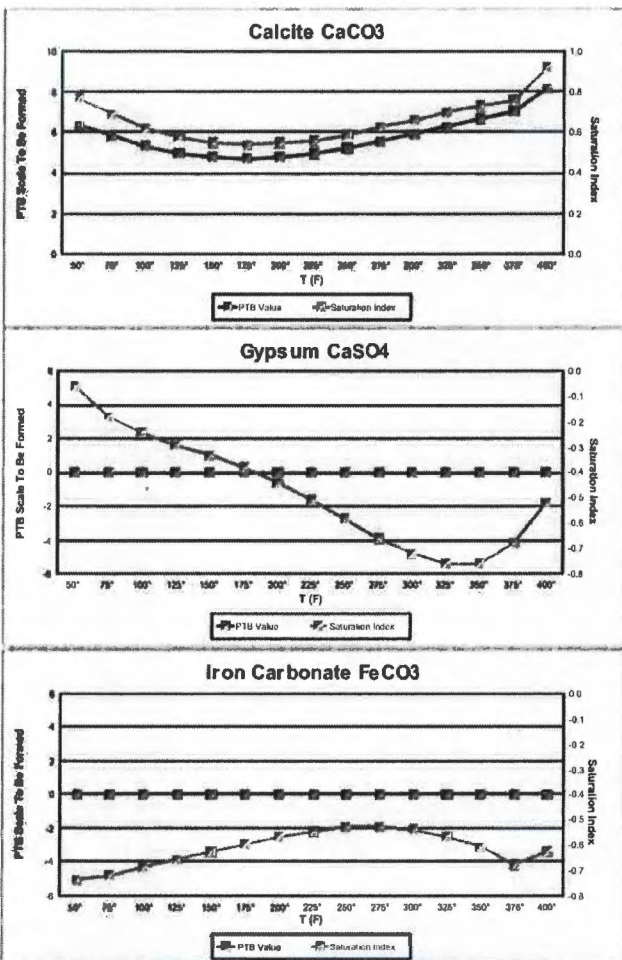
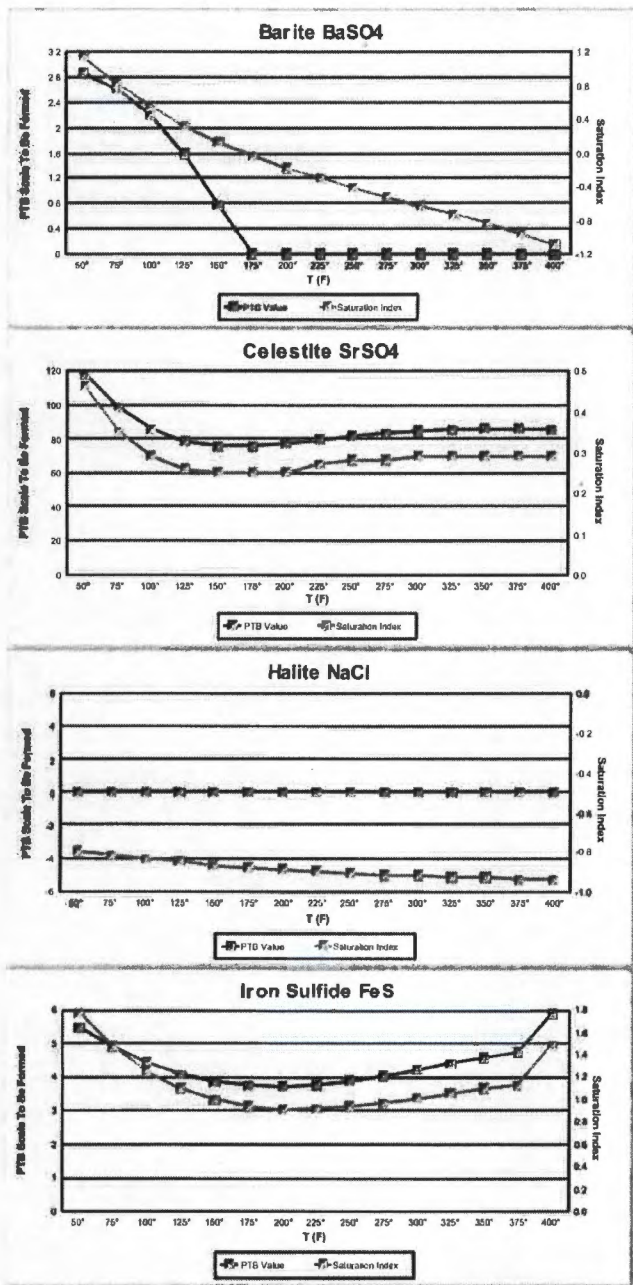
Acct Rep Email: Anthony.Baeza@ecolab.com

