CHECKLIST for ADMINISTRATIVE INJECTION APPLICATIONS

Operator: Dakota Resources, LLC. Well: NAI "DU" State No. 1

Contact: Dan Morphew Title: VP Phone: 915-687-0501

DATE IN 11-8-93 RELEASE DATE 11-22-93 DATE OUT 12-1-93

Proposed Injection Application is for: ___ WATERFLOOD ___ Expansion ___ Initial

Original Order: R- _____ ___ Secondary Recovery ___ Pressure Maintenance

SENSITIVE AREAS X SALT WATER DISPOSAL

___WIPP ___ Capitan Reef X Commercial Operation

Data is complete for proposed well(s)? Y Additional Data _____

AREA of REVIEW WELLS

0 Total # of AOR 0 # of Plugged Wells

\ Tabulation Complete \ Schematics of P & A's

\ Cement Tops Adequate ___ AOR Repair Required

INJECTION INFORMATION

Injection Formation(s) DELAWARE

Source of Water PRODUCED WATER (FORMATION?) Compatible X
TRUCKED DELAWARE,

PROOF OF NOTICE

Y Copy of Legal Notice Y Information Printed Correctly

\ Correct Operators Y Copies of Certified Mail Receipts

\ Objection Received ___ Set to Hearing _____ Date

NOTES: _____

_____

APPLICATION QUALIFIES FOR ADMINISTRATIVE APPROVAL ___

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 _____

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501

FORM C-108
Revised 7-81

11.22.93

OIL CONSERVATION DIVISION
RECEIVED
'93 NOV 22 AM 9 08

APPLICATION FOR AUTHORIZATION TO INJECT

I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☒ yes ☐ no

II. Operator: Dakota Resources, Inc. (I)

Address: 310 W. Wall, Suite 814 Midland, TX 79701

Contact party: Pam Morphew Phone: (915) 687-0501

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 ☒ no
If yes, give the Division order number authorizing the project _____.

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

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

VII. Attach data on the proposed operation, including:

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

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

IX. Describe the proposed stimulation program, if any.

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

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

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

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

XIV. Certification

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

Name: Pam Morphew Title Vice President

Signature: Pam Morphew Date: ~~11/04/93~~ 11/04/93

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

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate Division district office.

III. WELL DATA

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

(1) Lease name; Well No.; location by Section, Township, and Range; and footage location within the section.

(2) Each casing string used with its size, setting depth, sacks of cement used hole size, top of cement, and how such top was determined.

(3) A description of the tubing to be used including its size, lining material and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

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

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

(1) The name of the injection formation and, if applicable, the field or pool name.

(2) The injection interval and whether it is perforated or open-hole.

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

(5) Give the depth to and name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

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

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

(1) The name, address, phone number, and contact party for the applicant;

(2) the intended purpose of the injection well; with the exact location of single wells or the section, township, and range location of multiple wells;

(3) the formation name and depth with expected maximum injection rates and pressures; and

(4) a notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico 87501 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.

FORM C-108

Application for Authorization to dispose of produced water into Commercial Disposal System

Dakota Resources, Inc. (I)

III A.

1. New Mexico DU State #1
   1673' FNL & 1809' FWL, Section 36, Unit Letter F,
   Township 22 South, Range 27 East, Eddy County,
   New Mexico

2. 13 3/8" 54# casing set at 612' with 500 sxs BJLite and 300 sxs Cl "C" cement. Circulated 200 sxs.
   8 5/8" 24# casing set at 2411'. Cement with 800 sxs BJLite and 500 sxs Cl "C". Circulated.
   5 1/2" 17# casing set at 5889'. Cement with 1250 sxs Cl "C". TOC @ 114' determined by temp. survey.

3. Plan to run 2 7/8" plastic coated tubing at approx. 4938'.

4. Plan to run a plastic coated Lok-set packer (5 1/2" x 2 7/8") set at approximately 4938'.

III B.

1. The injection interval is the Delaware sand, Herradura Bend (Delaware) field.

2. Injection interval is through perforations at 4988-5002', 5070-5076', 5140-5150' and 5600-5620'.

3. The well was originally drilled as an oil well.

4. CIPB at 4920' cemented with 35 sxs.

5. Higher-none, Lower-Bone Springs (oil)

VII.

