

# CHECKLIST for ADMINISTRATIVE INJECTION APPLICATIONS

Operator: HEADINGTON Oil COMPANY Well: STATE LAND '76' Well No 5

Contact: ALFRED POWELL Title: DIVISION MGR. Phone: 303-769-8280

DATE IN 8-10-95 RELEASE DATE 8-24-95 DATE OUT 9-11-95

Proposed Injection Application is for:  WATERFLOOD  Expansion  Initial

Original Order: R-  Secondary Recovery  Pressure Maintenance

~~SENSITIVE AREAS~~

SALT WATER DISPOSAL

~~WIPP~~

~~Capitan Reef~~

Commercial Operation

Data is complete for proposed well(s)?  Additional Data \_\_\_\_\_

## AREA of REVIEW WELLS

5 Total # of AOR

0 # of Plugged Wells

YES Tabulation Complete

Schematics of P & A's

YES Cement Tops Adequate

NO AOR Repair Required

## INJECTION INFORMATION

Injection Formation(s) WOLF CAMP

Source of Water AREA WOLF CAMP PRODUCTION Compatible YES

## PROOF OF NOTICE

YES Copy of Legal Notice

YES Information Printed Correctly

YES Correct Operators

YES Copies of Certified Mail Receipts

NO Objection Received

Set to Hearing \_\_\_\_\_ Date

NOTES: \_\_\_\_\_

APPLICATION QUALIFIES FOR ADMINISTRATIVE APPROVAL YES

## COMMUNICATION WITH CONTACT PERSON:

1st Contact:  Telephoned  Letter \_\_\_\_\_ Date \_\_\_\_\_ Nature of Discussion \_\_\_\_\_

2nd Contact:  Telephoned  Letter \_\_\_\_\_ Date \_\_\_\_\_ Nature of Discussion \_\_\_\_\_

3rd Contact:  Telephoned  Letter \_\_\_\_\_ Date \_\_\_\_\_ Nature of Discussion \_\_\_\_\_

SWD 8-24-95  
609  
DIVISION  
1852

**HEADINGTON OIL COMPANY**

7114 W. JEFFERSON AVENUE, SUITE 213  
DENVER, CO 80235  
PHONE (303) 969-8280  
FAX (303) 969-8201

August 8, 1995

Oil & Gas Conservation Division  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

Re: Application for SWD - State Land 76 Lease  
Lea County, NM

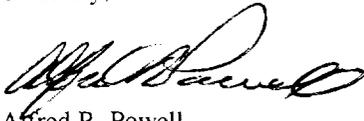
Gentlemen:

Enclosed in the information required for a salt water disposal application for the State Land 76 lease, N. Anderson Ranch Field, Lea County, New Mexico.

The proposed SWD well is to be used only by our own producing wells on the same lease. Currently, these wells produce 80-100 BWPD. The water is to be re-injected in the Wolfcamp formation being produced in the State Land #5 and #1 wells. We have notified all land owners and operators within 1/2 mile radius and published the proposal in the Lovington newspaper. We have had no negative response. It is our belief the well will take the water with 0 surface pressure, but at maximum of 500 psi.

I believe all the information required for administrative approval is included herein.

Sincerely,



Alfred R. Powell  
Division Manager



III. WELL DATA

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

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

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

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

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

XIV. PROOF OF NOTICE

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

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

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, PO Box 2088, Santa Fe, NM 87504-2088 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 Headington Oil Company

LEASE State Land 76

WELL NO. 3 660' FEL. & 4720' FST.

FOOTAGE LOCATION

SECTION 2 TOWNSHIP 16S RANGE 32E

Schematic

Well Construction Data

Surface Casing

Size 13 3/8 Cemented with 400 sx.

TOC surface feet determined by circ to surface

Hole Size 17 1/2"

Intermediate Casing

Size 8 5/8" Cemented with 2450 sx.

TOC surface feet determined by circulated

Hole Size 12 1/4

Long String

Size 5 1/2 Cemented with 850 sx.

