WFX-862

DATE IN 3-10-10	SUSPENSE	ENGINEER TW.	LOGGED IN 3-10-10	TYPE WFX	APP NO. PTGW 1006945047

ABOVE THIS LINE FOR DIVISION USE ONLY

RECEIVED OCD
2010 MAR 11 A 11:04

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505

ADMINISTRATIVE APPLICATION CHECKLIST

JBAU #6 30-025-35937

JBAU #35 30-025-36248

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

Trinity Wolfcamp 59890

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.

Christian Combs		Manager-Regulatory, S. Division	2-05-2010
Print or Type Name	Signature	Title	Date

Christian.Combs@chk.com
e-mail Address

Chesapeake ENERGY

Regulatory Department

VIA UPS

February 5, 2010

Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

RE: Trinity Burrus Abo Unit # 6
API # 30-025-35937
330' FSL & 2310' FWL
Unit Letter N, Section 22, T-12-S, R-38-E

Trinity Burrus Abo Unit # 25
API # 30-025-36248
2310' FSL & 330' FEL
Unit Letter I, Section 27, T-12-S, R-38-E

Gentlemen:
Enclosed for your review is NMOCD's form C-108 and attachments to convert the referenced wells to injection. This application is made pursuant to Division Rule 19.15.26.8 (C) for administrative approval for injection purposes. Chesapeake proposes to re-enter the above captioned wells and convert to injection in the Wolfcamp formation.
Publication of the application of Chesapeake's intent to utilize the subject wells for injection has been made to the Hobbs News Sun. In addition, a copy of the application has been made available to the owner of the surface land, New Mexico State Land Office, and notice of application has been provided as required per NMOCD's Rule 19.15.26.8 (B) (2) within one-half mile of the well location.

Respectfully yours,

Bryan Arrant
Chesapeake Operating, Inc.
Senior Regulatory Compliance Specialist

Enclosures(s): NMOCD's C-108 Application

CC: NMOCD's District I Office, Hobbs, NM

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

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

II. OPERATOR: Chesapeake Operating, Inc.

ADDRESS: P.O. Box 18496 Oklahoma City, OK 73154

CONTACT PARTY: Bryan Arrant PHONE: (405)935-3782

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 (A)

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.)

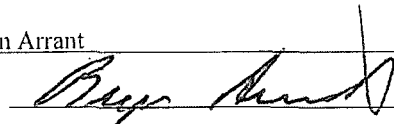
*XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

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: Bryan Arrant TITLE: Senior Regulatory Compl. Sp.

SIGNATURE:  DATE: 02/05/2010

E-MAIL ADDRESS: bryan.arrant@chk.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.

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Chesapeake Operating, Inc.

WELL NAME & NUMBER: Trinity Burrus Abo Unit # 6

WELL LOCATION: 330' FSL & 2310' FWL | N | 22 | 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: 375 sxs sx. *or* _____ ft^3

Top of Cement: 0' Method Determined: Circulated

Intermediate Casing

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

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

Top of Cement: 1320' Method Detemined: Temp Survey

Production Casing

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

Cemented with: 954 sxs sx. *or* _____ ft^3

Top of Cement: 2440' Method Determined: CBL

Total Depth: 9254'

Injection Interval

9035' feet to 9087' Perforated

(Peforated or Open Hole; indicated which)

X, 2

1807

INJECTION WELL DATA SHEET

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

Type of Packer: Baker Loc-Set

Packer Setting Depth: 8982'

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

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Chesapeake Operating, Inc.

WELL NAME & NUMBER: Trinity Burrus Abo Unit # 25

WELL LOCATION: 2310' FSL & 330' FEL | I | 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: 450 sxs. sx. *or* _____ ft^3

Top of Cement: 0' Method Determined: Circulated

Intermediate Casing

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

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

Top of Cement: 0' Method Detemined: Circulated

Production Casing

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

Cemented with: 1200 sxs sx. *or* _____ ft^3

Top of Cement: 3000' Method Determined: Temp Survey

Total Depth: 9850'

Injection Interval

9086' feet to 9128' (Perforated)

(Peforated or Open Hole; indicated which)

X.2

1817

INJECTION WELL DATA SHEET

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

Type of Packer: Baker Loc-Set

Packer Setting Depth: 9033'

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

Application for Authorization to Inject
Chesapeake Operating, Inc.
Lea County, New Mexico

LIST OF WELLS FOR THIS APPLICATION

Trinity Burrus Abo Unit # 6
API # 30-025-35937
330' FSL & 2310' FWL
Unit Letter N, Section 22, T-12-S, R-38-E

Trinity Burrus Abo Unit # 25
API # 30-025-36248
2310' FSL & 330' FEL
Unit Letter I, Section 27, T-12-S, R-38-E

Chesapeake Operating, Inc. proposes to re-enter the above captioned wells and convert to injection in the Wolfcamp formation.
This is an expansion of an existing project, Division Order: R-12496 (A).
Please find the following application for authorization to inject (NMOCD's form C-108) along with attachments and item information:

REQUIRMEMENTS PER NMOCD's C-108 APPLICATION

Item I

The purpose of this application is for secondary recovery.

