New Mexico Oil Conservation Division form (C-108) Application
Authorization for Secondary Recovery

Proposed Chambers Strawn Unit Area

List of wells for this application:

Chambers 7 #1
Unit H, Section 7, T-16-S R-36-E
1700' FNL & 900' FEL
Lea County, New Mexico
API # 30-025-33623

Runnels 8 #1
Unit N, Section 8, T-16-S R-36-E
780' FSL & 1510' FWL
Lea County, New Mexico
API # 30-025-34264

Chesapeake Operating, Inc. respectfully proposes to re-enter the above noted wells and convert to water injection in the Strawn formation.
Please find the following application for authorization to inject (NMOCD's form C-108) along with attachments and item information.

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 G. Arrant, Contact phone # 405-935-3782

Item III See attached data sheets

Item IV This is not an existing project.

Item V Attached are maps that identify all wells and leases within ½ and 2 miles of the proposed injection zones. In addition is a map with ½ mile radius circles that identifies the well's area of review (AOR).

Item VI Attached are a tabulation of wells of public record and other information within the AOR which penetrate the proposed injection zone. There are no plugged and abandoned wells within either AOR.

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Consolidated Case No.'s 14477 & 14478 Exhibit No. 22
Submitted by:
CHESAPEAKE OPERATING, INC.
Hearing Date: MAY 27, 2010

Item VII

1) Daily average injection rate for both wells is expected to be 1800 BWPD with the maximum daily rate to be approximately 1800 BWPD.
2) The system will be closed.
3) The proposed average injection pressure for the Chambers 7 # 1 is expected to be 2275 psig and the maximum pressure is expected to be 2275 psig. The proposed average injection pressure for the Runnels 8 # 1 is expected to be 2290 psig and the maximum pressure is expected to be 2290 psig.
4) The source of water to be injected is from the Wolfcamp and Strawn formations. The Wolfcamp is produced from the Chesapeake operated SV Chipshot # 1 and 2 located in Section 11 of T16S-R36E. The Strawn is produced from the Chesapeake operated Easley 6 #1 located in Section 6 of T16S-R37E. Strawn water produced from the Chambers Unit will also be injected back into the Strawn through the Unit injection wells. A water analysis from the Wolfcamp and Strawn formations are attached. The Wolfcamp water (from the Chipshot #1 and #2 wells) and Strawn water (from the Easley 6 # 1 and the Nelly 21 #1 wells) were mixed in concentrations of 25%, 50% and 75% and analyzed at 77 °F and 140 °F. These waters are compatible; mixtures of these waters show no increase in scaling or precipitation tendencies.
5) Injection is for waterflood recovery purposes; this is not a water disposal project.

Item VIII

The proposed Chambers Strawn Unit is situated locally in eastern central Lea County, New Mexico and regionally near the shelf margin of the Northwest Shelf of the Delaware Basin and is part of the larger complex of mounds in the Shoe Bar; Strawn, Northeast Field. The proposed unit produces from the Strawn Formation and is an east to west trending phylloid algal bioherm or mound. The Strawn Formation is Pennsylvanian-age directly overlain by the Canyon and underlain by the Atoka, both of which are also Pennsylvanian-age. In general, the Strawn mounds are isolated limestone coral algal bioherm lithofacies composed of phylloid algal plates and encrusting tubular forams with minor corals. Tight carbonate mudstones are found between mounds and encase each mound. Porosity within mounds average 8-10% and consists of primary shelter and intergranular pores, as well as secondary moldic, vuggy, and fracture (breccia) porosity.

Fresh water in this area is from the Ogallala formation. The depth from the surface is approximately 51'down to a maximum depth drilled of 160'.

The top and bottom of the Strawn are indicated below for each well:

Well Name	Top of Strawn	Base of Strawn
Chambers 7 #1	11378'	11630'
Runnel 8 #1	11454'	11738'

Item IX For both wells, acidize Strawn perfs w/5000 gals 15 % NeFe Acid.

Item X Electric logs are available for public record on NMOCD's web-site.

Item XI There are underground sources of drinking water overlying the proposed injection zones. A water analysis from a fresh water well within the AOR is attached. In addition, please find the New Mexico Office of the State Engineer's list of water wells in this area.

These wells are located @ 10 miles south southwest of the secretary's potash boundary of R-111-P, and @ 26 miles east of the Capitan Reef aquifer.

Item XII There are 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 to the offset operators, surface owners, offset oil and gas lessees or mineral owners as applicable within one-half mile of the (2) AORs. A list is provided.
- A copy of the C-108 application has been sent to the NMOCD's District I office.
- Both wells are located on Fee land.
- A copy of the legal advertisement in the county in which the wells are located is attached.

Additional information:

- Procedure to convert wells to injection
- Actual & proposed well bore diagrams
- Geological formation tops

DATE IN	SUSPENSE	ENGINEER	LOGGED IN	TYPE	APP NO.

ABOVE THIS LINE FOR DIVISION USE ONLY

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.

Jeff Finnell		Senior Asset Manager	4/23/2010
Print or Type Name	Signature	Title	Date

Jeff.Finnell@chk.com
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

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

II. OPERATOR: Chesapeake Operating, Inc.

ADDRESS : P.O. Box 18496 Oklahoma City, OK 73154-0496

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? _____ Yes __X__ No
If yes, give the Division order number authorizing the project _____

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

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

VII. Attach data on the proposed operation, including:

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

*VIII. Attach appropriate 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: Bryan Arrant DATE: 04/22/2010

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: Chambers 7 #1

WELL LOCATION: 1700' FNL & 900' FEL | H | 7 | 16 South | 36 East

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: 475 sxs sx. *or* _____ ft^3

Top of Cement: 0' Method Determined: Circulated

Intermediate Casing

Hole Size: 12 1/4" Casing Size: 8 5/8"

Cemented with: 1700 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: 905 sxs sx. *or* _____ ft^3

Top of Cement: 4230' Method Determined: CBL

Total Depth: 12,047'

Injection Interval

11,392' feet to 11,480' (Perforated)

(Peforated or Open Hole; indicated which)

INJECTION WELL DATA SHEET

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

Type of Packer: Baker Loc-Set

Packer Setting Depth: 11,347'

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 & Gas

2. Name of the Injected Formation: Strawn

3. Name of Field or Pool (if applicable): Shoe Bar; Strawn, Northeast , Pool Code #96649

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. No.

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: Runnels 8 # 1

WELL LOCATION: 780' FSL & 1510' FWL | N | 8 | 16 South | 36 East

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: 470 sxs sx. *or* _____ ft^3

Top of Cement: 0' Method Determined: Circulated

Intermediate Casing

Hole Size: 12 1/4" Casing Size: 9 5/8"

Cemented with: 1635 sxs sx. *or* _____ ft^3

Top of Cement: 0' Method Detemined: Circulated

Production Casing

Hole Size: 7 78" Casing Size: 5 1/2"

Cemented with: 1440 sxs sx. *or* _____ ft^3

Top of Cement: 2952' Method Determined: CBL

Total Depth: 11,875'

Injection Interval

11,458' feet to 11,494' (Perforated)

(Peforated or Open Hole; indicated which)

INJECTION WELL DATA SHEET

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

Type of Packer: Baker Loc-Set

Packer Setting Depth: 11,397'