TOC 7550 feet determined by temp survey

Hole Size 7 7/8

Total Depth 10,626

Injection Interval

9814 feet to 9872 (PF) feet  
(perforated or open-hole; indicate which)

### INJECTION WELL DATA SHEET

Tubing Size 2 3/8 lined with none set in a  
Baker Model R inj packer at 8250' feet  
(type of internal coating)

Other type of tubing / casing seal if applicable annulus filled w/fresh water w/corrosion inhibitor and bactericide.  
Other Data

1. Is this a new well drilled for Injection? Yes  No

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

2. Name of the Injection formation WolFcamp

3. Name of Field or Pool (if applicable) Anderson Ranch

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; WolFcamp  
9814-21', 9836-40', 9862-66', 9868-72'

5. Give the names and depths of any over or underlying oil or gas zones (pools) in this area.

Canyon 10,460'

Devonian 13,330'

INJECTION WELL DATA SHEET

OPERATOR Headington Oil Company LEASE State Land 76

WELL NO. 3 660' FEL & 4720' FSL SECTION 2 TOWNSHIP 16S RANGE 32E

FOOTAGE LOCATION

Schematic

Well Construction Data

Surface Casing

Size 13 3/8 \* Cemented with 400 sx.

TOC surface feet determined by circ to surface

Hole Size 17 1/2"

Intermediate Casing

Size 8 5/8" \* Cemented with 2450 sx.

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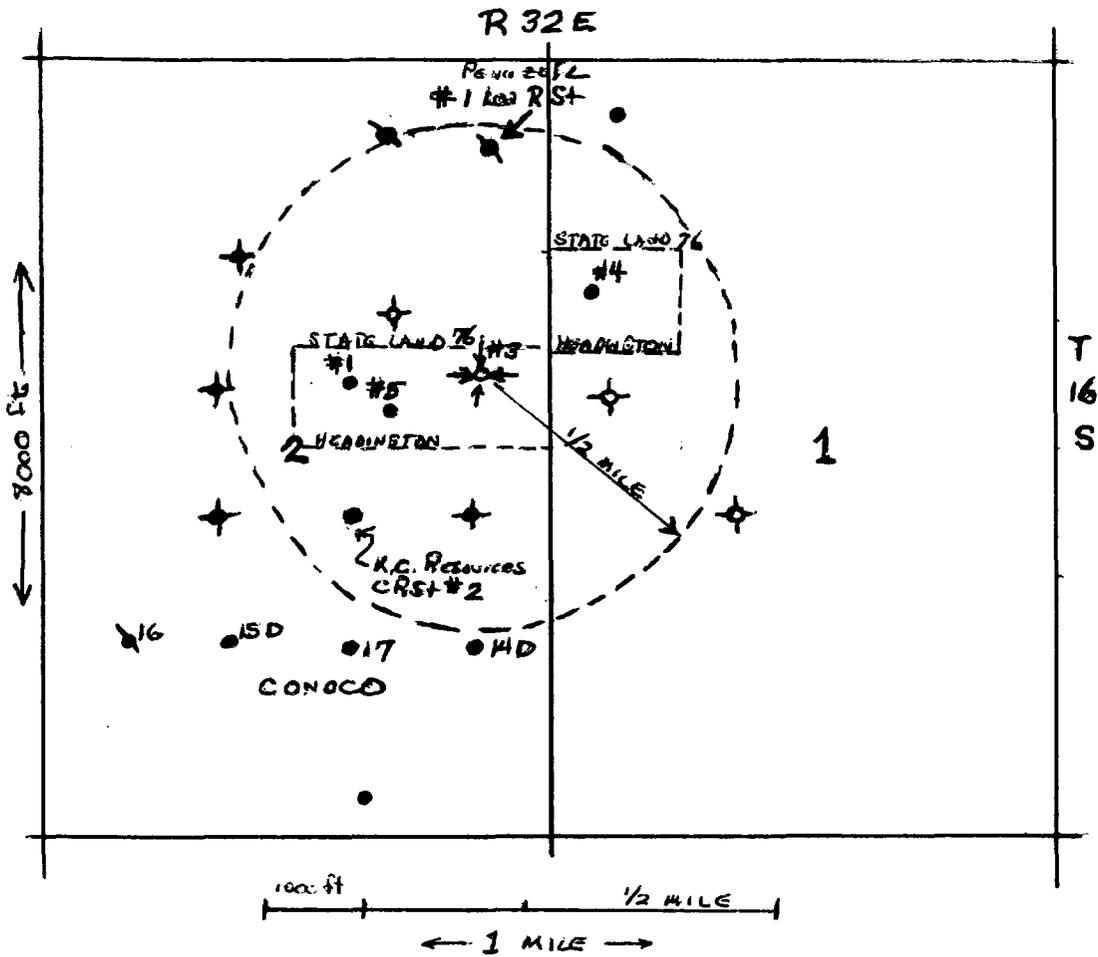
Total Depth 10,626

