DATE IN	SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO.
11/2/07		WJones	11/2/07	SWD	PKVR0730640698

ABOVE THIS LINE FOR DIVISION USE ONLY

WFX 831

NEW MEXICO OIL CONSERVATION DIVISION
- 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

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 _____

[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.

Print or Type Name	Signature	Title	Date

e-mail Address

STATE OF NEW MEXICO
ENERGY, MINERALS and NATURAL
RESOURCES DEPARTMENT

Oil Conservation Division
1220 South St. Francis Dr.
SANTA FE, NEW MEXICO 87505

Form C-108
Revised June 10, 2003

APPLICATION FOR AUTHORIZATION TO INJECT

RECEIVED
2007 NOV 2 AM 9 59

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

II. OPERATOR: Chesapeake Operating, Inc.

ADDRESS : 421 Marti Drive, Cleburne, TX 76033

CONTACT PARTY : Brenda Coffman PHONE : (817)556-5825

III. WELL DATA: Complete the data required on the reverse side of this form for each well processed for injection. Additional sheets may be attached if necessary.

IV. Is this an expansion of an existing project? __X__ Yes _____ No
If yes, give the Division order number authorizing the project R-12496

V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

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

VII. Attach data on the proposed operation, including:

1. Proposed average and maximum daily rate and volume of fluids to be injected;
2. Whether the system is open or closed;
3. Proposed average and maximum injection pressure;
4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and
5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

*VIII. Attach appropriate geological data on the injection zone including appropriate lithologic detail, geological name, thickness. and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such 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 source of drinking water.

XIII. Applicants must complete the 'Proof of Notice' section on the reverse side of this form.

XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: Brenda Coffman TITLE: Sr. Regulatory Comp. Specialst

SIGNATURE: Brenda Coffman DATE: 10/26/2007

E-MAIL ADDRESS: bcoffman@chkenergy.com

* If the information required under Sections VI, VHI, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstance 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 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, NM 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.

APPLICATION FOR AUTHORIZATION TO INJECT
Chesapeake Operating, Inc.
Lea County, New Mexico

LIST OF WELLS FOR THIS APPLICATION

Trinity Burrus Abo Unit #20
API #30-025-36566
990' FSL & 2170' FEL
Unit Letter O, Section 23, T-12-S, R-38-E

Trinity Burrus Abo Unit #16
API #30-025-36251
1980' FSL & 660' FWL
Unit Letter L, Section 23, T-12-S, R-38-E

Trinity Burrus Abo Unit #28
API #30-025-37254
2240' FSL & 2310' FWL
Unit Letter K, Section 23, T-12-S, R-38-E

REQUIREMENTS PER FORM D-108

ITEM I

The purpose of this application is secondary recovery.

ITEM II

Chesapeake Operating, Inc.
421 Marti Drive
Cleburne, TX 76033
Brenda Coffman (817) 556-5825 ext 2805

ITEM III

See Data Sheet attached

ITEM IV

This is an expansion of an existing project and is covered under Order No. R-12496.

ITEM V

See map attached

ITEM VI

See attached list of wells.

ITEM VII

1. Daily average injection rate is expected to be 1,000 BWPD. Maximum daily injection rate will be approximately 1,000 BWPD.
2. The system will be closed.
3. The proposed average injection pressure is expected to be 100 psig and the maximum pressure is expected to be 4600 psig.
4. The source of water to be injected is produced water, fresh water and Devonian. A water analysis is attached for the fresh water and the Devonian.
5. Injection is NOT for disposal.

ITEM VIII

The Gladiola;Wolfcamp pool is located in Southeastern Lea County, New Mexico. The top and depth to the bottom of the Wolfcamp is indicated below for each well in this application. The fresh water for the area is from the Ogallala with depth from the surface at approximately 35' and the total depth at around 125'.

Well Name	Top of Wolfcamp	Bottom of Wolfcamp
TBAU #16	9080'	
TBAU #20		
TBAU #28		

ITEM IX

There will not be a stimulation program. The Procedure to Convert the wells to an injection is attached.

ITEM X

The logs were set to the Oil conservation Division when the well was completed.

ITEM XI

Water analysis from the fresh water wells within one mile of the injection well is attached.

ITEM XII

This application is NOT for a salt water disposal well.

ITEM XIII

The "Proof of Notice" as required with this application is attached.

Trinity Burrus Abo Offset Operators within ½ mile of Unit

Chaparral Energy LLC
701 Cedar Lake Boulevard
Oklahoma City, OK 73114

Energen Resources Corporation
3300 North "A" Street
Building 4, Suite 100
Midland, TX 79705

Yates Petroleum Corporation
105 South 4th Street
Artesia, NM 88210

CHESAPEAKE OPERATING, INC.
421 MARTI DRIVE
CLEBURNE, TX 76033
(817) 556-5825 EXT 2805

APPLICATION FOR AUTHORIZATION TO INJECT
LIST OF WELLS WITHIN ½ MILE RADIUS THAT PENETRATE INJECTION ZONE FORM C-108 ITEM #VI

TRINITY BURRUS ABO UNIT #20

WELL NAME	TYPE	DATE DRLD	LOCATION	DEPTH
TBAU #21	O	11/02/87	330' FSL & 1650' FWL N 23, T12S, R38E	12650
TBAU #16	O	05/23/03	1980' FSL & 660' FWL L 23, T12S, R38E	9235
TBAU #5	O	02/29/04	2310' FNL & 1650' FWL F 23, T12S, R38E	9793
TBAU #21	WIW	11/02/87	330' FSL & 1650' FWL N 23, T12S, R38E	9316
TBAU #17	O	10/03/03	1650' FSL & 1650' FWL K 23, T12S, R38E	9265
TBAU #18	O	04/28/04	1650' FSL & 2200' FEL J 23, T12S, R38E	9800

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Chesapeake Operating, Inc.

WELL NAME & NUMBER: Trinity Burrus Abo Unit #20

WELL LOCATION:	990' FSL & 2170' FEL	O	23	12S	38E
	FOOTAGE LOCATION	UNIT LETTER	SECTION	TOWNSHIP	RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17 1/2 Casing Size: 13 3/8

Cemented wtih: 465Poz C sx. *or* _____ ft^3

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 11 Casing Size: 8 5/8"

Cemented with: 1500 sx sx. *or* _____ ft^3

Top of Cement: Surface Method Detemined: Circulated

Production Casing

Hole Size: 7 7/8 Casing Size: 5 1/2

Cemented with: 365 sx Poz H sx. *or* _____ ft^3

Top of Cement: 1550 Method Determined: _____

Total Depth: 9420

Injection Interval

Perforations: 9148 feet to 9190

(Peforated or Open Hole; indicated which)

INJECTION WELL DATA SHEET

Tubing Size: 2 7/8" Lining Material: _____

Type of Packer: _____

Packer Setting Depth: 8967

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is This a new well drilled for injection? _____ Yes X No

