

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 \_\_\_\_\_
- WFX 950  
 ConocoPhillips Company  
 MCA Unit 535, 548, 561,  
 562, 564, & 565  
 API: 30-025 - Pending  
 Pool  
 - MALJ Aman,  
 Grayburg - Salt  
 Andres  
 43329

- [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.

Brian Wood

Print or Type Name

Signature

Consultant

Title

brian@permitswest.com

e-mail Address

11-25-15

Date

**PERMITS WEST**, INC.

PROVIDING PERMITS for LAND USERS

37 Verano Loop, Santa Fe, New Mexico 87508

(505) 456-8120

RECEIVED OCD

2015 NOV 30 A 8:29

WFX APPLICATION FOR  
CONOCOPHILLIPS COMPANY  
MCA UNIT 535, 548, 561, 562, 564, & 565  
GRAYBURG & SAN ANDRES FORMATIONS  
T. 17 S., R. 32 E., LEA COUNTY, NEW MEXICO

Prepared by  
Permits West, Inc.  
Santa Fe, New Mexico  
November 25, 2015

**APPLICATION FOR AUTHORIZATION TO INJECT**

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

II. OPERATOR: CONOCOPHILLIPS COMPANY OGRID 217817

ADDRESS: 600 NORTH DAIRY ASHFORD ROAD, HOUSTON TX 77079

CONTACT PARTY: BRIAN WOOD (PERMITS WEST, INC.) PHONE: 505 466-8120

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

IV. Is this an expansion of an existing project? XXX Yes \_\_\_\_\_ No \_\_\_\_\_  
If yes, give the Division order number authorizing the project: R-2403

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.

**MCA Unit 535, 548, 561,  
562, 564, & 565**

VII. Attach data on the proposed operation, including:

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

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

IX. Describe the proposed stimulation program, if any.

\*X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

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

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

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

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

NAME: BRIAN WOOD TITLE: CONSULTANT

SIGNATURE:  DATE: NOV. 24, 2015

E-MAIL ADDRESS: brian@permitswest.com

\* If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: \_\_\_\_\_

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

**NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.**

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

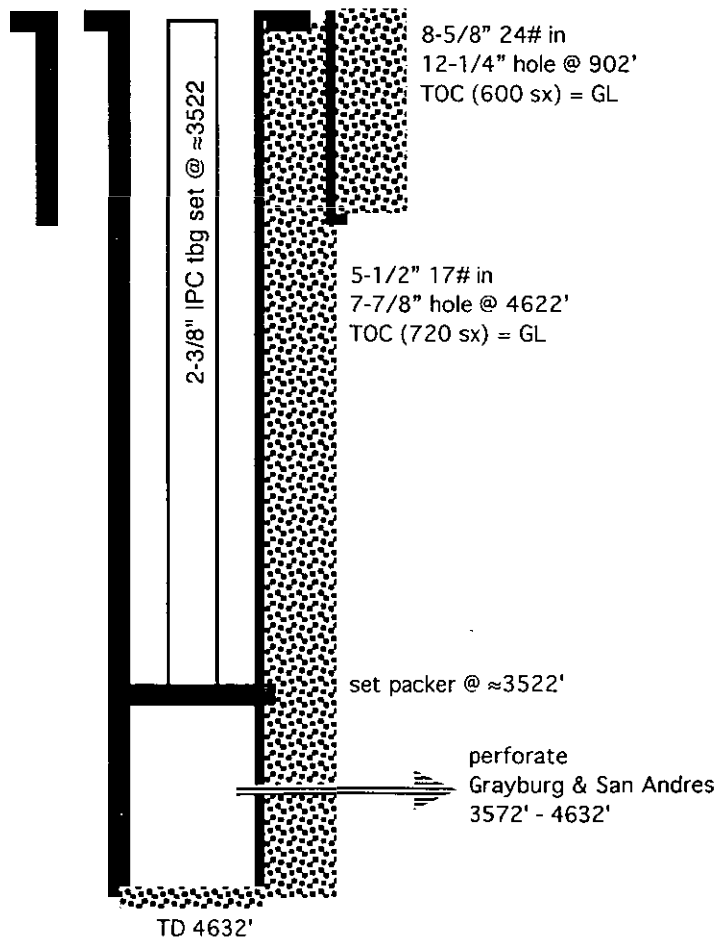
INJECTION WELL DATA SHEET

OPERATOR: CONOCOPHILLIPS COMPANY

WELL NAME & NUMBER: MCA UNIT 535

WELL LOCATION: 567' FSL & 128' FWL      M      23      17 S      32 E  
 FOOTAGE LOCATION      UNIT LETTER      SECTION      TOWNSHIP      RANGE

WELLBORE SCHEMATIC



(not to scale)

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 12-1/4"      Casing Size: 8-5/8"  
 Cemented with: 600 sx.      or 947 ft<sup>3</sup>  
 Top of Cement: SURFACE      Method Determined: VISUAL

Intermediate Casing

Hole Size: \_\_\_\_\_      Casing Size: \_\_\_\_\_  
 Cemented with: \_\_\_\_\_ sx.      or \_\_\_\_\_ ft<sup>3</sup>  
 Top of Cement: \_\_\_\_\_      Method Determined: \_\_\_\_\_

Production Casing

Hole Size: 7-7/8"      Casing Size: 5-1/2"  
 Cemented with: 720 sx.      or 1882 ft<sup>3</sup>  
 Top of Cement: SURFACE      Method Determined: VISUAL  
 Total Depth: 4632'

Injection Interval

3572'      feet to      4632'

(Perforated or Open Hole; indicate which)



INJECTION WELL DATA SHEETTubing Size: 2-3/8" J-55 4.7# Lining Material: INTERNAL PLASTIC COATType of Packer: 2-3/8" x 5-1/2" 17# INTERNAL & EXTERNAL NICKEL PLATEDPacker Setting Depth: ≈3522'

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

Additional Data1. Is this a new well drilled for injection? XXX Yes        No

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

2. Name of the Injection Formation: GRAYBURG & SAN ANDRES3. Name of Field or Pool (if applicable): MALJAMAR; GRAYBURG - SAN ANDRES (POOL CODE 43329)

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 injection zone in this area: \_\_\_\_\_

OVER: YATES 2217, QUEEN 3207'UNDER: YESO ≈5600', WOLFCAMP ≈9200'

INJECTION WELL DATA SHEET

OPERATOR: CONOCOPHILLIPS COMPANY

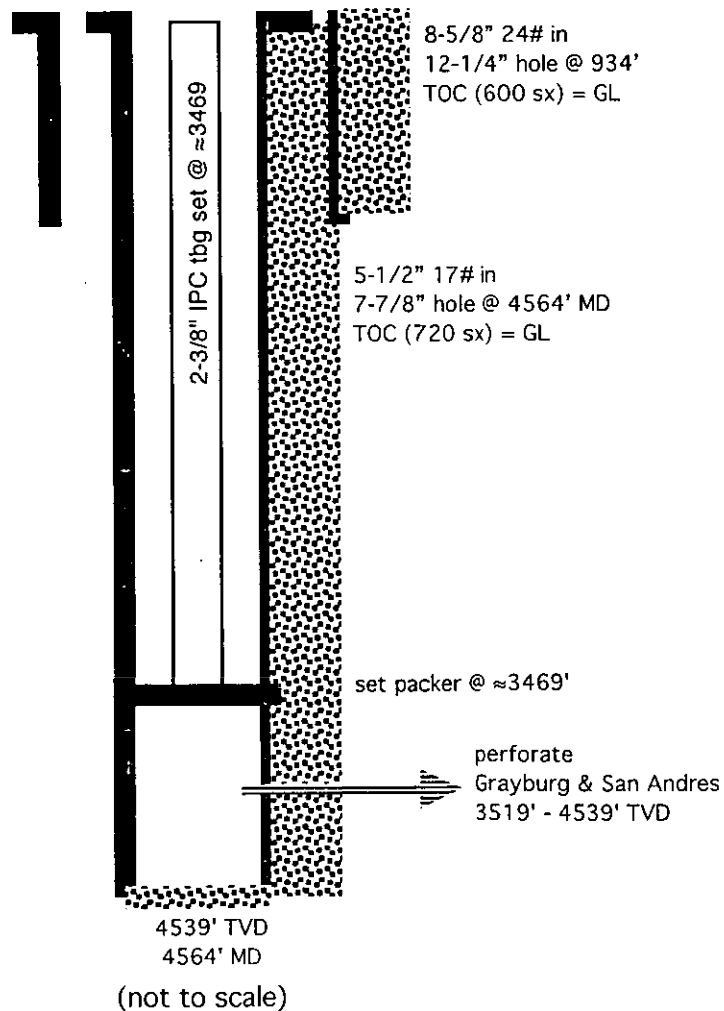
WELL NAME & NUMBER: MCA UNIT 548

WELL LOCATION: SHL: 1040' FNL & 457' FWL      D      27      17 S      32 E  
 FOOTAGE LOCATION      UNIT LETTER      SECTION      TOWNSHIP      RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA

Surface Casing



Hole Size: 12-1/4"      Casing Size: 8-5/8"  
 Cemented with: 600 sx.      *or* 947 ft<sup>3</sup>  
 Top of Cement: SURFACE      Method Determined: VISUAL

Intermediate Casing

Hole Size: \_\_\_\_\_ Casing Size: \_\_\_\_\_  
 Cemented with: \_\_\_\_\_ sx.      *or* \_\_\_\_\_ ft<sup>3</sup>  
 Top of Cement: \_\_\_\_\_ Method Determined: \_\_\_\_\_

Production Casing

Hole Size: 7-7/8"      Casing Size: 5-1/2"  
 Cemented with: 720 sx.      *or* 1882 ft<sup>3</sup>  
 Top of Cement: SURFACE      Method Determined: VISUAL  
 Total Depth: 4539' TVD & 4564' MD

Injection Interval

3519' feet to 4539'

(Perforated or Open Hole; indicate which)



INJECTION WELL DATA SHEETTubing Size: 2-3/8" J-55 4.7# Lining Material: INTERNAL PLASTIC COATType of Packer: 2-3/8" x 5-1/2" 17# INTERNAL & EXTERNAL NICKEL PLATEDPacker Setting Depth: ≈3469'

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

Additional Data

1. Is this a new well drilled for injection?
- XXX
- Yes \_\_\_\_\_ No

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

2. Name of the Injection Formation:
- GRAYBURG & SAN ANDRES

3. Name of Field or Pool (if applicable):
- MALJAMAR; GRAYBURG - SAN ANDRES (POOL CODE 43329)

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 injection zone in this area: \_\_\_\_\_

OVER: YATES 2194, QUEEN 3159'UNDER: YESO ≈5600', WOLFCAMP ≈9200'



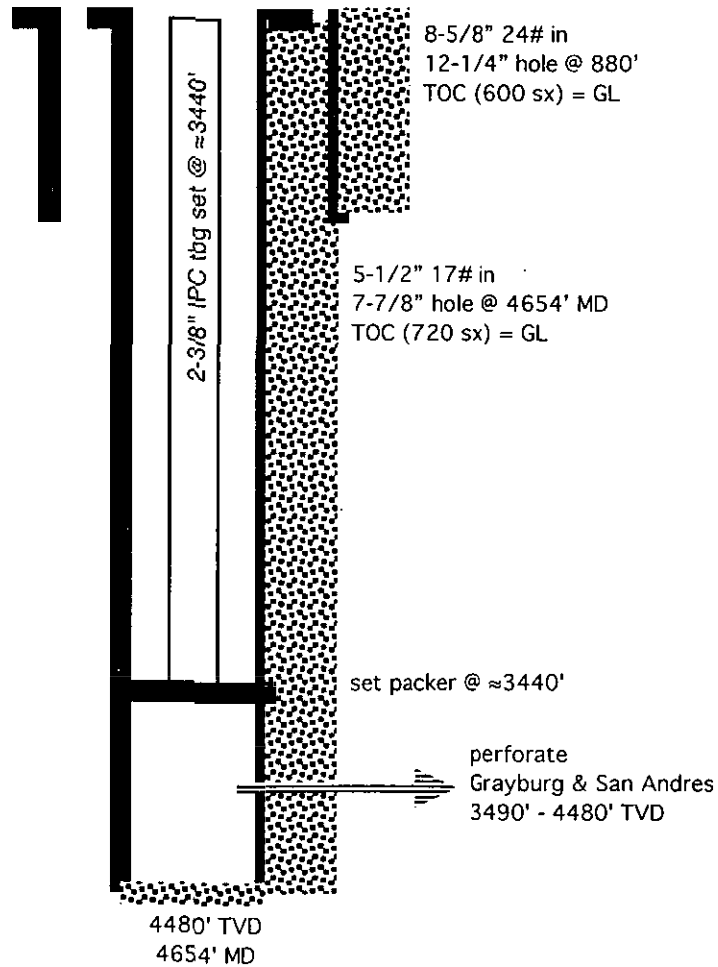
INJECTION WELL DATA SHEET

OPERATOR: CONOCOPHILLIPS COMPANY

WELL NAME & NUMBER: MCA UNIT 561

WELL LOCATION: SHL: 2442' FSL & 2375' FWL      K      28      17 S      32 E  
 FOOTAGE LOCATION      UNIT LETTER      SECTION      TOWNSHIP      RANGE

WELLBORE SCHEMATIC



(not to scale)

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 12-1/4"      Casing Size: 8-5/8"  
 Cemented with: 600 sx.      or 947 ft<sup>3</sup>  
 Top of Cement: SURFACE      Method Determined: VISUAL

Intermediate Casing

Hole Size: \_\_\_\_\_      Casing Size: \_\_\_\_\_  
 Cemented with: \_\_\_\_\_ sx.      or \_\_\_\_\_ ft<sup>3</sup>  
 Top of Cement: \_\_\_\_\_      Method Determined: \_\_\_\_\_

Production Casing

Hole Size: 7-7/8"      Casing Size: 5-1/2"  
 Cemented with: 720 sx.      or 1882 ft<sup>3</sup>  
 Top of Cement: SURFACE      Method Determined: VISUAL  
 Total Depth: 4480' TVD & 4654' MD

Injection Interval

3490' feet to 4480'

(Perforated or Open Hole; indicate which)

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INJECTION WELL DATA SHEETTubing Size: 2-3/8" J-55 4.7# Lining Material: INTERNAL PLASTIC COATType of Packer: 2-3/8" x 5-1/2" 17# INTERNAL & EXTERNAL NICKEL PLATEDPacker Setting Depth: ≈3440'

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

Additional Data1. Is this a new well drilled for injection? XXX Yes \_\_\_\_\_ No

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

2. Name of the Injection Formation: GRAYBURG & SAN ANDRES3. Name of Field or Pool (if applicable): MALJAMAR; GRAYBURG - SAN ANDRES (POOL CODE 43329)

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 injection zone in this area: \_\_\_\_\_

OVER: YATES 2165', QUEEN 3120'UNDER: YESO ≈5600', WOLFCAMP ≈9200'

INJECTION WELL DATA SHEET

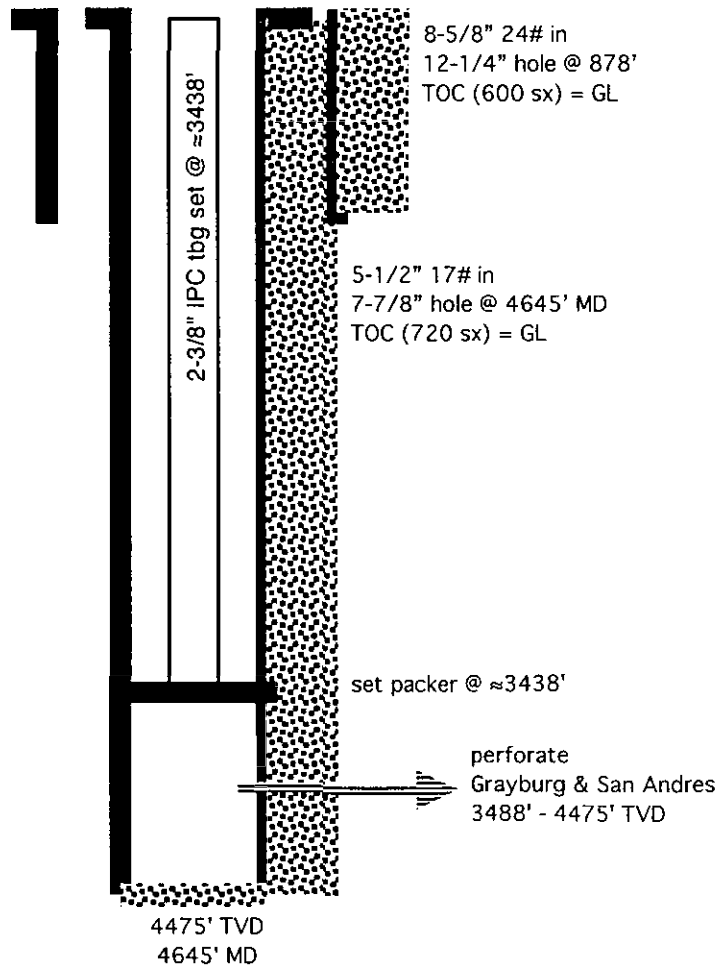
OPERATOR: CONOCOPHILLIPS COMPANY

WELL NAME & NUMBER: MCA UNIT 562

WELL LOCATION: SHL: 2311' FSL & 2529' FWL      K      28      17 S      32 E  
 FOOTAGE LOCATION      UNIT LETTER      SECTION      TOWNSHIP      RANGE

WELLBORE SCHEMATIC

WELL CONSTRUCTION DATA



(not to scale)

Surface Casing

Hole Size: 12-1/4"      Casing Size: 8-5/8"  
 Cemented with: 600 sx.      *or* 947 ft<sup>3</sup>  
 Top of Cement: SURFACE      Method Determined: VISUAL

Intermediate Casing

Hole Size: \_\_\_\_\_      Casing Size: \_\_\_\_\_  
 Cemented with: \_\_\_\_\_ sx.      *or* \_\_\_\_\_ ft<sup>3</sup>  
 Top of Cement: \_\_\_\_\_      Method Determined: \_\_\_\_\_

Production Casing

Hole Size: 7-7/8"      Casing Size: 5-1/2"  
 Cemented with: 720 sx.      *or* 1882 ft<sup>3</sup>  
 Top of Cement: SURFACE      Method Determined: VISUAL  
 Total Depth: 4475' TVD & 4545' MD

Injection Interval

3488' feet to 4475'

(Perforated or Open Hole; indicate which)



INJECTION WELL DATA SHEETTubing Size: 2-3/8" J-55 4.7# Lining Material: INTERNAL PLASTIC COATType of Packer: 2-3/8" x 5-1/2" 17# INTERNAL & EXTERNAL NICKEL PLATEDPacker Setting Depth: ≈3438'

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

Additional Data1. Is this a new well drilled for injection? XXX Yes \_\_\_\_\_ No

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

2. Name of the Injection Formation: GRAYBURG & SAN ANDRES3. Name of Field or Pool (if applicable): MALJAMAR; GRAYBURG - SAN ANDRES (POOL CODE 43329)

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 injection zone in this area: \_\_\_\_\_

OVER: YATES 2158', QUEEN 3118'UNDER: YESO ≈5600', WOLFCAMP ≈9200'

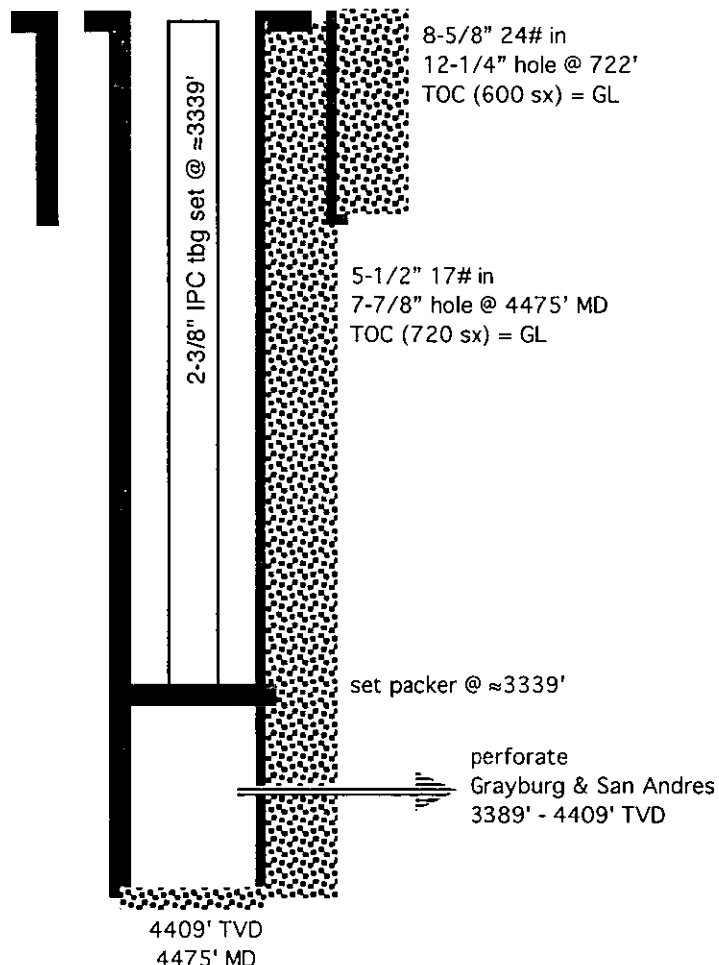
INJECTION WELL DATA SHEET

OPERATOR: CONOCOPHILLIPS COMPANY

WELL NAME & NUMBER: MCA UNIT 564

WELL LOCATION: SHL: 771' FNL & 397' FWL      D      29      17 S      32 E  
 FOOTAGE LOCATION      UNIT LETTER      SECTION      TOWNSHIP      RANGE

WELLBORE SCHEMATIC



(not to scale)

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 12-1/4"      Casing Size: 8-5/8"  
 Cemented with: 600 sx.      *or* 947 ft<sup>3</sup>  
 Top of Cement: SURFACE      Method Determined: VISUAL

Intermediate Casing

Hole Size: \_\_\_\_\_      Casing Size: \_\_\_\_\_  
 Cemented with: \_\_\_\_\_ sx.      *or* \_\_\_\_\_ ft<sup>3</sup>  
 Top of Cement: \_\_\_\_\_      Method Determined: \_\_\_\_\_

Production Casing

Hole Size: 7-7/8"      Casing Size: 5-1/2"  
 Cemented with: 720 sx.      *or* 1882 ft<sup>3</sup>  
 Top of Cement: SURFACE      Method Determined: VISUAL  
 Total Depth: 4409' TVD & 4475' MD

Injection Interval

3389' feet to 4409'

(Perforated or Open Hole; indicate which)

\*\*\*\*\*

INJECTION WELL DATA SHEETTubing Size: 2-3/8" J-55 4.7# Lining Material: INTERNAL PLASTIC COATType of Packer: 2-3/8" x 5-1/2" 17# INTERNAL & EXTERNAL NICKEL PLATEDPacker Setting Depth: ≈3339'

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

Additional Data1. Is this a new well drilled for injection? XXX Yes \_\_\_\_\_ No

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

2. Name of the Injection Formation: GRAYBURG & SAN ANDRES3. Name of Field or Pool (if applicable): MALJAMAR; GRAYBURG - SAN ANDRES (POOL CODE 43329)

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 injection zone in this area: \_\_\_\_\_

OVER: YATES 2024', QUEEN 3014'UNDER: YESO ≈5600', WOLFCAMP ≈9200'

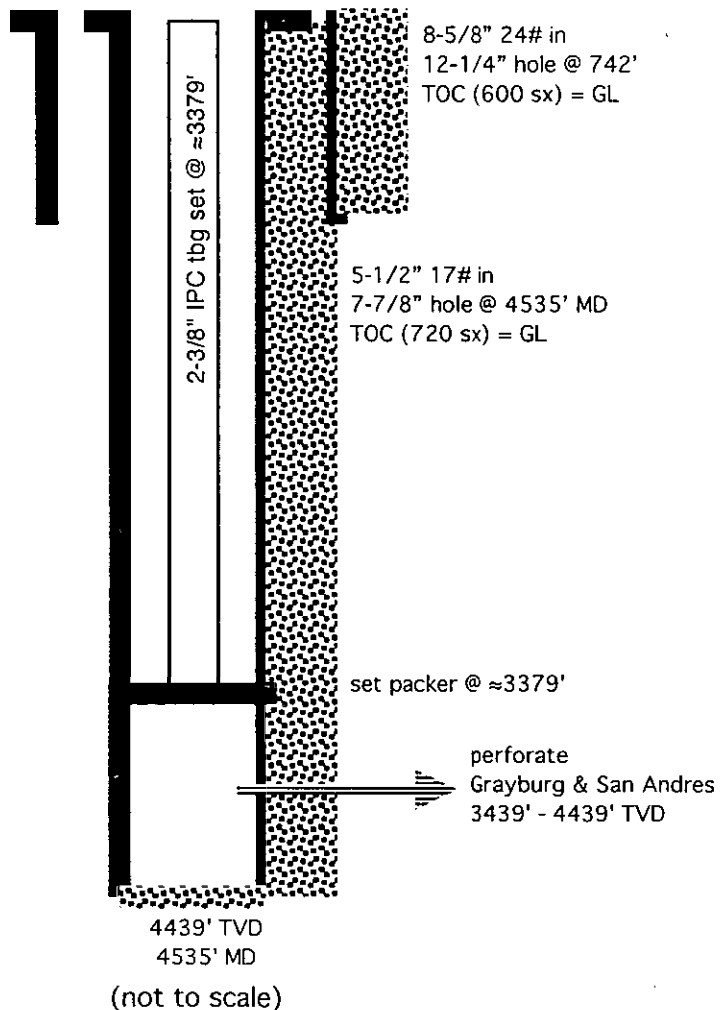
INJECTION WELL DATA SHEET

OPERATOR: CONOCOPHILLIPS COMPANY

WELL NAME & NUMBER: MCA UNIT 565

WELL LOCATION: SHL: 1315' FNL & 1059' FWL      D      29      17 S      32 E  
 FOOTAGE LOCATION      UNIT LETTER      SECTION      TOWNSHIP      RANGE

WELLBORE SCHEMATIC



WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 12-1/4"      Casing Size: 8-5/8"  
 Cemented with: 600 sx.      *or* 947 ft<sup>3</sup>  
 Top of Cement: SURFACE      Method Determined: VISUAL

Intermediate Casing

Hole Size: \_\_\_\_\_      Casing Size: \_\_\_\_\_  
 Cemented with: \_\_\_\_\_ sx.      *or* \_\_\_\_\_ ft<sup>3</sup>  
 Top of Cement: \_\_\_\_\_      Method Determined: \_\_\_\_\_

Production Casing

Hole Size: 7-7/8"      Casing Size: 5-1/2"  
 Cemented with: 720 sx.      *or* 1882 ft<sup>3</sup>  
 Top of Cement: SURFACE      Method Determined: VISUAL  
 Total Depth: 4439' TVD & 4535' MD

Injection Interval

3439' feet to 4439'

(Perforated or Open Hole; indicate which)

■■■■■■■■■■

INJECTION WELL DATA SHEETTubing Size: 2-3/8" J-55 4.7# Lining Material: INTERNAL PLASTIC COATType of Packer: 2-3/8" x 5-1/2" 17# INTERNAL & EXTERNAL NICKEL PLATEDPacker Setting Depth: ≈3379'

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

Additional Data1. Is this a new well drilled for injection? XXX Yes        No

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

2. Name of the Injection Formation: GRAYBURG & SAN ANDRES3. Name of Field or Pool (if applicable): MALJAMAR; GRAYBURG - SAN ANDRES (POOL CODE 43329)

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 injection zone in this area: \_\_\_\_\_

OVER: YATES 2054', QUEEN 3039'UNDER: YESO ≈5600', WOLFCAMP ≈9200'



**CONOCOPHILLIPS COMPANY**  
**MCA UNIT 535, 548, 561, 562, 564, & 565**  
**T. 17 S., R. 32 E., LEA COUNTY, NEW MEXICO**

I. Purpose is to drill 6 water injection wells to increase oil recovery. The wells will inject into the Maljamar; Grayburg - San Andres Pool (pool code = 43329). Unit agreements were approved in 1941 and 1963. Order 485 in Case 36 authorized pressure maintenance by gas in 1942. Order R-6157 authorized CO2 injection in 1979. Waterflood operations were authorized in 1962 by Order R-2403. There have been 20 subsequent expansions: WFX-197, 216, 234, 253, 259, 267, 292, 306, 367, 393, 400, 402, 413, 419, 423, 424, 466, 471, and 855. This unit is an active water flood (52 injectors + 197 oil wells). See Exhibit A for a map and C-102 forms. Well details are:

Well	SHL	BHL	Injection Interval (TVD)	TVD
535	567 FSL & 128 FWL 23-17s-32e	same	3572 - 4632	4632
548	1040 FNL & 457 FWL 27-17s-32e	1352 FNL & 700 FWL 27-17s-32e	3519 - 4539	4539
561	2442 FSL & 2375 FWL 28-17s-32e	1980 FNL & 2630 FWL 28-17s-32e	3490 - 4480	4480
562	2311 FSL & 2529 FWL 28-17s-32e	2608 FSL & 2021 FWL 28-17s-32e	3488 - 4475	4475
564	771 FNL & 397 FWL 29-17s-32e	1310 FNL & 660 FWL 29-17s-32e	3389 - 4409	4409
565	1315 FNL & 1059 FWL 29-17s-32e	660 FNL & 1309 FWL 29-17s-32e	3439 - 4439	4439

II. Operator: ConocoPhillips Company (OGRID #217817)  
 Operator phone number: (281) 206-5281 (Susan Maunder)  
 Operator address: 600 North Dairy Ashford Road, Houston TX 77079  
 Contact for Application: Brian Wood (Permits West, Inc.)  
 Phone: (505) 466-8120

III. A. (1) NMOCD Unit: 300148  
 BLM Unit: NMNM-070987X  
 Unit Size: 13,786.66 acres  
 Unitized Formations: Grayburg & San Andres  
 Closest Unit Boundary to Proposed Injector: 3395'

well	BLM oil & gas lease	feet from SHL to unit boundary	feet from BHL to unit boundary
535	NMLC-058698A	3395	3395
548	NMLC-057210	4768	4380
561	NMLC-057210	3406	4219
562	NMLC-057210	3425	3299
564	NMLC-029410A	4509	3970
565	NMLC-029410A	3965	4620

A. (2) Surface casing (8-5/8", 24#, J-55, ST&C) will be set 35' into the Rustler in a 12-1/4" hole. Cement (600 sacks = 947 cubic feet) will be circulated to the surface. Lead will be 350 sacks (612 cubic feet) Class C + 4% bentonite + 2% CaCl<sub>2</sub> + 0.25% cello-flake mixed at 13.5 pounds per gallon and 1.75 cubic feet per sack. Tail will be 250 sacks (335 cubic feet) Class C + 2% CaCl<sub>2</sub> mixed at 14.8 pounds per gallon and 1.34 cubic feet per sack. Lead excess = 157%. Tail excess = 107%.

Production casing (5-1/2", 17#, J-55, LT&C) will be set ≈10' off the TD in a 7-7/8" hole. Casing will be 155' - 200' below the deepest perforation to provide rat hole for better logging and completion.

Production casing cement will be circulated in a single stage to the surface with 720 sacks (1,882 cubic feet) if no flows or losses are encountered. Lead will be 450 sacks (1,444 cubic feet) Class C + 10% gas migration additive + 2% extender + 3% MPA-5 (strength enhancer) + 1% BA-10A (bond improver) + 6% bentonite mixed at 11.5 pounds per gallon and 3.21 cubic feet per sack. Tail will be 320 sacks (438 cubic feet) 35:65 poz Class C + 1% extender + 1.5% fluid loss additive mixed at 14.0 pounds per gallon and 1.37 cubic feet per sack. Lead excess = 262%. Tail excess = 81%.

In the event of flows or severe losses while drilling and running casing, then a DV tool will be run and a 2-stage cement job will be performed as contingency. DV tool depth will be adjusted based on hole

conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe.

First stage contingency lead will be 450 sacks (1,449 cubic feet) Class C + 3% MPA-5 (strength enhancer) + +10% extender + 005 pound/sack static fee + 0.005 gallon per sack de-foamer + 0.125 pound per sack cello flake + 3 pounds per sack LCM + 2% extender + 1% bond improver + 6% bentonite mixed at 11.5 pounds per gallon and 3.22 cubic feet per sack.

First stage contingency tail will be 320 sacks (438 cubic feet) 35:65 poz Class C + 1% extender + 1.5% fluid loss additive + 0.125 pound per sack cello flake + 3 pounds per sack LCM mixed at 14.0 pounds per gallon and 1.37 cubic feet per sack.

Stage 2 contingency will be 250 sacks (335 cubic feet) Class C + 2% CaCl<sub>2</sub> mixed at 14.8 pounds per gallon and 1.34 cubic feet per sack.

well	surface casing (TVD)	production casing (MD)	TD (TVD)
535	902	4622	4632
548	934	4564	4539
561	880	4654	4480
562	878	4545	4475
564	722	4475	4409
565	742	4535	4439

- A. (3) Tubing will be 2-3/8", J-55, 4.7#, and internally plastic coated. Setting depth will be ≈50' above the highest perforation. Approximate setting depths are expected to be:

well	packer & tubing setting depth (TVD)	injection interval (TVD)
535	3522	3572 - 4632
548	3469	3519 - 4539

561	3440	3490 - 4480
562	3438	3488 - 4475
564	3339	3389 - 4409
565	3379	3439 - 4439

- A. (4) A 2-3/8" x 5-1/2" 17# internal and external nickel-plated injection packer will be set  $\approx$ 50' above the highest perforation. See preceding table for setting depths.
- B. (1) Injection formation will be the Maljamar; Grayburg – San Andres Pool (pool code = 43329). There are currently 171 injection wells and 634 oil wells in that pool.
- B. (2) Injection interval will be the Grayburg and San Andres. Grayburg ranges in depth from 3389' to 3991' depending on the well. San Andres ranges in depth from 3784' to 5538' depending on the well. All wells will be cased holes. See attached C-108 well profiles for more perforation information.
- B. (3) Wells have not yet been drilled. They will be completed as water injection wells after approval.
- B. (4) Wells have not yet been drilled. The wells will be perforated in the Grayburg and San Andres. Injection interval will be isolated below a packer set within  $\leq$ 100' of the highest perforation.
- B. (5) Next higher oil or gas zone in the areas of review is the Queen (Maljamar; Queen (Gas) and pool code = 80960). One well (30-025-00719) produced from the Queen and is now P&A. That well is 1,436' from the closest proposed injector (548). Lowest Queen perf will be 315' above the highest perf in 548.
- The next lower oil or gas zone in the areas of review is the Maljamar; Yeso, West (pool code = 44500). The Yeso top is at approximately 5300' and will not be penetrated.

IV. This is not a horizontal or vertical expansion of an existing injection project. Order R-2403 covers the water flood and the location of all 6 wells. Closest unit boundary is 3,395' north of #535. The waterflood currently has 52 injection wells and 196 oil wells. Over 64 million barrels of water have been injected since 1994. Over 10 million barrels of oil have been produced in that same period. An estimated additional 260,000 barrels of oil will be recovered.

V. Exhibit B shows all 94 existing wells (54 oil wells, 27 P&A wells, 10 water injection wells, and 3 SWD wells) within a half-mile radius of each well, regardless of depth. The tally factors out duplicate wells. Exhibit C shows all existing wells within a two-mile radius.

Exhibit D shows all leases within a half-mile radius of each well. Exhibit E shows all lessors (BLM, fee, and state) within a two-mile radius.

BLM is the lessor of all leases within the 6 areas of review. All 6 areas of review are totally within the MCA Unit. ConocoPhillips operates all Grayburg or San Andres dedications within the 6 areas of review. Details on the leases within a half-mile of each well are:

aliquot parts in MCA Unit 535 area of review	Lease	Lessee(s) of Record
S2NE4 & SWNE Sec. 22	NMLC-029509B	ConocoPhillips
E2SE4 & SWSE Sec. 22	NMLC-058395	ConocoPhillips & Sonic Oil & Gas LP
NWSW Sec. 23	NMLC-029400A	ConocoPhillips
SWSE Sec. 23	NMLC-058697A	ConocoPhillips
S2SW4 & NESW Sec. 23	NMLC-058698A	ConocoPhillips
S2NW4 Sec. 23	NMLC-058698B	ConocoPhillips
NWNE Sec. 26	NMLC-058408A	ConocoPhillips
S2NW4 Sec. 26	NMLC-058698A	ConocoPhillips
N2NW4 Sec. 26	NMLC-061841	ConocoPhillips
NENE & SWNE Sec. 27	NMLC-057210	ConocoPhillips
NWNE & SENE Sec. 27	NMLC-058396	ConocoPhillips & Sonic Oil & Gas LP

CONOCOPHILLIPS COMPANY  
MCA UNIT 535, 548, 561, 562, 564, & 565  
T. 17 S., R. 32 E., LEA COUNTY, NEW MEXICO

aliquot parts in MCA Unit 548 area of review	Lease	Lessee(s) of Record
S2SE4 Sec. 21	NMLC-029509B	ConocoPhillips
S2SW4 Sec. 22	NMLC-029509B	ConocoPhillips
SWSE Sec. 22	NMLC-058395	ConocoPhillips & Sonic Oil & Gas LP
NW4, N2SW4, SWNE, & NWSE Sec. 27	NMLC-057210	ConocoPhillips
NWNE Sec. 27	NMLC-058396	ConocoPhillips & Sonic Oil & Gas LP
NE4 & NESE Sec. 28	NMLC-057210	ConocoPhillips
aliquot parts in MCA Unit 561 area of review		
S2SW4 Sec. 21	NMLC-029509A	ConocoPhillips
S2SE4 Sec. 21	NMLC-029509B	ConocoPhillips
all Sec. 28	NMLC-057210	Occidental Permian
SENE Sec. 29	NMLC-029410A	Oxy USA WTP
aliquot parts in MCA Unit 562 area of review		
all Sec. 28	NMLC-057210	Occidental Permian
E2E2 Sec. 29	NMLC-029410A	Oxy USA WTP
NENW Sec. 33	NMLC-059001	ConocoPhillips
aliquot parts in MCA Unit 564 area of review		
S2SE4 Sec. 19	NMLC-029405B	ConocoPhillips
S2SW4 & SWSE Sec. 20	NMLC-029405B	ConocoPhillips
NW4, N2SW4, & NWSE Sec. 29	NMLC-029410A	Oxy USA WTP
W2NE4 Sec. 29	NMLC-060199A	Flint-Boyd, Flint-Wayte, Fowles, Runyans, Shaw-Wood
W2NE4 & N2SE4 Sec. 30	NMLC-029410B	Oxy USA WTP

E2NE4 Sec. 30	NMLC-060199B	Flint-Boyd, Flint-Wayte, Fowles, Runyans, Shaw-Wood
aliquot parts in MCA Unit 565 area of review	Lease	Lessee(s) of Record
E2SE4 Sec. 19	NMLC-029405B	ConocoPhillips
SW4 & W2SE4 Sec. 20	NMLC-029405B	ConocoPhillips
NW4, N2SW4, & NWSE Sec. 29	NMLC-029410A	Oxy USA WTP
W2NE4 Sec. 29	NMLC-060199A	Flint-Boyd, Flint-Wayte, Fowles, Runyans, Shaw-Wood
NWNE & NESE Sec. 30	NMLC-029410B	Oxy USA WTP
E2NE4 Sec. 30	NMLC-060199B	Flint-Boyd, Flint-Wayte, Fowles, Runyans, Shaw-Wood

VI. Ninety-four wells are within the 6 areas of review. Ninety-one of the wells penetrated the Grayburg. Summary tables of all wells, regardless of depth, within the areas of review are in Exhibit F. Tables abstracting well construction details and histories of the penetrators are in Exhibit G. Diagrams illustrating the penetrating P & A wells are in Exhibit H. Diagrams are sequenced by API number.

- VII. 1. Average injection rate will be  $\approx$ 500 bwpd per well. Maximum injection rate will be 1,500 bwpd per well.
2. System will be closed. Wells will tie into an existing unit pipeline system.
3. Average injection pressure will be  $\approx$ 2,100 psi. Maximum injection pressure will be 2,150 psi as authorized in Case 14421, Order R-2403-B in 2010.

4. Water source will be produced water from the Grayburg and San Andres formations.

5. There are currently 197 Grayburg and San Andres oil wells producing in the unit. It is the goal of the project to increase production from the Grayburg and San Andres. There are also 52 injection wells in the unit.

VIII. The Grayburg and San Andres geology were described in previous applications and will not be repeated here.

There are currently 1,756 Grayburg injection wells and 1,292 San Andres injection wells in New Mexico. Glorieta is >5,200' deep. Formation tops are:

	535	548	561	562	564	565	contents
Quaternary	GL	GL	GL	GL	GL	GL	fresh water
Rustler	867	899	845	843	687	707	anhydrite
Salado	1047	1079	1025	1028	839	864	salt
Tansill	2112	2049	2005	2001	1854	1874	gas, oil, & water
Yates	2217	2194	2165	2158	2024	2054	gas, oil, & water
Seven Rivers	2562	2529	2505	2498	2379	2439	gas, oil, & water
Queen	3207	3159	3120	3118	3014	3039	gas, oil, & water
Grayburg	3572	3519	3490	3488	3389	3439	gas, oil, & water
San Andres	3992	3909	3870	3868	3784	3819	gas, oil, & water
Total Depth	4632	4539	4480	4475	4409	4439	

Records from the Office of the State Engineer (Exhibit I) indicate water wells are within a mile radius of three of the proposed injectors (below). Deepest of the fresh water wells is 400'. None were found during an August 19, 2015 inspection. Only fresh water found was a playa in the NWNE Section 27.

MCA Unit well	distance to closest fresh water well in SEO data	depth of that water well	POD #
535	6379'	35'	RA 11911 POD 1
548	3627'	400'	RA 12042 PD 1
561	2030'	120'	RA 12020 POD 1
562	2187'	120'	RA 12020 POD 1
564	6848'	158'	RA 10175
565	6222'	158'	RA 10175



The playa was sampled and the analysis is in Exhibit J. The injectors are >10 miles southwest, and outside, of the Ogallala aquifer (Exhibit J).

There will be >2,600' of vertical separation and >1,100' of anhydrite and salt between the bottom of the only likely underground water source (Quaternary) and the top of the Grayburg. Produced water has been injected into 82 wells in T. 17 S., R. 32 E.

IX. Grayburg will be stimulated with 70,000 pounds resin coated white sand. San Andres will be stimulated with 7,000 gallons 15-20% HCl.

X. Will run GR/CNL logs from TD to surface. Density, GR, BHC logs will be run in the production portion of well.

XI. No fresh water wells were found within a mile of any of the proposed injectors. Analysis from a playa is attached (Exhibit J).

XII. ConocoPhillips is not aware of any geologic or engineering data that may indicate the Grayburg or San Andres is in hydrologic connection with any underground sources of water. Closest Quaternary fault (Guadalupe) is over 80 miles southwest. Water has been injected into the Grayburg and San Andres in the unit for the last 53 years. Over 64,919,069 barrels have been injected in the MCA Unit since 1994. There are 1,756 Grayburg and 1,292 San Andres injection wells active in New Mexico.

Waterflood operations were authorized in 1962 Order R-2403. There have been 20 subsequent expansions: WFX-197, 216, 234, 253, 259, 267, 292, 306, 367, 393, 400, 402, 413, 419, 423, 424, 466, 471, and 855.

XIII. A legal ad (see Exhibit K) was published on November 18, 2015. Notice (this application) has been sent (Exhibit L) to the surface owner (BLM) and other lessee or leasehold operating rights holders (Ard Oil, Caza Energy, Chase Oil, Mark Chase,

CONOCOPHILLIPS COMPANY

PAGE 10

MCA UNIT 535, 548, 561, 562, 564, & 565  
T. 17 S., R. 32 E., LEA COUNTY, NEW MEXICO

Richard Chase, Robert Chase, Thomas Chase, COG, Gene Crouch, Devon Energy, Emily Flint-Boyd, Rosemary Flint-Wayte, Mary Fowles, J&V Shaw, Legacy Reserves, Occidental, Oxy USA, Riverhill Energy, Shirley Runyan, Tom Runyan, Shirley Runyan-Rich, Shaw Interests, Virginia Shaw-Wood, SM Energy, and Sonic Oil). There are no offset Grayburg or San Andres operators.

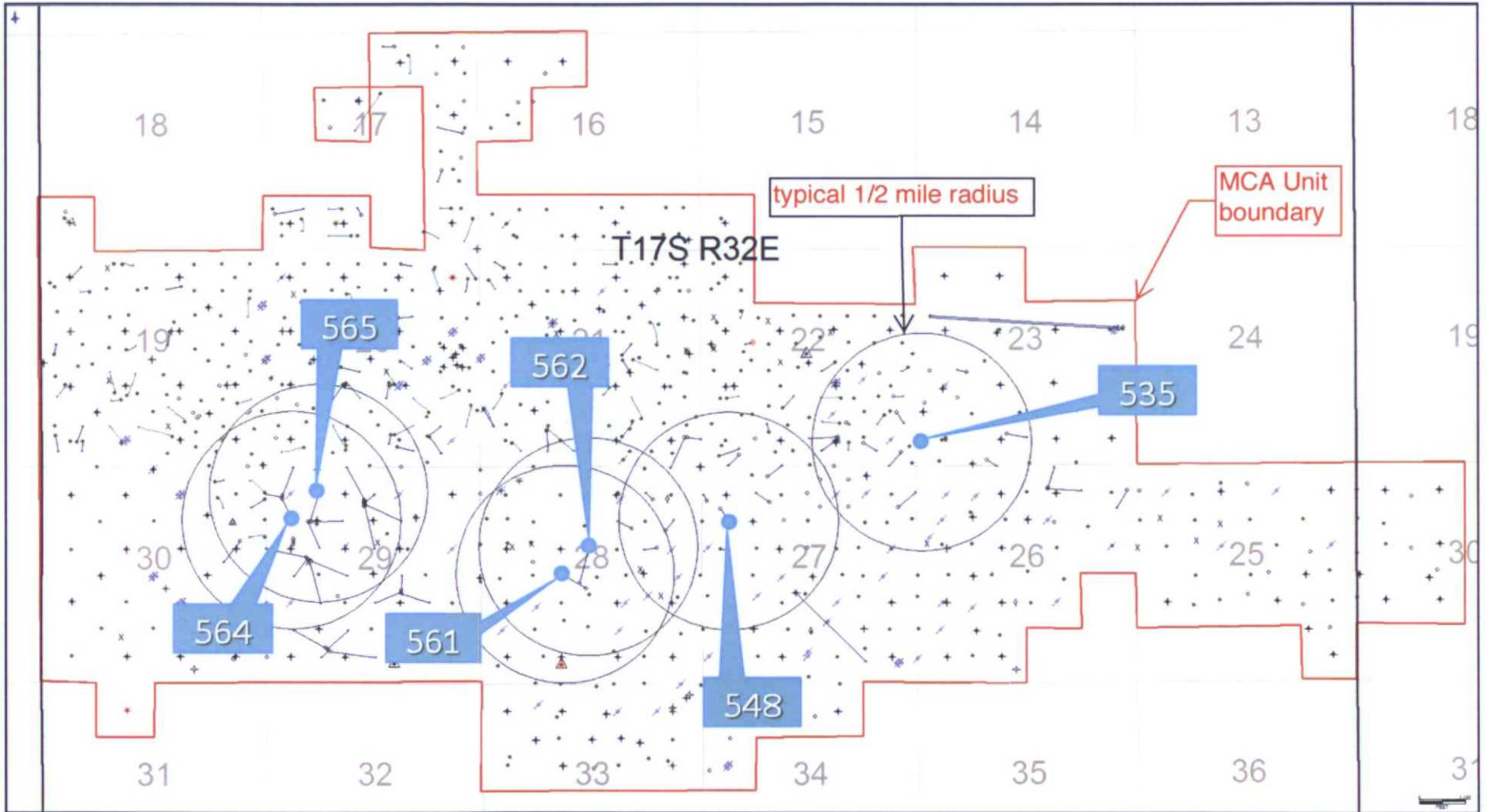


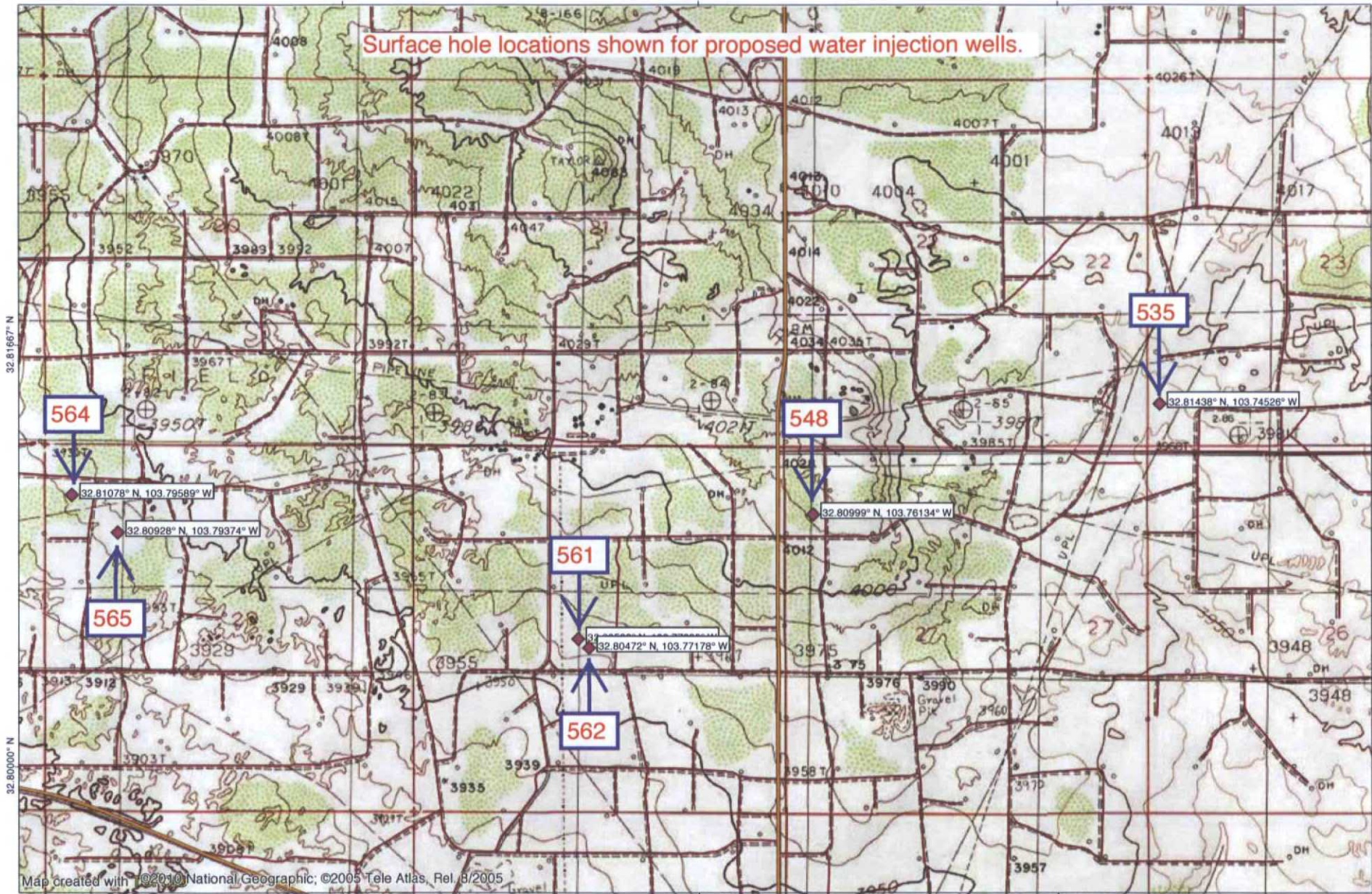
EXHIBIT A

103.78333° W

103.76667° W

WGS84 103.75000° W

Surface hole locations shown for proposed water injection wells.



103.78333° W

103.76667° W

WGS84 103.75000° W



EXHIBIT A



District I  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720  
District II  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720  
District III  
Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-025-		2 Pool Code 43329		3 Pool Name Maljamar; Grayburg, San Andres	
4 Property Code		5 Property Name MCA UNIT			6 Well Number 535
7 OGRID No. 217817		8 Operator Name ConocoPhillips Company			9 Elevation 3978'

10 Surface Location

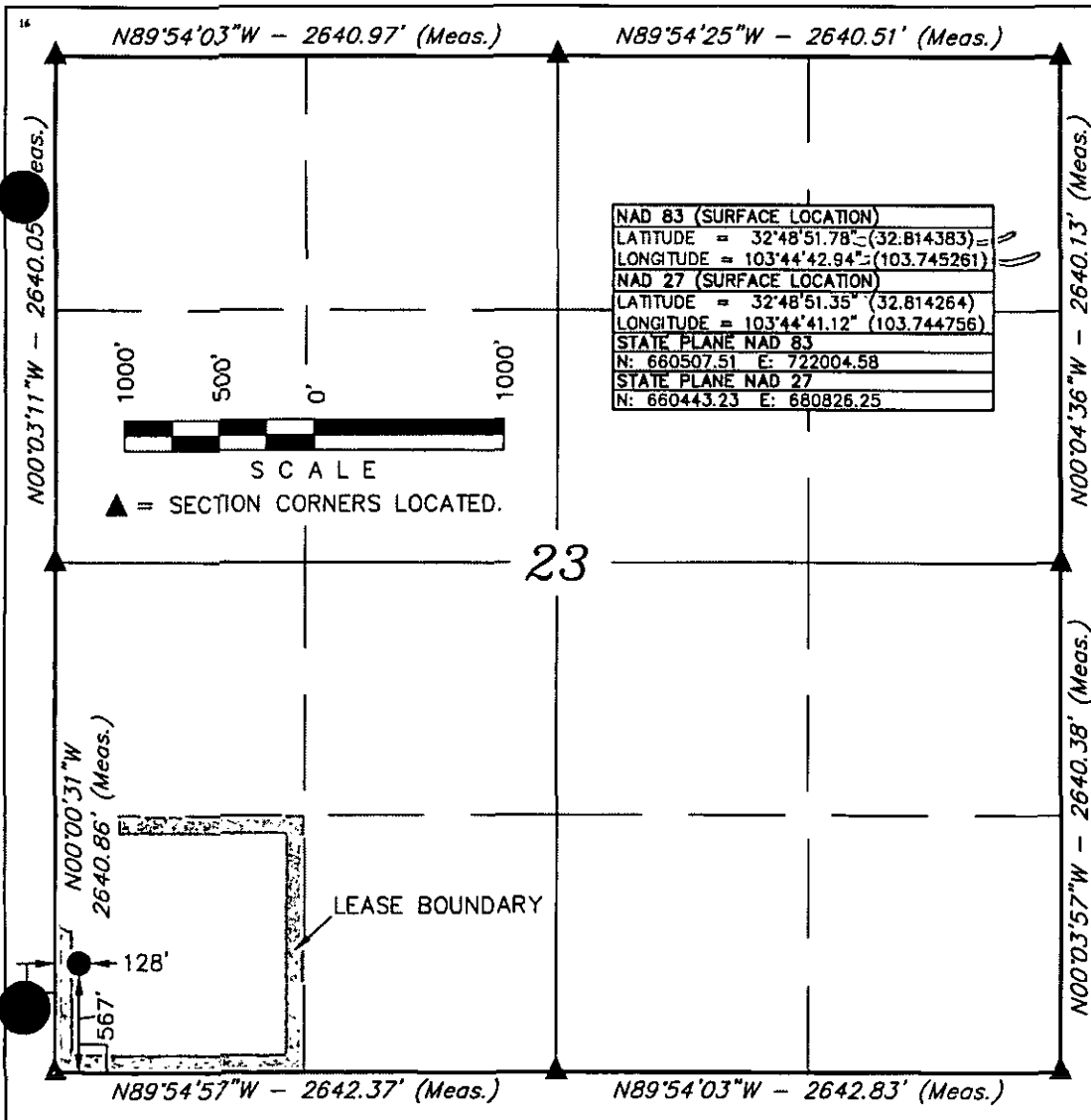
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	23	17 S	32 E		567	SOUTH	128	WEST	LEA

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature \_\_\_\_\_ Date \_\_\_\_\_

Susan B. Maunder  
Printed Name

Susan.B.Maunder@cop.com  
E-mail Address

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

August 23, 2013

Date of Survey  
Signature and Seal of Professional Surveyor:



Certificate Number:

EXHIBIT A

District I  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0170  
District II  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720  
District III  
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AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-025-		2 Pool Code 43329		3 Pool Name Maljamar; Grayburg, San Andres	
4 Property Code		5 Property Name MCA UNIT		6 Well Number 548	
7 OGRID No. 217817		8 Operator Name ConocoPhillips Company		9 Elevation 4025.3	

" Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	27	17S	32E		1040	NORTH	457	WEST	LEA

" Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	27	17S	32E		1352	NORTH	700	WEST	LEA

12 Dedicated Acres	11 Joint or Infill	14 Consolidation Code	13 Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

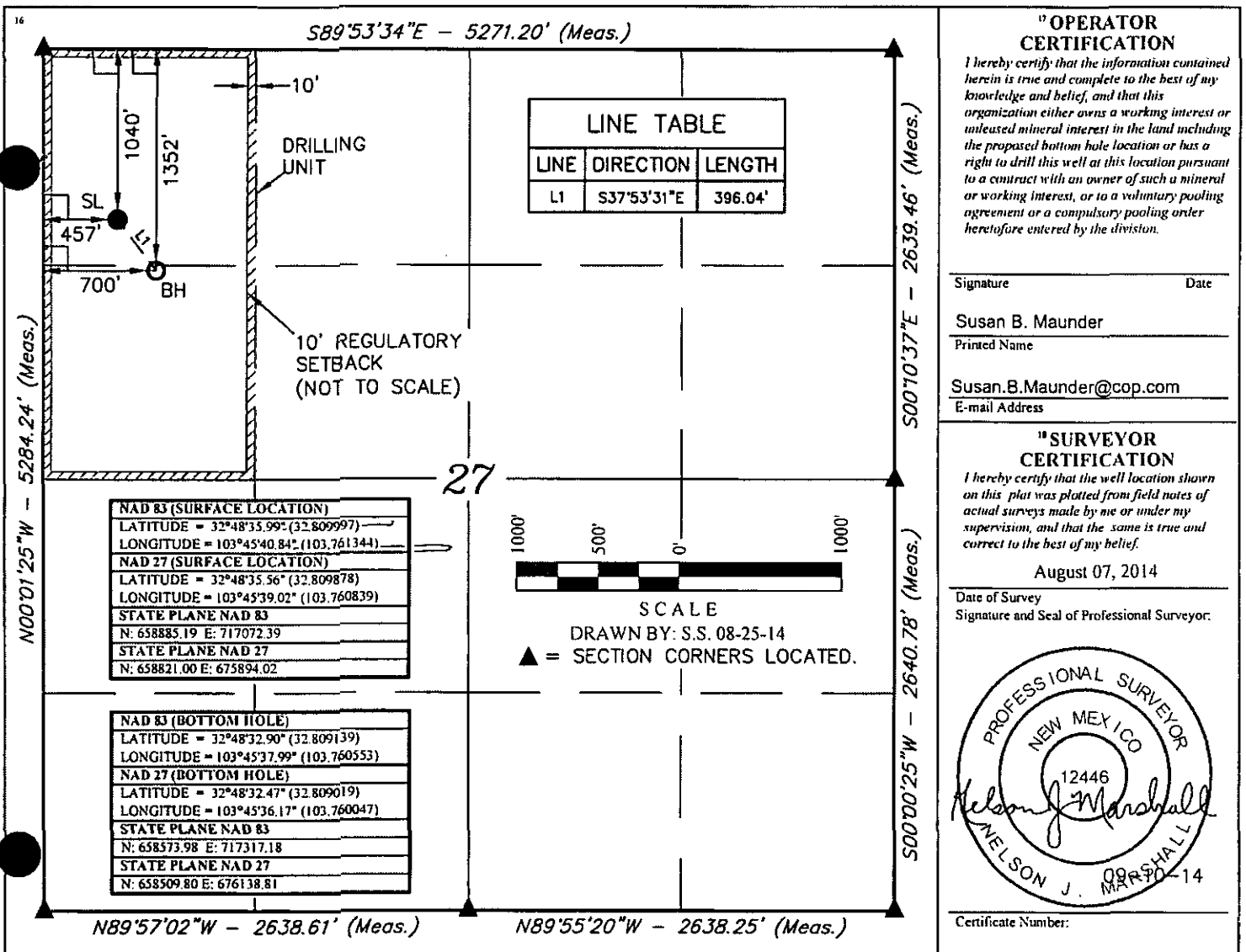


EXHIBIT A

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1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720  
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Rio Brazos Road, Aztec, NM 87410  
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State of New Mexico  
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Revised August 1, 2011  
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District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-025-		<sup>2</sup> Pool Code 43329		<sup>3</sup> Pool Name Maljamar; Grayburg, San Andres	
<sup>4</sup> Property Code		<sup>5</sup> Property Name MCA UNIT		<sup>6</sup> Well Number 561	
<sup>7</sup> OGRID No. 217817		<sup>8</sup> Operator Name ConocoPhillips Company		<sup>9</sup> Elevation 3965.6'	

