

DATE: 06/04/13	SUSPENSE	ENGINEER: RE	LOGGED IN: 06-05-2013	TYPE: 5607	APP NO: PAXK 1315636333
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ABOVE THIS LINE FOR DIVISION USE ONLY

1430

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

API = 30-025-26692
 Caza Operating LLC
 Caza Reg 14 State #1

Check One Only for [B] or [C]

- [B] Commingling - Storage - Measurement
 DHC CTB PLC PC OLS OLM

- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
 WFX PMX SWD IPI EOR PPR

[D] Other: Specify _____

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or Does Not Apply

- [A] Working, Royalty or Overriding Royalty Interest Owners
- [B] Offset Operators, Leaseholders or Surface Owner
- [C] Application is One Which Requires Published Legal Notice
- [D] Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] Waivers are Attached

2013 JUN -4 1:00 PM
 RECEIVED OGD

[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.

Adam Rankin

Attorney 6/4/13
 Title Date
 agrankin@hollandhart.com
 e-mail Address

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance XX Disposal _____ Storage
Application qualifies for administrative approval? _____ Yes _____ No
- II. OPERATOR: Caza Operating, LLC
ADDRESS: 200 N. Loraine, Suite 1550, Midland, Texas 79701
CONTACT PARTY: Richard Wright PHONE: 432 682 7424
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? _____ Yes XX No
If yes, give the Division order number authorizing the project: _____
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- *XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
- NAME: RICHARDO R. ALBRO TITLE: VICE PRESIDENT
SIGNATURE: [Signature] DATE: 31 May 2013
E-MAIL ADDRESS: ralbro@cazapetro.com
- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

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

CAZA RIDGE 14 STATE #1 SWD
(Re Entry of BTA Producers Ridge #1)

APPLICATION

2013 JUN -11 P 4: 00
RECEIVED OGD

III. WELL DATA

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

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

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

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

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

XIV. PROOF OF NOTICE

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

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

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

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

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

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CAZA PETROLEUM APPLICATION
FOR SWD WELL APPROVAL

Caza Ridge 14 State # 1 SWD_(Re Entry of BTA Producers Ridge # 1)

DATE: 5/6/2013 15:01 AM

INDEX REFERENCE PAGE NO.: 1

INFORMATION AND EXHIBITS PERTAINING TO
SPECIFIC PARAGRAPHS OF OCD FORM C - 108

PARAGRAPH(S): III. - WELL DATA

EXHIBIT: III. A. - INJECTION WELL DATA SHEET (Side 1)

EXHIBIT: III. A. & III. B. - EXISTING BTA PRODUCERS RIDGE #1
WELLBORE DIAGRAM

EXHIBIT: III. A. & III. B. - INJECTION WELL DATA SHEET (Side 2)

EXHIBIT: III. A. - PROPOSED CASING PROGRAM

EXHIBIT: III. A. & III. B. - PROPOSED CAZA RIDGE 14 STATE
SWD WELLBORE DIAGRAM

EXHIBIT: III. B. - CEMENT WORKSHEET

Side 1

INJECTION WELL DATA SHEET

OPERATOR: Caza Operating, LLC

WELL NAME & NUMBER: Caza Ridge 14 State # 1 SWD_ReEntry

WELL LOCATION: 1980 FSL & 1980 FEL, J 14 23 S 34 E
FOOTAGE LOCATION UNIT LETTER SECTION TOWNSHIP RANGE

WELLBORE SCHEMATIC

See Attached ReEntry Diagram

WELL CONSTRUCTION DATA

Surface Casing

Hole Size: 26" Casing Size: 20"

Cemented with: 1250 Sks sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Visual

Intermediate Casing

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

Cemented with: 5400 sks sx. *or* _____ ft³

Top of Cement: Surface Method Determined: Visual

Production Casing

Hole Size: 9-5/8" x 8-1/2" Casing Size: 7"

Cemented with: 1010 sx. *or* 1689 ft³

Top of Cement: Surface Method Determined: Visual

Total Depth: 6500

Injection Interval

6054 feet to 6148 Perforated

(Perforated or Open Hole; indicate which)

EXHIBIT III. A.

INJECTION WELL DATA SHEET

Tubing Size: 2-7/8" 6.5# J-55 Lining Material: Plastic

Type of Packer: Arrow Set 1X

Packer Setting Depth: 5100 ft wide 100' of 6054 or maximum of 5954' BGS

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

Additional Data

1. Is this a new well drilled for injection? Yes No
If no, for what purpose was the well originally drilled? Oil & Gas Exploration

2. Name of the Injection Formation: Bell Canyon and Cherry Canyon Log [Top of 6054]

3. Name of Field or Pool (if applicable): N/A

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. See Attached diagram

5. Give the name and depths of any oil or gas zones underlying or overlying the proposed injection zone in this area:

Underlying: Lower Brushy Canyon (7,400')

Overlying: None

EXHIBIT III. B.

EXHIBIT III. A.

PROPOSED CASING PROGRAM

CAZA RIDGE 14 ST #1 SWD_ReEntry

Well name:
 Operator: CAZA OPERATING, LLC
 String type: INJECTION_FRAC

Design parameters:

Collapse

Mud weight: 10.00 ppg

Design is based on evacuated pipe.

Minimum design factors:

Collapse:

DF 1.200

Burst:

DF 1.20

Environment:

H2S considered? No
 Surface temperature: 75.00 °F

BHT 114 °F
 Temperature gradient: 0.60 °F/100ft
 Minimum section length: 6,500 ft
 Minimum Drift: 6.250 in
 Cement top: Surface

Burst

Max anticipated surface pressure: 3,947.29 psi

Internal gradient: 0.12 psi/ft
 Calculated BHP: 4,727.27 psi

Annular backup: 8.00 ppg

Tension:

8 Round STC: 1.80 (J)
 8 Round LTC: 1.80 (J)
 Buttress: 1.60 (J)
 Premium: 1.50 (J)
 Body yield: 1.60 (B)

Non-directional string.

Tension is based on buoyed weight.
 Neutral pt: 5,519.51 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)
1	6500	7	26.00	L-80	LT&C	6500	6500	6.151

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
1	3377	5410	1.602	3947	7240	1.83	143.5	511	3.56 J

Date: April 15, 2013
 Midland, Texas

Wright

Remarks:

Collapse is based on a vertical depth of 6500 ft, a mud weight of 10 ppg. The casing is considered to be evacuated for collapse purposes.
 Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