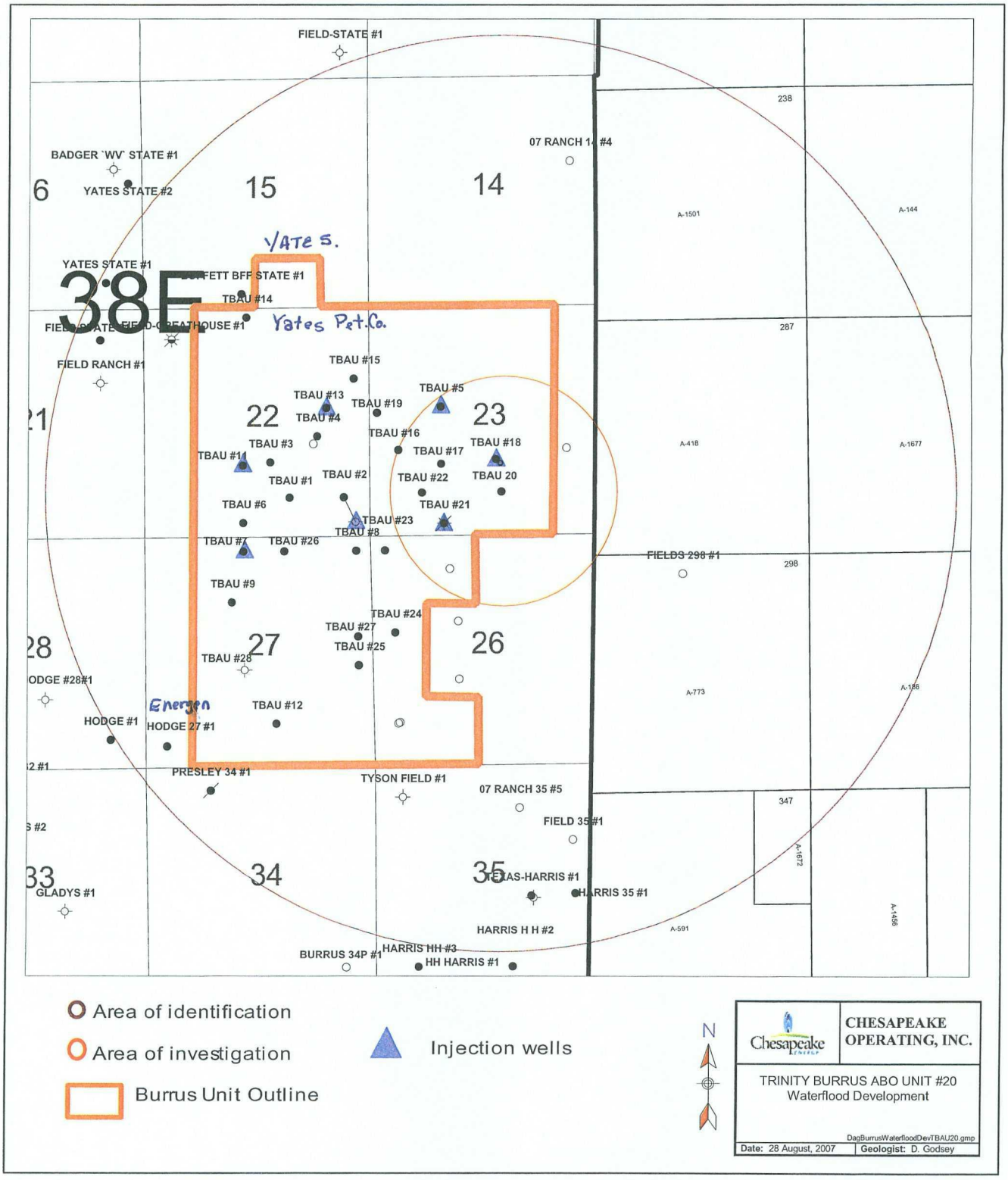
   If no, for what purpose was the well originally drilled? oil well

2. Name of the Injected Formation: Wolfcamp

3. Name of Field or Pool (if applicable): Trinity; Wolfcamp

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. _____

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injected zone in this area: none


FIELD-STATE #1
BADGER `WV` STATE #1
YATES STATE #2
07 RANCH 14 #4
6
15
14
238
A-1501
A-144
YATES STATE #1
38E
TBAU #14
Yates Pet.Co.
FIELD RANCH #1
287
TBAU #15
TBAU #13
TBAU #19
TBAU #5
22
23
TBAU #4
TBAU #16
TBAU #3
TBAU #18
TBAU #17
A-418
A-1677
TBAU #11
TBAU #1
TBAU #2
TBAU #22
TBAU 20
TBAU #6
TBAU #21
TBAU #23
TBAU #8
TBAU #7
TBAU #26
FIELDS 298 #1
298
TBAU #9
TBAU #24
TBAU #27
28
27
TBAU #25
26
TBAU #28
ODGE #28#1
Energen
TBAU #12
A-773
A-186
HODGE #1
HODGE 27 #1
PRESLEY 34 #1
TYSON FIELD #1
07 RANCH 35 #5
347
FIELD 35 #1
A-1672
33
34
35
TEXAS-HARRIS #1
GLADYS #1
HARRIS 35 #1
HARRIS H H #2
A-591
A-1456
BURRUS 34P #1
HARRIS HH #3
HH HARRIS #1
Area of identification
Area of investigation
Burrus Unit Outline
Injection wells
N
Chesapeake
CHESAPEAKE OPERATING, INC.
TRINITY BURRUS ABO UNIT #20
Waterflood Development
DagBurrusWaterfloodDevTBAU20.gmp
Date: 28 August, 2007
Geologist: D. Godsey

TRINITY BURRUS ABO UNIT #16

WELL NAME	TYPE	DATE DRLD	LOCATION	DEPTH
TBAU #21	O	11/02/87	330' FSL & 1650' FWL N 23, T12S, R38E	12650
TBAU #16	O	05/23/03	1980' FSL & 660' FWL L 23, T12S, R38E	9235
TBAU #5	O	02/29/04	2310' FNL & 1650' FWL F 23, T12S, R38E	9793
TBAU #21	WIW	11/02/87	330' FSL & 1650' FWL N 23, T12S, R38E	9316
TBAU #17	O	10/03/03	1650' FSL & 1650' FWL K 23, T12S, R38E	9265
TBAU #18	O	04/28/04	1650' FSL & 2200' FEL J 23, T12S, R38E	9800
TBAU #19	O	04/09/05	2431' FNL & 175' FWL E 23, T12S, R38E	9330
TBAU #23	O	09/08/03	330' FNL & 330' FWL D 26, T12S, R38E	9175
TBAU #8	O	07/16/03	330' FNL & 330' FEL A 27, T12S, R38E	9164
TBAU #15	O	10/03/04	1645' FNL & 354' FEL H 22, T12S, R38E	9265
TBAU #13	O	10/19/02	2310' FNL & 990' FEL H, 22, T12S, R38E	9250
TBAU #4	O	02/06/02	2310' FSL & 1210' FEL I, 22, T12S, R38E	9214
TBAU #2	O	03/02/01	900' FSL & 600' FEL O, 22, T12S, R38E	9800

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Chesapeake Operating, Inc.