Injection Interval

9814 feet to 9872 (pf) feet  
(perforated or open-hole; indicate which)

Attachment  
Application for Authority to Inject  
State Land 76 Well #3

- III Well Data - attached.
- V Map of wells within 1/2 mile - attached.
- VI Schematic of nearby wells - attached.
- VII
  - 1) Inject 100 BWPD @ 0-50 psi
  - 2) Closed system
  - 3) Average = 50 psi, maximum = 500 psi
  - 4) Injected water going into same zone being produced
  - 5) Same zone - no analysis required.
- VIII Included in previous submittals. No nearby aquifers immediately underlying or overlying injection zone. 8 5/8" surface casing cemented to surface at 2450' to protect all potential fresh water aquifers.
- IX None
- X Logs filed previously.
- XI No fresh water wells nearby.
- XII No connection is evident between producing and disposal zone with any other formations or fresh water sources. No open faults are evident.
- XIII Proof of Notice - attached letters and legal ad.



**State Land 76 #3**  
 Anderson Ranch Field  
 Sec. 2, T16S-R32E  
 4720' FSL & 660' FEL

**Pertinent Data:**

- Elevation: 4319' KB, 4302' GL
- 13 3/8" 48# H-40 casing @ 406' cmt'd to surface.
- 8 5/8" 24 & 32# K-55 casing @ 4191' cmt'd to surface.
- 5 1/2" 15.5# & 17# K-55 casing @ 10,626' cmt'd w/850 sx w/cement top @ 7550'.

**Completion Data:**

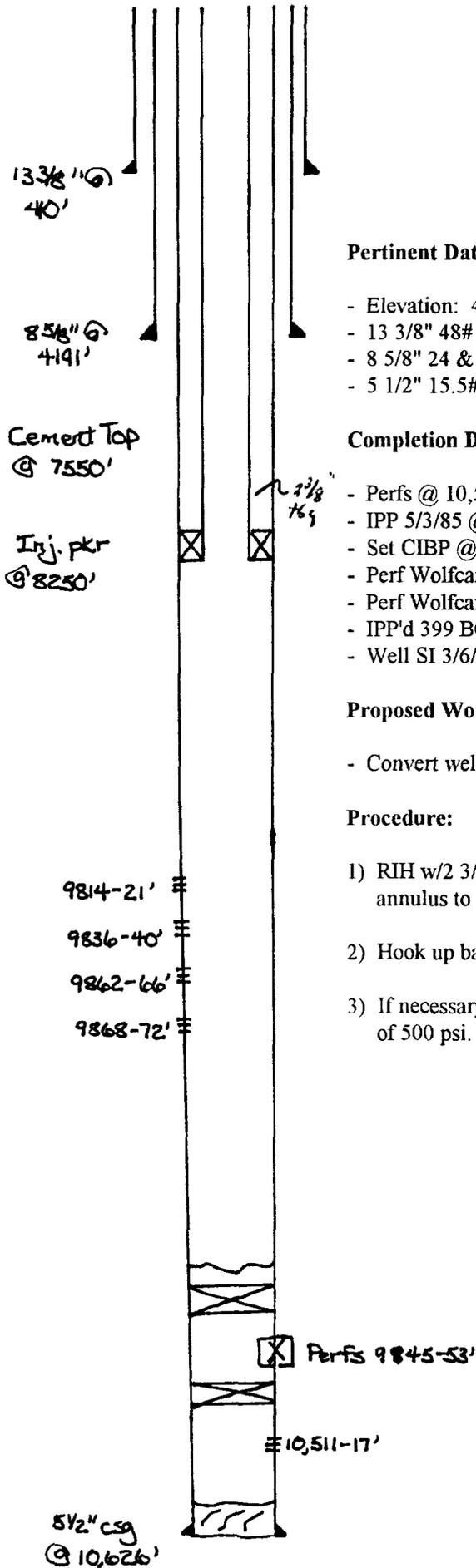
- Perfs @ 10,511-517' Canyon, treated.
- IPP 5/3/85 @ 152 BOPD.
- Set CIBP @ 10,475' & dumped 2 sxs cmt.
- Perf Wolfcamp 9945-53' set cmt retainer @ 9903'. Squeezed w/100 sxs cmt.
- Perf Wolfcamp 9814-21', 9836-40', 9862-66' & 9868-72' (treated).
- IPP'd 399 BOPD & 580 MCFGPD (5/2/86) from Wolfcamp perfs 9814-72'.
- Well SI 3/6/88 as uneconomic. Last test 10 BOPD w/307 BWPD on 3/6/88.