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

Additional Data

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

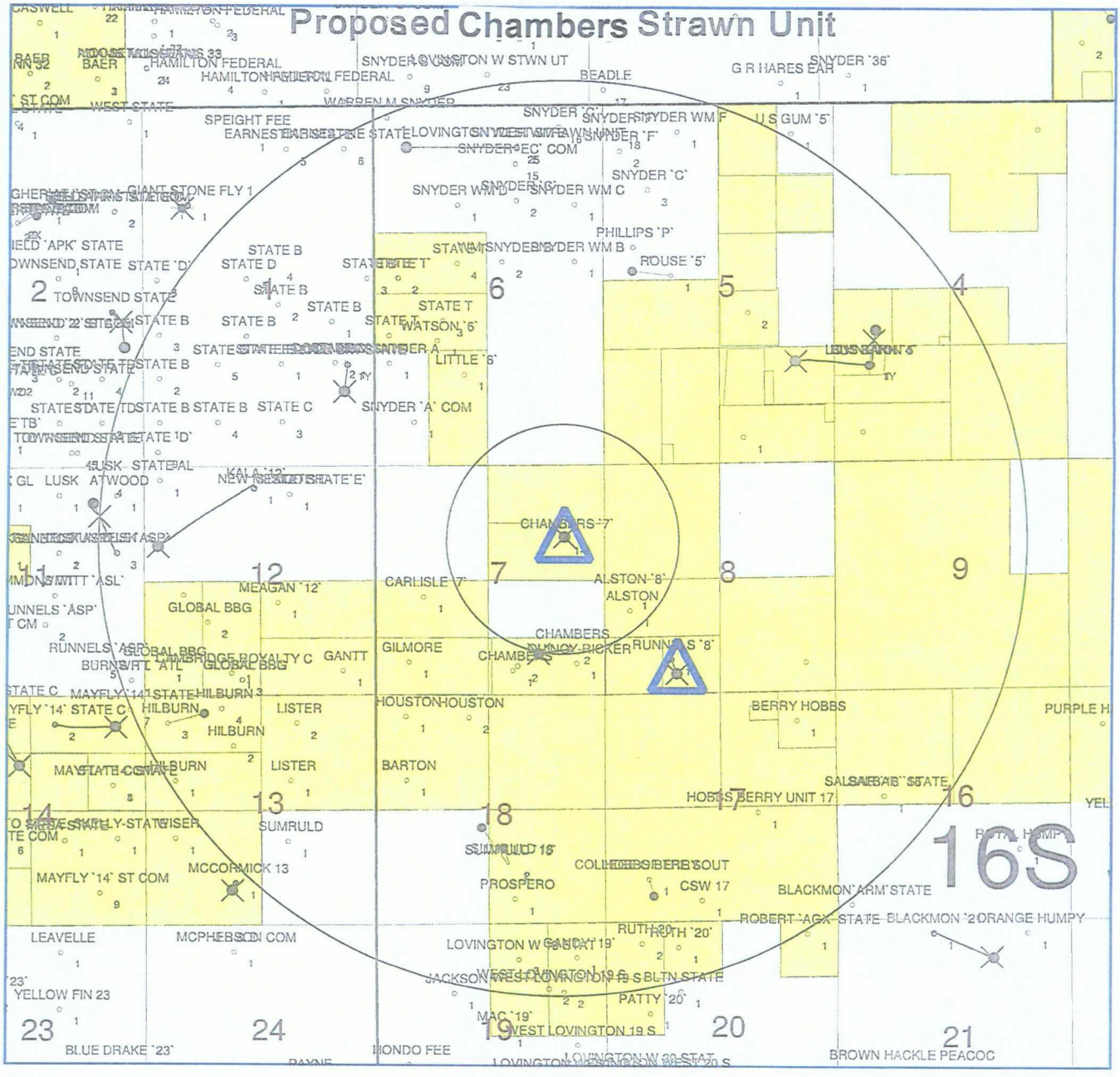
   If no, for what purpose was the well originally drilled? Oil & Gas

2. Name of the Injected Formation: Strawn

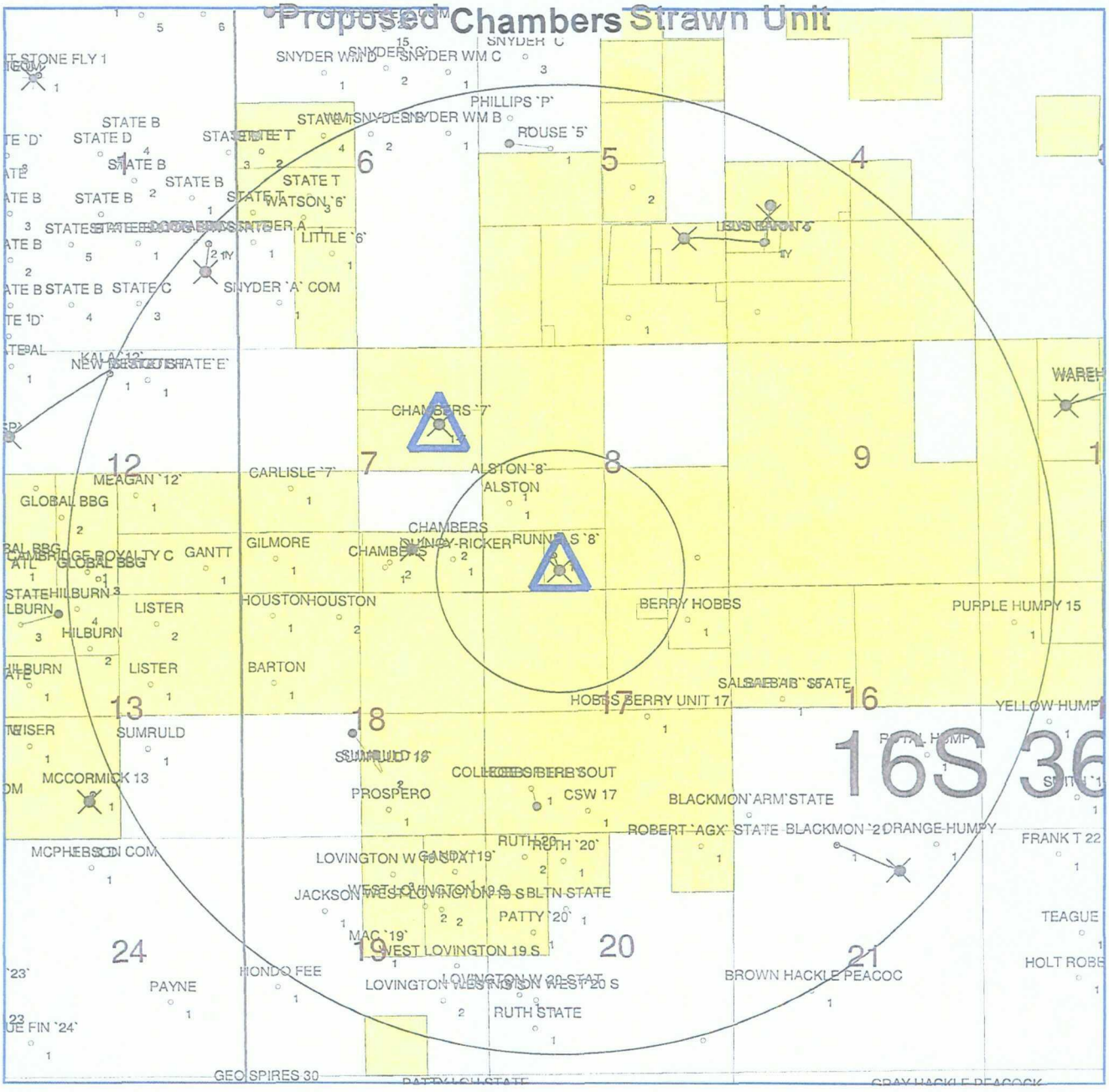
3. Name of Field or Pool (if applicable): Shoe Bar; Strawn, Northeast, Pool Code # 96649

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. No

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



Item V
½ & 2 mile Area of Review
Chambers 7 # 1
(Map 1 of 3)

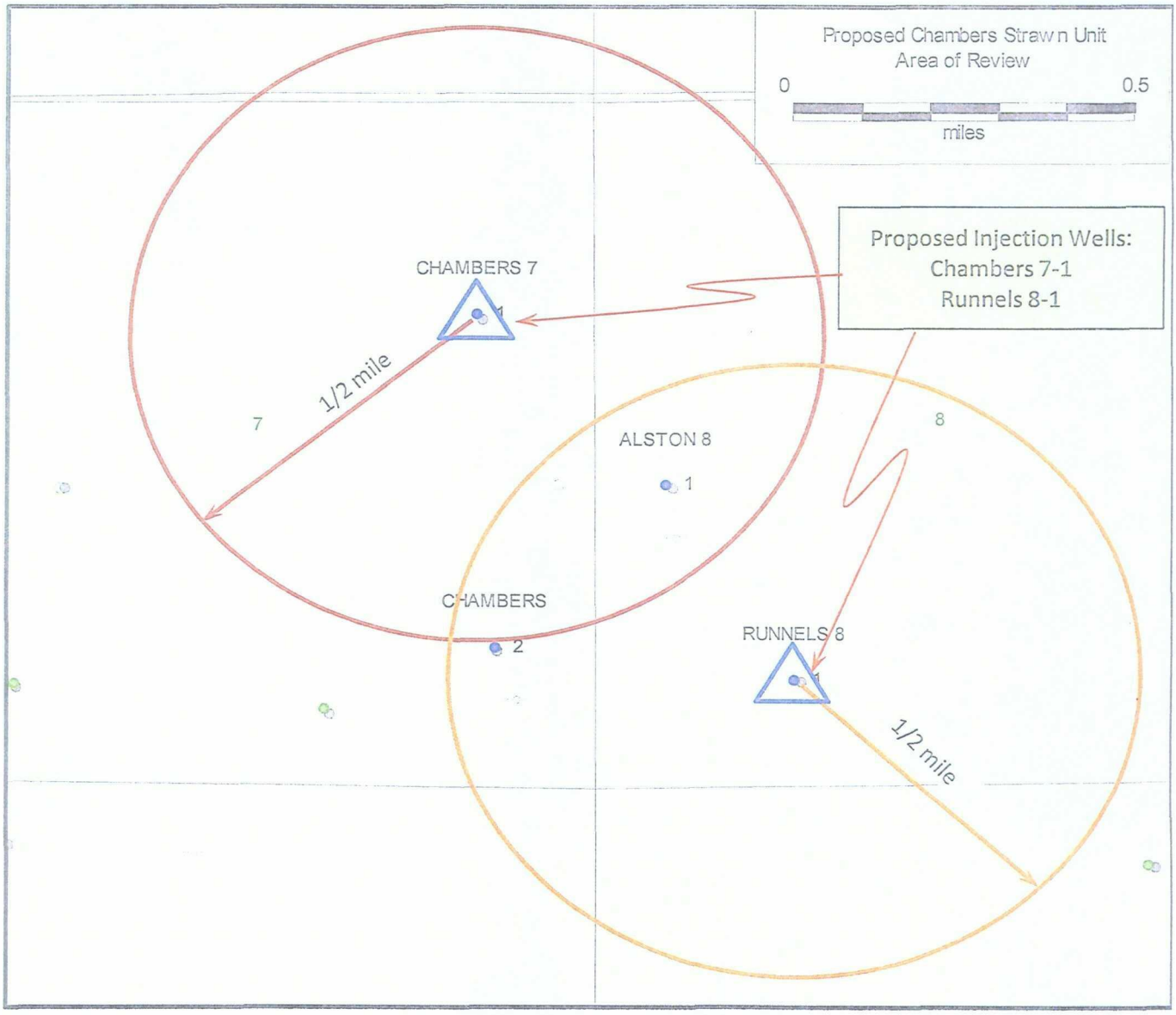


Item V
½ & 2 mile Area of Review
Runnels 8 # 1
(Map 2 of 3)

Proposed Chambers Strawn Unit

C-108 Application

Area of Review



Two wells will be converted to injection, the Chambers 7 # 1 and the Runnels 8 #1. There are two other wells within the area of review, the Alston 8 #1 and the Chambers #2. All pertinent well data is on the table of review. Wellbore schematics are attached showing each proposed injectors as presently configured and as it will be configured for injection service.