WELL NAME & NUMBER: Trinity Burrus Abo Unit #16

WELL LOCATION: 1980' FSL & 660' FWL | L | 23 | 12S | 38E

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17 1/2 Casing Size: 13 3/8

Cemented wtih: 450 Cl C sx. *or* _____ ft^3

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 11 Casing Size: 8 5/8"

Cemented with: 1400 sx Poz C sx. *or* _____ ft^3

Top of Cement: Surface Method Detemined: Circulated

Production Casing

Hole Size: 7 7/8 Casing Size: 5 1/2

Cemented with: 1050 sx Poz H sx. *or* _____ ft^3

Top of Cement: UA Method Determined: _____

Total Depth: 9235

Injection Interval

Perforations: 9014 feet to 9062

(Peforated or Open Hole; indicated which)

INJECTION WELL DATA SHEET

Tubing Size: 2 7/8 Lining Material: _____

Type of Packer: _____

Packer Setting Depth: 8891

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is This a new well drilled for injection? _____Yes X No

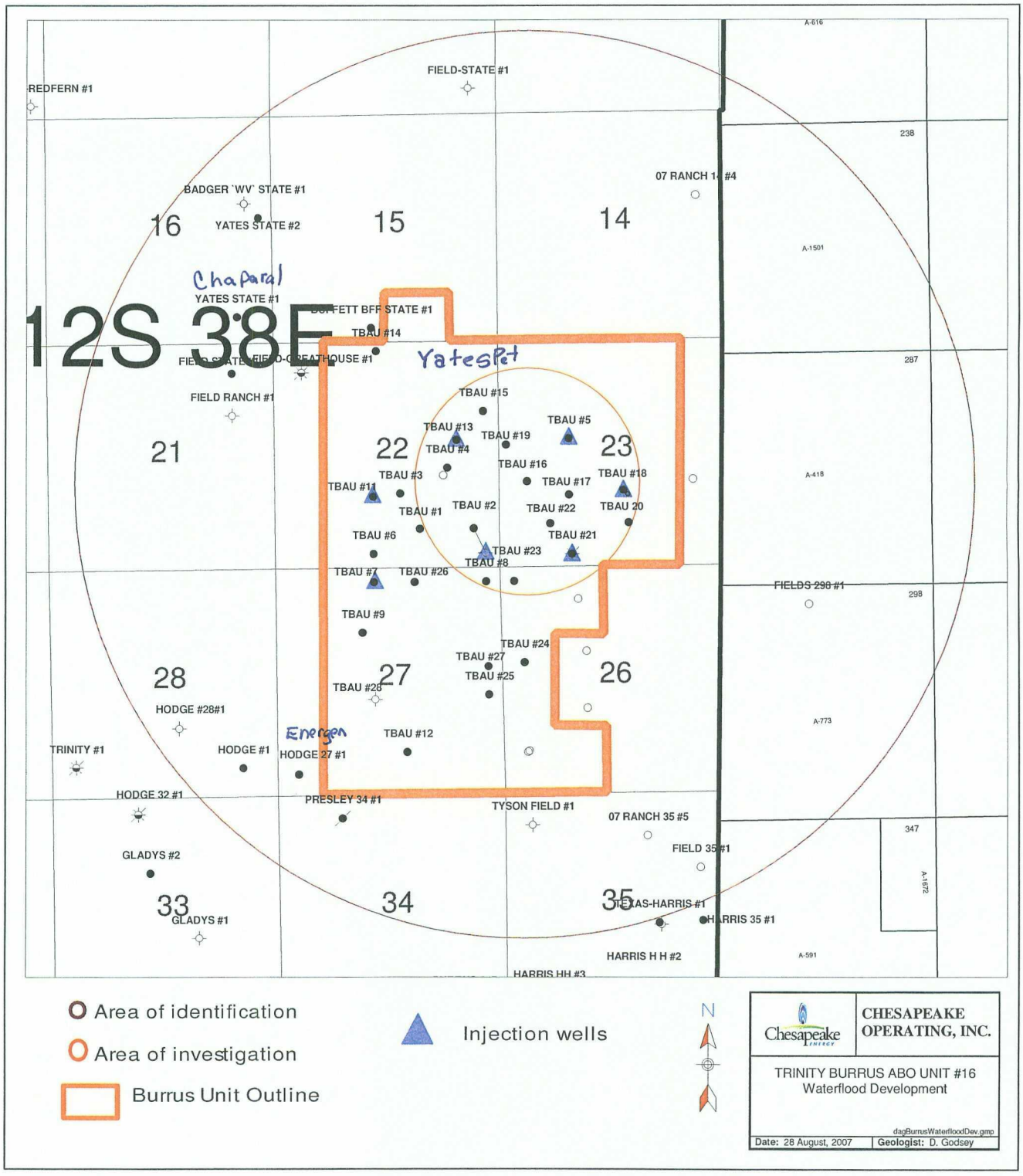
   If no, for what purpose was the well originally drilled? oil well

2. Name of the Injected Formation: Wolfcamp

3. Name of Field or Pool (if applicable): Trinity; Wolfcamp

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. _____

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injected zone in this area: none



Area of identification

Area of investigation

Burrus Unit Outline

Injection wells

N

Chesapeake ENERGY

CHESAPEAKE OPERATING, INC.

TRINITY BURRUS ABO UNIT #16
Waterflood Development

dagBurrusWaterfloodDev.gmp

Date: 28 August, 2007 | Geologist: D. Godsey

CHESAPEAKE OPERATING, INC.
421 MARTI DRIVE
CLEBURNE, TX 76033
(817) 556-5825 EXT 2805

APPLICATION FOR AUTHORIZATION TO INJECT
LIST OF WELLS WITHIN ½ MILE RADIUS THAT PENETRATE INJECTION ZONE FORM C-108 ITEM #VI

TRINITY BURRUS ABO UNIT #28

WELL NAME	TYPE	DATE DRLD	LOCATION	DEPTH
TBAU 27	O	08/07/04	1473' FNL & 2056' FWL F, 27, T12S, R38E	9800
TBAU 12	O	03/17/05	990' FSL & 2270' FEL O, 27, T12S, R38E	9404
Hodge 1	O	09/18/97	495' FSL & 495' FWL M 27, T12S, R38E	12138
TBAU 25	O	06/18/03	2310' FSL & 330' FEL I, 27, T12S, R38E	9850

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Chesapeake Operating, Inc.

WELL NAME & NUMBER: Trinity Burrus Abo Unit #28

WELL LOCATION: 2240' FSL & 2310' FWL | K | 27 | 12S | 38E

FOOTAGE LOCATION | UNIT LETTER | SECTION | TOWNSHIP | RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 17 1/2 Casing Size: 13 3/8

Cemented wtih: 500sx Cl. C sx. *or* _____ ft^3

Top of Cement: Surface Method Determined: Circulated

Intermediate Casing

Hole Size: 11 Casing Size: 8 5/8"

Cemented with: 1900sx Cl. C sx. *or* _____ ft^3

Top of Cement: Surface Method Detemined: Circulated

Production Casing

Hole Size: 7 7/8 Casing Size: 5 1/2

Cemented with: 1000 sx 35/65 Poz H sx. *or* _____ ft^3

Top of Cement: NA Method Determined: _____

Total Depth: 9814

Injection Interval

Perforations: 9078 feet to 9126

(Peforated or Open Hole; indicated which)