Item II

Chesapeake Operating, Inc. (OGRID # 147179)
P.O. Box 18496
Oklahoma City, OK 73154-0496
Bryan Arrant, Phone: (405) 935-3782

Item III

See Data Sheets attached

Item IV

This is an expansion of an existing project and is covered under Division Order: R-12496 (A).

Item V

See attached maps showing all wells within ½ mile and 2 mile radius.

Item VI

Within the area of review (AOR) which penetrates each proposed disposal zone, there are no plugged wells within a ½ mile radius.

Item VII

1. Daily average injection rate is expected to be 300 BWPD. Maximum daily injection rate will be approximately 1000 BWPD.
2. The system will be closed.
3. The proposed average injection pressure is expected to be 1800 psig and the maximum pressure is expected to be 1800 psig.
4. The source of water to be injected is produced water, fresh water and Devonian. A water analysis is attached. Item VII (5)
5. Injection is not for disposal.

Item VIII

The Gladiola; Wolfcamp oil pool is located in southeastern Lea County, New Mexico. The Wolfcamp lithology in the proposed injection zone is composed of dolostones which are light brown to opaque, sucrosic in texture and very fine to fine crystalline grained. Show samples have light brown staining with a light yellow green fluorescence.
The geological tops of the Wolfcamp are indicated below for both wells. The base of the Wolfcamp in this area occurs at a depth of @ 9718' (bgs) directly to the northwest of these wells. The fresh water in this area is from the Ogallala formation with depth from the surface at approximately 35' and the total depth at around 125'. (Please find attached information).

Well Name	Top of Wolfcamp	Bottom of Wolfcamp
TBAU #6	9110'	NDE
TBAU # 26	9150'	NDE

Item IX

The "Procedure to Convert" these 2 wells to injection are attached.

Item X

The electric logs were submitted by the original operator to the Oil Conservation Division when these wells were completed.

Item XI

One water analysis from a fresh water well was available within one mile of the proposed Trinity Burros Abo Unit # 6 well and is attached.

Item XII

This application is not for a salt water disposal and is for injection into the Wolfcamp formation. There is no evidence of open faults or any other hydrological connection between the disposal zone and any underground sources of drinking water.

