

10/27/84

CASE 8234
ORDER R-7637

PERFORATIONS: ~~Furn~~ KB

7806' - 7814'
7830' - 7852'
7860' - 7866'
7920' - 7930'
7980' - 7998'

These are the specific perforations
that were witnessed by
Mike Williams from our
Antecor office.

Gilbert Quintana
Σ

CAMPBELL, BYRD & BLACK, P.A.

LAWYERS

JACK M. CAMPBELL
HAROLD D. BYRD
BRUCE D. BLACK
MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
J. SCOTT HALL
PETER N. LIVES
RUTH S. MUSGRAVE
JOURDES A. MARTINEZ

JEFFERSON PLACE
SUITE 1110 NORTH GUADALUPE
POST OFFICE BOX 2208
SANTA FE, NEW MEXICO 87501
TELEPHONE: (505) 988-4421
TELECOPIER: (505) 983-6043

August 10, 1984

RECEIVED

AUG 10 1984

OIL CONSERVATION DIVISION

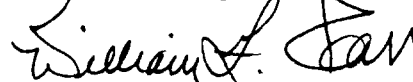
Mr. Joe D. Ramey, Director
Oil Conservation Division
New Mexico Energy and Minerals
Department
Post Office Box 2088
Santa Fe, New Mexico 87501

Re: Oil Conservation Commission Case 8234: Application of
Anadarko Production Company for Salt Water Disposal and
an Unorthodox Well Location, Eddy County, New Mexico.

Dear Mr. Ramey:

Pursuant to your request, we enclose herewith for Chama
Petroleum Company a proposed Order of the Commission denying
the application of Anadarko Production Company in the above-
referenced case.

Very truly yours,



William F. Carr

WFC/cv
enclosure

cc: Mr. Charles Nearburg (w/enc.)
W. Thomas Kellahin, Esq. (w/enc.)

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION COMMISSION

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

Case No. 8234
Order No.

APPLICATION OF ANADARKO
PRODUCTION COMPANY FOR SALT
WATER DISPOSAL AND AN UNORTHODOX
WELL LOCATION, EDDY COUNTY, NEW
MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9:00 a.m. on August 1, 1984, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this ____ day of August, 1984, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, 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 the applicant, Anadarko Production Company seeks

authority to dispose of produced salt water into the Cisco-Canyon formation in perforated intervals from 7,800 feet to 8,040 feet in its proposed Dagger Draw Salt Water Disposal Well No. 1 to be located at an unorthodox location 1,495 feet from the North line and 225 feet from the West line of Section 22, Township 19 South, Range 25 East, N.M.P.M., Eddy County, New Mexico.

(3) That Anadarko owns interests in Sections 21 and 22, Township 19 South, Range 25 East, N.M.P.M. and operates its Osage #1 Well located in Unit G of said Section 21 which is completed in the Cisco-Canyon formation.

(4) That the application was opposed at the time of hearing by Chama Petroleum Company, working interest owner in lands which offset the proposed disposal well to the north, east and west in the W/2 of Section 22, Township 19 South, Range 25 East, N.M.P.M., Eddy County, New Mexico.

(5) That Chama Petroleum Company operates its B & B Well offsetting the proposed disposal well to the east located in Unit G of Section 22, Township 19 South, Range 25 East, N.M.P.M., and its Chama South Boyd #1 Well offsetting the proposed disposal well to the Southeast located in Unit F of Section 27, Township 19 South, Range 25 East, N.M.P.M.

(6) That the evidence presented established the presence of the Cisco-Canyon formation throughout the subject area and showed that the Cisco-Canyon formation consists of a number of zones separated by shale stringers.

(7) That Anadarko presented testimony that the shale

stringers in the Cisco-Canyon formation should confine disposed water to the injection zone and that certain zones in this formation were not capable of producing oil and gas in commercial quantities.

(8) That if this is correct, a disposal well could be located at any standard location in Sections 21 or 22.

(9) That if the disposed waters should not be confined by the impermeable shale stringers, a well at the proposed location could water out zones potentially capable of producing oil or gas in commercial quantities from acreage in which Chama Petroleum Company owns working interest.