TBAU #28

INJECTION WELL DATA SHEET

Tubing Size: 2 7/8 Lining Material: _____

Type of Packer: _____

Packer Setting Depth: _____

Other Type of Tubing/Casing Seal (if applicable): _____

Additional Data

1. Is This a new well drilled for injection? _____Yes X No

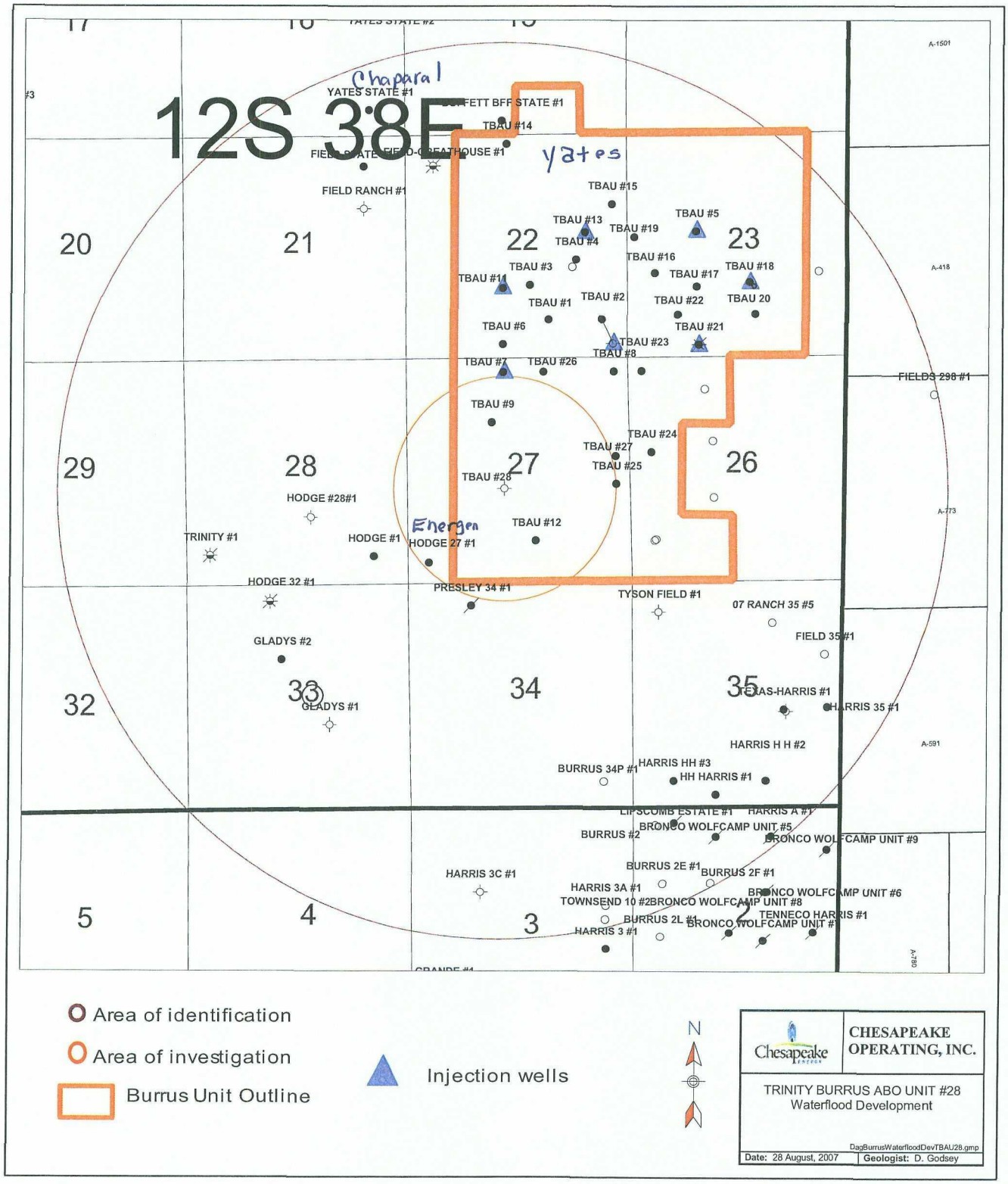
   If no, for what purpose was the well originally drilled? oil well

2. Name of the Injected Formation: Wolfcamp

3. Name of Field or Pool (if applicable): Trinity; Wolfcamp

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. _____

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injected zone in this area: None



Area of identification

Area of investigation

Burrus Unit Outline

Injection wells

N

Chesapeake

CHESAPEAKE OPERATING, INC.

TRINITY BURRUS ABO UNIT #28
Waterflood Development

DagBurrusWaterfloodDevTBAU28.gmp

Date: 28 August, 2007 | Geologist: D. Godsey

Procedure to Convert Producing Wells to Injectors
Burrus Waterflood
Lea Co. NM

1. MIRU workover rig. ND wellhead, NU BOP.

2. POH and lay down rods, pump and tbg.

3. RIH w/ injection packer on 2 3/8" plastic lined tbg. Place packer within 100' of the top perf.

4. Load backside with packer fluids and set packer.

5. Pressure test back side to 500 psi.

6. ND BOP, NU wellhead. RD workover rig. Hook well up for injection with flow meter. Install pressure gauges to monitor both tubing and annulus pressures.

P.O. BOX 98
MIDLAND, TX. 79702
PHONE (432) 683-4521

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
FAX (432) 682-8819

RESULT OF WATER ANALYSES

LABORATORY NO. 804-102
SAMPLE RECEIVED 8-13-04
RESULTS REPORTED 8-17-04

TO: Mr. Rob Crews
5014 Carlsbad Hwy, Hobbs, NM 88240

COMPANY Chesapeake Operating LEASE

FIELD OR POOL

SECTION BLOCK SURVEY COUNTY Lea STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Drinking water - taken from windmill south of new location for Burrus #12.

NO. 2 Drinking water - taken from water well next to Burrus #2-A.

NO. 3 Maximum contents for drinking water as recommended by the Texas Dept. of Health.

NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0007	1.0019		
pH When Sampled				
pH When Received	7.00	6.90		
Bicarbonate as HCO_3	259	205		
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	250	700		
Calcium as Ca	90	216		
Magnesium as Mg	6	39		
Sodium and/or Potassium	89	300		
Sulfate as SO_4	145	310	300	
Chloride as Cl	57	611	300	
Iron as Fe	0.25	0.40	0.30	
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	644	1,680	1,000	
Temperature °F,				
Carbon Dioxide, Calculated				
Dissolved Oxygen,				
Hydrogen Sulfide	0.0	0.0		
Resistivity, ohm/m at 77° F.	12.88	3.75		
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				
Nitrate, as N	1.9	2.8	10.0	

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks

The undersigned certifies the above to be true and correct to the best of his knowledge and belief.

Form No. 3

BY Greg Ogden, B.S.