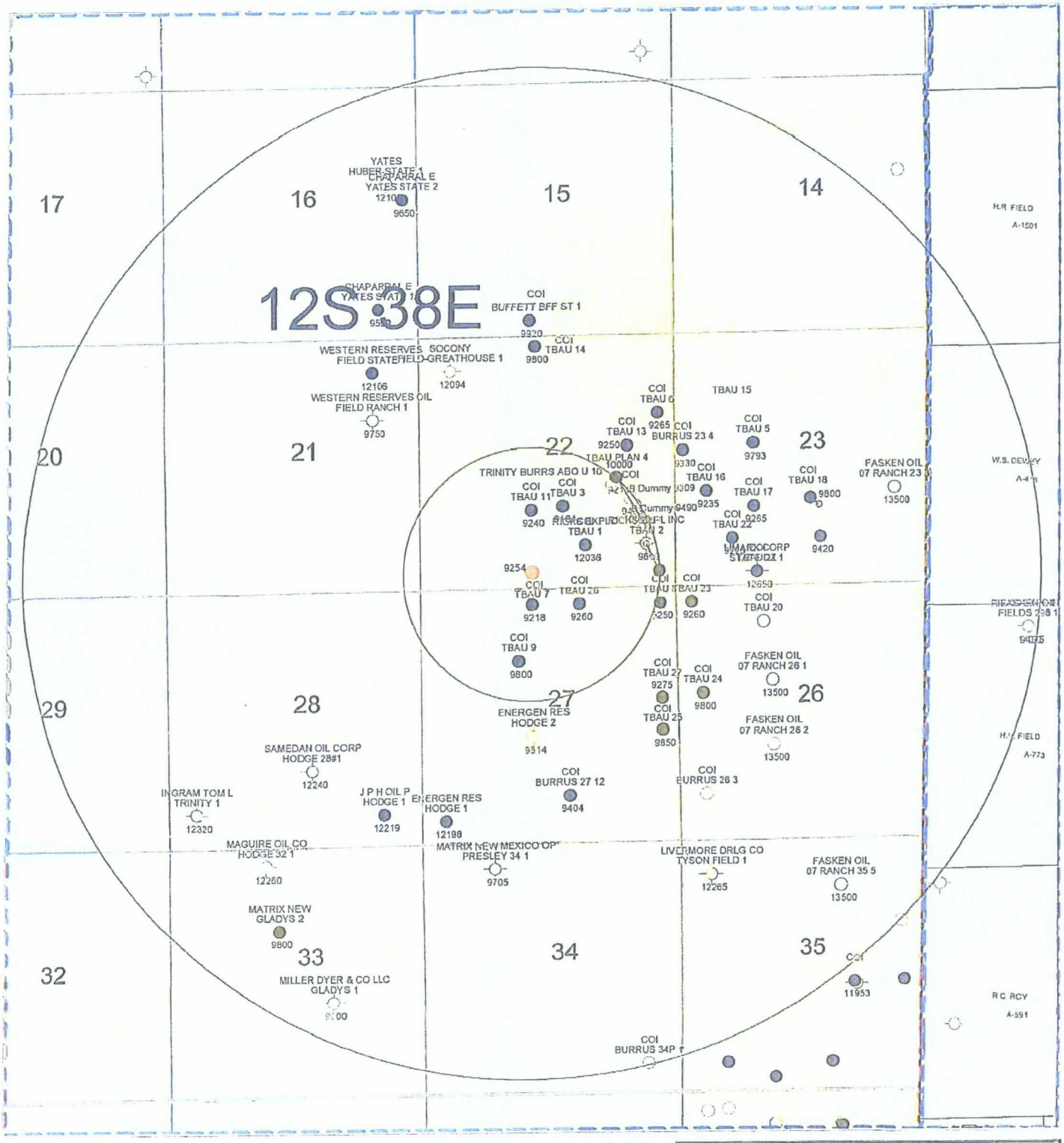
Item XIII

Proof of Notice

- A copy of the application has been furnished by certified mail. A list is provided.
- A copy of the legal advertisement in the county in which the well is located is attached.

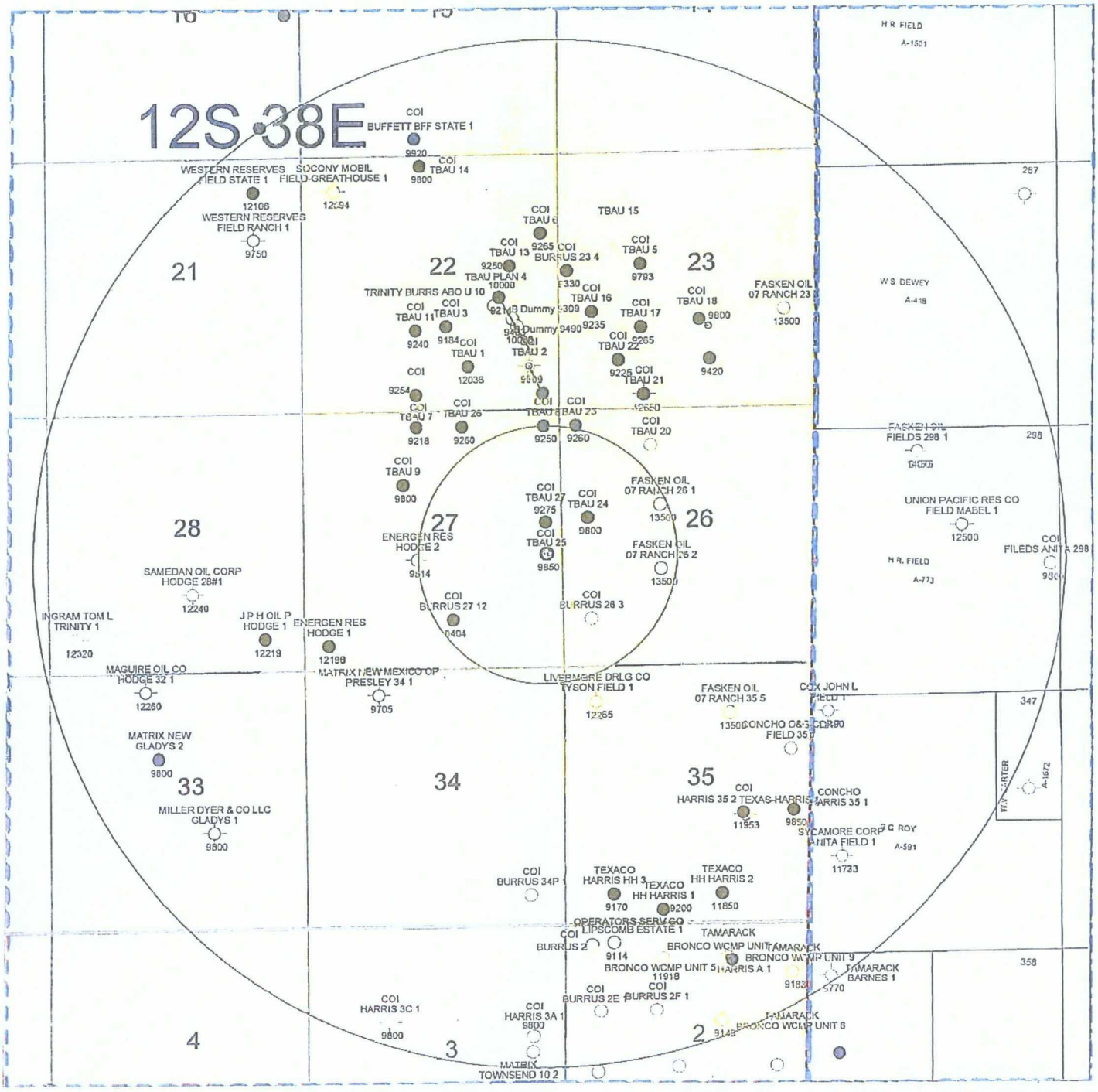
Additional Information for Trinity Burrus Abo Unit Wells # 6 & # 25:

- Actual & proposed well bore diagrams.
- Geological formation tops.
- New Mexico Office of the State Engineer's list of water wells in general area.