Collection Date: 06/08/2018

Receive Date: 06/21/2018

Report Date: 06/25/2018

Location Code: 343691



Comments

Scaling predictions calculated using Scale Soft Pilzer 2017

Scaling predictions dependent on provided field data. Incomplete/partial field data may impact results generated by scaling software.

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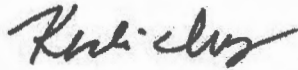
06/27/2018

Page 2 of 2

C-108 Application for Authorization to Inject

**XTO Energy
Poker Lake Unit 32 SWD #11
T25S-R31E
Eddy County, New Mexico**

XTO Energy, Inc has examined the geological data in connection with PLU Big Sinks 32 #1 (a well to be located 2524 FNL & 607 FEL Section 32 in T25S 31E in Eddy County NM) and has determined that there are no open faults or other hydrologic connections between the disposal zone and any underground drinking water/ potable aquifers.



Kesli Ivy
Geologist
XTO ENERGY INC., an ExxonMobil subsidiary
22777 Springwoods Village Pkwy.
Spring, TX 77389



New Mexico Office of the State Engineer
Active & Inactive Points of Diversion
(with Ownership Information)

No PODs found.

PLSS Search:

Section(s): 31-34

Township: 25S

Range: 31E

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.

7/5/18 12:08 PM

ACTIVE & INACTIVE POINTS OF DIVERSION



New Mexico Office of the State Engineer
Active & Inactive Points of Diversion
 (with Ownership Information)

(acre ft per annum) <table border="0" style="width: 100%;"> <tr> <th style="text-align: left;">WR File Nbr</th> <th style="text-align: left;">Sub</th> <th style="text-align: left;">basin</th> <th style="text-align: left;">Use</th> <th style="text-align: left;">Diversion</th> <th style="text-align: left;">Owner</th> </tr> <tr> <td>C 03623</td> <td>C</td> <td>6TK</td> <td></td> <td>0</td> <td>WORTH ROSS</td> </tr> </table>	WR File Nbr	Sub	basin	Use	Diversion	Owner	C 03623	C	6TK		0	WORTH ROSS	County POD Number ED C 03623 POD1	Code Grant	(R-POD has been replaced and no longer serves this file, C=the file is closed) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters) <table border="0" style="width: 100%;"> <tr> <th style="text-align: left;">Source</th> <th style="text-align: left;">Q1</th> <th style="text-align: left;">Q2</th> <th style="text-align: left;">Q3</th> <th style="text-align: left;">Q4</th> <th style="text-align: left;">Type</th> <th style="text-align: left;">Rng</th> <th style="text-align: left;">X</th> <th style="text-align: left;">Y</th> </tr> <tr> <td>04104</td> <td>3</td> <td>3</td> <td>1</td> <td>04</td> <td>26S</td> <td>31E</td> <td>814210</td> <td>3549265</td> </tr> </table>	Source	Q1	Q2	Q3	Q4	Type	Rng	X	Y	04104	3	3	1	04	26S	31E	814210	3549265
WR File Nbr	Sub	basin	Use	Diversion	Owner																												
C 03623	C	6TK		0	WORTH ROSS																												
Source	Q1	Q2	Q3	Q4	Type	Rng	X	Y																									
04104	3	3	1	04	26S	31E	814210	3549265																									