(10) That the proposed unorthodox location is not justified and that the application for an unorthodox location for Anadarko's proposed Dagger Draw Salt Water Disposal Well #1 should be denied.

(11) The evidence established that structure is not the controlling factor in determining if wells are capable of commercial production from the Cisco-Canyon formation in this area for wells up structure from Anadarko's Osage #1 Well are watered out in zones from which it produces hydrocarbons.

(12) That the testimony indicated the presence of potential commercial oil zones in the Cisco-Canyon formation in the Chama B & B Well and the Chama South Boyd #1 Well, and also the presence of potential commercial oil zones in the Cisco-Canyon formation under the W/2 of Section 22, Township 19 South, Range 25 East, N.M.P.M.

(13) That the Oil Conservation Commission is charged with

preventing the drowning by water of any stratum or part thereof capable of producing oil or gas, or both oil and gas, in paying quantities and to prevent the premature and irregular encroachment of water, or any other kinds of water encroachment, which reduces or tends to reduce the total ultimate recovery of crude petroleum oil or gas, or both such oil and gas, from any pool.

(14) That disposal of produced water in the Cisco-Canyon formation through Anadarko's proposed Dagger Draw Salt Water Disposal Well #1 could result in the drowning by water of stratum capable of producing oil or gas, or both oil and gas, in paying quantities and could result in the premature and irregular encroachment of water in the Cisco-Canyon formation in a fashion that reduces or tends to reduce the total ultimate recovery of crude petroleum oil or gas, or both such oil and gas, from that pool.

(15) That granting the application of Anadarko in this case would result in the underground waste of oil and gas, would impair the correlative rights of Chama Petroleum Company and other interest owners in Section 22, Township 19 South, Range 25 East, N.M.P.M., Eddy County, New Mexico.

(15) That the application should be denied.

IT IS THEREFORE ORDERED:

(1) That the application of Anadarko Production for salt water disposal and an unorthodox well location is hereby denied.

(2) 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 herein-
above designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JIM BACA, Member

ED KELLEY, Member

JOE D. RAMEY, Chairman
and Secretary

S E A L

Jason Kellahin
W. Thomas Kellahin
Karen Aubrey

KELLAHIN and KELLAHIN
Attorneys at Law
El Patio - 117 North Guadalupe
Post Office Box 2265
Santa Fe, New Mexico 87504-2265

Telephone 982-4285
Area Code 505

August 2, 1984

Mr. Joe D. Ramey
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

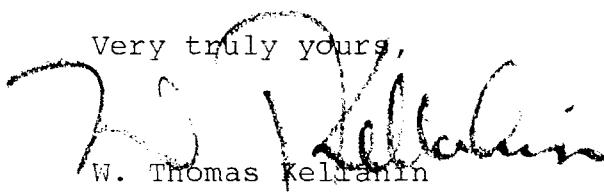
RECEIVED
AUG 3 1984
OIL CONSERVATION DIVISION

Re: Anadarko SWD Application
NMOCC Case 8234
August 1, 1984

Dear Mr. Ramey:

In accordance with your direction at the August 1, 1984, New Mexico Oil Conservation Commission Hearing of the above referenced case, please find enclosed our proposed order on behalf of Anadarko Production Company.

Very truly yours,


W. Thomas Kellahin

WTK:ca
Enc.

cc: Bill Sullivan
Anadarko Production Company
P. O. Box 2497
Midland, Texas 79702

William F. Carr, Esq.
Campbell & Black
P. O. Box 2208
Santa Fe, New Mexico 87501

ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

RECEIVED
AUG 3 1984
OIL CONSERVATION DIVISION

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

CASE NO. 8234
ORDER NO.

APPLICATION OF ANADARKO PRODUCTION
COMPANY FOR SALT WATER DISPOSAL
AND AN UNORTHODOX WELL LOCATION,
EDDY COUNTY, NEW MEXICO.

PROPOSED ORDER FOR THE COMMISSION

BY THE COMMISSION

This cause came on for hearing at 9 a.m. on August 1, 1984, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission."