Item V

½ mile AORs

Chambers 7 # 1 and Runnels 8 #1

(Map 3 of 3)

Proposed Chambers Strawn Unit
Form C-108 Area of Review

Well Construction Detail

Well Name	Location Sec Twn Rng	Type	Date Completed	Depth- ft		Surface Casing Information						Intermediate Casing Information						Production Casing Information					
						Hole	Casing					Hole	Casing					Hole	Casing				
				Total	PBTD	Size	Dia.	Depth	Weight-Grade	Cement (Sx)	TOC	Size	Dia.	Depth	Weight-Grade	Cement (Sx)	TOC	Size	Dia.	Depth	Weight-Grade	Cement (Sx)	TOC
Alston 8 #1	8L 16S 36E	Oil	5/8/1997	11,831'	11,721'	17-1/2"	13-3/8"	454'	54.5 & 48# K55 ST&C	450	Surface	11"	8-5/8"	4,100'	32# S-80	1,155	Surface	7-7/8"	5-1/2"	11,831'	17# N80 LT&C	2 stages: 1,535	2,575'
Chambers 7 #1	7H 16S 36E	Oil	11/26/1996	12,047'	11,982'	17-1/2"	13-3/8"	412'	54.5# J55	475		12-1/4"	8-5/8"	4,215'	32#, J55	1,700	Surface	7-7/8"	5-1/2"	12,000'	17# N80	905	4,230'
Runnels 8 #1	8N 16S 36E	Oil	3/14/1998	11,875'	11,793'	17-1/2"	13-3/8"	489'	48.4# H40	470	Surface	12-1/4"	9-5/8"	4,200'	40# J55	1,635	4,130'	7-7/8"	5-1/2"	11,875'	17# N80	1,440	2,952'
Chambers #2	7P 16S 36E	Oil	9/5/2003	11,471	11,471'	17-1/2"	13-3/8"	472'	54.5# & 55#, J55	454	Surface	11"	8-5/8"	4,838'	32#-N80	1,850	Surface	7-5/8"	5-1/2"	11,400'	17#-N80	530	9,408'
																		DV tool at 9,408'				660	4,580'

Item VI
Tabulation of Wells within Area of Review
(1 of 3)

Proposed Chambers Strawn Unit
Form C-108 Area of Review

Initial Completion and Subsequent Workover Information

Well Name	Date Completed	Depth- ft		Initial Completion Perforations			Notes and Subsequent Completions.
		Total	PB	Top	Bottom	Comments	
Alston 8 # 1	5/8/1997	11,831'	11721	11,444'	11,464'	6 spf: 120 holes	1/11-12/02: Workover: Pumped 3 stages of 1,000 gal NeFe each. Divert w/ rocksalt & acid flakes. 1/13-2/16/03 Hole in tubing. Replace & change pump.
Chambers 7 #1	11/26/1996	12,047	11,982'	11,418' 11,448' 11,458.5'	11,438' 11,458' 11,468.5'	6 spf 6 spf 6 spf	2/20/98: 11,392' - 11, 418' 11,438' - 11,448' 11,468' - 11,480' Total 192 holes.
Runnels 8 # 1	3/14/1998	11,875 Measured Depth	11,777'	11,458' 11,476'	11,460' 11,494'	4 spf: 8 holes 4 spf: 72 holes Treated with 24 bbl 5% HCl and 253 bbls 2% KCl.	06/15/01: Replace parted rods, Acidize w/ 900 gals 15% HCl & 100 gals Xylene. Ran scraper across perfs 06/19/01: Small acid frac.
Chambers #2	9/5/2003	11,471'	11,471'	11,399' 11,402'	11,471' 11,471'	Acidize Acidize	12/11/07: Acidize 11,402-11471 with 2000 gals 15% NeFe w/ 220 gals scale inhibitor.

Item VI

(2 of 3)

Proposed Chambers Strawn Unit
Form C-108 Area of Review

Plugging Detail of all Plugged with within the Area of Review

No well penetrating the proposed Strawn injection interval have yet been plugged and abandoned.

Well Name	Location Sec Twn Rng	Type	Date Completed	Depth- ft		P&A Date	Perforating and plug data	CIBP Set at
				Total	PB			
Alston 8 #1								
Chambers 7 #1								
Runnels 8 #1								

Item VI

(3 of 3)

Item VII (4)

Attached are water analyses of Wolfcamp & Strawn formation waters from surrounding wells.

SV Big Bertha #1
Section 11, T-16-S R-36-E
2081' FNL & 1870' FWL
Lea County, NM
API # 30-025-33883
(Water analysis is Wolfcamp produced from SV Chipshot # 1 and # 2 wells)

Chambers # 2
Section 7, T-16-S R-36-E
1038' FSL & 802' FEL
Lea County, NM
API # 30-025-36317
(Strawn formation water analysis)

Easley 6 # 1
Section 6, T-16-S R-37-E
2383' FNL & 946' FWL
Lea County, NM
API # 30-025-34093
(Strawn formation water analysis)

Nellie 21 # 1
Section 21, T-16-S R-37-E
1980' FSL & 660' FEL
Lea County, NM
API # 30-025-35631
(Strawn formation water analysis)

SV Chipshot #1
2164' FSL & 1362' FWL
Section 11, T-16-S R-36-E
Lea County, NM
API # 30-025-33466
(Wolfcamp formation water analysis)

SV Chipshot #2
966' FSL & 481' FWL
Section 11, T-16-S R-36-E
Lea County, NM
API # 30-025-33806
(Wolfcamp formation water analysis)

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

Martin Water Laboratories, Inc.

709 W. INDIANA
MIDLAND, TEXAS 79701
FAX (432) 682-6819

RESULT OF WATER ANALYSES

LABORATORY NO. 210-182
SAMPLE RECEIVED ~~2-22-10~~
RESULTS REPORTED 2-24-10

TO: Mr. Steve Serna
PO Box 190, Hobbs, NM 88240

COMPANY Chesapeake LEASE As listed

FIELD OR POOL

SECTION ____ BLOCK ____ SURVEY ____ COUNTY ____ STATE ____

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Submitted water sample - taken from Big Bertha 1. 2-19-10

NO. 2 Submitted water sample - taken from Chambers 2. 2-19-10

NO. 3

NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.1140	1.0360		
pH When Sampled				
pH When Received	6.89	7.18		
Bicarbonate as HCO_3	220	573		
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	22,500	5,200		
Calcium as Ca	6,400	1,560		
Magnesium as Mg	1,580	316		
Sodium and/or Potassium	66,623	18,246		
Sulfate as SO_4	890	321		
Chloride as Cl	117,892	31,248		
Iron as Fe	0.60	5.90		
Barium as Ba	0	0		
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	193,604	52,265		
Temperature °F.				
Carbon Dioxide, Calculated	57	75		
Dissolved Oxygen,				
Hydrogen Sulfide	0.0	0.0		
Resistivity, ohms/m at 77° F.	0.059	0.152		
~~Suspended Oil~~ Measured RW	0.048	0.150		
~~Filtrable Solids as mg/l~~ Corrosiveness	None	None		
~~Volume Filtered, ml~~ Barium Sulfate Scaling Tendency	None	None		
CaCO3 S.I. @ 77° F. (Stiff-Davis)	0.79	0.33		
CaCO3 S.I. @ 122° F. (Stiff-Davis)	1.47	0.93		
Calcium Sulfate Scaling Tendency	None	None		

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks

CaCO3 S.I. - A positive fig. signifies a scaling potential proportionate to the magnitude of the number, and a negative fig. signifies no scaling potential.

Based on the determinations performed above and a hypothetical combination of these two waters, no significant scaling potential from calcium sulfate or barium sulfate would be expected to form. Each water individually shows a calcium carbonate scaling potential but a mixture of the two would likely not result in a tendency greater than what already exists in each water. Therefore, based on these results, these two waters should be compatible.

Form No. 3

By Greg Ogden, B.S.