1. Proposed average rate of injection will be approximately 1500 BPD, with a maximum of 3000 BPD.

2. Closed system

3. Average injection pressure will be 600 PSI with a maximum of

1000 PSI.

4. re-injected produced water.

5. No productive wells from this formation within the one mile radius.

VIII. Geological Data

1. Geological Name-Delaware

2. Thickness-800'

3. Depth-approximately 4900'

4. Geologic Name and Depth of drinking water sources-Quarterarnary Alluvium-surface water

IX. Acidize with 500 gals. 7.5% NeFe.

X. Previously submitted. (submitted when well drilled. Test date November 12, 1983.) Copy of proposed section attached.

XI. Chemical analysis on fresh water wells within a 1 mile radius are attached to and made a part of this application.

I, Pam Morphew have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground source of drinking water.

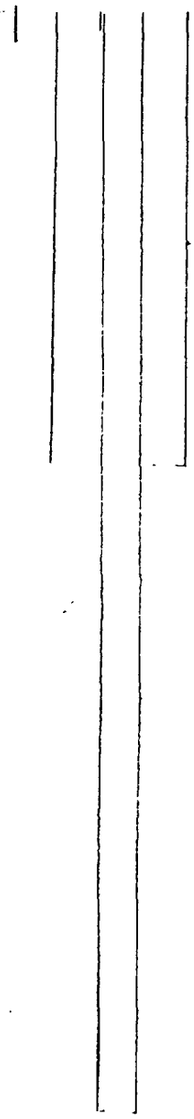
Pam Morphew

VI.

INJECTION WELL DATA SHEET

OPERATOR	LEASE			
Dakota Resources, Inc. (I)	New Mexico DU State #1			
WELL NO.	FOOTAGE LOCATION	SECTION	TOWNSHIP	RANGE
1	1673' FNL & 1809' FWL	36	22S	27E

Schematic



Tabular Data

Surface Casing

Size 13 3/8" " Cemented with 800 sx.

TOC surface feet determined by circ. 200 sxs

Hole size 17 1/2"

Intermediate Casing

Size 8 5/8" " Cemented with 1300 sx.

TOC Surface feet determined by circ.

Hole size 11"

Long string

Size 5 1/2" " Cemented with 1250 sx.

TOC 114 feet determined by Temp. Survey

Hole size 7 7/8"

Total depth 5889'

Injection interval

4988 feet to 5620 feet

(perforated or open-hole, indicate which)

Tubing size 2 7/8" lined with Rice Duo-Lined (material) set in a

Lok-Set (brand and model) packer at 4938 feet

(or describe any other casing-tubing seal).

Other Data

1. Name of the injection formation Herradura Bend (Delaware)

2. Name of Field or Pool (if applicable) Herradura Bend

3. Is this a new well drilled for injection? ☐ Yes ☑ No

   If no, for what purpose was the well originally drilled? Originally drilled as an oil well

4. Has the well ever been perforated in any other zone(s)? List all such perforated intervals and give plugging detail (sacks of cement or bridge plug(s) used) No

5. Give the depth to and name of any overlying and/or underlying oil or gas zones (pools) in this area. Overlying-none Underlying-Bone Springs

I, Pam Morphew certify that a copy of the attached Application for Authorization to Inject Water was mailed by certified mail to the surface owners of the land Juan Lopez and Pablo Rodrigez on November 3, 1993. There are no offset operators within the .5 mile radius of the well.

Pam Morphew

Pam Morphew
Vice President

№ 14301

Affidavit of Publication

State of New Mexico,
County of Eddy, ss.

E. C. Cantwell, being first duly sworn, on oath says:

That he is publisher of the Carlsbad Current-Argus, a newspaper published daily at the City of Carlsbad, in said county of Eddy, state of New Mexico and of general paid circulation in said county; that the same is a duly qualified newspaper under the laws of the state wherein legal notices and advertisements may be published; that the printed notice attached hereto was published in the regular and entire edition of said newspaper and not in supplement thereof on the date as follows, to wit:

May 18, , 1993

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, 19

that the cost of publication is $ 22.75, and that payment thereof has been made and will be assessed as court costs.