Item V

Chesapeake	CHESAPEAKE OPERATING, INC.
PERMIAN DISTRICT 2 mile and ½ mile radii TBAU 6 Lea County, NM	
TBAU 6 Radius Map.gmp	
Date: 17 December, 2009	Geologist:



Item V

Chesapeake	CHESAPEAKE OPERATING, INC.
PERMIAN DISTRICT 2 mile and ½ mile radii TBAU 25 Lea County, NM TBAU 25 Radius Map.cmp	
Date: 17 December, 2009	Geologist:

Catalyst Oilfield Services
11999 E Hwy 158
Gardendale, TX 79758
(432) 563-0727
Fax: (432) 224-1038

CATALYST
Oilfield Services

Water Analysis Report

Customer:	Chesapeake Operating	Sample #:	16145
Area:	New Mexico - Bronco	Analysis ID #:	2799
Lease:	Trinity Burris Unit		
Location:	Water Injection Plant SE/4SW4 of Sec. 22, T-12-S R-38-E		
Sample Point:	IPD		

Sampling Date:	11/24/2009
Analysis Date:	12/1/2009
Analyst:	Mitchell
TDS (mg/l or g/m3):	60489.5
Density (g/cm3):	1.042
Hydrogen Sulfide:	25.00
Carbon Dioxide:	
Comments:	

Anions	mg/l	meq/l
Chloride:	35539.1	1002.43
Bicarbonate:	439.9	7.21
Carbonate:		
Sulfate:	1400.0	29.15

Cations	mg/l	meq/l
Sodium:	19867.6	864.19
Magnesium:	395.3	32.52
Calcium:	2846.2	142.02
Strontium:		
Barium:		
Iron:	1.1	0.04
Manganese:	0.290	0.01

pH at time of sampling:	6.06
pH at time of analysis:	
pH used in Calculation:	6.06
Temperature @ lab conditions (F):	70
Conductivity (micro-ohms/cm):	99000
Resistivity (ohm meter):	.1010

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl

Temp	Calcite $CaCO_3$		Gypsum $CaSO_4*2H_2O$		Anhydrite $CaSO_4$		Celestite $SrSO_4$		Barite $BaSO_4$	
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
80	-0.17	0.00	-0.22	0.00	-0.27	0.00	0.00	0.00	0.00	0.00
100	-0.06	0.00	-0.26	0.00	-0.24	0.00	0.00	0.00	0.00	0.00
120	0.06	5.94	-0.28	0.00	-0.18	0.00	0.00	0.00	0.00	0.00
140	0.18	18.16	-0.30	0.00	-0.10	0.00	0.00	0.00	0.00	0.00
160	0.31	30.04	-0.31	0.00	-0.01	0.00	0.00	0.00	0.00	0.00
180	0.44	41.60	-0.31	0.00	0.10	127.77	0.00	0.00	0.00	0.00
200	0.58	52.50	-0.30	0.00	0.23	249.93	0.00	0.00	0.00	0.00
220	0.72	62.40	-0.30	0.00	0.36	352.61	0.00	0.00	0.00	0.00

Item VII(5)

TBAU #6
SEC 22, 12S-38E, 330 FSL & 2310 FWL
Lea, NM
API #3002535937
CHK Prop #890681
1/12/10

Convert to Injector

Workover Justification

The TBAU #6 will provide additional injection support to the active waterflood.

Well Data

Tubing:	2-7/8" 6.5# N-80 @ 9,163'
Casing:	5-1/2" 17# N-80 @ 9,254'
TD:	9,254'
PBTD:	9,220' (Original Hole)
Elevation:	3,819' KB 3,801' GL
WI / NRI (%):	65.58 / 50.70
TAC:	8,833'
SN:	9,163'
Mud Anchor:	9,164' – 9,196'

Open Perforations:
Wolfcamp 9,035' – 9,087' w/ 2 SPF (52' Gross Interval)

Procedure

1. Prepare location. Test anchors and clean area for workover.
2. MIRU PU. ND WH. NU BOP. TOH & LD rod string and pump.
3. Release TAC set @ 8,833'. TOH & LD 2-7/8" 6.5# N-80 production tubing. (Run bit & scraper if deemed neccessary)
4. RU hydrotesters. PU 2-3/8" pump out plug, 1.43" SS F-nipple w/ 1.385" No-Go, 2-3/8" N-80 IPC sub, 2-3/8" X 5-1/2" lock-set injection packer, on/off tool w/ 1.5" SS F-nipple & 2-3/8" N-80 IPC tbg. TIH while hydrotesting & set injection packer 50' from the top perforation @ 9,035'. RD hydrotesters.
5. Release on/off tool. Load hole w/ packer fluid. (Approx. 200 bbl). Latch on/off tool. Pressure up on casing to ensure integrity for OCD. Pressure up on tubing to pump out plug.
6. RU acid crew. Pump 5000 gal 15% HCL job on Wolfcamp perforations from 9,035' – 9,087'. Displace acid w/ tubing volume of KCL water (Approx. 35 bbl).
7. ND BOP. NU WH. RDMO PU. Clean location & begin injection.

Contacts

Completion Foreman:	??
Completion Superintendent:	Mark Mabe (432) 556-6067
Production Foreman:	Steve Serna (575) 390-9053
Production Superintendent:	Curtis Blake (575) 631-9936
Production Engineer:	Shannon Glancy (405) 935-8109
Asset Manager:	Jeff Finnell (405) 935-4347

Item IX

TBAU #25
SEC 27, 12S-38E, 2310 FSL & 330 FEL
Lea, NM
API # 3002536248
CHK Prop # 890738
1/12/10

Convert to Injector

Workover Justification

The TBAU #25 will provide additional injection support to the active waterflood.