<sup>10</sup> Surface Location

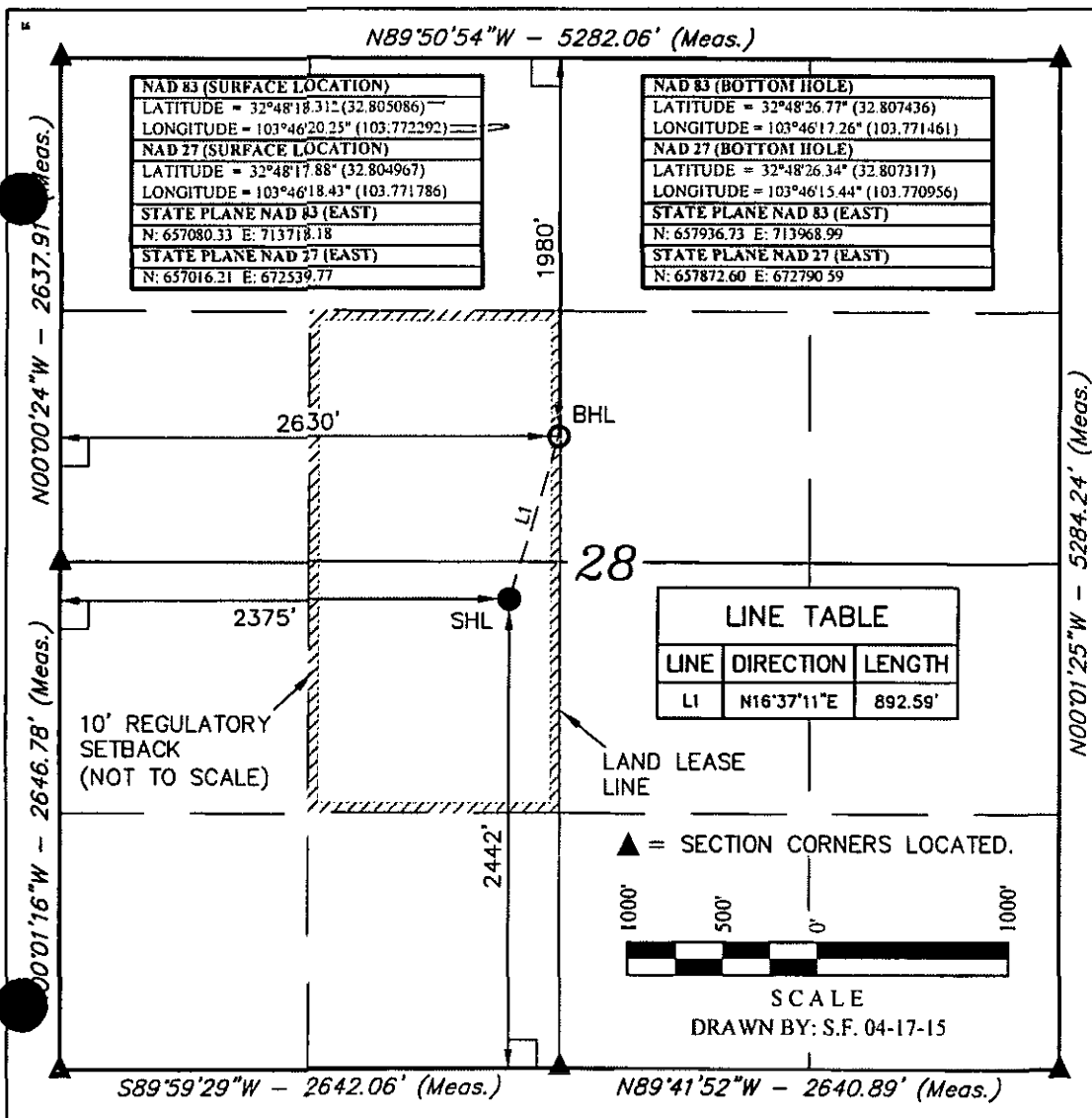
UL or lot no. K	Section 28	Township 17S	Range 32E	Lot Idn	Feet from the 2442	North/South line SOUTH	Feet from the 2375	East/West line WEST	County LEA
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<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no. F	Section 28	Township 17S	Range 32E	Lot Idn	Feet from the 1980	North/South line NORTH	Feet from the 2630	East/West line WEST	County LEA
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<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
-------------------------------	-------------------------------	----------------------------------	-------------------------

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



**" OPERATOR CERTIFICATION**  
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature \_\_\_\_\_ Date \_\_\_\_\_  
Susan B. Maunder  
Printed Name  
Susan.B.Maunder@cop.com  
E-mail Address

**" SURVEYOR CERTIFICATION**  
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

April 10, 2015  
Date of Survey  
Signature and Seal of Professional Surveyor:  
  
Certificate Number: \_\_\_\_\_

EXHIBIT A

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State of New Mexico  
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OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-025-		<sup>2</sup> Pool Code 43329		<sup>3</sup> Pool Name Maljamar; Grayburg San Andres	
<sup>4</sup> Property Code		<sup>5</sup> Property Name MCA UNIT		<sup>6</sup> Well Number 562	
<sup>7</sup> OGRID No. 217817		<sup>8</sup> Operator Name ConocoPhillips Company		<sup>9</sup> Elevation 3962.2'	

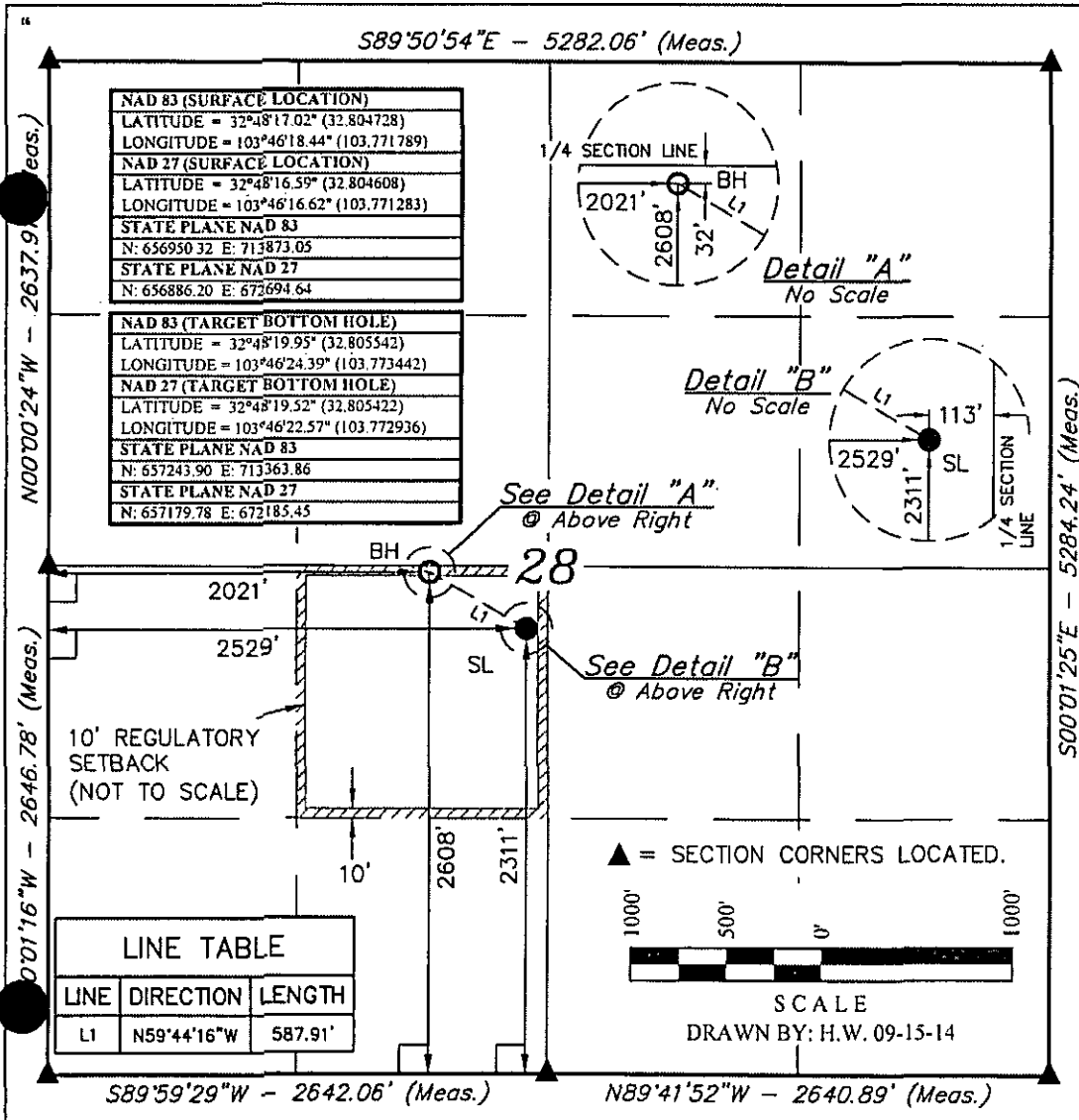
"Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	28	17S	32E		2311	SOUTH	2529	WEST	LEA

"Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	28	17S	32E		2608	SOUTH	2021	WEST	LEA
<sup>10</sup> Dedicated Acres		<sup>11</sup> Joint or Infill		<sup>12</sup> Consolidation Code		<sup>15</sup> Order No.			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



"OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature \_\_\_\_\_ Date \_\_\_\_\_  
 Susan B. Maunder  
 Printed Name  
 Susan.B.Maunder@cop.com  
 E-mail Address

"SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

August 19, 2014  
 Date of Survey  
 Signature and Seal of Professional Surveyor:



Certificate Number: \_\_\_\_\_

EXHIBIT A



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District III  
Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number		<sup>2</sup> Pool Code 43329		<sup>3</sup> Pool Name Maljamar; Grayburg, San Andres	
<sup>4</sup> Property Code		<sup>5</sup> Property Name MCA UNIT		<sup>6</sup> Well Number 564	
<sup>7</sup> OGRID No. 217817		<sup>8</sup> Operator Name ConocoPhillips Company		<sup>9</sup> Elevation 3934.6'	

<sup>10</sup> Surface Location

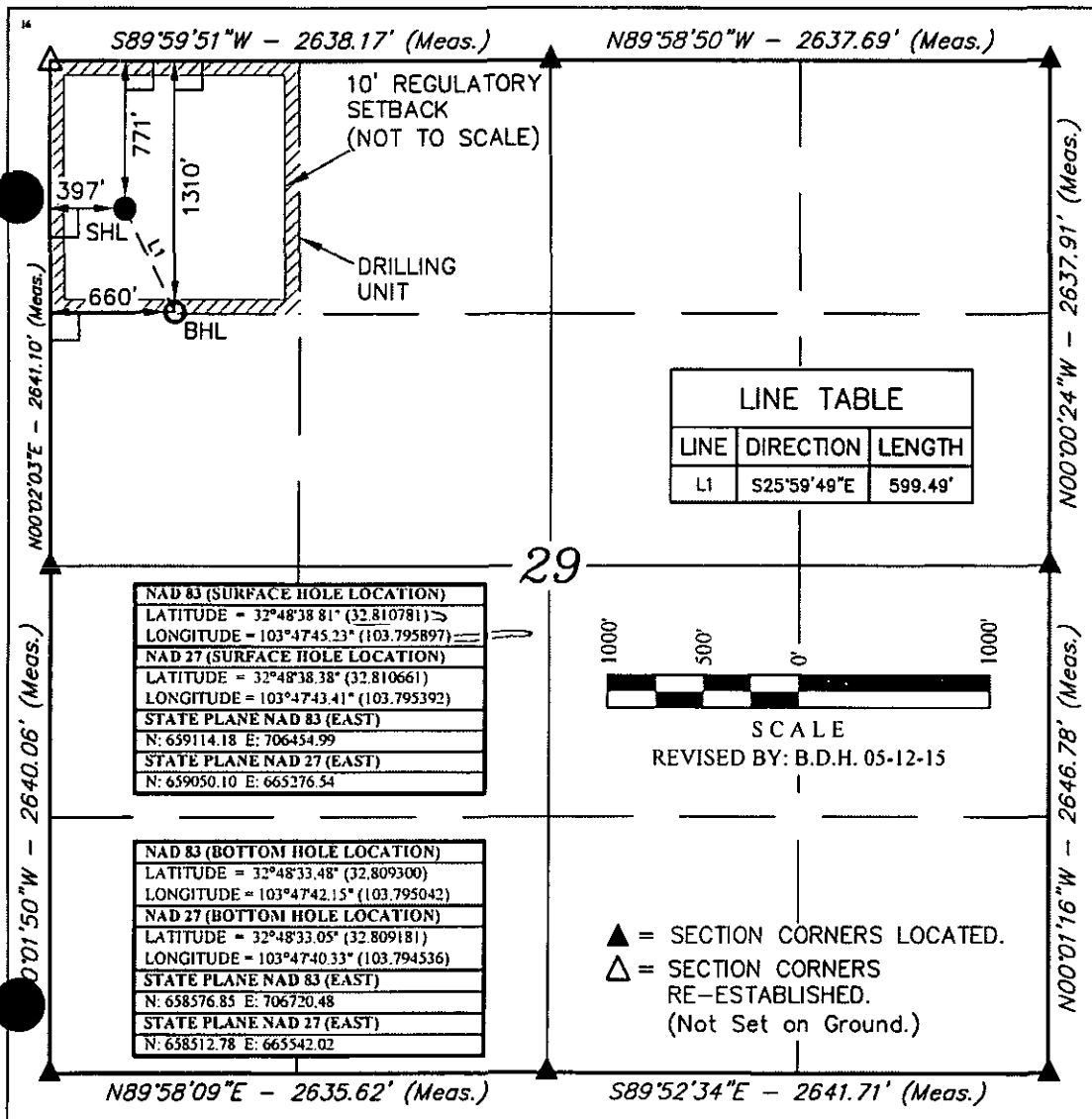
UL or lot no. D	Section 29	Township 17 S	Range 32 E	Lot Idn	Feet from the 771	North/South line NORTH	Feet from the 397	East/West line WEST	County LEA
--------------------	---------------	------------------	---------------	---------	----------------------	---------------------------	----------------------	------------------------	---------------

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no. D	Section 29	Township 17 S	Range 32 E	Lot Idn	Feet from the 1310	North/South line NORTH	Feet from the 660	East/West line WEST	County LEA
--------------------	---------------	------------------	---------------	---------	-----------------------	---------------------------	----------------------	------------------------	---------------

<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
-------------------------------	-------------------------------	----------------------------------	-------------------------

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



**"OPERATOR CERTIFICATION"**  
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature \_\_\_\_\_ Date \_\_\_\_\_  
Susan B. Maunder  
Printed Name  
Susan.B.Maunder@cop.com  
E-mail Address

**"SURVEYOR CERTIFICATION"**  
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

April 16, 2014  
Date of Survey  
Signature and Seal of Professional Surveyor:

Certificate Number: \_\_\_\_\_

EXHIBIT A

District I  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720  
District II  
811 S. First St., Artesia, NM 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720  
District III  
Rio Brazos Road, Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

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Santa Fe, NM 87505

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District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 APT Number 30-025-		2 Post Code 43329		3 Pool Name Maljamar; Grayburg, San Andres	
4 Property Code		5 Property Name MCA UNIT		6 Well Number 565	
7 OGRID No. 217817		8 Operator Name ConocoPhillips Company		9 Elevation 3934.9'	

"Surface Location

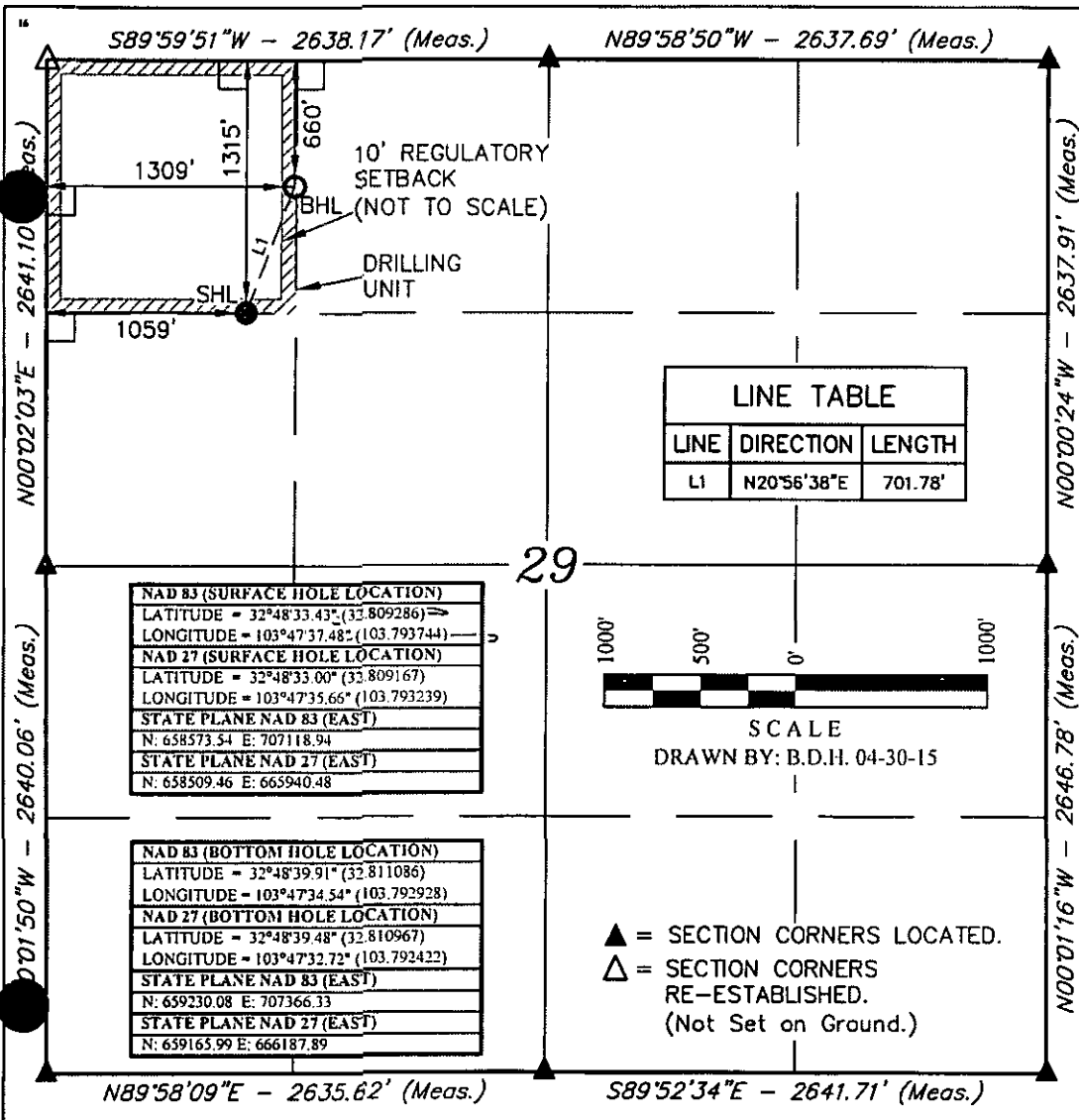
UL or lot no. D	Section 29	Township 17 S	Range 32 E	Lot Idn	Feet from the 1315	North/South line NORTH	Feet from the 1059	East/West line WEST	County LEA
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"Bottom Hole Location If Different From Surface

UL or lot no. D	Section 29	Township 17 S	Range 32 E	Lot Idn	Feet from the 660	North/South line NORTH	Feet from the 1309	East/West line WEST	County LEA
--------------------	---------------	------------------	---------------	---------	----------------------	---------------------------	-----------------------	------------------------	---------------

12 Dedicated Acres		13 Joint or Infill		14 Consolidation Code		15 Order No.			
--------------------	--	--------------------	--	-----------------------	--	--------------	--	--	--

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



"OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature \_\_\_\_\_ Date \_\_\_\_\_

Susan B. Maunder

Printed Name

Susan.B.Maunder@cop.com

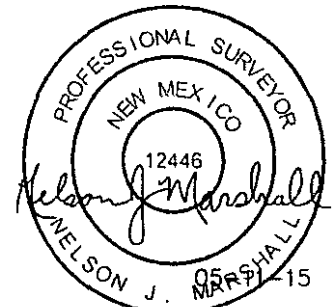
E-mail Address

"SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

April 17, 2015

Date of Survey  
Signature and Seal of Professional Surveyor:



Certificate Number:

EXHIBIT A



MCA Unit  
535

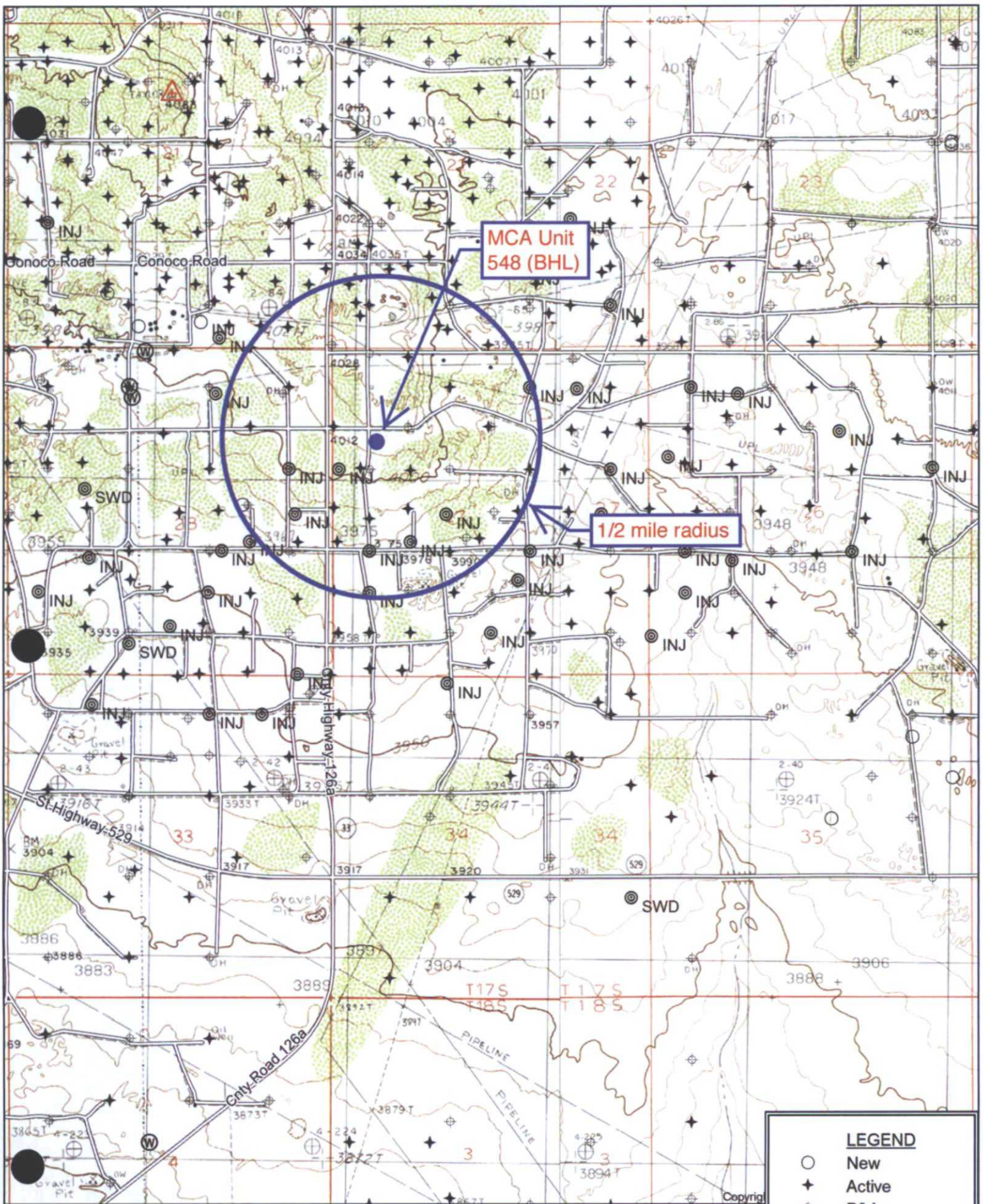
1/2 mile radius

LEGEND	
○	New
+	Active
⊕	P&A
⊙	INJ
⊗	SWD
⊖	Water

Quad: DOG LAKE  
Scale: 1 inch = 2,000 ft.

EXHIBIT B





MCA Unit  
548 (BHL)

1/2 mile radius

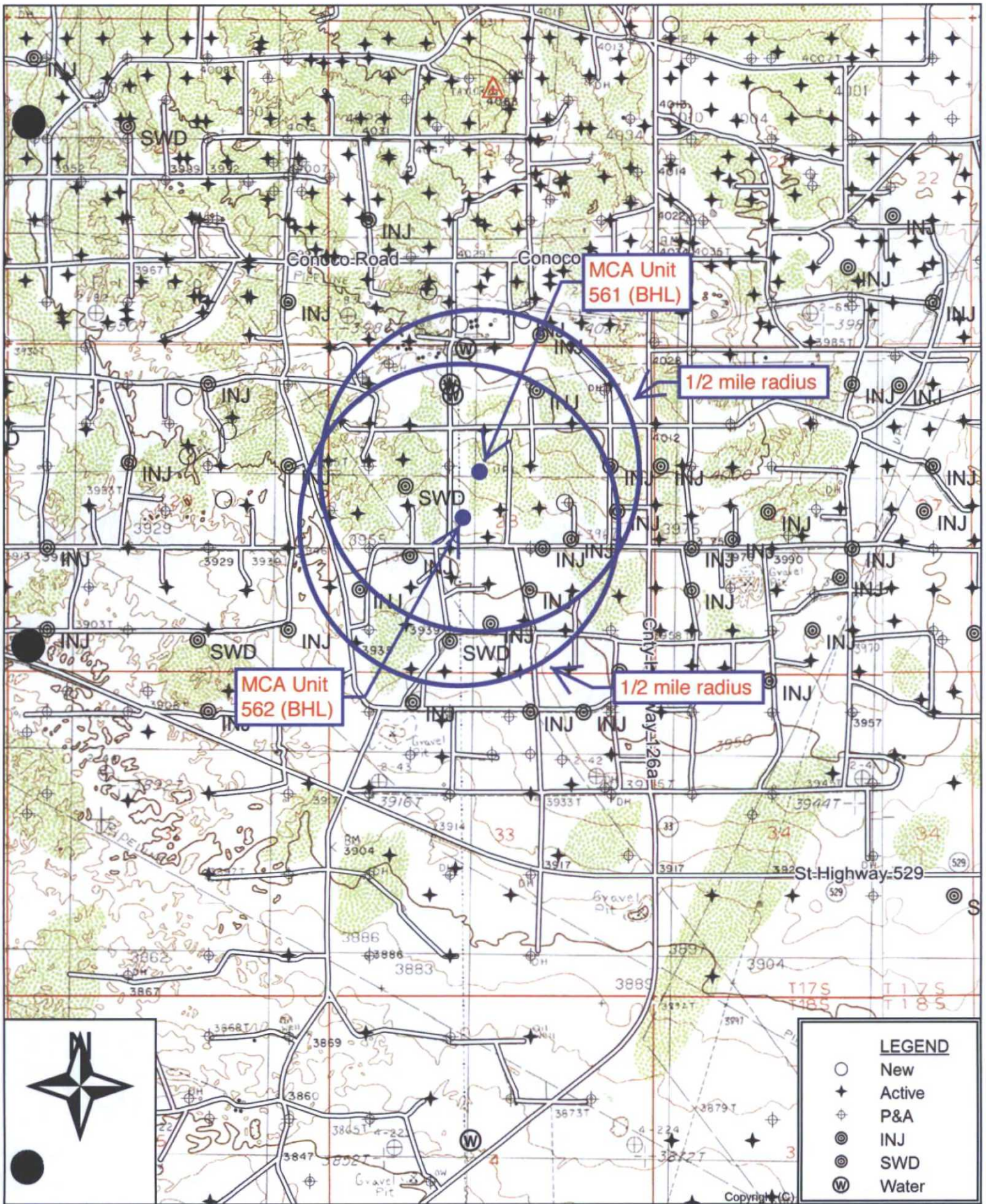
Quad: MALJAMAR  
Scale: 1 inch = 2,000 ft.

EXHIBIT B

LEGEND	
○	New
+	Active
⊕	P&A
⊙	INJ
⊗	SWD
⊕	Water

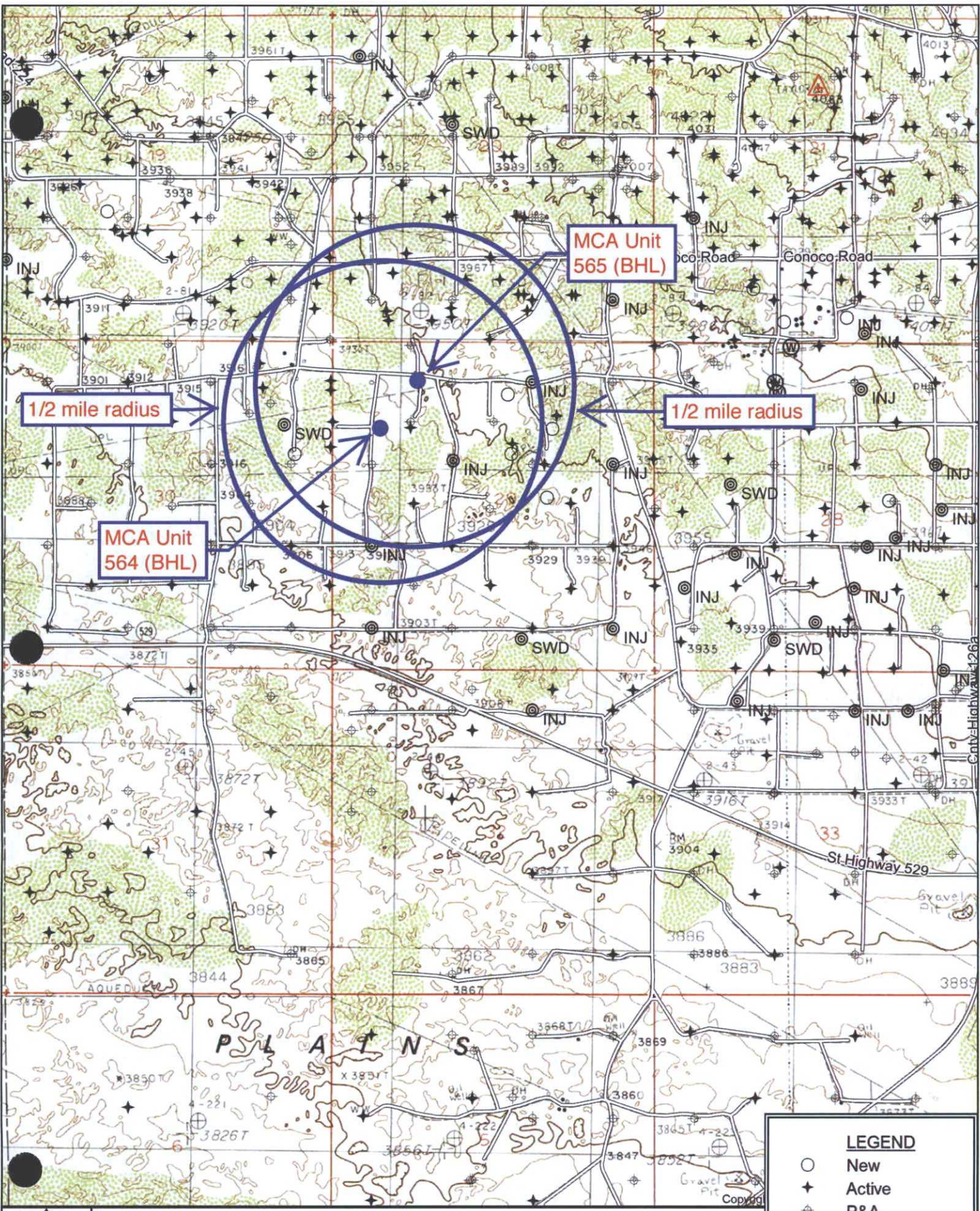


Copyright



Quad: MALJAMAR  
 Scale: 1 inch = 2,000 ft.

**EXHIBIT B**



1/2 mile radius

MCA Unit 565 (BHL)

1/2 mile radius

MCA Unit 564 (BHL)

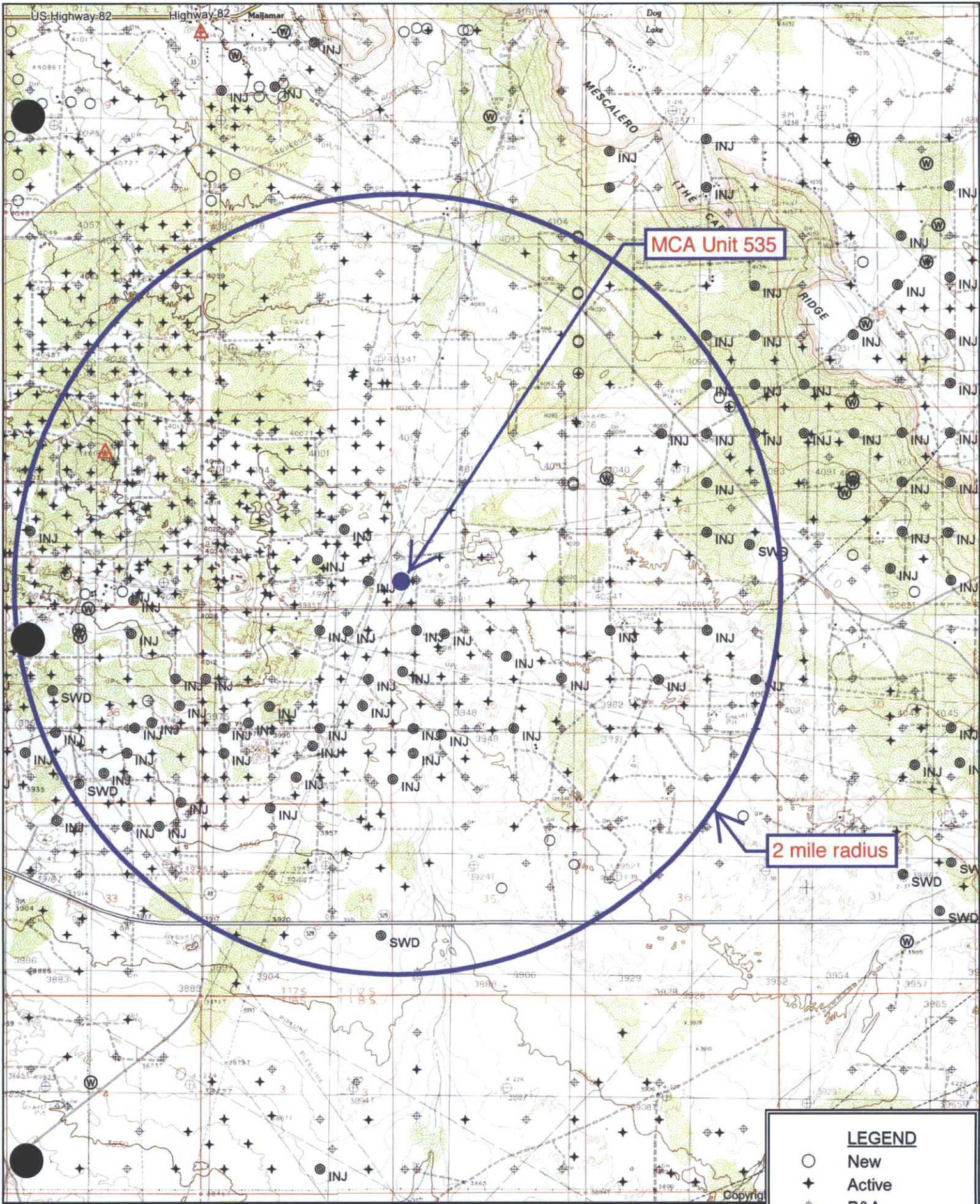
LEGEND	
○	New
+	Active
⊕	P&A
⊙	INJ
⊗	SWD
⊖	Water



Quad: MALJAMAR  
Scale: 1 inch = 2,000 ft.

EXHIBIT B

Copyright



MCA Unit 535

2 mile radius

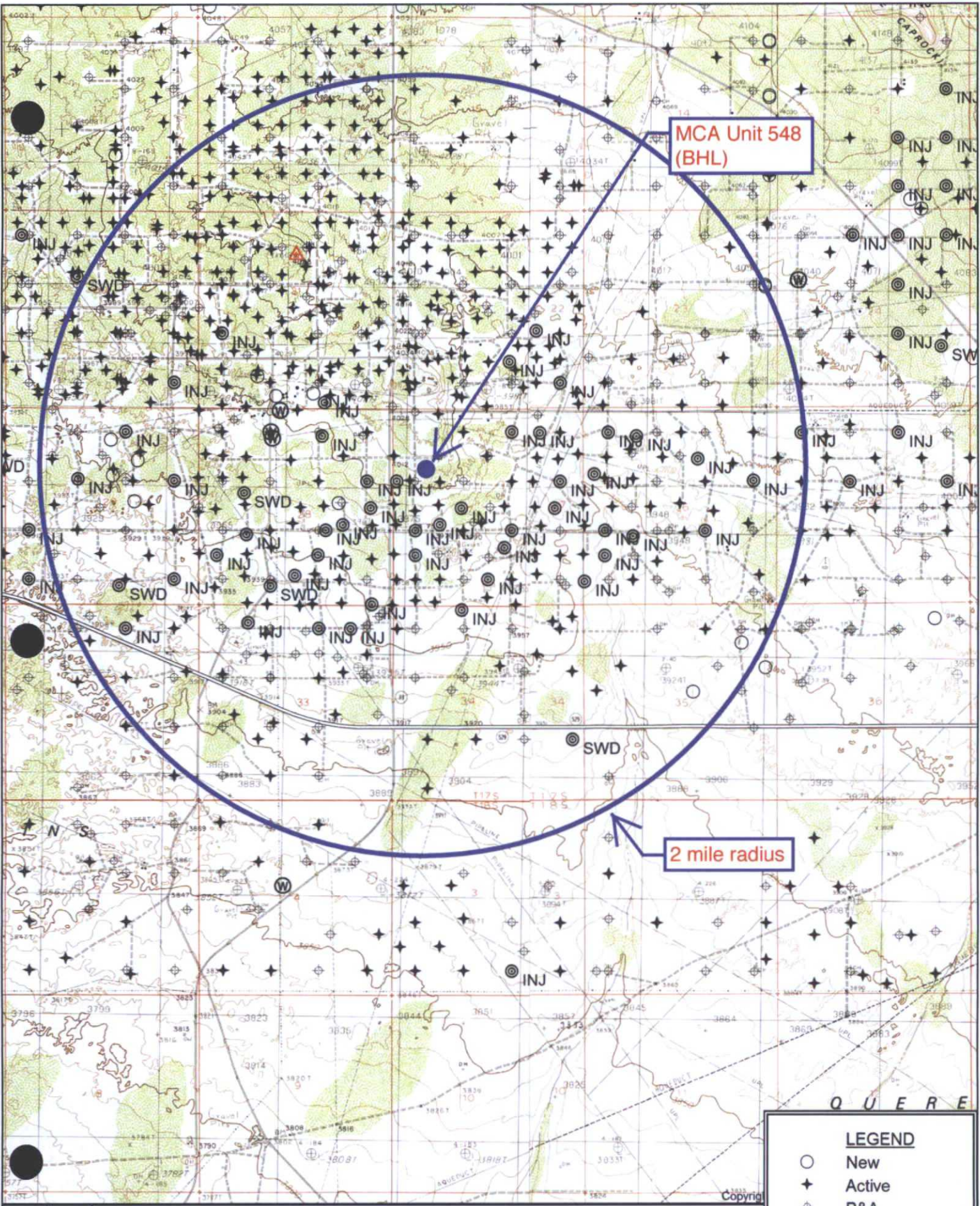
LEGEND	
○	New
+	Active
⊕	P&A
⊙	INJ
⊗	SWD
⊕	Water

Quad: DOG LAKE  
Scale: 1 inch = 3,333 ft.

EXHIBIT C



Copyright



MCA Unit 548  
(BHL)

2 mile radius

QUERE

LEGEND	
○	New
★	Active
⊕	P&A
⊗	INJ
⊙	SWD
⊖	Water

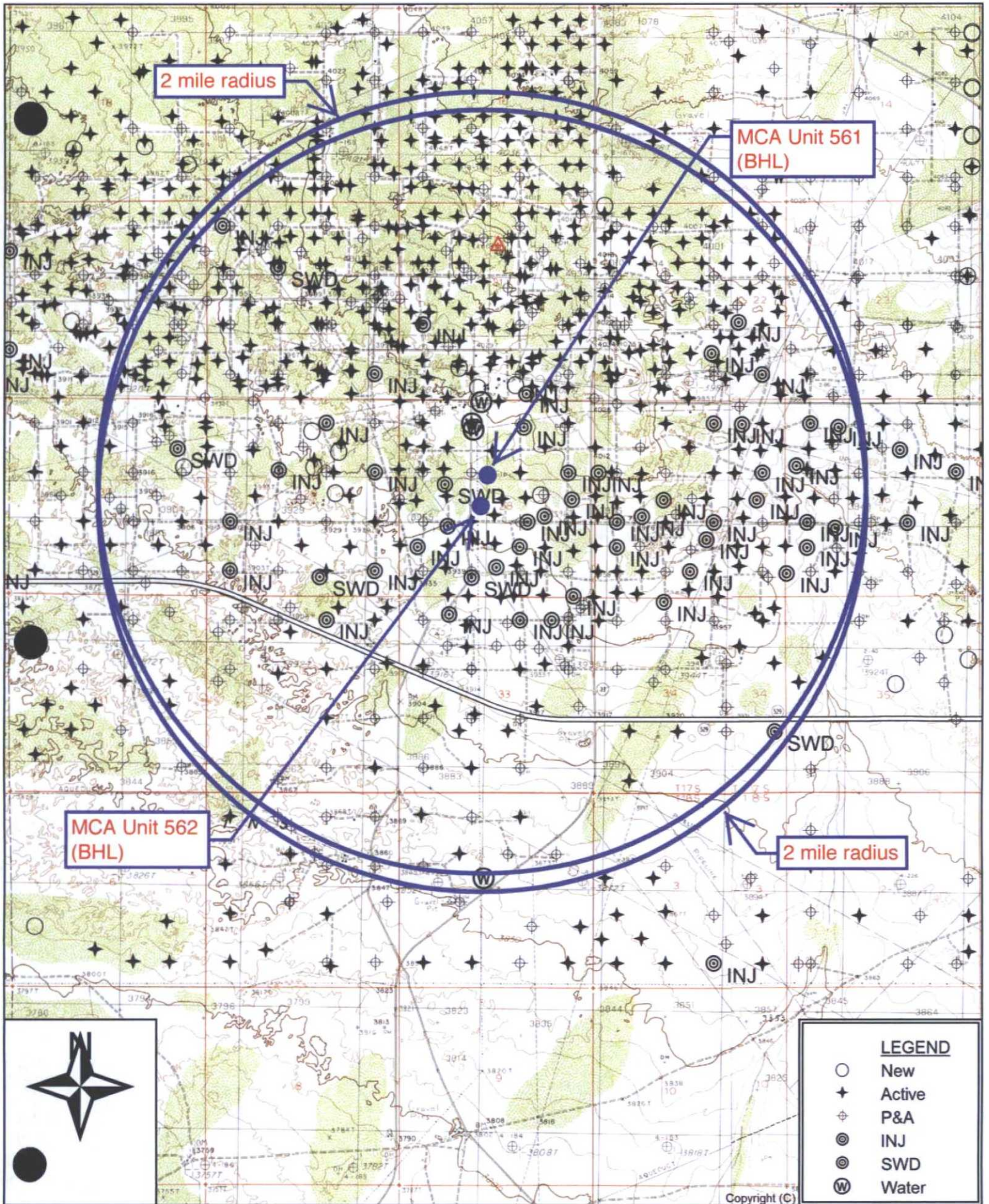
Quad: MALJAMAR  
Scale: 1 inch = 3,333 ft.

EXHIBIT C



Copyright





MCA Unit 562  
(BHL)

MCA Unit 561  
(BHL)

2 mile radius

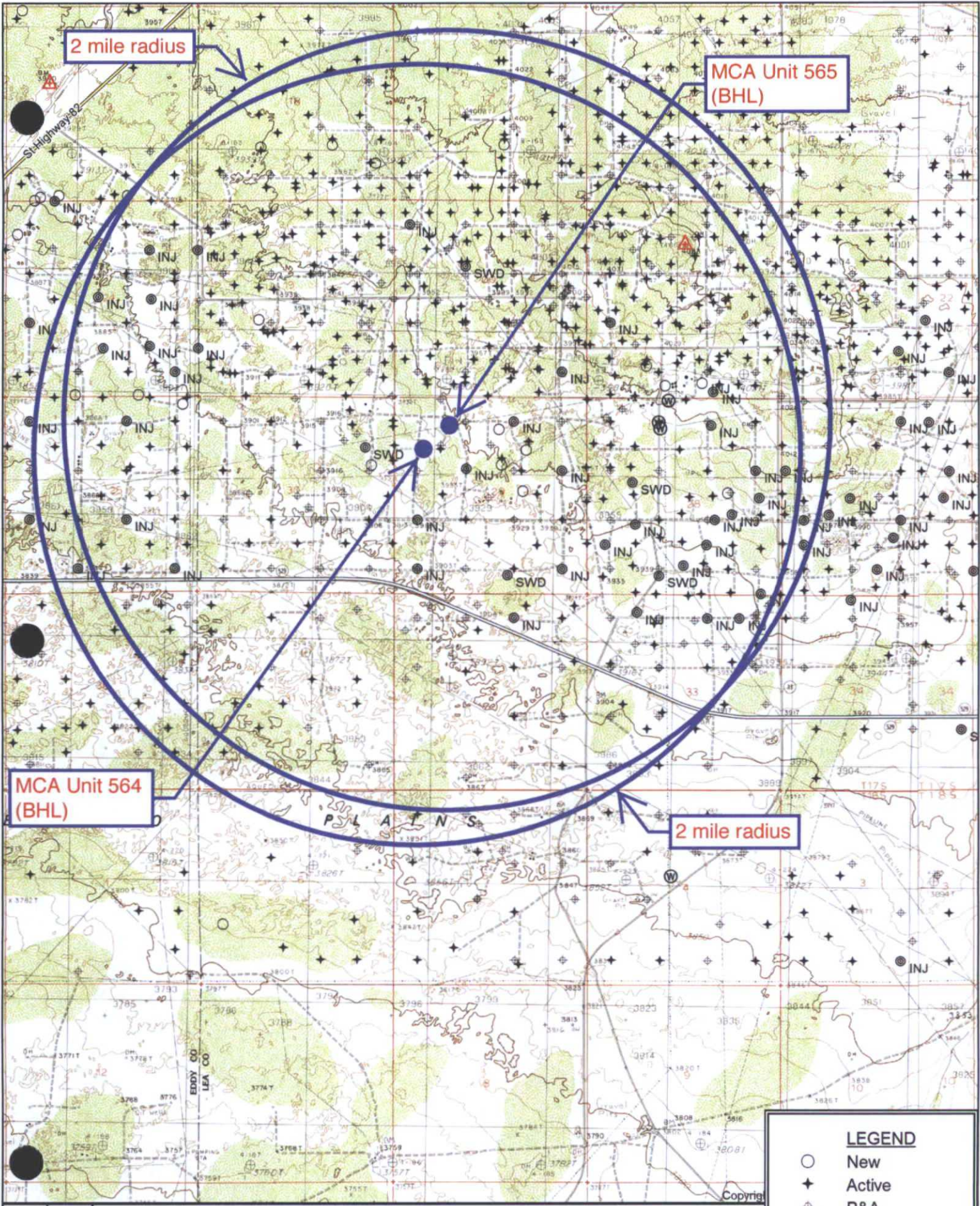
2 mile radius

**LEGEND**

- New
- ★ Active
- ⊕ P&A
- ⊙ INJ
- ⊖ SWD
- Ⓜ Water

Quad: MALJAMAR  
Scale: 1 inch = 3,333 ft.

**EXHIBIT C**



2 mile radius

MCA Unit 565  
(BHL)

MCA Unit 564  
(BHL)

2 mile radius

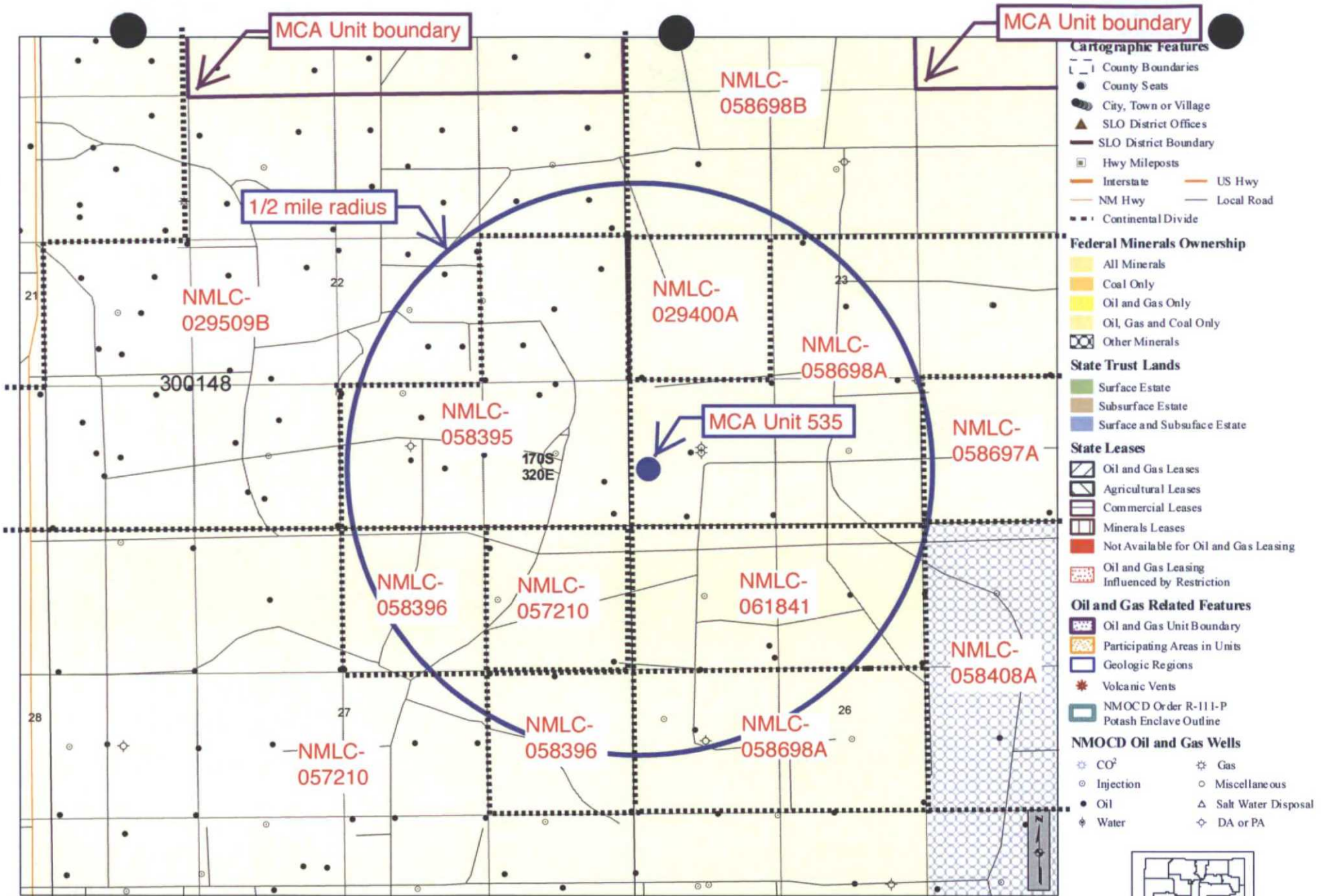
LEGEND	
○	New
+	Active
⊕	P&A
⊙	INJ
⊖	SWD
⊗	Water

Quad: MALJAMAR  
Scale: 1 inch = 3,333 ft.

EXHIBIT C



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**New Mexico State Land Office**  
**Oil, Gas and Minerals**

0 0.05 0.1 0.2 0.3 0.4 Miles  
 Universal Transverse Mercator Projection, Zone 13  
 1983 North American Datum

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 logic@slo.state.nm.us

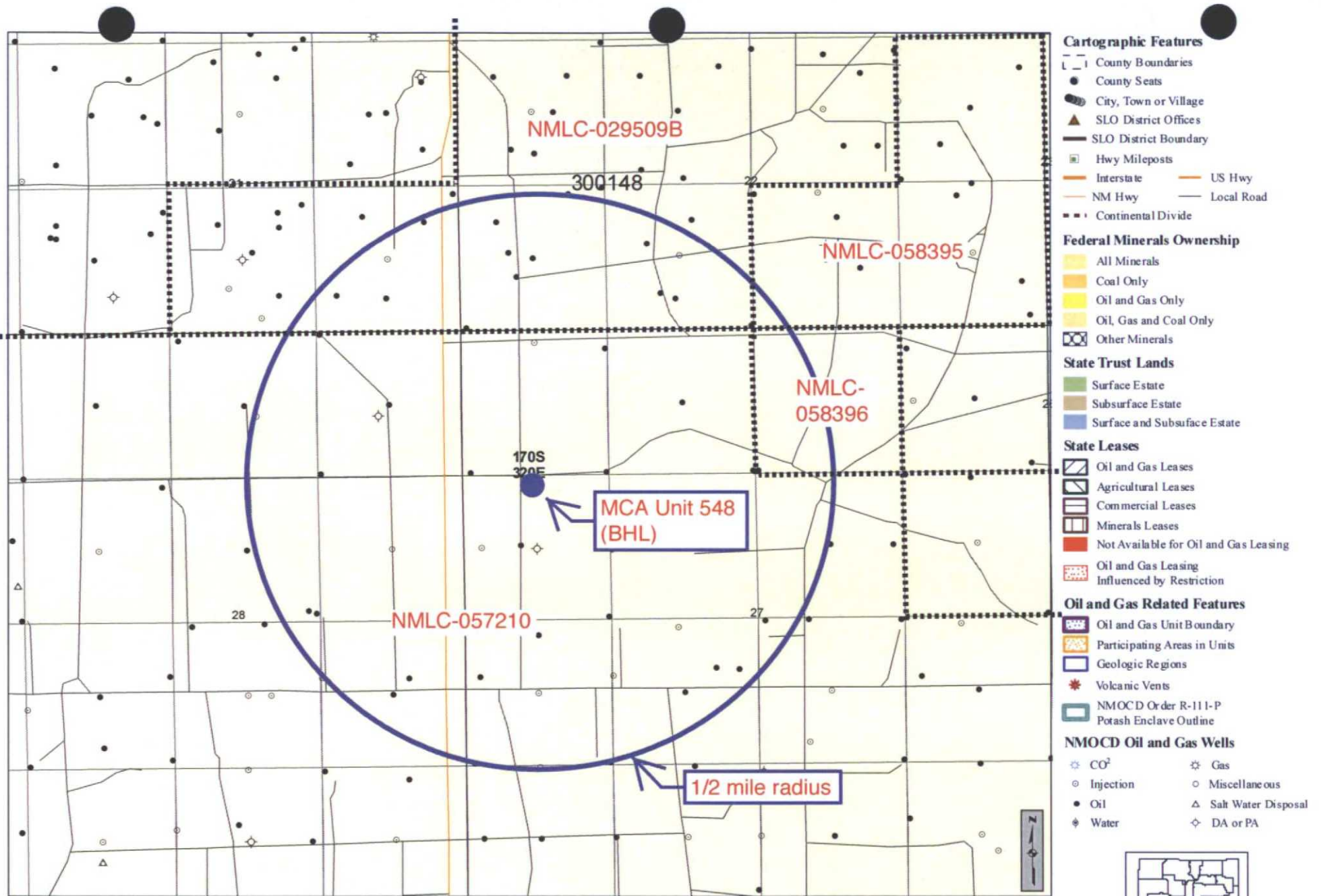
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**EXHIBIT D**



www.nmstatelands.org

- Cartographic Features**
- - - County Boundaries
  - County Seats
  - City, Town or Village
  - ▲ SLO District Offices
  - SLO District Boundary
  - Hwy Mileposts
  - Interstate — US Hwy
  - NM Hwy — Local Road
  - · - · Continental Divide
- Federal Minerals Ownership**
- All Minerals
  - Coal Only
  - Oil and Gas Only
  - Oil, Gas and Coal Only
  - Other Minerals
- State Trust Lands**
- Surface Estate
  - Subsurface Estate
  - Surface and Subsurface Estate
- State Leases**
- Oil and Gas Leases
  - Agricultural Leases
  - Commercial Leases
  - Minerals Leases
  - Not Available for Oil and Gas Leasing
  - Oil and Gas Leasing Influenced by Restriction
- Oil and Gas Related Features**
- Oil and Gas Unit Boundary
  - Participating Areas in Units
  - Geologic Regions
  - ★ Volcanic Vents
  - NMOC D Order R-111-P Potash Enclave Outline
- NMOC D Oil and Gas Wells**
- CO<sub>2</sub>
  - Gas
  - Injection
  - Miscellaneous
  - Oil
  - Salt Water Disposal
  - ◇ Water
  - ◇ DA or PA



**New Mexico State Land Office  
Oil, Gas and Minerals**

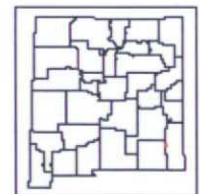
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 Universal Transverse Mercator Projection, Zone 13  
 1983 North American Datum

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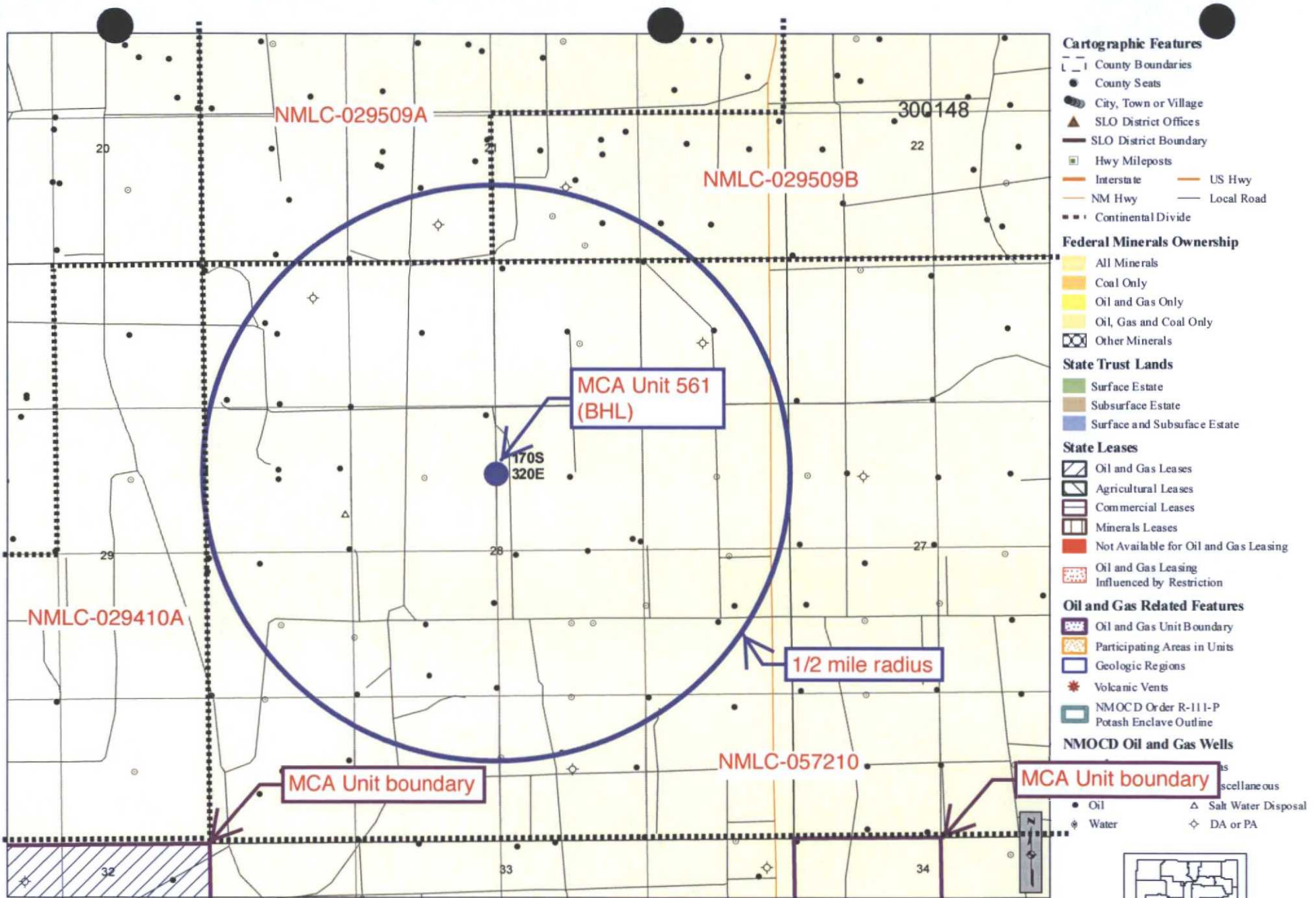
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**Oil, Gas and Minerals**  
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 Universal Transverse Mercator Projection, Zone 13  
 1983 North American Datum