E C Cantwell

Subscribed and sworn to before me this

18 day of May, 1993

Linda S Martin

My commission expires 7/22/96

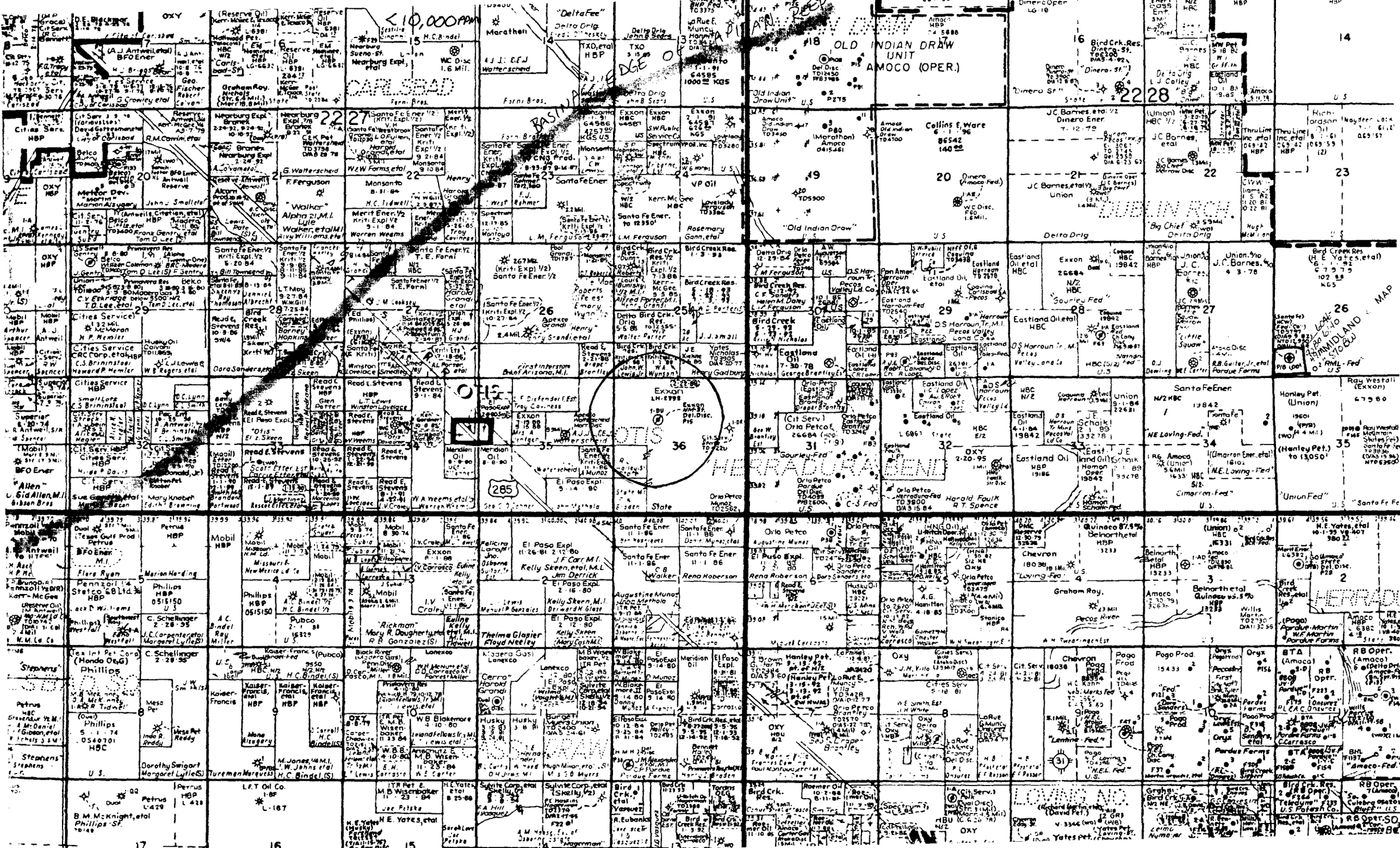
Notary Public

May 18, 1993

NOTICE OF APPLICATION FOR FLUID INJECTION WELL PERMIT

Dakota Resources, Inc., 310 West Wall, Suite 814, Midland, Texas 79701, can be contacted by called (915) 687-0501 and asking for Pam Morphew, has applied to the Oil Conservation Division of New Mexico for a permit to inject fluid into a formation which is productive of oil or gas.