Well Data

Tubing:	2-7/8" @ 9,164'	
Casing:	5-1/2" 17# N-80 & J-55 @ 9,850'	
TD:	9,850'	
PBTD:	9,784'	
Elevation:	3,807' KB	3,789' GL
WI / NRI (%):	65.58 / 50.70	

TAC:	8,909'
SN:	9,164'
Mud Anchor:	9,170' – 9,200'

Open Perforations:
Wolfcamp 9,086' – 9,128' w/ 2 SPF (42' Gross Interval)

Procedure

1. Prepare location. Test anchors and clean area for workover.
2. MIRU PU. ND WH. NU BOP. TOH & LD rod string and pump.
3. Release TAC set @ 8,909'. TOH & LD 2-7/8" production tubing. (Run bit & scraper if deemed neccessary)
4. RU hydrotesters. PU 2-3/8" pump out plug, 1.43" SS F-nipple w/ 1.385" No-Go, 2-3/8" N-80 IPC sub, 2-3/8" X 5-1/2" lock-set injection packer, on/off tool w/ 1.5" SS F-nipple & 2-3/8" N-80 IPC tbg. TIH while hydrotesting & set injection packer 50' from the top perforation @ 9,086'. RD hydrotesters.
5. Release on/off tool. Load hole w/ packer fluid. (Approx. 200 bbl). Latch on/off tool. Pressure up on casing to ensure integrity for OCD. Pressure up on tubing to pump out plug.
6. RU acid crew. Pump 5000 gal 15% HCL job on Wolfcamp perforations from 9,086' – 9,128'. Displace acid w/ tubing volume of KCL water (Approx. 35 bbl).
7. ND BOP. NU WH. RDMO PU. Clean location & begin injection.

Contacts

Completion Foreman:	??
Completion Superintendent:	Mark Mabe (432) 556-6067
Production Foreman:	Steve Serna (575) 390-9053
Production Superintendent:	Curtis Blake (575) 631-9936
Production Engineer:	Shannon Glancy (405) 935-8109
Asset Manager:	Jeff Finnell (405) 935-4347

Item IX

Catalyst Oilfield Services
11999 E Hwy 158
Gardendale, TX 79758
(432) 563-0727
Fax: (432) 224-1038

CATALYST
Oilfield Services

Water Analysis Report

Customer:	Chesapeake Operating	Sample #:	16144
Area:	New Mexico - Bronco	Analysis ID #:	2798
Lease:	Trinity Burris Unit		
Location:	Fresh Water 0		
Sample Point:	Other SE/4SE/4 of Sec. 22, T-12-S R 38-E		

Sampling Date:	11/24/2009
Analysis Date:	12/1/2009
Analyst:	Mitchell
TDS (mg/l or g/m3):	507.8
Density (g/cm3):	1
Hydrogen Sulfide:	.00
Carbon Dioxide:	
Comments:	

Anions	mg/l	meq/l
Chloride:	65.1	1.84
Bicarbonate:	220.0	3.6
Carbonate:		
Sulfate:	85.0	1.77

Cations	mg/l	meq/l
Sodium:	40.1	1.74
Magnesium:	18.5	1.52
Calcium:	79.0	3.94
Strontium:		
Barium:		
Iron:	0.1	0.
Manganese:	0.020	0.

pH at time of sampling:	6.85
pH at time of analysis:	
pH used in Calculation:	6.85
Temperature @ lab conditions (F):	70
Conductivity (micro-ohms/cm):	884
Resistivity (ohm meter):	11.3122

Values Calculated at the Given Conditions - Amounts of Scale in lb/1000 bbl

Temp	Calcite $CaCO_3$		Gypsum $CaSO_4 * 2H_2O$		Anhydrite $CaSO_4$		Celestite $SrSO_4$		Barite $BaSO_4$	
°F	Index	Amount	Index	Amount	Index	Amount	Index	Amount	Index	Amount
80	-0.42	0.00	-1.64	0.00	-1.71	0.00	0.00	0.00	0.00	0.00
100	-0.28	0.00	-1.63	0.00	-1.64	0.00	0.00	0.00	0.00	0.00
120	-0.13	0.00	-1.62	0.00	-1.54	0.00	0.00	0.00	0.00	0.00
140	0.03	1.05	-1.59	0.00	-1.43	0.00	0.00	0.00	0.00	0.00
160	0.20	6.66	-1.56	0.00	-1.29	0.00	0.00	0.00	0.00	0.00
180	0.37	12.61	-1.53	0.00	-1.14	0.00	0.00	0.00	0.00	0.00
200	0.56	18.22	-1.49	0.00	-0.98	0.00	0.00	0.00	0.00	0.00
220	0.75	23.82	-1.44	0.00	-0.81	0.00	0.00	0.00	0.00	0.00

Item XI

Additional Information

- Actual & proposed well bore diagrams.
- Geological formation tops.
- New Mexico Office of the State Engineer's list of water wells in general area.