EXISTING BTA PRODUCERS RIDGE #1

Caza Ridge 14 State # 1 SWD ReEntry

Location: Section 14_T23S_R34E_Lea County, New Mexico

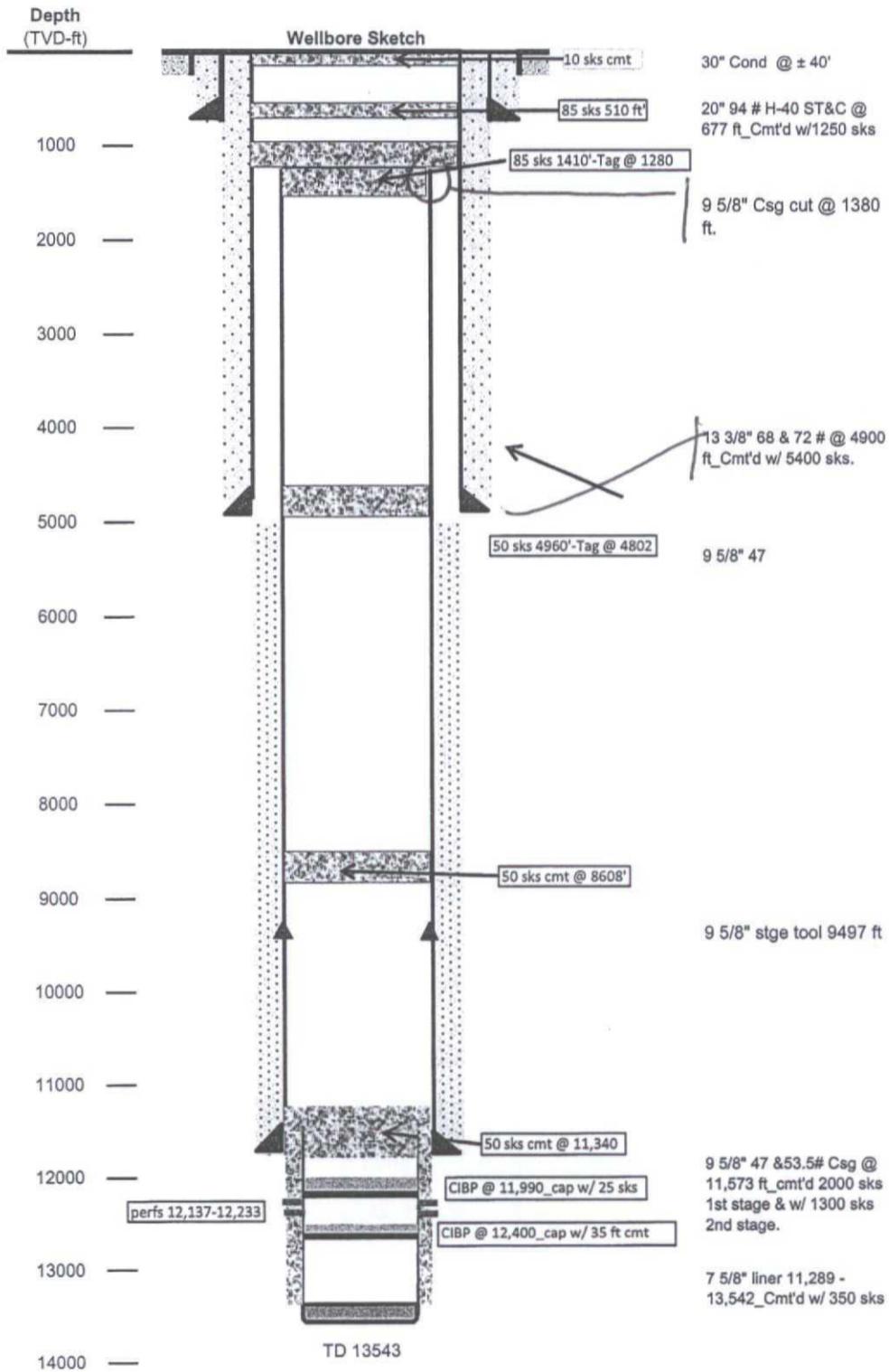


EXHIBIT III. A.

EXHIBIT III. B.

Caza Ridge 14 State # 1 SWD ReEntry

Location: Section 14_T23S_R34E_Lea County, New Mexico

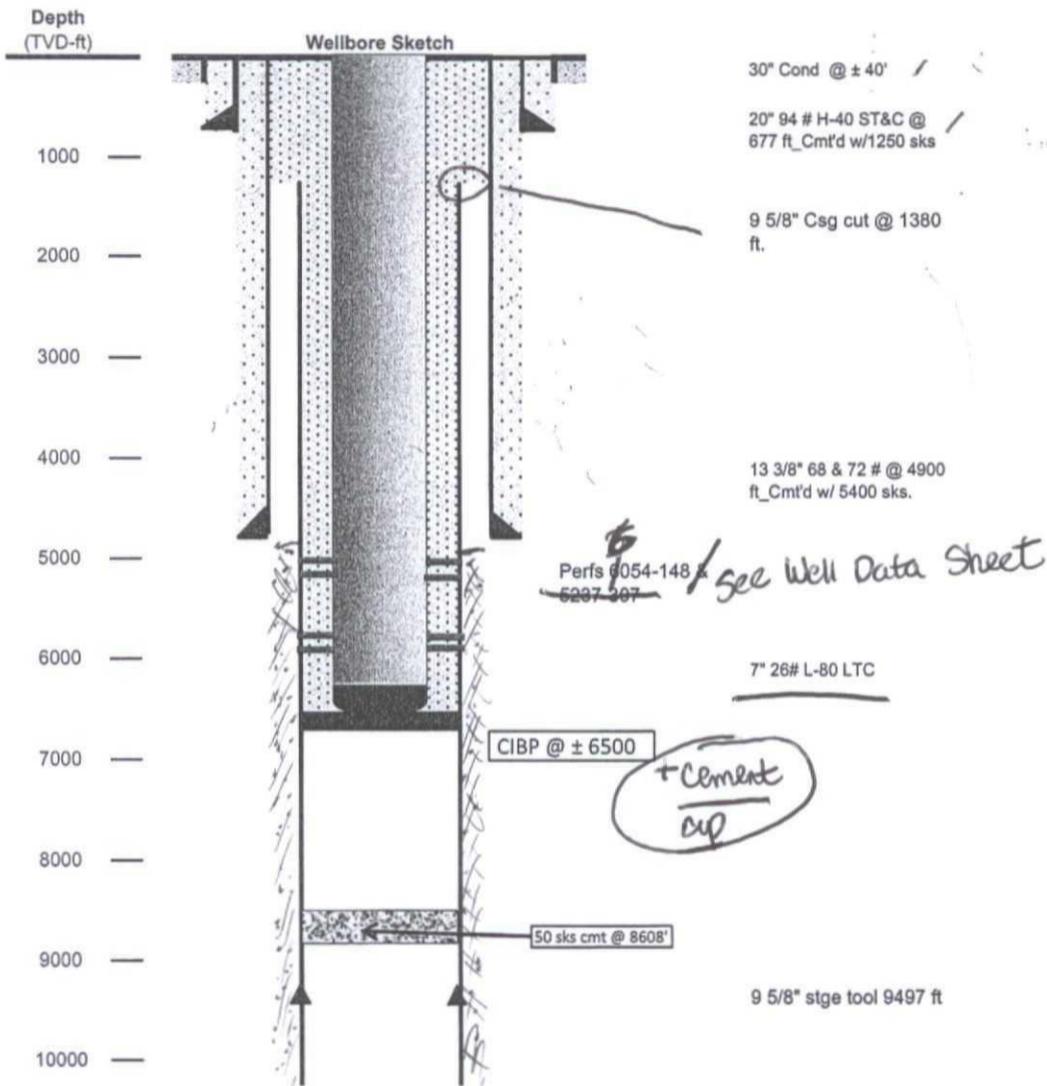


EXHIBIT III. A.