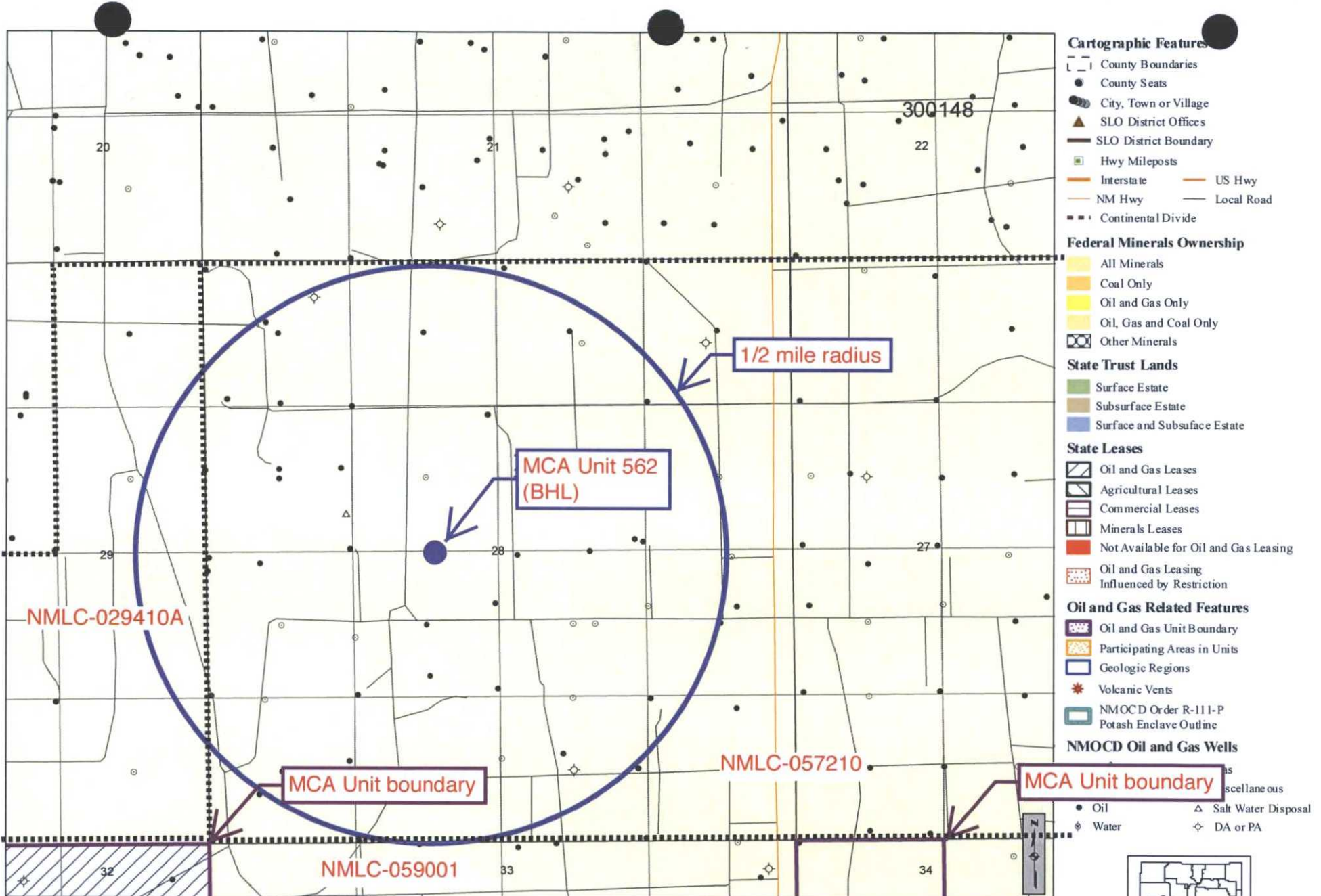
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 Universal Transverse Mercator Projection, Zone 13  
 1983 North American Datum

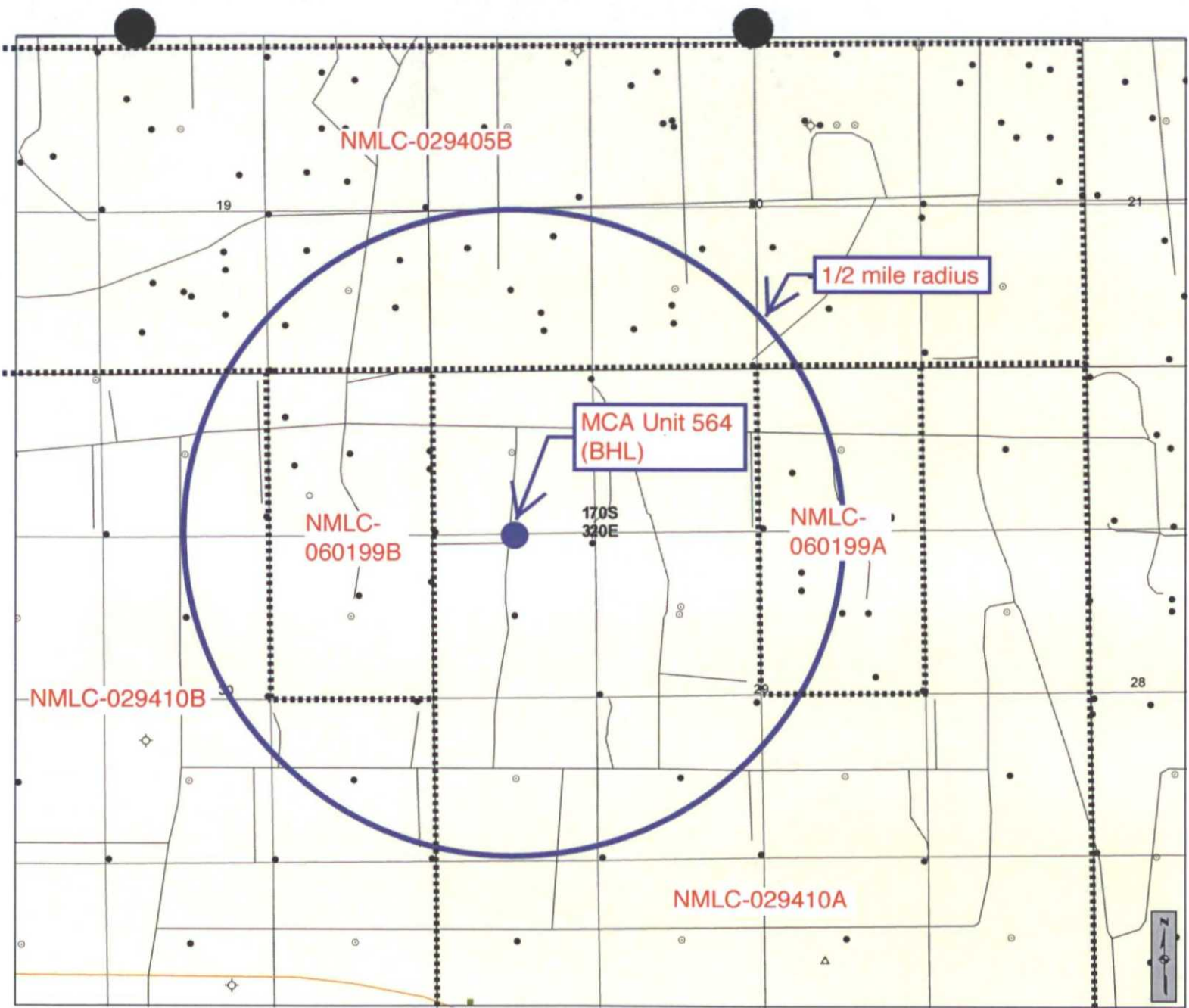
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**EXHIBIT D**



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- Cartographic Features**
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  - ▲ SLO District Offices
  - SLO District Boundary
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  - Interstate
  - US Hwy
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  - Continental Divide
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  - Oil and Gas Only
  - Oil, Gas and Coal Only
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- State Trust Lands**
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  - Volcanic Vents
  - NMOCD Order R-111-P
  - Potash Enclave Outline
- NMOCD Oil and Gas Wells**
- CO<sub>2</sub>
  - Gas
  - Injection
  - Miscellaneous
  - Oil
  - Salt Water Disposal
  - Water
  - DA or PA

**New Mexico State Land Office  
Oil, Gas and Minerals**

0 0.05 0.1 0.2 0.3 0.4 Miles  
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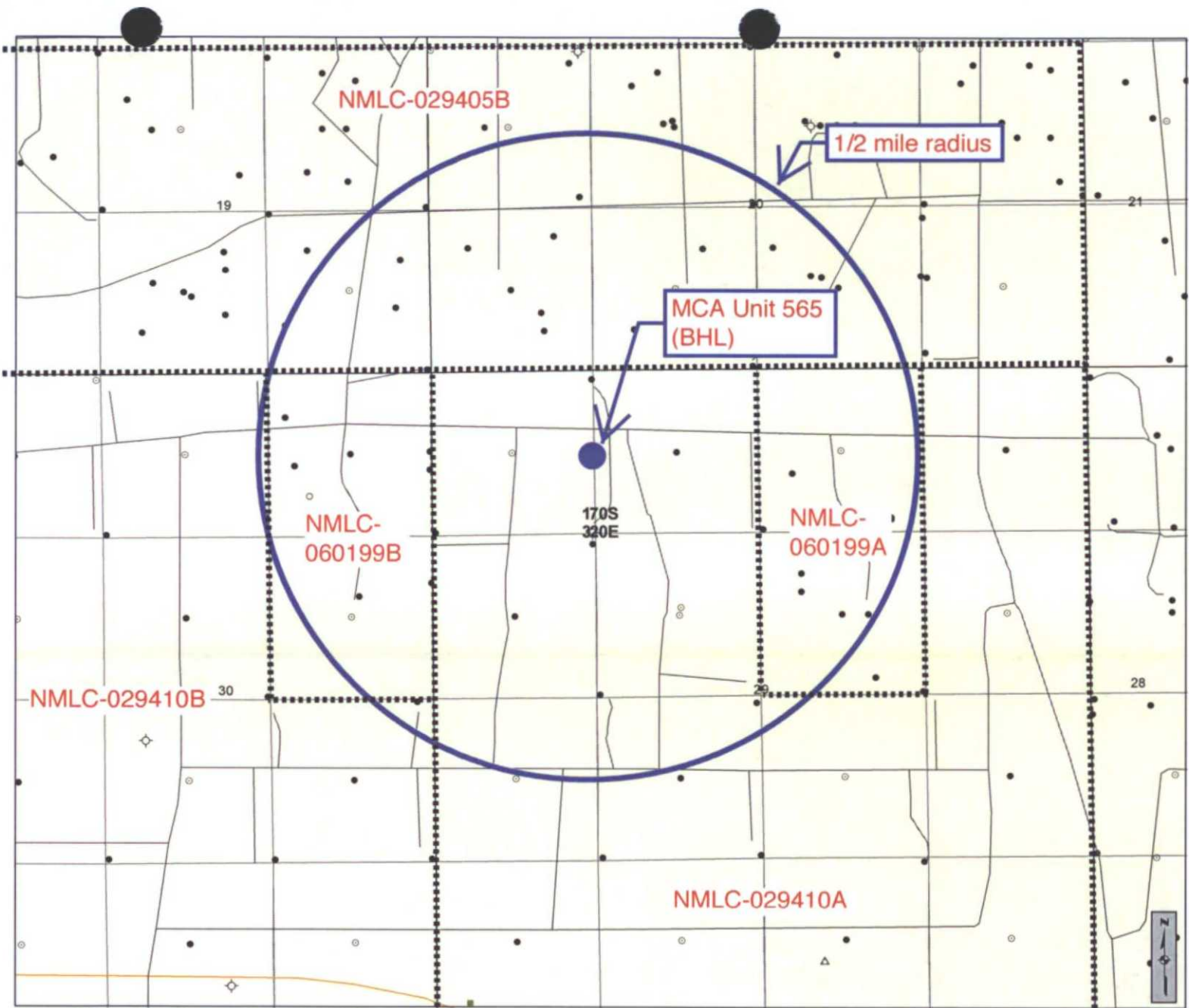
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**EXHIBIT D**



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- Cartographic Features**
- County Boundaries
  - County Seats
  - City, Town or Village
  - ▲ SLO District Offices
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  - ★ Volcanic Vents
  - NMOCD Order R-111-P
  - Potash Enclave Outline
- NMOCD Oil and Gas Wells**
- CO<sub>2</sub>
  - Gas
  - Injection
  - Miscellaneous
  - Oil
  - ▲ Salt Water Disposal
  - ◆ Water
  - ◆ DA or PA

**New Mexico State Land Office  
Oil, Gas and Minerals**

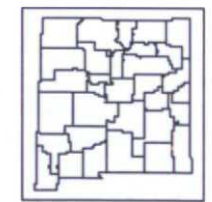
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 Universal Transverse Mercator Projection, Zone 13  
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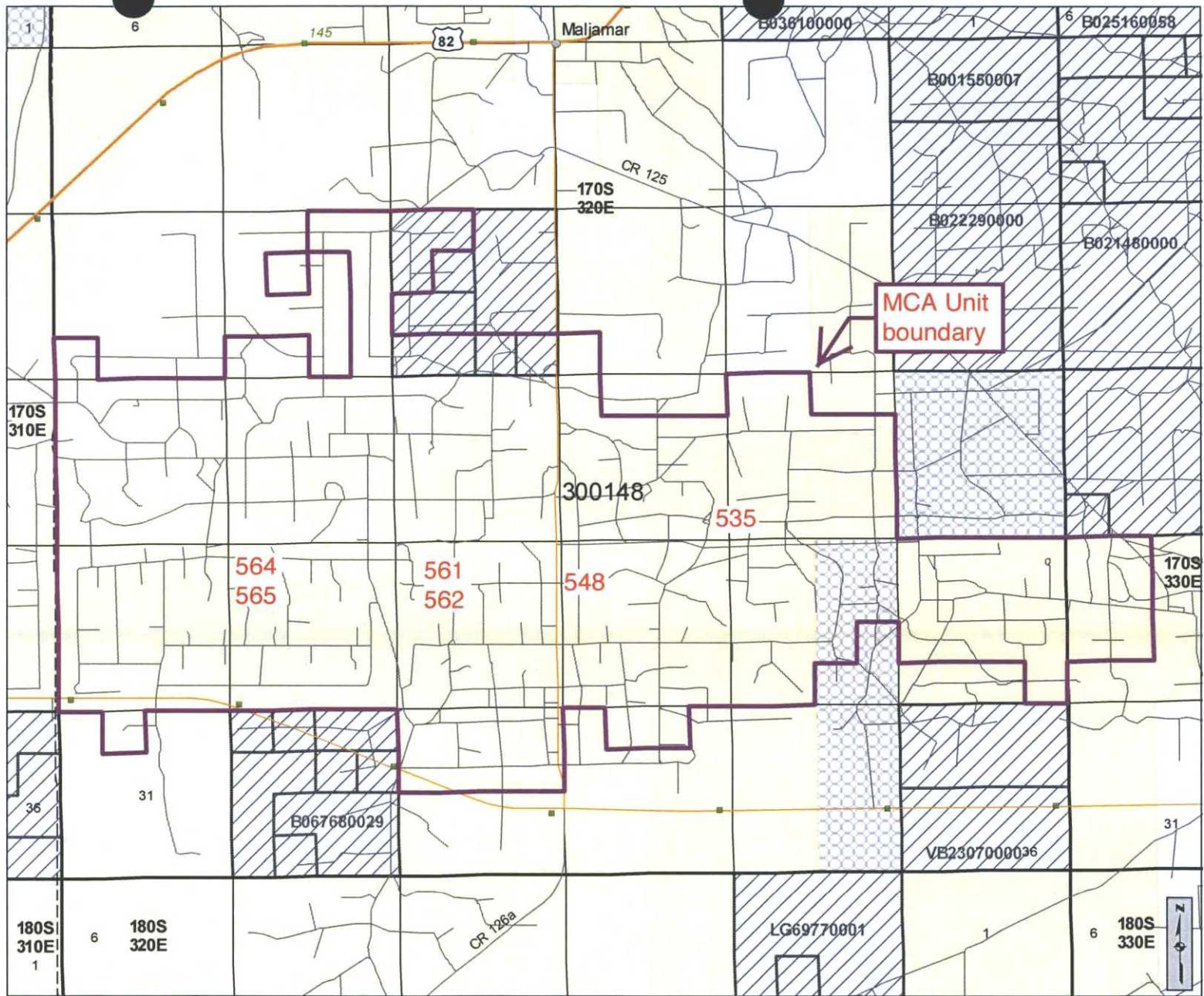
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**EXHIBIT D**



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- Cartographic Features**
- - - County Boundaries
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  - City, Town or Village
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  - ▨ NMOCD Order R-111-P
  - ▨ Potash Enclave Outline
- NMOCD Oil and Gas Wells**
- ⊙ CO<sub>2</sub>
  - ⊙ Gas
  - Injection
  - Miscellaneous
  - Oil
  - △ Salt Water Disposal
  - ◆ Water
  - ◇ DA or PA

**New Mexico State Land Office**  
**Oil, Gas and Minerals**

0 0.2 0.4 0.8 1.2 1.6 Miles  
 Universal Transverse Mercator Projection, Zone 13  
 1983 North American Datum

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**EXHIBIT E**



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API	OPERATOR	WELL	TYPE	UNIT-SECTION	TVD	ZONE	FEET FROM MCA 535
3002540598	ConocoPhillips	SC Federal 011	O	P-22	7072	Maljamar; Yeso, West	405
3002500649	ConocoPhillips	MCA Unit 083	O	M-23	4153	Maljamar; Grayburg-SA	434
3002500643	Williams & Cockburn	Miller 003	P&A	M-23	3890	Maljamar; Grayburg-SA	533
3002500645	Kewanee	Miller A Federal 007	P&A	M-23	3601	Maljamar; Grayburg-SA	542
3002524462	ConocoPhillips	MCA Unit 341	O	P-22	4150	Maljamar; Grayburg-SA	562
3002541393	ConocoPhillips	MCA Unit 488	O	M-23	4385	Maljamar; Grayburg-SA	639
3002524370	ConocoPhillips	MCA Unit 336	P&A	L-23	4200	Maljamar; Grayburg-SA	760
3002500639	ConocoPhillips	MCA Unit 084	I	P-22	4129	Maljamar; Grayburg-SA	802
3002540683	COG Operating	VC Federal 004C	O	L-23	4315	Maljamar; Grayburg-SA	938
3002541394	ConocoPhillips	MCA Unit 508	O	P-22	4314	Maljamar; Grayburg-SA	1070
3002540596	ConocoPhillips	SC Federal 009	O	P-22	7099	Maljamar; Yeso; West	1122
3002524545	ConocoPhillips	MCA Unit 349	P&A	M-23	4250	Maljamar; Grayburg-SA	1274
3002500705	ConocoPhillips	MCA Unit 123	I	D-26	4050	Maljamar; Grayburg-SA	1354
3002524271	ConocoPhillips	MCA Unit 330	O	M-23	4200	Maljamar; Grayburg-SA	1364
3002541397	ConocoPhillips	MCA Unit 511	O	P-22	4284	Maljamar; Grayburg-SA	1454
3002500716	ConocoPhillips	MCA Unit 122	O	A-27	4120	Maljamar; Grayburg-SA	1476
3002540586	ConocoPhillips	SC Federal 002	O	I-22	7096	Maljamar; Yeso, West	1519
3002512711	ConocoPhillips	MCA Unit 075	O	I-22	4055	Maljamar; Grayburg-SA	1610
3002524058	ConocoPhillips	MCA Unit 307	P&A	A-27	4140	Maljamar; Grayburg-SA	1612
3002524236	ConocoPhillips	MCA Unit 325	O	I-22	4175	Maljamar; Grayburg-SA	1627
3002540592	ConocoPhillips	SC Federal 001	O	I-22	7114	Maljamar; Yeso, West	1798
3002540599	ConocoPhillips	SC Federal 012	O	O-22	7089	Maljamar; Yeso, West	1812
3002539430	ConocoPhillips	MCA Unit 466	I	A-27	4301	Maljamar; Grayburg-SA	1847

EXHIBIT F  
MCA UNIT 535

3002524515	ConocoPhillips	MCA Unit 347	O	A-27	4175	Maljamar; Grayburg-SA	1852
3002500644	ConocoPhillips	MCA Unit 082	P&A	N-23	4065	Maljamar; Grayburg-SA	1856
3002539429	ConocoPhillips	MCA Unit 449	I	C-26	4411	Maljamar; Grayburg-SA	1875
3002539627	COG Operating	J C Federal 056	O	J-22	7110	Maljamar; Yeso, West	1961
3002539306	ConocoPhillips	MCA Unit 453	O	E-26	4407	Maljamar; Grayburg-SA	1975
3002529427	ConocoPhillips	MCA Unit 366	O	D-26	4250	Maljamar; Grayburg-SA	2038
3002540597	ConocoPhillips	SC Federal 010	O	O-22	7083	Maljamar; Yeso, West	2069
3002541396	ConocoPhillips	MCA Unit 510	I	I-22	4333	Maljamar; Grayburg-SA	2069
3002530731	ConocoPhillips	MCA Unit 385	P&A	O-22	4420	Maljamar; Grayburg-SA	2125
3002500640	Continental	MCA Unit 085	P&A	O-22	4093	Maljamar; Grayburg-SA	2126
3002539408	ConocoPhillips	MCA Unit 468	O	H-27	4350	Maljamar; Grayburg-SA	2137
3002524109	ConocoPhillips	MCA Unit 312	O	H-22	4250	Maljamar; Grayburg-SA	2151
3002524463	ConocoPhillips	MCA Unit 342	P&A	D-26	4240	Maljamar; Grayburg-SA	2156
3002539165	COG Operating	J C Federal 024	O	J-22	7148	Maljamar; Yeso, West	2228
3002500706	ConocoPhillips	SEARS A 002	P&A	C-26	4028	Maljamar; Grayburg-SA	2237
3002541395	ConocoPhillips	MCA Unit 507	I	O-22	4224	Maljamar; Grayburg-SA	2284
3002500646	ConocoPhillips	MCA Unit 077	P&A	K-23	4150	Maljamar; Grayburg-SA	2317
3002541392	ConocoPhillips	MCA Unit 456	I	E-26	4400	Maljamar; Grayburg-SA	2370
3002524369	ConocoPhillips	MCA Unit 335	O	H-27	4125	Maljamar; Grayburg-SA	2401
3002530127	ConocoPhillips	MCA Unit 376	O	N-23	4350	Maljamar; Grayburg-SA	2422
3002539617	COG Operating	J C Federal 046	O	H-22	7140	Maljamar; Yeso, West	2436
3002524499	ConocoPhillips	MCA Unit 345	P&A	J-22	4150	Maljamar; Grayburg-SA	2440
3002500715	ConocoPhillips	MCA Unit 121	I	B-27	4100	Maljamar; Grayburg-SA	2458
3002530115	ConocoPhillips	MCA Unit 377	O	K-23	4255	Maljamar; Grayburg-SA	2468

EXHIBIT F  
MCA UNIT 535

3002539089	COG Operating	J C Federal 022	O	J-22	7025	Maljamar; Yeso, West	2492
3002524218	ConocoPhillips	MCA Unit 322	O	E-26	4250	Maljamar; Grayburg-SA	2503
3002500627	ConocoPhillips	MCA Unit 074	P&A	J-22	4112	Maljamar; Grayburg-SA	2546
3002524599	ConocoPhillips	MCA Unit 354	O	O-23	4275	Maljamar; Grayburg-SA	2572
3002524377	Continental	MCA Unit 339	P&A	N-23	4225	Maljamar; Grayburg-SA	2590
3002500711	Continental	MCA Unit 144	P&A	E-26	4139	Maljamar; Grayburg-SA	2620
3002538699	COG Operating	J C Federal 015	O	H-22	7017	Maljamar; Yeso, West	2646

API	OPERATOR	WELL	UNIT-SECTION	TVD	TYPE	ZONE	FEET FROM MCA 548
3002523920	Conoco	MCA Unit 292	D-27	4200	P&A	Maljamar; Grayburg-SA	592
3002524186	ConocoPhillips	MCA Unit 317	D-27	4200	O	Maljamar; Grayburg-SA	636
3002500722	Continental Oil	MCA Unit 148	E-27	4140	P&A	Maljamar; Grayburg-SA	649
3002530491	ConocoPhillips	MCA Unit 384	E-27	4200	O	Maljamar; Grayburg-SA	660
3002539409	ConocoPhillips	MCA Unit 472	E-27	4180	I	Maljamar; Grayburg-SA	847
3002539410	ConocoPhillips	MCA Unit 473	F-27	4277	O	Maljamar; Grayburg-SA	917
3002500726	Conoco	MCA Unit 119	D-27	4150	P&A	Maljamar; Grayburg-SA	1215
3002523938	ConocoPhillips	MCA Unit 299	D-27	4200	O	Maljamar; Grayburg-SA	1298
3002524127	ConocoPhillips	MCA Unit 314	E-27	4250	O	Maljamar; Grayburg-SA	1414
3002512792	ConocoPhillips	MCA Unit 149	E-27	4180	O	Maljamar; Grayburg-SA	1415
3002500719	ConocoPhillips	Queen B 006	F-27	4150	P&A	Pearsall; Queen	1436
3002500720	ConocoPhillips	MCA Unit 120	C-27	4119	O	Maljamar; Grayburg-SA	1443
3002538973	ConocoPhillips	MCA Unit 400	L-27	4285	O	Maljamar; Grayburg-SA	1446
3002512796	Conoco	MCA Unit 089	M-22	4128	P&A	Maljamar; Grayburg-SA	1512
3002500740	ConocoPhillips	MCA Unit 150	H-28	4103	I	Maljamar; Grayburg-SA	1516

3002500738	ConocoPhillips	MCA Unit 118	A-28	4145	O	Maljamar; Grayburg-SA	1531
3002521951	Pan American	Baish B Federal 002	A-28	13735	P&A	Devonian	1583
3002539169	COG Operating	J C Federal 031	M-22	7121	O	Maljamar; Yeso, West	1834
3002539431	ConocoPhillips	MCA Unit 477	K-27	4274	I	Maljamar; Grayburg-SA	1845
3002539355	ConocoPhillips	MCA Unit 486	I-28	4206	I	Maljamar; Grayburg-SA	1867
3002538978	ConocoPhillips	MCA Unit 409	L-27	4320	O	Maljamar; Grayburg-SA	1909
3002523846	ConocoPhillips	MCA Unit 282	C-27	4185	O	Maljamar; Grayburg-SA	1918
3002538972	ConocoPhillips	MCA Unit 399	K-27	4348	I	Maljamar; Grayburg-SA	1928
3002500730	ConocoPhillips	MCA Unit 183	O-27	4205	P&A	Maljamar; Grayburg-SA	1939
3002500728	ConocoPhillips	MCA Unit 180	L-27	4170	I	Maljamar; Grayburg-SA	1971
3002539170	COG Operating	J C Federal 032	N-22	7315	O	Maljamar; Yeso, West	1990
3002500628	ConocoPhillips	MCA Unit 088	M-22	4145	O	Maljamar; Grayburg-SA	1994
3002523731	ConocoPhillips	MCA Unit 274	A-28	4190	O	Maljamar; Grayburg-SA	2012
3002539863	COG Operating	J C Federal 055	N-22	7130	O	Maljamar; Yeso, West	2023
3002539930	COG Operating	J C Federal 054	M-22	7122	O	Maljamar; Yeso, West	2051
3002539614	COG Operating	J C Federal 036	P-21	7146	O	Maljamar; Yeso, West	2151
3002500745	ConocoPhillips	MCA Unit 382	I-28	9680	O	Maljamar; Grayburg-SA	2203
3002539862	COG Operating	J C Federal 053	N-22	7124	O	Maljamar; Yeso, West	2333

3002512795	ConocoPhillips	MCA Unit 086	N-22	4100	O	Maljamar; Grayburg-SA	2344
3002535142	ConocoPhillips	MCA Unit 387	K-27	4499	P&A	Maljamar; Grayburg-SA	2348
3002500724	ConocoPhillips	MCA Unit 181	K-27	4094	O	Maljamar; Grayburg-SA	2353
3002539861	COG Operating	J C Federal 052	M-22	7112	O	Maljamar; Yeso, West	2355
3002500626	Conoco	MCA Unit 087	N-22	4154	P&A	Maljamar; Grayburg-SA	2365
3002512793	ConocoPhillips	MCA Unit 182	J-27	4070	P&A	Maljamar; Grayburg-SA	2396
3002523740	Conoco	MCA Unit 280	G-28	4175	P&A	Maljamar; Grayburg-SA	2397
3002500744	Conoco	MCA Unit 179	I-28	3925	P&A	Maljamar; Grayburg-SA	2398
3002524196	ConocoPhillips	MCA Unit 318	A-28	4200	O	Maljamar; Grayburg-SA	2403
3002500616	Conoco	MCA Unit 090	P-21	4124	P&A	Maljamar; Grayburg-SA	2425
3002539168	COG Operating	J C Federal 030	P-21	7120	O	Maljamar; Yeso, West	2489
3002541398	ConocoPhillips	MCA Unit 512	K-27	4361	O	Maljamar; Grayburg-SA	2506
3002539060	COG Operating	J C Federal 026	P-21	7010	O	Maljamar; Yeso, West	2549
3002539247	COG Operating	J C Federal 027	M-22	7040	O	Maljamar; Yeso, West	2588

API	OPERATOR	WELL	UNIT-SECTION	TVD	TYPE	ZONE	FEET FROM MCA 561
3002523569	ConocoPhillips	MCA Unit 260	F-28	4110	O	Maljamar; Grayburg-SA	557
3002500736	ConocoPhillips	MCA Unit 152	F-28	4128	P&A	Maljamar; Grayburg-SA	650
3002500739	ConocoPhillips	MCA Unit 151	G-28	3806	O	Maljamar; Grayburg-SA	653
3002521489	ConocoPhillips	MCA Unit 177	J-28	4120	O	Maljamar; Grayburg-SA	740
3002539356	ConocoPhillips	MCA Unit 487	J-28	4170	O	Maljamar; Grayburg-SA	1063
3002539354	ConocoPhillips	MCA Unit 484	K-28	4142	O	Maljamar; Grayburg-SA	1162
3002530337	ConocoPhillips	MCA Unit 380	B-28	4110	I	Maljamar; Grayburg-SA	1414
3002540712	Cimarex	Pearsall Federal SWD 001	E-28	10400	S	SWD; Wolfcamp	1414
3002537900	ConocoPhillips	MCA Unit 395	E-28	4488	O	Maljamar; Grayburg-SA	1417
3002523740	Conoco	MCA Unit 280	G-28	4175	P&A	Maljamar; Grayburg-SA	1427
3002500737	Conoco	MCA Unit 117	B-28	3834	P&A	Maljamar; Grayburg-SA	1454
3002520496	ConocoPhillips	MCA Unit 235	F-28	4182	O	Maljamar; Grayburg-SA	1458
3002500734	ConocoPhillips	MCA Unit 115	C-28	4086	O	Maljamar; Grayburg-SA	1458
3002523744	ConocoPhillips	MCA Unit 284	E-28	4150	O	Maljamar; Grayburg-SA	1487
3002500742	ConocoPhillips	MCA Unit 176	K-28	4100	O	Maljamar; Grayburg-SA	1488



3002500743	Conoco	MCA Unit 178	J-28	4158	P&A	Maljamar; Grayburg-SA	1495
3002523731	ConocoPhillips	MCA Unit 274	A-28	4190	O	Maljamar; Grayburg-SA	1495
3002524226	ConocoPhillips	MCA Unit 301	J-28	4220	I	Maljamar; Grayburg-SA	1594
3002539353	ConocoPhillips	MCA Unit 483	J-28	4208	I	Maljamar; Grayburg-SA	1787
3002512769	ConocoPhillips	MCA Unit 116	B-28	4119	O	Maljamar; Grayburg-SA	1888
3002539767	ConocoPhillips	MCA Unit 482	K-28	4134	O	Maljamar; Grayburg-SA	1912
3002523790	ConocoPhillips	MCA Unit 296	K-28	4180	O	Maljamar; Grayburg-SA	1922
3002539403	ConocoPhillips	MCA Unit 485	K-28	4124	I	Maljamar; Grayburg-SA	1954
3002500735	Conoco	MCA Unit 153	E-28	3815	P&A	Maljamar; Grayburg-SA	1977
3002537939	ConocoPhillips	MCA Unit 397	E-28	4460	O	Maljamar; Grayburg-SA	1978
3002500740	ConocoPhillips	MCA Unit 150	H-28	4103	I	Maljamar; Grayburg-SA	1979
3002537931	ConocoPhillips	MCA Unit 394	D-28	4445	O	Maljamar; Grayburg-SA	2075
3002539766	ConocoPhillips	MCA Unit 480	O-28	4084	I	Maljamar; Grayburg-SA	2113
3002539355	ConocoPhillips	MCA Unit 486	I-28	4206	I	Maljamar; Grayburg-SA	2211
3002521951	Pan Am. Petroleum	Baish B Federal 002	A-28	13735	P&A	Devonian	2226
3002540420	Frontier	Maljamar AGI 001	O-21	10183	I	AGI; Wolfcamp	2244

3002537976	ConocoPhillips	MCA Unit 396	L-28	4450	O	Maljamar; Grayburg-SA	2296
3002500750	Kewanee	Baish B 033	D-28	2494	P&A	Baish; Yates	2322
3002537268	Frontier	Frontier Cathodic Protection 001	N-21	400	M	Quaternary	2343
3002524196	ConocoPhillips	MCA Unit 318	A-28	4200	O	Maljamar; Grayburg-SA	2351
3002523705	ConocoPhillips	MCA Unit 268	K-28	4155	O	Maljamar; Grayburg-SA	2354
3002500738	ConocoPhillips	MCA Unit 118	A-28	4145	O	Maljamar; Grayburg-SA	2364
3002500733	ConocoPhillips	MCA Unit 114	D-28	4071	O	Maljamar; Grayburg-SA	2372
3002500741	ConocoPhillips	MCA Unit 175	L-28	4125	P&A	Maljamar; Grayburg-SA	2384
3002520522	ConocoPhillips	MCA Unit 234	N-21	4100	O	Maljamar; Grayburg-SA	2384
3002500744	Conoco	MCA Unit 179	I-28	3925	P&A	Maljamar; Grayburg-SA	2396
3002542628	Frontier	Maljamar AGI 002	O-21	10183	I	AGI; Wolfcamp	2419
3002524352	ConocoPhillips	MCA Unit 333	P-28	4175	O	Maljamar; Grayburg-SA	2435
3002500745	ConocoPhillips	MCA Unit 382	I-28	9680	O	Maljamar; Grayburg-SA	2442
3002540239	COG Operating	J C Federal 037	O-21	7136	O	Maljamar; Yeso, West	2490
3002500751	ConocoPhillips	Queen B 036	D-28	10005	P&A	SWD; Wolfcamp	2520
3002523482	ConocoPhillips	MCA Unit 252	D-28	4080	O	Maljamar; Grayburg-SA	2544
3002539351	ConocoPhillips	MCA Unit 478	O-28	4200	I	Maljamar; Grayburg-SA	2562
3002523487	ConocoPhillips	MCA Unit 254	O-28	4100	O	Maljamar; Grayburg-SA	2574

3002537879	ConocoPhillips	MCA Unit 393	H-29	4450	O	Maljamar; Grayburg-SA	2642
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API	OPERATOR	WELL	UNIT-SECTION	TVD	TYPE	ZONE	FEET FROM MCA 562
3002500742	ConocoPhillips	MCA Unit 176	K-28	4100	O	Maljamar; Grayburg-SA	652
3002500736	ConocoPhillips	MCA Unit 152	F-28	4128	P&A	Maljamar; Grayburg-SA	675
3002523744	ConocoPhillips	MCA Unit 284	E-28	4150	O	Maljamar; Grayburg-SA	730
3002539354	ConocoPhillips	MCA Unit 484	K-28	4142	O	Maljamar; Grayburg-SA	753
3002521489	ConocoPhillips	MCA Unit 177	J-28	4120	O	Maljamar; Grayburg-SA	771
3002540712	Cimarex	Pearsall Federal SWD 001	E-28	10400	S	SWD; Wolfcamp	842
3002539403	ConocoPhillips	MCA Unit 485	K-28	4124	I	Maljamar; Grayburg-SA	1034
3002537900	ConocoPhillips	MCA Unit 395	K-28	4488	O	Maljamar; Grayburg-SA	1118
3002539767	ConocoPhillips	MCA Unit 482	K-28	4134	O	Maljamar; Grayburg-SA	1120
3002523569	ConocoPhillips	MCA Unit 260	F-28	4110	O	Maljamar; Grayburg-SA	1350
3002523790	ConocoPhillips	MCA Unit 296	K-28	4180	O	Maljamar; Grayburg-SA	1371
3002539356	ConocoPhillips	MCA Unit 487	J-28	4170	O	Maljamar; Grayburg-SA	1413
3002500743	Conoco	MCA Unit 178	J-28	4158	P&A	Maljamar; Grayburg-SA	1423
3002500739	ConocoPhillips	MCA Unit 151	G-28	3806	O	Maljamar; Grayburg-SA	1428
3002523705	ConocoPhillips	MCA Unit 268	K-28	4155	O	Maljamar; Grayburg-SA	1451

3002520496	ConocoPhillips	MCA Unit 235	F-28	4182	O	Maljamar; Grayburg-SA	1504
3002500741	ConocoPhillips	MCA Unit 175	L-28	4125	P&A	Maljamar; Grayburg-SA	1511
3002500735	Conoco	MCA Unit 153	E-28	3815	P&A	Maljamar; Grayburg-SA	1526
3002537976	ConocoPhillips	MCA Unit 396	L-28	4450	O	Maljamar; Grayburg-SA	1555
3002537939	ConocoPhillips	MCA Unit 397	E-28	4460	O	Maljamar; Grayburg-SA	1568
3002524226	ConocoPhillips	MCA Unit 301	J-28	4220	I	Maljamar; Grayburg-SA	1604
3002539766	ConocoPhillips	MCA Unit 480	O-28	4084	I	Maljamar; Grayburg-SA	1821
3002523740	Conoco	MCA Unit 280	G-28	4175	P&A	Maljamar; Grayburg-SA	1902
3002537931	ConocoPhillips	MCA Unit 394	D-28	4445	O	Maljamar; Grayburg-SA	1921
3002539351	ConocoPhillips	MCA Unit 478	O-28	4200	I	Maljamar; Grayburg-SA	1970
3002500748	Conoco	MCA Unit 209	N-28	4025	P&A	Maljamar; Grayburg-SA	1971
3002500734	ConocoPhillips	MCA Unit 115	C-28	4086	O	Maljamar; Grayburg-SA	1994
3002539353	ConocoPhillips	MCA Unit 483	I-28	4208	I	Maljamar; Grayburg-SA	2002
3002512794	Conoco	MCA Unit 174	L-28	4055	P&A	Maljamar; Grayburg-SA	2005
3002539402	ConocoPhillips	MCA Unit 481	M-28	4153	I	Maljamar; Grayburg-SA	2007
3002538038	ConocoPhillips	MCA Unit 407	L-28	4550	O	Maljamar; Grayburg-SA	2025

EXHIBIT F  
MCA UNIT 562

3002539352	ConocoPhillips	MCA Unit 479	N-28	4150	O	Maljamar; Grayburg-SA	2026
3002527068	COG Operating	Federal BI 001	N-28	12992	S	SWD; Wolfcamp	2151
3002523487	ConocoPhillips	MCA Unit 254	O-28	4100	O	Maljamar; Grayburg-SA	2164
3002537879	ConocoPhillips	MCA Unit 393	H-29	4450	O	Maljamar; Grayburg-SA	2172
3002523482	ConocoPhillips	MCA Unit 252	D-28	4080	O	Maljamar; Grayburg-SA	2310
3002530337	ConocoPhillips	MCA Unit 380	B-28	4110	I	Maljamar; Grayburg-SA	2327
3002500747	Continental Oil	MCA Unit 208	O-28	4000	P&A	Maljamar; Grayburg-SA	2345
3002500737	Conoco	MCA Unit 117	B-28	3834	P&A	Maljamar; Grayburg-SA	2355
3002524352	ConocoPhillips	MCA Unit 333	P-28	4175	O	Maljamar; Grayburg-SA	2369
3002523731	ConocoPhillips	MCA Unit 274	A-28	4190	O	Maljamar; Grayburg-SA	2372
3002524235	ConocoPhillips	MCA Unit 324	L-28	4170	O	Maljamar; Grayburg-SA	2376
3002500749	Conoco	MCA Unit 210	M-28	3980	P&A	Maljamar; Grayburg-SA	2393
3002500733	ConocoPhillips	MCA Unit 114	D-28	4071	O	Maljamar; Grayburg-SA	2422
3002500750	Kewanee	Baish B 033	D-28	2494	P&A	Yates	2548
3002500751	ConocoPhillips	Queen B 036	D-28	10005	P&A	SWD; Wolfcamp	2570
3002538856	ConocoPhillips	MCA Unit 411	C-33	4345	O	Maljamar; Grayburg-SA	2643

API	OPERATOR	WELL	UNIT-SECTION	TVD	TYPE	ZONE	FEET FROM MCA 564
3002523798	Continental Oil	MCA Unit 290	D-29	4080	P&A	Maljamar; Grayburg-SA	630
3002529853	ConocoPhillips	MCA Unit 369	E-29	4150	O	Maljamar; Grayburg-SA	638
3002523741	ConocoPhillips	MCA Unit 281	D-29	4025	O	Maljamar; Grayburg-SA	646
3002500761	Conoco Inc.	MCA Unit 158	E-29	3779	P&A	Maljamar; Grayburg-SA	686
3002540357	Mack Energy	Brook Federal 005	H-30	9743	O	Maljamar; Yeso, West	793
3002540338	Mack Energy	Brook Federal 003	A-30	10207	O	WC; Wolfcamp	851
3002540244	Mack Energy	Brook Federal 001	A-30	7062	O	Maljamar; Yeso, West	948
3002540387	Mack Energy	Brook Federal 006	H-30	7000 plan	O	Maljamar; Yeso, West	1370
3002523778	Conoco Inc.	MCA Unit 288	D-29	4080	P&A	Maljamar; Grayburg-SA	1380
3002540310	COG Operating	Maljamar SWD 30 002	H-30	10350	SWD	SWD; Wolfcamp	1446
3002500758	Conoco Inc.	MCA Unit 110	C-29	4073	P&A	Maljamar; Grayburg-SA	1462
3002531100	ConocoPhillips	MCA Unit 386	F-29	4350	I	Maljamar; Grayburg-SA	1474
3002523707	ConocoPhillips	MCA Unit 270	F-29	4130	O	Maljamar; Grayburg-SA	1487
3002500760	Conoco Inc.	MCA Unit 157	F-29	4030	P&A	Maljamar; Grayburg-SA	1487
3002512764	ConocoPhillips	MCA Unit 099	P-19	3986	P&A	Maljamar; Grayburg-SA	1492
3002500784	Conoco Inc.	MCA Unit 159	H-30	4015	P&A	Maljamar; Grayburg-SA	1499
3002512798	ConocoPhillips	MCA Unit 168	I-30	3995	O	Maljamar; Grayburg-SA	1590
3002539272	COG Operating	GC Federal 030	M-20	7016	O	Maljamar; Yeso, West	1644
3002535715	I & W Inc	Brine Station 529	O-30	>1100	P&A	Rustler	1701
3002539626	COG Operating	GC Federal 040	M-20	7178	O	Maljamar; Yeso, West	1789
3002540339	Mack Energy	Brook Federal 004	A-30	10134	O	WC; Wolfcamp	1878
3002539928	COG Operating	GC Federal 042	N-20	7140	O	Maljamar; Yeso, West	1899
3002508069	Conoco Inc.	MCA Unit 098	M-20	4013	P&A	Maljamar; Grayburg-SA	1954

3002523733	ConocoPhillips	MCA Unit 277	B-29	4083	P&A	Maljamar; Grayburg-SA	1977
3002500755	ConocoPhillips	MCA Unit 169	L-29	3935	I	Maljamar; Grayburg-SA	2004
3002523789	ConocoPhillips	MCA Unit 289	B-30	4025	P&A	Maljamar; Grayburg-SA	2027
3002539162	COG Operating	GC Federal 019	P-19	7022	O	Maljamar; Yeso, West	2048
3002540337	Mack Energy	Brook Federal 002	A-30	7097	O	Maljamar; Yeso, West	2081
3002539858	COG Operating	GC Federal 043	N-20	7010	O	Maljamar; Yeso, West	2123
3002539266	COG Operating	GC Federal 031	N-20	7123	O	Maljamar; Yeso, West	2233
3002542585	Mack Energy	Cutthroat Federal 003	B-29	10500 plan	O	WC; Wolfcamp	2268
3002541557	Mack Energy	Cutthroat Federal 005	G-29	9800	O	WC; Wolfcamp	2312
3002539282	COG Operating	GC Federal 026	M-20	7035	O	Maljamar; Yeso, West	2326
3002512755	ConocoPhillips	MCA Unit 096	N-20	4048	O	Maljamar; Grayburg-SA	2337
3002542587	Mack Energy	Cutthroat Federal 007	G-29	10500 plan	O	WC; Wolfcamp	2340
3002508067	Conoco Inc.	MCA Unit 097	N-20	4077	P&A	Maljamar; Grayburg-SA	2355
3002508041	ConocoPhillips	MCA Unit 100	P-19	3840	P&A	Maljamar; Grayburg-SA	2369
3002523732	ConocoPhillips	MCA Unit 276	P-19	4030	O	Maljamar; Grayburg-SA	2376
3002512756	Conoco Inc.	MCA Unit 156	F-29	3992	P&A	Maljamar; Grayburg-SA	2395
3002540006	COG Operating	GC Federal 052	P-19	7017	O	Maljamar; Yeso, West	2396
3002500754	ConocoPhillips	MCA Unit 170	K-29	3964	O	Maljamar; Grayburg-SA	2402
3002500775	ConocoPhillips	MCA Unit 167	I-30	3912	O	Maljamar; Grayburg-SA	2404
3002539472	COG Operating	GC Federal 041	M-20	7123	O	Maljamar; Yeso, West	2412
3002523930	Conoco Inc.	MCA Unit 278	G-30	4040	P&A	Maljamar; Grayburg-SA	2413
3002539422	COG Operating	GC Federal 049	P-19	6925	O	Maljamar; Yeso, West	2499
3002500767	ConocoPhillips	MCA Unit 111	B-29	4020	I	Maljamar; Grayburg-SA	2689



API	OPERATOR	WELL	UNIT-SECTION	TVD	TYPE	ZONE	FEET FROM MCA 565
3002523778	Conoco Inc.	MCA Unit 288	D-29	4080	P&A	Maljamar; Grayburg-SA	579
3002523798	Continental Oil	MCA Unit 290	D-29	4080	P&A	Maljamar; Grayburg-SA	652
3002500758	Conoco Inc.	MCA Unit 110	C-29	4073	P&A	Maljamar; Grayburg-SA	669
3002529853	ConocoPhillips	MCA Unit 369	E-29	4150	O	Maljamar; Grayburg-SA	752
3002539928	COG Operating	GC Federal 042	N-20	7140	O	Maljamar; Yeso, West	1030
3002539272	COG Operating	GC Federal 030	M-20	7016	O	Maljamar; Yeso, West	1048
3002539626	COG Operating	GC Federal 040	M-20	7178	O	Maljamar; Yeso, West	1199
3002539858	COG Operating	GC Federal 043	N-20	7010	O	Maljamar; Yeso, West	1216
3002540244	Mack Energy	Brook Federal 001	A-30	7062	O	Maljamar; Yeso, West	1331
3002539266	COG Operating	GC Federal 031	N-20	7123	O	Maljamar; Yeso, West	1335
3002540338	Mack Energy	Brook Federal 003	A-30	10207	O	WC; Wolfcamp	1338
3002512755	ConocoPhillips	MCA Unit 096	N-20	4048	O	Maljamar; Grayburg-SA	1445
3002523741	ConocoPhillips	MCA Unit 281	D-29	4025	O	Maljamar; Grayburg-SA	1450
3002531100	ConocoPhillips	MCA Unit 386	F-29	4350	I	Maljamar; Grayburg-SA	1450
3002508069	Conoco Inc.	MCA Unit 098	M-20	4013	P&A	Maljamar; Grayburg-SA	1461
3002508067	Conoco Inc.	MCA Unit 097	N-20	4077	P&A	Maljamar; Grayburg-SA	1464
3002523733	ConocoPhillips	MCA Unit 277	B-29	4083	P&A	Maljamar; Grayburg-SA	1479

3002500761	Conoco Inc.	MCA Unit 158	E-29	3779	P&A	Maljamar; Grayburg-SA	1489
3002500760	Conoco Inc.	MCA Unit 157	F-29	4030	P&A	Maljamar; Grayburg-SA	1495
3002512764	ConocoPhillips	MCA Unit 099	P-19	3986	P&A	Maljamar; Grayburg-SA	1504
3002542585	Mack Energy	Cutthroat Federal 003	B-29	10500 plan	O	WC; Wolfcamp	1585
3002540357	Mack Energy	Brook Federal 005	H-30	9743	O	WC; Wolfcamp	1698
3002539472	COG Operating	GC Federal 041	M-20	7123	O	Maljamar; Yeso, West	1767
3002539264	COG Operating	GC Federal 027	N-20	7103	O	Maljamar; Yeso, West	1859
3002541557	Mack Energy	Cutthroat Federal 005	G-29	9800	O	WC; Wolfcamp	1920
3002539282	COG Operating	GC Federal 026	M-20	7035	O	Maljamar; Yeso, West	1932
3002500767	ConocoPhillips	MCA Unit 111	B-29	4020	I	Maljamar; Grayburg-SA	1965
3002523707	ConocoPhillips	MCA Unit 270	F-29	4130	O	Maljamar; Grayburg-SA	1972
3002539162	COG Operating	GC Federal 019	P-19	7022	O	Maljamar; Yeso, West	1978
3002542587	Mack Energy	Cutthroat Federal 007	G-29	10500 plan	O	WC; Wolfcamp	2003
3002523686	ConocoPhillips	MCA Unit 265	L-20	4100	O	Maljamar; Grayburg-SA	2062
3002539323	COG Operating	GC Federal 028	O-20	7114	O	Maljamar; Yeso, West	2170
3002539270	COG Operating	GC Federal 032	O-20	7136	O	Maljamar; Yeso, West	2190
3002540310	COG Operating	Maljamar SWD 30 002	H-30	10350	SWD	SWd; Wolfcamp	2209
3002540006	COG Operating	GC Federal 052	P-19	7017	O	Maljamar; Yeso, West	2212
3002540237	COG Operating	GC Federal 044	O-20	7122	O	Maljamar; Yeso, West	2227
3002540387	Mack Energy	Brook Federal 006	H-30	7000 plan	O	Maljamar; Yeso, West	2243
3002539473	COG Operating	GC Federal 045	O-20	7134	O	Maljamar; Yeso, West	2297

3002535715	I & W INC	Brine Station 529	O-30	≥1100	P&A	Rustler	2351
3002508065	ConocoPhillips	MCA Unit 095	O-20	4055	O	Maljamar; Grayburg-SA	2355
3002508041	ConocoPhillips	MCA Unit 100	P-19	3840	P&A	Maljamar; Grayburg-SA	2376
3002523687	ConocoPhillips	MCA Unit 266	K-20	4110	O	Maljamar; Grayburg-SA	2378
3002500768	Conoco Inc.	MCA Unit Battery 2 155	G-29	4015	P&A	Maljamar; Grayburg-SA	2378
3002500784	Conoco Inc.	MCA Unit 159	H-30	4015	P&A	Maljamar; Grayburg-SA	2390
3002523673	ConocoPhillips	MCA Unit 264	I-19	4060	O	Maljamar; Grayburg-SA	2403
3002542586	Mack Energy	Cutthroat Federal 006	G-29	10500 plan	O	WC; Wolfcamp	2427
3002512756	Conoco Inc.	MCA Unit 156	F-29	3992	P&A	Maljamar; Grayburg-SA	2427
3002529102	ConocoPhillips	MCA Unit 365Y	B-29	4440	O	Maljamar; Grayburg-SA	2432
3002528988	Conoco Inc.	MCA Unit 365	B-29	1009	P&A	Salado	2437
3002540339	Mack Energy	Brook Federal 004	A-30	10134	O	WC; Wolfcamp	2448
3002512798	ConocoPhillips	MCA Unit 168	I-30	3995	O	Maljamar; Grayburg-SA	2490
3002540337	Mack Energy	Brook Federal 002	A-30	7097	O	Maljamar; Yeso, West	2523
3002524076	ConocoPhillips	MCA Unit 308	G-29	4100	O	Maljamar; Grayburg-SA	2547
3002523732	ConocoPhillips	MCA Unit 276	P-19	4030	O	Maljamar; Grayburg-SA	2708

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CSG O.D.	SET @	CEMENT	TOC	HOW DETERMINED
SC Federal 011	5/3/14	7072	Maljamar; Yeso, West	O	12.25	8.625	936	500 sx	GL	circ. 47 sx
30-025-40598					7.875	5.5	7057	1250 sx	GL	circulated
P-22-17S-32E										
MCA Unit 083	8/31/58	4153	Maljamar; Grayburg-SA	O	no report	10.75	104	125 sx	no report	no report
30-025-00649					no report	7	4150	1350 sx	no report	no report
M-23-17S-32E										
Miller 003	7/31/40	3890	Maljamar; Grayburg-SA	P & A	no report	8	880	no report	no report	no report
30-025-00643					no report	6.625	2550	250 sx	no report	no report
M-23-17S-32E					no report	4	3650	150 sx	2406	TOL
Miller A Federal 007	10/15/40	3601	Maljamar; Grayburg-SA	P & A	no report	8.625	1159	150 sx	no report	no report
30-025-00645					no report	5.5	3590	150 sx	no	no report
M-23-17S-32E										
MCA Unit 341	7/17/73	4150	Maljamar; Grayburg-SA	O	12.25	8.625	846	450 sx	GL	circulated
30-025-24462					7.875	5.5	4150	350 sx	2300	no report
P-22-17S-32E										

MCA Unit 488	10/25/13	4385	Maljamar; Grayburg-SA	O	12.25	8.625	924	650 sx	GL	circ. 56 bbl
30-025-41393					7.875	5.5	4368	820 sx	GL	circ. 129 bbl
M-23-17S-32E										
MCA Unit 336	2/22/73	4200	Maljamar; Grayburg-SA	P & A	12.25	8.625	904	400 sx	GL	circulated
30-025-24370					7.875	5.5	4200	500 sx	2720	no report
L-23-17S-32E										
MCA Unit 084	11/7/39	4129	Maljamar; Grayburg-SA	I	no report	12.5	20	20 sx	GL	no report
30-025-00639					8	7	3554	400 sx	1800	no report
P-22-17S-32E					6.25	4.5	3775	350 sx	GL	no report
VC Federal 004C	no spud yet	7100	Maljamar; Yeso, West	O	17.5	13.375	920	525 sx	GL	circulate
30-025-40683					11	8.625	2190	1175 sx	GL	circulate
L-23-17S-32E					7.875	5.5	7100	≥900 sx	GL	circulate
MCA Unit 508	12/8/13	4315	Maljamar; Grayburg-SA	O	12.25	8.625	883	600 sx	GL	circ. 50 bbl
30-025-41394					7.875	5.5	4291	770 sx	GL	circ. 65 bbl
P-22-17S-32E										
SC Federal 009	3/29/14	7099	Maljamar; Yeso, West	O	12.25	8.625	869	558 sx	GL	no report
30-025-40596					7.875	5.5	7083	1147 sx	GL	no report
P-22-17S-32E										

MCA Unit 349	10/4/73	4250	Maljamar; Grayburg-SA	P & A	12.25	8.625	860	500 sx	GL	circulated
30-025-24545					7.975	5.5	4250	225 sx	2903	temp. survey
M-23-17S-32E										
MCA Unit 123	no report	4058	Maljamar; Grayburg-SA	I	no report	12.5	20	16 sx	GL	circulated
30-025-00705					no report	5.75	3525	200 sx	2500	no report
D-26-17S-32E					no report	4.5	3891	175 sx	GL	circulated
MCA Unit 330	10/22/72	4200	Maljamar; Grayburg-SA	O	12.25	8.625	928	475 sx	GL	circulated
30-025-24271					7.875	5.5	4200	400 sx	2170	CBL
M-23-17S-32E										
MCA Unit 511	11/11/13	4285	Maljamar; Grayburg-SA	O	12.25	8.625	894	600 sx	GL	circ. 79 bbl
30-025-41397					7.875	5.5	4269	815 sx	GL	circ. 30 bbl
P-22-17S-32E										
MCA Unit 122	1/14/39	4120	Maljamar; Grayburg-SA	O	no report	7	2395	150 sx	no report	no report
30-025-00716					no report	5	3553	70 sx	no report	no report
A-27-17S-32E					no report	4.5	4120	200 sx	3328	TOL
SC Federal 002	4/6/14	7096	Maljamar; Yeso, West	O	8.625	7.875	870	558 sx	GL	circ. 71 bbl
30-025-40586					7.875	5.5	7066	1349 sx	GL	circ. 45 bbl
I-22-17S-32E										

MCA Unit 075	3/25/40	4055	Maljamar; Grayburg-SA	O	12.5	8	23	15 sx	6	no report
30-025-12711					8	7	3540	400 sx	900	circulated
I-22-17S-32E					no report	4.5	3980	250 sx	3245	temp. survey
MCA Unit 307	4/5/72	4140	Maljamar; Grayburg-SA	P & A	12.25	8.625	850	425 sx	GL	circulated
30-025-24058					7.875	5.5	4140	300 sx	1850	temp. survey
A-27-17S-32E										
MCA Unit 325	9/6/72	4175	Maljamar; Grayburg-SA	O	12.25	8.625	864	450 sx	GL	circulated
30-025-24236					7.875	5.5	4175	300 sx	1800	no report
I-22-17S-32E										
SC Federal 001	4/23/14	7114	Maljamar; Yeso, West	O	12.25	8.625	914	558 sx	GL	circulated
30-025-40592					7.875	5.5	7104	1349 sx	GL	circ. 96 bbl
I-22-17S-32E										
SC Federal 012	8/7/14	7089	Maljamar; Yeso, West	O	12.25	8.625	924	600 sx	GL	circ. 190 sx
30-025-40599					7.875	5.5	1406	1406 sx	GL	circ. 145 sx
O-22-17S-32E										
MCA Unit 466	3/19/13	4301	Maljamar; Grayburg-SA	I	12.25	8.625	930	500 sx	GL	circ. 47 bbl
30-025-39430					7.875	5.5	4281	880 sx	GL	circ. 45 bbl
A-27-17S-32E										

MCA Unit 347	9/16/73	4175	Maljamar; Grayburg-SA	O	12.25	8.625	916	425 sx	GL	circulated
30-025-24515					7.875	5.5	4175	350 sx	2350	no report
A-27-17S-32E										
MCA Unit 082	12/6/39	4160	Maljamar; Grayburg-SA	P & A	no report	12.5	21	25 sx	GL	circulated
30-025-00644					12.5	5.5	3585	200 sx	2800	no report
N-23-17S-32E										
MCA Unit 449	3/24/13	4411	Maljamar; Grayburg-SA	I	12.25	8.625	969	500 sx	GL	circ. 50 bbl
30-025-39429					7.875	5.5	4397	930 sx	GL	circ. 41 bbl
C-26-17S-32E										
J C Federal 056	3/17/11	7110	Maljamar; Yeso, West	O	17.5	13.375	888	650 sx	GL	circ. 204 sx
30-025-39627					11	8.625	2180	600 sx	GL	circ. 115 sx
J-22-17S-32E					7.875	5.5	7100	1550 sx	GL	circ. 271 sx
MCA Unit 453	3/27/09	4407	Maljamar; Grayburg-SA	O	12.25	8.625	1004	570 sx	GL	circulated
30-025-39306					7.875	5.5	4385	800 sx	GL	no report
E-26-17S-32E										
MCA Unit 366	10/23/85	4250	Maljamar; Grayburg-SA	O	17.5	13.375	817	780 sx	GL	circ. 90 sx
30-025-29427					11	8.625	2406	1920 sx	GL	circ. 110 sx
D-26-17S-32E					7.875	5.5	4250	120 sx	GL	circ. 120 sx



SC Federal 010	4/15/14	7083	Maljamar; Yeso, West	O	12.25	8.625	896	558 sx	GL	circulated
30-025-40597					7.875	5.5	7087	1349 sx	GL	circulated
O-22-17S-32E										
MCA Unit 510	11/22/13	4333	Maljamar; Grayburg-SA	I	12.25	8.625	891	600 sx	GL	circ. 60 bbl
30-025-41396					7.875	5.5	4317	770 sx	GL	circ. 32 bbl
I-22-17S-32E										
MCA Unit 385	12/9/89	4420	Maljamar; Grayburg-SA	P & A	12.25	9.625	915	300 sx	GL	circ. 125 sx
30-025-30731					7.875	5.5	4420	2100 sx	GL	circ. 25 sx
O-22-17S-32E										
MCA Unit 085	2/23/40	4093	Maljamar; Grayburg-SA	P & A	no report	12.5	20	20 sx	GL	no report
30-025-00640					8	7	3535	400 sx	2600	temp. survey
O-22-17S-32E						4.5	3526	no report	no report	no report
MCA Unit 468	2/19/13	4350	Maljamar; Grayburg-SA	O	12.25	8.625	916	500 sx	GL	circ. 44 bbl
30-025-39408					7.875	5.5	4304	1380 sx	407	temp survey
H-27-17S-32E										
MCA Unit 312	4/30/72	4250	Maljamar; Grayburg-SA	O	12.25	8.625	936	475 sx	GL	circulated
30-025-24109					7.975	5.5	4250	300 sx	2650	no report
H-22-17S-32E										

MCA Unit 342	7/26/73	4240	Maljamar; Grayburg-SA	P & A	12.25	8.625	927	500 sx	GL	circulated
30-025-24463					7.875	5.5	4240	200 sx	2250	no report
D-26-17S-32E										
J C Federal 024	11/9/09	7148	Maljamar; Yeso, West	O	17.5	13.375	810	650 sx	GL	circ. 179 sx
30-025-39165					11	8.625	2065	700 sx	GL	circ. 206 sx
J-22-17S-32E					7.875	5.5	7134	1400 sx	GL	no report
Sears A 002	4/18/40	4028	Maljamar; Grayburg-SA	P & A	10	8.25	1025	150 sx	GL	circulated
30-025-00706					6	5.5	3553	400 sx	2200	estimated
C-26-17S-32E										
MCA Unit 507	11/30/13	4224	Maljamar; Grayburg-SA	I	12.25	8.625	885	600 sx	GL	circ. 54 bbl
30-025-41395					7.875	5.5	4207	770 sx	GL	circ. 37 bbl
O-22-17S-32E										
MCA Unit 077	4/16/41	4150	Maljamar; Grayburg-SA	P & A	no report	10	20	12 sx	GL	circulated
30-025-00646					no report	7	33	no report	no report	no report
K-23-17S-32E					no report	5.5	3481	250 sx	2200	estimated
MCA Unit 456	11/1/13	4400	Maljamar; Grayburg-SA	I	12.25	8.625	969	600 sx	GL	circ. 59 bbl
30-025-41392					7.875	5.5	4390	720 sx	GL	circ. 30 bbl
E-26-17S-32E										