The applicant proposes to inject produced fluid into the Delaware Sand in the New Mexico DU State #1. The well is located 1673' FNL and 1809' FWL of Section 36, T22S, R27E, Eddy County, New Mexico, Herradura Bend (Delaware) Field. Fluid will be injected through perforations from 4988-5150 and 5600-5620. Maximum injection rate will be 3000 BWPD with a maximum injection pressure of 1000 psi. Objections or requests for hearing with the Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico 87501 must be filed within 15 days of published notice.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OLD INDIAN DRAW UNIT
AMOCO (OPER.)
"Old Indian Draw"
"Delta Fee"
DUBLIN RCH.
HERRADURA BEND
OTIS
MAP
MIDLAND
Marathon
Amoco
Exxon
Santa Fe Energy
Santa Fe Ener.
Bird Creek Res.
Eastland Oil
Cities Service
Mobil
Phillips
Pennzoil
Stetco
Chevron
Quinoco
Belnorth
Pogo Prod.
Pogo
Orla Petco
Orla Petco Meadows
Orla Petco Merraduro-Fed
Orla Petco Sanders
Orla Petco Grantley
Orla Petco Pardue
Orla Petco Munoz
Orla Petco Augustine Munoz
Orla Petco Reno Robertson
Orla Petco Dora Sanders
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Schlumberger

SIMULTANEOUS

COMPENSATED NEUTRON-LITHO DENSITY

COMPANY Exxon Company U.S.A.

WELL Exxon N.M. "OU" ST. #1

FIELD Herradura Bend

COUNTY Eddy STATE New Mexico

COUNTY / FIELD / LOCATION / WELL / COMPANY

LOCATION 1673' FNL & 1809' FWL

API SERIAL NO.	SEC.	TWP.	RANGE
	36	22-S	27-E

Other Services:
NGT
DLL-MSFL
Sonic
ENT
SHOT

Permanent Datum: G.L. ; Elev.: 3075
Log Measured From K.B. , 14 Ft. Above Perm. Datum
Drilling Measured From K.B.