**Proposed Work:**

- Convert well #3 to water injection or pressure maintenance.

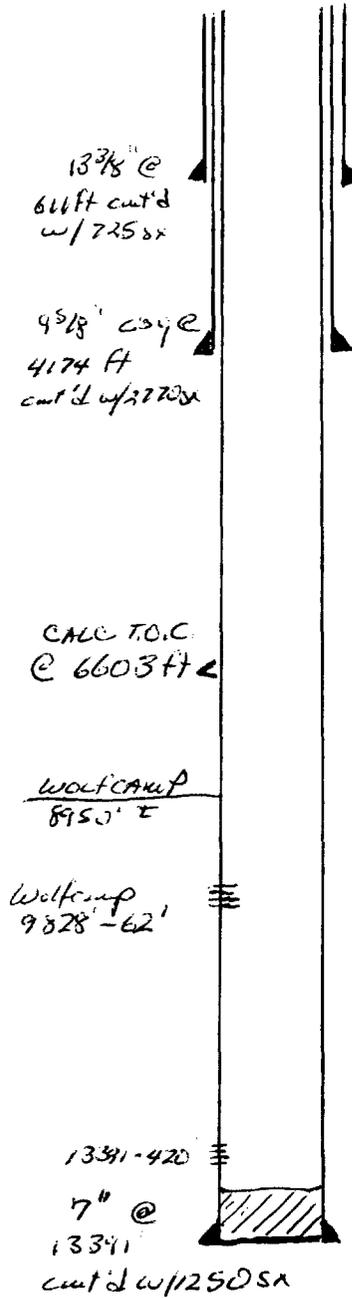
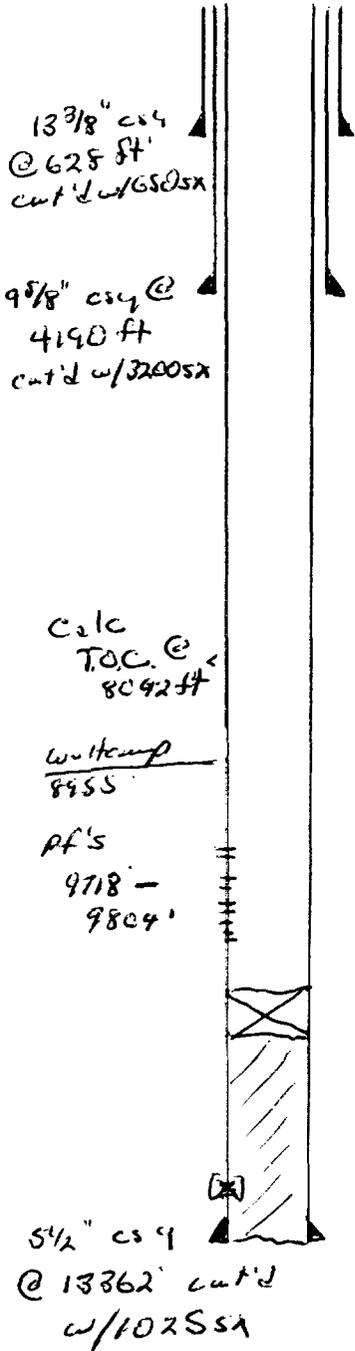
**Procedure:**

- 1) RIH w/2 3/8" tbg w/injection pkr & set pkr @ 8250'. Fill and pressure test annulus to 300 psi. Use inhibited fresh water w/bactericide.
- 2) Hook up battery disposal tanks to well. Put water in on vacuum.
- 3) If necessary, set duplex pump or equivalent to injection @ maximum of 500 psi. Also, consider adding additional Wolfcamp perfs.