EXHIBIT III. B.

CAZA RIDGE 14 STATE #1 SWD -- "Cement Worksheet"

1980 FSL & 1980 FEL, Sec 14, T23S, R34E, Lea County,
New Mexico

1. **Injection String = 6500 ft. TOC @surface w/ 10% Excess.**

Outside Casing = 13.375 inch 68# X 7" 26# (1380')

Outside Casing = 9.625" 47# X 7" 26# (5120')

Float Collar 1 jts up.

Hardware needed = 8 spring centralizers

1 Guide shoe "Conventional"

1 Float Collar "Conventional (1 jt Up)

1 thread lock compound

1 collar stop

Engineering Data "Injection String":

1380 ft 13.375" csg x 7.0 csg = 1380' x .5734 cu ft X 1.1 excess = **870 cu ft**

5120 ft 9.625" csg x 7.0" csg = 5120' x .1438 cu ft X 1.1 excess = **810 cu ft**

40 ft 7" shoe jt = 40' X .2148 = **8.6 cu ft**

Total Cement volume required = 1689 cu ft.

Total Cement volume required = 1689 cu ft.

Lead Slurry Coverge 4900-surf (4900') = 1450 cu ft "C" w/ 4% gel w/ 1.75 yield 13.5 ppg.
= **(829 sks)**

Tail Slurry Coverage 6500'-4900' (1600') = 239 cu ft Class "C" w/ 1% CaCl₂ 14.8 ppg yield
1.33 cu ft / sk = **(181 sks)**

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CAZA PETROLEUM APPLICATION
FOR SWD WELL APPROVAL

Caza Ridge 14 State # 1 SWD_(Re Entry of BTA Producers Ridge # 1)

DATE: 5/6/2013 15:01 AM

INDEX REFERENCE PAGE NO.: 2

INFORMATION AND EXHIBITS PERTAINING TO
SPECIFIC PARAGRAPHS OF OCD FORM C - 108

PARAGRAPH(S): V.