Elev.: K.B. 3089
D.F. 3088
G.L. 3075

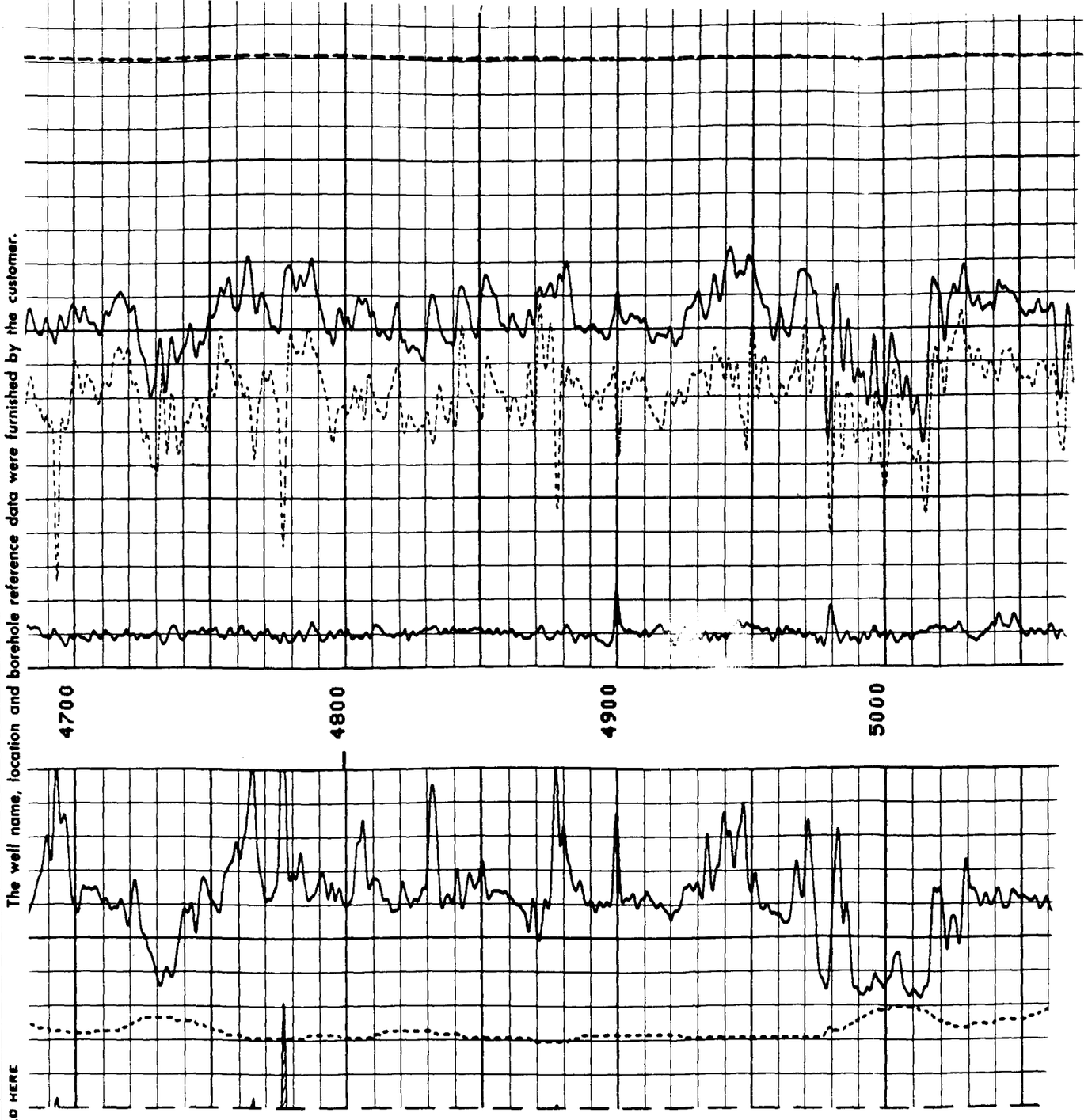
Date	10-28-83			
Run No.	ONE			
Depth—Driller	5894			
Depth—Logger	5897			
Btm. Log Interval	5894			
Top Log Interval	Surface			
Casing—Driller	8 5/8 @ 2415	@		@
Casing—Logger	2411			
Bit Size	7 7/8			
Type Fluid in Hole	Cut Brine/Starch			
Dens. / Visc.	9.0 / 27			
pH / Fluid Loss	10.5 / 21 ml	ml	ml	ml
Source of Sample	PIT			
Rm @ Meas. Temp.	.073 @ 73 °F	@ °F	@ °F	@ °F
Rmf @ Meas. Temp.	.073 @ 73 °F	@ °F	@ °F	@ °F
Rmc @ Meas. Temp.	— @ — °F	@ °F	@ °F	@ °F
Source: Rmf / Rmc	M / —			
Rm @ BHT	.049 @ 111 °F	@ °F	@ °F	@ °F
TIME Circulation Stopped	1200 - 10-28			
TIME Logger on Bottom	7:00 10-28			
Max. Rec. Temp.	111 °F	°F	°F	°F
Equip. / Location	B195 / Bwd			
Recorded By	R. Garvin			
Witnessed By	J. Lowrey			