K.C. RESOURCES  
 CR STATE #2  
 3300' FSL & 1980' FGL  
 COMP 1955

PENNY 2010 OIL COMPANY  
 #1 LEA "R" ST21c (TA'D)  
 990' FNL & 660' FEL  
 COMP 1958

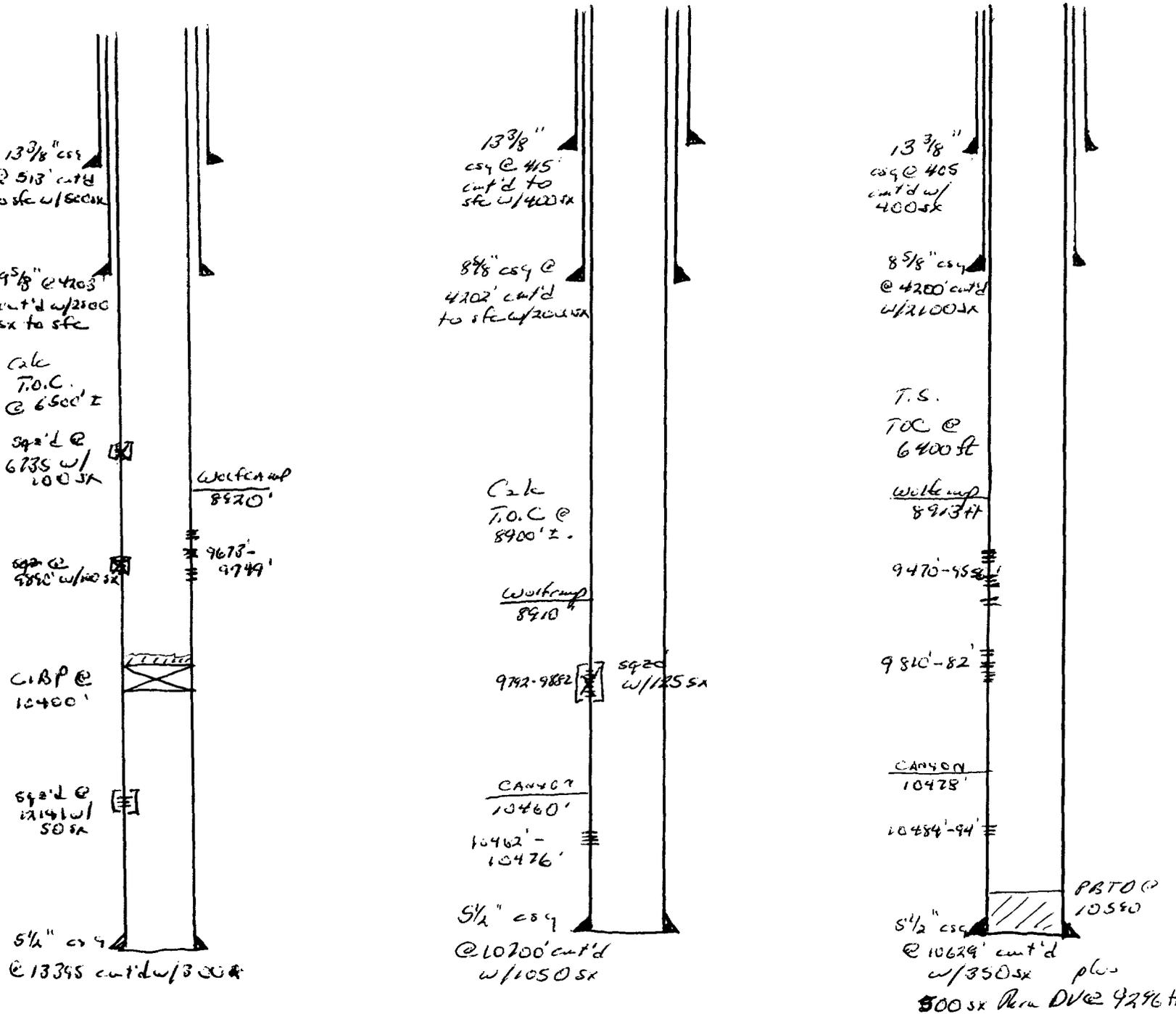


HEADWATER PRODUCING WELLS

STATE LAND 76 #1  
 SEC 2 T16S R32E  
 4020' FSL - 1950' FEL

STATE LAND 76 #4  
 SEC 1 T16S R32E  
 Comp 2/8/85

State Land 76 #5  
 SEC 2 T16S R32E





# HEADINGTON OIL COMPANY

7114 W. JEFFERSON • SUITE 213  
DENVER, COLORADO 80235  
(303) 969-8280 • FAX (303) 969-8201

June 13, 1995

Bob Eidson  
Eidson Ranch Inc.  
P.O. Box 1286  
Lovington, NM 88260

Dear Mr. Eidson:

Headington Oil Company is proposing to utilize it's well #3 to dispose it's produced water from well #1, #4 & #5 on the State Land 76 lease back into the Wolfcamp zone at the same depth. There will be no changes at the surface and the produced water will go through a closed system. This will actually decrease the truck traffic on the property, which will be to everyone's benefit. It also will help the wells to remain economic by eliminating the hauling costs.

If you have any questions or objections, please notify us.

Sincerely,



Alfred R. Powell  
Division Manager

505-396-4137

## HEADINGTON OIL COMPANY

7114 W. JEFFERSON • SUITE 213  
DENVER, COLORADO 80235  
(303) 969-8280 • FAX (303) 969-8201

June 13, 1995

K.C. Resources, Inc.  
2533 S. Highway 101  
Suite 260  
Cardiff, California 92007

Gentlemen:

Headington proposes to dispose of its produced water (100 BWPD) in the Wolfcamp formation in its State Land 76 #3 well. The produced waters are primarily from the Wolfcamp in its #1 and #5 (see map) wells. The zone will take the water at little, if any pressure.