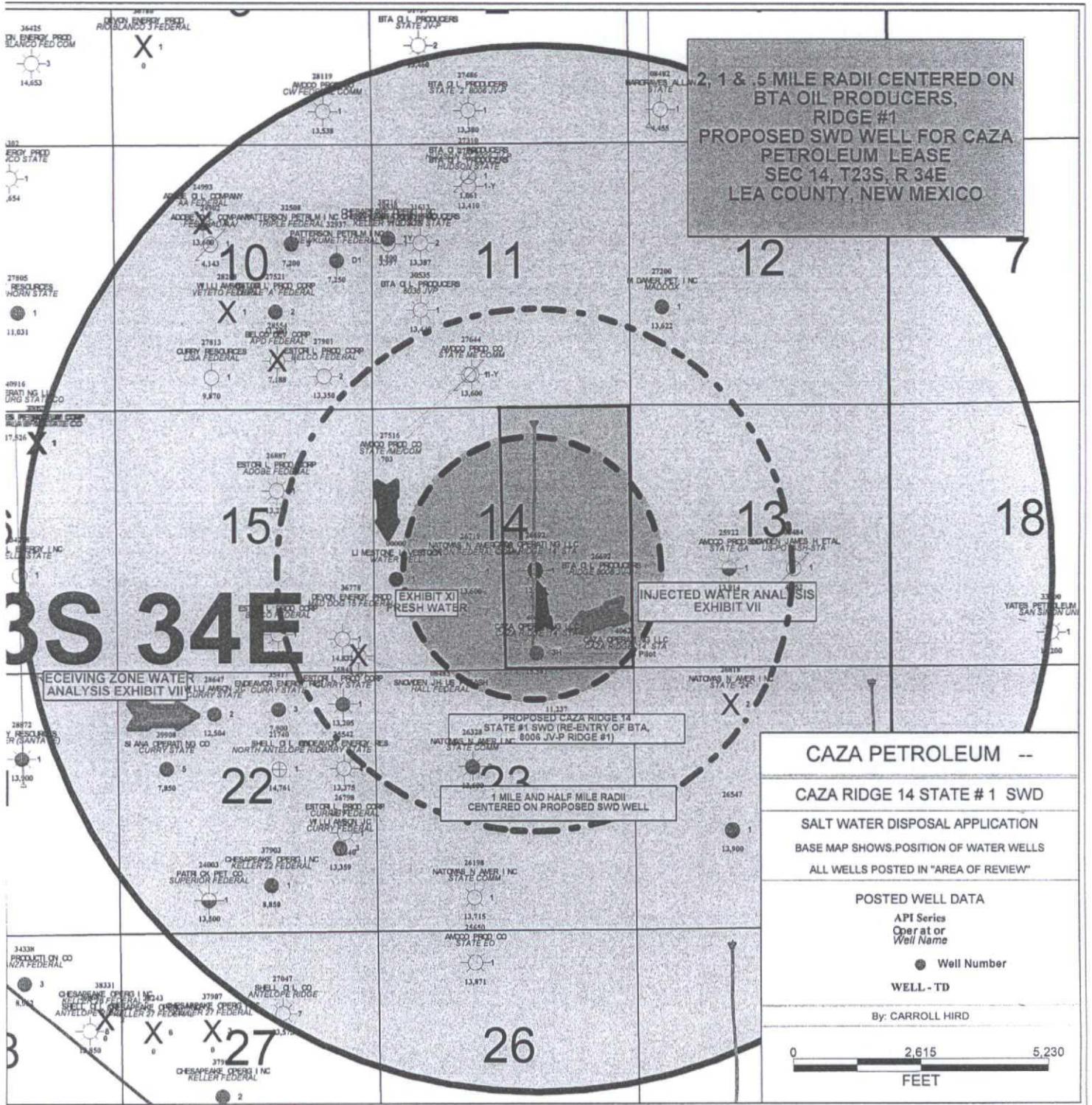
EXHIBIT: V. - WELL MAP

EXHIBIT: V. - LEASE MAP

EXHIBIT: V. - LOCATION PLAT

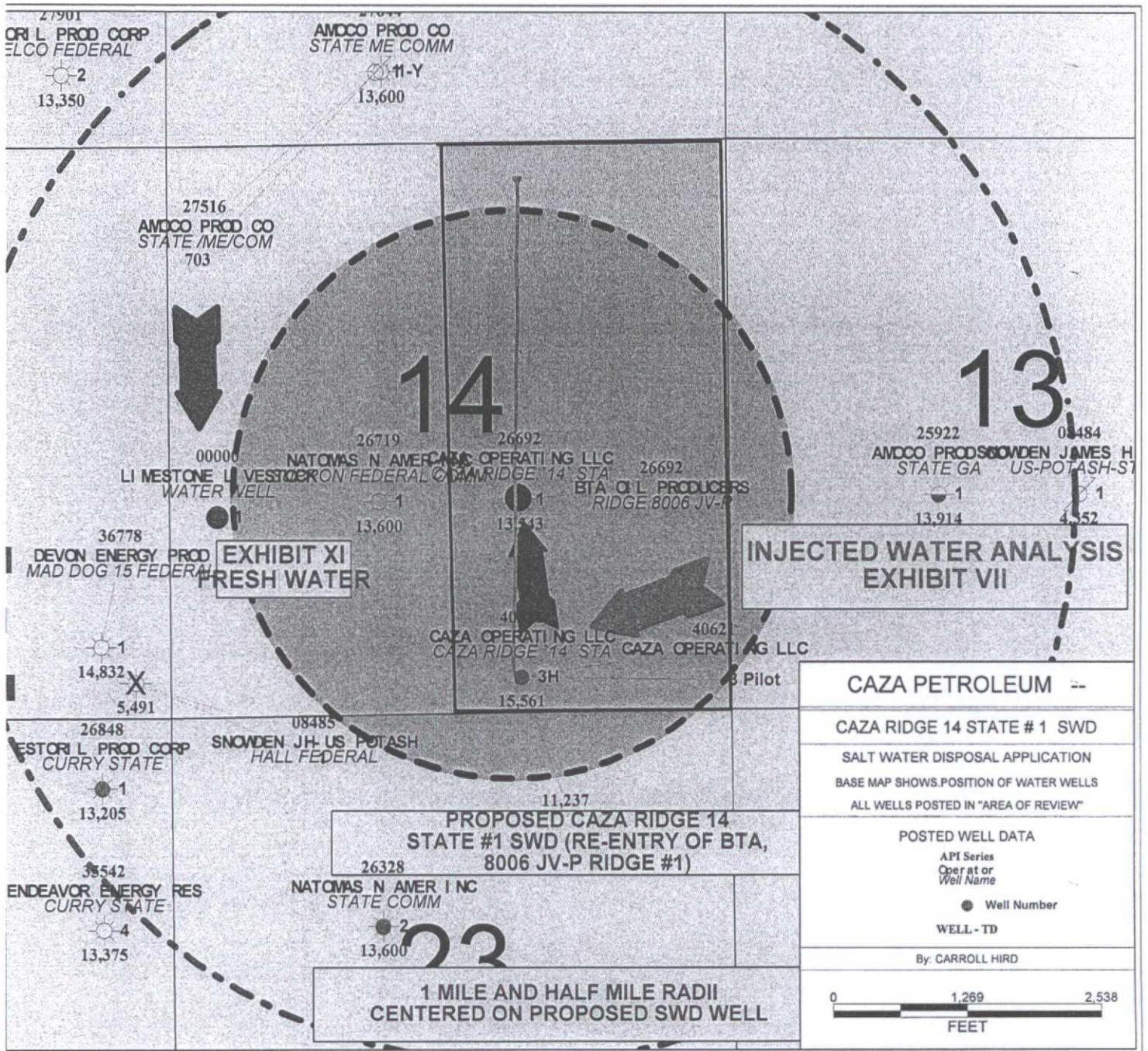
EXHIBIT: _____

EXHIBIT: _____



PETRA 5/20/2013 2:46:45 PM

EXHIBIT V.



PETRA 5/20/2013 2:42:23 PM

**EXHIBIT V.
(enlarged)**

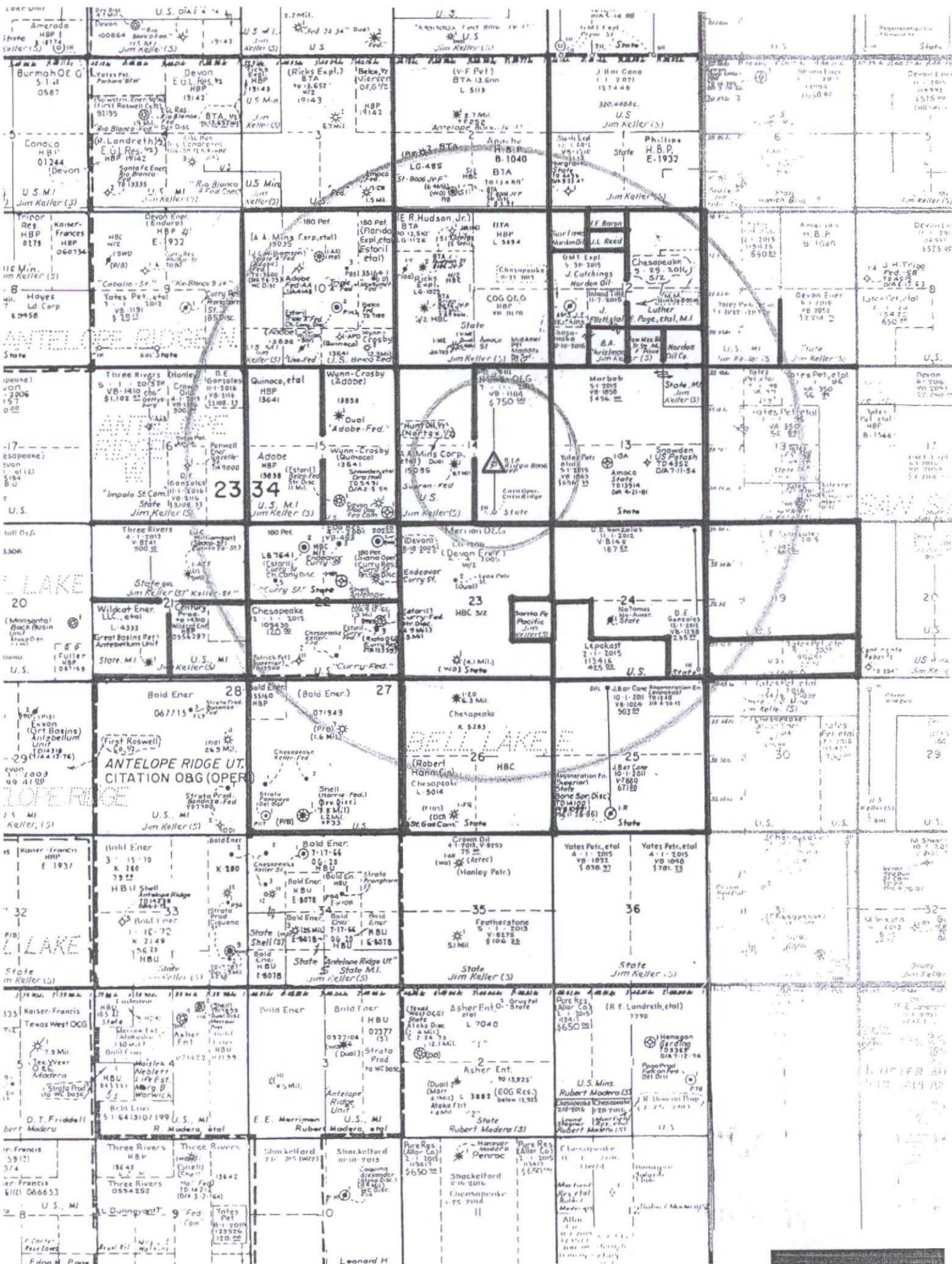


EXHIBIT V.

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section.