LATHAM PRINTING CO. - 333-1292

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. 509-237
SAMPLE RECEIVED 5-15-09
RESULTS REPORTED 6-1-09

TO: Mr. Jeff Finnell
6100 N. Western Avenue, Oklahoma City, OK 73118

COMPANY Chesapeake LEASE As listed
FIELD OR POOL
SECTION ____ BLOCK ____ SURVEY ____ COUNTY Lea STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Easley 6-1 (Strawn). 5-14-09
NO. 2 Chipshot #1 (Wolfcamp). 5-14-09
NO. 3 Nellie 21-1 (Strawn). 5-14-09
NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0350	1.1170	1.0740	
pH When Sampled				
pH When Received	7.41	6.70	6.60	
Bicarbonate as HCO_3	573	220	390	
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	3,700	19,000	12,200	
Calcium as Ca	1,120	5,920	3,680	
Magnesium as Mg	219	1,021	729	
Sodium and/or Potassium	17,907	65,675	34,887	
Sulfate as SO_4	1,060	1,320	1,542	
Chloride as Cl	29,118	113,630	61,076	
Iron as Fe	1.5	1.7	2.7	
Barium as Ba	0	0	0	
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	49,997	187,785	102,305	
Temperature °F.				
Carbon Dioxide, Calculated	38	72	160	
Dissolved Oxygen,				
Hydrogen Sulfide	0.0	3.0	0.0	
Resistivity, ohms/m at 77° F.	0.163	0.060	0.094	
Suspended Oil				
[illegible] Corrosiveness	Mild	Moderate	Moderate	
[illegible] Barium Sulfate Scaling Tendency	None	None	None	
CaCO3 S.I. @ 77° F. (Stiff-Davis)	0.42	0.53	-0.01	
CaCO3 S.I. @ 122° F. (Stiff-Davis)	1.02	1.18	0.55	
Calcium Sulfate Scaling Tendency	None	None	None	

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks

$CaCO_3$ S.I. - A positive fig. signifies a scaling potential proportionate to the magnitude of the number, and a negative fig. signifies no scaling potential.

These three waters, when combined, show no significant incompatibilities regarding scale and/or precipitation beyond what already exists with each water individually. Each water shows a positive calcium carbonate scaling tendency as do the mixtures, particularly at the higher temperatures. No substantial calcium sulfate or barium sulfate potential appears likely with these mixtures.

Form No. 3

By

LATHAM PRINTING CO. - 333-1292

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. 509-237-A
SAMPLE RECEIVED 5-15-09
RESULTS REPORTED 6-1-09

TO: Mr. Jeff Finnell
6100 N. Western Avenue, Oklahoma City, OK 73118

COMPANY Chesapeake LEASE

FIELD OR POOL

SECTION BLOCK SURVEY COUNTY Lea STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 25% Chipshot and 75% Nellie.

NO. 2 50% Chipshot and 50% Nellie

NO. 3 75% Chipshot and 25% Nellie

NO. 4

REMARKS: *Analysis performed at 77°F*

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0740	1.0830	1.0910	
pH When Sampled				
pH When Received	6.70	6.85	6.96	
Bicarbonate as HCO_3	305	293	244	
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	14,600	16,600	17,600	
Calcium as Ca	4,240	5,040	5,520	
Magnesium as Mg	972	972	923	
Sodium and/or Potassium	43,817	49,370	59,008	
Sulfate as SO_4	1,401	1,460	1,423	
Chloride as Cl	76,701	86,643	102,267	
Iron as Fe	2.0	2.0	1.7	
Barium as Ba	0	0	0	
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	127,436	143,778	169,386	
Temperature °F.				
Carbon Dioxide, Calculated	101	76	51	
Dissolved Oxygen,				
Hydrogen Sulfide	0.0	0.0	0.0	
Resistivity, ohms/m at 77° F.	0.079	0.072	0.064	
Suspended Oil				
[illegible] Corrosiveness	Moderate	Moderate	Moderate	
[illegible] Barium Sulfate Scaling Tendency	None	None	None	
CaCO3 S.I. @ 77° F. (Stiff-Davis)	0.14	0.43	0.67	
Calcium Sulfate Scaling Tendency	None	None	None	

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks

CaCO3 S.I. - A positive fig. signifies a scaling potential proportionate to the magnitude of the number, and a negative fig. signifies no scaling potential.

Please feel free to contact us for any details or discussions concerning these results.

Form No. 3

By

LATHAM PRINTING CO. · 333-1292

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. 509-237-B
SAMPLE RECEIVED 5-15-09
RESULTS REPORTED 6-1-09

TO: Mr. Jeff Finnell
6100 N. Western Avenue, Oklahoma City, OK 73118

COMPANY Chesapeake LEASE As listed
FIELD OR POOL
SECTION ____ BLOCK ____ SURVEY ____ COUNTY Lea STATE NM
SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 25% Chipshot / 75% Easly.
NO. 2 50% Chipshot / 50% Easly.
NO. 3 75% Chipshot / 25% Easly.
NO. 4

REMARKS: *Analysis performed at 77°F*

CHEMICAL AND PHYSICAL PROPERTIES

	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0520	1.0690	1.0820	
pH When Sampled				
pH When Received	7.39	7.28	7.19	
Bicarbonate as HCO_3	427	390	354	
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	8,200	11,200	14,600	
Calcium as Ca	2,400	3,200	4,080	
Magnesium as Mg	535	778	1,069	
Sodium and/or Potassium	25,019	34,227	47,461	
Sulfate as SO_4	1,112	1,127	1,275	
Chloride as Cl	43,322	59,656	82,382	
Iron as Fe	1.70	1.70	1.50	
Barium as Ba	0	0	0	
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	72,815	99,378	136,621	
Temperature °F.				
Carbon Dioxide, Calculated	35	43	46	
Dissolved Oxygen,				
Hydrogen Sulfide	0.0	0.0	0.0	
Resistivity, ohms/m at 77° F.	0.119	0.094	0.075	
Suspended Oil				
[illegible] Corrosiveness	Mild	Moderate	Moderate	
[illegible] Barium Sulfate Scaling Tendency	None	None	None	
CaCO3 S.I. @ 77° F. (Stiff-Davis)	0.55	0.58	0.73	
Calcium Sulfate Scaling Tendency	None	None	None	

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks

CaCO3 S.I. - A positive fig. signifies a scaling potential proportionate to the magnitude of the number, and a negative fig. signifies no scaling potential.

Please feel free to contact us for any details or discussions concerning these results.

Form No. 3

By ____

LATHAM PRINTING CO. - 333-1282

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. 509-237-C
SAMPLE RECEIVED 5-15-09
RESULTS REPORTED 6-1-09

TO: Mr. Jeff Finnell
6100 N. Western Avenue, Oklahoma City, OK 73118

COMPANY Chesapeake LEASE

FIELD OR POOL

SECTION BLOCK SURVEY COUNTY Lea STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 25% Chipshot / 75% Nellie.

NO. 2 50% Chipshot / 50% Nellie.

NO. 3 75% Chipshot / 25% Nellie.

NO. 4

REMARKS: *Analysis performed at 140°F*

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0742	1.0834	1.0915	
pH When Sampled				
pH When Received	6.95	7.03	7.22	
Bicarbonate as HCO_3	305	378	305	
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	14,000	14,600	18,400	
Calcium as Ca	4,160	4,800	5,280	
Magnesium as Mg	875	632	1,264	
Sodium and/or Potassium	47,743	56,743	59,559	
Sulfate as SO_4	1,327	1,401	1,371	
Chloride as Cl	82,382	96,586	103,688	
Iron as Fe	1.7	2.0	1.7	
Barium as Ba	0	0	0	
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	136,792	160,539	171,467	
Temperature °F.				
Carbon Dioxide, Calculated	64	61	34	
Dissolved Oxygen,				
Hydrogen Sulfide	0.0	0.0	0.0	
Resistivity, ohms/m at 77° F.	0.076	0.066	0.064	
Suspended Oil				
[illegible] Corrosiveness	Moderate	Moderate	Mild	
[illegible] Barium Sulfate Scaling Tendency	None	None	None	
CaCO3 S.I. @ 140° F. (Stiff-Davis)	1.03	1.41	1.64	
Calcium Sulfate Scaling Tendency	None	None	None	

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks

CaCO3 S.I. - A positive fig. signifies a scaling potential proportionate to the magnitude of the number, and a negative fig. signifies no scaling potential.

Please feel free to contact us for any details or discussions concerning these results.

Form No. 3

By

LATHAM PRINTING CO. - 333-1292

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. 509-237-D
SAMPLE RECEIVED 5-15-09
RESULTS REPORTED 6-1-09

TO: Mr. Jeff Finnell
6100 N. Western Avenue, Oklahoma City, OK 73118

COMPANY Chesapeake LEASE

FIELD OR POOL

SECTION BLOCK SURVEY COUNTY Lea STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 25% Chipshot / 75% Easly.

NO. 2 50% Chipshot / 50% Easly.

NO. 3 75% Chipshot / 25% Easly.