MCA Unit 335	2/13/73	4125	Maljamar; Grayburg-SA	O	12.25	8.625	893	450 sx	GL	circulated
30-025-24369					7.875	5.5	4136	425 sx	2100	no report
H-27-17S-32E										
MCA Unit 376	11/7/87	4350	Maljamar; Grayburg-SA	O	17.5	13.375	867	700 sx	GL	circ. 120 sx
30-025-30127					12.25	8.625	2136	750 sx	GL	circ. 149 sx
N-23-17S-32E					7.875	5.5	4350	1300 sx	no report	no report
J C Federal 046	1/8/11	7140	Maljamar; Yeso, West	O	17.5	13.375	426	440 sx	GL	circ. 125 sx
30-025-39617					12.25	9.625	4600	1520 sx	GL	circ. 321 sx
H-22-17S-32E					8.75	5.5	9920	1180	4000	circ. 81 sx
MCA Unit 345	8/29/73	4150	Maljamar; Grayburg-SA	P & A	12.25	8.625	870	450 sx	GL	circulated
30-025-24499					7.875	5.5	4122	325 sx	2200	temp survey
J-22-17S-32E										
MCA Unit 121	1/20/40	4100	Maljamar; Grayburg-SA	I	no report	13.75	21	20 sx	GL	circulated
30-025-00715					8	7	3542	400 sx	1800	no report
B-27-17S-32E						5.5	3970	11 sx	no report	no report
MCA Unit 377	10/28/87	4255	Maljamar; Grayburg-SA	O	17.5	13.375	856	600 sx	GL	circ. 126 sx
30-025-30115					12.25	8.625	2106	630 sx	GL	circ. 74 sx
K-23-17S-32E					7.875	5.5	4255	750 sx	GL	circ. 149 sx

J C Federal 022	6/25/09	7025	Maljamar; Yeso, West	O	17.5	13.375	830	700 sx	GL	circ. 241 sx
30-025-39089					11	8.625	2103	700 sx	GL	circ. 248 sx
J-22-17S-32E					7.875	5.5	7025	1200 sx	GL	circ. 89 sx
MCA Unit 322	8/14/72	4250	Maljamar; Grayburg-SA	O	12.25	8.625	945	500 sx	GL	circulated
30-025-24218					7.875	5.5	4250	300 sx	no report	no report
E-26-17S-32E										
MCA Unit 074	5/22/40	4112	Maljamar; Grayburg-SA	P & A	no report	12.5	25	25 sx	GL	no report
30-025-00627					no report	7	3596	450 sx	1932	calculated
J-22-17S-32E					no report	4.5	3715	375 sx	1000	temp. survey
MCA Unit 354	11/24/73	4275	Maljamar; Grayburg-SA	O	12.25	8.625	965	500 sx	GL	circulated
30-025-24599					7.875	5.5	4275	400 sx	no report	no report
O-23-17S-32E										
MCA Unit 339	3/18/73	4225	Maljamar; Grayburg-SA	P & A	12.25	8.625	970	500 sx	GL	circulated
30-025-24377					7.875	5.5	4225	450 sx	2750	no report
N-23-17S-32E										
MCA Unit 144	1/31/40	4139	Maljamar; Grayburg-SA	P & A	no report	12.5	20	25 sx	no report	no report
30-025-00711					no report	5.5	3836	450 sx	2500	no report
E-26-17S-32E										

J C Federal 015	8/7/08	7017	Maljamar; Yeso, West	O	17.5	13.375	846	800 sx	GL	circ. 390 sx
30-025-38699					11	8.625	2110	700 sx	GL	circ. 100 sx
H-22-17S-32E					7.875	5.5	7004	1450 sx	GL	circ. 68 sx

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET @	CEMENT	TOC	HOW DETERMINED
MCA Unit 292	11/6/71	4200	Maljamar; Grayburg-SA	P & A	12.25	8.625	916	475 sx	GL	circulated
30-025-23920					7.875	5.5	4200	300 sx	2675	temp survey
D-27-17S-32E										
MCA Unit 317	7/12/72	4200	Maljamar; Grayburg-SA	O	12.25	8.625	884	450 sx	GL	circulated
30-025-24186					7.875	5.5	4200	300 sx	2100	temp survey
D-27-17S-32E										
MCA Unit 148	3/13/40	3963	Maljamar; Grayburg-SA	P & A	17	12.5	20	50 sx	GL	estimated
30-025-00722					11	5.5	3543	450 sx	2500	estimated
E-27-17S-32E										
MCA Unit 384	7/21/89	4200	Maljamar; Grayburg-SA	O	12.25	9.625	900	400 sx	GL	circ. 114 sx
30-025-30491					7.875	5.5	4200	850 sx	GL	circ. 77 sx
E-27-17S-32E										
MCA Unit 472	9/19/10	4164	Maljamar; Grayburg-SA	I	12.25	8.625	945	570 sx	GL	circ. 57 bbl
30-025-39409					7.875	5.5	790	760 sx	GL	circ. 46 bbl
E-27-17S-32E										
MCA Unit 473	2/26/13	4277	Maljamar; Grayburg-SA	O	12.25	8.625	937	500 sx	GL	circulated
30-025-39410					7.875	5.5	4208	930 sx	GL	circ. 28 bbl
F-27-17S-32E										

MCA Unit 119	5/19/40	4150	Maljamar; Grayburg-SA	P & A	no report	12.5	23	25 sx	GL	no report
30-025-00726					no report	5.5	3556	200 sx	2200	no report
D-27-17S-32E										
MCA Unit 299	12/6/71	4200	Maljamar; Grayburg-SA	O	12.25	8.625	850	425 sx	GL	circulated
30-025-23938					7.875	5.5	4200	300 sx	2300	temp survey
D-27-17S-32E										
MCA Unit 314	5/14/65	5650	Maljamar; Grayburg-SA	O	11	7.625	903	400 sx	GL	circulated
30-025-24127					6.75	4.5	5649	1100 sx	2100	temp survey
O-24-25S-37E										
MCA Unit 149	6/1/72	4204	Maljamar; Grayburg-SA	O	no report	12.25	1020	100 sx	GL	no report
30-025-12792					no report	8.25	3827	175 sx	2000	estimated
E-27-17S-32E					no report	5.5	4200	90 sx	3326	TOL
Queen B 006	12/12/39	4150	Maljamar; Grayburg-SA	P & A	no report	12.5	20	25 sx	GL	no report
30-025-00719					no report	5.5	3543	250 sx	2500	no report
F-27-17S-32E										
MCA Unit 120	2/14/40	4119	Maljamar; Grayburg-SA	O	no report	12.5	20	14 sx	no report	no report
30-025-00720					no report	5.5	3527	450 sx	2500	estimated
C-27-17S-32E					no report	4.5	4119	150 sx	3338	TOL
MCA Unit 400	11/30/08	4285	Maljamar; Grayburg-SA	O	12.25	8.625	970	570 sx	GL	no report
30-025-38973					7.875	5.5	4285	700 sx	GL	no report
L-27-17S-32E										

MCA Unit 089	10/9/47	4160	Maljamar; Grayburg-SA	P & A	no report	8.625	948	75 sx	GL	no report
30-025-12796					no report	7	3746	160 sx	2000	estimated
M-22-17S-32E										
MCA Unit 150	8/14/40	4103	Maljamar; Grayburg-SA	I	no report	12	21	25 sx	no report	circulated
30-025-00740					no report	5.5	3500	300 sx	2127	no report
H-28-17S-32E										
MCA Unit 118	7/16/40	4145	Maljamar; Grayburg-SA	O	no report	12.5	30	25 sx	no report	no report
30-025-00738					no report	5.5	3550	200 sx	no report	no report
A-28-17S-32E					no report	4.5	4145	100 sx	no report	no report
Baish B FED 002	12/20/66	13735	Maljamar;	P & A	17.5	13.375	390	450 sx	no report	circulated
30-025-21951			Wolfcamp &		11	8.625	4660	2090 sx	no report	no report
A-28-17S-32E			Devonian		7.875	5.5	10301	670 sx	no report	no report
J C Federal 031	7/8/09	7121	Maljamar; Yeso West	O	17.5	13.325	835	700 sx	GL	circ. 202 sx
30-025-39169					11	8.625	1940	700 sx	GL	circ. 211 sx
M-22-17S-32E					7.875	5.5	7121	1300 sx	GL	circulated
MCA Unit 477	3/14/13	4274	Maljamar; Grayburg-SA	I	12.125	8.625	967	500 sx	GL	circ. 29 bbl
30-025-39431					7.875	5.5	4255	1430 sx	GL	circ. 105 bbl
K-27-17S-32E										
MCA Unit 486	6/27/09	4206	Maljamar; Grayburg-SA	I	12.25	8.625	917	570 sx	GL	circulated
30-025-39355					7.875	5.5	4194	861 sx	GL	circulated
I-28-17S-32E										



MCA Unit 409	11/23/08	4320	Maljamar; Grayburg-SA	O	12.25	8.625	960	570 sx	GL	no report
30-025-38978					7.875	5.5	4310	700 sx	GL	no report
L-27-17S-32E										
MCA Unit 282	8/4/71	4185	Maljamar; Grayburg-SA	O	12.25	8.625	900	900 sx	GL	circulated
30-025-23846					7.875	5.5	4185	400 sx	2100	temp. survey
C-27-17S-32E										
MCA Unit 399	12/5/08	4348	Maljamar; Grayburg-SA	I	12.25	8.625	959	570 sx	GL	circulated
30-025-38972					7.875	5.5	4338	700 sx	GL	circulated
K-27-17S-32E										
MCA Unit 183	12/11/47	4205	Maljamar; Grayburg-SA	P & A	20	8.625	1122	100 sx	GL	circulated
30-025-00730					no report	7	3733	250 sx	2683	calculated
O-27-17S-32E					6.25	O/H	4205	O/H		
MCA Unit 180	7/18/40	4170	Maljamar; Grayburg-SA	I	no report	12.5	21	25 sx	no report	no report
30-025-00728					no report	8.625	292	50 sx	no report	circulated
L-27-17S-32E					no report	5.5	3539	250 sx	2000	no report
					no report	4.5	3822	100 sx	300	no report
J C Federal 032	2/7/09	7315	Maljamar; Yeso West	O	17.5	13.375	811	600 sx	GL	circ. 188 sx
30-025-39170					11	8.625	2222	700 sx	GL	circ. 160 sx
N-22-17S-32E					7.875	5.5	7312	1100 sx	GL	circ. 80 sx
MCA Unit 088	10/6/40	4160	Maljamar; Grayburg-SA	O	no report	12.5	24	25 sx	no report	no report
30-025-00628					no report	7	3600	450 sx	no report	no report
M-22-17S-32E					no report	5.5	4156	100 sx	3228	TOL

MCA Unit 274	3/18/71	4190	Maljamar; Grayburg-SA	O	12.25	8.625	900	375 sx	GL	circulated
30-025-23731					7.875	5.5	4190	300 sx	2400	no report
A-28-17S-32E										
J C Federal 055	1/31/12	7130	Maljamar; Yeso West	O	17.5	13.325	876	700 sx	GL	circ. 145 sx
30-025-39863					11	8.625	2119	600 sx	GL	circ. 105 sx
N-22-17S-32E					7.875	5.5	7119	1700 sx	GL	circ. 219 sx
J C Federal 054	2/2/12	7122	Maljamar; Yeso West	O	17.5	13.325	924	650 sx	GL	circ. 122 sx
30-025-39930					11	8.625	2132	600 sx	GL	circ. 34 sx
M-22-17S-32E					7.875	5.5	712	1100 sx	GL	circ. 67 sx
J C Federal 036	7/26/10	7146	Maljamar; Yeso West	O	17.5	13.325	875	600 sx	GL	circ. 176 sx
30-025-39614					11	8.625	2151	600 sx	GL	circ. 158 sx
P-21-17S-32E					7.875	5.5	7136	1000 sx	GL	circ. 125 sx
MCA Unit 382	8/8/61	9680	Maljamar; Grayburg-SA	O	17.5	13.325	360	no report	GL	circulated
30-025-00745			Maljamar; Abo		12.25	8.625	4576	1800 sx	40	no report
I-28-17S-32E					7.875	4.5	9180	350 sx	8040	no report
J C Federal 053	4/17/11	7124	Maljamar; Yeso West	O	17.5	13.325	841	650 sx	GL	circ. 192 sx
30-025-39862					11	8.625	2136	800 sx	GL	circ. 50 sx
N-22-17S-32E					7.875	5.5	7114	1050 sx	GL	circ. 69 sx
MCA Unit 086	12/1/55	4100	Maljamar; Grayburg-SA	O	no report	8.625	143	100 sx	GL	circulated
30-025-12795					no report	5.5	4099	710 sx	850	caliper survey

MCA Unit 387	9/17/00	4499	Maljamar; Grayburg-SA	P & A	14.75	11.75	1037	525 sx	GL	circ. 130 sx
30-025-35142					11	8.625	2187	515 sx	GL	circ. 136 sx
K-27-17S-32E					7.875	5.5	3945	380 sx	1300	calculated
MCA Unit 181	4/20/46	4181	Maljamar; Grayburg-SA	O	no report	13	20	25 sx	no report	no report
30-025-00724					no report	5.5	3565	450 sx	no report	no report
K-27-17S-32E					no report	4.5	no report	100 sx	no report	no report
J C Federal 052	5/9/11	7112	Maljamar; Yeso West	O	17.5	13.375	848	600 sx	GL	circ. 219 sx
30-025-39861					11	8.625	2100	600 sx	GL	circ. 103 sx
M-22-17S-32E					7.875	5.5	7105	1350 sx	GL	circ. 98 sx
MCA Unit 087	4/24/40	4154	Maljamar; Grayburg-SA	P & A	no report	12.5	53	25 sx	GL	no report
30-025-00626					no report	7	3606	250 sx	2500	no report
N-22-17S-32E					6.25	4.5	3778	275 sx	1800	no report
MCA Unit 182	11/19/47	4070	Maljamar; Grayburg-SA	P & A	12.25	8.625	1089	100 sx	GL	circ. 9 sx
30-025-12793					7.875	7	3867	238 sx	772	estimated
J-27-17S-32E					6.25	5.5	4100	175 sx	3900	no report
MCA Unit 280	4/11/71	4175	Maljamar; Grayburg-SA	P & A	12.25	8.625	905	450 sx	GL	circulated
30-025-23740					7.875	5.5	4175	300 sx	2680	temp survey
G-28-17S-32E										
MCA Unit 179	9/8/40	4123	Maljamar; Grayburg-SA	P & A	no report	12	25	25 sx	8	no report
30-025-00744					no report	5.5	3550	300 sx	2500	estimated
I-28-17S-32E					no report	4	3756	250 sx	80	temp survey

MCA Unit 318	7/22/72	4200	Maljamar; Grayburg-SA	O	12.25	8.625	888	450 sx	GL	circulated
30-025-24196					7.875	5.5	4200	300 sx	2540	no report
A-28-17S-32E										
MCA Unit 090	5/23/45	4154	Maljamar; Grayburg-SA	P & A	no report	12	20	25 sx	GL	no report
30-025-00616					no report	7	3590	450 sx	1800	no report
P-21-17S-32E					no report	4.5	3890	275 sx	2400	no report
J C Federal 030	7/25/09	7120	Maljamar; Yeso West	O	17.5	13.375	837	600 sx	GL	circ. 170 sx
30-025-39168					11	8.625	2118	700 sx	GL	circ. 176 sx
P-21-17S-32E					7.875	5.5	7108	1200 sx	GL	circ. 66 sx
MCA Unit 512	10/6/13	4361	Maljamar; Grayburg-SA	O	12.25	8.625	996	600 sx	GL	circ. 40 bbl
30-025-41398					7.875	5.5	4342	670 sx	GL	circ. 72 bbl
K-27-17S-32E										
J C Federal 026	2/24/09	7010	Maljamar; Yeso West	O	17.5	13.375	806	700 sx	GL	circ. 336 sx
30-025-39060					11	8.625	1916	700 sx	GL	circ. 125 sx
P-21-17S-32E					7.875	5.5	7009	1400 sx	GL	circ. 100 sx
J C Federal 027	4/7/10	7040	Maljamar; Yeso West	O	17.5	13.375	815	650 sx	GL	circ. 147 sx
30-025-39247					11	8.625	2130	600 sx	GL	circ. 107 sx
M-22-17S-32E					7.875	5.5	7009	1150 sx	GL	circ. 191 sx

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET	CEMENT	TOC	HOW DETERMINED
MCA Unit 260	8/5/70	4110	Maljamar; Grayburg-SA	O	12.5	8.625	820	350 sx	GL	circulated
30-025-23569					7.875	5.5	4110	250 sx	2500	no report
F-28-17S-32E										
MCA Unit 152	6/17/40	4128	Maljamar; Grayburg-SA	P & A	20	12.5	30	15 sx	GL	no report
30-025-00736					8.5	5.5	3620	400 sx	2200	calculated
F-28-17S-32E					no report	4	4061	280 sx	3273	TOL
MCA Unit 151	7/31/40	4112	Maljamar; Grayburg-SA	O	no report	12.5	20	14 sx	no report	no report
30-025-00739					no report	5.5	3540	200 sx	no report	no report
G-28-17S-32E					no report	no report	4112	160 sx	no report	no report
MCA Unit 177	<1960	4150	Maljamar; Grayburg-SA	O	no report	7	3727	175 sx	no report	no report
30-025-21489					no report	no report	4150	150 sx	3552	TOL
J-28-17S-32E										
MCA Unit 487	7/2/09	4170	Maljamar; Grayburg-SA	O	12.25	8.625	898	570 sx	GL	circulated
30-025-39356					7.875	5.5	4195	861 sx	GL	circulated
J-28-17S-32E										
MCA Unit 484	7/7/09	4142	Maljamar; Grayburg-SA	O	12.25	8.625	904	570 sx	GL	circulated
30-025-39354					7.875	5.5	4131	861 sx	GL	circulated
K-28-17S-32E										

MCA Unit 380	7/26/88	4110	Maljamar; Grayburg-SA	I	17.5	13.375	845	770 sx	GL	circ 255 sx
30-025-30337					7.875	5.5	4110	2400 sx	1200	temp survey
B-28-17S-32E										
Pearsall Federal SWD 001	9/6/12	10400	SWD; Wolfcamp	S	17.5	13.375	942	870 sx	GL	circ 310 sx
30-025-40712					12.25	9.625	4225	1460 sx	GL	circ 200 sx
E-28-17S-32E					7.875	5.5	10398	1670 sx	220	no report
MCA Unit 395	9/25/06	4488	Maljamar; Grayburg-SA	O	12.25	8.625	875	640 sx	GL	circ 151 sx
30-025-37900					7.875	5.5	4470	1330 sx	GL	no report
E-28-17S-32E										
MCA Unit 280	4/11/71	4175	Maljamar; Grayburg-SA	P & A	12.25	8.625	905	450 sx	GL	circulated
30-025-23740					7.875	5.5	4175	300 sx	2680	temp survey
G-28-17S-32E										
MCA Unit 117	6/21/40	4140	Maljamar; Grayburg-SA	P & A	no report	12.5	31	15 sx	GL	no report
30-025-00737					no report	5.5	3552	200 sx	2000	estimated
B-28-17S-32E					4.75	4	3663	200 sx	GL	circulated
MCA Unit 235	6/27/63	4182	Maljamar; Grayburg-SA	O	no report	8.625	883	700 sx	GL	circulated
30-025-20496					no report	5.5	4182	570 sx	2000	temp survey
F-28-17S-32E										
MCA Unit 115	5/16/40	4100	Maljamar; Grayburg-SA	O	no report	8.25	902	100 sx	no report	no report
30-025-00734					no report	7	3553	200 sx	no report	no report
C-28-17S-32E					no report	5.5	4087	50 sx	no report	no report

MCA Unit 284	6/9/71	4150	Maljamar; Grayburg-SA	O	12.25	8.875	860	475 sx	GL	circulated
30-025-23744					7.875	5.5	4150	300 sx	1510	no report
E-28-17S-32E										
MCA Unit 176	9/17/40	4100	Maljamar; Grayburg-SA	O	no report	12	26	25 sx	no report	no report
30-025-00742					no report	5.5	3550	200 sx	no report	no report
K-28-17S-32E					no report	no report	4079	70 sx	no report	no report
MCA Unit 178	10/17/40	4156	Maljamar; Grayburg-SA	P & A	no report	12.5	20	14 sx	no report	no report
30-025-00743					no report	5.5	3570	350 sx	1291	estimated
J-28-17S-32E										
MCA Unit 274	3/18/71	4190	Maljamar; Grayburg-SA	O	12.25	8.625	900	375 sx	GL	circulated
30-025-23731					7.875	5.5	4190	300 sx	2400	no report
A-28-17S-32E										
MCA Unit 301	8/22/72	4220	Maljamar; Grayburg-SA	I	11	7.625	867	375 sx	GL	circulated
30-025-24226					no report	4.5	4220	300 sx	2100	no report
J-28-17S-32E										
MCA Unit 483	5/28/09	4208	Maljamar; Grayburg-SA	I	12.25	8.875	911	570 sx	GL	circulated
30-025-39353					7.875	5.5	4076	1000 sx	GL	circulated
I-28-17S-32E										
MCA Unit 116	≤1960	4119	Maljamar; Grayburg-SA	O	13.375	10.75	308	119 sx	no report	no report
30-025-12769					9.875	7	3735	570 sx	no report	no report
B-28-17S-32E					no report	5.5	4119	375 sx	no report	no report

MCA Unit 482	8/28/10	4134	Maljamar; Grayburg-SA	O	12.25	8.625	925	570 sx	GL	circulated
30-025-39767					7.875	5.5	4134	760 sx	GL	circulated
K-28-17S-32E										
MCA Unit 296	6/16/71	4180	Maljamar; Grayburg-SA	O	12.25	8.625	850	450 sx	GL	circulated
30-025-23790					7.875	5.5	4180	300 sx	1900	temp survey
K-28-17S-32E										
MCA Unit 485	7/26/09	4124	Maljamar; Grayburg-SA	I	12.25	8.625	892	570 sx	GL	circulated
30-025-39403					7.875	5.5	4115	861 sx	GL	circulated
K-28-17S-32E										
MCA Unit 153	5/27/40	4010	Maljamar; Grayburg-SA	P & A	no report	8.625	896	50 sx	GL	no report
30-025-00735					no report	5.5	3563	100 sx	2500	estimated
E-28-17S-32E					no report	4.5	3969	85 sx	3050	CBL
MCA Unit 397	10/28/06	4460	Maljamar; Grayburg-SA	O	16	15.5	80	no report	no report	no report
30-025-37939					12.25	8.625	890	560 sx	GL	circ 154 sx
E-28-17S-32E					7.875	5.5	4460	1111 sx	GL	circ 111 sx
MCA Unit 150	8/14/40	4157	Maljamar; Grayburg-SA	I	no report	12.5	21	25 sx	GL	circulated
30-025-00740					no report	5.5	3500	200 sx	2127	no report
H-28-17S-32E					no report	4.5	3793	125 sx	3389	no report
MCA Unit 394	10/16/06	4445	Maljamar; Grayburg-SA	O	12.25	8.625	855	540 sx	GL	circ 225 sx
30-025-37931					7.875	5.5	4424	1050 sx	GL	circ 125 sx
D-28-17S-32E										



MCA Unit 480	9/12/10	4084	Maljamar; Grayburg-SA	I	12.25	8.625	914	570 sx	GL	circulated
30-025-39766					7.875	5.5	4158	760 sx	GL	circulated
O-28-17S-32E										
MCA Unit 486	6/27/09	4206	Maljamar; Grayburg-SA	I	12.25	8.625	917	570 sx	GL	circulated
30-025-39355					7.875	5.5	4194	861 sx	GL	circulated
I-28-17S-32E										
Baish B Fed 002	12/20/66	13735	Maljamar	P & A	17.5	13.375	390	450 sx	GL	circulated
30-025-21951					11	8.625	4660	2090 sx	no report	no report
A-28-17S-32E					7.875	5.5	10301	670 sx	no report	no report
Maljamar AGI 001	9/24/12	10183	Wolfcamp	I	17.5	13.325	890	700 sx	GL	circ 60 bbl
30-025-40420					12.25	8.625	4200	1885 sx	GL	circ 200 bbl
O-21-17S-32E					7.875	5.5	10183	1771 sx	GL	circ 20 bbl
MCA Unit 396	11/9/06	4450	Maljamar; Grayburg-SA	O	13.375	no report	80	no report	no report	no report
30-025-37976					12.25	8.625	881	1050 sx	GL	circ 115 sx
L-28-17S-32E					7.875	5.5	4438	1800 sx	GL	circ 145 sx
MCA Unit 318	7/22/72	4200	Maljamar; Grayburg-SA	O	12.25	8.625	888	450 sx	GL	circulated
30-025-24196					7.875	5.5	4200	300 sx	2540	temp survey
A-28-17S-32E										
MCA Unit 268	3/15/71	4155	Maljamar; Grayburg-SA	O	12.25	8.625	910	525 sx	GL	circ 50 sx
30-025-23705					7.875	5.5	4155	450 sx	3100	temp survey
K-28-17S-32E										

MCA Unit 118	7/16/40	4145	Maljamar; Grayburg-SA	O	no report	12.5	30	25 sx	no report	no report
30-025-00738					no report	5.5	3550	200 sx	no report	no report
A-28-17S-32E					no report	no report	4145	300 sx	no report	no report
MCA Unit 114	9/8/39	4071	Maljamar; Grayburg-SA	O	no report	12.5	20	23 sx	GL	circulated
30-025-00733					no report	5.125	3551	120 sx	2400	no report
D-28-17S-32E					4.75	4	4071	200 sx	3170	TOL
MCA Unit 175	8/28/40	4125	Maljamar; Grayburg-SA	P&A	17.5	12.5	20	15 sx	GL	circulated
30-025-00741					6.5	5.5	3547	300 sx	2200	no report
L-28-17S-32E					4.75	4.5	3796	100 sx	3502	no report
MCA Unit 234	6/10/63	4100	Maljamar; Grayburg-SA	O	11	8.625	846	780 sx	GL	circulated
30-025-20522					7.875	5.5	3721	425 sx	1800	temp survey
N-21-17S-32E										
MCA Unit 179	9/8/40	4123	Maljamar; Grayburg-SA	P & A	no report	12	25	25 sx	GL	no report
30-025-00744					no report	5.5	3550	300 sx	2100	estimated
I-28-17S-32E					no report	4	3756	250 sx	80	temp survey
Maljamar AGI 002	3/22/12	10183	Wolfcamp	I	17.5	13.325	890	700 sx	GL	circ 60 bbl
30-025-42628					12.25	8.625	4200	1650 sx	GL	circ 200 bbl
O-21-17S-32E					7.875	5.5	10183	1771 sx	no report	no report
MCA Unit 333	1/27/73	4175	Maljamar; Grayburg-SA	O	12.25	8.625	912	470 sx	GL	circulated
30-025-24352					7.875	5.5	4175	500 sx	2100	no report
P-28-17S-32E										

MCA Unit 382	8/8/61	9680	Wolfcamp		17.5	13.375	360	358 sx	GL	circulated
30-025-00745		4300	Maljamar; Grayburg-SA	O	12.25	8.625	4576	1800 sx	no report	no report
I-28-17S-32E					7.875	4.5	9180	350 sx	no report	no report
J C Federal 037	10/30/11	7136	Maljamar; Yeso West	O	17.5	13.375	880	650 sx	GL	circ 160 sx
30-025-40239					11	8.625	2146	600 sx	GL	circ 101 sx
O-21-17S-32E					7.875	5.5	7132	1100 sx	GL	circ 152 sx
Queen B 036	9/20/48	10747	Baish Wolfcamp	P & A	no report	13	825	175 sx	GL	circulated
30-025-00751					11	8.625	4198	200 sx	3391	temp survey
D-28-17S-32E					7.875	5.5	10745	1100 sx	5890	temp survey
MCA Unit 252	4/11/70	4080	Maljamar; Grayburg-SA	O	12.25	8.625	825	500 sx	GL	circulated
30-025-23482					7.875	5.5	4080	250 sx	2670	temp survey
D-28-17S-32E										
MCA Unit 478	6/9/09	4200	Maljamar; Grayburg-SA	I	12.25	8.625	925	570 sx	GL	circulated
30-025-39351					7.875	5.5	4190	800 sx	GL	circulated
O-28-17S-32E										
MCA Unit 254	4/23/70	4100	Maljamar; Grayburg-SA	O	12.25	8.625	890	350 sx	GL	circulated
30-025-23487					7.875	5.5	4100	640 sx	1500	no report
O-28-17S-32E										
MCA Unit 393	9/6/06	4450	Maljamar; Grayburg-SA	O	12.25	8.625	879	505 sx	GL	circ 85 sx
30-025-37879					7.875	5.5	4434	2025 sx	GL	circ 258 sx
H-29-17S-32E										

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET	CEMENT	TOC	HOW DETERMINED
MCA Unit 176	9/17/40	4100	Maljamar; Grayburg-SA	O	no report	12	26	25 sx	no report	no report
30-025-00742					no report	5.5	3550	200 sx	no report	no report
K-28-17S-32E					no report	no report	4079	70 sx	no report	no report
MCA Unit 152	6/17/40	4128	Maljamar; Grayburg-SA	P & A	20	12.5	30	15 sx	GL	no report
30-025-00736					8.5	5.5	3620	400 sx	2200	calculated
F-28-17S-32E					no report	4	4061	280 sx	3273	TOL
MCA Unit 284	6/9/71	4150	Maljamar; Grayburg-SA	O	12.25	8.875	860	475 sx	no report	circulated
30-025-23744					7.875	5.5	4150	300 sx	1510	no report
E-28-17S-32E										
MCA Unit 484	7/7/09	4142	Maljamar; Grayburg-SA	O	12.25	8.625	904	570 sx	GL	circulated
30-025-39354					7.875	5.5	4131	861 sx	GL	circulated
K-28-17S-32E										
MCA Unit 177	no report	4150	Maljamar; Grayburg-SA	O	no report	7	3727	175 sx	no report	no report
30-025-21489					no report	no report	4150	150 sx	3552	TOL
J-28-17S-32E										
Pearsall Fed SWD 001	9/6/12	10400	SWD; Wolfcamp	S	17.5	13.375	942	870 sx	GL	circ 310 sx
30-025-40712					12.25	9.625	4225	1460 sx	GL	circ 200 sx
E-28-17S-32E					7.875	5.5	10398	1670 sx	220	no report
MCA Unit 485	7/26/09	4124	Maljamar; Grayburg-SA	I	12.25	8.625	892	570 sx	GL	circulated
30-025-39403					7.875	5.5	4115	861 sx	GL	circulated
K-28-17S-32E										

MCA Unit 395	9/25/06	4488	Maljamar; Grayburg-SA	O	12.25	8.625	875	640 sx	GL	circ 151 sx
30-025-37900					7.875	5.5	4470	1330 sx	GL	no report
E-28-17S-32E										
MCA Unit 482	8/28/10	4134	Maljamar; Grayburg-SA	O	12.25	8.625	925	570 sx	GL	circulated
30-025-39767					7.875	5.5	4134	760 sx	GL	circulated
K-28-17S-32E										
MCA Unit 260	8/5/70	4110	Maljamar; Grayburg-SA	O	12.5	8.625	820	350 sx	GL	circulated
30-025-23569					7.875	5.5	4110	250 sx	2500	no report
F-28-17S-32E										
MCA Unit 296	6/16/71	4180	Maljamar; Grayburg-SA	O	12.25	8.625	850	450 sx	GL	circulated
30-025-23790					7.875	5.5	4180	300 sx	1900	temp survey
K-28-17S-32E										
MCA Unit 487	7/2/09	4170	Maljamar; Grayburg-SA	O	12.25	8.625	898	570 sx	GL	circulated
30-025-39356					7.875	5.5	4195	861 sx	GL	circulated
J-28-17S-32E										
MCA Unit 178	10/17/40	4156	Maljamar; Grayburg-SA	P & A	no report	12.5	20	14 sx	no report	no report
30-025-00743					no report	5.5	3570	350 sx	1291	estimated
J-28-17S-32E										
MCA Unit 151	7/31/40	4112	Maljamar; Grayburg-SA	O	no report	12.5	20	14 sx	no report	no report
30-025-00739					no report	5.5	3540	200 sx	no report	no report
G-28-17S-32E					no report	no report	4112	160 sx	no report	no report

MCA Unit 268	3/15/71	4155	Maljamar; Grayburg-SA	O	12.25	8.625	910	525 sx	GL	circ 50 sx
30-025-23705					7.875	5.5	4155	450 sx	3100	temp survey
K-28-17S-32E										
MCA Unit 235	6/27/63	4182	Maljamar; Grayburg-SA	O	no report	8.625	883	700 sx	GL	circulated
30-025-20496					no report	5.5	4182	570 sx	2000	temp survey
F-28-17S-32E										
MCA Unit 175	8/28/40	4125	Maljamar; Grayburg-SA	P&A	17.5	12.5	20	15 sx	GL	circulated
30-025-00741					6.5	5.5	3547	300 sx	2200	no report
L-28-17S-32E					4.75	4.5	3796	100 sx	3502	no report
MCA Unit 153	5/27/40	4010	Maljamar; Grayburg-SA	P & A	no report	8.625	896	50 sx	GL	no report
30-025-00735					no report	5.5	3563	100 sx	1000	no report
E-28-17S-32E					no report	4.5	3969	85 sx	3050	CBL
MCA Unit 396	11/9/06	4450	Maljamar; Grayburg-SA	O	13.375	no report	80	no report	no report	no report
30-025-37976					12.25	8.625	881	1050 sx	GL	circ 115 sx
L-28-17S-32E					7.875	5.5	4438	1800 sx	GL	circ145 sx
MCA Unit 397	10/28/06	4460	Maljamar; Grayburg-SA	O	16	15.5	80	no report	no report	no report
30-025-37939					12.25	8.625	890	560 sx	GL	circ 154 sx
E-28-17S-32E					7.875	5.5	4460	1111 sx	GL	circ 111 sx
MCA Unit 301	8/22/72	4220	Maljamar; Grayburg-SA	I	11	7.625	867	375 sx	GL	circulated
30-025-24226					no report	4.5	4220	300 sx	2100	no report
J-28-17S-32E										

MCA Unit 480	9/12/10	4084	Maljamar; Grayburg-SA	I	12.25	8.625	914	570 sx	GL	circulated
30-025-39766					7.875	5.5	4158	760 sx	GL	circulated
O-28-17S-32E										
MCA Unit 280	4/11/71	4175	Maljamar; Grayburg-SA	P & A	12.25	8.625	905	450 sx	GL	circulated
30-025-23740					7.875	5.5	4175	300 sx	2680	temp survey
G-28-17S-32E										
MCA Unit 394	10/16/06	4445	Maljamar; Grayburg-SA	O	12.25	8.625	855	540 sx	GL	circ 225 sx
30-025-37931					7.875	5.5	4424	1050 sx	GL	circ 125 sx
D-28-17S-32E										
MCA Unit 478	6/9/09	4200	Maljamar; Grayburg-SA	I	12.25	8.625	925	570 sx	GL	circulated
30-025-39351					7.875	5.5	4190	800 sx	GL	circulated
O-28-17S-32E										
MCA Unit 209	12/5/40	4025	Maljamar; Grayburg-SA	P&A	no report	12.5	20	14 sx	GL	no report
30-025-00748					no report	5.5	3559	300 sx	2320	no report
N-28-17S-32E					no report	4	4025	130 sx	2897	TOL
MCA Unit 115	5/16/40	4100	Maljamar; Grayburg-SA	O	no report	8.25	902	100 sx	no report	no report
30-025-00734					no report	7	3553	200 sx	no report	no report
C-28-17S-32E					no report	5.5	4087	50 sx	no report	no report
MCA Unit 483	5/28/09	4208	Maljamar; Grayburg-SA	I	12.25	8.875	911	570 sx	GL	circulated
30-025-39353					7.875	5.5	4076	1000 sx	GL	circulated
I-28-17S-32E										

MCA Unit 174	3/10/69	4110	Maljamar; Grayburg-SA	P&A	9.875	8.625	959	50 sx	400	no report
30-025-12794					7.875	7	3683	150 sx	1810	temp survey
L-28-17S-32E					no report	5.5	4110	175 sx	3368	TOL
MCA Unit 481	7/21/09	4153	Maljamar; Grayburg-SA	I	12.25	8.625	887	570 sx	GL	circulated
30-025-39402					7.875	5.5	4143	861 sx	GL	circulated
M-28-17S-32E										
MCA Unit 407	10/8/06	4550	Maljamar; Grayburg-SA	O	12.25	8.625	868	540 sx	GL	circ 220 sx
30-025-38038					7.875	5.5	4429	1500 sx	GL	circ 230 sx
L-28-17S-32E										
MCA Unit 479	7/14/09	4150	Maljamar; Grayburg-SA	O	12.25	8.625	874	560	GL	circulated
30-025-39352					7.875	5.5	4139	961	GL	circulated
N-28-17S-32E										
FEDERAL BI 001	10/14/80	12992	SWD; Wolfcamp	S	17.5	13.375	723	700 sx	GL	circulated
30-025-27068					12.25	9.625	4500	1475 sx	GL	circulated
N-28-17S-32E					8.5	5.5	12967	2200 sx	1345	no report
MCA Unit 254	4/23/70	4100	Maljamar; Grayburg-SA	O	12.25	8.625	890	350 sx	GL	no report
30-025-23487					7.875	5.5	4100	640 sx	1500	no report
O-28-17S-32E										
MCA Unit 393	9/6/06	4450	Maljamar; Grayburg SA	O	12.25	8.625	879	505 sx	GL	circ 85 sx
30-025-37879					7.875	5.5	4434	2025 sx	GL	circ 258 sx
H-29-17S-32E										



MCA Unit 252	4/11/70	4080	Maljamar; Grayburg-SA	O	12.25	8.625	825	500 sx	GL	circulated
30-025-23482					7.875	5.5	4080	250 sx	2670	temp survey
D-28-17S-32E										
MCA Unit 380	7/26/88	4110	Maljamar; Grayburg-SA	I	17.5	13.375	845	770 sx	GL	circ 255 sx
30-025-30337					7.875	5.5	4110	2400 sx	1200	temp survey
B-28-17S-32E										
MCA Unit 208	11/20/40	4000	Maljamar; Grayburg-SA	P&A	no report	8	21	15 sx	no report	no report
30-025-00747					no report	5.5	3594	250 sx	1310	estimated
O-28-17S-32E										
MCA Unit 117	6/21/40	4140	Maljamar; Grayburg-SA	P & A	no report	12.5	31	15 sx	GL	no report
30-025-00737					no report	5.5	3552	200 sx	2000	estimated
B-28-17S-32E					4.75	4	3663	200 sx	GL	circulated
MCA Unit 333	1/27/73	4175	Maljamar; Grayburg-SA	O	12.25	8.625	912	470 sx	GL	circulated
30-025-24352					7.875	5.5	4175	500 sx	2100	no report
P-28-17S-32E										
MCA Unit 274	3/18/71	4190	Maljamar; Grayburg-SA	O	12.25	8.625	900	375 sx	GL	circulated
30-025-23731					7.875	5.5	4190	300 sx	2400	no report
A-28-17S-32E										
MCA Unit 324	9/28/72	4170	Maljamar; Grayburg-SA	O	12.25	8.625	889	500 sx	GL	circulated
30-025-24235					7.875	5.5	4170	300 sx	2250	no report
L-28-17S-32E										

MCA Unit 210	11/9/40	3980	Maljamar; Grayburg-SA	P & A	no report	12.5	22	15 sx	GL	no report
30-025-00749					no report	5.5	3563	300 sx	2700	calculated
M-28-17S-32E										
MCA Unit 114	9/8/39	4071	Maljamar; Grayburg-SA	O	no report	12.5	20	23 sx	GL	circulated
30-025-00733					no report	5.125	3551	120 sx	7/27/06	no report
D-28-17S-32E					4.75	4	4071	200 sx	3170	TOL
Queen B 036	9/20/48	10747	Baish Wolfcamp	P & A	no report	13	825	175 sx	GL	circulated
30-025-00751					11	8.625	4198	200 sx	3391	temp survey
D-28-17S-32E					7.875	5.5	10745	1100 sx	5890	temp survey
MCA Unit 411	9/22/08	4345	Maljamar; Grayburg-SA	O	17.5	13.375	80	100 sx	GL	circulated
30-025-38856					12.25	8.625	969	570 sx	GL	circ 189 sx
C-33-17S-32E					7.875	5.5	4335	1000 sx	GL	circulated

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET	CEMENT	TOC	HOW DETERMINED
MCA Unit 290	7/5/71	4080	Maljamar; Grayburg SA	P&A	12.25	8.625	770	425 sx	GL	circulated
3002523798					7.875	5.5	4080	400 sx	3500	Temp survey
D-29-17S-32E										
MCA Unit 369	2/14/87	4150	Maljamar; Grayburg SA	Oil	17.5	13.375	600	520 sx	GL	Circ 200 sx
3002529853					8.75	7.625	4150	1350 sx	GL	Circ 243 sx
E-29-17S-32E										
MCA Unit 281	4/17/71	4025	Maljamar; Grayburg SA	Oil	12.25	8.625	750	375 sx	GL	circulated
3002523741					7.875	5.5	4025	420 sx	2100	no report
D-29 17S-32E										
MCA Unit 158	10/8/40	3779	Maljamar; Grayburg SA	P&A	no report	8	903	50 sx	no report	no report
3002500761					no report	7	3447	100 sx	2147	no report
E-29 17S-32E					no report	5.5	3970	200 sx	3195	TOL
Brook Federal 005	6/16/13	9743	WC; Wolfcamp	Oil	17.5	13.375	739	670 sx	GL	Circ 173 sx
3002540357					12.25	8.625	2084	1015 sx	GL	Circ 263 sx
H-30 17S-32E					7.875	5.5	9770	1675 sx	GL	Circ 112 sx
Brook Federal 003	11/26/12	10,207	WC; Wolfcamp	Oil	17.5	13.375	740	650 sx	GL	Circ 371 sx
3002540338					12.25	8.625	2124	1160 sx	GL	Circ 285 sx
A-30 17S-32E					7.875	4.4	10,242	1750 sx	GL	Circ 306 sx

Brook Federal 001	10/15/11	7062	Maljamar; Yeso, West	Oil	12.25	8.625	731	450 sx	GL	Circ 100 sx
3002540244					7.875	5.5	7062	1370 sx	GL	Circ 250 sx
A-30 17S-32E										
Brook Federal 006	not yet	7000 plan	Maljamar; Yeso, West	Oil	17.5	13.375	765	675 sx	GL	not yet
3002540387					12.25	8.625	3100	775 sx	GL	not yet
H-30 17S-32E					7.875	5.5	10500	1375 sx	GL	not yet
MCA Unit 288	5/15/71	4080	Maljamar; Grayburg SA	P&A	12.25	8.625	700	400 sx	GL	Circ 115 sx
3002523778					7.875	5.5	4080	300 sx	2160	Temp survey
D-29-17S-32E										
Maljamar SWD 30002	11/17/11	10350	SWD; Wolfcamp	SWD	17.5	13.375	740	850 sx	GL	Circ 349 sx
3002540310					12.25	9.625	4012	1400 sx	GL	Circ 155 sx
H-30 17S-32E					8.75	7	10,350	2100 sx	GL	Circ 442 sx
MCA Unit 110	7/16/40	4073	Maljamar; Grayburg SA	P&A	no report	8.625	920	50 sx	no report	no report
3002500758					no report	5.5	4071	420 sx	2000	estimated
C-29-17S-32E										
MCA Unit 386	1/7/91	4350	Maljamar; Grayburg SA	I	17.5	13.375	960	850 sx	GL	Circ 180sx
3002531100					11	8.625	3650	1000 sx	GL	circulated
F-29 17S-32E					7.875	5.5	4350	1200 sx	GL	Circ 154 sx
MCA Unit 270	2/13/71	4130	Maljamar; Grayburg SA	Oil	12.25	8.625	740	375 sx	GL	circulated
3002523707					7.875	5.5	4130	350 sx	2100	no report
F-29 17S-32E										

MCA Unit 157	8/13/40	4030	Maljamar; Grayburg SA	P&A	no report	8	910	50 sx	GL	circulated
3002500760					no report	7	3492	100 sx	2192	no report
F-29 17S-32E					no report	4.5	4020	65 sx	3377	no report
MCA Unit 099	10/1/46	3986	Maljamar; Grayburg SA	P&A	no report	8.625	735	65 sx	no report	no report
3002512764					no report	7	3600	160 sx	2500	temp survey
P-19 17S-32 E					no report	4.5	3900	80 sx	3488	TOL
MCA Unit 159	1940	4015	Maljamar; Grayburg SA	P&A	no report	8.625	880	50 sx	no report	no report
3002500784					no report	7	3417	100 sx	2000	estimated
H-30 17S-32E										
MCA Unit 168	9/5/50	4059	Maljamar; Grayburg SA	Oil	no report	10.75	31	25 sx	no report	no report
3002512798					no report	8.625	973	50 sx	no report	no report
I-30 17S-32E					no report	7	3676	300 sx	no report	no report
					no report	5.5	no report	135 sx	3350	TOL
GC Federal 030	8/28/09	7016	Maljamar; Yeso, West	Oil	17.5	13.375	676	550 sx	GL	Circ 122 sx
3002539272					11	8.625	2121	700 sx	GL	Circ 293 sx
M-20-17S-32E					7.875	5.5	7016	1000 sx	GL	Circ 113 sx
GC Federal 040	8/19/10	7178	Maljamar; Yeso, West	Oil	17.5	13.375	700	600 sx	GL	Circ 138 sx
3002539626					11	8.625	2115	600 sx	GL	Circ 184 sx
M-20-17S-32E					7.875	5.5	7169	1050 sx	GL	Circ 97 sx

Brook Federal 004	4/13/12	10134	WC; Wolfcamp	Oil	17.5	13.375	740	930 sx	GL	Circ 122 sx
3002540339					12.25	8.625	2128	930 sx	GL	Circ 226 sx
A-30 17S-32E					7.875	5.5	10132	1825 sx	GL	Circ 27 sx
GC Federal 042	2/20/11	7140	Maljamar; Yeso, West	Oil	17.5	13.375	754	650 sx	GL	Circ 199 sx
3002539928					11	8.625	2093	600 sx	GL	Circ 23 sx
N-20-17S-32E					7.875	5.5	7124	1500 sx	GL	Circ 125 sx
MCA Unit 098	3/15/46	4013	Maljamar; Grayburg SA	P&A	no report	8.625	760	50 sx	no report	no report
3002508069					no report	7	3562	150 sx	1800	no report
M-20 17S-32E					no report	5.5	4013	190 sx	2868	TOL
MCA Unit 277	3/27/71	4083	Maljamar; Grayburg SA	P&A	12.25	8.625	750	375 sx	GL	circulated
3002523733					7.875	5.5	4075	300 sx	2450	no report
B-29 17S-32E										
MCA Unit 169	2/11/41	4080	Maljamar; Grayburg SA	I	no report	8.625	990	50 sx	630	no report
3002500755					no report	7	3488	100 sx	2270	calculated
L-29 17S-32E					no report	4.5	3735	325 sx	no report	no report
MCA Unit 289	5/29/71	4025	Maljamar; Grayburg SA	P&A	12.25	8.625	700	400 sx	GL	circulated
3002523789					7.375	5.5	4025	300 sx	2200	no report
B-30 17S-32E										
GC Federal 019	1/22/10	7022	Maljamar; Yeso, West	Oil	17.5	13.375	656	550 sx	GL	Circ 182 sx
3002539162					11	8.625	2101	600 sx	GL	Circ 183 sx
P-19 17S-32E					7.875	5.5	7008	1000 sx	GL	Circ 100 sx

Brook Federal 002	5/17/12	7097	Maljamar; Yeso, West	Oil	12.25	8.625	757	400 sx	GL	Circ 450 sx
3002540337					7.875	5.5	7102	1320 sx	GL	Circ 176 sx
A-30 17S-32E										
GC Federal 043	1/25/11	7010	Maljamar; Yeso, West	Oil	17.5	13.375	714	650 sx	GL	Circ 212 sx
3002539858					11	8.625	2137	600 sx	GL	Circ 130 sx
N-20 17S-32E					7.875	5.5	7057	1600 sx	GL	Circ 165 sx
GC Federal 031	9/26/09	7123	Maljamar; Yeso, West	Oil	17.5	13.375	675	550 sx	GL	Circ 83 sx
3002539266					11	8.625	2126	700 sx	GL	Circ 259 sx
N-20 17S-32E					7.875	5.5	7113	1100 sx	GL	Circ 161 sx
Cuthroat Federal 003	not yet	10500 Plan	WC; Wolfcamp	Oil	17.5	13.375	800	700 sx	GL	not yet
3002542585					12.25	8.625	2250	900 sx	GL	not yet
B-29 17S-32E					7.875	5.5	10500	1775	GL	not yet
Cuthroat Federal 005	1/7/14	9800	WC; Wolfcamp	Oil	17.5	13.375	867	725 sx	GL	Circ 361 sx
3002541557					12.25	8.625	2258	1290 sx	GL	Circ 792 sx
G-29 17S-32E					7.875	5.5	9800	1900 sx	GL	Circ 345 sx
GC Federal 026	3/1/10	7035	Maljamar; Yeso, West	Oil	17.5	13.375	641	550 sx	GL	Circ 167 sx
3002539282					11	8.625	2164	600 sx	GL	Circ 96 sx
M-20 17S-32E					7.875	5.5	7030	1100 sx	GL	Circ 228 sx
MCA Unit 096	10/15/48	4048	Maljamar; Grayburg SA	Oil	15	10.75	60	50 sx	no report	no report
3002512755					7.875	5.5	3653	250 sx	1850	estimated
N-20 17S-32E										

Cutthroat Federal 007	not yet	10500 Plan	WC; Wolfcamp	Oil	17.5	13.375	850	700 sx	GL	not yet
3002542587					12.25	8.625	2250	900 sx	GL	not yet
G-29 17S-32E					7.875	5.5	10500	1775	GL	not yet
MCA Unit 097	1/7/42	4077	Maljamar; Grayburg SA	P&A	no report	8.625	760	50 sx	no report	no report
3002508067					no report	7	3528	150 sx	2000	estimated
N-20 17S-32E					no report	4.5	3685	300 sx	800	no report
MCA Unit 100	6/19/41	3840	Maljamar; Grayburg SA	P&A	no report	8.625	721	50 sx	no report	no report
3002508041					no report	7	3525	150 sx	2500	calculated
P-19 17S-32E					no report	4.5	3575	275 sx	440	CBL
MCA Unit 276	3/24/71	4030	Maljamar; Grayburg SA	Oil	12.25	8.625	784	375 sx	GL	circulated
3002523732					7.875	5.5	4030	300 sx	2300	no report
P-19 17S-32E										
MCA Unit 156	1/7/49	3992	Maljamar; Grayburg SA	P&A	15	10.75	58	50 sx	GL	circulated
3002512756					no report	8.625	939	50 sx	GL	circulated
F-29 17S-32E					8.75	7	3698	300 sx	2000	estimated
					6.125	5.5	4136	240 sx	3369	TOL
GC Federal 052	6/12/11	7017	Maljamar; Yeso, West	Oil	17.5	13.375	725	650 sx	GL	Circ 167 sx
3002540006					11	8.625	2106	600 sx	GL	Circ 126 sx
P-19 17S-32E					7.875	5.5	7013	1100 sx	GL	Circ 231 sx
MCA Unit 170	12/10/40	4150	Maljamar; Grayburg SA	Oil	no report	8	990	50 sx	no report	no report
3002500754					no report	7	3482	100 sx	no report	no report
K-29 17S-32E					no report	5.5	4150	150 sx	3263	TOL



MCA Unit 167	12/9/40	4061	Maljamar; Grayburg SA	Oil	no report	8	975	50 sx	no report	no report
3002500775					no report	7	3465	100 sx	no report	no report
I-30 17S-32E					no report	5.5	3976	150 sx	3133	TOL
GC Federal 041	11/16/09	7123	Maljamar; Yeso, West	Oil	17.5	13.375	673	550 sx	no report	Circ 289 sx
3002539472					11	8.625	2104	600 sx	no report	Circ 151 sx
M-20 17S-32E					7.875	5.5	7116	1000 sx	no report	Circ 272 sx
MCA Unit 278	11/28/71	4040	Maljamar; Grayburg SA	P&A	12.25	8.625	750	400 sx	GL	circulated
3002523930					7.875	5.5	4040	300 sx	2400	no report
G-30 17S-32E										
GC Federal 049	6/10/10	6925	Maljamar; Yeso, West	Oil	17.5	13.375	653	550 sx	GL	Circ 138 sx
3002539422					11	8.625	2067	600 sx	GL	Circ 144 sx
P-19 17S-32E					7.875	5.5	6915	1100 sx	GL	Circ 175 sx
MCA Unit 111	11/11/39	4020	Maljamar; Grayburg SA	I	no report	8.625	1922	100 sx	GL	circulated
3002500767					no report	7	3541	150 sx	2540	no report
B-29 17S-32E					6.875	4.5	3660	300 sx	1600	no report

WELL	SPUD	TD	POOL	WELL TYPE	HOLE O.D.	CASING O.D.	SET	CEMENT	TOC	HOW DETERMINED
MCA Unit 288	5/15/71	4080	Maljamar; Grayburg SA	P&A	12.25	8.625	700	400 sx	GL	Circ 115 sx
3002523778					7.875	5.5	4080	300 sx	2160	Temp Survey
D-29-17S-32E										
MCA Unit 290	7/5/71	4080	Maljamar; Grayburg SA	P&A	12.25	8.625	770	425 sx	GL	Circ
3002523798					7.875	5.5	4080	400 sx	3500	Temp Survey
D-29-17S-32E										
MCA Unit 110	7/16/40	4073	Maljamar; Grayburg SA	P&A	no report	8.625	920	50 sx	no report	no report
3002500758					no report	5.5	4071	420 sx	2000	estimated
C-29-17S-32E										
MCA Unit 369	2/14/87	4150	Maljamar; Grayburg SA	Oil	17.5	13.375	600	520 sx	GL	Circ 200 sx
3002529853					8.75	7.625	4150	1350 sx	GL	Circ 243 sx
E-29-17S-32E										
GC Federal 042	2/20/11	7140	Maljamar; Yeso, West	Oil	17.5	13.375	754	650 sx	GL	Circ 199 sx
3002539928					11	8.625	2093	600 sx	GL	Circ 23 sx
N-20-17S-32E					7.875	5.5	7124	1500 sx	GL	Circ 125 sx
GC Federal 030	8/28/09	7016	Maljamar; Yeso, West	Oil	17.5	13.375	676	550 sx	GL	Circ 122 sx
3002539272					11	8.625	2121	700 sx	GL	Circ 293 sx
M-20-17S-32E					7.875	5.5	7016	1000 sx	GL	Circ 113 sx

GC Federal 040	8/19/10	7178	Maljamar; Yeso, West	Oil	17.5	13.375	700	600sx	GL	Circ 138 sx
3002539626					11	8.625	2115	600sx	GL	Circ 184sx
M-20-17S-32E					7.875	5.5	7169	1050sx	GL	Circ 97sx
GC Federal 043	1/25/11	7010	Maljamar; Yeso, West	Oil	17.5	13.375	714	650 sx	GL	Circ 212 sx
3002539858					11	8.625	2137	600 sx	GL	Circ 130 sx
N-20-17S-32E					7.875	5.5	7057	1600 sx	GL	Circ 165 sx
Brook Federal 001	10/15/11	7062	Maljamar; Yeso, West	Oil	12.25	8.625	731	450 sx	GL	Circ 100 sx
3002540244					7.875	5.5	7062	1370 sx	GL	Circ 250 sx
A-30 17S-32E										
GC Federal 031	9/26/09	7123	Maljamar; Yeso, West	Oil	17.5	13.375	675	550 sx	GL	Circ 83 sx
3002539266					11	8.625	2126	700	GL	Circ 259 sx
N-20 17S-32E					7.875	5.5	7113	1100	GL	Circ 161 sx
Brook Federal 003	11/26/12	10,207	WC; Wolcamp	Oil	17.5	13.375	740	650 sx	GL	Circ 371 sx
3002540338					12.25	8.625	2124	1160 sx	GL	Circ 285 sx
A-30 17S-32E					7.875	4.4	10,242	1750 sx	GL	Circ 306 sx
MCA Unit 096	10/15/48	4048	Maljamar; Grayburg SA	Oil	15	10.75	60	50 sx	no report	no report
3002512755					7.875	5.5	3653	250 sx	1850	estimated
N-20 17S-32E										
MCA Unit 281	4/17/71	4025	Maljamar; Grayburg SA	Oil	12.25	8.625	750	375 sx	GL	circulated
3002523741					7.875	5.5	4025	420 sx	2100	temp survey
D-29 17S-32E										

MCA Unit 386	1/7/91	4350	Maljamar; Grayburg SA	I	17.5	13.375	960	850 sx	GL	Circ 180 sx
3002531100					11	8.625	3650	1000 sx	GL	Circ 78 sx
F-29 17S-32E					7.875	5.5	4350	1200 sx	GL	Circ 154 sx
MCA Unit 098	3/15/46	4013	Maljamar; Grayburg SA	P&A	no report	8.625	760	50 sx	no report	no report
3002508069					no report	7	3562	150 sx	1800	no report
M-20 17S-32E					no report	5.5	4013	190 sx	2868	TOL
MCA Unit 097	1/7/42	4077	Maljamar; Grayburg SA	P&A	no report	8.625	760	50 sx	no report	no report
3002508067					no report	7	3528	150 sx	2000	estimated
N-20 17S-32E					no report	4.5	3685	300 sx	800	no report
MCA Unit 277	3/27/71	4083	Maljamar; Grayburg SA	P&A	12.25	8.625	750	375 sx	GL	circulated
3002523733					7.875	5.5	4075	300 sx	2450	no report
B-29 17S-32E										
MCA Unit 158	10/8/40	3992	Maljamar; Grayburg SA	P&A	no report	8	903	50 sx	no report	no report
3002500761					no report	7	3447	100 sx	2147	no report
E-29 17S-32E					no report	5.5	3970	200 sx	3195	TOL
MCA Unit 157	8/13/40	4030	Maljamar; Grayburg SA	P&A	no report	8	910	50 sx	GL	circulated
3002500760					no report	7	3492	100 sx	2192	no report
F-29 17S-32E					no report	4.5	4020	65 sx	3377	no report
MCA Unit 099	10/1/46	3986	Maljamar; Grayburg SA	P&A	no report	8.625	735	65 sx	no report	no report
3002512764					no report	7	3600	160 sx	2500	temp survey
P-19 17S-32 E										

Cuthroat Federal 003	not yet	10500 Plan	WC; Wolfcamp	Oil	17.5	13.375	800	700 sx	GL	not yet
3002542585					12.25	8.625	2250	900 sx	GL	not yet
B-29 17S-32E					7.875	5.5	10500	1775	GL	not yet
Brook Federal 005	6/16/13	9743	WC;Wolfcamp	Oil	17.5	13.375	739	670 sx	GL	Circ 173 sx
3002540357					12.25	8.625	2084	1015 sx	GL	Circ 263 sx
H-30 17S-32E					7.875	5.5	9770	1675 sx	GL	Circ 112 sx
GC Federal 041	11/16/09	7123	Maljamar; Yeso, West	Oil	17.5	13.375	673	550 sx	GL	Circ 289 sx
3002539472					11	8.625	2104	600 sx	GL	Circ 151 sx
M-20 17S-32E					7.875	5.5	7116	1000 sx	GL	Circ 272 sx
GC Federal 027	3/2/09	7103	Maljamar; Yeso, West	Oil	17.5	13.375	668	600 sx	GL	Circ 109 sx
3002539264					11	8.625	2080	700 sx	GL	Circ 227 sx
N-20 17S-32E					7.875	5.5	7103	1100 sx	GL	Circ 123 sx
Cutthroat Federal 005	1/7/14	9800	WC;Wolfcamp	Oil	17.5	13.375	867	725 sx	GL	Circ 361 sx
3002541557					12.25	8.625	2258	1290 sx	GL	Circ 792 sx
G-29 17S-32E					7.875	5.5	9800	1900 sx	GL	Circ 345 sx
GC Federal 026	3/1/10	7035	Maljamar; Yeso, West	Oil	17.5	13.375	641	550 sx	GL	Circ 167 sx
3002539282					11	8.625	2164	600 sx	GL	Circ 96 sx
M-20 17S-32E					7.875	5.5	7030	1100 sx	GL	Circ 228 sx
MCA Unit 111	11/11/39	4020	Maljamar; Grayburg SA	I	no report	8.625	1922	100 sx	GL	circulated
3002500767					no report	7	3541	150 sx	2540	no report
B-29 17S-32E					6.875	4.5	3660	300 sx	1600	no report

MCA Unit 270	2/13/71	4130	Maljamar; Grayburg SA	Oil	12.25	8.625	740	375 sx	GL	circulated
3002523707					7.875	5.5	4130	350 sx	2100	no report
F-29 17S-32E										
GC Federal 019	1/22/10	7022	Maljamar; Yeso, West	Oil	17.5	13.375	656	550 sx	GL	Circ 182 sx
3002539162					11	8.625	2101	600 sx	GL	Circ 183 sx
P-19 17S-32E					7.875	5.5	7008	1000 sx	GL	Circ 100 sx
Cutthroat Federal 007	not yet	10500 Plan	WC; Wolfcamp	Oil	17.5	13.375	850	700 sx	GL	not yet
3002542587					12.25	8.625	2250	900 sx	GL	not yet
G-29 17S-32E					7.875	5.5	10500	1775 sx	GL	not yet
MCA Unit 265	2/3/71	4100	Maljamar; Grayburg SA	Oil	12.25	8.625	700	325 sx	GL	circ 40 sx
3002523686					7.875	5.5	4100	250 sx	2700	temp survey
L-20 17S-32E										
GC Federal 028	3/26/11	7114	Maljamar; Yeso, West	Oil	17.5	13.375	657	550 sx	GL	Circ 141 sx
3002539323					11	8.625	1923	600 sx	GL	Circ 143 sx
O-20 17S-32E					7.875	5.5	7101	1250 sx	GL	Circ 36 sx
GC Federal 032	9/22/09	7136	Maljamar; Yeso, West	Oil	17.5	13.375	675	550 sx	GL	Circ 157 sx
3002539270					11	8.625	2107	700 sx	GL	Circ 260 sx
O-20 17S-32E					7.875	5.5	7123	1000 sx	GL	Circ 39 sx
Maljamar SWD 30 002	11/17/11	10350	SWD; Wolfcamp	SWD	17.5	13.375	740	850 sx	GL	Circ 349 sx
3002540310					12.25	9.625	4012	1400 sx	GL	Circ 155 sx
H-30 17S-32E					8.75	7	10350	2100 sx	GL	Circ 442 sx