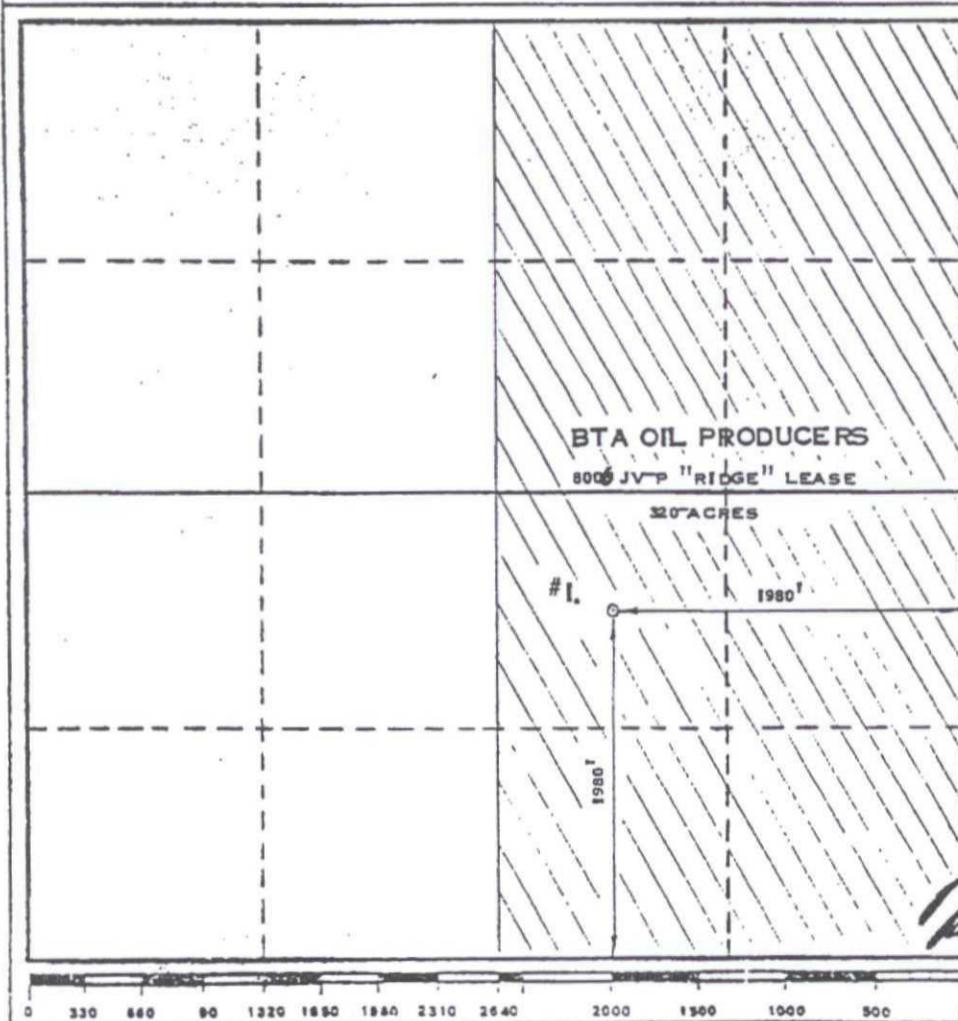
Operator BTA OIL PRODUCERS		Lease 8006 JV-P RIDGE		Well No. 1
Unit Letter "J"	Section 14	Township -23-S	Range -34-E	County LEA
Actual Footage Location of Well: 1980 feet from the SOUTH line and 1980 feet from the EAST line				
Ground Level Elev. 3366	Producing Formation ATOKA	Pool ANTELOPE RIDGE	Dedicated Acreage: 320 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

Yes No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Dorothy Houghton
Name

DOROTHY HOUGHTON

Position

Regulatory Administrator

Company

BTA OIL PRODUCERS

Date

7/28/89

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 knowledge and belief.

Date Surveyed

FEBRUARY 7, 1980

Registered Professional Engineer
and/or Land Surveyor

Max A. Schumann Jr.
MAX A. SCHUMANN JR.

Certificate No.

1510

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CAZA PETROLEUM APPLICATION
FOR SWD WELL APPROVAL

Caza Ridge 14 State # 1 SWD_(Re Entry of BTA Producers Ridge # 1)

DATE: 5/6/2013 15:01 AM

INDEX REFERENCE PAGE NO.: 3

INFORMATION AND EXHIBITS PERTAINING TO
SPECIFIC PARAGRAPHS OF OCD FORM C - 108

PARAGRAPH(S): VI.

EXHIBIT: VI. - WELL DATA WITHIN AREA OF REVIEW

EXHIBIT: _____

EXHIBIT: _____

EXHIBIT: _____

EXHIBIT: _____

INFO. CATEGORY	EXHIBIT VI.		APPLICATION FOR CAZA RIDGE 14 ST #1 SWD (Re-Entry of BTA, 8006 JV-P Ridge #1) SEC 14, T23S-R34E, LEA CO., NM	
	This form applies to paragraph VI			
Date:	4/24/2013		ALL WELLS WITHIN .5 MILE RADIUS OF PROPOSED SWD WELL ("AREA OF REVIEW" AS DEFINED BY NEW MEXICO OIL CONSERVATION DIVISION) EXHIBITS ARE REFERENCED TO PARAGRAPHS IN OCD FORM C-108	
	CAZA RIDGE 14 ST #1 SWD (Re-Entry of BTA, 8006 JV-P Ridge #1)		CAZA RIDGE 14 STATE #3H	NATOMAS, SUPRON FEDERAL COMM #1
API	30025266920000		30025406210000	3002526719
TYPE WELL: (para. I)	VERTICAL MORROW & ATOKA GAS		3RD BONE SPRING HORIZONTAL	VERTICAL MORROW & ATOKA GAS
LOCATION:	1980 FSL & 1980FEL; SEC 14 T23S_R34 E, LEA CO, NEW MEXICO		330' FSL & 1980' FEL Sec 14, T23S R 34E; Lea Co., New Mexico	1980 FSL & 1980 FWL; SEC. 14, T 23S_R 34E, LEA CO. NEW MEXICO
WELL TOTAL DEPTH:	13543' MD TVD		11750' MD TVD 15561' MD	13600' MD TVD
CONSTRUCTION:	VERTICAL WELL		Pilot Hole/ Horizontal	VERTICAL WELL
Surface Pipe	30 in 72' 150 SX		20 IN 40'	30 IN 40'
Fresh Water Protection	20 in 677' 800 SX		13.375 in 750' 700 SX	20 IN 750' 1325 SX
Intermed.Casing	13.375 in 4900' 5000 SX		9.625 in 4952' 1960 SX	13 3/8 IN 5026' 4200 SX
Casing	9.625 in 11713' 3300 SX		7 in 11590' 1415 SX	9 5/8 IN 11850' 900 SX
Casing/Liner	7.625 in 11289'- 13432' 350 SX		4.5 in 15561' - 10319' 230 SX	7.625 IN 11519' - 13595' 325 SX
Tubing	3.5 in 12950'			
COMPLETION HIST.:				
Well Active/Inactive	Inactive		Active	Active
Spud date:	7/16/1980		6/28/2012	5/7/1980
Completion Date:	12/4/1980		11/1/2012	10/13/1980
Interval perforated:	12866' 12869'		11677' 15407'	12024' 13264'
MD TVD Horizontal	N/A		11263'	N/A
TD HORIZ Well (MD)	N/A		15561'	N/A
Plugging Date:	N/A		N/A	N/A
Recompletion Date:	6/15/13		N/A	
Interval perf'd:	6054-148'; 5237-307'		N/A	
Well Bore Diagram (Para. III & VIII)	SEE WELL BORE DIAGRAM (EXHIBIT III)		N/A	N/A

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CAZA PETROLEUM APPLICATION
FOR SWD WELL APPROVAL

Caza Ridge 14 State # 1 SWD_(Re Entry of BTA Producers Ridge # 1)

DATE: 5/6/2013 15:01 AM

INDEX REFERENCE PAGE NO.: 4

INFORMATION AND EXHIBITS PERTAINING TO
SPECIFIC PARAGRAPHS OF OCD FORM C - 108

PARAGRAPH(S): VII.