NO. 4

REMARKS: *Analysis performed at 140°F*

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0525	1.0690	1.0825	
pH When Sampled				
pH When Received	7.71	7.58	7.54	
Bicarbonate as HCO_3	525	427	390	
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	8,000	10,600	14,400	
Calcium as Ca	2,400	3,600	4,560	
Magnesium as Mg	486	389	729	
Sodium and/or Potassium	31,579	40,980	51,205	
Sulfate as SO_4	1,075	1,156	1,179	
Chloride as Cl	53,264	69,599	88,064	
Iron as Fe	1.50	1.70	1.50	
Barium as Ba	0	0	0	
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	89,329	116,151	146,127	
Temperature °F.				
Carbon Dioxide, Calculated	17	22	20	
Dissolved Oxygen,				
Hydrogen Sulfide	0.0	0.0	0.0	
Resistivity, ohms/m at 77° F.	0.102	0.085	0.072	
Suspended Oil				
[illegible] Corrosiveness	Mild	Mild	Mild	
[illegible] Barium Sulfate Scaling Tendency	None	None	None	
CaCO3 S.I. @ 140° F. (Stiff-Davis)	1.56	1.62	1.78	
Calcium Sulfate Scaling Tendency	None	None	None	

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks

CaCO3 S.I. - A positive fig. signifies a scaling potential proportionate to the magnitude of the number, and a negative fig. signifies no scaling potential.

Please feel free to contact us for any details or discussions concerning these results.

Form No. 3

By

LATHAM PRINTING CO. - 333-1292

Item XI

- Ground Water Analysis within AOR
- New Mexico Office of the State Engineer's Water Column/Average Depth to Water

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. 1209-84
SAMPLE RECEIVED 12-10-09
RESULTS REPORTED 12-11-09

TO: Mr. Jeff Finnell
6100 N. Western Avenue, Oklahoma City, OK 73118

COMPANY Chesapeake LEASE Chambers 2

FIELD OR POOL

SECTION BLOCK SURVEY COUNTY STATE

SOURCE OF SAMPLE AND DATE TAKEN:

NO. 1 Submitted water sample - taken from water well south of Chambers 2.

NO. 2

NO. 3

NO. 4

CHAMBERS 2
Section 7, T-16-S R-36-E
1038' FSL & 802' FEL
Lea County, NM
API # 30-025-36317

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0011			
pH When Sampled				
pH When Received	7.20			
Bicarbonate as HCO_3	278			
Supersaturation as $CaCO_3$				
Undersaturation as $CaCO_3$				
Total Hardness as $CaCO_3$	260			
Calcium as Ca	96			
Magnesium as Mg	5			
Sodium and/or Potassium	41			
Sulfate as SO_4	51			
Chloride as Cl	48			
Iron as Fe	0.20			
Barium as Ba	0			
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	519			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen,				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	16.950			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

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.

cc: Steve Serna

LATHAM PRINTING CO. • 333-1292

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 00196 D		IRR	LE	1	3	2	08	16S	36E	651831	3645728*	120		
L 00247 BA		IRR	LE	4	3	3	08	16S	36E	651236	3644708*	123		
L 01011 APPRO		DOM	LE	2	1	1	08	16S	36E	651216	3646116*	75		
L 01070 APPRO		DOM	LE	3	4	3	08	16S	36E	651441	3644715*	75	55	20
L 01378 APPRO		DOM	LE	3	3	3	08	16S	36E	651036	3644708*	76	51	25
L 01423 APPRO		DOM	LE		1	1	08	16S	36E	651117	3646017*	90	60	30
L 01457 APPRO		DOM	LE	4	4	3	08	16S	36E	651641	3644715*	85	60	25
L 01581 APPRO		DOM	LE	3	3	3	08	16S	36E	651036	3644708*	89		
L 03236		DOM	LE	4	2	3	08	16S	36E	651634	3645118*	96	55	41
L 03236 APPRO		DOM	LE	4	2	3	08	16S	36E	651634	3645118*	96		
L 03298		DOM	LE	4	4	3	08	16S	36E	651641	3644715*	90	65	25
L 03298 APPRO		DOM	LE	4	4	3	08	16S	36E	651641	3644715*	90	65	25
L 03373		DOM	LE	4	4	3	08	16S	36E	651641	3644715*	97	72	25
L 03373 APPRO		DOM	LE	4	4	3	08	16S	36E	651641	3644715*	97	72	25
L 03550		DOM	LE		2	3	08	16S	36E	651535	3645219*	87	70	17
L 03596		DOM	LE	2	2	3	08	16S	36E	651634	3645318*	88	70	18
L 03596 APPRO		DOM	LE	2	2	3	08	16S	36E	651634	3645318*	88	70	18
L 03727		DOM	LE				08	16S	36E	651740	3645412*	100	60	40
L 03727 APPRO		DOM	LE				08	16S	36E	651740	3645412*	100	60	40
L 03728		DOM	LE				08	16S	36E	651740	3645412*	100	65	35
L 03728 APPRO		DOM	LE				08	16S	36E	651740	3645412*	100	65	35
L 04154		DOM	LE	2	2	2	07	16S	36E	650813	3646109*	102	65	37
L 04154 APPRO		DOM	LE	2	2	2	07	16S	36E	650813	3646109*	102	65	37
L 04176		DOM	LE	3	1	2	08	16S	36E	651824	3645931*	105	82	23
L 04176 APPRO		DOM	LE	3	1	2	08	16S	36E	651824	3645931*	105	82	23
L 04651		DOM	LE				08	16S	36E	651740	3645412*	97	85	12
L 04651 APRO		DOM	LE				08	16S	36E	651740	3645412*	97	85	12
L 04939		DOM	LE		3	3	08	16S	36E	651137	3644809*	100	75	25
L 05218		DOM	LE	3	3	3	08	16S	36E	651036	3644708*	120	90	30
L 05380		DOM	LE	4	4	3	08	16S	36E	651641	3644715*	100	64	36
L 05564		DOM	LE	3	4	2	08	16S	36E	652236	3645536*	100	68	32
L 05706		DOM	LE	3	2	1	07	16S	36E	649808	3645894*	74	60	14
L 05909		DOM	LE	4	3	2	08	16S	36E	652031	3645528*	96	81	15

L 05910	DOM	LE	4	3	2	08	16S	36E	652031	3645528*	93	70	23
L 05964	DOM	LE	4	3	2	08	16S	36E	652031	3645528*	93	70	23
L 06053	DOM	LE		2	4	08	16S	36E	652343	3645234*	83	69	14
L 06943	DOM	LE	4	4	2	08	16S	36E	652436	3645536*	116	70	46
L 07445	STK	LE	2	2	3	08	16S	36E	651634	3645318*	100	68	32
L 07510	DOM	LE	3	3	2	08	16S	36E	651831	3645528*	120	70	50
L 07587	DOM	LE	4	3	2	08	16S	36E	652031	3645528*	110	72	38
L 07663	DOM	LE	3	4	2	08	16S	36E	652236	3645536*	110	72	38
L 07719	DOM	LE	4	4	2	08	16S	36E	652436	3645536*	120	70	50
L 07821	DOM	LE	4	4	2	08	16S	36E	652436	3645536*	160	87	73
L 07845	DOM	LE		4	3	08	16S	36E	651542	3644816*	110	73	37
L 08113	DOM	LE	3	3	2	08	16S	36E	651831	3645528*	104	61	43
L 08113 POD2	DOM	LE	3	3	2	08	16S	36E	651831	3645528*	155		
L 08189	DOM	LE	3	4	3	08	16S	36E	651441	3644715*	120	70	50
L 08208	DOM	LE	3	3	2	08	16S	36E	651831	3645528*			
L 08296	DOM	LE		1	2	08	16S	36E	651925	3646032*	150	70	80
L 08841	DOM	LE	3	4	2	08	16S	36E	652236	3645536*	123	53	70
L 09307	DOM	LE	4	3	3	08	16S	36E	651236	3644708*	135	60	75
L 09466	DOM	LE		3	3	08	16S	36E	651137	3644809*	135	60	75
L 09562	DOM	LE		2	1	08	16S	36E	651521	3646025*	100	70	30
L 09733	DOM	LE		3	2	08	16S	36E	651932	3645629*	120	78	42
L 09784	DOM	LE		1	1	08	16S	36E	651117	3646017*	100	65	35
L 09913	IRR	LE			3	08	16S	36E	651338	3645010*	140	60	80
L 09913	STK	LE			3	08	16S	36E	651338	3645010*	140	60	80
L 10103	DOM	LE		2	3	08	16S	36E	651535	3645219*	123		
L 10255	STK	LE	4	3	2	08	16S	36E	652031	3645528*	150	70	80
L 10606	PRO	LE	3	4	2	07	16S	36E	650620	3645506*	160	55	105
L 10880	DOM	LE	2	4	3	08	16S	36E	651641	3644915*	150	70	80
L 10924	DOM	LE		4	2	08	16S	36E	652337	3645637*	150		
L 11037	DOM	LE		2	2	08	16S	36E	652330	3646040*	100	65	35
L 11133	DOM	LE	2	2	3	08	16S	36E	651634	3645318*	120		
L 11253	DOM	LE	4	2	3	08	16S	36E	651634	3645118*	140	86	54
L 11480	STK	LE	2	1	2	08	16S	36E	652024	3646131*	100		
L 11488	DOM	LE	2	1	1	08	16S	36E	651216	3646116*	150		
L 11796	DOM	LE	4	3	4	08	16S	36E	652045	3644723*	120	61	59
L 12004 POD1	DOM	LE	4	4	2	08	16S	36E	652436	3645536*	120	63	57
L 12023 POD1	DOM	LE	4	1	4	08	16S	36E	652038	3645126*	110	60	50
L 12440 POD1	DOL	LE	1	3	1	08	16S	36E	651086	3645781	150		