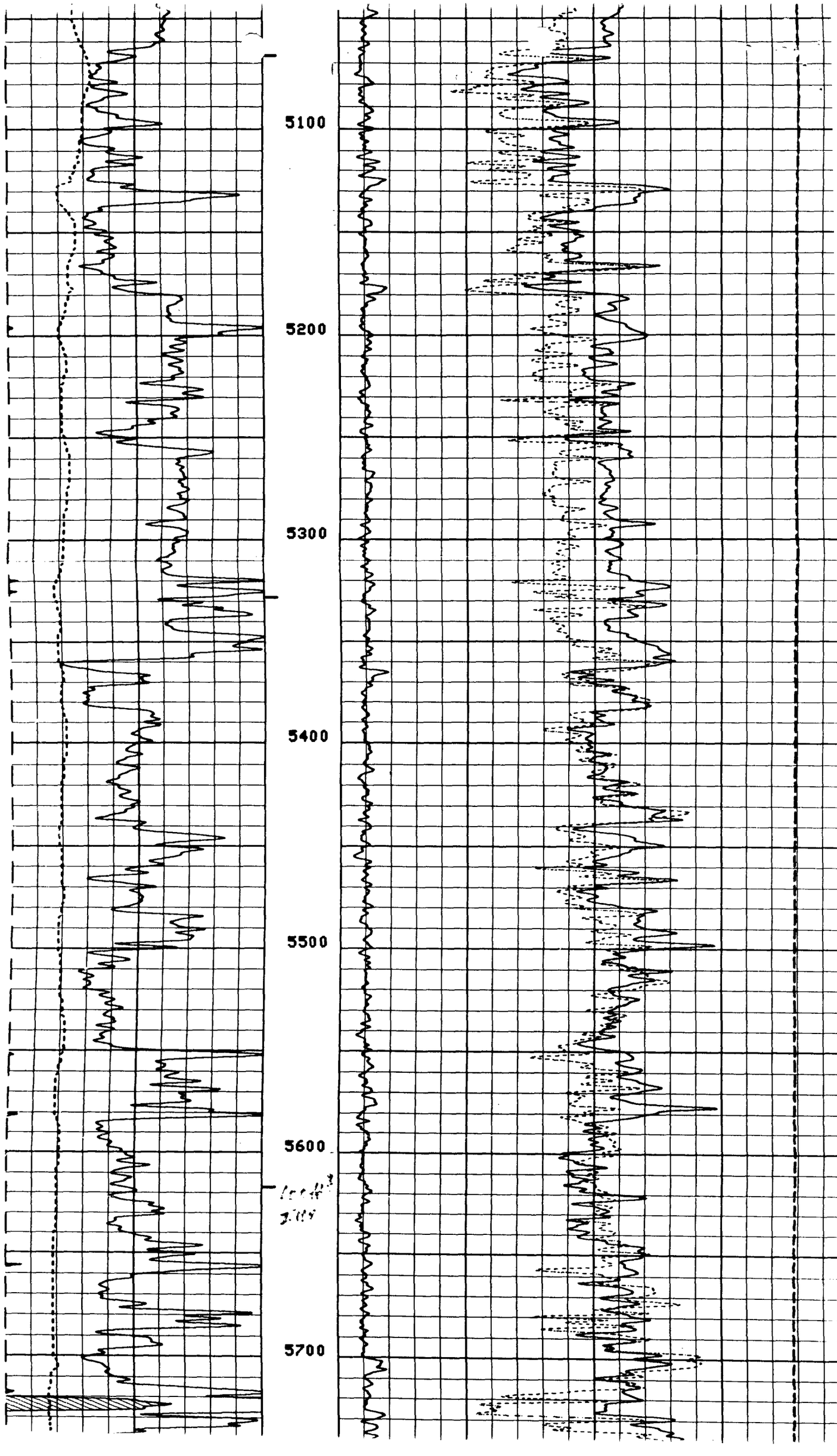
RECEIVED BY
MAR 19 1984
O. C. D.
ARTESIA, OFFICE

Confidential

The well name, location and borehole reference data were furnished by the customer.

FOLD HERE

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5200
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5600
5700

Chemical Analysis
Fresh water well located
near DU No. 1

		LAB. NO.	
TO:	STEVE HAKTANIR	DATE REC	11-3-93
		RR	
COMPANY	DAKOTA RESOURCES		NEW MEXICO STATE "DU"
FIELD			
SEC	BLK SURVEY	CO.	EDDY, NM
NO. 1	PROD. WATER - Fresh Water well		
NO. 2			
NO. 3.			
NO. 4			

REMARKS:

SPECIFIC GRAVITY @ 60oF.	1.0062
PH WHEN TAKEN	
PH WHEN REC	6.40
BICARBONATE AS HCO3	134
SUPERSAT AS CACO3	
UNDERSAT AS CACO3	
TOTAL HARD. AS CACO3	2880
CALCIUM AS CA	640
MAGNESIUM AS MG	311
SODIUM &/or POTASSIUM	974
SULFATE AS SO4	2413
CHLORIDE AS CL	1687
IRON AS FE	0.36
BARIUM AS BA	
TURBIDITY	
COLOR	
TOTAL SOLIDS, CALC.	6159
TEMPERATURE oF.	
CARBON DIOXIDE	
OXYGEN	
HYDROGEN SULFIDE	0.0
RESISTIVITY @ 77oF.	1.08
SUSPENDED OIL	
FILTRABLE SOLIDS	
VOLUME FILTERED	

RESULTS REPORTED AS MILLIGRAMS PER LITER

MARTIN WATER LABS., INC.

OIL CONSERVATION DIVISION
RECEIVED

'93 DEC 7 AM 8 45

I, Juan Lopez, accept receipt of a copy of the Application for Authorization to Inject Water on this 19th day of November, 1993, from Dakota Resources, Inc.

Juan Lopez

Juan Lopez

I, Pablo Rodriguez, accept receipt of a copy of the Application for Authorization to Inject Water on this 19th day of November, 1993, from Dakota Resources, Inc.

Pablo Rodriguez

Pablo Rodriguez