GC Federal 052	6/12/11	7017	Maljamar; Yeso, West	Oil	17.5	13.375	725	650 sx	GL	Circ 167 sx
3002540006					11	8.625	2106	600 sx	GL	Circ 126 sx
P-19 17S-32E					7.875	5.5	7013	1100 sx	GL	Circ 231 sx
GC Federal 044	11/10/11	7122	Maljamar; Yeso, West	Oil	17.5	13.375	752	625 sx	GL	Circ 151 sx
3002540237					11	8.625	2188	650 sx	GL	Circ 98 sx
O-20 17S-32E					7.875	5.5	7145	1100 sx	GL	Circ 239 sx
Brook Federal 006	not yet	7000 plan	Maljamar; Yeso, West	Oil	17.5	13.375	765	675 sx	GL	not yet
3002540387					12.25	8.625	2100	775 sx	GL	not yet
H-30 17S-32E					7.875	5.5	10500	1375 sx	GL	not yet
GC Federal 045	3/23/10	7134	Maljamar; Yeso, West	Oil	17.5	13.375	663	650 sx	GL	Circ 256 sx
3002539473					11	8.625	2132	600 sx	GL	Circ 85 sx
O-20 17S-32E					7.875	5.5	7134	1100 sx	GL	Circ 158 sx
MCA Unit 095	5/7/40	4055	Maljamar; Grayburg SA	Oil	no report	8.25	880	50 sx	no report	no report
3002508065					no report	7	3550	150 sx	no report	no report
O-20 17S-32E					no report	5.5	4055	135 sx	no report	no report
MCA Unit 100	6/19/41	3840	Maljamar; Grayburg SA	P&A	no report	8.625	721	50 sx	no report	no report
3002508041					no report	7	3525	150 sx	2500	calculated
P-19 17S-32E					no report	4.5	3575	275 sx	440	CBL
MCA Unit 266	3/8/71	4110	Maljamar; Grayburg SA	Oil	12.25	8.625	700	325 sx	GL	circulated
3002523687					7.875	5.5	4110	250 sx	2100	no report
K-20 17S-32E										

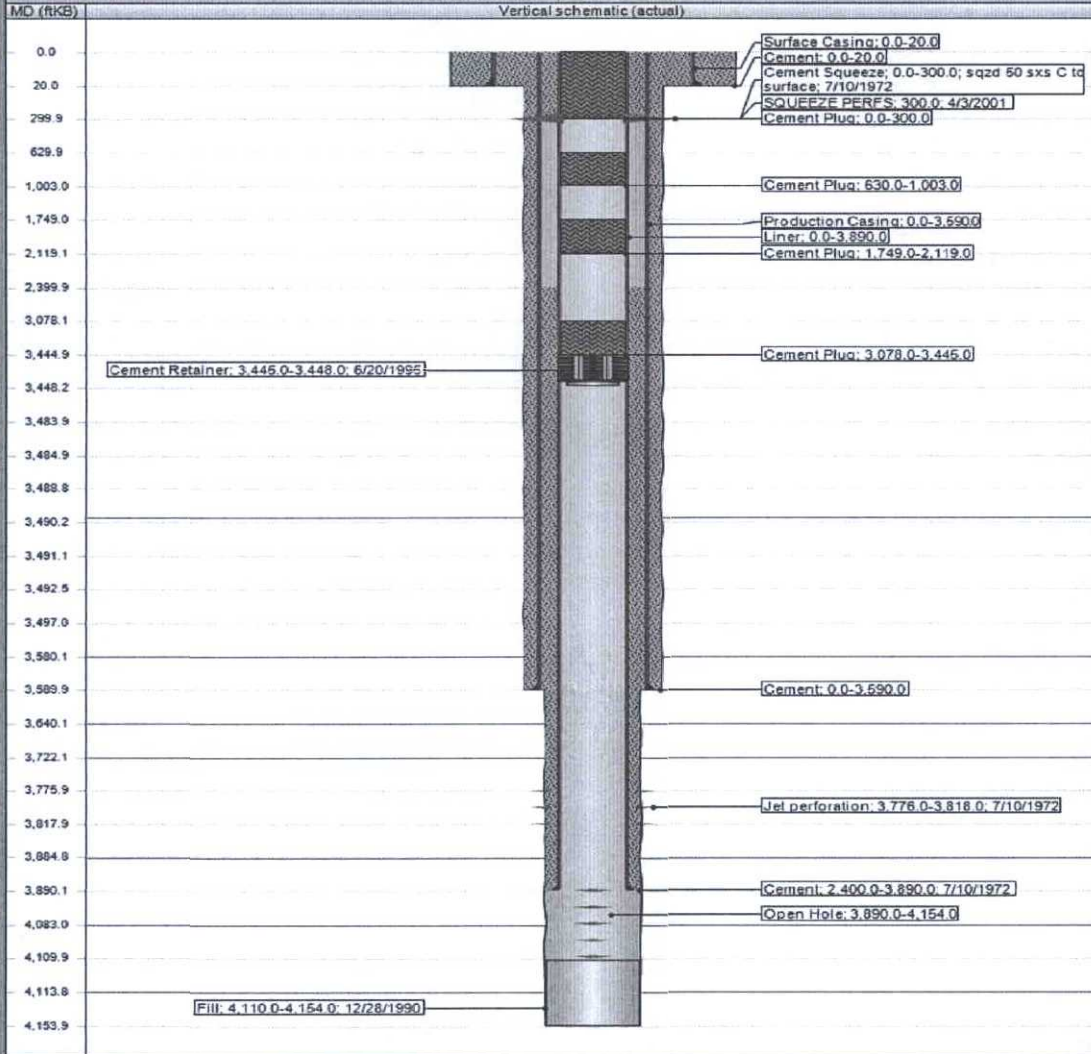
MCA Unit Battery 2 155	1940	4015	Maljamar; Grayburg SA	P&A	no report	8.625	880	50 sx	640	estimated
3002500768					no report	7	3539	150 sx	2000	estimated
G-29 17S-32E										
MCA Unit 159	1940	4015	Maljamar; Grayburg SA	P&A	no report	8.625	880	50 sx	no report	no report
3002500784					no report	7	3417	100 sx	2000	estimated
H-30 17S-32E										
MCA Unit 264	1/22/71	4060	Maljamar; Grayburg SA	Oil	12.25	8.625	680	350 sx	GL	circulated
3002523673					7.875	5.5	4060	250 sx	2400	no report
I-19 17S-32E										
Cutthroat Federal 006	not yet	10500 plan	WC; Wolfcamp	Oil	17.5	13.375	850	700 sx	GL	not yet
3002542586					12.25	8.625	2250	900 sx	GL	not yet
G-29 17S-32E					7.875	5.5	10500	1775 sx	GL	not yet
MCA Unit 156	1/7/49	4136	Maljamar; Grayburg SA	P&A	15	10.75	58	50 sx	GL	circulated
3002512756					no report	8.625	939	50 sx	GL	circulated
F-29 17S-32E					8.75	7	3698	300 sx	2000	estimated
					6.125	5.5	4136	240 sx	3369	TOL
MCA Unit 365Y	12/30/84	4440	Maljamar; Grayburg SA	Oil	20	16	810	625 sx	GL	Circ 75 sx
3002529102					14.75	10.75	2150	1328 sx	GL	Circ 25 sx
B-29 17S-32E					9.75	8.625	4020	525 sx	GL	Circ 6.5 bbls
Brook Federal 004	4/13/12	10134	WC; Wolfcamp	Oil	17.5	13.375	740	930 sx	GL	Circ 122 sx
3002540339					12.25	8.625	2128	930 sx	GL	Circ 226 sx
A-30 17S-32E					7.875	5.5	10132	1825 sx	GL	Circ 27 sx



MCA Unit 168	9/5/50	4059	Maljamar; Grayburg SA	Oil	no report	10.75	31	25 sx	no report	no report
3002512798					no report	8.625	973	50 sx	no report	no report
I-30 17S-32E					no report	7	3676	300 sx	no report	no report
					no report	5.5	no report	135 sx	3350	TOL
Brook Federal 002	5/17/12	7097	Maljamar; Yeso, West	Oil	12.25	8.625	757	400 sx	GL	Circ 450 sx
3002540337					7.875	5.5	7102	1320 sx	GL	Circ 176 sx
A-30 17S-32E										
MCA Unit 308	4/13/72	4100	Maljamar; Grayburg SA	Oil	12.25	8.625	784	400 sx	GL	circulated
3002524076					7.875	5.5	4100	300 sx	2540	Temp survey
G-29 17S-32E										
MCA Unit 276	3/24/71	4030	Maljamar; Grayburg SA	Oil	12.25	8.625	700	375 sx	GL	circulated
3002523732					7.875	5.5	4030	300 sx	2300	no report
P-19 17S-32E										

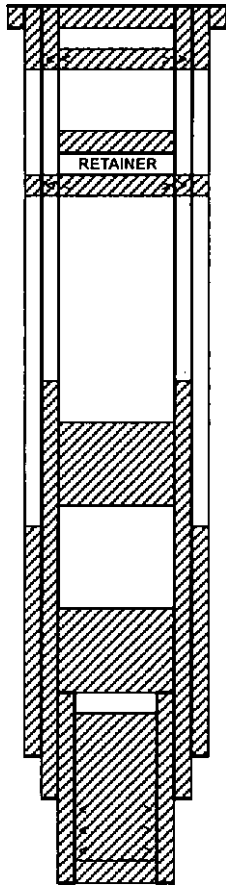
District PERMIAN CONVENTIONAL	Field Name	API / UWI 300250061600	County LEA	State/Province NEW MEXICO
Original Spud Date 10/28/1940	Surface Legal Location Sec. 21, T-17S, R-32E		E/W Dist (ft) 660.00 E	N/S Dist (ft) 660.00 S

VERTICAL - Main Hole, 7/1/2015 2:12:05 PM



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MCA 87 (AP: 30-025-00626)  
680 FSL & 1980 FWL, Sec. 22, T17S, R32E  
Elev: 4002 DF



04.1940: 12-3/4" @ 53. Cmt w/ 25 sx

04.2001: P&A:

Squeeze perforation interval w/ total 70 sx below PKR. Displace cmt to 3420.  
Spot 25 sx cmt plug: 2904-3267  
Spot 25 sx cmt plug: 2020 (tagged)-2381  
Perforate 4-1/2" csg (and 7" csg) @ 800.  
Squeeze 30 sx cmt below Cement Retainer (CR) @ 793.  
Spot 10 sx cmt plug: 648-793 (CR)  
Perforate 4-1/2" csg (and 7" csg) @ 300.  
Squeeze 125 sx cmt below PKR. Cmt column: 170 (tagged)-300  
Spot 5 sx cmt plug: surface-60

06.1940: 7", 20# @ 3606. Cmt w/ 250 sx. TOC: 2500

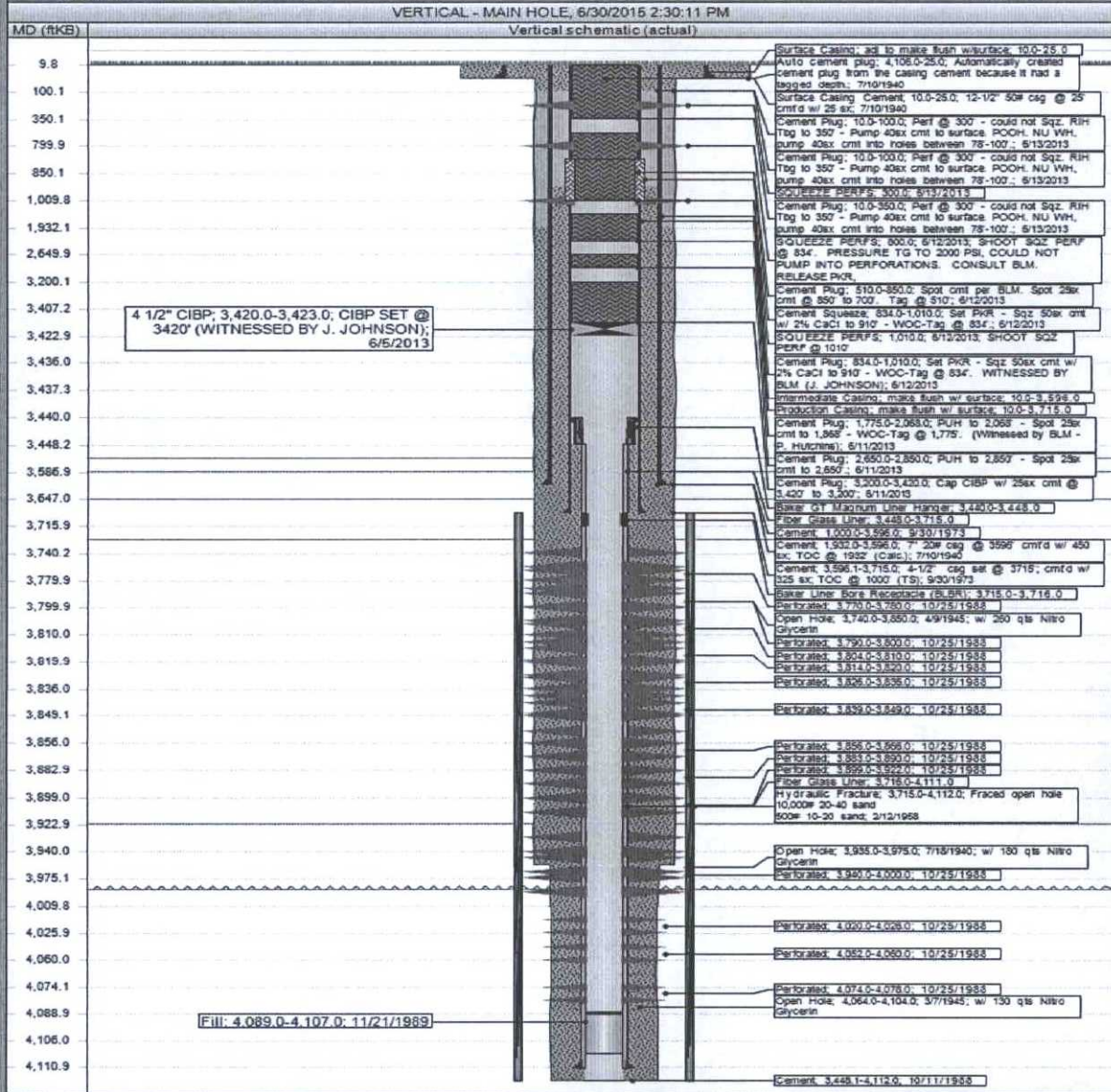
08.1972: 4-1/2", 9.5# @ 3777. Cmt w/ 275 sx. TOC: 1800

Perforated Interval: 3830-4110 (gross)

10.1988: 3" FG liner: 3275-4148. Cmt w/ 140 sx. Squeezed shoe w/ 100 sx. Dri out to PBD @ 4143.  
TD: 4154. PBD: 4143

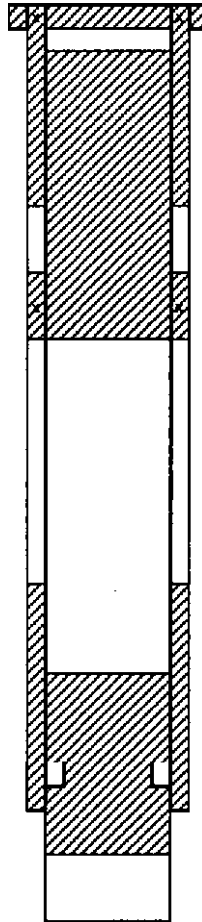
EXHIBIT H

District PERMIAN CONVENTIONAL	Field Name MALJAMAR	API / UWI 300250062700	County LEA	State/Province NEW MEXICO
Original Spud Date 5/22/1940	Surface Legal Location Sec. 22, T-17S, R-32E	E/W Dist (ft) 1,960.00	E/W Ref E	N/S Dist (ft) 1,960.00
		N/S Ref S		



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MCA 85 (API: 30-025-00640)  
660 FSL & 1980 FEL, Sec. 22, T17S, R32E  
Elev.: 3988 GL



02.1940: 12-1/2", 32# @ 20'. Cmt w/ 20 sx

P&A:

08.1989: Tag OH fill @ 3924  
Spot 200 sx cmt & displace w/ 17.5 bbl. Tag cmt @ 3002.  
Spot 236 sx cmt plug: 142-1512.  
Pump 89 sx down 7" csg. Close 7" csg valve & squeeze (est 78 sx behind 7" csg) to 800#.

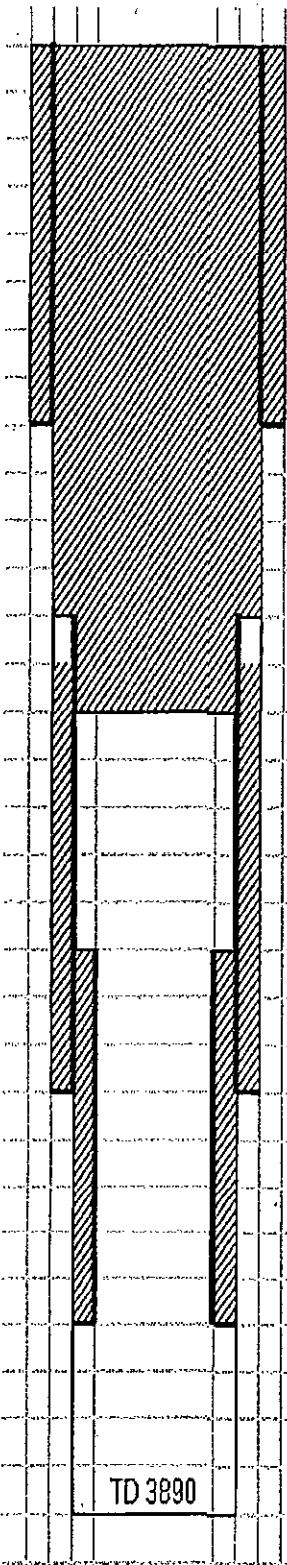
7" Casing Condition:

7" csg leak interval: 30-90 (Mill-out 3-1/2" ft. section @ 65 ft.: 08.18.89)  
7" csg leak interval: 1326-1390 (05.1971)

05.1971: 4-1/2", 9.5# liner: surface-3526 (csg PKR)  
08.1989: Jet-cut 4-1/2" @ 3480. POOH w/ 4-1/2" csg (reported 22 ft. of 4-1/2" csg & 4-1/2" x 7" csg PKR left in hole)  
03.1940: 7", 20# @ 3535. Cmt w/ 400 sx. TOC: 2600 (temperature survey)

Completion Interval: 3535-4093

TD:4093



Miller-3 (API: 30-025-00643)  
660 FSL & 660 FVL, Section 23, 17S-32E  
Elev.: 3974 GL

10-11.1979: Spot 240 sx cmt plug: surface-797

8-1/4" @ 880

10-11.1979: Spot 240 sx cmt plug: surface-797

Spot 150 sx cmt plug from 1140

Spot 150 sx cmt plug from 1320

Spot 150 sx cmt plug: 1320-1497

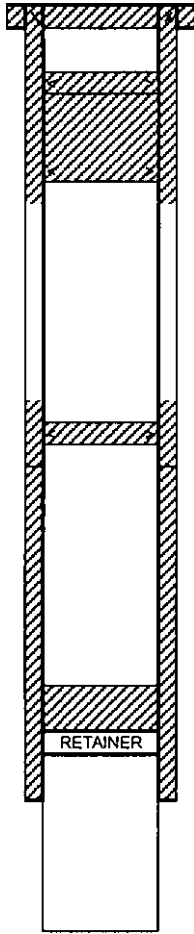
6-5/8" @ 2550. Cmt w/ 250 sx. Cut & Recovered @ 1320

4" Liner: 2406-3650. Cmt w/ 150 sx.

TD 3890

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MCA 82 (API: 30-025-00644)  
660 FSL & 1980 FWL, Sec. 23, T17S, R32E  
Elev.: 3988 KB; 3981 GL



01.1940: 12-1/2", 32# @ 21. Cmt w/ 25 sx  
07.1989: Squeeze 5-1/2" csg leak interval: 62-120 w/ 150 sx  
02.1985: Squeeze 5-1/2" csg leak interval: 88-102 w/ 400 sx

09 2004: P&A:  
Tag CICR @ 3350. Spot 25 sx cmt plug: 3109-3350 (CR)  
Perforate 5-1/2" csg @ 2015.  
Squeeze 35 sx below PKR. Cmt column. 1909 (tagged)-2015 w/24 sx behind csg  
Perforate 5-1/2" csg @ 775. Unable to pump in @ 1500#  
Perforate 5-1/2" csg @ 400. Unable to pump in @ 1500#  
Spot 60 sx cmt plug: 266 (tagged)-838  
Perforate 5-1/2" csg @ 50.  
Pump 25 sx down 5-1/2" x 12-1/2" annulus. Circ cmt to surface up 5-1/2" csg. Cmt column. surface-50

12.1994: Set Cement Retainer @ 3350  
02.1940: 5-1/2", 14# @ 3585. Cmt w/ 200 sx. TOC: 2061  
Completion Interval: 3585-4160

TD:4160

EXHIBIT H




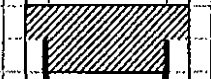

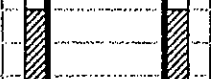
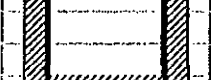

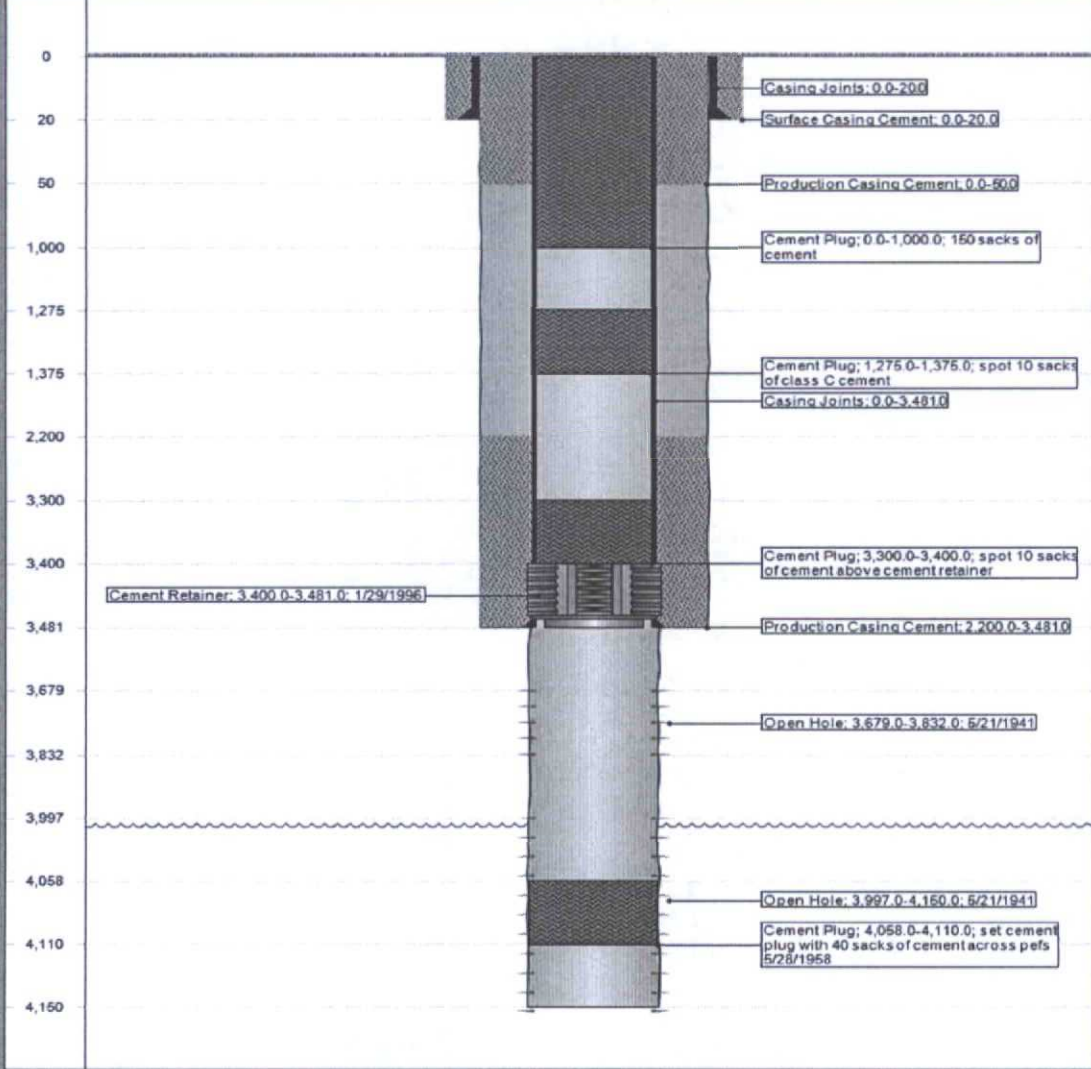
	Miller Federal A-7 (30-025-00645) 710 FSL & 660 FWL, Section 23, 17S-32E Elev.: 3990 GL
	05.1957: Spot 10 sx cmt plug: surface-27
	05.1957: Spot 30 sx cmt plug: 776-866
	8-5/8" @ 1159. Cmt w/ 150 sx.
	05.1957: Spot 15 sx cmt plug: 1123-1175
	05.1957: Cut & pull 5-1/2" csg @ 1480. Spot 10 sx cmt plug: 1440-1494
	05.1957: Spot cmt plug: 2508-2600
	
	
	5-1/2" @ 3590. Cmt w/ 150 sx.
TD 4035	

EXHIBIT H



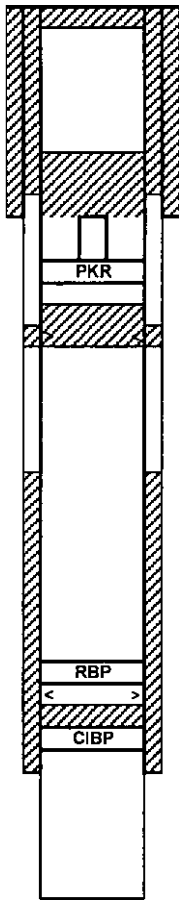
District PERMIAN CONVENTIONAL	Field Name	API / UWI 300250064600	County LEA	State/Province NEW MEXICO
Original Spud Date 4/17/1941	Surface Legal Location Sec. 23, T.-17S, R-32E	E/W Dist (R) 1,980.00	E/W Ref E	N/S Dist (R) 1,980.00
N/S Ref N				

VERTICAL - Original Hole, 7/8/2015 2:39:36 PM  
Vertical schematic (actual)



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MCA 124 (API: 30-025-00706), aka Sears A 2  
660 FNL & 1980 FWL, Sec. 26, T17S, R32E  
Elev.: 3990



08.1996: P&A  
Tag top of cut-off tbg @ 995. Test csg @ 500#. Circ well w/ plugging mud  
Spot 25 sx cmt plug: 750-995  
Spot 10 sx cmt plug: surface-100.  
Squeeze hole in 5-3/4" csg @ 900 w/ 150 sx cmt. Cmt 5-3/4"x 8-1/4" annulus to surface.

04.1940: 8-1/4" @ 1020. Cmt w/ 150 sx  
PKR @ 1247 (stuck PKR). Cut tbg @ 995.  
Squeeze hole in csg @ 1590 w/ 50 sx cmt  
PKR @ 1247 (stuck PKR). Cut tbg @ 995.

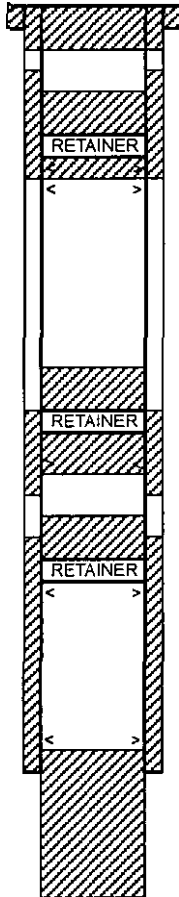
RBP @ 3158  
07.1995: Perforation Interval: 3276-3296  
07.1995: CIBP @ 3390. Cap w/ 35 ft cmt  
05.1940: 5-3/4", 19.7# @ 3553. Cmt w/ 200 sx. TOC: 2200 est.  
Completion Interval: 3553-4165 OH

06.1940: TD @ 4165

EXHIBIT H

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MCA 144 (API: 30-025-00711)  
1880 FNL & 660 FWL, Sec. 26, T17S, R32E  
Elev.: 3964 DF



02.1940: 12-1/2", 32# @ 20. Cmt w/ 25 sx.

08.1987: P&A  
Set Cement Retainer @ 2716. Pump 175 sx below CR. Spot 25 sx cmt above CR  
Tag cmt @ 171 (CR failed). Drl out cmt to 2395. Locate 5-1/2" csg interval: 2155-2190  
Set Cement Retainer @ 2032. Squeeze 5-1/2" csg leak interval: 2155-2190 w/ 75 sx below CR (58 sx behind csg).  
Spot 25 sx cmt above CR. Cmt column: 1790-2032 (CR)  
Perforate 5-1/2" csg 850-854. Unable to pump-in.  
Perforate 5-1/2" csg 700-704.  
Set Cement Retainer @ 628. Squeeze 75 sx below CR (67 sx behind csg).  
Spot 25 sx cmt above CR. Cmt column: 387-628 (CR)  
Pump 45 sx cmt down 5-1/2" x 12-1/2".  
Spot 26 sx cmt: surface-240.

10.1972: Spot 150 sx cmt. Tag cmt @ 3960  
Spot 250 sx cmt plug: 3278 (tagged)-3948. Drl out cmt to 3496.  
Perforate 5-1/2" csg 2810-2815 & 3475-3490.

07.1971: Squeeze 5-1/2" csg leak interval: 3471-3529 w/ 200 sx. Rev out 100 sx. Re-squeeze w/ 50 sx.

03.1940: 5-1/2", 14#, J-55 @ 3536. Cmt w/ 200 sx. TOC: 2500

Completion Interval: 3536-4139 OH

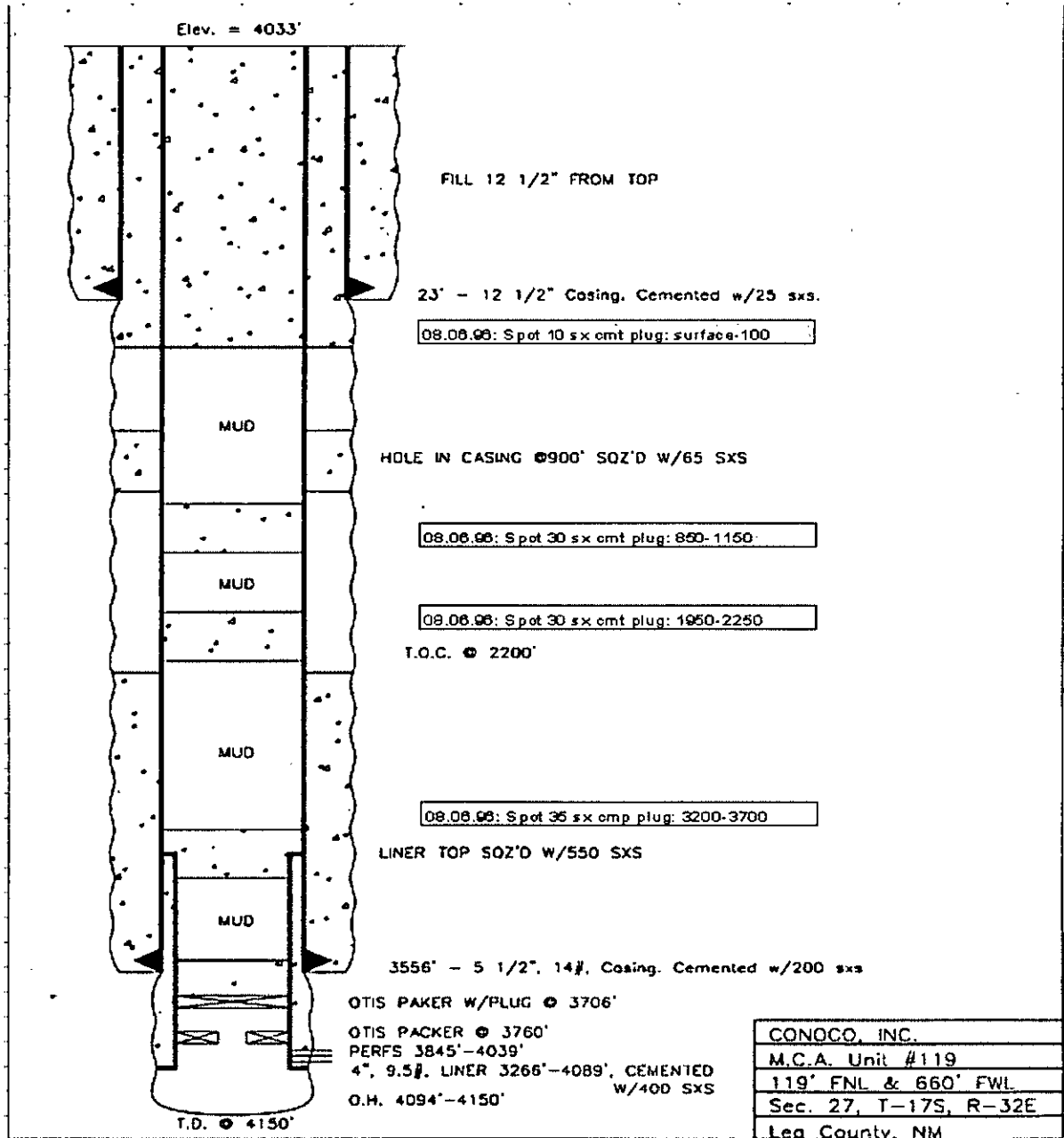
04.1940: TD: 4023  
06.1940: TD: 4112  
08.1947: TD: 4139

EXHIBIT H



	MCA 148 (API: 32-025-00722) 1980 FNL & 660 FWL, Section 27, 17S-32E
	07.13.89: Unable to obtain pump-in rate @ 500# down 5-1/2" x 12-1/2" annulus 07.13.89: Spot 15 sx cmt plug: surface-150
MUD	12-1/2" @ 20. Cmt w/ 25 sx.
	12.21.85: Sq 5-1/2" csg leak interval: 30-90 w/ 150 sx. 08.1985: Sq 5-1/2" csg leak interval: 80-411 w/ 718 sx.
	07.13.89: Spot 25 sx cmt plug: 900-1150
MUD	
	07.12.89: Spot 7 bbl cmt (30 sx) above retainer (3495): 3314 (tagged)-3495 07.12.89: Cmt retainer @ 3495. Pump 6.5 bbl cmt ( 28 sx) below retainer
RETAINER	5-1/2" @ 3543. Cmt w/ 250 sx.
	TD @ 4140

EXHIBIT H



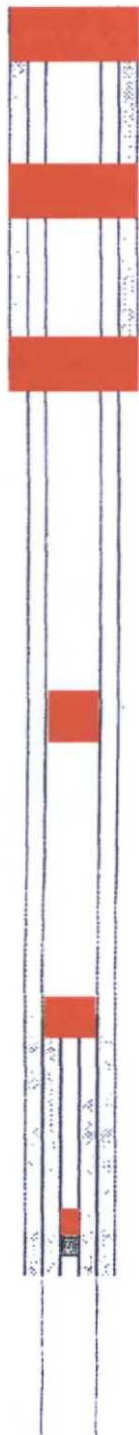
30-025-00726

EXHIBIT H

WELLBORE SKETCH  
 ConocoPhillips Company - Lower 48 - Mid-Continent BU / Permian Operations

Date: August 23, 2013

RKB @ 3563'  
 DF @ 3967'  
 GL @ 3965'



20" Hole perf @ 300'  
 circ 90 sx  
 to GL

perf @ 800'  
 squeeze 40 sx  
 to 660'

8-5/8" 28# @ 1122'  
 Cmt'd w/ 100 sx  
 TOC @ Surface  
 Top Salt @ 1122' perf @ 1172'  
 squeeze 50 sx  
 to 1043'

Base Salt @ 2145'  
 perf @ 2195'  
 no squeeze  
 spot 40 sx  
 2014'-2250'

TOC 7" Csg @ 2683' (Calc.)

TOL @ 3000' spot 30 sx  
 2885'-3050'

5" 14.97# K-55 Liner @ 3728' - 3000'  
 Cmt'd w/ 60 sx  
 TOC @ 3000'

5" CIBP @ 3705'  
 cap BP  
 w/ 25 sx  
 3505'-3705'

7" 20# @ 3733'  
 Cmt'd w/ 250 sx  
 TOC @ 2683' (Calc.)

6-1/4" Hole  
 OPENHOLE 3733'-4205'

PBTD @ 4205'  
 TD @ 4205'

Subarea: Hobbs  
 Lease & Well No.: MCA Unit No. 183  
 Legal Description: 1295' FSL & 2615' FEL, Sec. 27, T17S, R32E, Unit Letter "O"  
 County: Lea State: New Mexico  
 Field: Maljamar (Grayburg-San Andres)  
 Date Spudded: 12-11-47 Rig Released: 2/19/48  
 API Number: 30-025-00730  
 Status: Lease Serial No. Agreement No.

Stimulation History:

Interval	Date	Type	Gals	Lbs. Sand	Max Press	ISIP	Max Rate	Max Down
OH 3590-4075	2/20/48	Nitro	270	Quarts				
OH 3733-4075	8/23/57	Gelled Lse Oil	10,000	15,000	3900		20.5	
	5/1/63	Untitized as MCA Unit 183; previously Queen B No. 32						
	3/14/73	Deepen from 4075' to 4205' using 6-1/4" bit						
OH 3733-4205	3/14/73	15% Acid	2,000					
		28% Acid	3,000					
	4/14/83	Tbg stuck. Jarred free. Csg collapsed @ 3465'						
	9/15/83	Drop 200 sx oyster shells from TD to 3755'; spot 100# Cal-Seal on top of shells.						
	9/16/83	Run 5" 14.97# K-55 csg liner from 3728'-3000'; cement with 60 sx.						
		Drill out cmt, Cal-seal and shells to 4205'						
3596-4075	9/16/83	15% HCL NEFE	6,300	400# RS				
	4/12/85	Tubing leak: TFF @ 4201', SN @ 4025'						
	10/5/89	Clean out to 4205'						
OH 3733-4205	10/5/89	Frac	23,268	42,625#	7800	1400	15.0	
	12/27/89	Tag fill @ 4141'						
	4/22/89	Collapsed csg @ 4023'; leave SOLMA in collapsed area. 7" csg was collapsed around 3-1/2" SOLMA						
	9/19/05	Chemical cut tbg @ 3990'; drill and clean out to 4202'						
	2/1/13	POOH w/ rods and tubing						
	2/8/13	Set 5" CIBP @ 3705'						

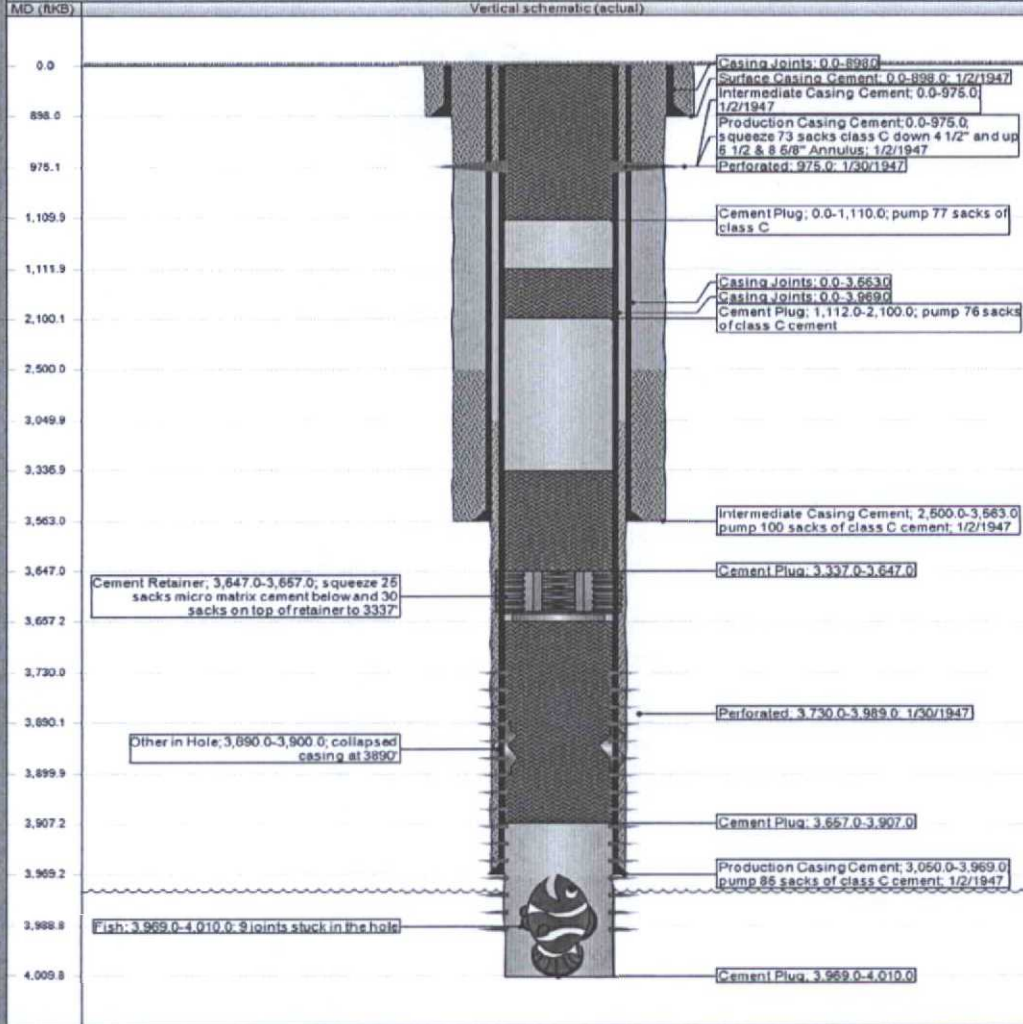
Formation Tops:

7 Rivers  
 Queen  
 Grayburg  
 San Andres 3551

EXHIBIT H

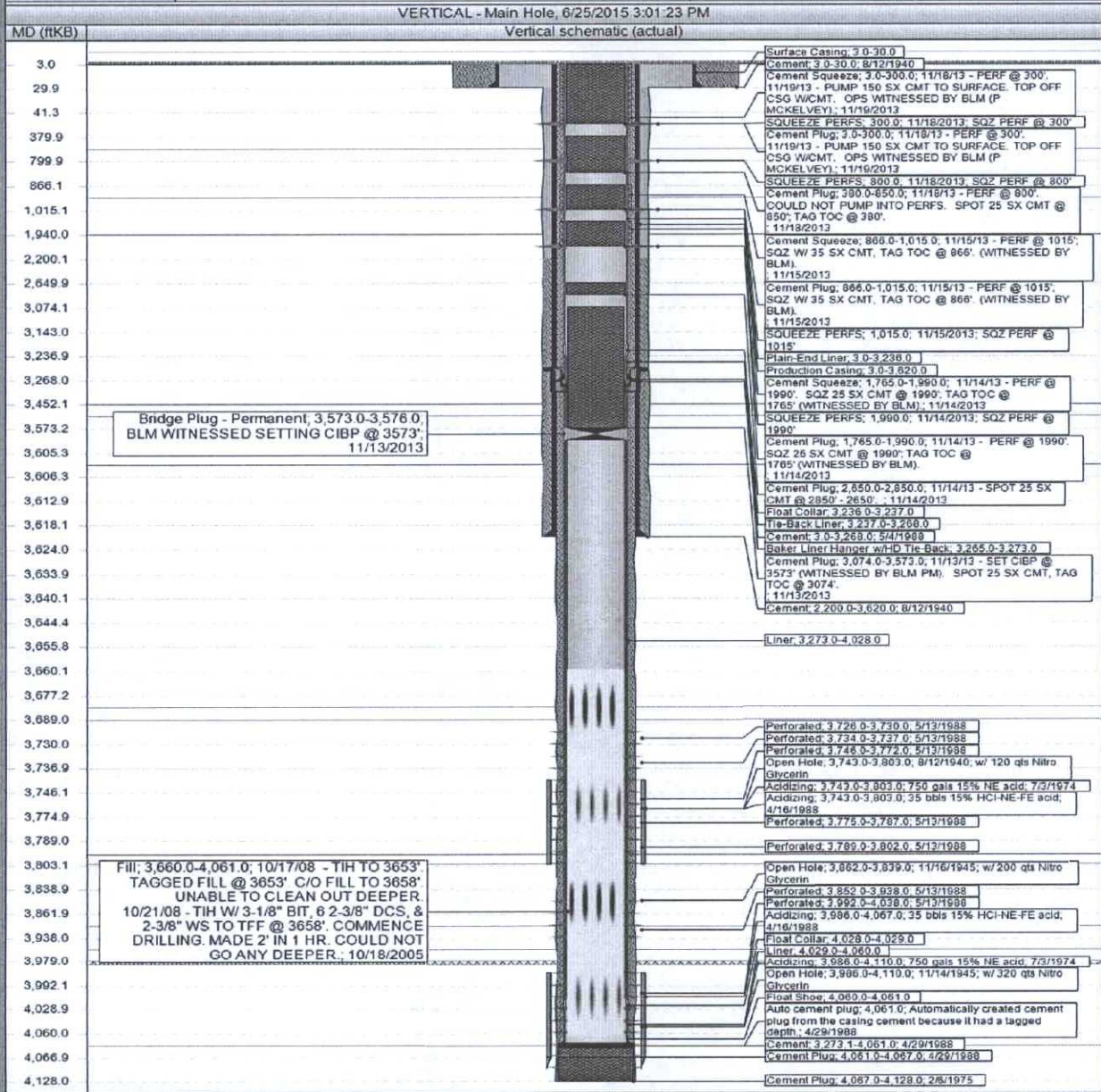
District PERMIAN CONVENTIONAL	Field Name MALJAMAR	API / UWI 300250073500	County LEA	State/Province NEW MEXICO
Original Spud Date 6/24/1940	Surface Legal Location Sec. 28, T-17S, R-32E	E/W Dist (ft) 660.00 W	E/W Ref W	N/S Dist (ft) 1,980.00 N

VERTICAL - Original Hole, 7/14/2015 1:29:32 PM



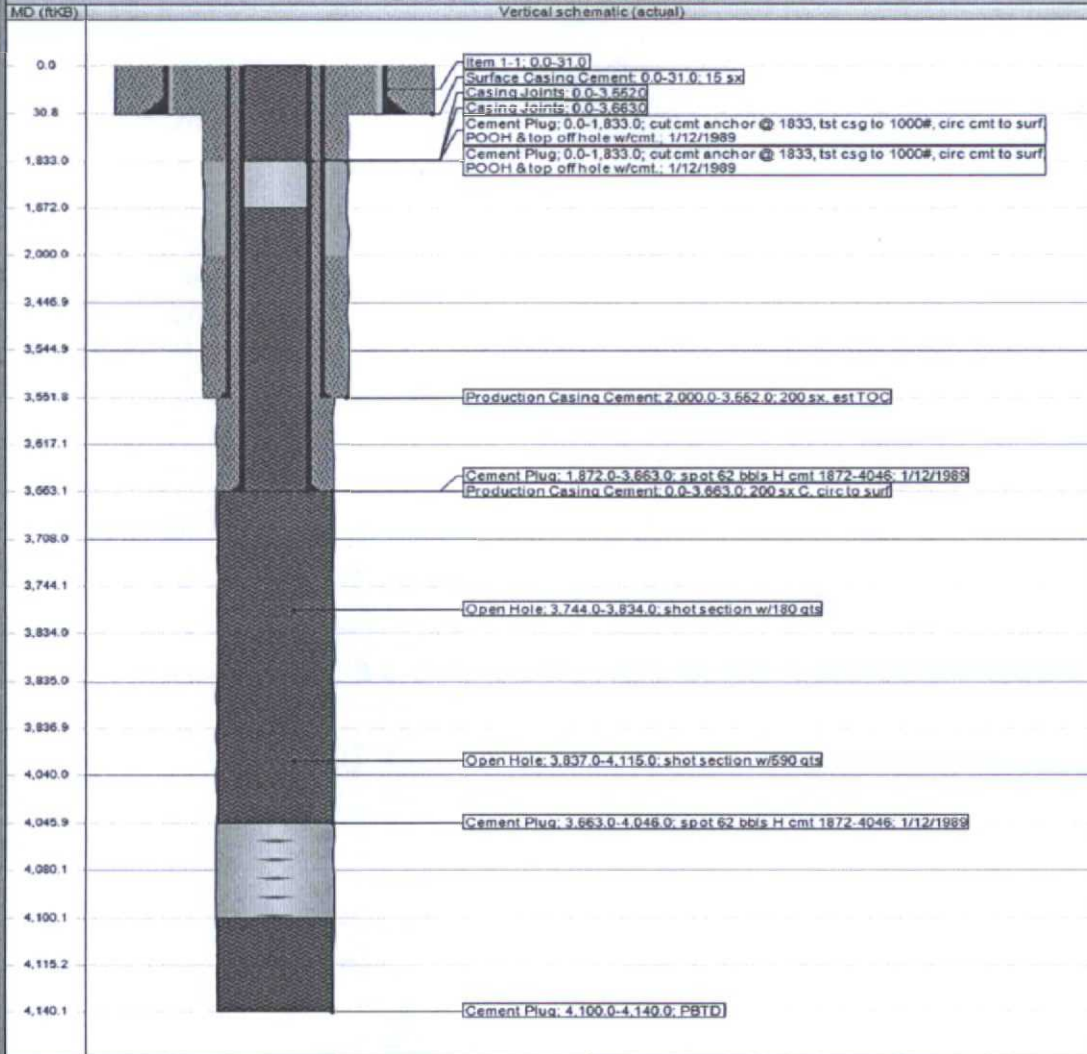


District PERMAN CONVENTIONAL	Field Name MALJAMAR	API / UWI 300250073600	County LEA	State/Province NEW MEXICO
Original Spud Date 6/17/1940	Surface Legal Location Sec. 28, T-17S, R-32E	E/W Dist (ft) 1,980.00	E/W Ref W	N/S Dist (ft) 1,980.00



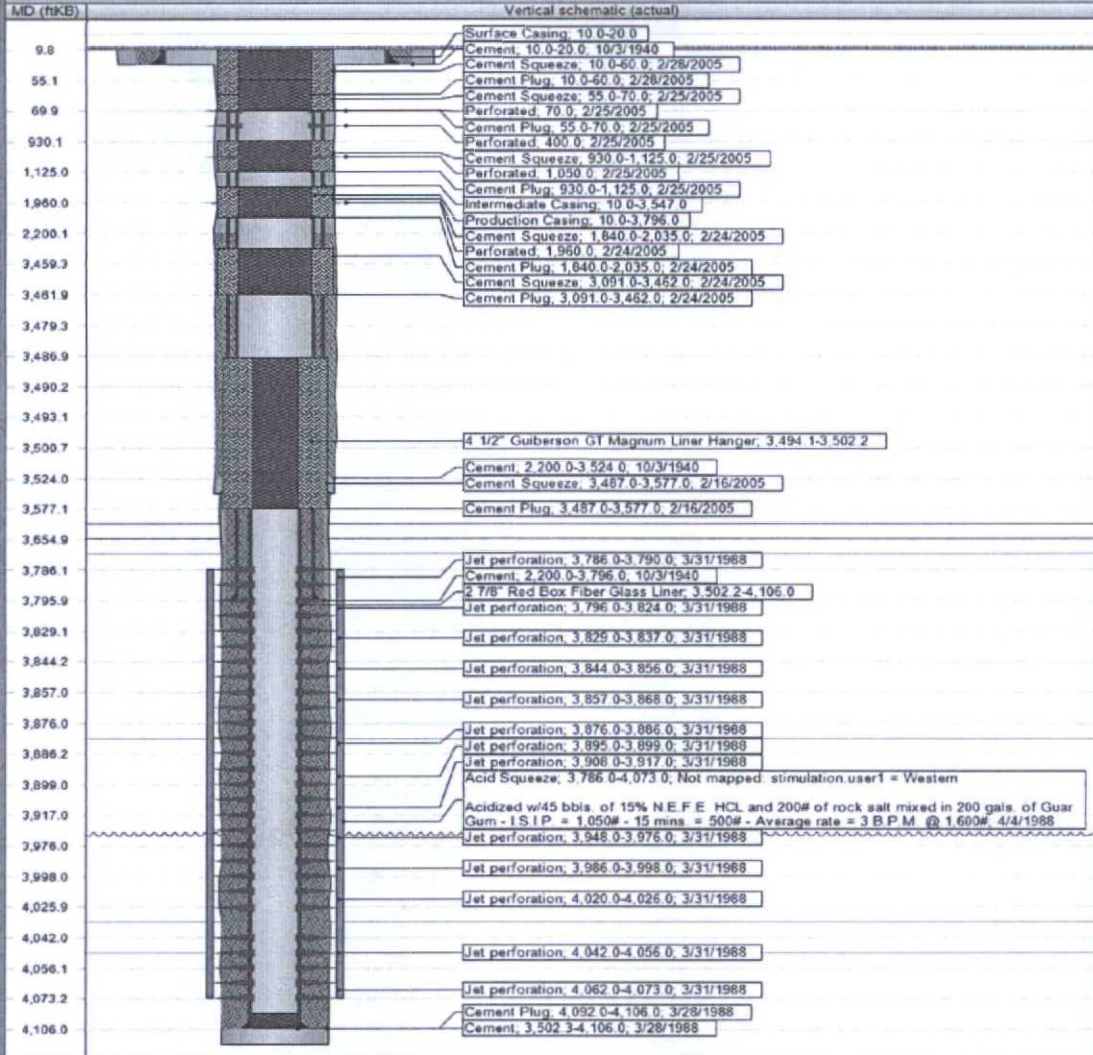
District PERMIAN CONVENTIONAL	Field Name	API 7 UWI 300250073700	County LEA	State/Province NEW MEXICO
Original Spud Date 6/21/1940	Surface Legal Location Sec 28, T-17S, R-32E	E/W Dist (ft) 1,990.00	E/W Ref E	N/S Dist (ft) 660.00

VERTICAL - MAIN HOLE, 7/16/2015 11:31:39 AM



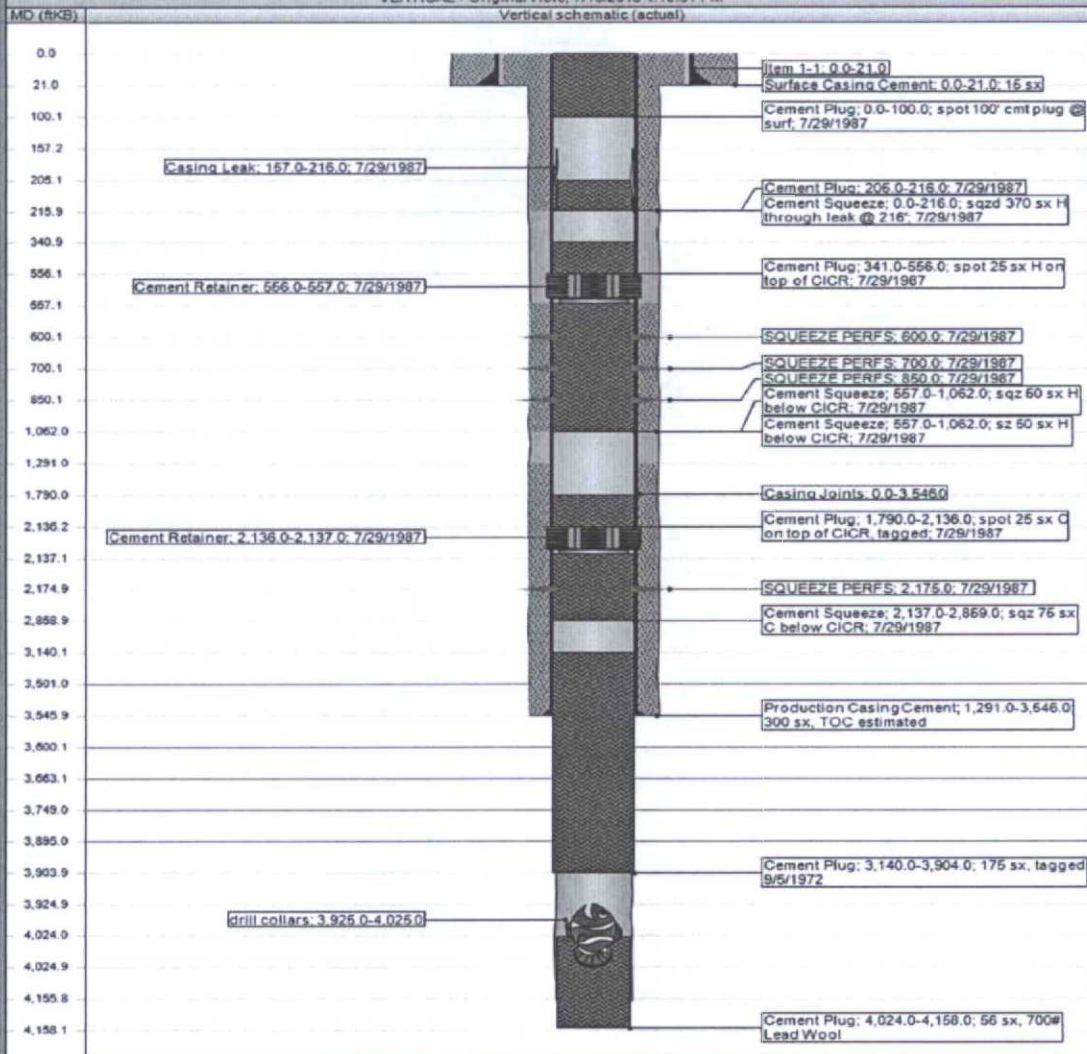
District PERMIAN CONVENTIONAL	Field Name MALJAMAR	API / UWI 300250074100	County LEA	State/Province NEW MEXICO
Original Spud Date 8/28/1940	Surface Legal Location Sec. 28, T-17S, R-32E		E/W Dist (ft) 660.00 W	N/S Dist (ft) 1,980.00 S

VERTICAL - Main Hole, 6/25/2015 3:10:38 PM



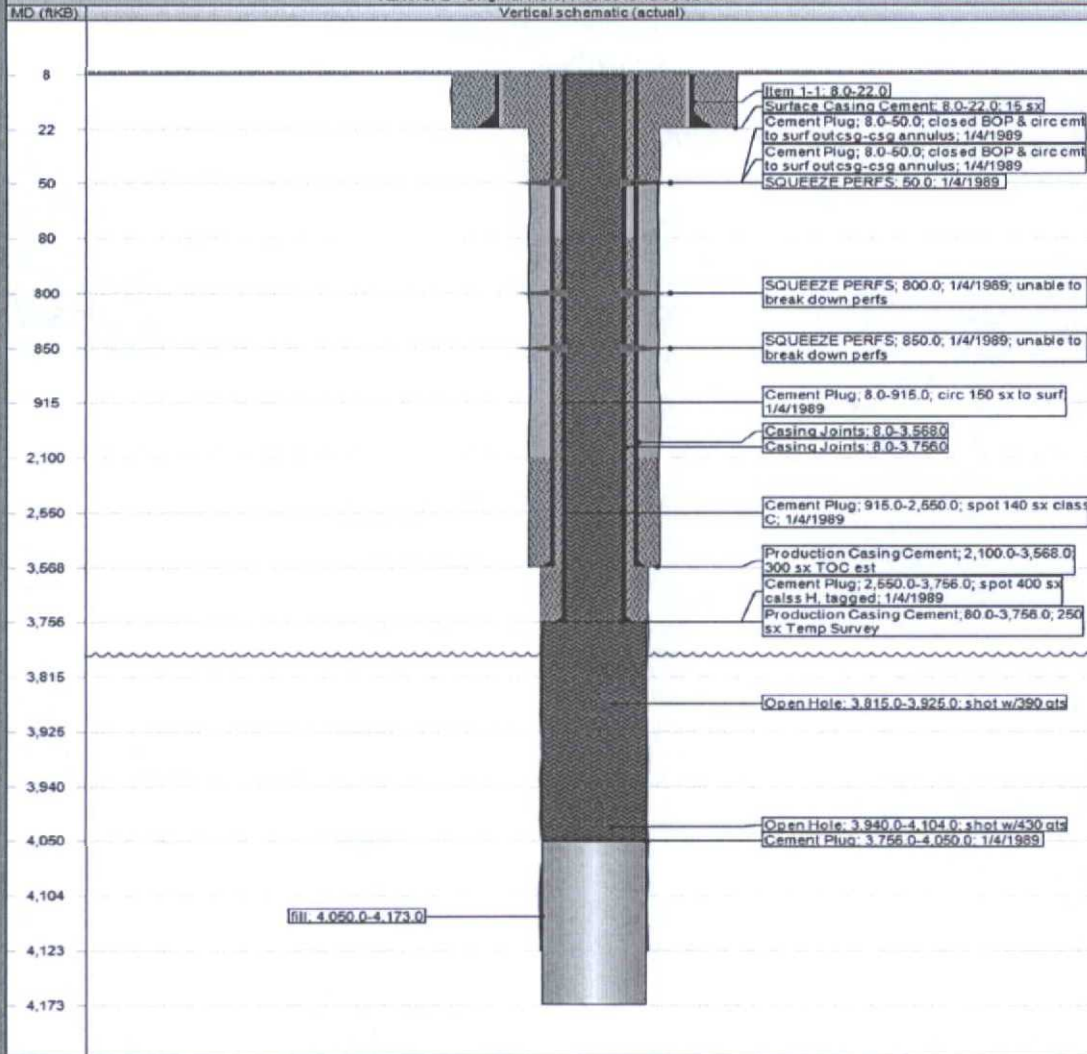
District PERMIAN CONVENTIONAL	Field Name MALJAMAR	API # UWI 300250074300	County LEA	State/Province NEW MEXICO
Original Spud Date 10/18/1940	Surface Legal Location Sec. 28, T-17S, R-32E		E/W Dist (ft) 1,980.00 E	N/S Dist (ft) 1,980.00 S

VERTICAL - Original Hole, 7/15/2015 4:18:51 PM



District PERMIAN CONVENTIONAL	Field Name	API / UWI 300250074400	County LEA	State/Province NEW MEXICO
Original Spud Date 9/8/1940	Surface Legal Location Sec. 28, T-17S, R-32E	E/W Dist (ft) 660.00	E/W Ref E	N/S Dist (ft) 1,980.00

VERTICAL - Original Hole, 7/15/2015 12:38:32 PM

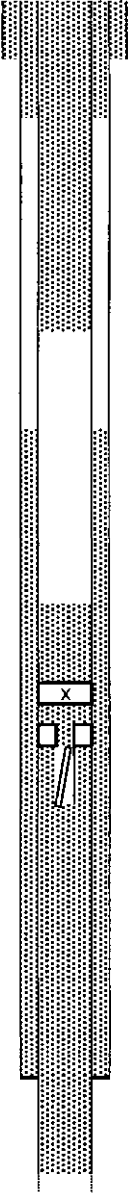


WELLBORE SKETCH  
 ConocoPhillips Company – Permian Basin Business Unit

Date: April 30, 1980

DF @ 3943'  
 GL @ \_\_\_\_\_

Subarea : Maljamar  
 Lease & Well No. : MCA Unit No. 208  
 Legal Description : 660' FSL & 1980' FEL', Sec. 28, T-17-S, R-32-E  
 County : Lea State : New Mexico  
 Field : Maljamar (GB-SA)  
 Date Spudded : \_\_\_\_\_ IPP: \_\_\_\_\_  
 API Number : 30-025-00747  
 Status : P&A'd 4/1980  
 Drilled as Queen B-29



N/A Hole

8" OD @ 21'  
 32#  
 Cemented w/15 sx

28'-30' Csg Leak  
 Sqz w/30 sx (4/80)

Salt Zone approx. 1050' - 2300'  
 Spot CMT plug 1250' - Surface W/140 sx 4/80

TOC @ 1310' est. 5-1/2" csg

CICR @ 2115', sqz'd 300 sx below 10/75 & spot 30 sx on top 4/80

Collapsed Csg @ 2200'  
 Fish – top @ 2200', 2 strings of tools

N/A Hole  
 5-1/2" OD @ 3595'  
 14#  
 Cement w/300 sx  
 TOC @ 1310' est.