Average Depth to Water: **68 feet**

Minimum Depth: **51 feet**

Maximum Depth: **90 feet**

Record Count: 71

Basin/County Search:

Basin: Lea County

PLSS Search:

Section(s): 7, 8 Township: 16S Range: 36E

***UTM location was derived from PLSS - see Help**

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

4/16/10 11:52 AM

WATER COLUMN/ AVERAGE DEPTH TO WATER

Item XIII Notice Address List

NAME	ADDRESS	CITY	STATE	ZIP
A & P Family Limited Partnership	P.O. Box 1046	Eunice	NM	88231
Albert Damien Hobbs c/o Berry Lee Hobbs, A-I-F	P.O. Box 154	Lovington	NM	88260
Andrei Rallis	29 Victory Street Rose Bay	Sydney	Australia	2023 NSW
Anita McDonald	1301 Sunny Hill Ct.	Bettendorf	IA	52722
Anna Kostantakopoylos	83-85 Limnoy St.	Athens, Greece		
Anna Rallis Argeanas	13616 Embudo Ct. NE	Albuquerque	NM	87112
Barney M. Bailey	813 W. Madison	Lovington	NM	88260
Ben L. Graham	P.O. Box 1251	Lawrence	KS	66044
Berry Lee Hobbs a/k/a Berry L. Hobbs	P.O. Box 152	Lovington	NM	88260
Berry Lee Hobbs, Jr. c/o Berry Lee Hobbs, A-I-F	P.O. Box 156	Lovington	NM	88260
Betty Stephen	155 Juniper Rd.	Placitas	NM	87043
Beverly Prichard	1405 Murray	Midland	TX	79701
Beverly Sue Cantrell Davis				
Bill C. Cotner, Foreign Personal Representative of the estate of Dorothy W. Cotner	903 Country Club Drive	Midland	TX	79701
Bill Thompson	1600 Willowick	Wichita Falls	TX	76309
Bobbie J. Bishop	1404 W. Avenue H	Lovington	NM	88260
Brigid E. Curran, Trustee of the Brigid E. Curran Revocable Trust dated 5/3/1994	P.O. Box 22114	Santa Fe	NM	87502
Brooke Curran Poirier Marital Trust, John Brunk, Trustee	2337 W. 51st Terrace	Westwood	KS	66205
C. L. Schnedar Estate and Angela Schnedar Estate		Chavez Co.	NM	
C. T. Sparkman and Vera Sparkman	1017 W. Harrison	Lovington	NM	88260
Cecilia Ray	7717 Baughman	Amarillo	TX	79121

Chalfant Properties, Inc. and/or Bill Chalfant	1502 North Big Spring, P.O. Box 3123	Midland	TX	79702
Charles Howard Benson and Jean Claire Benson, Trustees of the New Mexico Property Trust u/t/a 3/1/2006	177-107 Ave. NE, Unit 1106	Bellevue	WA	98004
Chesapeake Exploration, L.L.C.	P.O. Box 18496	Oklahoma City	OK	73154-0496
Chesapeake Investments, L.P.	P.O. Box 18756	Oklahoma City	OK	73154
Claudia Sue Smith	305 N. Cougar Ave.	Cedar Park	TX	78613
ConocoPhillips Co. Attn: Tom Scarbrough	600 N. Dairy Ashford	Houston	TX	77079-1175
Cortez Oil Company	370 17th St., Ste. 3670	Denver	CO	80202
Damon Cochran	303 N. Cougar Ave.	Cedar Park	TX	78613
David Graham McDonald c/o Ben Graham	P.O. Box 1251	Lawrence	KS	66044
David L. Quinlan, Personal Representative of the estate of Lucille L. Vidal	4203 Coe Drive NE	Albuquerque	NM	87110
David Petroleum Corp.	116 W. 1st St.	Roswell	NM	88203
David R. Marshall c/o Nancy Fox	16 Aurielle Drive	Colchester	VT	05446
Denise Murray	4409 Fairbanks	Midland	TX	79707
Desmond C. Poirier Revocable Trust Desmond C. Poirier, Trustee	2337 W. 51st Terrace	Westwood	KS	66205
Dimitrios Papadopoulos		Akrata, Aigialias Greece		
Donna Kay Atkinson	5974 Broyles Rd.		MO	65667
Dorothy L. Harvey	#4 Village Ct.	Littleton	CO	80123
Dorothy Runnels	8100 W. Alabama	Hobbs	NM	88240
Douglas C. Koch	P.O. Box 540244	Houston	TX	77254-0224
Doyle E. Province, Executor of the estate of Beulah Kay Phillips Province	5230 Mountain Villa Grove	Colorado Springs	CO	80917

Dudley P. Murph, Trustee of the Dudley P. Murph Revocable Living Trust	3019 W. Ave D.	Lovington	NM	88260
Earnest Phillips	P. O. Box 743	Van Alstyne,	TX	75095-0743
Edna Ruth Garner	East 2921 23nd #16	Spokane	WA	99223
EHV Investments, L.L.C.	10733 Highway 180 West	Silver City	NM	88061-9275
Elora Norene Phillips Duda	41725 Trenton Hill Dr.	Rio Rancho	NM	87124
Ericlis Papadopoulos		Akrata, Aigialias, Greece		
Ethel Mae Alberthal	300 Buzzard Hollow Court	Granbury	TX	76048
Floyd Miles	2400 S. Baylor	Roswell	NM	88201
Frances L. Schreufer	10525 108TH Ave. SW	Tacoma	WA	98498
Frances Ruth Stauz	Box 25	Coupland	TX	78615
Frances Stallcop Young	4935 Greenslope	Abilene	TX	79606
Gerald G. Feijoo				
Grady Thompson	9257 Shafter Rd.	Bakersfield	CA	93313
Greg Mauzy	P.O. Box 891	Midland	TX	79702
Greg Mauzy, Trustee of the MGM Oil & Gas Company Defined Benefit Plan	P.O. Box 891	Midland	TX	79702
Gretchen Ann Faulkner	209 Oak Hollow	Conroe	TX	77301
Gunsight Limited Partnership	P.O. Box 1973	Roswell	NM	88202
Gus Delonas (Dec'd) c/o Dorathy Delonas AIF (Dec'd)	3612 Mirror Ct	Spring	TX	77388
Helen Homanidis	General Delivery	Greece		
Helen Irving	4404 E. 85th St.	Tulsa	OK	74137
Holt Royalty, L.L.C.	P.O. Box 1469	Plainfield	IL	60544
ICA Energy, Inc.	700 N. Grant Ave.	Odessa	TX	79760-0233

Ina Carol Randall and Cathy Ruth Chapman c/o Linnie Jo Strunk	20600 Woodcreek Blvd.	Northville	MI	48167-2910
Intrust Bank, N.A., Trustee of the Roxanna S. Carlock Revocable Trust dated 7/23/1992	Box 48666	Wichita	KS	67201
J. Wade Miles	6402 Quay Road, A. Ct.	Tucumcary	NM	88401
Jacquelynne Darlene Barnes	1202 Roosevelt	Taylorville	IL	62568
James Clark Henrie II	P.O. Box 351	Corrales	NM	87049
James I. Holden, Jr.	2250 Havensridge Drive	Colorado Springs	CO	80920
Jana B. Miles	341 S. Alpine Dr.	Cornelius	OR	
Jane Dana Staley	4216 Berwick	Wichita Falls	TX	73609
Jean Claire Benson, Trustee of the Survivor's Trust c/o Jennifer Stevenson Perkins Coie LLP	1201 Third Avenue, Suite 4800	Seattle	WA	98101
Jeanne S. Kunko	1601 S. Kentucky Ave.	Roswell	NM	88201
Jim Tomlinson and Charlotte Tomlinson, Trustees under the Tomlinson Living Trust dated 12/12/2002	P.O. Box 774	Hatch	NM	87937
Jo Ann Hobbs Holloway c/o Berry Lee Hobbs, A-I-F	P.O. Box 155	Lovington	NM	88260
Joe Foran	One Lincoln Centre 5400 LBJ Freeway #1500	Dallas	TX	75240-1017
Joe S. Thompson, Executor of the estate of Joe Thompson	27564 Pond Drive	Keene	CA	93531
John William McDonald c/o Ben Graham	P.O. Box 1251	Lawrence	KS	66044
Judith E. Argoudelis, individually and as Executrix of the estate of John A. Argoudelis, deceased	1633 Cardinal Dr.	Munster	IN	46321
K. E. Chambers a/k/a Kenneth E. Chambers	2811 W. Ave. D	Lovington	NM	88260-5351
Katherine McDonald Wenig	1450 245th St.	Mt. Pleasant	IA	52722
Kelly H. Baxter	P.O. Box 1649	Austin	TX	78767-1649