EXHIBIT: VII. - INJECTION RATES, VOLUMES AND PRESSURES

EXHIBIT: VII. - INJECTION WATER ANALYSIS

EXHIBIT: VII. - RECEIVING ZONE WATER ANALYSIS

EXHIBIT: _____

EXHIBIT: _____

INJECTION RATES, VOLUMES AND PRESSURES

1. Maximum: 2 BFPM with total rate 2880 BFPD
Average: 1.5 BFPM with total rate 2160 BFPD
2. System is closed
3. 1200 psi maximum and 1100 psi average
Based on .2 psi/ft x footage to top perf (6054')

Top Perf ~~6054'~~
~~6054~~ x .2 = ¹²¹⁰~~650~~ psi_g
at surface

INJECTION WATER ANALYSIS

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

Martin Water Laboratories, Inc.

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

RESULT OF WATER ANALYSES

TO: Richard Wright LABORATORY NO. 0113-189
200 N. Lorraine, Suite 1550, Midland, TX 79701 SAMPLE RECEIVED 1-15-13
 RESULTS REPORTED 1-22-13

COMPANY Caza LEASE Caza Ridge 14 #3H

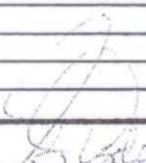
FIELD OR POOL _____ SECTION _____ BLOCK _____ SURVEY _____ COUNTY Lea STATE NM

SOURCE OF SAMPLE AND DATE TAKEN: Produced water from 3rd Bone Spring Formation.
 NO. 1 Submitted water sample - taken 1-8-13. See map for location (Exhibit V.)
 NO. 2 _____
 NO. 3 _____
 NO. 4 _____

REMARKS: _____

CHEMICAL AND PHYSICAL PROPERTIES				
	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0415			
pH When Sampled				
pH When Received	6.80			
Bicarbonate as HCO ₃	305			
Supersaturation as CaCO ₃				
Undersaturation as CaCO ₃				
Total Hardness as CaCO ₃	6,200			
Calcium as Ca	1,600			
Magnesium as Mg	535			
Sodium and/or Potassium	17,442			
Sulfate as SO ₄	1,740			
Chloride as Cl	29,828			
Iron as Fe	38			
Barium as Ba	0			
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	51,450			
Temperature °F.				
Carbon Dioxide, Calculated	79			
Dissolved Oxygen.				
Hydrogen Sulfide	0.0			
Resistivity, ohm/cm at 77° F.	0.157			
Suspended Oil				
Corrosiveness	Moderate			
Barium Sulfate Scaling Tendency	None			
CaCO ₃ S.I. @ 77° F. (Stiff-Davis)	-0.31			
CaCO ₃ S.I. @ 122° F. (Stiff-Davis)	0.29			
Calcium Sulfate Scaling Tendency	None			
Results Reported As Milligrams Per Liter				
Additional Determinations And Remarks				
CaCO ₃ S.I. - A positive fig. signifies a scaling potential proportionate to the magnitude of the number, and a negative fig. signifies no scaling potential.				
Please feel free to contact us for any details or discussions concerning these results.				

Form No. 3

By 
 Greg Ogden, B.S.

RECEIVING ZONE WATER ANALYSIS

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

Martin Water Laboratories, Inc.

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

RESULT OF WATER ANALYSES

TO: Richard Wright LABORATORY NO. 0413-394
200 N. Lorraine, Suite 1550, Midland, TX 79701 SAMPLE RECEIVED 4-22-13
RESULTS REPORTED 4-23-13

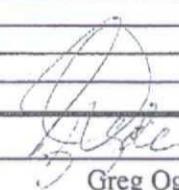
COMPANY Caza Operating LEASE Curry State #2 22-23-34
FIELD OR POOL Antelope Ridge Cherry Canyon
SECTION BLOCK SURVEY COUNTY Lea STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:
NO. 1 Submitted water sample - taken 4-18-13 from pumping tee. See map for location (Exhibit V.).
NO. 2
NO. 3
NO. 4

REMARKS: Cherry Canyon

CHEMICAL AND PHYSICAL PROPERTIES				
	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.1950			
pH When Sampled				
pH When Received	5.40			
Bicarbonate as HCO ₃	27			
Supersaturation as CaCO ₃				
Undersaturation as CaCO ₃				
Total Hardness as CaCO ₃	97,000			
Calcium as Ca	31,600			
Magnesium as Mg	4,374			
Sodium and/or Potassium	90,494			
Sulfate as SO ₄	290			
Chloride as Cl	208,086			
Iron as Fe	27			
Barium as Ba	0			
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	334,870			
Temperature °F.				
Carbon Dioxide, Calculated	177			
Dissolved Oxygen				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	0.042			
Suspended Oil				
Corrosiveness	Severe			
Barium Sulfate Scaling Tendency	None			
CaCO ₃ S.I. @ 77° F. (Stiff-Davis)	1.84			
CaCO ₃ S.I. @ 122° F. (Stiff-Davis)	1.80			
Calcium Sulfate Scaling Tendency	None			
Results Reported As Milligrams Per Liter				
Additional Determinations And Remarks				
CaCO ₃ S.I. - A positive fig. signifies a scaling potential proportionate to the magnitude of the number, and a negative fig. signifies no scaling potential.				
Please feel free to contact us for any details or discussions concerning these results.				

Form No. 3

By 
Greg Ogden, B.S.

LATHAM PRINTING CO. - 333-1292

EXHIBIT VII.

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CAZA PETROLEUM APPLICATION
FOR SWD WELL APPROVAL

Caza Ridge 14 State # 1 SWD_(Re Entry of BTA Producers Ridge # 1)

DATE: 5/6/2013 15:01 AM

INDEX REFERENCE PAGE NO.: 5

INFORMATION AND EXHIBITS PERTAINING TO
SPECIFIC PARAGRAPHS OF OCD FORM C - 108

PARAGRAPH(S): VIII.