LATHAM PRINTING CO. • 333-1292

Devonian

Analytical Laboratory Report for:

Chesapeake Operating

Chemical Services

Account Representative:
Jerry White

Production Water Analysis

Listed below please find water analysis report from: Apache, SWD

Lab Test No:	2005133824	Sample Date:	09/29/2005
Specific Gravity:	1.034		
TDS:	50896		
pH:	6.80		

Cations:	mg/L	as:
Calcium	1954	(Ca^{++})
Magnesium	522	(Mg^{++})
Sodium	14091	(Na^{+})
Iron	56.41	(Fe^{++})
Potassium	480.0	(K^{+})
Barium	0.35	(Ba^{++})
Strontium	55.89	(Sr^{++})
Manganese	1.23	(Mn^{++})
Anions:	**mg/L**	**as:**
Bicarbonate	415	(HCO_3^{-})
Sulfate	1200	$(SO_4^{=})$
Chloride	32600	(Cl^{-})
Gases:		
Carbon Dioxide	50	(CO_2)
Hydrogen Sulfide		(H_2S)

Chesapeake Operating Lab Test No: 2005133824

DownHole SAT™ Scale Prediction @ 100 deg. F

BJ Chemical Services

Mineral Scale	Saturation Index	Momentary Excess (lbs/1000 bbls)
Calcite (CaCO3)	3.18	.13
Aragonite (CaCO3)	2.69	.119
Witherite (BaCO3)	< 0.001	-20.42
Strontianite (SrCO3)	.157	-1.43
Magnesite (MgCO3)	.939	-.0103
Anhydrite (CaSO4)	.632	-152.48
Gypsum (CaSO4*2H2O)	.729	-112.54
Barite (BaSO4)	1.67	.0828
Celestite (SrSO4)	.259	-89.81
Silica (SiO2)	0	-52.27
Brucite (Mg(OH)2)	< 0.001	-.583
Magnesium silicate	0	-120.03
Strengite (FePO4*2H2O)	0	>-0.001
Siderite (FeCO3)	154.45	.219
Halite (NaCl)	.00771	-178312
Thenardite (Na2SO4)	< 0.001	-70042
Iron sulfide (FeS)	0	-.0256

Interpretation of DHSat Results:

The Saturation Index is calculated for each mineral species independently and is a measure of the degree of supersaturation (driving force for precipitation) under the conditions modeled. This value ranges from 0 to infinity with 1.0 representing a condition of equilibrium where scale will neither dissolve nor precipitate. Values less than 1.0 are undersaturated and values greater than 1.0 are supersaturated. The scale is logarithmic, i.e. a Saturation Index of 3 is 10 times more saturated than a value of 2.

The Momentary excess is a measure of how much scale would have to precipitate to bring the system back to a non-scaling condition. This value ranges from negative (dissolving) infinity to positive (precipitating) infinity. The Momentary Excess represents the amount of scale possible while the Saturation Level represents the probability that scale will form.

Trinity Burrus Abo Unit

Surface Ownership:

07 Ranch Land Mineral Limited Partnership
PO Box 1090
Plains, TX 79355
(806/456-7401)

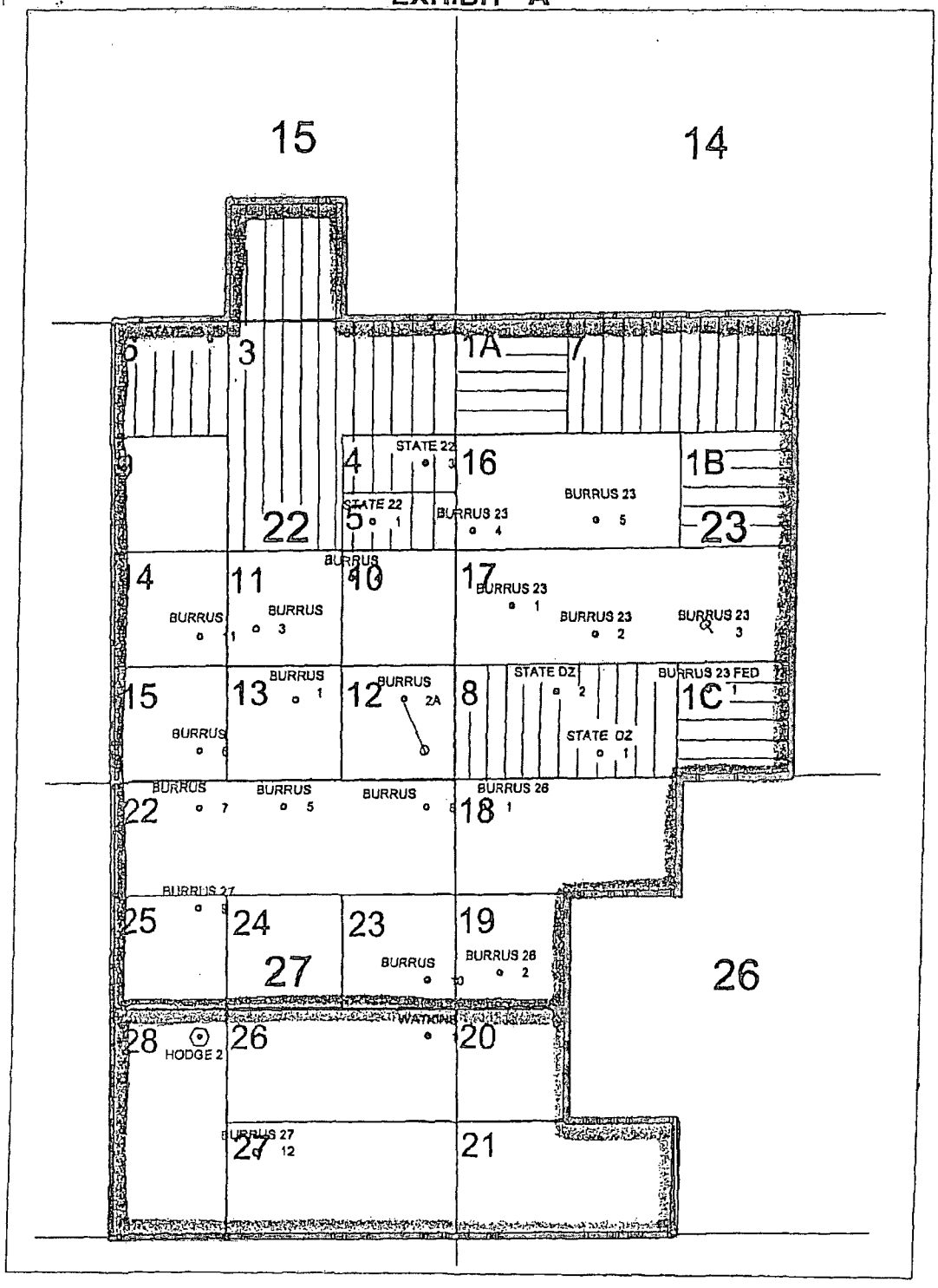
Owns all of surface inside unit, less the below listed land.

Jimmy P. Hodge
P.O. Box 565
Lovington, NM 88260
(505/396-2104)

NW SW & S/2 SW of Sec.26;
And SE & E/2 SW of Sec. 27;
All in T12S-R38E
Lea County, NM

(See attached map)

EXHIBIT "A"



TOWNSHIP 12 SOUTH, RANGE 38 EAST
LEA COUNTY, NEW MEXICO

PROPOSED TRINITY BURRUS ABO UNIT

CHESAPEAKE ENERGY CORPORATION

- Proposed Waterflood Unit Boundary
- Chesapeake Operated Wells
- Energen Resources Operated Wells
- Federal Acreage = 120 acres
- State Acreage = 400 acres
- Fee Acreage = 1200 acres

Total Acreage = 1720 acres

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, KATHI BEARDEN

Publisher

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

of 1

weeks.