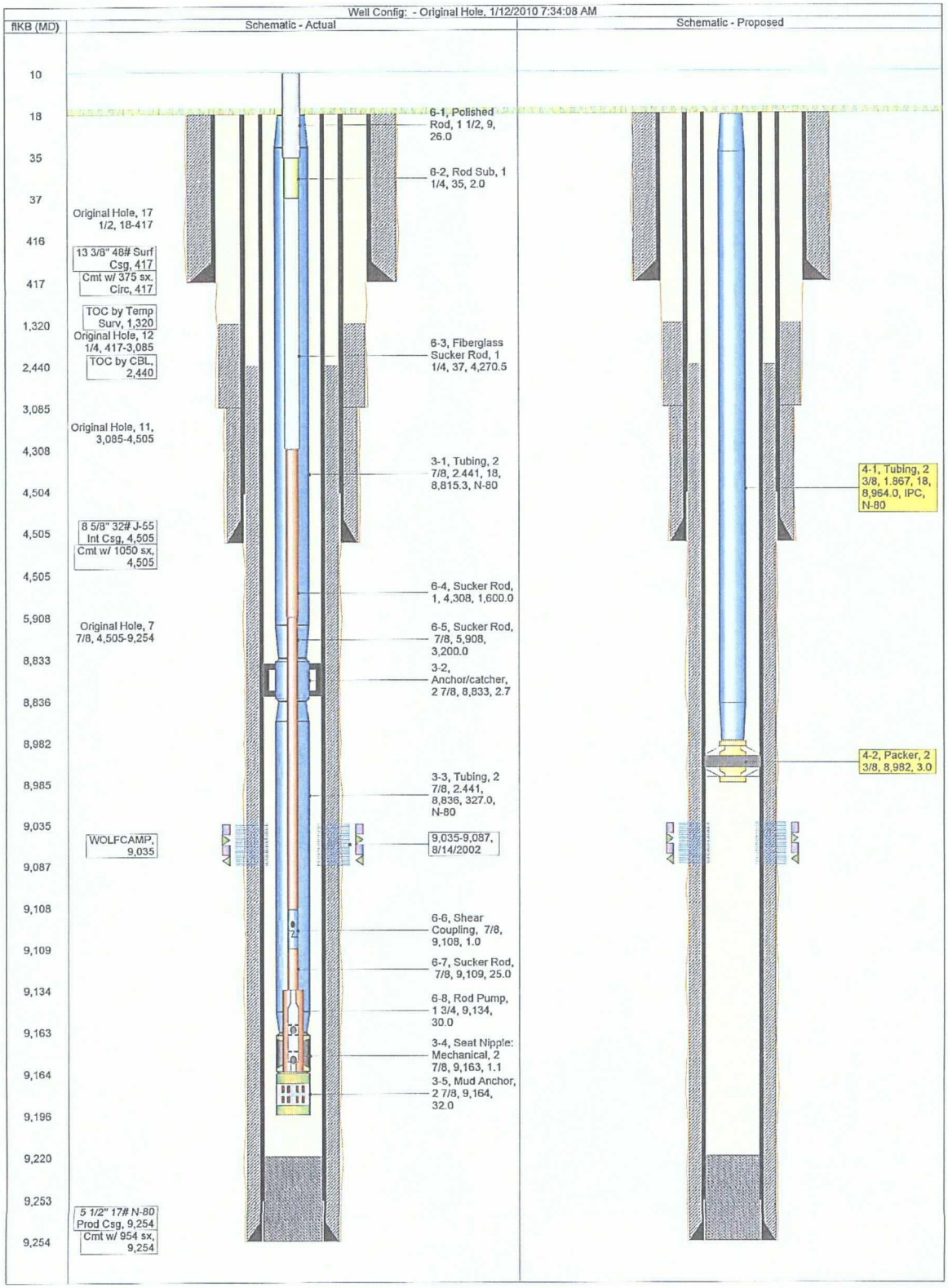
Proposal - Workover

TBAU 6

Chesapeake Energy

Field:	TRINITY WOLFCAMP
County:	LEA
State:	NEW MEXICO
Location:	SEC 22, 12S-38E, 330 FSL & 2310 FWL
Elevation:	GL 3,801.00 KB 3,819.00
KB Height:	18.00

Spud Date: 7/13/2002
Initial Compl. Date:
API #: 3002535937
CHK Propterty #: 890681
1st Prod Date: 8/31/2002
PBTD: Original Hole - 9220.0
TD: 9,254.0