EXHIBIT: VIII. - TYPE LOG

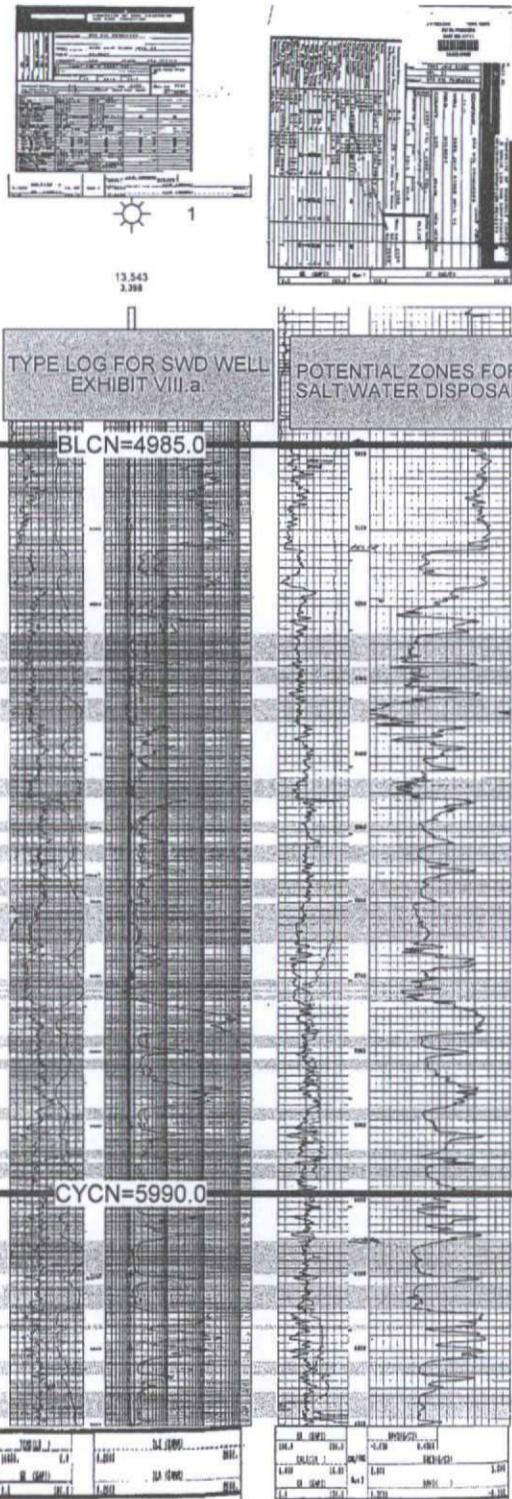
EXHIBIT: VIII. - FRESH WATER AQUIFERS

EXHIBIT: _____

EXHIBIT: _____

EXHIBIT: _____

CAZA RIDGE 14 ST #1 SWD (Re-Entry of BTA Producers Ridge #1)



30025266920000
 3,398
 BTA
RIDGE
1
 13,543
 ProdFM : AllPermitsLast1yrDI
 1,068,087
11,848
 209
 ANTELOPE RIDGE
 WELL SPUD_DATE : 7/16/1980
 WELL COMP_DATE : 12/4/1980
 BELL_CANYON_SWD_SELECT_ZONES [CRH] : 316
 CHERRY_CANYON_SWD_SELECT_ZONES [CRH] : 130

EXHIBIT VIII.

FRESH WATER AQUIFERS

Caza Ridge 14 State # 1 SWD Fresh Water Aquifers

<u>Thickness</u>	<u>Top of Formation</u>	<u>Bottom of Formation</u>	<u>Formation Thickness</u>
Quaternary alluvium	0	10	10
Dockum Group	10	310	Up to 300
Dewey Lake Redbeds	310	560	Up to 250
Rustler	560	730	Up to 170
Salado	730		

There are no fresh water aquifers below the proposed Bell Canyon and Cherry Canyon zones.

These thicknesses were obtained from:

Geologic Atlas of Texas, Hobbs Sheet, William Battle Phillips Memorial Edition, The University of Texas at Austin, Bureau of Economic Geology, 1976.

David Hamilton
RT Hicks Consultants
Office: 505-266-5004

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CAZA PETROLEUM APPLICATION
FOR SWD WELL APPROVAL

Caza Ridge 14 State # 1 SWD_(Re Entry of BTA Producers Ridge # 1)

DATE: 5/6/2013 15:01 AM

INDEX REFERENCE PAGE NO.: 6

INFORMATION AND EXHIBITS PERTAINING TO
SPECIFIC PARAGRAPHS OF OCD FORM C - 108

PARAGRAPH(S): IX.

EXHIBIT: IX. - STIMULATION PROGRAM

EXHIBIT:

EXHIBIT:

EXHIBIT:

EXHIBIT:



Caza
Petroleum

May 17, 2013

Re: SWD Application (Form C-108)
Caza Ridge 14 State #1 SWD
Section 14, T23S-R34E
Lea County, New Mexico

The completion of the Caza Ridge 14 State #1 SWD well will consist of a plastic lined tubing string and associated plastic lined packer followed by a well stimulation, as necessary, with a solution of 15% HCl acid followed by a fracture stimulation.

Caza Petroleum, Inc.

Richard Wright
Operations Manager

EXHIBIT IX.

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CAZA PETROLEUM APPLICATION
FOR SWD WELL APPROVAL

Caza Ridge 14 State # 1 SWD_(Re Entry of BTA Producers Ridge # 1)

DATE: 5/6/2013 15:01 AM

INDEX REFERENCE PAGE NO.: 7

INFORMATION AND EXHIBITS PERTAINING TO
SPECIFIC PARAGRAPHS OF OCD FORM C - 108

PARAGRAPH(S): X.

EXHIBIT: X. - LOGGING DATA (On file @ OCD)

EXHIBIT: _____

EXHIBIT: _____

EXHIBIT: _____

EXHIBIT: _____

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CAZA PETROLEUM APPLICATION
FOR SWD WELL APPROVAL

Caza Ridge 14 State # 1 SWD_(Re Entry of BTA Producers Ridge # 1)

DATE: 5/6/2013 15:01 AM

INDEX REFERENCE PAGE NO.: 8

INFORMATION AND EXHIBITS PERTAINING TO
SPECIFIC PARAGRAPHS OF OCD FORM C - 108

PARAGRAPH(S): XI.

EXHIBIT: XI. - FRESH WATER SAMPLE

EXHIBIT: _____

EXHIBIT: _____

EXHIBIT: _____

EXHIBIT: _____

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CAZA PETROLEUM APPLICATION
FOR SWD WELL APPROVAL

Caza Ridge 14 State # 1 SWD_(Re Entry of BTA Producers Ridge # 1)

DATE: 5/6/2013 15:01 AM

INDEX REFERENCE PAGE NO.: 9

INFORMATION AND EXHIBITS PERTAINING TO
SPECIFIC PARAGRAPHS OF OCD FORM C - 108

PARAGRAPH(S): XII.

EXHIBIT: XII. - SIGNED AFFIRMATION STATEMENT

EXHIBIT:

EXHIBIT:

EXHIBIT:

EXHIBIT:



April 30, 2013

Re: Application for Authorization to Inject (Form C-108)
Caza- Copperline 14 State No. 1 SWD

All available geological and engineering sources of data were reviewed. There is no apparent connectivity between proposed SWD intervals and any existing sources of drinking water.

CAZA PETROLEUM, INC.

A handwritten signature in cursive script that reads 'Carroll R. Hird'.

Carroll R. Hird
Consulting Geologist

EXHIBIT XII.