Kelly H. Baxter	P.O. Box 11193	Midland	TX	79702
Kenneth T. Dorbandt	P.O. Box 684306	Austin	TX	78768-4306
Kostas Rallis a/k/a Gus Rallis	2028 Palomas NE	Albuquerque	NM	87110
Koyla Rallis Kaetsas a/k/a Kirla Koula Rallis Kaetsas	General Delivery	Petalou-Korinthias, Greece		
Larry C. Squires, Trustee of the Larry C. Squires Revocablre Trust dated 10/6/2004	P.O. Box 2158	Hobbs	NM	88241
Letsa Rallis Lafis a/k/a Garifalia Rallis Lafis	9 K Theodorou St.	Alghlon 25100	Greece	
Linnie Jo Strunk	20600 Woodcreek Blvd.	Northville	MI	48167-2910
Lloyd C. Green, Jr., Trustee of the Lloyd C. Green, Jr. Revocable Living Trust	308 Oxford Dr.	Gordonville	TX	76254
Lloyd W. Miles	1714 Jack Nicholas Dr.	Belen	NM	87702
Luce Gene Tatum	4423 Evalyn	Amarillo	TX	79109
Lula Maye Phillips	HC 60 #741A	Lovington	NM	88260
Magot Suzanne Chambers a/k/a Suzanne McDonald Chambers	314 Mantz Ave.	Audubon	IA	50025
Margaret L. Thompson	HC 63 Box 54	Mullin	TX	76864
Mariam Parke Christopher	642 Maple Street	Winnetka	IL	60093
Mary Van Wyk	7562 S. University Blvd.	Littleton	CO	80122
Mel M. Graham c/o Ben Graham	P.O. Box 1251	Lawrence	KS	66044
Mickey Byrd	1305 East Dakota Road	Lovington	NM	88260
Mickey Byrd, in his capacity as Custodian F/B/O Kyle Adrian Byrd, UTMA	1305 East Dakota Road	Lovington	NM	88260
Mildred L. Adams	5803 West State Avenue	Glendale	AZ	85301
Myco Industries, Inc.	105 South 4th St.	Artesia	NM	88210
Nancy Fox	16 Aurielle Drive	Colchester	VT	05546

Nelson James Irving a/k/a Nelson J. Irving	125 N. Buffalo Grove Rd., Apt. 110	Buffalo Grove	IL	60089-1722
Nora Potter Tacker c/o Kenneth Tacker	1224 Edgewood Ln.	Allen	TX	75013
Norma J. Barton	P.O. Box 978	Hobbs	NM	88240
Northport Production Co.	5001 Gaillardia Corp. Pl.	Oklahoma City	OK	73142-1868
Occidental Permian Ltd.	P.O. Box 5020	Midland	TX	79710
Patty Adams	309 Oakwood Ave.	East Peoria	IL	61611
Peggy F. Henrie	111 Columbia SE	Albuquerque	NM	87106
Peter Argoudelis	707 W. Santa Ann St., Apt. 269	Anaheim	CA	92805
Phyllis Ann Walker	4705 N.W. 82nd Terrace	Kansas City	MO	64151
Phyllis Inez Ireland	2112 Milburn Ave.	Odessa	TX	79761
Piyush V. Patel and Meena Patel Family Trust	25 Village Cir.	Midland	TX	79701
Playtime, Inc.	250 Sterling Ave.	Winter Park	FL	32789-5747
Quimex International, Inc.	P O Box 2662	Midland	TX	79702
Rena Oma Barnett				
Richard D. Green, Jr.	3809 4th Avenue	South Milwaukee	WI	53172
Richard D. Green, Sr.	P.O. Box 373	Clumbia Falls	MT	59912
Rita Schnedar, Trustee of the Schnedar 1998 Trust c/o William J. Schnedar	2007 S. Penn	Roswell	NM	88203
Rita Van Stone	Rt. 1, Box 620	Conway	MO	65632-9614
Robert L. Love	1110 Nambe	Hobbs	NM	88240
Robyn Mauser	2907 N. Platina	Mesa	AZ	85215
Ronald Miles and Patricia E. Miles	2805 Coronado Dr.	Roswell	NM	
Roy Davenport	Rt. 6, Box 923	Cleburne	TX	76031

Roy G. Barton , Jr.	1919 N. Turner St.	Hobbs	NM	88241
Roy G. Barton a/k/a George Barton, Trustee of the Roy G. Barton & Opal Barton Revocable Trust u/t/a dated 1/28/1982	1919 N. Turner	Hobbs	NM	88241
Rudd Family Trust	P O Box 1719	Amarillo	TX	79159
Russell A. Green	6104 Colfax Ave.	North Hollywood	CA	91606
Ruth L. Shields a/k/a Ruth Love Shields, individually and as Trustee of the Love Family Trust u/t/a dtd 4/24/97	2103 Geraldine	Midland	TX	79707
Satirios Rallis	General Delivery	Silivena - Egialias	Greece	
Scott Phillips Hutchin	127 Jory Drive	Owens Cross Roads	AL	35763
Sherry L. Green	172 Golden Russett Dr.	Lincoln	VA	22642
Sotirios Papadopoulos	163 Western Road	Westmead	Sydney 2145	Australia
Sotirios Rallis	3659 Calle Pino NE	Albuquerque	NM	87111
Ted W. Phillips, Jr.	P.O. Box 487	Rye	CO	81069
Teddy L. Hartley	P.O. Box 309	Clovis	NM	88102-0309
Texas Scottish Rite Hospital for Crippled Children	2222 Welborn Street	Dallas	TX	75219
TLW Investments, L.L.C.	ATTN: Doug Black 1001 Fannin, Ste. 2020	Houston	TX	77002
Trajan Development Co.	P.O. Box 16007	Oklahoma City	OK	73113
Veeradine Phillips				
Vicki Lynn Hobbs Calkins c/o Berry Lee Hobbs, A-I-F	P.O. Box 152	Lovington	NM	88260
Virgil M. Shinn	5724 N Avenue	Carmichael	CA	95608
W. B. Phillips	W. Starr Rt., Box 742	Lovington	NM	88260
Walter A. Moeller c/o Berry Lee Hobbs, A-I-F	P.O. Box 153	Lovington	NM	88260

Wayne A. Bissett	P.O. Box 2101	Midland	TX	79702
William J. Schnedar	2007 S. Penn St.	Roswell	NM	88203
Yates Drilling Company	105 South 4th St.	Artesia	NM	88210
Yates Petroleum Corporation	105 South 4th St.	Artesia	NM	88210

Additional Information

- Procedure to Convert Wells to Injection
- Actual & Proposed Well Bore Diagrams
- Geological Formation Tops

Runnels 1-8
Lea County, New Mexico
Convert to Injection Procedure

Date: April 22, 2010

Location: 780' FSL & 1510' FWL Sec. 8-T16S-R36E

Casing: 5 1/2" 17# N-80 0-11,875' ID – 4.892", Drift – 4.767", Burst – 7,740 psi

PBTD/TD: 11,640'/11,875'

Current Perfs: Strawn 11,458-94'

Recommended Procedure:

1. MIRU PU. NW WH/NU BOP.
2. POH w/ ESP pump, cable and tubing.
3. RIH w/ 4 3/4" bit and scraper on tbg to PBTD of 11,640'. POH w/ bit.
4. RIH w/ 2 3/8" plastic lined L-80 tbg and 5 ½" Lock-set packer to 11,400'. Load back side with packer fluid. Set packer and pressure test to 500 psi.
5. RU service company. Acidize Strawn with 5,000 gal 15% NEFE acid at 5-6 BPM. Over displace acid into perfs by 30 bbls.
6. ND BOP/ NU WH. Rig down.

Chambers 1-7
Lea County, New Mexico
Convert to Injection Procedure

Date: April 22, 2010

Location: 1700' FNL & 899' FEL Sec. 7-T16S-R36E

Casing: 5 1/2" 17# N-80 0-12,000' ID – 4.892", Drift – 4.767", Burst – 7,740 psi

PBTD/TD: 11,982'/12,000'

Current Perfs: Strawn 11,392-480'

Recommended Procedure:

1. MIRU PU. NW WH/NU BOP.
2. POH w/ rods and tubing.
3. RIH w/ 4 3/4" bit and scraper on tbg to PBTD of 11,982'. POH w/ bit.
4. RIH w/ 2 3/8" plastic lined L-80 tbg and 5 ½" Lock-set packer to 11,350'. Load back side with packer fluid. Set packer and pressure test to 500 psi.
5. RU service company. Acidize Strawn with 5,000 gal 15% NEFE acid at 5-6 BPM. Over displace acid into perfs by 30 bbls.
6. ND BOP/ NU WH. Rig down.