Record Count: 1

PLSS Search:

Section(s): 04-05 Township: 26S Range: 31E

Sorted by: File Number

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

7/5/18 12:11 PM

ACTIVE & INACTIVE POINTS OF DIVERSION



New Mexico Office of the State Engineer

Water Right Summary



WR File Number: C 03623 **Subbasin:** C **Cross Reference:** -
Primary Purpose: STK 72-12-1 LIVESTOCK WATERING
Primary Status: EXP EXPIRED
Total Acres: **Subfile:** -
Total Diversion: 0 **Cause/Case:** -
Owner: WORTH ROSS

Documents on File

Trn #	Doc	File/Act	Status		Transaction Desc.	From/	Acres	Diversion	Consumptive
			1	2		To			
526088	72121	2013-04-12	EXP	EXP	C 03623	T		3	

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Source	Q	64Q16Q4Sec	Tws	Rng	X	Y	Other Location Desc
C 03623 POD1		3	3	1	04	26S	31E	614211 3549265

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.

7/6/18 11:39 AM

WATER RIGHT
SUMMARY

CERTIFIED MAILING LIST
BOPCO, LP
Poker Lake Unit Big Sinks 32 State SWD #11

Surface Owner/Mineral Owner

Certified #7016 1970 0000 4404 3589

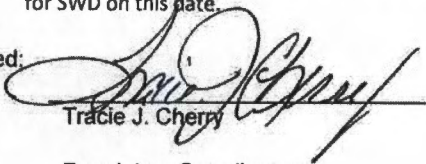
State of New Mexico
C/O Faith Crosby
310 Old Santa Fe Trail
Santa Fe, New Mexico 87504

Offset Operators with 1 mile

None

I, Tracie J Cherry, do hereby certify the interest owners in the wells shown were notified, via certified mail, of XTO/BOPCO, LP's application for SWD on this date.

Signed:



Tracie J. Cherry

Title: Regulatory Coordinator

Date:

07/06/18

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

OIL CONSERVATION DIVISION
1220 S. FRANCIS
SANTA FE, NM 87505



9590 9402 2337 6225 6843 56

2. Article Number (Transfer from service label)

7016 1970 0000 4404 3596

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X *Krystle Laybald*

- ☐ Agent
☐ Addressee

B. Received by (Printed Name)

Krystle Laybald

C. Date of Delivery

07-12-18

D. Is delivery address different from item 1?

- ☐ Yes
☐ No

If YES, enter delivery address below:

JUL 12 2018

3. Service Type

- | | |
|--|---|
| ☐ Adult Signature | ☐ Priority Mail Express® |
| ☐ Adult Signature Restricted Delivery | ☐ Registered Mail™ |
| ☐ Certified Mail® | ☐ Registered Mail Restricted Delivery |
| ☐ Certified Mail Restricted Delivery | ☐ Return Receipt for Merchandise |
| ☐ Collect on Delivery | ☐ Signature Confirmation™ |
| ☐ Collect on Delivery Restricted Delivery | ☐ Signature Confirmation Restricted Delivery |
| ☐ Insured Mail | |
| ☐ Insured Mail Restricted Delivery (over \$500) | |

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

OIL CONSERVATION DIVISION
1220 S. FRANCIS
SANTA FE, NM 87505



9590 9402 2337 6225 6843 56

2. Article Number (Transfer from service label)

7016 1970 0000 4404 3596

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

K. Raybal

☐ Agent☐ Addressee

B. Received by (Printed Name)

Krystle Raybal

C. Date of Delivery

07-12-18

D. Is delivery address different from item 1?
If YES, enter delivery address below:☐ Yes☐ No

JUL 12 2018

3. Service Type

- ☐ Adult Signature
- ☐ Adult Signature Restricted Delivery
- ☐ Certified Mail®
- ☐ Certified Mail Restricted Delivery
- ☐ Collect on Delivery
- ☐ Collect on Delivery Restricted Delivery
- ☐ Insured Mail
- ☐ Insured Mail Restricted Delivery (over \$500)