4-7/8" Hole  
 OH 3595' - 4000'

TD: 4000'

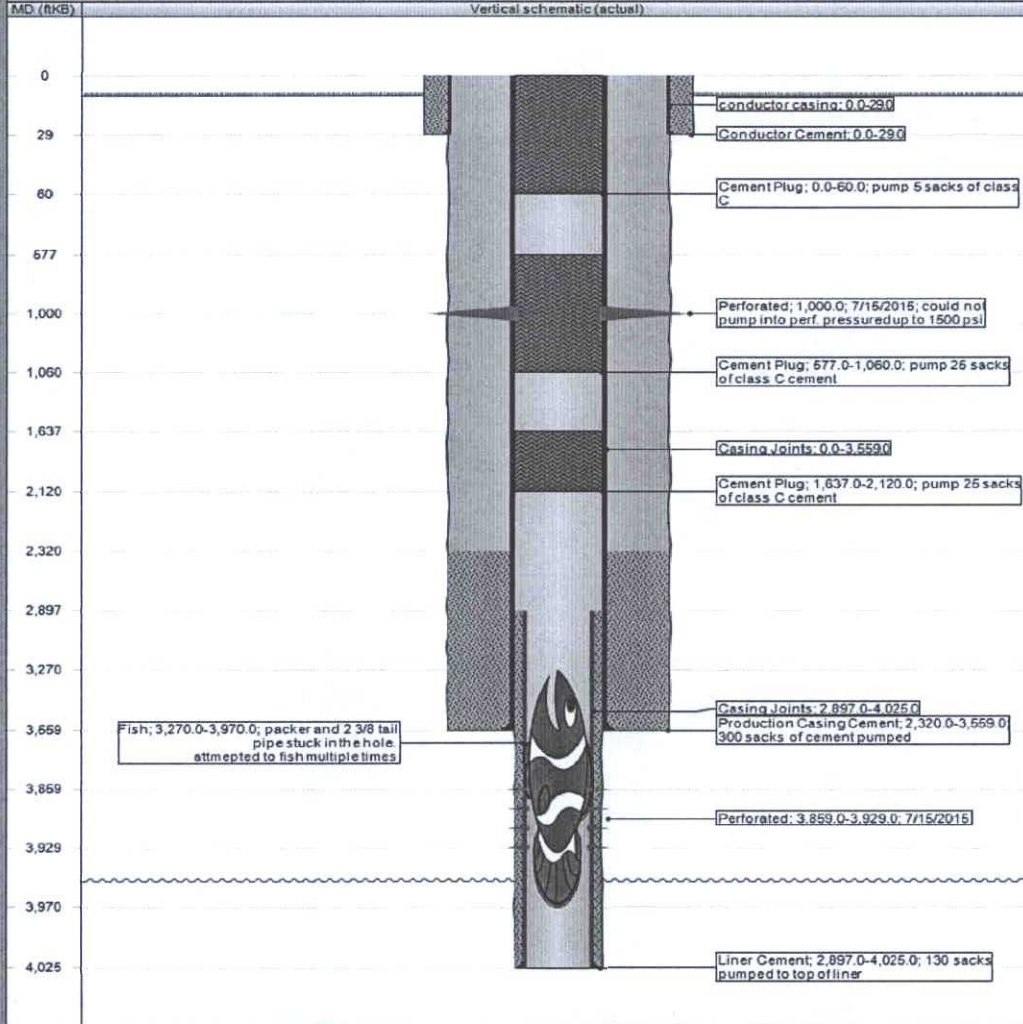
**Stimulation History:**

Interval	Date	Type	Gals	Lbs. Sand	Max Press	ISIP	Max Rate	Down
3841-4000	Jan-41	DRILLED WITH CABLE TOOLS Nitroglycerin	400	Quarts				

EXHIBIT H]

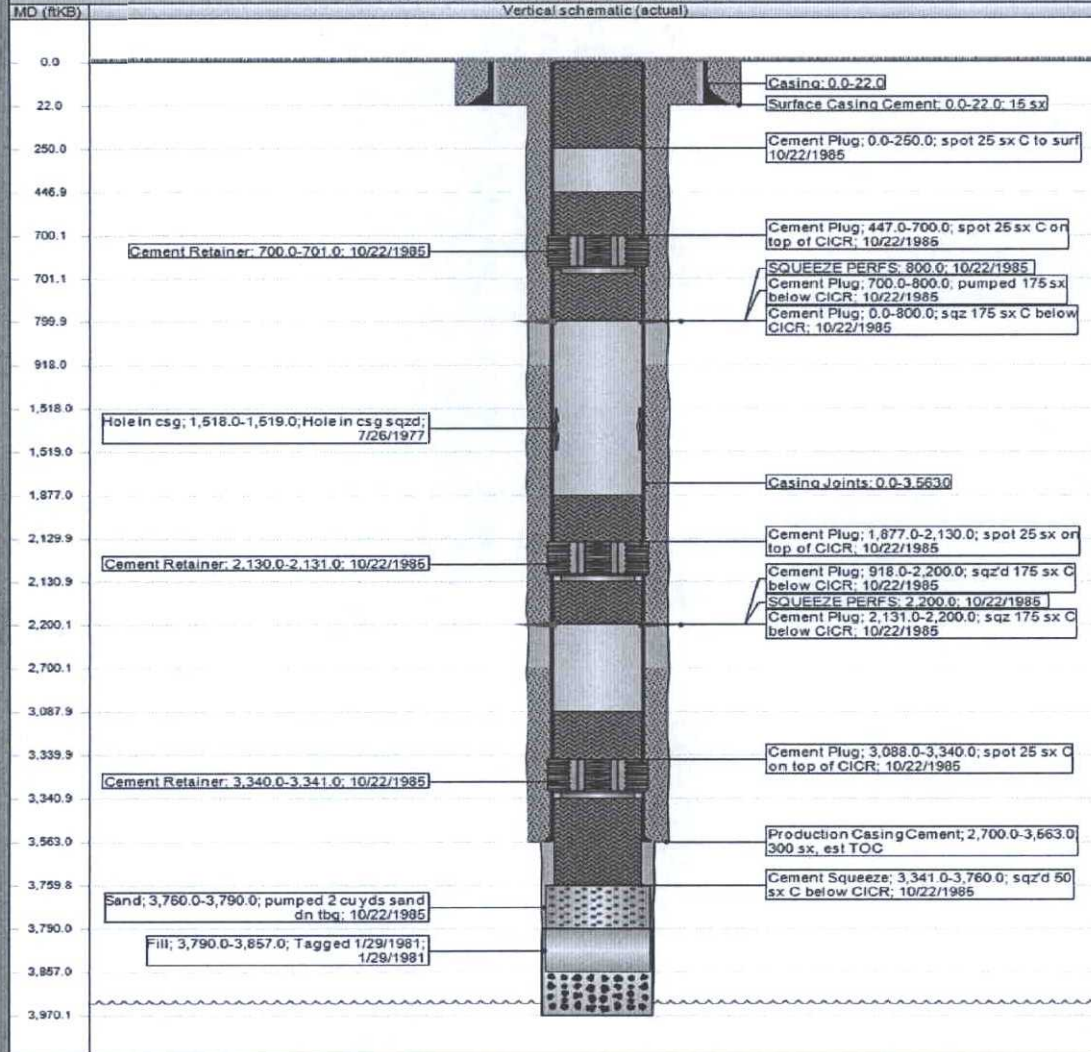
District PERMIAN CONVENTIONAL	Field Name	API / UWI 300250074800	County LEA	State/Province NEW MEXICO
Original Spud Date 1/8/1968	Surface Legal Location Sec. 28, T-17S, R-32E	E/W Dist (ft) 1,980.00	E/W Ref W	N/S Dist (ft) 660.00
N/S Ref S				

VERTICAL - Original Hole, 7/15/2015 2:47:40 PM



District PERMIAN CONVENTIONAL	Field Name API 7 UWI 300250074900	County LEA	State/Province NEW MEXICO
Original Spud Date 11/10/1940	Surface Legal Location Sec. 28, T-17S, R-32E	E/W Dist (ft) 660.00 W	N/S Dist (ft) 660.00 S

VERTICAL - Original Hole, 7/17/2015 12:31:50 PM

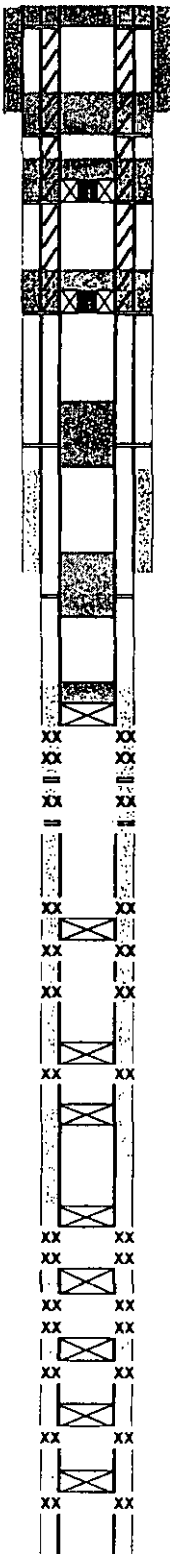




**PLUGGED WELLBORE SKETCH**  
ConocoPhillips Company - Permian Basin Business Unit

Date: September 26, 2004

RKB @ \_\_\_\_\_  
DF @ \_\_\_\_\_  
GL @ 3985.3'



**30 sx C cmt sqz'd 50' - surface**  
12-1/4" Hole  
151 50# @ 825' w/ 175 sx, circ.  
**80 sx C cmt sqz'd 875 - 732' TAGGED**

Top of Salt @ 1060'  
**65 sx C cmt sqz'd 1,060 - 960' - C1CR w/ 30'**  
Cag Lks 90'-2699'

Base of Salt @ 1910'  
**70 sx C cmt sqz'd 1,910 - 1,800' - C1CR w/ 30'**

**25 sx C cmt 3,850 - 3,586' TAGGED**  
unable to establish rate at 1,500 psi

11" Hole

8-5/8" @ 4198' w/ 200 sx, TOC 3391' TS  
**25 sx C cmt 4,316 - 4,067' TAGGED**  
unable to establish rate at 1,500 psi

**25 sx C cmt on CIBP 5,278 - 5,024'**  
**CIBP @ 5,278'**  
5335'-5353' - Sqz'd  
5372'-5384' - Sqz'd  
5378'-5384' 5394'-5400'  
5394'-5400' Sqz'd w/75 sx  
5410'-5422' 5422'-5428' - 120 shots

5460'-5478' - 72 shots - Sqz'd w/150 sx  
**Cmt Retainer @ +/- 5485'**  
5502' - 6 shots - Sqz'd w/75 sx (3/49)

5825' - 3 shots - Sqz'd w/275 sx; TOC @ 5765'

**Cmt Retainer @ +/- 6548' (3/49)**  
6653'-6665' 6678'-6690' - 96 shots - Sqz'd w/50 sx

LaneWells Type 'D' Bridge Plug @ +/- 6900' (3/49)

**Cmt Retainer @ +/- 8934'**  
8914'-8920' 8954'-8960'  
8972'-8978' - 72 shots - Sqz'd w/50 sx  
Retainer @ 8996'  
9020'-9026' 9042'-9048'  
9070'-9076' - 72 shots - Sqz'd w/100 sx (3/49)  
**Cmt Retainer @ +/- 9080'**  
9098'-9110' - 48 shots - Sqz'd w/75 sx (3/49)

**Cmt Retainer @ +/- 9170'**  
9330'-9350' - 72 shots - Sqz'd w/100 sx (3/49)

**Cmt Retainer @ +/- 9911'**  
9974'-9980' - 24 shots - Sqz'd w/75 sx (2/49)

Subarea : Maljamar  
Lease & Well No. : Queen-B No. 36  
Legal Description : 554' FNL & 554' FWL, NW/4 NW/4 Section 28, T-17-S,  
R-32-E N.M.P.M. Meridian  
County : Lea State : New Mexico  
Field : Baish, Wolfcamp  
Date Spudded : 9/20/48 IPP:  
API Number : 30-025-00751  
Status : PLUGGED  
Drilled as Baish "B" No. 36

Stimulation History:		Lbs.	Max	Max
Interval	Date	Type	Gals	Sand Press ISIP Rate Down
	2/25/49	Perf 4 JSPF 9974'-9980' - 24 shots - Sqz w/75 sx		
	3/1/49	Perf 9330'-9350' w/72 shots		
9330-9350	3/2/49	Mud Acid (MA)	500	2400 0.7
9330-9350	3/3/49	20% Low Tension Acid	1,000	2600 1.2
	3/5/49	Sqz pkr @ 9170'; sqz w/100 sx		
	3/6/49	Perf 9098-9110 - 48 shots		
	3/7/49	Sqz pkr @ 9080'; sqz w/75 sx		
	3/9/49	Perf 9070-9076 - 24 shots		
	3/10/49	Perf 9020-9026 (24 shots) and 9042-9048 (24 shots)		
9020-9026	3/13/49	Mud Acid (MA)	500	2700 0.6
	3/13/49	Set Retainer @ 8996'; sqz w/100 sx		
	3/14/49	Perf 8914-8920 (24 shots) and 8954-8960 (24 shots)		
8914-8960	3/16/49	20% Low Tension Acid	1,000	3,000
	3/18/49	Perf 8972-8978 (24 shots)		
8914-8978	3/19/49	20% Low Tension Acid	500	
	3/20/49	Bridging pkr @ 8834'; sqz w/50 sx		
	3/22/49	Bridging plug @ 6900'		
		perf 6653-6665 (48 shots) & 6678-6690 (48 shots)		
6653-6690	3/22/49	20% Low Tension Acid	500	3,000 1.2
	3/23/49	Retrievable pkr @ 6548'; sqz w/50 sx; perf 5825' sqz w/275 sx		
	3/27/49	Perf 5335-5353 (72 shots), 5372-5384 (48 shots) and 5394-5400 (24 shots)		
	3/29/49	Sqz 5335-5400 w/75 sx		
	3/31/49	5502' shoot 6 holes and sqz w/75 sx		
	4/2/49	Perf 5460-5478 (72 shots)		
	4/4/49	Sqz 5460-5478 w/150 sx		
	4/9/49	Perf 540-5422 (48 shots)		
5410-5422	4/9/49	20% Low Tension Acid	500	Unable to inject acid
	4/10/49	Perf 5378-5384 (24 shots), 5394-5400 (24 shots) and 5422-5428 (24 shots)		
5378-5428	4/10/49	20% Low Tension Acid	500	2700
	4/11/49	Mix 58 sacks Aquagel, pmp hole full of mud		
	4/12/49	Cap well - Temporarily Abandoned		
	4/28/61	Change name to Queen-B No. 36		
	9/19/81	Run csg insp log - numerous csg lks 90'-2699'		
	10/81	Recommended to convert to water disposal in Lower Wolfcamp (9965'-10040')		
	3/31/82	Administrative Order # SWD-241		
	3/13/92	Run Temp Survey 4200'-2000', CPNL 2700'-4200' - 3 passes		
	2/23/93	Sundry Notice - Being used as CO2 observation well to evaluate CO2 advance in Stage 1 Area.		
	7/6/04	BLM advised that well is to be put into operations or submit P&A plans for approval by 8/29/04.		
	8/9/04	Prepare Application for Abandonment of Well		



**ACTUAL PLUGGING PROCEDURE**

- 1) set CIBP @ 5,278'
- 2) 25 sx C cmt on CIBP 5,278 - 5,024'
- 3) 25 sx C cmt 4,316 - 4,067' TAGGED
- 4) 25 sx C cmt 3,850 - 3,586' TAGGED
- 5) 70 sx C cmt sqz'd 1,910 - 1,800' - C1CR w/ 30'
- 6) 65 sx C cmt sqz'd 1,060 - 960' - C1CR w/ 30'
- 7) 80 sx C cmt sqz'd 875 - 732' TAGGED
- 8) 30 sx C cmt sqz'd 50' - surface

**Formation Tops:**

San Andres 3800'  
8th Zone 3948'  
9th Zone 3975 +/-  
9th M Zone 4080 +/-

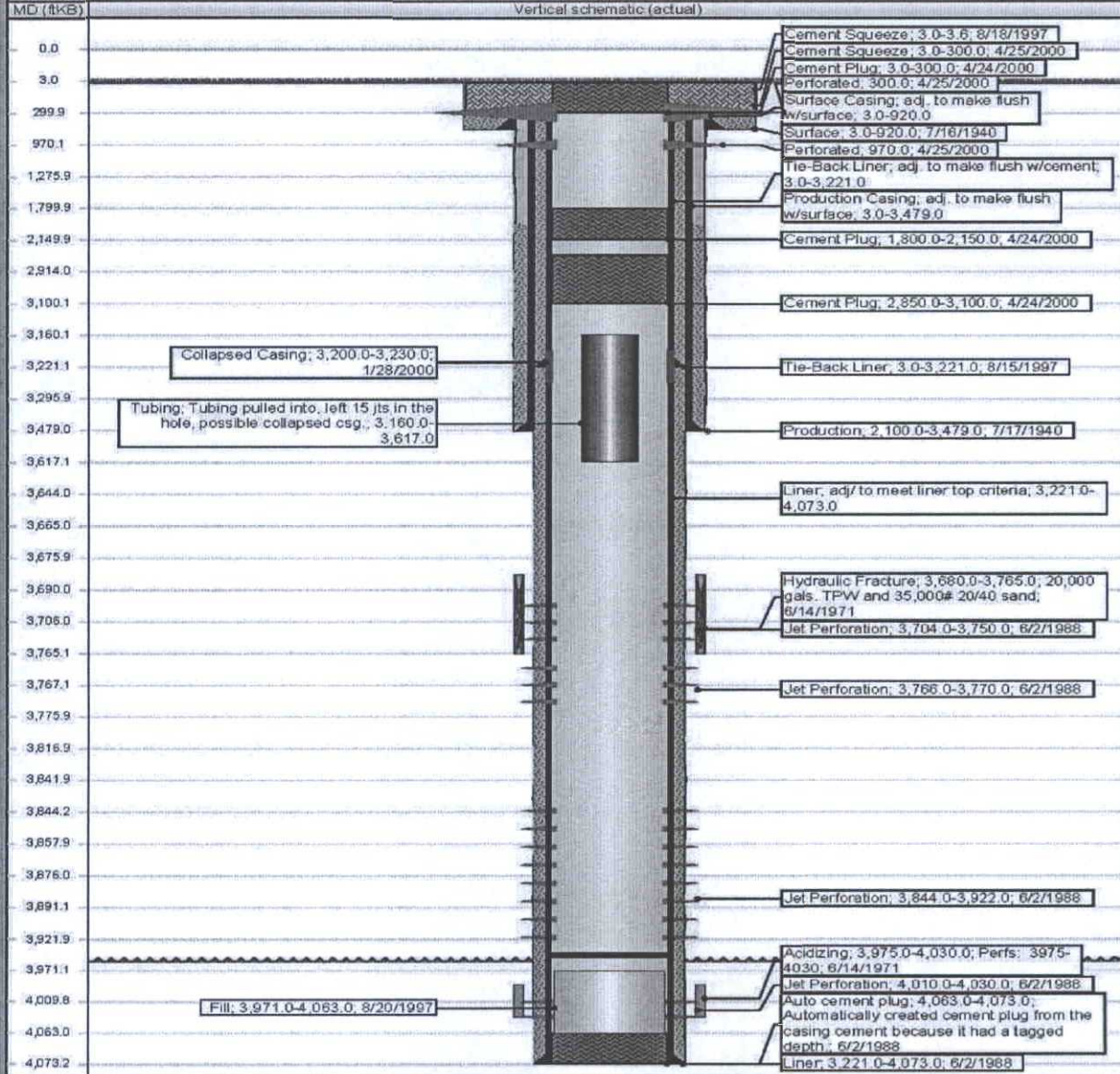
7-7/8" Hole 3996' N-80 on btm  
5-1/2" 17# N-80 & J-55 @ 10745' 4021' J-55  
Cmt w/1100 sx 2717' N-80 on top  
TOC @ 5890' (T.S.)

PBTD. 5485'  
TD 10747'



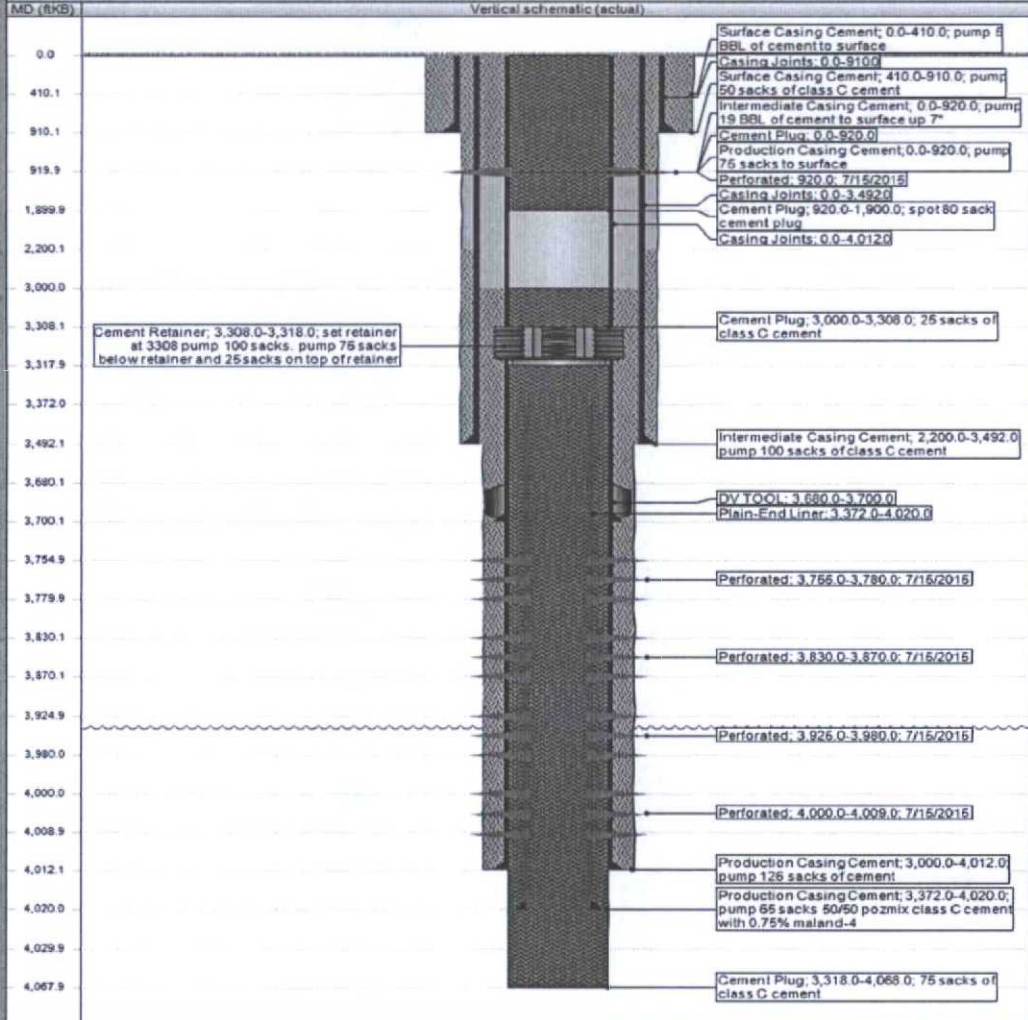
District PERMIAN CONVENTIONAL	Field Name MALJAMAR	API / UWI 300250075800	County LEA	State/Province NEW MEXICO
Original Spud Date 7/18/1940	Surface Legal Location SEC: 29, T17S, R32E		E/W Dist (ft) 1,980.00	E/W Ref E
			N/S Dist (ft) 660.00	N/S Ref N

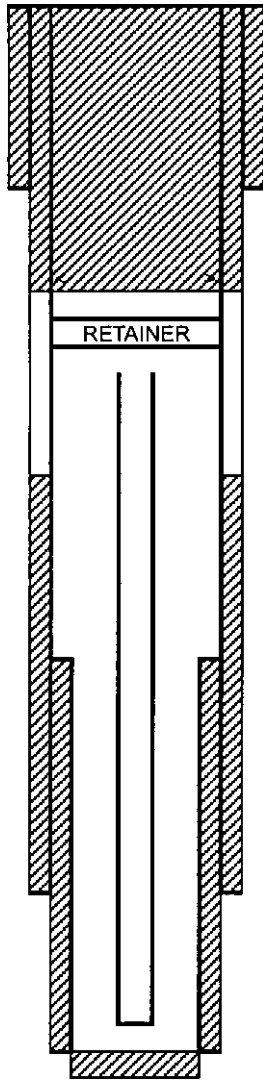
VERTICAL - Main Hole, 6/25/2015 9:43:25 AM



District PERMIAN CONVENTIONAL	Field Name	API / UWI 300260076000	County LEA	State/Province NEW MEXICO
Original Spud Date 8/13/1940	Surface Legal Location Sec. 29, T-17S, T-32E	E/W Dist (ft) 1,980.00 W	E/W Ref	N/S Dist (ft) 1,980.00 N

VERTICAL - Original Hole, 7/15/2015 10:55:47 AM





MCA 158 (API: 30-025-00761)  
 1980 FNL & 660 FWL, Section 29, T-17S, R32E  
 Elev.: 3926 KB

8-5/8", 24# @ 903. Cmt w/ 50 sx.

- 09.07.97: Unable to pump down retainer @ 1000.  
Perforate @ 980.
- 09.06.97: Pump 200 sx down 7" csg to 980 & circ 7" x 8-5/8" annulus to surface.
- 04.11.95: Set 7" retainer @ 1000
- 04.11.95: Cut & recover 2-7/8" tbg to 1002. TOF @ 1002.

TOC: 2147

7", 20# @ 3447. Cmt w/ 100 sx. TOC 2147.

Completion Interval: 3747-3961 (gross)

5-1/2" liner: 3195-3970. Cmt w/ 200 sx.

PBD: 3970  
 TD: 3992

**EXHIBIT H**

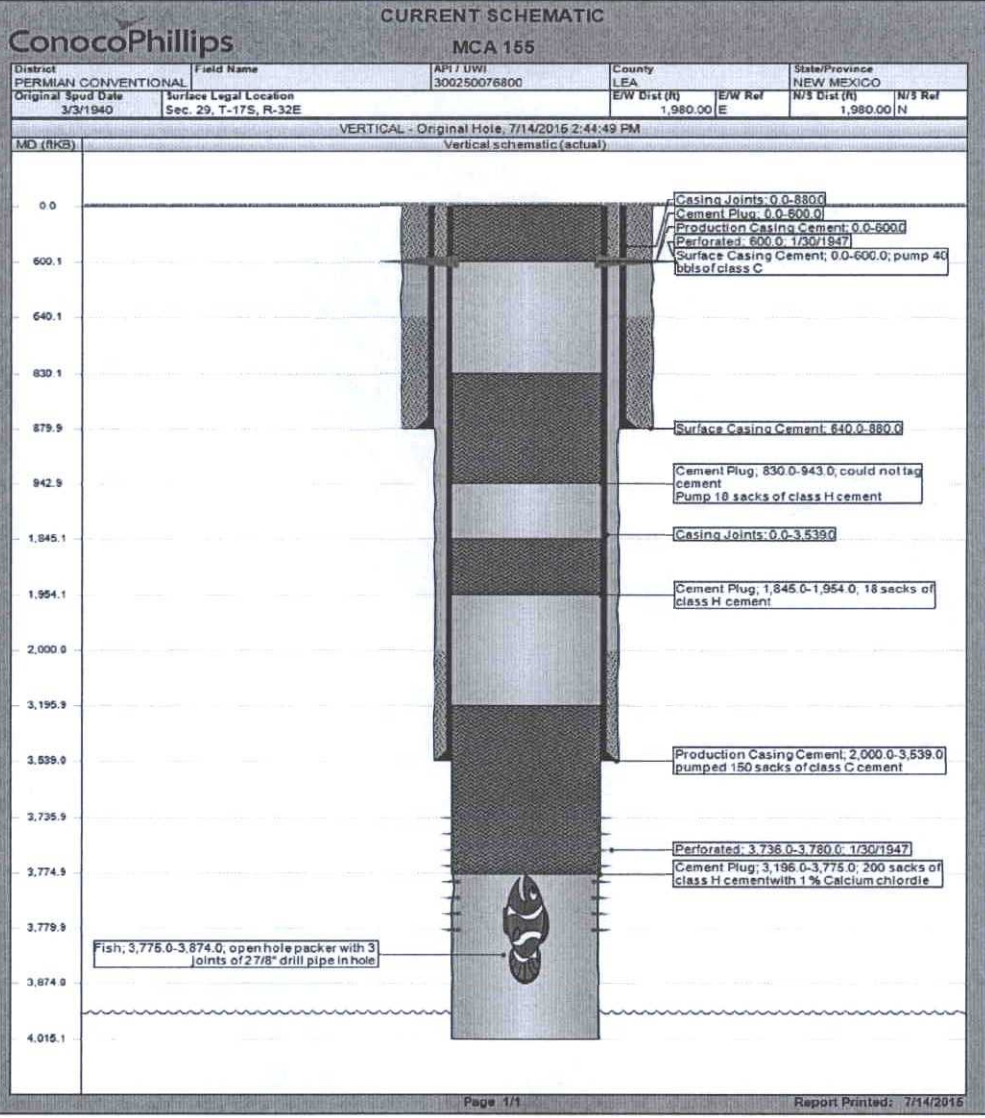
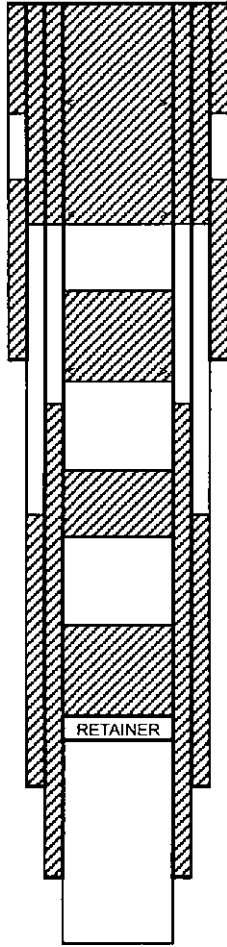


EXHIBIT H



MCA 159 (API: 30-025-00784  
 1980 FNL & 660 FEL, Section 30, T-17S, R32E  
 Elev.: 3919 GL

- 05.10.00: Perforate 4-1/2" @ 600. Estab circ to surface between 4-1/2" x 7". Unable to circ 7" x 8-5/8"  
 Perforate 4-1/2" @ 300.  
 Spot cmt plug in 4-1/2" csg from 600 to surface  
 Close 4-1/2" csg valve. Pump cmt & circ cmt to surf up 4-1/2" x 7" annulus  
 Close 7" csg valve.  
 Pump cmt down 7" x 8-5/8". Returns to surface after 65 sx.  
 8-5/8", (24#) @ 912. Cmt w/ 50 sx
- 05.09.00: Perforate 4-1/2" @ 965. Estab circ to surface between 4-1/2" x 7".  
 Spot 25 sx cmt plug: 665-1025
- 05.08.00: Spot 25 sx cmt plug: 1780 (tagged)-2100
- 05.08.00: Test 4-1/2" csg above retainer @ 500#. OK. Cap retainer @ 3365 w/ 25 sx cmt: 3005-3365
- 02.1995: Set retainer @ 3365. Circ well w/ PKR fluid. Test @ 600#-30 min. OK.  
 7", 20# @ 3405. Cmt w/ 150 sx. TOC: 2000 est.  
 4-1/2", 9.5# @ 3647. Cmt w/ 325 sx. TOC: 800 (temp survey)  
 Completion Interval: 3647-4015 (OH)

TD: 4015

EXHIBIT H|

**PLUGGED WELLBORE SKETCH**  
ConocoPhillips Company -- Permian Basin Business Unit

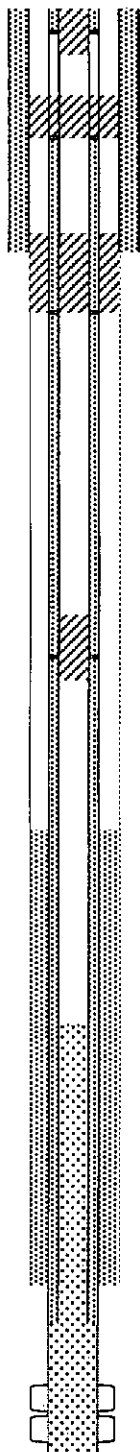
Date: March 22, 2006

RKB @ \_\_\_\_\_  
DF @ 3923  
CL @ \_\_\_\_\_

Subarea : Maljamar  
Lease & Well No. : MCA Unit No. 100W  
Legal Description : 660' FSL & 660' FEL, Sec. 19, T17S, R32E  
County : Lea State : New Mexico  
Field : Maljamar (Grayburg-San Andres)  
Date Spudded : June 19, 1941 Rig Released: Aug. 19, 1941  
API Number : 30-025-08041  
Status: Plugged & Abandoned 3/17/06  
Well originally drilled as Mitchell B No. 10

**Stimulation History:**

Interval	Date	Type	Gals	Lbs. Sand	Max Press	ISIP	Max Rate	Max Down
		Well originally drilled to 3840'						
		Shot w/210 qts Nitro glycerin using 3-1/2" shells						
		Deepened to 3968'						
		100 Qts Nitroglycerin in 4-1/2" shells						
		40 Qts Nitroglycerin in 3" shells						
		70 Qts Nitroglycerin in 4-1/2" shells						
		80 Qts Nitroglycerin in 4-1/2" shells						
		Effective with unitization well renumbered MCA Unit No. 100						
		Converted to water injection @ 400 bwpd, 0 PSI.						
		Deepen to 4040' w/6-1/4" bit						
		15% Retarded Acid	1,000					
		28% Acid	1,000		1100	1050		2-1/2"
		Set 4-1/2" 9.5# csg @ 3570', cmt w/275 sx; TOC @ 440'						
		28% Acid	1,000		1800	1050		2.0
		Cmt sqz 4-1/2" csg shoe w/75 sx Class C						
		Run tracer survey. Found RA material leaving wellbore (50%) at 3545'-3555' and (50%) in OH section 3575'-3586'. (Note: 4-1/2" csg shoe @ 3575')						
		Set cmt retainer @ 3500', sqz csg & OH section 3500'-3597' w/3 bbls slurry under retainer, TOC @ 3496'						
		Drill out cement; found hole in 7" csg @250'-265'						
		Cleanout pea gravel & formation to 4037'						
		Shut in to backflow to relieve pressure						
		Placed back on injection						
		Injection Profile. Major loss below 3753', approx 60%						
		Pmp 84 sx in openhole section; TOC @ 3428'						
		Tag cement @ 3453'; pmp 25 sx; TOC @ 3399'						
		Tag cmt @ 3399'- circ pkr fluid						
		Temporarily Abandoned						
		Last Sundry Notice from BLM						



10 sx C cmt 60' to surf,  
(perforated @ 50', unable to sqz  
@ 1,700 psi)

60 sx C cmt 400 - 230', perf/sqz, TAGGED

TOC 4-1/2" Liner @ 440' by CBL

8-5/8" 28# @ 721'  
Cmt'd w/50 sx

60 sx C cmt 800 - 600', perf & sqz TAGGED  
Top Salt @ +/- 800'

Base Salt @ +/- 1795'

25 sx C cmt 1,945 - 1,575', TAGGED  
(perforated @ 1,895', unable to sqz @ 1,500 psi)

TOC 7" csg @ 2500' by Calc.

Cmt plug @ 3959'-3399' w/84 sx; TOC @ 3399'

7" 20# @ 3525'  
Cmt'd w/250 sx  
TOC @ 2500'

6-1/4" Hole  
4-1/2" 9.5# Liner @ 3575'  
Cmt'd w/275 sx  
TOC @ 440' (by CBL)  
Cmt sqz 4-1/2" csg shoe w/75 sx Class C

OH 3575'-4040'  
3706'-3835' - Shot w/290 qts Nitro

3878'-3959' - Shot w/210 qts Nitro

PBTD @ 3399'  
TD @ 4040'

**TRIPLE N SERVICES INC**  
HOUSTON, TX

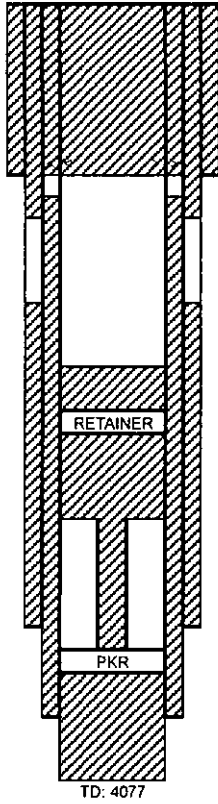
**ACTUAL PLUGGING PROCEDURE**

- 25 sx C cmt 1,945- 1,575', TAGGED, perforated @ 1,895', unable to sqz @ 1,500 psi
- 60 sx C cmt 800 - 600', perf/sqz, TAGGED
- 60 sx C cmt 400', perf/sqz, TAGGED
- 10 sx C cmt 60' to surface, perforated @ 50' unable to sqz @ 1700 psi

**Capacities**

4-1/2" 9.5# csg:	10.960 ft/ft3	0.0912 ft3/ft
7-7/8" openhole:	2.9565 ft/ft3	0.3382 ft3/ft
8-5/8" 28# csg:	2.853 ft/ft3	0.3505 ft3/ft

EXHIBIT H |



MCA 97 (API: 30-025-08067)  
 660 FSL & 1980 FWL, Section 20, T-17S, R32E  
 Elev.: 3957 GL

03.25.88 Perforate 4-1/2" ( and 7" ) @ 750. Cmt 7"x 8-5/8" annulus to surface. Close csg valve. Sq to 750#.  
 01.1941: 8-5/8", 28# @ 760. Cmt w/ 50 sx.

03.24.88: Cement Retainer @ 2523. Pump 300 sx below retainer. Spot cmt plug: 2423-2523 above retainer.

03.1941: 7", 20# @ 3528. Cmt w/ 150 sx. TOC: 2000 (est.)

Left-in-Hole: 718 ft.: 2-3/8" tbg (2902-3620) & Baker AD-1 PKR @ 3620

10.1973: 4-1/2", 9.5#, J-55 @ 3685. Cmt w/ 300 sx. TOC: 800.

Completion Interval: 3685-4077 OH

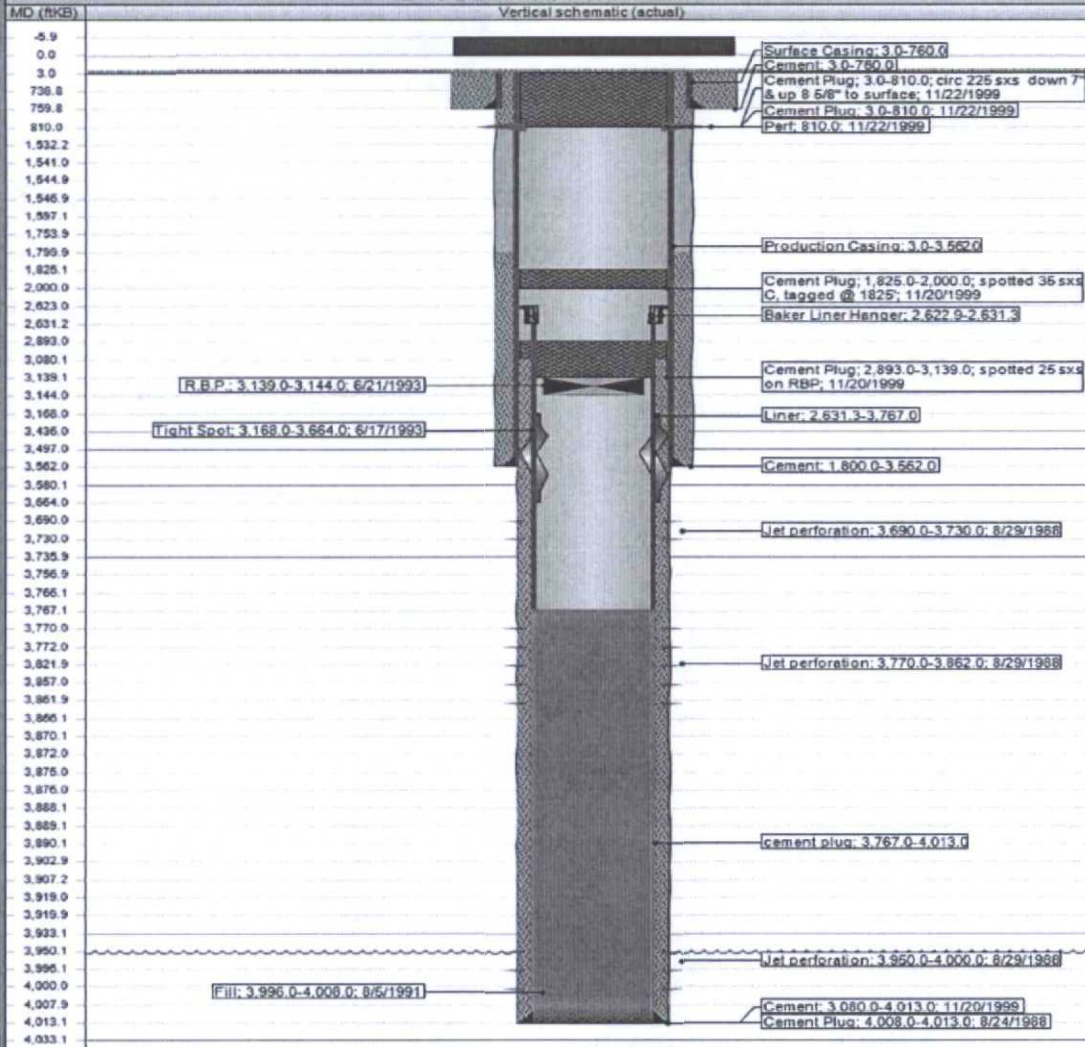
TD: 4077

EXHIBIT H |



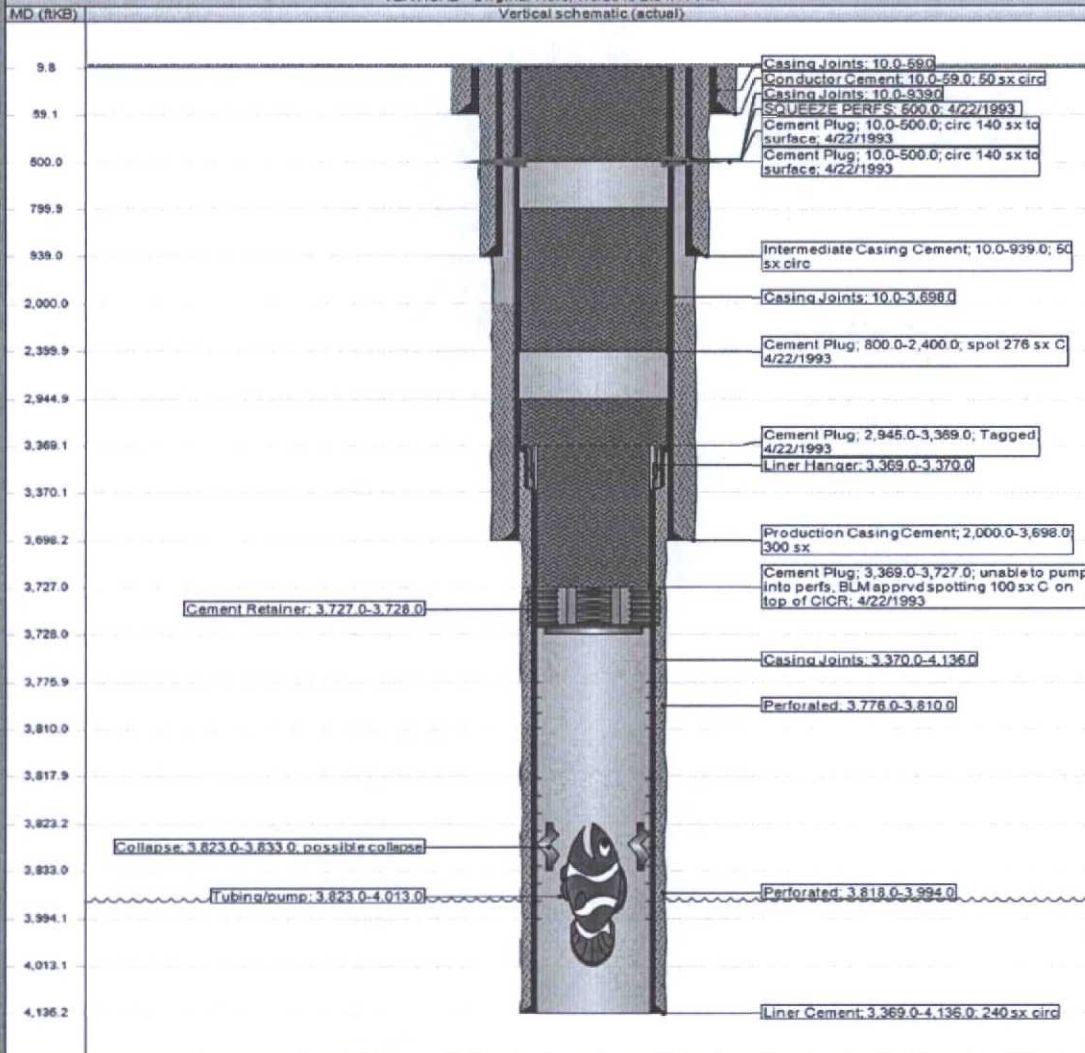
District PERMIAN CONVENTIONAL	Field Name	API UWI 300250806900	County LEA	State/Province NEW MEXICO
Original Spud Date 1/8/1941	Surface Legal Location Sec. 20, T-17S, R-32E		E/W Dist (ft) 680.00 W	N/S Dist (ft) 680.00 S

VERTICAL - Main Hole, 7/7/2015 10:48:01 AM



District PERMIAN CONVENTIONAL	Field Name	API / UWI 300251275600	County LEA	State/Province NEW MEXICO
Original Spud Date 1/7/1949	Surface Legal Location Sec. 29, T-17S, R-32E		EW Dist (ft) 2,595.00 W	N/S Dist (ft) 2,580.00 N

VERTICAL - Original Hole, 7/9/2015 2:54:41 PM

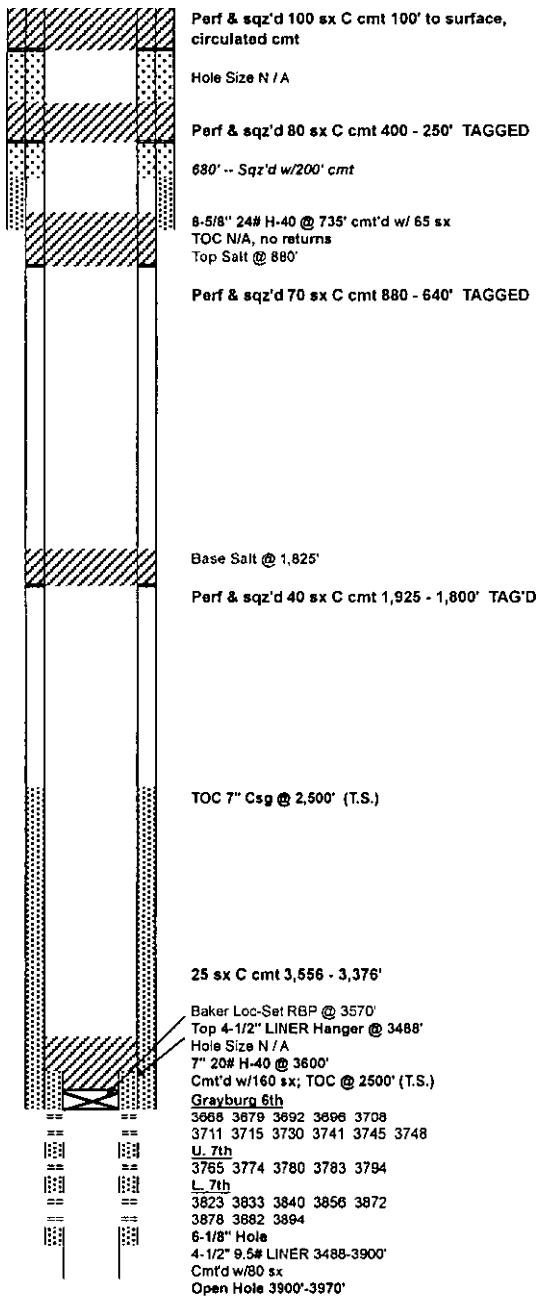


**PLUGGED WELLBORE SKETCH**  
 ConocoPhillips Company -- Permian Basin Business Unit

Date: April 11, 2007

RKB @ \_\_\_\_\_  
 DF @ 3936'  
 GL @ \_\_\_\_\_

Subarea: Hobbs  
 Lease & Well No.: MCA Unit No. 99  
 Legal Description: 25' FSL & 25' FEL, Sec 19, T-17-S, R-32-E  
 County: Lea State: New Mexico  
 Field: Majamar (Grayburg-San Andres)  
 Date Spudded: Oct 1, 1946 Rig Released: Dec 20, 1946  
 API Number: 30-025-12764  
 Status: PLUGGED 03/16/07  
 Drilled as Wm. Mitchell B # 12 Lease Serial No. LC-029405B



**Stimulation History:**

Interval	Date	Type	Gals	Lbs. Sand	Max Press	ISIP	Max Rate	Down
3742-3680	2/1/49	Shot with 120 quarts nitro						
	12/12/69	Converted from gas injection to producing well						
	6/15/71	Deepened to 4010'						
		Perforate openhole 3920, 3941, 3955, 3965, 3995, 4000 and 4005'						
3650-4010	6/15/71	20% Retarded Acid	2,000			300		
3630-3830	6/15/71	Gelled water	26,000	38,000		1,500		
	4/10/75	Set 4-1/2" Liner @ 3900' (10' ts) Top Liner @ 3488'						
	5/15/84	Converted to water injection						
	11/12/52	Repair water flow; perforate @ 680' and squeeze with 200 sx cement						
	12/21/88	Convert to production Pump 85 sx cmt 3790'-4010' Drill out cement to 3970'						
	12/21/88	Perforate 6th 3668-3748, Uipper 7th 3765-3794' and Lower 7th 3823-3894						
	12/26/91	Set Retrievable bridge plug @ 3570' w/equalizer valve						

**TRIPLE H SERVICES INC.**  
 1800.404.171

**PLUGS SET 03/14/07 thru 03/16/07**

- 25 sx C cmt 3,556 - 3,376'
- Perf & sqz'd 40 sx C cmt 1,925 - 1,800' TAG'D
- Perf & sqz'd 70 sx C cmt 880 - 640' TAGGED
- Perf & sqz'd 80 sx C cmt 400 - 250' TAGGED
- Perf & sqz'd 100 sx C cmt 100' to surface, circulated cmt

**Casing / Openhole Capacities**

4 1/2" 9.5# csg:	10.965	ft/ft3	0.0912	ft3/ft
5 1/2" 17# csg:	7.661	ft/ft3	0.1305	ft3/ft
7" 20# csg:	4.399	ft/ft3	0.2273	ft3/ft
7" 26# csg:	4.655	ft/ft3	0.2148	ft3/ft
7 1/2" 24# csg:	3.715	ft/ft3	0.2691	ft3/ft
8 1/2" 20# csg:	2.733	ft/ft3	0.3659	ft3/ft
8 1/2" 24# csg:	2.797	ft/ft3	0.3575	ft3/ft
8 1/2" 28# csg:	2.853	ft/ft3	0.3505	ft3/ft
6 1/2" openhole:	4.024	ft/ft3	0.2485	ft3/ft
7 1/4" openhole:	2.957	ft/ft3	0.3382	ft3/ft
9 1/2" openhole:	2.032	ft/ft3	0.4922	ft3/ft
10" openhole:	1.834	ft/ft3	0.5454	ft3/ft
12 1/4" openhole:	1.222	ft/ft3	0.8185	ft3/ft

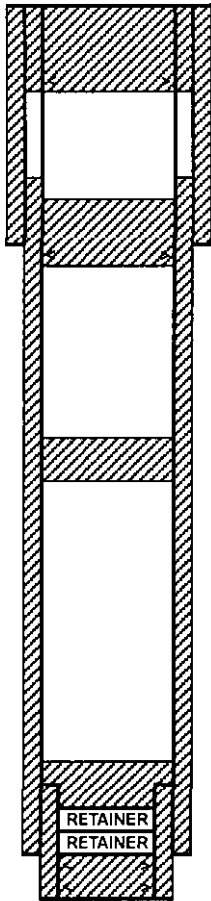
**Formation Tops:**

Rustler	
Top Salt	880'
Base Salt	1825'
Grayburg 6th	3588'
San Andres U 7th	3750'
San Andres L 7th	3788'
San Andres 8th	3870'
San Andres 9th	3930'
Massive	3980'

EXHIBIT H]

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MCA 182 (API: 30-025-12793)  
2515 FSL & 2750 FEL, Sec. 27, T17S, R32E  
Elev: 3966 DF; 3956 GL



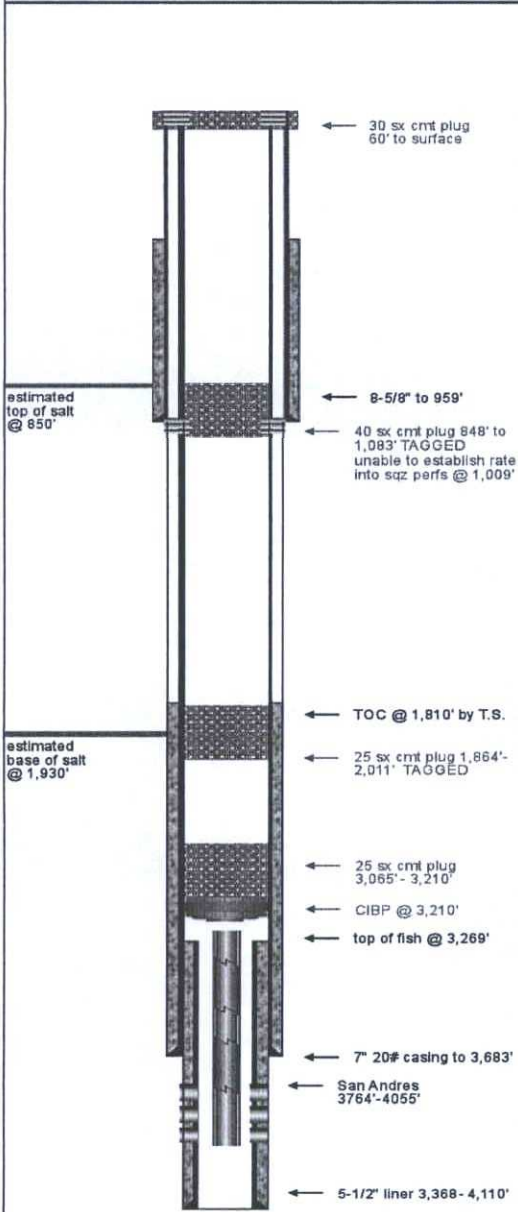
1948: 8-5/8", 28#, H-40 @ 1085. Cmt w/ 100 sx. Circ cmt to surface.

10.2004: P&A  
Sting in to Cement Retainer (CR) @ 3835 (in-place 03.1999). Squeeze 35 sx cmt below CR.  
Spot 45 sx above CR. Cmt column: 2420 (tagged)-3835 (CR). Drilled-out cmt: 2414-3900 (TOL)  
Set Cement Retainer (CR) @ 3788. Squeeze 40 sx cmt below CR.  
Spot 45 sx above CR. Cmt column: 3520-3788 (CR).  
Spot 30 sx cmt plug: 1991-2170  
Perforate 5-1/2" csg @ 1135. Unable to pump-in @ 1000#.  
Spot 40 sx cmt plug: 945 (tagged)-1185  
Perforate 5-1/2" csg @ 400. Pump 100 sx down 5-1/2" csg. Circ cmt up 7" x 8-5/8" to surface

03.09.99: Cement Retainer @ 3835  
1948: 7", 23#, J-55 @ 3862. Cmt w/ 238 sx. TOC: 772 est.  
08.1989: 5-1/2", 15.5#, J-55 FJ liner: 3564-4100. Cmt w/ 175 sx. TOC: 3900 (TOL)

09.1989: Completion Interval:  
Grayburg: 3885-3930 (gross)  
San Andres: 3954-4069 (gross)

TD: 4100; PBD: 4099



<b>Field Name:</b>	Maljamar		
<b>County:</b>	Lea	<b>Well Type:</b>	Oil
<b>State:</b>	New Mexico	<b>Depth:</b>	4,110
<b>RRC District:</b>		<b>Drilling Commenced:</b>	
<b>Section:</b>	28	<b>Drilling Completed:</b>	
<b>Block:</b>		<b>Date Well Plugged:</b>	9/19/2001
<b>Survey:</b>	T-17-S; R-32-E	<b>Longitude:</b>	
		<b>Latitude:</b>	
		<b>Freshwater Depths:</b>	
<b>API #:</b>			
<b>Lease or ID:</b>			

Casing					
Description	Size (inches)	Depth (feet)	TOC (feet)	Cement (sacks)	Hole Size (inches)
Surface:	8-5/8"	959	400	50	
Production:	7"	3,683	1,810	150	
Liner (1):	5-1/2"	4,110	3,368	175	

Actual Plugs					
Description	Top (feet)	Depth (feet)	Volume (sacks)	Volume (cu ft)	
1 CIBP	3,210	3,210			
2 Cement-Class C - Balanced	3,065	3,210	25	33	
3 Cement-Class C - Balanced	1,864 tag'd	2,011	25	33	
4 Cement-Class C - Balanced	848 tag'd	1,083	40	53	
5 Cement-Class C - Sqz/Packer	surface	60	30	40	

Perforations				
Formation	Top (feet)	Depth (feet)		
San Andres	3,764	4,055		

Formations	
Name	Top of Formation
estimated top of salt	850
base of salt	1,930

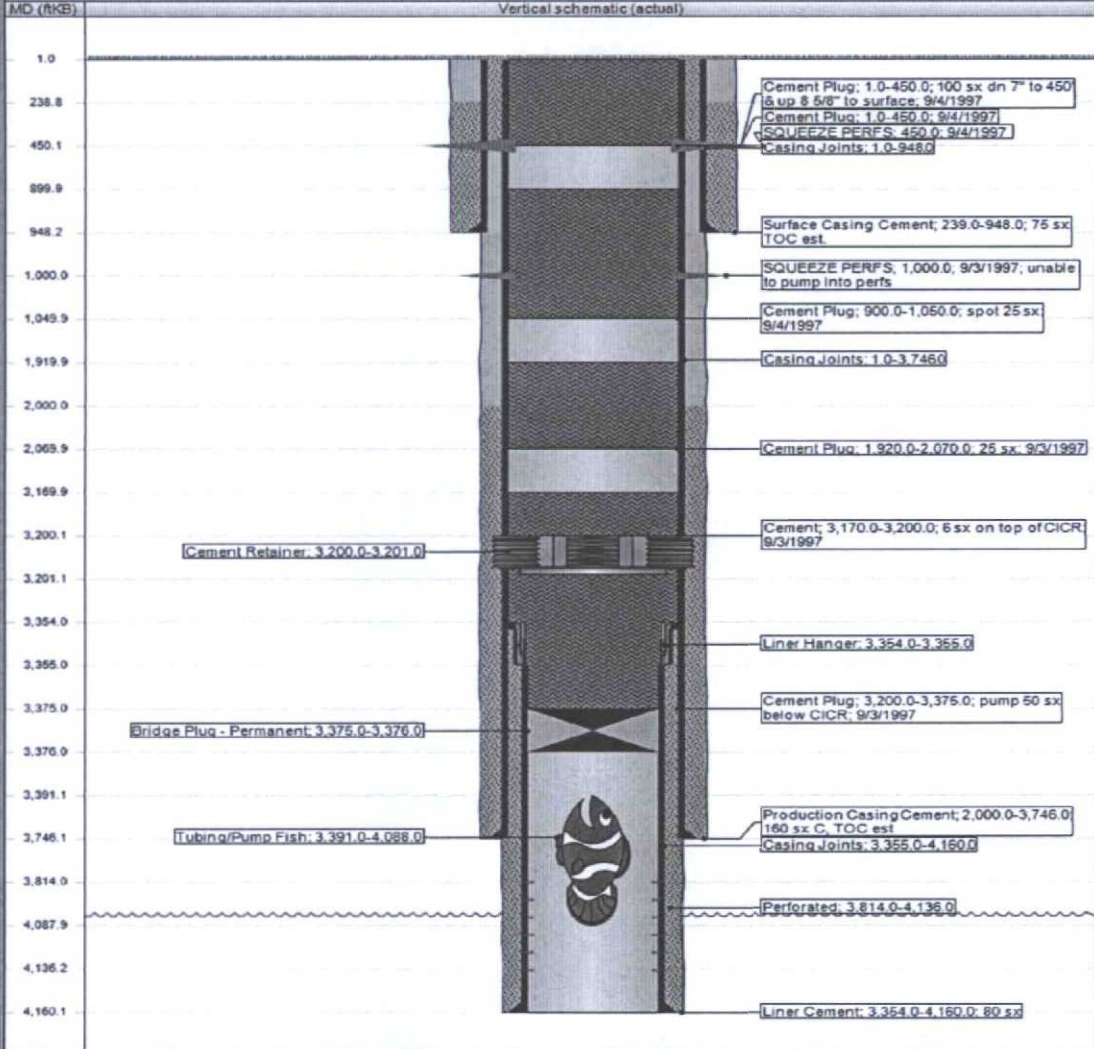
**Comments**  
 Fish is 25 jts 2-7/8" tubing and mud anchor, top at 3,269'. Perforated at 1,009' for plug #4 unable to establish rate at 1,500 psi, pumped balanced plug.