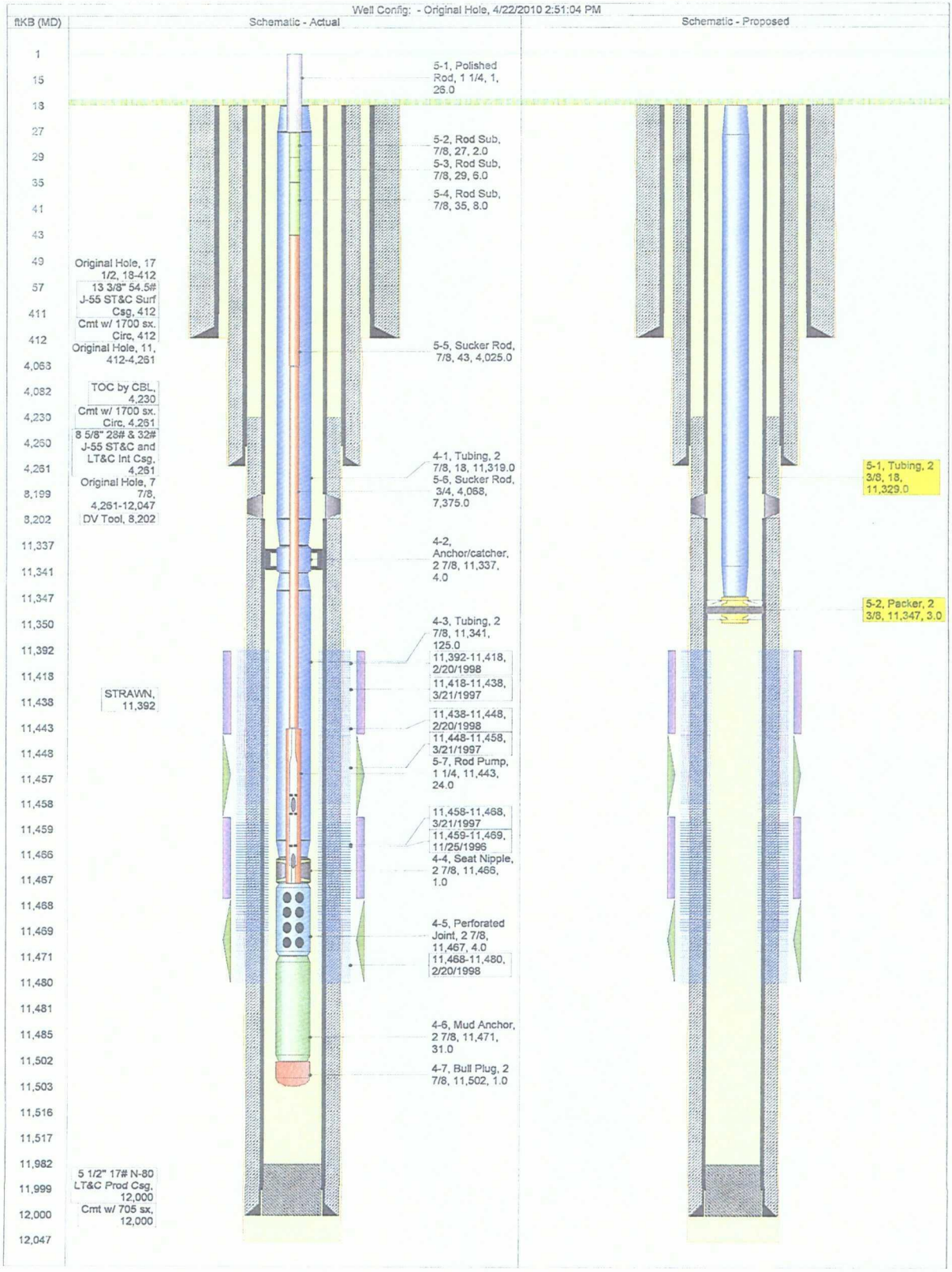
Proposal - Workover

CHAMBERS 1-7

Chesapeake Energy

Field:	LOVINGTON STRAWN PROJECT
County:	LEA
State:	NEW MEXICO
Location:	SEC 7, 16S-36E, 1700 FNL & 899 FEL
Elevation:	GL 3,942.00 KB 3,960.00
KB Height:	18.00

Spud Date: 10/19/1996
Initial Compl. Date:
API #: 3002533623
CHK Propterty #: 811888
1st Prod Date: 11/28/1996
PBTD: Original Hole - 11982.0
TD: 12,047.0



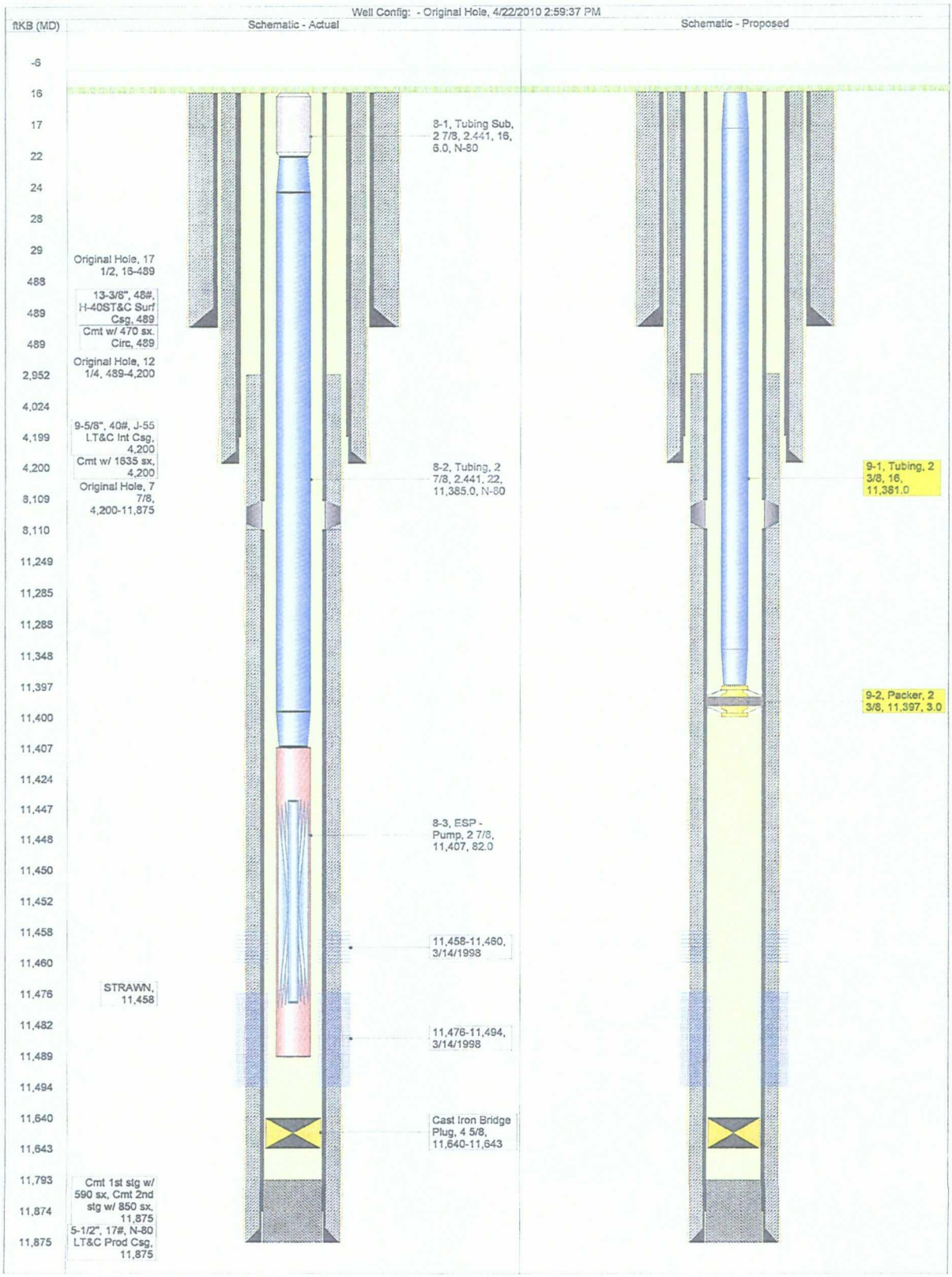
Report Printed: 4/22/2010

Proposal - Workover

RUNNELS 1-8

Field:	NE Shoe Bar Strawn
County:	LEA
State:	NEW MEXICO
Location:	SEC 8, 16S-36E, 780 FSL & 1510 FWL
Elevation:	GL 3,936.00 KB 3,952.00
KB Height:	16.00

Spud Date: 1/31/1998
Initial Compl. Date:
API #: 3002534264
CHK Propterty #: 312182
1st Prod Date: 3/15/1998
PBTD: Original Hole - 11793.0
TD: 11,875.0



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Geological Formation Tops

Chesapeake Operating, Inc.
Chambers 7 #1
Unit H, Sec. 7, T-16-S R-36-E
1700' FNL & 900' FEL
Lea Co., N.M.
API # 30-025-33623

San Andres	4724'
Glorieta	6352'
Paddock	6890'
Tubb	7490'
Drinkard	7750'
Abo	8230'
Wolfcamp	9610'
Pennsylvanian	10880'
Strawn	11378'
Atoka	11630'

Chesapeake Operating, Inc.
Runnels 8 # 1
Unit N, Sec. 8, T-16-S R-36-E
780' FSL & 1510' FWL
Lea Co., N.M.
API # 30-025-34264

San Andres	4756'
Glorieta	6368'
Paddock	6948'
Tubb	7527'
Drinkard	7652'
Abo	8204'
Wolfcamp	9618'
Pennsylvanian	10898'
Strawn	11454'
Atoka	11738'