Report Printed: 1/12/2010

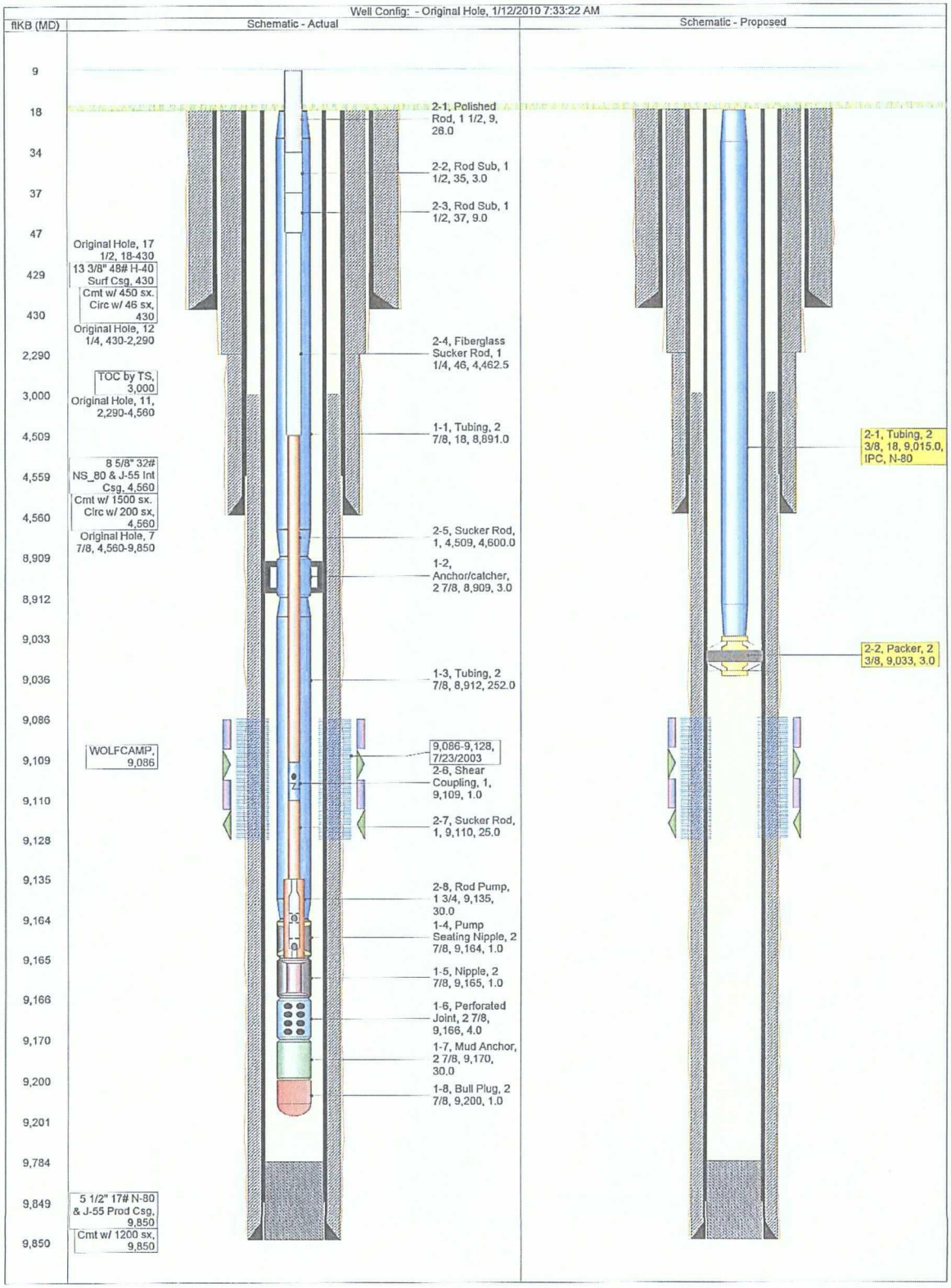
Proposal - Workover

TBAU 25

Chesapeake Energy

Field:	TRINITY (WOLFCAMP)
County:	LEA
State:	NEW MEXICO
Location:	SEC 27, 12S-38E, 2310 FSL & 330 FEL
Elevation:	GL 3,789.00 KB 3,807.00
KB Height:	18.00

Spud Date: 6/18/2003
Initial Compl. Date:
API #: 3002536248
CHK Propterty #: 890738
1st Prod Date: 7/30/2003
PBTD: Original Hole - 9784.0
TD: 9,850.0



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Geological Formation Tops

- Trinity Burrus Abo Unit # 6
  Sec. 22, T-12-S R-38-E
  330' FSL & 2301' FWL
  Lea County, New Mexico
  API# 30-025-35937

Yates	3060'
Seven Rivers	3310'
Queen	3845'
San Andres	4464'
Glorieta	5920'
Tubb	7165'
Abo	7780'
Wolfcamp	9110'

- Trinity Burrus Abo Unit # 25
  Sec. 27, T-12-S R-38-E
  2310' FSL & 330' FEL
  Lea County, New Mexico
  API# 30-025-36248

Yates	3086'
Seven Rivers	3395'
Queen	3895'
San Andres	4475'
Glorieta	5942'
Tubb	7192'
Abo	7868'
Wolfcamp	9150'

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	Sub basin	Use	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
L 00568 S 16		IRR	LE	4	4	2	23	12S	38E	680696	3682353*	240	120	120
L 02851 APPRO		DOM	LE	4	2	4	23	12S	38E	680705	3681951*	61	30	31
L 03531		PRO	LE	2	2	4	27	12S	38E	679128	3680513*	96	42	54
L 03531 APPRO		PRO	LE	2	4	4	27	12S	38E	679135	3680111*	96	42	54
L 04650 EXPL		EXP	LE			4	16	12S	38E	677166	3683391*	528	40	488
L 06446 (E)		PRO	LE		4	2	16	12S	38E	677352	3684003*	80	25	55
L 07417		STK	LE		4	3	28	12S	38E	676622	3679963*	40	18	22
L 09341		DOM	LE		1	4	23	12S	38E	680204	3682045*	120	25	95
L 10374		DOM	LE		1	4	23	12S	38E	680204	3682045*	65		
L 10704		PRO	LE	3	3	3	27	12S	38E	677727	3679886*	200		
L 11941 POD1		STK	LE	1	1	4	14	12S	38E	680072	3683753*	85	50	35