**Prepared By:** Jim Newman  
**Date:** 9/20/2001



District PERMIAN CONVENTIONAL	Field Name	API 7 UWI 300251279600	County LEA	State/Province NEW MEXICO
Original Spud Date 10/9/1946	Surface Legal Location Sec. 22, T-17S, R-32E		E/W Dist (ft) 50.00 W	N/S Dist (ft) 25.00 S

VERTICAL - Original Hole, 7/9/2015 3:20:48 PM

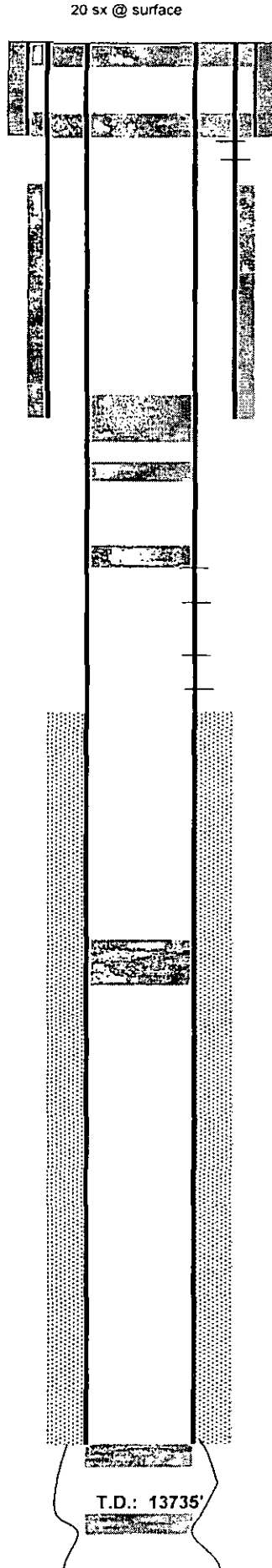


**WELLBORE DIAGRAM**  
**BAISH - FEDERAL B #2**  
 (from WFX-855 application package)

13-3/8"  
 TOC @ SURFACE  
 450 SX CEMENT  
 CIRCULATE

25 sx @ 185'

8-5/8" @ 4660'  
 2090 sx cement



Lease and Well No.:  
 Location:

BAISH FEDERAL B #2  
Sec. 28, T17S-R32E

County/State:  
 Field:

Lea County, New Mexico  
Maljamar

API Number:  
 Status:

30-025-21951  
PA'D

shot @ 400 and 310'

25 sx @ 4660'

40 sx @ 5250'

25 sx @ 7005'

squeeze holes @ 8162, 8010, 7500, and 7212'

Perforations  
 9780-9800'

20 sx @ 9870'

5-1/2" @ 10310'  
 670 sx cement

50 sx @ 11550-11450'

50 sx @ 12250-12150'

T.D.: 13735'

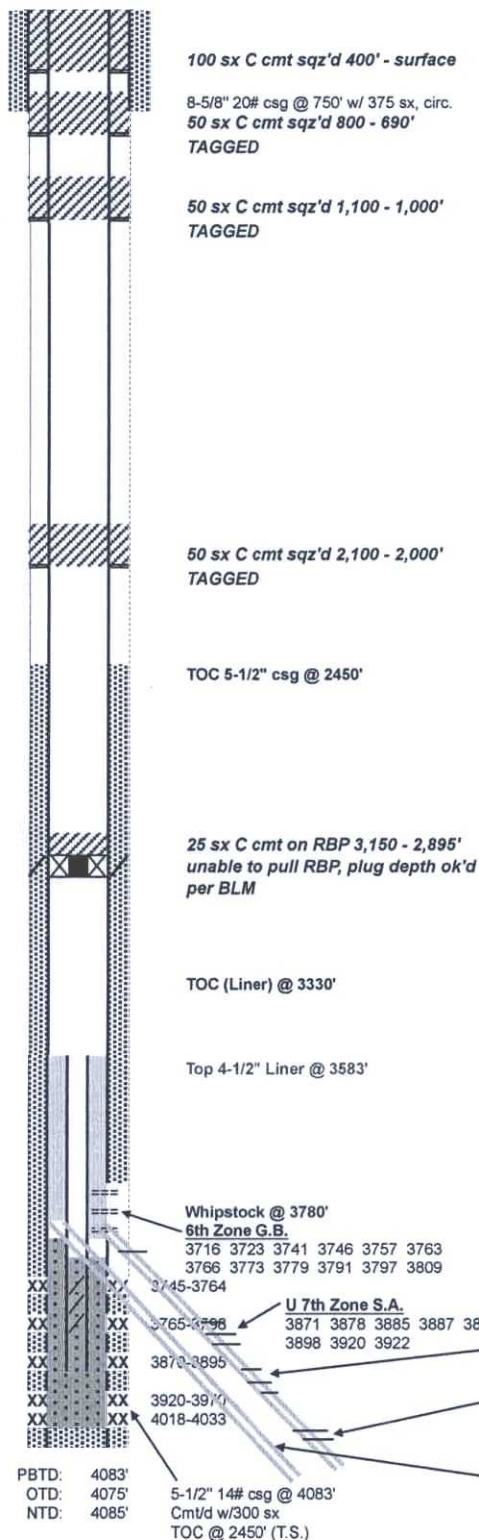
EXHIBIT H

**PLUGGED PLUGGED WELLBORE SKETCH**  
 ConocoPhillips Company -- Permian Basin Business Unit

Date: October 4, 2004

RKB @ \_\_\_\_\_  
 DF @ 3966'  
 GL @ 3955'

Subarea: Maljamar  
 Lease & Well No.: MCA Unit No. 277  
 Legal Description: 1295' FNL & 2615' FEL, Sec. 29, T-17-S, R-32-E  
 County: Lea State: New Mexico  
 Field: Maljamar (Grayburg-San Andres)  
 Date Spudded: March 27, 1971 IPP: 4/27/71  
 API Number: 30-025-23733 12 BO, 174 BW, 0 Mcf  
 Status: PLUGGED 09/30/04



**Stimulation History:**

Interval	Date	Type	Gals	Lbs. Sand	Max Press	ISIP	Max Rate	Down
	4/71	Perf 3745-4033						
4018-4033	4/8/71	15% NE HCl						
4018-4033	4/8/71	1 drum United TH-763						
3963-3970	4/8/71	15% NE HCl						
	4/8/71	Communicated						
3920	4/8/71	Communicated						
3870-3970	4/9/71	Gelled Water						
	4/9/71	15% NEFE HCl						
3870-3970	4/9/71	Treat w/2 drums United TH-763						
3745-3798	4/9/71	15% NEFE HCl						
		Gelled Water						
	7/22/75	Tight spot @ 3765'						
	7/24/76	Casing collapsed @ 3765'						
		Left 11 joints 2-7/8" tbg stuck @ 3765'						
	11/28/78	well paraffined up						
	6/14/82	junk 105' over top perf						
	4/4/84	ran Temp Survey from Surface to 3720'						
		RA Tracer going out @ 1080'; 300' of salt section						
	12/2/88	Fish @ 3737', POOH w/18' of 2-7/8" tubing						
	12/9/88	Sqz casing; pmp 130 sx						
	12/12/88	DO cement 3555-3820						
		Set Whipstock @ 3780'; TD @ 4085'						
		Set 4-1/2" 10.23# liner 3583-4085', cmt w/80 sx						
		Perf 9th Zone S.A. 4051'-4016'						
		Perf L 7th Zone S.A. 3790-3941						
		Perf U 7th Zone S.A. 3922-3871						
		Perf 6th Zone GB 3809-3716						
4016-4051	12/29/88	15% NEFE HCl	900			100	2.0	
		Communicated to upper perfs						
3716-3970	1/3/89	Frac						
	12/7/94	SI - Obstruction @ 3150', pull tbg. Set RBP @ 3150.						
	1/3/95	Sundry Notice to T.A.						
	12/31/03	Evaluate for reactivation in Queen						
		BLM Sundry Notice expires 12/22/04						
	8/1/04	Prepare Application for Abandonment of Well						



**ACTUAL PLUGGING PROCEDURE**

- 1) 25 sx C cmt on RBP 3,150 - 2,895'
- 2) 50 sx C cmt sqz'd 2,100 - 2,000' TAGGED
- 3) 50 sx C cmt sqz'd 1,100 - 1,000' TAGGED
- 4) 50 sx C cmt sqz'd 800 - 690' TAGGED
- 5) 100 sx C cmt sqz'd 400' - surface

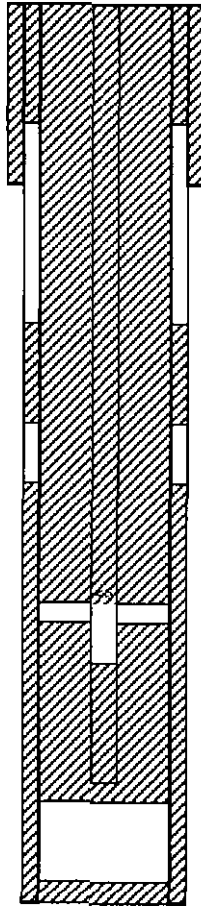
9 jts 2-7/8" tubing collapsed in casing  
 Squeezed w/130 sx

EXHIBIT H





MCA 288 (API: 30-025-23778)  
25 FSL & 1295 FWL, Section 20, 17S-32E  
Elev.: 3962 KB; 3950 GL



Cmt 5-1/2" x 8-5/8" from 532 to surface down coil-tbg w/ 115 sx.

05.15.71: 8-5/8", 20# @ 700. Cmt w/ 400 sx. Circ cmt to surface.

Reported TOS: 820  
Reported BOS: 1816

Squeeze 2068 w/ 150 sx.

06.02.93: Cut 2-7/8" tbg @ 3883 (SN: 3927; EOT: 3960).

06.03.93: Pump 80 sx cmt down tbg. Displace tbg to 3635 w/ 21 BW. SD.  
RIH w/ temp survey. TOC (2-7/8" x 5-1/2"): 3175.

06.04.93: Perforate 2-7/8" tbg @ 3069. Circ well w/ 500 sx cmt: surface-3069..

Completion Intervals:

Grayburg: 3682-3703 (gross)  
San Andres (7U): 3799-3830 (gross)  
San Andres (7L): 3799-3830 (gross)

San Andres (9) : 3983-3996 (gross)  
San Andres (9M):

05.28.71: 5-1/2", 14# J-55 @ 4080. Cmt w/ 600 sx. TOC: 2131 (temp survey: ).

PBD: 4030  
TD: 4080

EXHIBIT H]

**PLUGGED WELLBORE SKETCH**  
ConocoPhillips Company -- Mid-Continent BU / Odessa

Date: March 16, 2007

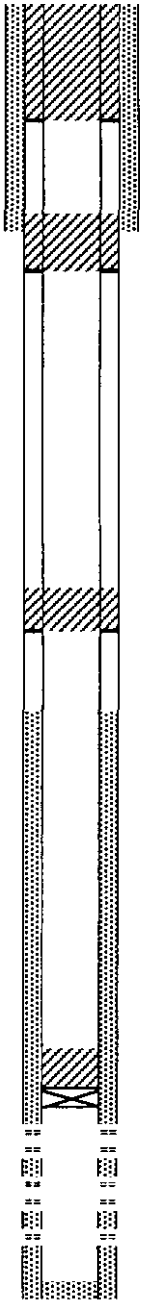
RKB @ 3921.3'  
DF @ 3920'  
GL @ 3910'

Subarea: Hobbs  
Lease & Well No.: MCA Unit No. 289  
Legal Description: 1165' FNL & 1345' FEL, Sec. 30, T-17-S, R-32-E  
County: Lea State: New Mexico  
Field: Majamar (Grayburg-San Andres)  
Date Spudded: May 29, 1971 Rig Released: Jun 9, 1971  
API Number: 30-025-23789  
Status: PLUGGED 03/14/07

Lease Serial No. LC-029410B  
Unit or CA/Agreement 8920003410

**Stimulation History:**

Interval	Date	Type	Gals	Lbs. Sand	Max Press	ISIP	Max Rate	Max Down
	6/11/71	Perforate 1 JSPF 3675-3993' (select fire)						
	6/12/71	15% NE Retarded Acid	4,000			1100		
	6/15/71	15% NE HCl	3,000			1500		
	6/16/71	Treated produced Water	30,000	52,500	4200	1600		
	8/12/77	Re-perforate 3685-3689, 3694, 3698, 3716-3722						
	3675-3993	8/12/77 15% NE HCl	3,000	2350# RS	2200	1600	4.0	
	11/30/79	Collapsed Casing @ 3706'						
	7/8/86	Casing collapsed @ 3666'						
	11/89	Casing collapsed @ 3644' w/water flow						
		Convert to flowing well						
	4/30/92	Set 5-1/2" RBP @ 3638'						



Perf & sqz'd 125 sx C cmt 400'  
to surface, circulated cmt

12-1/4" Hole

8-5/8" 20# @ 700' w/ 400 sx, circ.  
Perf & sqz'd 75 sx C cmt 830 - 580'  
TAGGED  
Top Salt @ 830'

Base Salt @ 1,805'

Perf & sqz'd 40 sx C cmt 1,905 - 1,750'  
TAGGED

TOC 5-1/2" Csg @ 2200' by T.S.

7-7/8" Hole

Tag'd PBTD @ 3,623', 25 sx C cmt 3,623 - 3,376'

RBP @ 3638'  
Grayburg 6th  
3675 3685 3689 3694 3698  
3716 3722 3728 3734 3794  
San Andres 7th  
3794 3797 3800  
3803 3874 3877  
San Andres 9th  
3952 3956 3962 3990 3993

5-1/2" 14# @ 4,025' w/ 300 sx, TOC 2,200' TS

PBTD @ 3638'  
TD @ 4025'



**PLUGS SET 03/09/07 thru 03/14/07**

- 1) Tag'd PBTD @ 3,623', 25 sx C cmt 3,623 - 3,376'
- 2) Perf & sqz'd 40 sx C cmt 1,905 - 1,750' TAGGED
- 3) Perf & sqz'd 75 sx C cmt 830 - 580' TAGGED
- 4) Perf & sqz'd 125 sx C cmt 400' to surface, circ cmt

**Casing / Openhole Capacities**

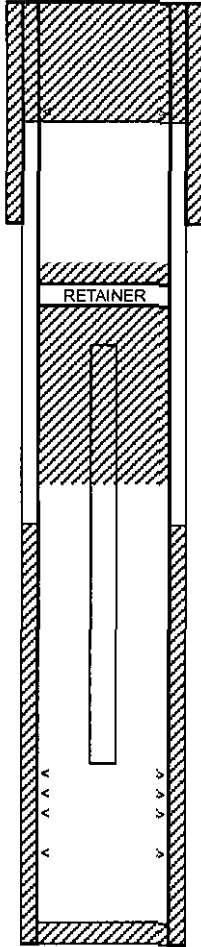
4 1/2" 9.5# csg:	10,985	ft/ft3	0.0912	ft3/ft
5 1/2" 17# csg:	7,661	ft/ft3	0.1305	ft3/ft
7" 20# csg:	4,399	ft/ft3	0.2273	ft3/ft
7" 26# csg:	4,655	ft/ft3	0.2148	ft3/ft
7 7/8" 24# csg:	3,715	ft/ft3	0.2691	ft3/ft
8 1/2" 20# csg:	2,733	ft/ft3	0.3659	ft3/ft
8 1/2" 24# csg:	2,797	ft/ft3	0.3575	ft3/ft
8 1/2" 28# csg:	2,853	ft/ft3	0.3505	ft3/ft
6 1/2" openhole:	4,024	ft/ft3	0.2485	ft3/ft
7 1/4" openhole:	2,957	ft/ft3	0.3382	ft3/ft
9 1/2" openhole:	2,032	ft/ft3	0.4922	ft3/ft
10" openhole:	1,834	ft/ft3	0.5454	ft3/ft
12 1/4" openhole:	1,222	ft/ft3	0.8185	ft3/ft

**Formation Tops:**

Rustler  
Top Salt  
Tansil  
Yates  
Seven Rivers  
Queen 2936'  
Grayburg 3358'  
Grayburg 6th  
San Andres 3758'  
Lovington Sand 3895'

EXHIBIT H

MCA 290 (API: 30-025-23798)  
1295 FNL & 1295 FWL, Section 29, 17S-32E  
Elev.: 3947 DF (est); 3937 GL



Perforate 5-1/2" csg @ 523. Pump 160 sx. Circ 5-1/2" x 8-5/8" annulus w/ cmt: surface-523.

07.05.71: 8-5/8", 20# @ 770. Cmt w/ 425 sx. Circ cmt to surface.

03.1988: Set Cmt Retainer (CR) @ 1879. Sq 100 sx cmt below CR (cmt plug: 1879-2785). Spot 60' (6 sx) cmt above CR

03.1988: Cut & recover tbg @ 2000.  
5-1/2" csg collapse interval: 2071-2091

Completion Intervals:

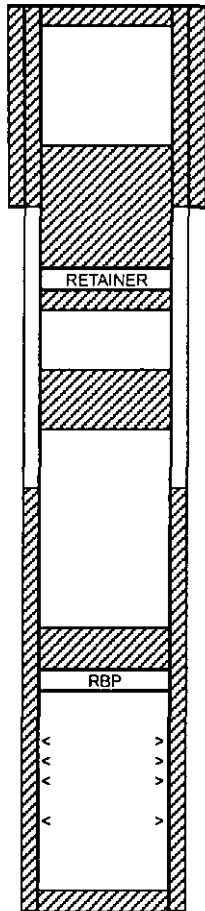
Grayburg: 3736-3778 (gross)  
San Andres (7U): 3834-3858 (gross)  
San Andres (7L): 3901-3945 (gross)  
  
San Andres (9) : 3987-4028 (gross)  
San Andres (9M):

07.1971: 5-1/2", 14# J-55 @ 4080. Cmt w/ 400 sx. TOC: 3500 (temp survey: ).

PBD: 4073  
TD: 4080

EXHIBIT HJ

MCA 278 (API: 30-025-23930)  
 2615 FNL & 1345 FEL, Section 30, 17S-32E  
 Elev.: 3920 KB (est); 3908 GL



03.04.98: Spot 15 sx cmt plug: surface-120

Run coil tbg down 5-1/2" x 8-5/8" annulus to 743. Cmt 5-1/2" x 8-5/8" annulus from 743-surface w/ 125 sx

11.28.71: 8-5/8", 20# @ 750. Cmt w/ 400 sx. Circ cmt to surface.

03.03.98: Cmt Retainer (CR) @ 1236 (bad csg section: 1336-1366)  
 Sq 15 sx below CR to 1000#. Spot 50 sx cmt plug above CR: 500 (tagged)-1236

03.02.98: Spot 25 sx cmt plug: 2285-2525

03.02.98: Spot 25 sx above RBP: 3445-3685

05.11.92: RBP @ 3685.

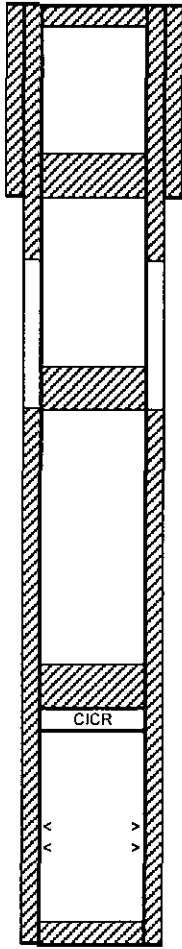
Completion Intervals:  
 Grayburg: 3710-3783 (gross)  
 San Andres (7U): 3811-3839 (gross)  
 San Andres (7L): 3886-3921 (gross)  
 San Andres (9) : 3969-3985 (gross)  
 San Andres (9M):

12.1971: 5-1/2", 14# J-55 @ 4040. Cmt w/ 300 sx. TOC: 2400 (temp survey: ).

PBD: 4034  
 TD: 4040

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MCA 307 (API: 30-025-24058)  
25 FNL & 1345 FEL, Sec. 27, T17S, R32E  
Elev.: 4002 KB; 3991 GL



10.07.82: Pump 200 sx cmt down 5-1/2" x 8-5/8" annulus.  
04.05.72 8-5/8", 20# @ 850. Cmt w/ 425 sx. Cmt circ to surface

09.2001: P&A:  
Set CICR @ 3404. Unable to obtain pump-in rate @ 2000#.  
Spot 25 sx cmt plug: 3167 (tagged)-3404  
Spot 25 sx cmt plug: 1705-1919  
Spot 25 sx cmt plug: 654-901  
Spot 10 sx cmt plug: surface-60

Completion Interval:  
Grayburg: 3830-3908 (gross)  
San Andres: 3994-4083 (gross)

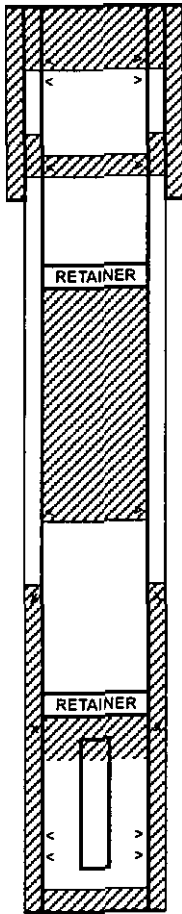
09.01.89: Dri out to 4120 (new PBD).  
5-1/2", 14#, J-55 @ 4140. Cmt w/ 300 sx. TOC: 1850 (temp survey). PBD: 4070 (original)

PBD: 4120  
TD: 4140

EXHIBIT H

MCA 336 (API: 30-025-24370)  
 1345 FSL & 125 FWL, Sec. 23, T17S, R32E  
 Elev.: 4002 KB; 3989 GL

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02.1973: 8-5/8", 20# @ 904. Cmt w/ 400 sx. Cmt circ to surface

P&A:

12.1987: Perforate 5-1/2" csg @ 2400.  
 Pump 200 sx cmt below Cement Retainer (CR) @ 1210. Tag cmt @ 1195  
 Perforate 5-1/2" csg @ 800. Squeeze perforations. Cmt column: 693-800. Ran temp survey. TOC: 675.  
 Perforate 5-1/2" csg @ 350. Unable to pump in  
 Perforate 5-1/2" csg @ 300. PIR: 1.5 BPM @ 500#; 2 BPM @ 750#  
 Perforate 5-1/2" csg @ 250. PIR: 2 BPM  
 Pump 150 sx cmt down 5-1/2" csg (equivalent to 585 ft cmt column: 5-1/2", 14# & 5-1/2" x 8-5/8", 20#)

03.1981: 5-1/2" csg leak: 2730  
 Set RBP @ 3300, Perforate @ 2731.  
 Squeeze 100 sx below Cement Retainer @ 2682. Over-displace to clear-perfs  
 Re-squeeze w/ 300 sx below cmt retainer (CR). Dr out CR & cmt. Test squeeze @ 1200# for 15 min.  
 POOH w/ RBP  
 Set Cement Retainer (CR) @ 3300 (above 5-1/2" csg collapse section 3395-3435).  
 Squeeze 100 sx below CR @ 3300

01.1976: 5-1/2" csg collapse @ 3395. Mill to 3435 (rec sliver of 5-1/2" csg & 4 ft. of formation core)  
 (Left approx. 653 ft. 2-7/8" tbg in hole: 3400-4053)

03.1973: Completion Interval.  
 Grayburg: 3877-3943 (gross)  
 San Andres: 4032-4043 (gross)

03.1973: 5-1/2", 14# @ 4200. Cmt w/ 500 sx. TOC: 2720 (temperature survey)  
 03.1973: TD 4200; PBD 4103

EXHIBIT H

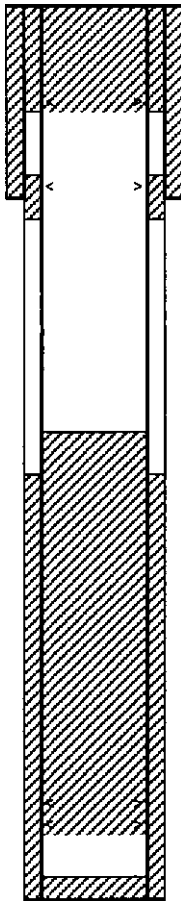
	MCA 339 (API: 30-025-24377)
	1295 FSL & 2615 FWL, Sec. 23 T-17S, R-32E
	Elev.: 4004 GL
	8-5/8", 20#, H-40 csg @ 970. Cmt w/ 500 sx. Circ cmt to surface
	10-11.1977: RIH w/ tbg & PKR. Set PKR @ 899
	Perforate 5-1/2" csg (w/ tbg gun): 1050-1052 @ 2 spf
	Pump 300 sx cmt down 5-1/2" x 8-5/8" csg annulus
	Pump 200 sx cmt down tbg below PKR. POOH w/ tbg & PKR.
	Spot 10 sx cmt plug (5-1/2" csg): surface -96
Retainer	10-11.1977: Set Cmt retainer @ 2104.
	Sq 250 sx cmt below retainer (5-1/2" csg leak interval: 2807-2820)
	Left-in-Hole: 2-3/8" tbg @ 2372 w/ PKR @ 2382
	TOC 2750
RBP	08.1975: Set RBP @ 3926. Cap w/ 12' sand.
	Completion Interval: 3964-4071 (gross)
	5-1/2", 14# csg @ 4225. Cmt w/ 450 sx
PBD 4186	
TD 4225	

EXHIBIT H



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MCA 342 (API: 30-025-24463)  
1225 FNL & 1295 FWL, Sec. 26, T17S, R32E  
Elev.: 3986 KB; 3975 GL



07.26.73: 8-5/8", 20# @ 927. Cmt w/ 450 sx. Cmt circ to surface

Re-P&A:

02.1980: Dri out 12.1976 cmt plugs, CR & cmt to 2155. Spot 20 sx cmt plug: 2000-2150.  
02.1980: Spot 15 sx cmt plug: 1000-1150  
02.1980: Perforate 5-1/2" csg @ 900. Unable to pump-in.  
02.1980: Perforate 5-1/2" csg @ 870. Unable to pump-in.  
02.1980: Perforate 5-1/2" csg @ 500. Obtain circ to surface  
02.1980: Pump 160 sx down 5-1/2" csg and circ cmt (40 sx) to surface up 5-1/2" x 8-5/8" annulus.

Original P&A:

12.1976: Cement Retainer (CR) @ 2144. Sq 350 sx below CR.  
12.1976: Perforate 5-1/2" csg @ 918-920. Pump 100 sx cmt below PKR @ 700. Displace cmt to 850.  
12.1976: Spot 10 sx surface plug

02.1976: 5-1/2" csg leak @ 2714 squeezed w/ 48 sx below cement retainer

Completion Interval:

Grayburg: 3953-4043 (gross)  
San Andres: 4098-4124 (gross)

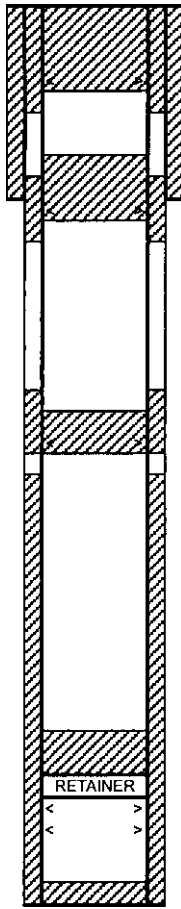
08.1973: 5-1/2", 14# @ 4240. Cmt w/ 480 sx. TOC: 2250. PBD: 4190

PBD: 4190  
TD: 4240

EXHIBIT H

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MCA 345 (API: 30-025-24499)  
2515 FSL & 1345 FEL, Section 22, T17S, R32E  
Elev.: 3996 KB, 3985 GL



03.27.07: Perforate 5-1/2" csg @ 400. Pump 175 sx down 5-1/2" csg. Circ cmt to surface up 5-1/2 x 8-5/8 annulus.

08.29.73: 8-5/8", 20# @ 870. Cmt w/ 450 sx. Cmt circ to surface

03.26.07: Perforate 5-1/2" csg @ 950. Sq 75 sx cmt below PKR. Cmt plug: 750 (tagged)-9500

03.26.07: Perforate 5-1/2" csg @ 2100. Sq 40 sx cmt below PKR. Cmt plug: 1935 (tagged)-2100

03.26.07: Spot 25 sx cmt plug: 3467-3717 on top of Cement Retainer @ 3717

06.13.86: Cement Retainer @ 3717

Completion Interval:

Grayburg: 3782-3838 (gross)

San Andres: 3975-4036 (gross)

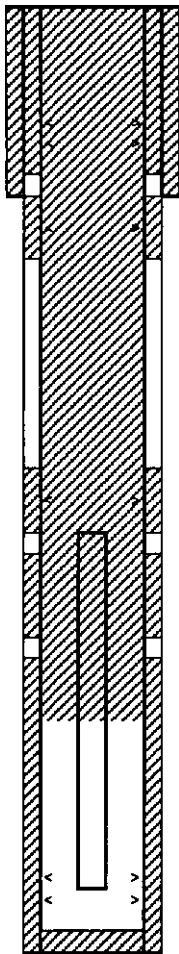
08.1973: 5-1/2", 14# @ 4150. Cmt w/ 325 sx. TOC: 2200 (temp survey). PBD: 4070

PBD: 4070  
TD: 4150

EXHIBIT H

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MCA 349 (API: 30-025-24545)  
75 FSL & 1295 FWL, Section 23, T17S, R32E  
Elev.: 4002 KB; 3991 GL



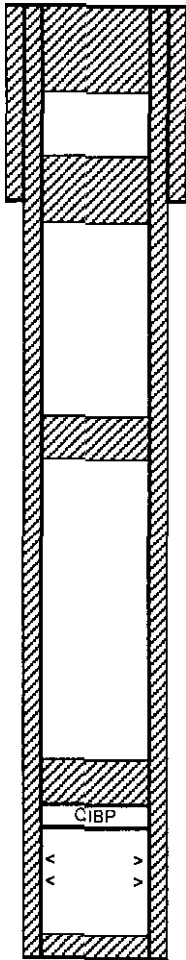
PBD: 4203  
TD: 4250

- 07.06.85: Perforate 5-1/2" csg @ 800. Sq w/ 250 sx. TOC unknown. Did not circ cmt to surface.  
07.04.85: Perforate 5-1/2" csg @ 865. Sq w/ 250 sx. Ran temp survey. TOC @ 846  
10.05.73: 8-5/8", 20# @ 860. Cmt w/ 500 sx.. Circ cmt to surface.  
  
10.20.12: Sq below PKR @ 2086 w/ total 400 sx. Tag cmt @ 2186.  
Perforate 5-1/2" csg @ 2185. Sq below PKR w/ 50 sx. Tag cmt @ 2070  
Spot 100 sx cmt plug: 1085 (tagged)-2070  
Perforate 5-1/2" csg @ 1085. Sq below PKR w/ 50 sx. Tag cmt @ 775  
Perforate 5-1/2" csg @ 690. PIR: 0.25-0.50 BPM @ 2100#. Spot 15 sx cmt plug: 605-750.  
Perforate 5-1/2" csg @ 590. PIR: 0.5 BPM @ 2000#. Spot cmt plug: surface-600  
Pump 140 sx down 5-1/2" csg & circ 5-1/2" x 8-5/8" to surface.  
  
02.22.12 5-1/2" csg window: 2274-2280  
5-1/2" csg collapsed @ 2280 (02.15.12: ran free-point; 100% free @2270; 100% stuck @ 2280)  
5-1/2" csg leak section: 2613-2727  
07.02.85: Sq 5-1/2" csg gross interval: 2656-2727 w/ 150 sx  
07.03.85: Sq 5-1/2" csg gross interval: 2636-2727 w/ 150 sx  
07.11.85: Sq 5-1/2" csg gross interval: 2613-2727 w/ 150 sx  
5-1/2" csg restriction: 2702-2715  
  
Left-in-Well:  
2280-4036: 2-3/8", 4.7#, J-55 tbg  
4036-4067: 2-7/8", 6.5#, J-55 poly-lined tbg  
4067-4068: SN  
4068-4097: 2-7/8" SOPMA  
  
Left-in-Tubing:  
2302-4002: 3/4" Grade C sucker rods  
4002-4052: 1-1/2" sinker bars  
4052-4068: insert pump  
4068-4083: gas anchor  
  
Completion Interval:  
Grayburg: 3958-4039 (gross)  
San Andres: 4108-4120 (gross)  
  
10.12.73: 5-1/2", 14#, J-55 @ 4250. Cmt w/ 325 sx. TOC: 2903 (temp survey). PBD: 4203

EXHIBIT H

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MCA 385 (API: 30-025-30731)  
610 FSL & 1980 FEL, Section 22, T-17S, R32E  
Elev.: 3998 KB; 3983 GL



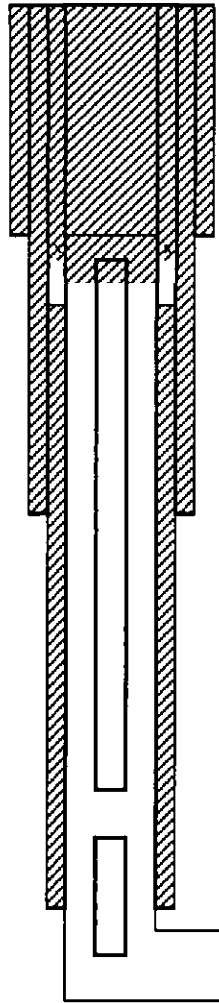
- 03.23.07: Spot 45 sx cmt plug: surface-412
- 03.22.07: Spot 35 sx cmt plug: 650 (tagged)-952  
12.11.89. 9-5/8", 36#, K-55 @ 915. Cmt w/ 400 sx. Circ cmt (125 sx) to surface
- 03.22.07: Spot 25 sx cmt plug. 1900 (tagged)-2127
- 03.22.07: Set CIBP @ 3778-3781. Cap CIBP w/ 25 sx cmt plug: 3501-3778
- 01.11.90 3826-3850, 3862-3878, 3885-3891, 3912-3939
- 01.10.90: 3978-4000, 4040-4042, 4047-4050, 4068-4074
- 12.23.89: 5-1/2", 17#, K-55 @ 4420. Cmt w/ 2100 sx. Circ cmt (25 sx) to surface.

PBD: 4374  
TD: 4420

EXHIBIT H

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MCA 387 (API: 30-025-35142)  
Surface: 2197 FSL & 2255 FWL, Section 27, T-17S, R32E  
BHL: 1664 ft. S & 1778 ft. E of surface location  
Elev.: 3981 KB; 3969 GL



09.2000: 11-3/4", 42#, H-40 @ 1037. Cmt w/ 525 sx. Circ cmt (130 sx) to surface.

03.2009: 5-1/2" Casing Condition: Inadvertently milled out 5-1/2" csg: 1029-1053

11.2009: P&A  
Squeeze 175 sx below PKR @ 950. Circ cmt to surface up 5-1/2" x 8-5/8" annulus POOH.  
RIH w/ tbg open-ended. Tag cmt in 5-1/2" csg @ 980.  
Spot 100 sx cmt plug: surface-980 (100 sx cmt column in 5-1/2", 17#: 1011 ft.)  
Spot 20 sx cmt plug to surface

09.2000: 8-5/8", 24# , J-55 @ 2187. Cmt w/ 515 sx. Circ cmt (136 sx) to surface.

02.2009: Left-in-Hole:  
Liner hanger w/ PBR & 3-1/2", 9.3# tbg: 1040-3380 (chem-cut)  
3-1/2" 9.3# tbg w/ float-collar & float-shoe: 502 ft (below 3600 ft)

09.2000: 5-1/2", 17#, K-55 @ 3945 (MD); 3880 (TVD). Cmt w/ 380 sx. TOC: 1300 (calc).

Completion Interval: 3945-6277 MD (3880-4189 TVD)

02.2001: TD @ 6277 ft. (4189 ft. TVD; -208 TVD RMSL); BHL: 533 FSL & 1247 FEL, 27P -17S-33E  
BHL: 1664 ft. S & 1778 ft. E of surface location  
BHL: 2435 ft. 133 degree of surface location

EXHIBIT H



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

CLW##### in the  
 POD suffix indicates the  
 POD has been replaced  
 & no longer serves a  
 water right file.)

(R=POD has  
 been replaced,  
 O=orphaned,  
 C=the file is  
 closed)

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

(quarters are smallest to largest)

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
RA 11911 POD1		LE	1	3	1	24	17S	32E	619192	3632296	1945	35		
RA 12042 POD1		LE	2	2	1	28	17S	32E	614891	3631181	2579	400		
RA 12020 POD1		LE	2	2	1	28	17S	32E	614828	3630954	2671	120	81	39
RA 10175		LE		2	1	28	17S	32E	614814	3631005*	2677	158		

Average Depth to Water: **81 feet**

Minimum Depth: **81 feet**

Maximum Depth: **81 feet**

**Record Count: 4**

**UTMNAD83 Radius Search (in meters):**

**Easting (X): 617461**

**Northing (Y): 3631407**

**Radius: 3220**

**MCA Unit 535**

**EXHIBIT I**

\*UTM location was derived from PLSS - see Help

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



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

CLW##### in the  
 POD suffix indicates the  
 POD has been replaced  
 & no longer serves a  
 water right file.)

(R=POD has  
 been replaced,  
 O=orphaned,  
 C=the file is  
 closed)

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

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
RA 12042	POD1		LE	2	2	1	28	17S	32E	614891	3631181	1106	400		
RA 12020	POD1		LE	2	2	1	28	17S	32E	614828	3630954	1135	120	81	39
RA 10175			LE		2	1	28	17S	32E	614814	3631005*	1152	158		

Average Depth to Water: **81 feet**

Minimum Depth: **81 feet**

Maximum Depth: **81 feet**

**Record Count: 3**

**UTMNAD83 Radius Search (in meters):**

**Easting (X): 615962**

**Northing (Y): 3630902**

**Radius: 3220**

**MCA Unit 548**

**EXHIBIT I**

\*UTM location was derived from PLSS - see Help

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



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

CLW##### in the  
 POD suffix indicates the  
 POD has been replaced  
 & no longer serves a  
 water right file.)

(R=POD has  
 been replaced,  
 O=orphaned,  
 C=the file is  
 closed)

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

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

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
RA 12020 POD1			LE	2	2	1	28	17S	32E	614828	3630954	619	120	81	39
RA 10175			LE		2	1	28	17S	32E	614814	3631005*	671	158		
RA 12042 POD1			LE	2	2	1	28	17S	32E	614891	3631181	836	400		
CP 00566			LE	4	4	1	04	18S	32E	614960	3627280*	3066	133	65	68

Average Depth to Water: **73 feet**

Minimum Depth: **65 feet**

Maximum Depth: **81 feet**

Record Count: 4

**UTMNAD83 Radius Search (in meters):**

Easting (X): 614942

Northing (Y): 3630346

Radius: 3220

MCA Unit 561

EXHIBIT I

\*UTM location was derived from PLSS - see Help

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





# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

PLW##### in the  
 POD suffix indicates the  
 POD has been replaced  
 & no longer serves a  
 water right file.)

(R=POD has  
 been replaced,  
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 closed)

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

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
RA 12020 POD1			LE	2	2	1	28	17S	32E	614828	3630954	667	120	81	39
RA 10175			LE		2	1	28	17S	32E	614814	3631005*	720	158		
RA 12042 POD1			LE	2	2	1	28	17S	32E	614891	3631181	879	400		
CP 00566			LE	4	4	1	04	18S	32E	614960	3627280*	3027	133	65	68

Average Depth to Water: **73 feet**

Minimum Depth: **65 feet**

Maximum Depth: **81 feet**

Record Count: 4

UTMNAD83 Radius Search (in meters):

Easting (X): 614991

Northing (Y): 3630307

Radius: 3220

MCA Unit 562

EXHIBIT I

\*UTM location was derived from PLSS - see Help

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# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

CLW##### in the  
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(R=POD has  
 been replaced,  
 O=orphaned,  
 C=the file is  
 closed)

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

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

(In feet)

POD Number	POD Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
RA 10175			LE	2	1	28	17S	32E		614814	3631005*	2088	158		
RA 12020 POD1			LE	2	2	1	28	17S	32E	614828	3630954	2101	120	81	39
RA 12042 POD1			LE	2	2	1	28	17S	32E	614891	3631181	2177	400		

Average Depth to Water: **81 feet**

Minimum Depth: **81 feet**

Maximum Depth: **81 feet**

Record Count: 3

**UTMNAD83 Radius Search (in meters):**

Easting (X): 612726

Northing (Y): 3630952

Radius: 3220

MCA Unit 564

EXHIBIT I

\*UTM location was derived from PLSS - see Help

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# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

CLW##### in the  
 POD suffix indicates the  
 POD has been replaced  
 & no longer serves a  
 water right file.)

(R=POD has  
 been replaced,  
 O=orphaned,  
 C=the file is  
 closed)

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

(NAD83 UTM in meters)

(In feet)

POD Number	POD Sub-Code	basin	County	Q	Q	Q	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water Column
RA 10175			LE	2	1	28	17S	32E		614814	3631005*	1897	158	
RA 12020 POD1			LE	2	2	1	28	17S	32E	614828	3630954	1905	120	81 39
RA 12042 POD1			LE	2	2	1	28	17S	32E	614891	3631181	2000	400	

Average Depth to Water: **81 feet**

Minimum Depth: **81 feet**

Maximum Depth: **81 feet**

**Record Count: 3**

**UTMNAD83 Radius Search (in meters):**

**Easting (X): 612929**

**Northing (Y): 3630788**

**Radius: 3220**

**MCA Unit 565**

EXHIBIT I

\*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.

32.80973, -103.75194

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Google earth

© 2015 Google

EXHIBIT I



3000 ft

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: Permits West

Client Sample ID: MCA Unit #1

Project: Conoco Phillips MCA Unit

Collection Date: 8/19/2015 10:27:00 AM

Lab ID: 1508A79-001

Matrix: AQUEOUS

Received Date: 8/21/2015 1:33:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 1664A</b>							Analyst: <b>MRA</b>
N-Hexane Extractable Material	ND	10		mg/L	1	8/25/2015	20958
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	36	10		mg/L	20	8/21/2015 6:32:52 PM	R28406
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>							Analyst: <b>KS</b>
Total Dissolved Solids	254	40.0	D	mg/L	1	8/27/2015 12:01:00 PM	20986

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix		

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508A79

28-Aug-15

**Client:** Permits West  
**Project:** Conoco Phillips MCA Unit

Sample ID	MB-20958	SampType:	MBLK	TestCode:	EPA Method 1664A					
Client ID:	PBW	Batch ID:	20958	RunNo:	28466					
Prep Date:	8/25/2015	Analysis Date:	8/25/2015	SeqNo:	860389	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Hexane Extractable Material	ND	10								

Sample ID	LCS-20958	SampType:	LCS	TestCode:	EPA Method 1664A					
Client ID:	LCSW	Batch ID:	20958	RunNo:	28466					
Prep Date:	8/25/2015	Analysis Date:	8/25/2015	SeqNo:	860390	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
N-Hexane Extractable Material	44	10	40.00	0	110	78	114			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- H Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508A79

28-Aug-15

**Client:** Permits West  
**Project:** Conoco Phillips MCA Unit

Sample ID	<b>MB</b>	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	<b>PBW</b>	Batch ID:	R28406	RunNo:	28406					
Prep Date:		Analysis Date:	8/21/2015	SeqNo:	858181	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	<b>LCS</b>	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	<b>LCSW</b>	Batch ID:	R28406	RunNo:	28406					
Prep Date:		Analysis Date:	8/21/2015	SeqNo:	858182	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	96.6	90	110			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- H Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit



# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1508A79

28-Aug-15

Client: Permits West  
 Project: Conoco Phillips MCA Unit

Sample ID	MB-20986	SampType:	MBLK	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	PBW	Batch ID:	20986	RunNo:	28497					
Prep Date:	8/26/2015	Analysis Date:	8/27/2015	SeqNo:	861745					
				Units:	mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	LCS-20986	SampType:	LCS	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	LCSW	Batch ID:	20986	RunNo:	28497					
Prep Date:	8/26/2015	Analysis Date:	8/27/2015	SeqNo:	861746					
				Units:	mg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1030	20.0	1000	0	103	80	120			

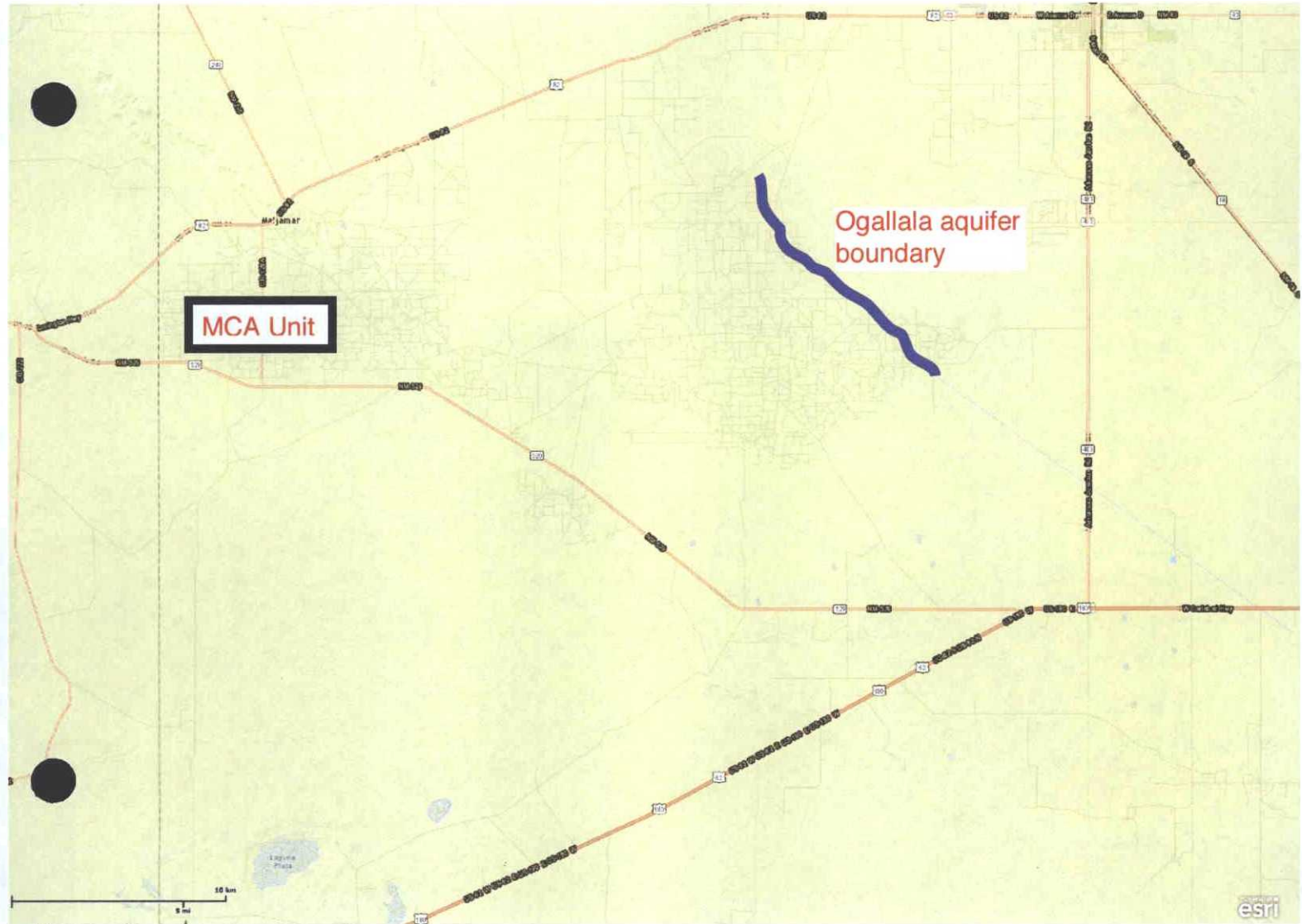
**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- H Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit





# MCA Unit



Copyright 2010 Esri. All rights reserved. Tue Nov 24 2015 09:32:27 AM.


EXHIBIT J

# Affidavit of Publication

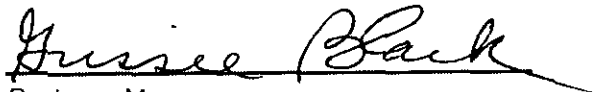
STATE OF NEW MEXICO  
COUNTY OF LEA

I, Daniel Russell, Publisher of the Hobbs News-Sun, a newspaper published at Hobbs, New Mexico, 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).

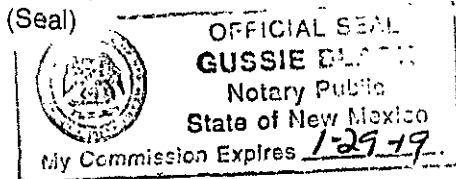
Beginning with the issue dated  
November 18, 2015  
and ending with the issue dated  
November 18, 2015.

  
Publisher

Sworn and subscribed to before me this  
18th day of November 2015.

  
Business Manager

My commission expires  
January 29, 2019



The 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

LEGAL NOTICE November 18, 2015				
ConocoPhillips Company is applying to drill 6 water injection wells in the MCA Unit in Lea County. Injection will be into the Grayburg and San Andres. Maximum injection rate will be 1,500 bwpd per well. Maximum injection pressure will be 2,150 psi. The wells will be located 3 miles south of Maljamar, NM. Well locations and injection intervals are:				
MCA Unit Well	SHL	BHL	Injection Interval (TVD)	TD
535	567 FSL & 128 FWL 23-17s-32e	same	3572 - 4632	4632
548	1040 FNL & 457 FWL 27-17s-32e	1352 FNL & 700 FWL 27-17s-32e	3519 - 4539	4539
561	2442 FSL & 2375 FWL 28-17s-32e	1980 FNL & 2630 FWL 28-17s-32e	3490 - 4480	4480
562	2311 FSL & 2529 FWL 28-17s-32e	2608 FSL & 2021 FWL 28-17s-32e	3488 - 4475	4475
564	771 FNL & 397 FWL 29-17s-32e	1310 FNL & 660 FWL 29-17s-32e	3389 - 4409	4409
565	1315 FNL & 1059 FWL 29-17s-32e	660 FNL & 1309 FWL 29-17s-32e	3439 - 4439	4439
Interested parties must file objections or requests for hearing with the NM Oil Conservation Division, 1220 South Saint Francis Dr., Santa Fe, NM 87505 within 15 days. Additional information can be obtained by contacting: Brian Wood, Permits West, Inc., 37 Verano Loop, Santa Fe, NM 87508. Phone number is (505) 466-8120. #30493				

02108485

00166546

BRIAN WOOD  
PERMITS WEST  
37 VERANO LOOP  
SANTA FE, NM 87508

EXHIBIT K

November 24, 2015

BLM  
620 E. Greene St.  
Carlsbad NM 88220

**TYPICAL LETTER**

ConocoPhillips Company is applying (see attached application) to drill 6 water injection wells 3 miles south of Maljamar in Lea County, NM. Maximum injection rate will be 1,500 bwpd per well. Maximum injection pressure will be 2,150 psi. As required by NM Oil Conservation Division (NMOCD) Rules, I am notifying you of the following 6 proposed water injection wells. This letter is a notice only. No action is needed unless you have questions or objections.

MCA Unit Well	SHL	BHL	Grayburg - San Andres Injection Interval (TVD)	TD
535	567 FSL & 128 FWL 23-17s-32e	same	3572 - 4632	4632
548	1040 FNL & 457 FWL 27-17s-32e	1352 FNL & 700 FWL 27-17s-32e	3519 - 4539	4539
561	2442 FSL & 2375 FWL 28-17s-32e	1980 FNL & 2630 FWL 28-17s-32e	3490- 4480	4480
562	2311 FSL & 2529 FWL 28-17s-32e	2608 FSL & 2021 FWL 28-17s-32e	3488 - 4475	4475
564	771 FNL & 397 FWL 29-17s-32e	1310 FNL & 660 FWL 29-17s-32e	3389 - 4409	4409
565	1315 FNL & 1059 FWL 29-17s-32e	660 FNL & 1309 FWL 29-17s-32e	3439 - 4439	4439

Applicant Name: ConocoPhillips Company (281) 206-5281  
Applicant's Address: 600 North Dairy Ashford Road, Houston TX 77079

Submission Information: Application for 6 water injection wells will be filed with the NMOCD. If you have an objection, or wish to request a hearing, then it must be filed with the NMOCD within 15 days of receipt of this letter. The New Mexico Oil Conservation Division address is 1220 South St. Francis Dr. Santa Fe, NM 87505. Their phone number is (505) 476-3440.

Please call me if you have any questions.

Sincerely,

Brian Wood

**U.S. Postal Service™  
CERTIFIED MAIL® RECEIPT**  
Domestic Mail Only

For delivery information, visit our website at [www.usps.com](http://www.usps.com)®.

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Certified Mail Fee \$

Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$

Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

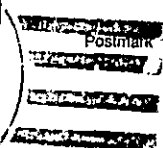
Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$

Total Postage and Fees \$

87552



Sent To **BLM**

Street and Apt. No., or P.O. Box No. **620 E. Greene Street**

City, State, ZIP+4® **Carlsbad NM 88220**

**Conoco MCA Near Well**

EXHIBIT L

7015 0640 0000 6218 6257

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Adult Signature Restricted Delivery \$

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Sent To **Ard Oil LP**  
Street and Apt. No., or P.O. Box No. 222 W. 4th Street-PH-5  
City, State, ZIP+4® **Fort Worth TX 76102**  
**Conoco MCA Near Well**

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Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$

Total Postage and Fees \$

Sent To **Caza Energy LLC**  
Street and Apt. No., or P.O. Box No. PO Box 1767  
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**Conoco MCA Near Well**

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Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$

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Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$

Total Postage and Fees \$

Sent To **Chase Oil Corp**  
Street and Apt. No., or P.O. Box No. PO Box 1767  
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**Conoco MCA Near Well**

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Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$

Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$

Total Postage and Fees \$

Sent To **Chase, Mark C Trustee**  
Street and Apt. No., or P.O. Box No. PO Box 693  
City, State, ZIP+4® **Artesia NM 88210**  
**Conoco MCA Near Well**

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Return Receipt (hardcopy) \$

Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$

Total Postage and Fees \$

Sent To **Chase, Richard L**  
Street and Apt. No., or P.O. Box No. 505 S Bolton Road  
City, State, ZIP+4® **Artesia NM 88210**  
**Conoco MCA Near Well**

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Certified Mail Fee \$

Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$

Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$

Total Postage and Fees \$

Sent To **Chase, Robert C**  
Street and Apt. No., or P.O. Box No. 2306 Sierra Vista Drive  
City, State, ZIP+4® **Artesia NM 88210**  
**Conoco MCA Near Well**

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**EXHIBIT L**

7015 0640 0000 6218 6264

7015 0640 0000 6218 6288

7015 0640 0000 6218 6301

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Return Receipt (hardcopy) \$ 0.00

Return Receipt (electronic) \$ 0.00

Certified Mail Restricted Delivery \$ 0.00

Adult Signature Required \$ 0.00

Adult Signature Restricted Delivery \$ 0.00

Postage \$ 87552

Total Postage and Fees \$ 87552

Sent To **Chase, Thomas D**  
Street and Apt. No., or P.O. Box No. **PO Box 464**  
**Santa Fe NM 87504**  
City, State, ZIP+4® **Conoco MCA Near Well**

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Certified Mail Restricted Delivery \$ 0.00

Adult Signature Required \$ 0.00

Adult Signature Restricted Delivery \$ 0.00

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Sent To **COG Operating LLC**  
Street and Apt. No., or P.O. Box No. **500 W Illinois Ave**  
**Midland TX 79701**  
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Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$ 0.00

Return Receipt (electronic) \$ 0.00

Certified Mail Restricted Delivery \$ 0.00

Adult Signature Required \$ 0.00

Adult Signature Restricted Delivery \$ 0.00

Postage \$ 87552

Total Postage and Fees \$ 87552

Sent To **Crouch Greene D C**  
Street and Apt. No., or P.O. Box No. **PO Box 693**  
**Artesia NM 88211**  
City, State, ZIP+4® **Conoco MCA Near Well**

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Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$ 0.00

Return Receipt (electronic) \$ 0.00

Certified Mail Restricted Delivery \$ 0.00

Adult Signature Required \$ 0.00

Adult Signature Restricted Delivery \$ 0.00

Postage \$ 87552

Total Postage and Fees \$ 87552

Sent To **Devon Energy Prod Co**  
Street and Apt. No., or P.O. Box No. **328 W Sheridan Ave**  
**Oklahoma City OK 73102**  
City, State, ZIP+4® **Conoco MCA Near Well**

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Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$ 0.00

Return Receipt (electronic) \$ 0.00

Certified Mail Restricted Delivery \$ 0.00

Adult Signature Required \$ 0.00

Adult Signature Restricted Delivery \$ 0.00

Postage \$ 87552

Total Postage and Fees \$ 87552

Sent To **Flint-Boyd, Emily**  
Street and Apt. No., or P.O. Box No. **101 S 4th Street**  
**Artesia NM 88210**  
City, State, ZIP+4® **Conoco MCA Near Well**

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Return Receipt (hardcopy) \$ 0.00

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Certified Mail Restricted Delivery \$ 0.00

Adult Signature Required \$ 0.00

Adult Signature Restricted Delivery \$ 0.00

Postage \$ 87552

Total Postage and Fees \$ 87552

Sent To **Flint-Boyd, Emily**  
Street and Apt. No., or P.O. Box No. **2906 Hayden**  
**Amarillo TX 79109**  
City, State, ZIP+4® **Conoco MCA Near Well**

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EXHIBIT L

0269 9729 0000 6218 6387

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Return Receipt (hardcopy) \$ NOV 25 2015

Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$ 87552

Postage \$

Total Postage and Fees \$

Sent To **Flint-Wayte, Rosemary**  
Street and Apt. No., or P.O. Box No. 1422 Glenbrook Terrace  
City, State, ZIP+4® Oklahoma City OK 73116  
Conoco MCA Near Well

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Certified Mail Fee \$

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Return Receipt (hardcopy) \$

Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$ 87552

Postage \$

Total Postage and Fees \$

Sent To **Fowles, Mary K Trust**  
Street and Apt. No., or P.O. Box No. 143 Milliken Creek Drive  
City, State, ZIP+4® Napa CA 94558  
Conoco MCA Near Well

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7015 0640 0000 6218 6387

4669 9729 0000 6218 6394

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Certified Mail Fee \$

Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$ NOV 25 2015

Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$ 87552

Postage \$

Total Postage and Fees \$

Sent To **Fowles, Mary K Trust**  
Street and Apt. No., or P.O. Box No. 415 Crocker Rd  
City, State, ZIP+4® Sacramento CA 95825  
Conoco MCA Near Well

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7015 0640 0000 6218 6400

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Return Receipt (hardcopy) \$

Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$ 87552

Postage \$

Total Postage and Fees \$

Sent To **J&V Shaw Trust**  
Street and Apt. No., or P.O. Box No. 4111 W Main  
City, State, ZIP+4® Artesia NM 88210  
Conoco MCA Near Well

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7015 0640 0000 6218 6417

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Return Receipt (hardcopy) \$ NOV 25 2015

Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$ 87552

Postage \$

Total Postage and Fees \$

Sent To **Legacy Reserves Operating**  
Street and Apt. No., or P.O. Box No. 303 W Wall Street Ste 1800  
City, State, ZIP+4® Midland TX 79701  
Conoco MCA Near Well

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Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$

Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$ 87552

Postage \$

Total Postage and Fees \$

Sent To **Occidental Permian LP**  
Street and Apt. No., or P.O. Box No. 5 E Greenway Plaza #110  
City, State, ZIP+4® Houston TX 77046  
Conoco MCA Near Well

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

EXHIBIT L

7015 0640 0000 6218 6431

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Return Receipt (hardcopy) \$

Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$

Total Postage and Fees \$

Sent To **Oxy USA WTP LP**  
 Street and Apt. No., or P.O. Box No. **6 Dasta Drive #6000**  
**Midland TX 79705**  
 City, State, ZIP+4® **Conoco MCA Near Well**

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7015 0640 0000 6218 6448

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Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$

Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$

Total Postage and Fees \$

Sent To **Riverhill Energy CO**  
 Street and Apt. No., or P.O. Box No. **PO Box 2726**  
**Midland TX 79705**  
 City, State, ZIP+4® **Conoco MCA Near Well**

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7015 0640 0000 6218 6455

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Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$

Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$

Total Postage and Fees \$

Sent To **Riverhill Energy Corp**  
 Street and Apt. No., or P.O. Box No. **200 N. Loraine #700**  
**Midland TX 79702**  
 City, State, ZIP+4® **Conoco MCA Near Well**

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7015 0640 0000 6218 6462

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Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$

Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$

Total Postage and Fees \$

Sent To **Runyan, Shirley**  
 Street and Apt. No., or P.O. Box No. **PO Box 517**  
**Artesia NM 88210**  
 City, State, ZIP+4® **Conoco MCA Near Well**

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7015 0640 0000 6218 6479

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Certified Mail Fee \$

Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$

Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$

Total Postage and Fees \$

Sent To **Runyan, Tom W**  
 Street and Apt. No., or P.O. Box No. **PO Box 517**  
**Artesia NM 88210**  
 City, State, ZIP+4® **Conoco MCA Near Well**

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7015 0640 0000 6218 6486

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Certified Mail Fee \$

Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$

Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$

Total Postage and Fees \$

Sent To **Runyan-Rich, Shirley**  
 Street and Apt. No., or P.O. Box No. **4901 Sunningdale NE**  
**Albuquerque NM 87110**  
 City, State, ZIP+4® **Conoco MCA Near Well**

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

EXHIBIT L

7015 0640 0000 0000 0000 0000 0000 0000 0000 0000

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Certified Mail Fee \$

Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$

Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$

Total Postage and Fees \$ **87552**

Sent To **Shaw Interests Inc**  
**PO Box 9612**  
 Street and Apt. No., or PO Box No. **Midland TX 79708**  
 City, State, ZIP+4\* **Conoco MCA Near Well**

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7015 0640 0000 0000 0000 0000 0000 0000 0000 0000

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Certified Mail Fee \$

Extra Services & Fees (check box, add fee as appropriate)

Return Receipt (hardcopy) \$

Return Receipt (electronic) \$

Certified Mail Restricted Delivery \$

Adult Signature Required \$

Adult Signature Restricted Delivery \$

Postage \$

Total Postage and Fees \$

Sent To **Shaw-Wood, Virginia**  
**111 Main Street**  
 Street and Apt. No., or PO Box No. **Artesia NM 88210**  
 City, State, ZIP+4\* **Conoco MCA Near Well**

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

7014 2000 0000 0000 0000 0000 0000 0000 0000 0000

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Postage \$

Certified Fee \$ **NOV 25 2015**

Return Receipt Fee (Endorsement Required) \$

Restricted Delivery Fee (Endorsement Required) \$

Total Postage & Fees \$ **87552**

Sent To **SM Energy Co**  
**1775 Sherman St STE 1200**  
 Street & Apt. No., or PO Box No. **Denver CO 80203**  
 City, State, ZIP+4 **Conoco MCA Near Well**

PS Form 3800, July 2014 See Reverse for Instructions

7014 2070 0000 0000 0000 0000 0000 0000 0000 0000

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Postage \$

Certified Fee \$

Return Receipt Fee (Endorsement Required) \$

Restricted Delivery Fee (Endorsement Required) \$

Total Postage & Fees \$ **87552**

Sent To **Sonic Oil & Gas LP**  
**PO Box 1240**  
 Street & Apt. No., or PO Box No. **Graham TX 76450**  
 City, State, ZIP+4 **Conoco MCA Near Well**

PS Form 3800, July 2014 See Reverse for Instructions

EXHIBIT L



**STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION**

**IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
DIVISION FOR THE PURPOSE OF  
CONSIDERING THE:**

**APPLICATION OF CONOCOPHILLIPS FOR AMENDMENT OF DIVISION  
ORDER NO. R-2403, AS AMENDED, TO INCREASE THE AUTHORIZED  
INJECTION PRESSURE IN ITS MCA UNIT AREA, LEA COUNTY, NEW  
MEXICO.**

**CASE NO. 14421  
ORDER NO. R-2403-B**

**ORDER OF THE DIVISION**

**BY THE DIVISION:**

This case came on for hearing at 8:15 a.m. on March 4 and April 1, 2010, at Santa Fe, New Mexico, before Examiners William V. Jones and David K. Brooks.