☐ Priority Mail Express®☐ Registered Mail™☐ Registered Mail Restricted Delivery☐ Return Receipt for Merchandise☐ Signature Confirmation™☐ Signature Confirmation Restricted Delivery

CARLSBAD
CURRENT-ARGUS

AFFIDAVIT OF PUBLICATION

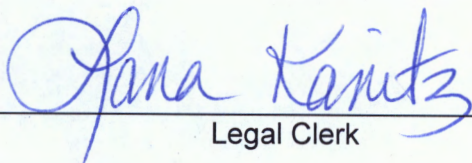
Ad No.
0001253698

REC'D/MIDLAND
JUL 12 2018

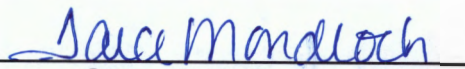
Tracie J Cherry
XTO ENERGY
6504 HOLIDAY HILL RD. BLDG 5
MIDLAND TX 79707

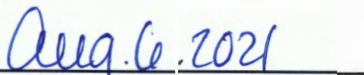
I, a legal clerk of the **Carlsbad Current-Argus**, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the State wherein legal notices and advertisements 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:

07/06/18


Legal Clerk

Subscribed and sworn before me this
6th of July 2018.


State of WI, County of Brown
NOTARY PUBLIC


My Commission Expires

NOTICE OF APPLICATION FOR WATER DISPOSAL WELL PERMIT

BOPCO, L.P. has applied to the New Mexico Oil Conservation Division for a permit to dispose of produced water into a porous formation not productive of oil or gas.

The applicant proposes to dispose of produced water into the **Poker Lake Unit Big Sinks 32 State SWD #11** (Siluro-Devonian & Fusselman Formations). The maximum injection pressure will be 3,362 psi and the maximum rate will be 40,000 bbls. produced water per day. The proposed disposal well is located approximately 27 miles Southeast of Loving, New Mexico in Section 32, T25S - R31E, 2,524' FNL & 607' FEL, Eddy County, New Mexico. The produced water will be disposed at a subsurface depth of 16,810' - 18,250'.

JUL 19 2018 PM02:06

Any questions concerning this application should be directed to Tracie J Cherry, Regulatory Coordinator, BOPCO, L.P., 6401 Holiday Hill Rd, Bldg 5, Midland, Texas 79707, (432) 221-7379.

Interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 S. St. Francis Dr., Santa Fe, New Mexico 87505 within 15 days.
July 6, 2018

Ad#:0001253698
P O : water disposal permit
of Affidavits :0.00

TARA MONDLOCH
Notary Public
State of Wisconsin



Tracie J Cherry
Regulatory Analyst
XTO Energy Inc.
500 West Illinois, Suite 100
Midland, TX 79701
(432) 221-7379

JUL 19 2018 PM01:42

Certified Mail 7016 1970 0000 4404 3626

July 16, 2018

Oil Conservation Division
Attention: Michael McMillan
1220 S. St. Francis
Santa Fe, New Mexico 87505

Re: Notice of Application for Authorization to Dispose
Poker Lake Unit Big Sinks 32 State SWD #11
Sec. 32, T25S, 31E
Eddy County, New Mexico

Mr. McMillan:

Enclosed please find BOPCO, L.P.'s **Affidavit of Publication** from the *Carlsbad Current-Argus* for the referenced application.

If you should have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Tracie J Cherry', written over a light blue circular stamp.

Tracie J Cherry
Regulatory Coordinator