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CAZA PETROLEUM APPLICATION
FOR SWD WELL APPROVAL

Caza Ridge 14 State # 1 SWD_(Re Entry of BTA Producers Ridge # 1)

DATE: 5/6/2013 15:01 AM

INDEX REFERENCE PAGE NO.: 10

INFORMATION AND EXHIBITS PERTAINING TO
SPECIFIC PARAGRAPHS OF OCD FORM C - 108

PARAGRAPH(S): XIII.

EXHIBIT: XIII. - NOTICE LETTER

EXHIBIT: XIII. - LIST OF RECIPIENTS BY TRACT

EXHIBIT: XIII. - AFFIDAVIT OF PUBLICATION

EXHIBIT: _____

EXHIBIT: _____



June 3, 2013

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED

TO INTERESTED PARTIES

Re: Caza Operating, LLC Form C-108 Administrative Application for Authorization to Inject for Purposes of Salt Water Disposal into the Caza Ridge 14 State No. 1 SWD (formerly BTA 8006 JV-P Ridge No. 1) Well, Lea County, New Mexico.

Ladies and Gentlemen:

This letter is to advise you that Caza Operating, LLC ("Caza") has filed the enclosed Form C-108 Administrative Application with the New Mexico Oil Conservation Division. Caza seeks administrative approval from for authorization to inject produced water into its Caza Ridge 14 State No. 1 SWD (re-entry of BTA 8006 JV-P Ridge No. 1) well, located 1980 FSL and 1980 FEL, Section 14, Township 23 South, Range 34 East, NMPM, Lea County, New Mexico. Caza Operating, LLC proposes to inject into the Delaware Formation at an interval from 6054 to 6148 feet, at an expected maximum injection rate of 2880 barrels per day, and at an expected maximum pressure of 1200 pounds per square inch.

Interested parties must file objections or requests for hearing with the New Mexico Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico, 87504, within 15 days of this notice. Questions regarding this application should be directed to Mr. Jay Brown at (832) 381-3854.

Sincerely,

Adam G. Rankin
ATTORNEY FOR CAZA OPERATING, LLC

Notice List:

Surface Section 14:

KELLER RV, LLC.
2811 COUNTY RD.
460 OAKLEY, KS 67748

Section 13 (NW/4)

THE ALLAR CO.
PO 1567
GRAHAM, TX 76450

Section 13 (S/2)

YATES PETROLEUM COMPANY
105 SOUTH 4TH STREET
ARTESIA, NM 88210

YATES DRILLING COMPANY
105 SOUTH 4TH STREET
ARTESIA, NM 88210

ABO PETROLUEM CORPORATION
105 SOUTH 4TH STREET
ARTESIA, NM 88210

MYCO INDUSTRIES
105 SOUTH 4TH STREET
ARTESIA, NM 88210

Section 14 (E/2)

Caza Petroleum, Inc. (applicant)

Section 14 (W/2)

HUNT OIL CO
1445 ROSS
DALLAS, TX 75202

Section 23 (N/2):

MERRION OIL & GAS CORPORATION
610 REILY AVE
FARMINGTON, NM 87401

REGENERATION ENERGY CORPORATION
P. O. BOX 210
ARTESIA, NM 88211

THE ALLAR CO.
PO 1567
GRAHAM, TX 76450

7006 2760 0001 6376 1543

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Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 8.37



KELLER RV, LLC.
2811 COUNTY RD.
460 OAKLEY, KS 67748

PS Form 3800, August 2006

See Reverse for Instructions

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THE ALLAR CO.
PO BOX 1567
GRAHAM, TX 76450

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

PS Form 3800, August 2000 for instructions

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Yates Drilling Company
105 South 4th Street
Artesia, NM 88210

PS Form 3800, August 2000 See reverse for instructions

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Total Postage & Fees	\$ 8.37



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

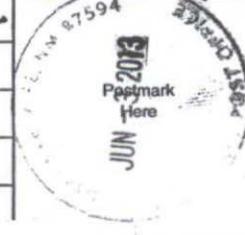
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Total Postage & Fees	\$ 8.37



MYCO Industries
 105 South 4th Street
 Artesia, NM 88210

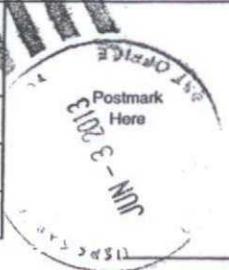
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Return Receipt Fee (Endorsement Required)	2.55
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Total Postage & Fees	\$ 8.37



HUNT OIL CO
1445 ROSS
DALLAS, TX 75202

PS Form 3800, August 2006 See Reverse for Instructions

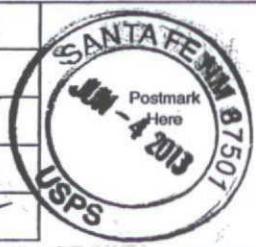
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Total Postage & Fees	\$ 8.37



Merrion Oil & Gas Corporation
610 Reily Ave.
Farmington, NM 87401

PS Form 3800, August 2006 See Reverse for Instructions

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Total Postage & Fees	\$ 8.37



Regeneration Energy Corporation
P. O. Box 210
Artesia, New Mexico 88211

Affidavit of Publication

STATE OF NEW MEXICO)
) ss.
COUNTY OF LEA)

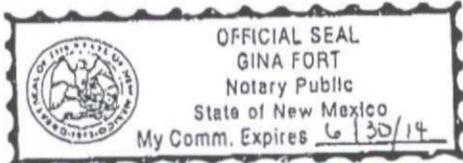
Joyce Clemens being first duly sworn on oath deposes and says that she is Advertising Director of THE LOVINGTON LEADER, a thrice a week newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled Legal Notice was published in a regular and entire issue of THE LOVINGTON LEADER and not in any supplement thereof, for one (1) day(s), beginning with the issue of May 25, 2013 and ending with the issue of May 25, 2013.

And that the cost of publishing said notice is the sum of \$ 34.34 which sum has been (Paid) as Court Costs.

Joyce Clemens
Joyce Clemens, Advertising Manager
Subscribed and sworn to before me this 3rd day of June, 2013.

Gina Fort
Gina Fort
Notary Public, Lea County, New Mexico
My Commission Expires June 30, 2014



LEGAL NOTICE

To: All parties and persons having any right, title, interest or claim in the following case and notice to the public.

Caza Operating, LLC, 200 N. Lorraine, Suite 1550, Midland, TX 79701, Contact: Richard Wright (432) 682-7424, is seeking administrative approval from the New Mexico Oil Conservation Division for authorization to inject produced water into its Caza Ridge 14 State # 1 SWD well, a reentry of BTA Producers Ridge # 1, located 1980 FSL and 1980 FEL of Section 14, Township 23 South, Range 34 East, NMPM, Lea County, New Mexico. Caza Operating, LLC proposes to inject into the Delaware Formation at an interval from 6054 to 6148 feet, at an expected maximum injection rate of 2880 barrels per day, and at an expected maximum pressure of 1200 pounds per square inch. Interested parties must file objections or requests with the New Mexico Oil Conservation Division, 1220 South St. Francis Drive, Santa Fe, New Mexico, 87504, within 15 days of this notice.

(NOTE: All land descriptions herein refer to the New Mexico Principal Meridian whether or not so stated.)

Published in the Lovington Leader May 25, 2013.