Beginning with the issue dated

October 5 2007

and ending with the issue dated

October 5 2007

Publisher

Sworn and subscribed to before me this 8th day of October 2007

Notary Public.

My Commission expires
February 07, 2009
(Seal)

OFFICIAL SEAL
DORA MONTZ
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: _____

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

LEGAL NOTICE
October 5, 2007

Chesapeake Operating, Inc. intends to convert the following well to a water injection service: Trinity Burrus Abo Unit #20, which is 990 ft from the south line and 2,170 ft from the east line of Sec 23, T12S, R38E, Lea County, New Mexico. The formation to be injected into is the Wolfcamp at the following intervals 9,148 ft to 9,190 ft: This formation is productive of oil and gas. The proposed injection is for the purpose of increasing recovery of oil and gas from this formation and this well is part of the Trinity-Burrus (Abo) Unit. The maximum expected injection rate is 1,000 BWPD at a maximum injection pressure of 1,850 psi. Questions or objections can be addressed to Chesapeake Operating, Inc., 6224 N Western Ave, Oklahoma City, OK 73118, or call Charlie Robinson @ 405 879-8522. Objections or requests for hearing must be filed within 15 days of this notice to the Oil Conservation Division, 1220 S. St Francis Dr., Santa Fe, NM 87505.
#23560

02107807000 02596498

CHESAPEAKE ENERGY CORP.
P.O. BOX 548806
OKLAHOMA CITY, OK 73154

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

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LEGAL NOTICE
October 5, 2007

Chesapeake Operating, Inc. intends to convert the following well to water injection service: Trinity Burrus Abo Unit #28, which is 2,240 ft from the south line and 2,310 ft from the west line of, Sec 27, T12S, R38E, Lea County, New Mexico. The formation to be injected into is the Wolfcamp at the following intervals: 9,078 ft to 9,126 ft. This formation is productive of oil and gas: The proposed injection is for the purpose of increasing recovery of oil and gas from this formation and this well is part of the Trinity-Burrus (Abo) Unit. The maximum expected injection rate is 1,000 BWPD at a maximum injection pressure of 1,850 psi. Questions or objections can be addressed to Chesapeake Operating, Inc., 6224 N Western Ave, Oklahoma City, OK 73118, or call Charlie Robinson @ 405 879-8522. Objections or requests for hearing must be filed within 15 days of this notice to the Oil Conservation Division, 1220 S. St Francis Dr., Santa Fe, NM 87505
#23562

02107807000 02596553

CHESAPEAKE ENERGY CORP.
P.O. BOX 548806
OKLAHOMA CITY, OK 73154

AFFIDAVIT OF PUBLICATION

State of New Mexico,
County of Lea.

I, KATHI BEARDEN

Publisher

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weeks.

Beginning with the issue dated

October 5 2007

and ending with the issue dated

October 5 2007

Kathi Bearden

Publisher

Sworn and subscribed to before me this 8th day of October 2007

Dora Montz

Notary Public.

My Commission expires
February 07, 2009
(Seal)

OFFICIAL SEAL
DORA MONTZ
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires: _____

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

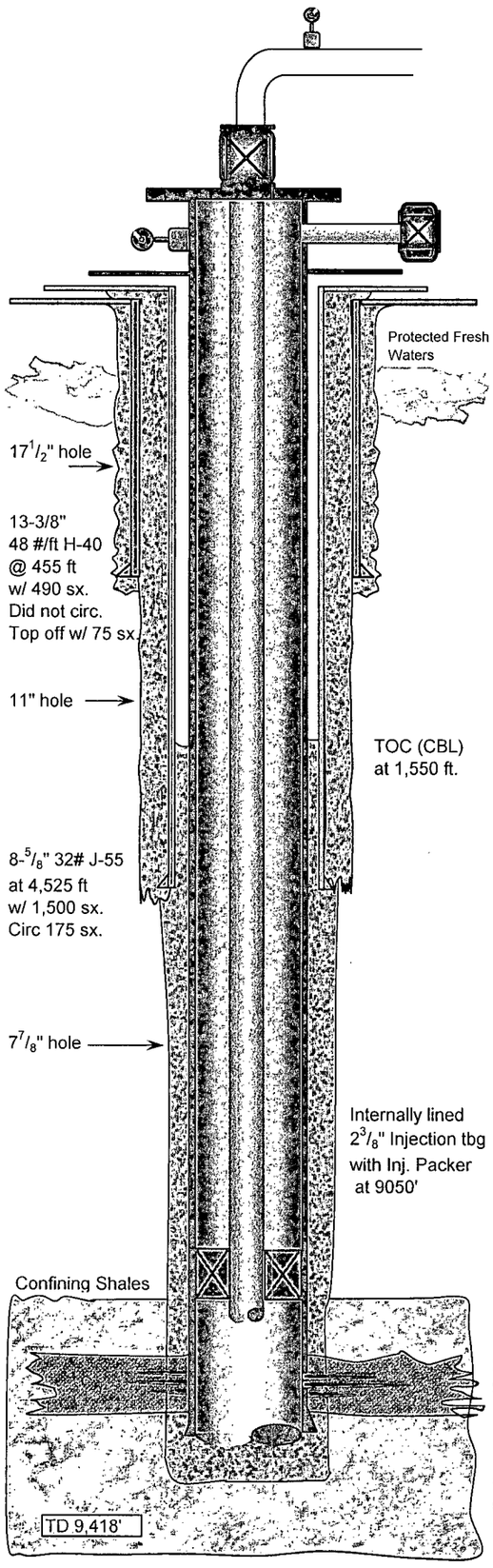
LEGAL NOTICE
October 5, 2007

Chesapeake Operating, Inc. intends to convert the following well to a water injection service: Trinity Burrus Abo Unit #16, which is 1,980 ft from the south line and 660 ft from the west line of Sec 23, T12S, R38E, Lea County, New Mexico. The formation to be injected into is the Wolfcamp at the following intervals: 9,014 ft to 9,062 ft. This formation is productive of oil and gas. The proposed injection is for the purpose of increasing recovery of oil and gas from this formation and this well is part of the Trinity-Burrus (Abo) Unit. The maximum expected injection rate is 1,000 BWPD at a maximum injection pressure of 1,850 psi. Questions or objections can be addressed to Chesapeake Operating, Inc., 6224 N Western Ave, Oklahoma City, OK 73118, or call Charlie Robinson @ 405 879-8522. Objections or requests for hearing must be filed within 15 days of this notice to the Oil Conservation Division, 1220 S. St Francis Dr., Santa Fe, NM 87505
#23561