NOW, on this 8<sup>th</sup> day of June, 2010, the Division Director, having considered the testimony, the record and the recommendations of the Examiners,

**FINDS THAT:**

(1) Due public notice has been given, and the Division has jurisdiction of this case and of the subject matter.

(2) The Applicant, ConocoPhillips, seeks to establish an authorized surface injection pressure for water of 2150 psi within its previously approved secondary recovery project within the MCA Unit Area, Lea County, New Mexico.

(3) Pursuant to the Maljamar Cooperative Repressuring Agreement, approved by Oil Conservation Commission Order No. 485 in Case No. 36, dated November 14, 1942, pressure maintenance operations through cooperative gas injection by various operators began in the Maljamar Cooperative Area. The original gas injection area was expanded and pilot waterflood project operations were initiated over a twenty year period pursuant to various Oil Conservation Commission orders such as Orders No. 595, R-841, and R-1075.

(4) On October 30, 1979 in Order No. R-6157, the Oil Conservation Division approved the creation of the "Maljamar CO2 Injection Project", subsequently expanded by Order PMX-153 and clarified as to allowed injection fluids in Order No. R-6157-A.

(5) On September 24, 1962, the Maljamar Cooperative Agreement project area was unitized for waterflood operations and Continental Oil Company was named unit operator.

(6) By Order No. R-2403, issued on December 31, 1962, the Division granted the application of Continental Oil Company for, among other things, (a) approval of a Supplemental Cooperative Agreement ("Supplement 5") unitizing oil and gas by agreement within certain leases and (b) adoption of the initial Plan of Operation for expansion of the pressure maintenance program by gas and water injection in the Cooperative Area.

(7) The Maljamar Cooperative Agreement Area ("MCA Unit") heretofore approved by the Oil Conservation Commission for pressure maintenance of the Grayburg-San Andres formations includes the following Federal, State and Fee acreage in Lea County, New Mexico:

**TOWNSHIP 17 SOUTH, RANGE 32 EAST, N.M.P.M.**

Sections 14 to 23: All  
Sections 25 to 35: All

**TOWNSHIP 17 SOUTH, RANGE 33 EAST, N.M.P.M.**

Section 30: W/2

(8) The MCA Unit Operator, from time to time, has received authorization to expand this project by adding injection wells as provided in Supplement 5 and on receipt of Division approval as required by Order No. R-2403.

(9) Orders approving additional injection wells in the project area have limited initial maximum injection pressures to approximately 775 psi. These orders have provided that increases in injection pressures may be authorized by the Division Director "upon a proper showing by the operator that higher pressure will not result in migration of the injected fluid from the permitted injection interval or harmful formation fracturing".

(10) ConocoPhillips presented geological and engineering evidence as follows:

- a. The unitized interval in the MCA Unit is comprised of portions of the Grayburg-San Andres formation, Maljamar-Grayburg-San Andres Pool, which is a well defined reservoir into which water has been injected for enhanced recovery operations for over 65 years. The injection interval is approximately 1278 feet thick. Tight zones in the Queen formation, above

the unitized interval and low porosity zones in the San Andres below this interval assure that injected fluids do not migrate out of zone.

- b. ConocoPhillips is currently injecting in 28 wells in the MCA Unit and plans to add additional injection wells within the southeastern portion of the waterflood in the configuration of 10 acre well density, line drive patterns.
- c. Some producers in this MCA Unit are shut in because of high water production and no place to dispose of the water. Higher injection pressures would enable this water to be re-injected.
- d. New wells to be converted will have adequate casing and cement to prevent migration of injection fluids out of the intended injection interval.
- e. ConocoPhillips indicated no current problems with vertical movement of fluids within the MCA Unit and stated some older wells had been repaired with liners. The older wells have had internal fiberglass liners installed and cemented in order to best confine injection fluid to the intended water flooding interval.
- f. Current injection wells are located throughout the MCA Unit and each was originally either not limited in pressure (for the older wells) or authorized to inject at a surface pressure of 775 psi (0.2psi per foot of depth to the top of the injection interval) and subsequently each has been authorized to inject at a surface pressure of 2150 psi which was approved by the Division.
- g. ConocoPhillips presented step-rate tests on three wells (#223, #273, and #301) as well as initial shut in pressure (ISIP) data from stimulation treatments showing that the most likely formation parting pressure is above 2150 psi.
- h. Approval of a surface injection pressure of 2150 psi for all new injection wells in the MCA Unit will result in operational and administrative efficiencies for ConocoPhillips.

(11) No person other than ConocoPhillips appeared at the hearing, and except for the comments noted below, no person indicated any objection to the application.

(12) This waterflood is one of several older projects in Lea County with some occurrences of water flows while drilling new wells and consequentially with required annual bradenhead surveys. Many of the older wells were drilled in the 1940's and therefore have old casing and cement and are open hole completions stimulated with nitro-glycerin.

(13) The United States Bureau of Land Management ("BLM") filed a statement in email format prior to this hearing listing concerns such as the waterflows and the effects the increased pressure limit would have on older wells with open hole completions.

(14) The case was heard on March 4, 2010, and then continued to permit ConocoPhillips to meet with BLM representatives to discuss its questions and concerns.

(15) ConocoPhillips testified at the April 1 hearing that it had met with the BLM and reviewed its application and recent step-rate tests. ConocoPhillips stated the BLM now supported its request for a maximum surface injection pressure in the MCA Unit of 2150 psi. The BLM did not appear at either hearing and did not send any subsequent letter after the meeting with ConocoPhillips.

(16) As the BLM had mentioned the possible need for periodic tracer surveys, ConocoPhillips presented recent tracer surveys run immediately after the initial completions of two wells to be used for injection in the MCA Unit. The completion fluids on each well had been tagged with radioactive material. These surveys demonstrated that the fracturing or stimulation fluids remained in the intended treatment intervals and did not migrate out of zone during the treatments.

(17) ConocoPhillips emphasized that all new injection wells will be drilled with production casing run to total depth and cement circulated to surface and will therefore competently isolate the injection interval from adjacent formations.

(18) A surface injection pressure of 2150 psi for all "new" injection wells in the MCA Unit will result in operational efficiencies for ConocoPhillips, and will not cause migration of injection fluids out of zone, will otherwise be in the best interest of conservation, the prevention of waste and the protection of correlative rights.

(19) Increased pressures should be limited in older wellbores if these are not repaired with liners or squeezed to supplement older cement jobs. If any conduits exist to allow vertical movement of injected waters it would be the old wellbores, some of which were drilled and abandoned decades ago. Away from these wells, there is a natural barrier to vertical movement of injected waters within the MCA Unit. There is no evidence of faulting in this area and logs presented at the hearings indicate higher stress rocks exist above and below the Grayburg-San Andres porosity intervals.

(20) Division records indicate there are approximately 29 injection wells and total injection per year is approximately 2 million barrels of water. There are approximately 205 producing wells and total water production per year is approximately 3 million barrels of water. Apparently ConocoPhillips intends to drill and convert additional injection wells in order to increase waterflood efficiency and to reverse the decline in reservoir pressure. The additional injection pressure is needed to serve the same purpose.

(21) Division permitting records indicate that injection pressure limits were imposed on MCA Unit wells permitted for injection after 1978. Injection wells permitted before this time period were not limited in pressure and are still not limited in pressure. The operator of the MCA Unit quickly asked for more than the 0.2 psi per foot injection gradient and supported these requests with results of Step Rate Tests run on wells #256 (tested 6/20/79) and wells #202 and #350 (both tested 12/11/89). Other evidence used to support these requests for increased pressure was breakdown pressures and ISIP's experienced during stimulation treatments. With the three Step Rate Tests presented in this application, the Division has evidence of a total of only 6 wells tested with injection Step Rate Tests within the life of the MCA Unit.

(22) The Division has granted 2150 psi for maximum surface injection pressure in previous years and indeed all current injection wells (see Exhibit "A" to this order) either are limited to 2150 psi or not limited at all. Approval of this application would be consistent with prior approvals and is supported by the evidence.

(23) ConocoPhillips testified that currently Well No. 380 is being used to inject gas that was contaminated with injected CO<sub>2</sub> from the old tertiary recovery project. Other wells may be used for this in the future. The maximum injection pressure while injecting CO<sub>2</sub> or a mixture of gases and water was addressed in 1992 with a permit from the Division and that permit is available in the files of administrative orders PMX-153 or IPI-375.

(24) The application of ConocoPhillips to authorize an increase in the maximum allowable surface injection pressure to 2150 psi for "new" wells in its Maljamar Cooperative Agreement Unit, Lea County, New Mexico should be approved subject to the following conditions:

- a. Wells listed on the attached Exhibit "A" should be considered as "existing" injection wells. The maximum allowable surface injection pressure on these existing wells should be as granted on previously approved permits. Any well NOT listed in the attached Exhibit "A", if converted to injection, should be considered to be a "new" injection well.
- b. The maximum allowable surface injection pressure while injecting water into any "new" injection well within the MCA Unit, should be set at 2150 psi; provided said well is equipped with cemented casing extending through the Grayburg San Andres waterflood interval.
- c. To prevent possible damage to older wells converted to injection, any "new" injection well any portion of which consists of an open hole or uncemented completion should be limited to a maximum allowable surface pressure of 800 psi, which is approximately equivalent to a gradient of 0.2 psi per foot of depth, until such well is itself step-rate-tested and administratively permitted for increased pressures.

- d. The Division director should be allowed to administratively approve increases to the permitted maximum surface injection pressure on any "new" or "existing" injection well within the MCA Unit after proper demonstration that such well is adequately cased and fracturing of the formation will not occur at the revised pressure.
- e. Any injection well permitted for and primarily used for injection of Carbon Dioxide or Carbon Dioxide contaminated gases, should be limited in maximum surface injection pressure, while injecting these gases, as per the Director's letter dated August 5, 1992. (See administrative Order IPI-375)

**IT IS THEREFORE ORDERED THAT:**

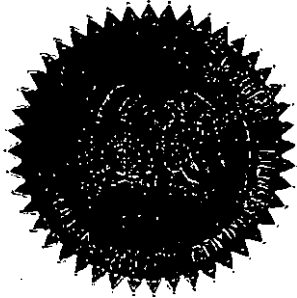
(1) The application of ConocoPhillips to authorize an increase in the maximum allowable surface injection pressure to **2150 psi** for "new" wells in its Maljamar Cooperative Agreement Unit, Lea County, New Mexico is hereby approved subject to the following conditions:

- a. Wells listed on the attached Exhibit "A" shall be considered as "existing" injection wells. The maximum allowable surface injection pressure on these existing wells shall be as granted on previously approved permits. Any well NOT listed in the attached Exhibit "A", if converted to injection, shall be considered to be a "new" injection well.
- b. The maximum allowable surface injection pressure while injecting water into any "new" injection well within the MCA Unit, shall be set at **2150 psi**; provided said well is equipped with cemented casing extending throughout the Grayburg-San Andres waterflood interval.
- c. Any "new" injection well any portion of which consists of an openhole or uncemented completion shall be limited to a maximum allowable surface pressure of 800 psi, until such well is itself Step-Rate-Tested and administratively permitted for increased pressures.
- d. The Division director shall be authorized to administratively approve increases to the permitted maximum surface injection pressure on any "new" or "existing" injection well within the MCA Unit after proper demonstration that such well is adequately cased and fracturing of the formation will not occur at the revised pressure. Any application for an increase in this pressure limit shall be accompanied by results from a new Step Rate Test run on any one well as subject to the application or, in the case of multiple cased and cemented wells, new Step Rate Tests run on representative wells.

e. Any injection well permitted for and primarily used for injection of Carbon Dioxide or Carbon Dioxide contaminated gases, shall be limited in maximum surface injection pressure, while injecting these gases, as per the Director's letter dated August 5, 1992 (See administrative Order IPI-375).

(2) Jurisdiction of this case is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.



SEAL

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

A handwritten signature in black ink, appearing to read "Mark E. Fesmire".

*ME* MARK E. FESMIRE, P.E.  
Acting Director

Exhibit "A" R-2403-B, Case No. 14421  
 MCA Unit "Existing" Injection Wells

30-025-	MCA Unit	Unit Letter	-Sec	Psi Limit	Inj Permit	Plimit Water PSI
00610	067	L	21			
00627	074	J	22			
00639	084	P	22			
08063	094	P	20	Yes	PMX-153	2150
00759	109	D	29	Yes	PMX-153	2150
00767	111	B	29	Yes	PMX-153	2150
00715	121	B	27	Yes	PMX-153	2150
00705	123	D	26			
00678	127	D	25			
00682	131	B	25			
00685	137	H	25			
00681	139	F	25			
00697	141	H	26			
00714	145	H	27	Yes	PMX-153	2150
00740	150	H	28	Yes	PMX-153	2150
00736	152	F	28	Yes	PMX-153	2150
00753	154	H	29	Yes	PMX-153	2150
00755	169	L	29	Yes	PMX-153	2150
00764	171	J	29	Yes	PMX-153	2150
00728	180	L	27	Yes	PMX-153	2150
00718	184	J	27	Yes	PMX-153	2150
00701	189	J	26			
00763	211	P	29			
00800	223	B	33	Yes	PMX-153	2150
23730	273	L	26	Yes	PMX-153	2150
24226	301	J	28	Yes	PMX-153	2150
08051	331	D	20			
30337	380	B	28	Yes	See Permit Letter	Dated 8/5/92
31100	386	F	29	Yes	PMX-164-A	2150



BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

CASE No. 2718  
Order No. R-2403

APPLICATION OF CONTINENTAL OIL COMPANY,  
AS OPERATOR, FOR APPROVAL OF A SUPPLE-  
MENTAL COOPERATIVE AGREEMENT UNITIZING  
CERTAIN LEASES, A PLAN OF OPERATION FOR  
CONTINUED GAS AND WATER INJECTION, MODI-  
FICATION OF ALLOCATION METHOD FOR TRANS-  
FER OF ALLOWABLES, CERTAIN ADMINISTRATIVE  
PROCEDURES, AND PERMISSION TO PRODUCE MORE  
THAN 16 WELLS INTO A SINGLE TANK BATTERY,  
MALJAMAR COOPERATIVE AGREEMENT AREA,  
MALJAMAR POOL, LEA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on December 6, 1962, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and regulations.

NOW, on this 31st day of December, 1962, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, and being fully advised in the premises,

FINDS:

(1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) That, by Order No. 485, the Commission approved the Maljamar Cooperative Repressuring Agreement, said agreement having been entered into on August 5, 1941, by the parties signatory thereto, for pressure maintenance in the Grayburg-San Andres formations under the Maljamar Cooperative Repressuring Agreement area in the Maljamar Pool, Lea County, New Mexico, unitizing gas in the area, making provisions for gas injection wells, and the expansion thereof by administrative approval. The order further provided that the proration units within the committed area

CASE No. 2718  
Order No. R-2403

should not exceed the production of 44 barrels of oil daily; provided for expansion of the committed area by administrative approval; provided for the management of said project by the Operators Committee; and included other provisions for the conduct of the repressuring program.

(3) That, by Order No. 595, the Commission amended Order No. 485 and provided a method of allocation to the committed area and the reallocation to the respective proration units on a basis which included an acreage allowable up to 15 barrels per day, a maximum marginal well allowable of 20 barrels per day, and a void space allowable determined by reservoir conditions as reflected by each well's bottomhole pressure and gas-oil ratio.

(4) That numerous other orders have been entered approving additional injection wells for expansion of the repressuring program and for non-standard locations for both injection and producing wells. The order number or date of administrative approval providing for the present injection wells or non-standard locations is set out in the attached Exhibit "A".

(5) That, by Order No. R-841, the Commission approved the injection of water into the Pearl "B" Well No. 26, located 2615 feet from the South line and 25 feet from the West line of Section 30, Township 17 South, Range 33 East, NMPM, Lea County, New Mexico. By Order No. R-1075 the Commission authorized the expansion of Order No. R-841 to include the drilling and conversion of certain other wells to water injection wells, said wells also being listed on Exhibit "A" attached. The order further provided for administrative approval for expansion of the water injection program.

(6) That by adoption of Supplement No. 4 to the Maljamar Cooperative Repressuring Agreement, the applicant, Continental Oil Company, was elected Chairman of the Operators Committee and the name was changed to the Maljamar Cooperative Agreement.

(7) That the owners in the Maljamar Cooperative Agreement area have adopted Supplement No. 5 to the Maljamar Cooperative Agreement with Continental Oil Company as Operator of the Participating Area. The effect of Supplement No. 5 is to unitize all liquid hydrocarbons in the Grayburg-San Andres formations underlying the Participating Area, and to adopt a Plan of Operations for the expansion of the pressure maintenance program by gas and water injection.

(8) That the pressure maintenance program heretofore carried out has been successful and that approval of Supplement No. 5 and the Plan of Operation contemplated thereunder, and a revision of the allocation method for transferring allowables should increase the efficiency and ultimate recovery of the pressure maintenance program.

CASE No. 2718  
Order No. R-2403

defined, is fully unitized as provided in said Supplement No. 5, and all gas produced and utilized as provided in said Supplements No. 4 and No. 5 is fully unitized as provided therein.

(4) That the Cooperative Area, heretofore approved by this Commission for pressure maintenance of the Grayburg-San Andres Formations and hereinafter called MCA Unit Area, consists of the following lands:

TOWNSHIP 17 SOUTH, RANGE 32 EAST, NMPM  
LEA COUNTY, NEW MEXICO  
Sections 14 to 23, inclusive  
Sections 25 to 35, inclusive

TOWNSHIP 17 SOUTH, RANGE 33 EAST, NMPM  
LEA COUNTY, NEW MEXICO  
Section 30: W/2

containing 13,786.66 acres, more or less.

That the following-described lands lying within such Cooperative Area are hereby designated and recognized as constituting the Participating Area for the Grayburg-San Andres formations:

TOWNSHIP 17 SOUTH, RANGE 32 EAST, NMPM  
LEA COUNTY, NEW MEXICO  
Section 15: SW/4 SW/4  
Section 16: S/2 S/2, W/2 NW/4, and  
NE/4 NW/4  
Section 17: E/2 E/2 and NW/4 NE/4,  
SE/4 NW/4, and S/2 SW/4  
Section 18: SW/4 SW/4  
Section 19: All  
Section 20: All  
Section 21: All  
Section 22: NW/4 NW/4, S/2 NW/4, S/2 NE/4,  
and S/2  
Section 23: W/2, S/2 NE/4, and SE/4  
Section 25: N/2, N/2 SW/4, N/2 SE/4 and  
SE/4 SE/4  
Section 26: N/2, SW/4, and NW/4 SE/4  
Section 27: All  
Section 28: All  
Section 29: All  
Section 30: All  
Section 31: NE/4 NW/4  
Section 33: N/2  
Section 34: W/2 NW/4, NE/4 NW/4, and  
NW/4 NE/4

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TOWNSHIP 17 SOUTH, RANGE 33 EAST, N14PM  
LEA COUNTY, NEW MEXICO  
Section 30: NW/4 and N/2 SW/4

containing 8,055.16 acres, more or less.

That the Participating Area described above and the following-described lands lying outside of the Participating Area but within the Cooperative Area, are hereby designated and recognized as constituting the committed acreage to the Maljamar Cooperative Agreement:

TOWNSHIP 17 SOUTH, RANGE 32 EAST, N14PM  
LEA COUNTY, NEW MEXICO

Section 14: SW/4 (156.25 acres of 160-acre tract), and E/2  
Section 16: NE/4, N/2 SE/4, and SE/4 NW/4  
Section 17: SW/4 NE/4, W/2 SE/4, N/2 NW/4, SW/4 NW/4, and N/2 SW/4  
Section 18: E/2, E/2 W/2, and Lots 1, 2 and 3  
Section 22: N/2 NE/4 and NE/4 NW/4  
Section 23: N/2 NE/4  
Section 25: SW/4 SE/4, and S/2 SW/4  
Section 26: NE/4 SE/4, and S/2 SE/4  
Section 31: E/2, SE/4 NW/4, E/2 SW/4, and Lots 1, 2, 3 and 4  
Section 32: NE/4 and N/2 NW/4, below 5,000 feet only  
Section 33: 3/2  
Section 34: N/2 SE/4 below 5,000 feet only; NE/4 NE/4, S/2 NE/4, and SE/4 NW/4  
Section 35: W/2

TOWNSHIP 17 SOUTH, RANGE 33 EAST, N14PM  
LEA COUNTY, NEW MEXICO

Section 30: Lot 4, and SE/4 SW/4

(5) That the fully Unitized Area shall be those lands designated above as the Participating Area of the MCA Unit for the Grayburg-San Andres formation.

(6) That the Participating Area may be enlarged as provided in said Supplement No. 5 and additional acreage committed to the MCA Unit; provided, however, that administrative approval for the expansion of the Participating Area or the committed acreage must be obtained from the Secretary-Director of the Commission; and provided, further, that any extension of the Cooperative Area, or of the Unitized Area beyond the boundaries of the Cooperative Area as described herein, shall be made only after notice and hearing.

(7) That the MCA Unit operator shall file with the Commission an executed original or executed counterpart of the Supplement No. 5 within thirty (30) days after the effective date thereof. In the event of subsequent joinder by any party or expansion of the Participating Area, the unit operator shall file with the Commission within thirty (30) days thereafter counterparts of the unit agreement reflecting the subscription of those interests having subsequently joined or ratified.

IT IS FURTHER ORDERED:

(1) That the applicant, Continental Oil Company, as operator, is hereby authorized to continue the gas and water injection project authorized by Orders 485, 595, and R-841, and to continue and expand the water injection project as further authorized by Order No. R-1075 and as proposed by the Plan of Operations submitted with Supplement No. 5.

(2) That the MCA Unit approved gas and water injection wells shall be those wells listed in Exhibit "A" attached hereto. Additional wells may be drilled for gas or water injection, gas injection wells may be converted to water injection, water injection wells may be converted to gas injection wells, and producing wells may be converted to injection wells and injection wells to producing wells within the boundaries of the Maljamar Cooperative Agreement Area upon administrative approval of the Secretary-Director of the Commission without notice or hearing; provided, however, that all information required by Rule 701-B of the Commission Rules and Regulations shall be included in the application for administrative approval; and provided, further, that all offset operators to the well, if any there be, whose acreage is not included within the Participating Area, and the State Engineer shall also be notified by registered or certified mail of such request for administrative approval. The Secretary-Director may approve the application if no such offset operator or the State Engineer has objected within 20 days. The Secretary-Director may grant immediate approval of the application upon receipt of written waivers of objection from all such offset operators and the State Engineer.

(3) That the allocation to the Participating Area and other committed leases within the MCA Unit Area and the reallocation to the respective proration units therein shall be made upon the following plan:

- (a) The unit operator shall submit to the Commission for approval the nomination in total barrels daily and schedule of reallocation to the respective proration units. Said nomination and schedule shall be submitted to the Commission and a duplicate shall be supplied to the Hobbs District Office of

the Commission not later than the twentieth day of each month preceding the next proration month.

- (b) Each proration unit shall be assigned an acreage allowable in whatsoever amount it is capable of producing up to but not exceeding fifteen (15) barrels daily, unless the unit operator nominates a lesser amount per proration unit.
- (c) Each proration unit capable of producing the acreage allowable but incapable of producing the acreage allowable plus the allowable assignable through the application of the void space formula hereinafter provided shall be assigned an allowable equal to that volume of oil shown on its production test.
- (d) All proration units capable of producing said acreage allowable plus the allowable allocated through the application of the void space formula shall be assigned a proportionate part of the total void space allowable so that each said proration unit will share in the void space allocation in inverse proportion to the amount of reservoir space voided as reflected by its production tests in strict accordance with the following formula:

$$\frac{\text{Proration Unit Reciprocal Void Space Factor}}{\text{Summation of MCA Unit Reciprocal Void Space Factors}} \times \text{Void Space Allowable} = \text{Number of Barrels}$$

The reciprocal void space factors to be determined from the attached Exhibit "B", being a table of "BARRELS OF RESERVOIR SPACE VOIDED IN PRODUCING ONE BARREL OF STOCK TANK OIL, AND THE RECIPROCAL FACTOR THERETO, AT GIVEN GAS-OIL RATIOS AND RESERVOIR PRESSURES."

- (e) A proration unit upon which is located a newly completed or reconditioned well shall be assigned an allowable in accordance with its acreage and void space allowable from the first day of production of new oil.

-9-

CASE No. 2718  
Order No. R-2403

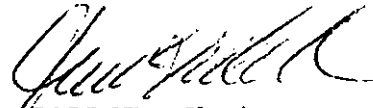
filed in due form, approve production in excess of two times the top unit allowable if all offset operators have been notified of the application and no objection has been received within ten days. The Secretary-Director may grant immediate approval of such application upon receipt of written waivers of objection from all such offset operators.

(7) That all previous orders pertaining to the MCA Unit are hereby superseded insofar as they are inconsistent with this order.

(8) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION



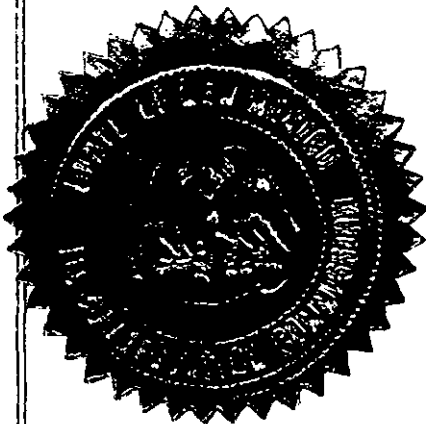
TOM BOLACK, Chairman



B. S. WALKER, Member



A. L. PORTER, Jr., Member & Secretary



NMOCC ORDERS AND ADMINISTRATIVE APPROVALS AFFECTING  
MCA UNIT INJECTION WELLS AND NON-STANDARD LOCATIONS

ORDER NO. R-2403  
EXHIBIT "A"

<u>WELL NAME IN ORIGINAL ORDER</u>	<u>PRESENT WELL NAME</u>	<u>LOCATION</u>	<u>ORDER AUTHORIZ- ING NSL</u>	<u>ORDER AUTHORIZ- ING INJECTION</u>
<u>GAS INJECTION WELLS</u>				
<u>Maljamar Oil &amp; Gas Company</u> Baish A-8	<u>Continental Oil Company</u> Baish A No. 8	1980' FNL, 660' FWL, Sec. 21, T17S, R32E	-	485
<u>Barney Cockburn</u> Miller A-6	Miller A No. 6	1980' FNL, 660' FWL, Sec. 26, T17S, R32E	-	485
<u>Buffalo Oil Company</u> Wm. Mitchell B No. IP 4	Wm. Mitchell B No. 33	2610' FSL, 2640' FEL, Sec. 19, T17S, R32E	Administrative Approval 4-6-45	Administrative Approval 4-6-45
Wm. Mitchell B No. IP 5	Wm. Mitchell B No. 42	2615' FSL, 2610' FWL, Sec. 20, T17S, R32E	Administrative Approval 4-6-45	Administrative Approval 4-6-45
Wm. Mitchell B-IP No. 12	Wm. Mitchell B No. 44	25' FS&EL, Sec. 19, T17S, R32E	Administrative Approval 4-6-45	Administrative Approval 4-6-45
Wm. Mitchell B No. 17	Wm. Mitchell B No. 17	660' FS&WL, Sec. 17, T17S, R32E	-	Administrative Approval 4-25-57
Wm. Mitchell B-IP No. 18	Wm. Mitchell B No. 45	2615' FSL, 25' FWL, Sec. 20, T17S, R32E	Administrative Approval 4-6-45	Administrative Approval 4-6-45
Wm. Mitchell B-IP No. 36	Wm. Mitchell B No. 36	25' FSL, 2590' FWL, Sec. 20, T17S, R32E	Administrative Approval 4-6-45	Administrative Approval 4-6-45
Baish B No. IP 10	Baish B No. 16	25' FSL, 50' FWL, Sec. 22, T17S, R32E	Administrative Approval 4-6-45	Administrative Approval 4-6-45
Baish A No. IP 19	Baish A No. 28	2530' FNL, 215' FEL, Sec. 21, T17S, R32E	Administrative Approval 11-27-51	Administrative Approval 11-27-51
Baish B No. IP 20	Baish B No. 17	2555' FNL, 2615' FWL, Sec. 22, T17S, R32E	Administrative Approval 4-6-45	Administrative Approval 4-6-45
Baish A No. IP 26	Baish A No. 26	2615' FN&WL, Sec. 21, T17S, R32E	Administrative Approval 4-6-45	Administrative Approval 4-6-45
Baish B No. IP 27	Baish B No. 18	25' FSL, 2612' FWL, Sec. 22, T17S, R32E	Administrative Approval 4-6-45	Administrative Approval 4-6-45



<u>WELL NAME IN ORIGINAL ORDER</u>	<u>PRESENT WELL NAME</u>	<u>LOCATION</u>	<u>ORDER AUTHORIZING NSL</u>	<u>ORDER AUTHORIZING INJECTION</u>
<u>Carper Drilling Company</u>				
Simon 8-N	Simon N-8, IP No. 3	660' FSL, 1980' FEL, Sec. 29, T17S, R32E	-	485
Simon N IP No. 13	Simon N IP No. 13	2580' FNL, 2595' FWL, Sec. 29, T17S, R32E	Administrative Approval 4-6-45	Administrative Approval 4-6-45
Simon R IP No. 21	Simon R IP No. 21	2615' FN&WL, Sec. 30, T17S, R32E	Administrative Approval 4-6-45	Administrative Approval 4-6-45
Simon R IP No. 28	Simon R IP No. 28	2615' FSL, 140' FEL, Sec. 30, T17S, R32E	Administrative Approval 4-6-45	Administrative Approval 4-6-45
Simon R IP No. 37	Simon R IP No. 37	50' FNL, 2635' FWL, Sec. 30, T17S, R32E	Administrative Approval 4-6-45	Administrative Approval 4-6-45
<u>Kewanee Oil Company</u>				
Baish B-11	Queen B No. 11	660' FSL, 1980' FEL, Sec. 27, T17S, R32E	-	485
Baish B No. IP 11	Queen B No. 38	80' FNL, 25' FWL, Sec. 28, T17S, R32E	Administrative Approval 4-6-45	Administrative Approval 4-6-45
Baish B No. IP 14	Queen B No. 39	2600' FSL, 2470' FEL, Sec. 28, T17S, R32E	Administrative Approval 4-6-45	Administrative Approval 4-6-45
Baish B No. IP 15	Queen B No. 40	2615' FSL, 2570' FEL, Sec. 27, T17S, R32E	Administrative Approval 4-6-45	Administrative Approval 4-6-45
Baish B IP No. 29	Queen B No. 41	2590' FSL, 25' FWL, Sec. 28, T17S, R32E	Administrative Approval 4-6-45	Administrative Approval 4-6-45
Baish B IP No. 30	Queen B No. 9	1980' FNL, 660' FWL, Sec. 27, T17S, R32E	Administrative Approval 4-6-45	Administrative Approval 4-6-45
Baish B IP No. 35	Queen B No. 42	75' FNL, 2560' FEL, Sec. 28, T17S, R32E	Administrative Approval 4-6-45	Administrative Approval 4-6-45
Miller A No. 5	Miller A No. 5	660' FSL, 1980' FWL, Sec. 23, T17S, R32E	-	Administrative Approval 4-18-58
Miller A No. 11	Miller A No. 11	1980' FS&EL, Sec. 23, T17S, R32E	-	Administrative Approval 4-18-58
Mitchell B No. IP 17	King B No. 6	40' FSL, 40' FEL, Sec. 17, T17S, R32E	Administrative Approval 4-6-45	Administrative Approval 4-6-45
Pearsall A No. IP 23	Pearsall A No. 15	50' FNL, 2500' FEL, Sec. 33, T17S, R32E	Administrative Approval 4-6-45	Administrative Approval 4-6-45
Pearsall BXY No. IP 22	Pearsall BXY No. 2	25' FN&WL, Sec. 34, T17S, R32E	Administrative Approval 4-6-45	Administrative Approval 4-6-45
Pearl 22 B IP 42	Pearl B No. 22	2615' FSL, 2615' FEL, Sec. 25, T17S, R32E	763	R-146

<u>WELL NAME IN ORIGINAL ORDER</u>	<u>PRESENT WELL NAME</u>	<u>LOCATION</u>	<u>ORDER AUTHORIZ-ING NSL</u>	<u>ORDER AUTHORIZ-ING INJECTION</u>
<u>Kewanee Oil Company (Continued)</u>				
Pearl 24 B IP 44	Pearl B No. 24	1345' FN&WL Sec. 25, T17S, R32E	763	R-146
Pearl 25 B IP 45	Pearl B No. 25	1345' FNL, 2615' FEL, Sec. 25, T17S, R32E	770	R-483
<u>WATER INJECTION WELLS</u>				
<u>Continental Oil Company</u>				
Kewanee Pearl 21 B	Pearl B No. 21	2665' FNL, 1295' FEL, Sec. 25, T17S, R32E	763	R-1075*
Kewanee Pearl 26 B	Pearl B No. 26	2615' FSL, 25' FWL, Sec. 30, T17S, R33E	770	R-841
New Well	New Well	25' FWL, 1325' FSL, Sec. 21, T17S, R32E	R-1075	R-1075*
Buffalo Baish A No. 21	Baish A No. 21	1395' FSL, 1347' FWL, Sec. 21, T17S, R32E	821	R-1075*
New Well	New Well	1325' FSL, 2615' FWL, Sec. 21, T17S, R32E	R-1075	R-1075*
Kewanee Baish B IP No. 11	Queen B No. 38	80' FNL, 25' FWL, Sec. 28, T17S, R32E	Administrative Approval 4-6-45	R-1075*
New Well	New Well	25' FSL, 1325' FWL, Sec. 21, T17S, R32E	R-1075	R-1075*
Kewanee Baish B No. IP 35	Queen B No. 42	75' FNL, 2560' FEL, Sec. 28, T17S, R32E	Administrative Approval 4-6-45	R-1075*
New Well	New Well	1325' FNL, 25' FWL, Sec. 28, T17S, R32E	R-1075	R-1075*
New Well	New Well	1325' FN&WL, Sec. 28, T17S, R32E	R-1075	R-1075*
New Well	New Well	1325' FNL, 2635' FWL, Sec. 28, T17S, R32E	R-1075	R-1075*

\*Approved but not in operation as injection wells.

BARRELS OF RESERVOIR SPACE VOIDED IN PRODUCING ONE BARREL OF STOCK TANK-OIL, AND  
THE RECIPROCAL FACTOR THEREOF, AT GIVEN GAS OIL RATIOS AND RESERVOIR PRESSURES

Order No. R-2403

Exhibit "B"

Page 1

Reservoir Pressures	Gas Oil Ratios														
	400	500	600	700	800	900	1000	1200	1400	1600	1800	2000	2200	2400	2600
1300	1.11 .900	1.27 .787	1.43 .699	1.59 .630	1.75 .571	1.91 .524	2.07 .483	2.39 .418	2.70 .370	3.02 .331	3.34 .299	3.66 .273	3.98 .251	4.30 .233	4.61 .217
1250	1.10 .909	1.27 .787	1.44 .694	1.61 .621	1.77 .565	1.94 .515	2.11 .474	2.44 .410	2.78 .360	3.11 .322	3.45 .290	3.78 .265	4.12 .243	4.45 .225	4.78 .209
1200	1.10 .909	1.28 .781	1.45 .690	1.63 .613	1.80 .556	1.98 .505	2.15 .465	2.51 .398	2.86 .350	3.21 .312	3.56 .281	3.91 .256	4.26 .235	4.62 .216	4.97 .201
1150	1.09 .917	1.28 .781	1.46 .685	1.65 .606	1.83 .546	2.02 .495	2.20 .455	2.57 .389	2.94 .340	3.31 .302	3.68 .272	4.05 .247	4.42 .226	4.79 .209	5.16 .194
1100	1.08 .926	1.28 .781	1.47 .680	1.67 .599	1.86 .538	2.06 .485	2.25 .444	2.65 .377	3.04 .329	3.43 .292	3.82 .262	4.21 .238	4.60 .217	5.00 .200	5.39 .186
1050	1.07 .935	1.28 .781	1.48 .676	1.69 .592	1.90 .526	2.11 .474	2.31 .433	2.73 .366	3.14 .318	3.55 .282	3.97 .252	4.38 .228	4.80 .208	5.21 .192	5.63 .178
1000	1.06 .943	1.28 .781	1.50 .667	1.72 .581	1.94 .515	2.16 .463	2.37 .427	2.81 .356	3.25 .308	3.69 .271	4.13 .242	4.57 .219	5.00 .200	5.44 .184	5.88 .170
950	1.07 .934	1.31 .763	1.54 .649	1.78 .562	2.01 .498	2.24 .446	2.47 .405	2.94 .340	3.41 .293	3.87 .254	4.34 .230	4.81 .208	5.27 .190	5.74 .174	6.21 .161
900	1.09 .917	1.34 .746	1.59 .630	1.84 .543	2.09 .478	2.34 .427	2.58 .388	3.08 .325	3.58 .279	4.08 .245	4.58 .218	5.08 .197	5.57 .180	6.07 .165	6.57 .152
850	1.11 .900	1.38 .725	1.64 .610	1.91 .524	2.18 .459	2.45 .408	2.71 .369	3.24 .309	3.78 .265	4.31 .232	4.84 .207	5.38 .186	5.91 .169	6.44 .155	6.98 .143
800	1.13 .885	1.42 .704	1.71 .585	2.00 .500	2.28 .439	2.57 .389	2.85 .351	3.42 .292	4.00 .250	4.57 .219	5.14 .195	5.71 .175	6.29 .159	6.86 .146	7.43 .135
750	1.16 .862	1.47 .680	1.78 .562	2.09 .478	2.40 .417	2.71 .369	3.01 .332	3.63 .275	4.25 .235	4.86 .206	5.48 .182	6.10 .164	6.71 .149	7.33 .136	7.94 .126
700	1.20 .833	1.54 .649	1.87 .535	2.21 .452	2.54 .394	2.87 .348	3.20 .313	3.87 .258	4.54 .220	5.21 .192	5.88 .170	6.54 .153	7.21 .139	7.88 .127	8.55 .117
650	1.25 .800	1.61 .621	1.97 .508	2.34 .427	2.70 .370	3.07 .326	3.43 .292	4.15 .243	4.88 .205	5.61 .178	6.34 .158	7.06 .142	7.79 .128	8.52 .117	9.25 .108
600	1.30 .769	1.70 .588	2.10 .476	2.50 .400	2.89 .346	3.29 .304	3.68 .272	4.48 .223	5.27 .190	6.06 .165	6.86 .146	7.65 .131	8.45 .118	9.24 .108	10.03 .100
550	1.37 .730	1.81 .552	2.25 .444	2.69 .372	3.12 .321	3.56 .281	3.99 .251	4.87 .205	5.74 .174	6.62 .151	7.49 .134	8.36 .120	9.24 .108	10.11 .099	10.98 .091
500	1.46 .685	1.95 .513	2.43 .412	2.92 .342	3.40 .294	3.89 .257	4.37 .229	5.33 .188	6.30 .159	7.27 .138	8.24 .121	9.21 .109	10.18 .098	11.15 .090	12.11 .083
450	1.58 .633	2.12 .472	2.66 .376	3.21 .312	3.75 .267	4.29 .233	4.83 .207	5.92 .169	7.00 .143	8.09 .124	9.18 .109	10.26 .097	11.35 .088	12.43 .080	13.52 .074
400	1.73 .578	2.34 .427	2.95 .339	3.57 .280	4.18 .239	4.80 .208	5.41 .185	6.64 .151	7.87 .127	9.10 .110	10.33 .097	11.55 .087	12.78 .078	14.01 .071	15.24 .066



# New Mexico Office of the State Engineer

## Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

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

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

(In feet)

POD Number	POD Sub-Code	basin	County	Q	Q	Q	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
RA 10175			LE	2	1	28	17S	32E	614814	3631005*		158		
RA 12020 POD1			LE	2	2	1 28	17S	32E	614828	3630954		120	81	39
RA 12042 POD1			LE	2	2	1 28	17S	32E	614891	3631181		400		

Average Depth to Water: **81 feet**  
 Minimum Depth: **81 feet**  
 Maximum Depth: **81 feet**

**Record Count: 3**

**PLSS Search:**

Section(s): 13-15, 21-23, 26-28      Township: 17S      Range: 32E

\*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.



ORDER TYPE WFX / PMX / SWD Number: \_\_\_\_\_ Order Date: \_\_\_\_\_ Legacy Permits/Orders: \_\_\_\_\_

Well No. 535 Well Name(s): MCA

API: 30-0 25-Pending Spud Date: TBD New or Old: N (UIC Class II Primacy 03/07/1982)  
567 FSL

Footages 128 FWL Lot \_\_\_\_\_ or Unit M Sec 23 Tsp 175 Rge 325 County LEC

General Location: 3 miles SE of MALJANAN Pool: MALJANAN ANDREWS Pool No.: 43329

BLM 100K Map: Hobbs Operator: CONOCOPhillips Company OGRID: 21217 Contact: Brian Wood

COMPLIANCE RULE 5.9: Total Wells: 401 Inactive: 2 Fincl Assur: Y Compl. Order? NA IS 5.9 OK? Y Date: 12-15-2015

WELL FILE REVIEWED  Current Status: Proposed

WELL DIAGRAMS: NEW: Proposed  or RE-ENTER: Before Conv.  After Conv.  Logs in Imaging: N/A

Planned Rehab Work to Well: \_\_\_\_\_

Well Construction Details		Sizes (in) Borehole / Pipe	Setting Depths (ft)	Cement Sx or Cf	Cement Top and Determination Method
Planned ___ or Existing ___ Surface		<u>12 1/4 / 8 5/8</u>	<u>902</u>	<u>600</u>	<u>Surface/Visual</u>
Planned ___ or Existing ___ Interm/Prod					
Planned ___ or Existing ___ Interm/Prod					
Planned ___ or Existing ___ <input checked="" type="radio"/> Prod/Liner		<u>7 1/4 / 5 1/2</u>	<u>4632</u>	<u>720</u>	<u>Surface/Visual</u>
Planned ___ or Existing ___ Liner					
Planned ___ or Existing ___ OH <input checked="" type="radio"/> (PERF)		<u>3572 / 4632</u>			
Injection Lithostratigraphic Units:				Completion/Operation Details:	
Adjacent Unit: Litho. Struc. Por.	Depths (ft)	Injection or Confining Units	Tops	Drilled TD <u>4632</u>	PBTD _____
Confining Unit: Litho. Struc. Por.				NEW TD _____	NEW PBTD _____
Proposed Inj Interval TOP:	<u>3572</u>			NEW Open Hole <input type="radio"/> or NEW Perfs <input checked="" type="radio"/>	
Proposed Inj Interval BOTTOM:	<u>4632</u>			Tubing Size <u>2 7/8</u> in. Inter Coated? <input checked="" type="checkbox"/>	
Confining Unit: Litho. Struc. Por.				Proposed Packer Depth <u>3522</u> ft	
Adjacent Unit: Litho. Struc. Por.				Min. Packer Depth <u>3472</u> (100-ft limit)	
AOR: Hydrologic and Geologic Information				Proposed Max. Surface Press. <u>2150</u> psi	
POTASH: R-111-P <u>NA</u> Noticed? <input type="checkbox"/> BLM Sec Ord <input type="checkbox"/> WIPP <input type="checkbox"/> Noticed? <input type="checkbox"/> Salt/Salado T: _____ B: _____	NW: Cliff House fm _____				
FRESH WATER: Aquifer <u>Quaternary</u> Max Depth <u>81'</u>	HYDRO AFFIRM STATEMENT By Qualified Person <input checked="" type="checkbox"/>				
NMOSE Basin: <u>LEC</u> CAPITAN REEF: thru adj NA: _____ No. Wells within 1-Mile Radius? _____ FW Analysis _____					
Disposal Fluid: Formation Source(s) <u>Produced H<sub>2</sub>O</u> Analysis? <input checked="" type="checkbox"/> On Lease <input type="checkbox"/> Operator Only <input type="checkbox"/> or Commercial <input checked="" type="checkbox"/>					
Disposal Int: Inject Rate (Avg/Max BWPD): <u>500/1500</u> Protectable Waters? <input type="checkbox"/> Source: _____ System <input checked="" type="radio"/> Closed or Open					
HC Potential: Producing Interval? <input checked="" type="checkbox"/> Formerly Producing? _____ Method: Logs/DST/P&A/Other _____ 2-Mile Radius Pool Map <input checked="" type="checkbox"/>					
AOR Wells: 1/2-M Radius Map? <input checked="" type="checkbox"/> Well List? <u>8</u> Total No. Wells Penetrating Interval: <u>94</u> Horizontals? <u>1</u>					
Penetrating Wells: No. Active Wells <u>54</u> Num Repairs? _____ on which well(s)? _____ Diagrams? <u>N</u>					
Penetrating Wells: No. P&A Wells <u>27</u> Num Repairs? _____ on which well(s)? _____ Diagrams? <u>Y</u>					
NOTICE: Newspaper Date <u>11-18</u> Mineral Owner <u>BLM</u> Surface Owner <u>BLM</u> N. Date <u>10-25</u>					
RULE 26.7(A): Identified Tracts? <input checked="" type="checkbox"/> Affected Persons: <u>CAZA Energy, MACK CHASE</u> N. Date <u>10-25</u>					

Order Conditions: Issues: \_\_\_\_\_

Add Order Cond: \_\_\_\_\_

X 12-2403-13 Authorizes surface psi = 2150 psi  
12-24403 original order



### C-108 Review Checklist: Area Order

#### Supplemental Checklist for Multiple Well Application

ORDER TYPE  WFX PMX Number: \_\_\_\_\_ SUPPLEMENTAL PAGE \_\_\_\_\_ of \_\_\_\_\_

Relevant Hearing Order(s): \_\_\_\_\_

MULTIPLE WELL APPLICATION: 2 of \_\_\_\_\_ Well No. 548 Well Name(s): MCA Unit

API: 30-0 25-Pending Spud Date: \_\_\_\_\_ New or Old:  (UIC Class II Primacy 03/07/1982)

Footages 1040 FEET 457 FEET Lot \_\_\_\_\_ or Unit D Sec 27 Tsp 17S Rge 32E County LE9

WELL FILE REVIEWED  Current Status: Proposed

WELL DIAGRAMS: NEW: Proposed  or RE-ENTER: Before Conv.  After Conv.  Logs in Imaging: \_\_\_\_\_

Planned Rehab Work to Well: \_\_\_\_\_

Well Construction Details	Sizes (in) Borehole / Pipe	Setting Depths (ft)	Cement (S) or Cf	Cement Top and Determination Method
Planned ___ or Existing ___ Surface	<u>12 1/4 / 8 5/8</u>	<u>934</u>	<u>600</u>	<u>SURFACE / VISUAL</u>
Planned ___ or Existing ___ Interm/Prod				
Planned ___ or Existing ___ Interm/Prod				
Planned ___ or Existing ___ (Prod) Liner	<u>7 7/8 / 5 1/2</u>	<u>4564</u>	<u>720</u>	<u>SURFACE / VISUAL</u>
Planned ___ or Existing ___ Liner				
Planned ___ or Existing ___ OH / (PE) PEF	<u>35 1/4 / 4539</u>		<u>1020</u>	Hydrologic Information and AOR Well Summary on Coversheet

Completion/Operation Details: Drilled TD 4564 MD / 4577 TD PBDT \_\_\_\_\_ NEW TD \_\_\_\_\_ NEW PBDT \_\_\_\_\_

NEW Open Hole  or NEW Perfs  Tubing Size 2 3/4 in. Coated?  Prop. Packer Depth 3769 ft Min. Depth 341 (100-ft limit)

Proposed Max. Surface Press. 2150 psi Admin. Inj. Press. 704 (0.2 psi per ft) ANY AREA IPI APPROVAL:

Specific Requirement(s) for Well: \_\_\_\_\_

MULTIPLE WELL APPLICATION: 3 of \_\_\_\_\_ Well No. 561 Well Name(s): MCA Unit

API: 30-0 25-Pending Spud Date: TBD New or Old:  (UIC Class II Primacy 03/07/1982)

Footages 2442 FEET 2375 FEET Lot \_\_\_\_\_ or Unit K Sec 28 Tsp 17S Rge 32E County LE9

WELL FILE REVIEWED  Current Status: Proposed

WELL DIAGRAMS: NEW: Proposed  or RE-ENTER: Before Conv.  After Conv.  Logs in Imaging: \_\_\_\_\_

Planned Rehab Work to Well: \_\_\_\_\_

Well Construction Details	Sizes (in) Borehole / Pipe	Setting Depths (ft)	Cement (S) or Cf	Cement Top and Determination Method
Planned ___ or Existing ___ Surface	<u>12 1/4 / 8 5/8</u>		<u>600</u>	<u>SURFACE / VISUAL</u>
Planned ___ or Existing ___ Interm/Prod				
Planned ___ or Existing ___ Interm/Prod				
Planned ___ or Existing ___ (Prod) Liner	<u>7 7/8 / 5 1/2</u>	<u>4654</u>		
Planned ___ or Existing ___ Liner				
Planned ___ or Existing ___ OH / (PE) PEF	<u>3490 / 4480</u>		<u>1090</u>	Hydrologic Information and AOR Well Summary on Coversheet

Completion/Operation Details: Drilled TD 4654 MD / 4495 TD PBDT \_\_\_\_\_ NEW TD \_\_\_\_\_ NEW PBDT \_\_\_\_\_

NEW Open Hole  or NEW Perfs  Tubing Size 2 3/4 in. Coated?  Prop. Packer Depth 3410 ft Min. Depth 331 (100-ft limit)

Proposed Max. Surface Press. 2150 psi Admin. Inj. Press. 698 (0.2 psi per ft) ANY AREA IPI APPROVAL:

Specific Requirement(s) for Well: \_\_\_\_\_



### C-108 Review Checklist: Area Order

#### Supplemental Checklist for Multiple Well Application

ORDER TYPE: WFX / PMX Number: \_\_\_\_\_ SUPPLEMENTAL PAGE \_\_\_\_\_ of \_\_\_\_\_

Relevant Hearing Order(s): \_\_\_\_\_

MULTIPLE WELL APPLICATION: 4 of \_\_\_\_\_ Well No. ~~562~~ <sup>562</sup> Well Name(s): MCA Unit

API: 30-0 25-Pending Spud Date: 700 New or Old:  (UIC Class II Primacy 03/07/1982)

Footages 2311 FSL 2529 FAL Lot \_\_\_\_\_ or Unit 1L Sec 24 Tsp 17S Rge 32E County LEG

WELL FILE REVIEWED  Current Status: Proposed

WELL DIAGRAMS: NEW: Proposed  or RE-ENTER: Before Conv.  After Conv.  Logs in Imaging: \_\_\_\_\_

Planned Rehab Work to Well: \_\_\_\_\_

Well Construction Details	Sizes (in) Borehole / Pipe	Setting Depths (ft)	Cement Sx or Cf	Cement Top and Determination Method
Planned ___ or Existing ___ Surface	<u>12 1/4 / 8 3/4</u>	<u>878</u>	<u>600</u>	<u>Surface / Vis 401</u>
Planned ___ or Existing ___ Interm/Prod				
Planned ___ or Existing ___ Interm/Prod				
Planned ___ or Existing <input checked="" type="checkbox"/> Prod. Liner	<u>7 7/8 / 5 1/2</u>		<u>720</u>	<u>Surface / Vis 401</u>
Planned ___ or Existing ___ Liner				
Planned ___ or Existing ___ OH <input checked="" type="checkbox"/> PERF	<u>3348-4475</u>		<u>987</u>	Hydrologic Information and AOR Well Summary on Coversheet

Completion/Operation Details: Drilled TD 4625m / 4645m PBTB \_\_\_\_\_ NEW TD \_\_\_\_\_ NEW PBTB \_\_\_\_\_

NEW Open Hole  or NEW Perfs  Tubing Size \_\_\_\_\_ in. Coated? \_\_\_\_\_ Prop. Packer Depth \_\_\_\_\_ ft Min. Depth \_\_\_\_\_ (100-ft limit)

Proposed Max. Surface Press. 2150 psi Admin. Inj. Press. 670 (0.2 psi per ft) ANY AREA IPI APPROVAL:

Specific Requirement(s) for Well: \_\_\_\_\_

MULTIPLE WELL APPLICATION: 4 of \_\_\_\_\_ Well No. 564 Well Name(s): MCA Unit

API: 30-0 25-Pending Spud Date: 700 New or Old:  (UIC Class II Primacy 03/07/1982)

Footages 771 FAL 939 FAL Lot \_\_\_\_\_ or Unit DA Sec 29 Tsp 17S Rge 32E County LEG

WELL FILE REVIEWED  Current Status: Proposed

WELL DIAGRAMS: NEW: Proposed  or RE-ENTER: Before Conv.  After Conv.  Logs in Imaging: \_\_\_\_\_

Planned Rehab Work to Well: \_\_\_\_\_

Well Construction Details	Sizes (in) Borehole / Pipe	Setting Depths (ft)	Cement Sx or Cf	Cement Top and Determination Method
Planned ___ or Existing ___ Surface	<u>12 1/4 / 8 3/4</u>		<u>600</u>	<u>Surface / Vis 401</u>
Planned ___ or Existing ___ Interm/Prod				
Planned ___ or Existing ___ Interm/Prod				
Planned ___ or Existing <input checked="" type="checkbox"/> Prod. Liner	<u>7 7/8 / 5 1/2</u>		<u>720</u>	<u>Surface / Vis 401</u>
Planned ___ or Existing ___ Liner				
Planned ___ or Existing ___ OH / PERF	<u>3389 / 4405</u>		<u>987</u>	Hydrologic Information and AOR Well Summary on Coversheet

Completion/Operation Details: Drilled TD 4490m / 4405m PBTB \_\_\_\_\_ NEW TD \_\_\_\_\_ NEW PBTB \_\_\_\_\_

NEW Open Hole  or NEW Perfs  Tubing Size 2 1/4 in. Coated?  Prop. Packer Depth 3335 ft Min. Depth 3200 (100-ft limit)

Proposed Max. Surface Press. 2150 psi Admin. Inj. Press. 678 (0.2 psi per ft) ANY AREA IPI APPROVAL:

Specific Requirement(s) for Well: \_\_\_\_\_



### C-108 Review Checklist: Area Order

Supplemental Checklist for Multiple Well Application

ORDER TYPE WFX PMX Number: \_\_\_\_\_ SUPPLEMENTAL PAGE \_\_\_\_\_ of \_\_\_\_\_

Relevant Hearing Order(s): \_\_\_\_\_

MULTIPLE WELL APPLICATION: 6 of \_\_\_\_\_ Well No. 568<sup>S</sup> Well Name(s): MCA Unit  
 API: 30-0 25-Pending Spud Date: TBD New or Old: N (UIC Class II Primacy 03/07/1982)  
 Footages BISFAL F1059FWL Lot \_\_\_\_\_ or Unit D Sec 29 Tsp 17S Rge 32E County LEC  
 WELL FILE REVIEWED  Current Status: Proposed  
 WELL DIAGRAMS: NEW: Proposed  or RE-ENTER: Before Conv.  After Conv.  Logs in Imaging: \_\_\_\_\_  
 Planned Rehab Work to Well: \_\_\_\_\_

Well Construction Details	Sizes (in) Borehole / Pipe	Setting Depths (ft)	Cement Sx or Cf	Cement Top and Determination Method
Planned ___ or Existing ___ Surface	<u>12 1/4 / 8 5/8</u>	<u>947</u>	<u>600</u>	<u>SURFACE VISUAL</u>
Planned ___ or Existing ___ Interm/Prod				
Planned ___ or Existing ___ Interm/Prod				
Planned ___ or Existing <u>(Prod) Liner</u>	<u>7 7/8 / 5 1/2</u>		<u>720</u>	<u>SURFACE VISUAL</u>
Planned ___ or Existing ___ Liner				
Planned ___ or Existing ___ OH / PERF	<u>343 1/4 / 443 1/2</u>		<u>100'</u>	Hydrologic Information and AOR Well Summary on Coversheet

Completion/Operation Details: Drilled TD 4535m PBDT \_\_\_\_\_ NEW TD \_\_\_\_\_ NEW PBDT \_\_\_\_\_  
443 1/2  
 NEW Open Hole  or NEW Perfs  Tubing Size 2 7/8 in. Coated? \_\_\_\_\_ Prop. Packer Depth \_\_\_\_\_ ft Min. Depth \_\_\_\_\_ (100-ft limit)  
 Proposed Max. Surface Press. 2150 psi Admin. Inj. Press. 688 (0.2 psi per ft) ANY AREA IPI APPROVAL: X  
 Specific Requirement(s) for Well: \_\_\_\_\_

MULTIPLE WELL APPLICATION: \_\_\_\_\_ of \_\_\_\_\_ Well No. \_\_\_\_\_ Well Name(s): \_\_\_\_\_  
 API: 30-0 \_\_\_\_\_ Spud Date: \_\_\_\_\_ New or Old: \_\_\_\_\_ (UIC Class II Primacy 03/07/1982)  
 Footages \_\_\_\_\_ Lot \_\_\_\_\_ or Unit \_\_\_\_\_ Sec \_\_\_\_\_ Tsp \_\_\_\_\_ Rge \_\_\_\_\_ County \_\_\_\_\_  
 WELL FILE REVIEWED  Current Status: \_\_\_\_\_  
 WELL DIAGRAMS: NEW: Proposed  or RE-ENTER: Before Conv.  After Conv.  Logs in Imaging: \_\_\_\_\_  
 Planned Rehab Work to Well: \_\_\_\_\_

Well Construction Details	Sizes (in) Borehole / Pipe	Setting Depths (ft)	Cement Sx or Cf	Cement Top and Determination Method
Planned ___ or Existing ___ Surface				
Planned ___ or Existing ___ Interm/Prod				
Planned ___ or Existing ___ Interm/Prod				
Planned ___ or Existing ___ Prod/Liner				
Planned ___ or Existing ___ Liner				
Planned ___ or Existing ___ OH / PERF			<u>Inj Length:</u>	Hydrologic Information and AOR Well Summary on Coversheet

Completion/Operation Details: Drilled TD \_\_\_\_\_ PBDT \_\_\_\_\_ NEW TD \_\_\_\_\_ NEW PBDT \_\_\_\_\_  
 NEW Open Hole  or NEW Perfs  Tubing Size \_\_\_\_\_ in. Coated? \_\_\_\_\_ Prop. Packer Depth \_\_\_\_\_ ft Min. Depth \_\_\_\_\_ (100-ft limit)  
 Proposed Max. Surface Press. \_\_\_\_\_ psi Admin. Inj. Press. \_\_\_\_\_ (0.2 psi per ft) ANY AREA IPI APPROVAL: \_\_\_\_\_  
 Specific Requirement(s) for Well: \_\_\_\_\_