K.C. Resources has a producing well 3/8 of a mile from the disposal site. Headington's own wells are within 1/4 mile or less in the same general direction, so the minor amount of disposal should be positive pressure maintenance for Headington's wells. We do not believe K.C. Resources' well will be affected, but if so, it will be positive for the oil production.

If you do not object, there is no need to reply. If you do have questions, please call me at (303) 969-8280.

Sincerely,



Alfred R. Powell  
Division Manager

**HEADINGTON OIL COMPANY**

7114 W. JEFFERSON AVENUE, SUITE 213  
DENVER, CO 80235  
PHONE (303) 969-8280  
FAX (303) 969-8201

RECEIVED  
1995 AUG 10 10 52

August 8, 1995

Oil & Gas Conservation Division  
P.O. Box 2088  
Santa Fe, New Mexico 87504-2088

Re: Application for SWD - State Land 76 Lease  
Lea County, NM

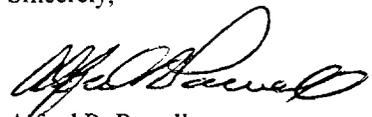
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Sincerely,



Alfred R. Powell  
Division Manager



STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION  
HOBBS DISTRICT OFFICE

OIL CONSERVATION DIVISION  
AUG 21 1995

8/21/95

POST OFFICE BOX 1980  
HOBBS, NEW MEXICO 88241-1980  
(505) 393-6161

GOVERNOR

OIL CONSERVATION DIVISION  
P. O. BOX 2088  
SANTA FE, NEW MEXICO 87501

RE: Proposed:

- MC \_\_\_\_\_
- DHC \_\_\_\_\_
- NSL \_\_\_\_\_
- NSP \_\_\_\_\_
- SWD \_\_\_\_\_
- WFX  \_\_\_\_\_
- PMX \_\_\_\_\_

Gentlemen:

I have examined the application for the:

<i>Headington Oil Co</i>	<i>State Land 76</i>	<i># 3-I</i>	<i>2-16s-32e</i>
Operator	Lease & Well No.	Unit	S-T-R

and my recommendations are as follows:

*Did not get data on P/A well*

*OTHER WISE OK*

Yours very truly,

Jerry Sexton  
Supervisor, District 1

/ed