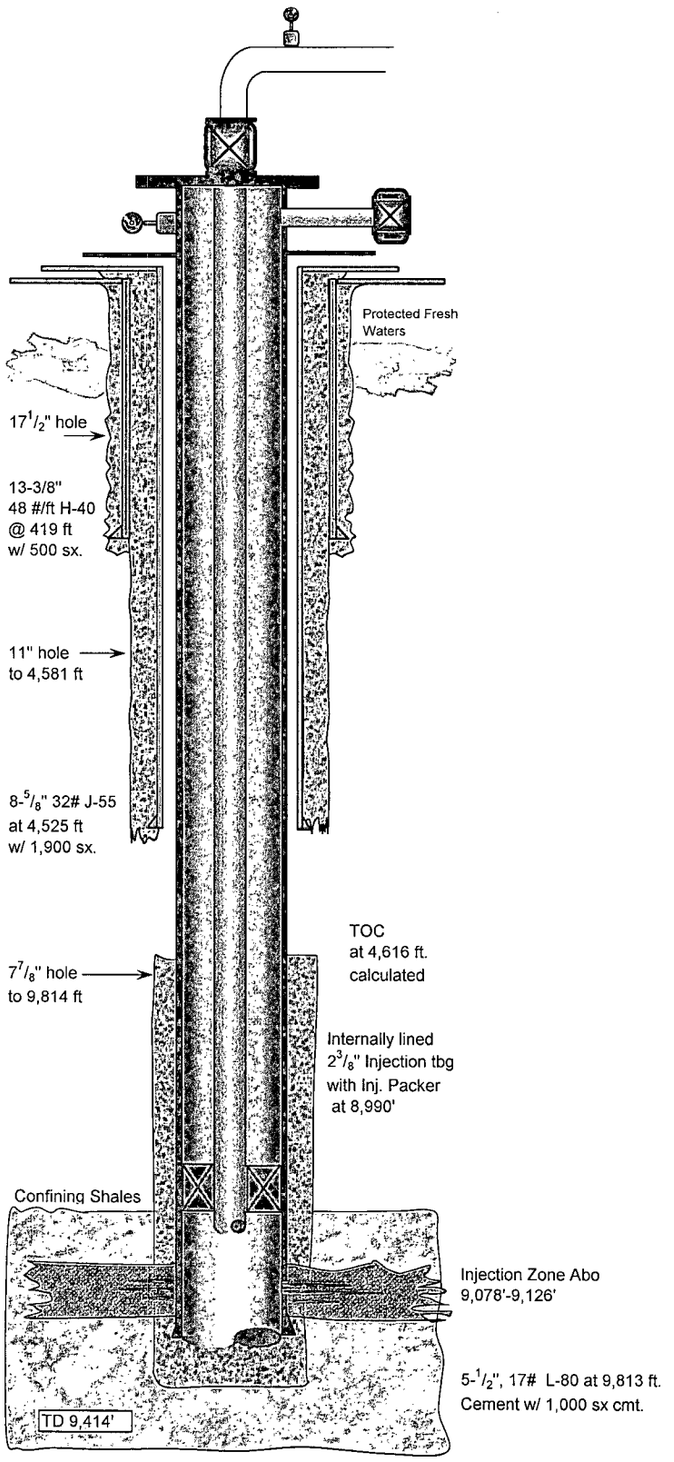
02107807000 02596552

CHESAPEAKE ENERGY CORP.
P.O. BOX 548806
OKLAHOMA CITY, OK 73154

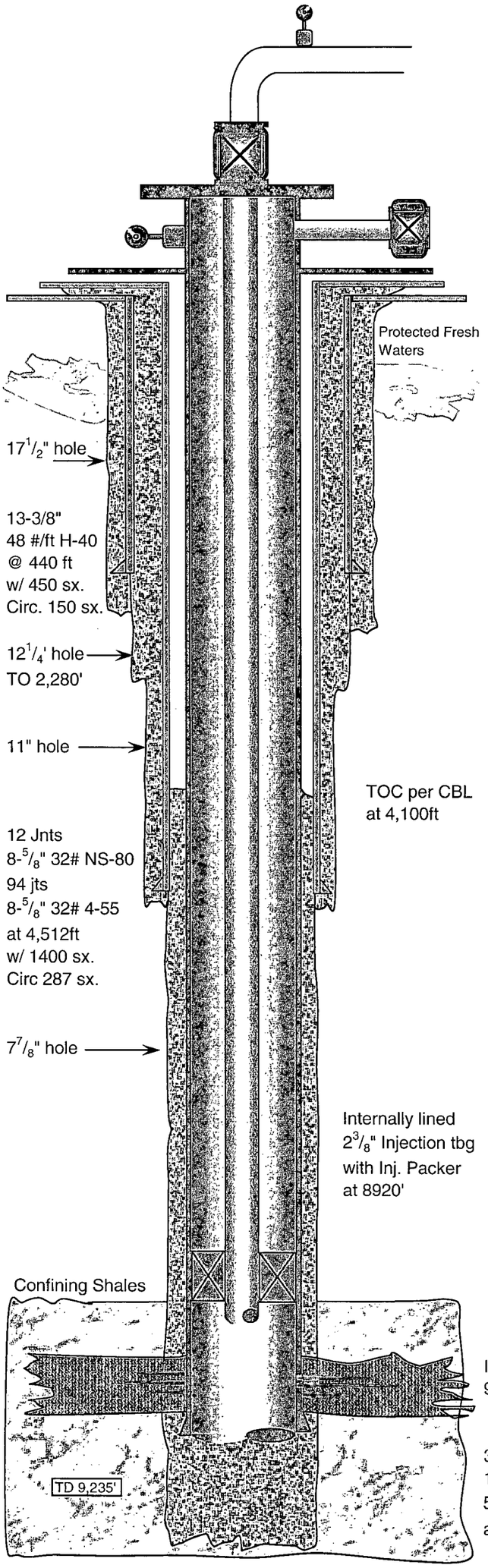
Injection Wellbore Schematic
Trinity-Burrus (Abo) Unit No. 20



Injection Wellbore Schematic
Trinity-Burrus (Abo) Unit No. 28



Injection Wellbore Schematic
Trinity-Burrus (Abo) Unit No. 16



Jones, William V., EMNRD

From: Jones, William V., EMNRD
Sent: Thursday, November 29, 2007 4:25 PM
To: 'Brenda Coffman'
Cc: 'Charlie Robinson'; Ezeanyim, Richard, EMNRD
Subject: RE: TBAU Injection Permits

Hello Brenda:
Concerning the 4 proposed increased injection wells in the Trinity Burrus Abo Unit Waterflood Project:

Everything looks OK, but I have some notice questions and a vertical limit question:

NOTICE:
Your map indicates that Energen is the operator or lessee of the well #28's AOR (outside the Unit boundary) in the W/2 W/2 of Section 27 - is that true? For the AOR of #20, in Units I, P of Section 23 and in Units A, B of Section 26, who is the lessee or Division designated operator? Would you send copies of your mailer notifications to all affected parties including the surface owner? Your Cleburne Texas contact info is different than the address used in the newspaper notification - why is that?

VERTICAL LIMITS:
The Unit was approved with vertical limits from 9063' to 9131' as measured in the State DZ #2 30-025-36373. Would you check with your geologist and send a confirmation that all injection proposed in these 4 new injection wells will be within those boundaries?

I have the two permits you submitted ready to release, pending answers to these questions and pending the Rule 40 issues.

Thank You

William V. Jones PE
New Mexico Oil Conservation Division
1220 South St. Francis
Santa Fe, NM 87505
505-476-3448

From: Charlie Robinson [mailto:CRobinson4@chkenergy.com]
Sent: Wednesday, November 28, 2007 1:31 PM
To: Jones, William V., EMNRD
Subject: RE: TBAU Injection Permits

Thanks for the reply. I understand the amount of work you and your people must be facing. I appreciate the information and look forward to hearing from you soon.