Average Depth to Water: **43 feet**
Minimum Depth: **18 feet**
Maximum Depth: **120 feet**

Record Count: 11

Basin/County Search:

Basin: Lea County County: Lea

PLSS Search:

Section(s): 14, 15, 16, 21, 22, 23, 26, 27, 28, Township: 12S Range: 38E

*UTM location was derived from PLSS - see Help

- **Trinity Burrus Abo Unit # 6**
- **Trinity Burrus Abo Unit # 25**

07 Ranch Land Mineral Limited Partnership
P O Box 1090
Plains, TX 79355

Jimmy P. Hodge
P O Box 565
Lovington, NM 88260

State of New Mexico
Commission of Public Land
P O Box 1148
Santa Fe, NM 87504-1148

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

Matrix New Mexico Holdings LLC
5725 Commonwealth Blvd
Sugarland, TX 77479

Item XIII
Proof of Notice

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Street, Apt. No.; or PO Box No.: 5725 Commonwealth Blvd
City, State, ZIP+4: Sugarland, TX 77479

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City, State, ZIP+4: Santa Fe, NM 87504

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Sent To: Jimmy P. Hodge
Street, Apt. No.; or PO Box No.: P.O. Box 565
City, State, ZIP+4: Lovington, NM 88260

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7009 0960 0001 1890 5269

Sent To: Yates Petroleum Corporation
Street, Apt. No.; or PO Box No.: 104 South 4th Street
City, State, ZIP+4: Artesia, NM 88210

PS Form 3800, August 2006 — See Reverse for Instructions

Affidavit of Publication

State of New Mexico,
County of Lea.

I, KENNETH NORRIS
GENERAL MANAGER
of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period

of 1 issue(s).
Beginning with the issue dated
January 23, 2010
and ending with the issue dated
January 23, 2010

Kenneth N

GENERAL MANAGER
Sworn and subscribed to before me
this 27th day of
January, 2010

Linda M. Jones

Notary Public

My commission expires
June 15, 2013
(Seal)

OFFICIAL SEAL
Linda M Jones
NOTARY PUBLIC - STATE OF NEW MEXICO
My Commission Expires: _____

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

LEGAL NOTICE
JANUARY 23, 2010

Chesapeake Operating, Inc. intends to convert the following well to a water injection service: Trinity Burrus Abo Unit #25 which is located in Unit I of Section 27, Township 12 South, Range 38 East, 2310' FSL & 330 FEL, Lea County, New Mexico. The formation to be injected into is the Wolfcamp through perforated intervals: 9086'-9128'. The average disposal rate is expected to be 300 BWPD and a maximum disposal rate of 1000 BWPD. The injection pressure is expected to be 1800 psig with a maximum pressure of 1800 psig. This formation is productive of oil and gas. The proposed injection is for the purpose of increasing the recovery of oil and gas from this formation as this well is part of the Trinity Burrus Abo unit. Questions or objections can be addressed to Chesapeake Operating, Inc. 6100 N. Western Ave., Oklahoma City, OK 73118 or call Jeff Finell at: 405-935-4347. Any interested parties that have objections or request a hearing must be filed within 15 days of this notice to the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, NM 87505
#25604

02108820 00045500

BRYANT ARRANT
CHESAPEAKE-LEGAL NOTICE
P.O. BOX 18496
OKLAHOMA CITY, OK 73154

Affidavit of Publication

State of New Mexico,
County of Lea.

I, KENNETH NORRIS
GENERAL MANAGER
of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, do solemnly swear that the clipping attached hereto was published in the regular and entire issue of said newspaper, and not a supplement thereof for a period

of 1 issue(s).
Beginning with the issue dated
January 23, 2010
and ending with the issue dated
January 23, 2010

Kenneth Norris
GENERAL MANAGER
Sworn and subscribed to before me
this 27th day of
January, 2010

Linda M. Jones
Notary Public

My commission expires
June 16, 2013
(Seal)

OFFICIAL SEAL
Linda M Jones
NOTARY PUBLIC - STATE OF NEW MEXICO
My Commission Expires:

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

LEGAL NOTICE
JANUARY 23, 2010

Chesapeake operating, Inc. intends to convert the following well to a water injection service: Trinity Burrus Abo Unit #6 which is located in Unit N of Section 22, Township 12 South, Range 38 East, 330' FSL & 2301' FWL, Lea County, New Mexico. The formation to be injected into is the Wolfcamp through perforated intervals: 9035'-9087'. The average disposal rate is expected to be 300 BWPD and a maximum disposal rage of 1000 BWPD. The injection pressure is expected to be 1800 psig with a maximum pressure of 1800 psig. This formation is productive of oil and gas. The proposed injection is for the purpose of increasing the recovery of oil and gas from this formation as this well is part of the Trinity Burrus Abo Unit. Questions or objections can be addressed to Chesapeake Operating, Inc. 6100 N. Western Ave., Oklahoma City, OK 73118 or call Jeff Finell at: 405-935-4347. Any interested parties that have objections or request a hearing must be filed within 15 days of this notice to the Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, NM 87505
#25603

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