Charlie

From: Jones, William V., EMNRD [mailto:William.V.Jones@state.nm.us]
Sent: Wednesday, November 28, 2007 12:27 PM
To: Charlie Robinson
Subject: RE: TBAU Injection Permits

Charlie:

Thanks for your info about the unit.
We had an engineer retire here and no Petr Engr. seems willing to work for the State at this time - so we are backed up.

You are not the only one asking for critical orders to be released - even within Chesapeake. Yesterday, I did an NSL for Chesapeake that was critical and one for Yates and one for EOG and seven hearing orders for El Paso that were critical.

Can't say when this will get released, but will try to get it in the next two weeks.

I am telling everyone to plan on more than the normal 30 day delay for applications.

Regards,

William V. Jones PE
New Mexico Oil Conservation Division
1220 South St. Francis
Santa Fe, NM 87505
505-476-3448

From: Charlie Robinson [mailto:CRobinson4@chkenergy.com]
Sent: Wednesday, November 28, 2007 10:34 AM
To: Jones, William V., EMNRD
Cc: Jarvis Hensley; Terry Frohnapfel; Everett Bradley
Subject: TBAU Injection Permits

Mr. Jones,

My name is Charlie Robinson and I am an Asset Manager for the North Permian district for Chesapeake Energy. I work the waterfloods in New Mexico and was curious about the status of the injection permits for several wells in the Trinity Burrus Abo Unit (TBAU) waterflood. We have sent in permits for the TBAU 4H, 16, 20 and 28, each of which are located within the existing waterflood unit.

We have seen response in several wells thus far and have performed various diagnostic tests to understand the injection in this field. Based on the response observed and the test results, these additional injection wells are required to optimize the sweep of the flood. As the response continues, it is imperative that these wells be placed on injection as soon as possible to maximize sweep in the flood.

Your consideration in expediting the approval process would be greatly appreciated. Do you have any questions regarding any of the applications? Thanks for your time.

CHARLIE ROBINSON
ASSET MANAGER - NORTH PERMIAN
CHESAPEAKE ENERGY CORPORATION
PHONE: 405.879.8522
CELL: 405.213.5343
EMAIL: CROBINSON4@CHKENERGY.COM

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

December 19, 2007

Will Jones, OCD Hearing Examiner
Oil Conservation Division
1220 S. St. Francis Drive
Santa Fe, NM 87505

Hand delivered

Re: Chesapeake Operating, Inc., OGRID 147179
Inactive well list

Dear Mr. Jones,

Charlie Robinson of Chesapeake Operating, Inc. (Chesapeake) has informed me that Chesapeake has a pending application for an injection permit, and he is concerned about Chesapeake's standing under Rule 19.15.1.40 NMAC (Rule 40).

As an operator of over 1000 wells, Chesapeake may have no more than 10 wells on the inactive well list. I have attached a copy of the current inactive well list for Chesapeake, which shows 11 wells.

One of those wells, the Lotos 11 Federal #002, API 30-015-28821, was converted to an injection well in March 2007. I have attached a copy of the federal sundry showing the work that was done on the well. I have also attached a sundry filed with the local Oil Conservation Division district office indicating that the well has been converted to an injection well.

The Lotos 11 Federal #002 still appears on the inactive well list because C-115s showing injection have not yet been filed.

Rule 19.15.1.7.I(4) NMAC defines inactive well as a well "which is not being utilized for beneficial purposes such as production, injection or monitoring and which is not being drilled, completed, repaired or worked over." Because the Lotos 11 Federal #002 was re-completed in March 2007, it was returned to activity at that time. It should be included when considering how many wells Chesapeake has on the inactive list. It appears on the inactive well list only because the computer does not recognize sundries showing drilling, completion, repairs or workovers.

As Rule 40 states, the listing of a well on the inactive well list as a well inactive for more than one year plus ninety days creates a "rebuttable presumption" that the well is out of compliance with Rule 19.15.4.201 NMAC. Chesapeake has rebutted that presumption as to the Lotos 11 Federal #002. I ask that you exclude that well when evaluating Chesapeake's inactive well list for compliance with Rule 40.

Sincerely,

Gail MacQuesten,
OCD Attorney

Cc: Charlie Robinson

Injection Permit Checklist 2/8/07

SWD Order Number _____ Dates: Division Approved _____ District Approved _____

Well Name/Num: TRINITY BURRUS ABO UNIT # 20, 16, 28 Date Spudded: _____

API Num: (30-) _____ County: Lea

R-12496

Footages _____ Sec 23 Tsp 12S Rge 38E

Operator Name: Chesapeake Operating INC Contact Brenda Coffman

Operator Address: 4221 Matli Dr. Cleburne TX 76033

Current Status of Well: _____ Planned Work: _____ Inj. Tubing Size: #20: 2 7/8 @ 8987 2 7/8 @ 8891 #16 #28 2 7/8 @ ?

	Hole/Pipe Sizes	Depths	Cement	Top/Method
Surface				
Intermediate				
Production				
Last DV Tool				
Open Hole/Liner				
Plug Back Depth				

Diagrams Included (Y/N): Before Conversion (AOR (Pbtd: 9148/9190) 990FSL/2170FEL 30-025-36566 #20 After Conversion _____

Checks (Y/N): Well File Reviewed 13 AOR 4 AOR ELogs in Imaging 9014-9062 9078-9126 1980FSL/660FWL 30-025-36251 #16 2240FSL/2310FWL 30-025-37254 #28

Intervals:	Depths	Formation	Producing (Yes/No)	
Salt/Potash				
Capitan Reef				
Cliff House, Etc:				
Formation Above				
Top Inj Interval	≥ 9080			_____ PSI Max. WHIP
Bottom Inj Interval				_____ Open Hole (Y/N)
Formation Below				_____ Deviated Hole (Y/N)

Fresh Water: Depths 35-125' Wells(Y/N) Yes Analysis Included (Y/N): Yes Affirmative Statement _____

Salt Water Analysis: Injection Zone (Y/N/NA) _____ DispWaters (Y/N/NA) Yes Types: PW/FW/DEVONIAN

Notice: Newspaper(Y/N) Yes Surface Owner ~~of Ranch~~ Mineral Owner(s) _____

Other Affected Parties: ~~Hunter~~ Chsp./Energen/Yates

AOR/Repairs: NumActiveWells 8 Repairs? NO Producing in Injection Interval in AOR Yes

AOR Num of P&A Wells _____ Repairs? _____ Diagrams Included? _____ RBDMS Updated (Y/N) _____

Well Table Adequate (Y/N) ✓ AOR STRs: Sec _____ Tsp _____ Rge _____ UIC Form Completed (Y/N) _____

New AOR Table Filename _____ Sec _____ Tsp _____ Rge _____ This Form completed _____

Conditions of Approval: Sec _____ Tsp _____ Rge _____ Data Request Sent _____

#20; UNITS I, P operator or Lessee? also Sec 26; UNITS A, B

#16; all in UNIT

#28; Energen NOTIFIED — OK —

AOR Required Work: _____

Required Work to this Well: _____