NOW, on this _____ day of August, 1984, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, 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 the applicant, Anadarko Production Company seeks authority to dispose of produced salt water into the Upper Pennsylvanian formation in the perforated interval from 7800 feet to 8040 feet in its Dagger Draw SWD Well No 1 to be located at an unorthodox location 1495 feet from the North line and 225 feet from the West line of Section 22, Township 19 South, Range 25 East.

(3) That applicant has the right to utilize the C and D zones of the Cisco-Canyon formation (Upper Pennsylvanian) for salt water disposal from a surface location within the SW/4NW/4 of said Section 22.

(4) That the Anadarko Osage # 1 Well located in Unit G of Section 21, T19S, R25E, NMPM, is not capable of production of oil in economic quantities from the C and D zones of the Cisco-Canyon Formation.

(5) That the Chama B & B #1 well located in Unit G of Section 22, T19S, R25E, NMPM, is not capable of production of oil in economic quantities from the A, B, C, or D zones of the Cisco-Canyon formation.

(6) That the Chama South Boyd #1 well located in Unit _____, Section 27, T19S, R25E, NMPM, is not capable of production of oil in economic quantities from either the C or D zones in the Cisco-Canyon Formation.

(7) That the A, B, C, and D zones of the Cisco-Canyon are each separate reservoirs separated by impermeable non-porous dolomite and shales.

(8) That there is no reasonable probability that the proposed disposal interval is productive of oil in paying quantities in the W/2 of Section 22.

(9) That the disposal interval in the C and D zones of the Cisco Canyon will not drown by water any stratum or part thereof capable of producing oil in paying quantities nor will it cause the premature and irregular encroachment of water into such a stratum nor will it reduce or tend to reduce total ultimate recovery of crude oil from any pool.

(10) That approval of this application will result in the production of more oil than will otherwise be recovered from the Cisco-Canyon formation thereby preventing waste.

(11) That the approval of this application will not violate the correlative rights of Chama nor any other interested party.

(12) Approval of this application will prevent waste.

(13) That the injection should be accomplished through 2 7/8-inch plastic-lined tubing installed in a packer set at approximately 7800 feet; that the casing-tubing annulus should be filled with an inert fluid; and that a pressure gauge or approved leak detection device should be attached to the annulus in order to determine leakage in the casing, tubing, or packer.

(14) That the applicant should be authorized to dispose of up to a maximum of 10,000 Brls/day of salt water into the proposed disposal well.

(15) That the injection well or system should be equipped with a pressure limiting switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 1560 psi.

(16) That the Director of the Division should be authorized to administratively approve an increase in the injection pressure upon a proper showing by the operator that such higher pressure will not result in migration of the injected water from the Glorieta formation.

(17) That the operator should notify the supervisor of the Artesia district office of the Division of the date and time of the installation of disposal equipment so that the same may be inspected.

(18) That the operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface.

(19) That approval of the subject application subject to the above provisions will prevent the drilling of unnecessary wells and otherwise prevent waste and protect correlative rights.

IT IS THEREFORE ORDERED:

(1) That the applicant, Anadarko Production Company, is hereby authorized to drill its Dagger Draw Salt Water Disposal Well #1 at an unorthodox location 1495 feet FNL and 225 feet FWL of Section 22, T19S, R25E, NMPM, Eddy County, New Mexico, to dispose of produced salt water into the C and D zones of the Cisco-Canyon formations, injection to be accomplished through 2 7/8-inch tubing installed in a packer set at approximately 7800 feet, with injection into the perforated interval from approximately 7800 feet to 8040 feet;

PROVIDED HOWEVER, that the tubing shall be plastic-lined; that the casing-tubing annulus shall be filled with an inert fluid; and that a pressure gauge shall be attached to the annulus or the annulus shall be equipped with an approved leak detection device in order to determine leakage in the casing, tubing, or packer.

(2) That the injection well or system shall be equipped with a pressure limiting switch or other acceptable device which will limit the wellhead pressure on the injection well to no more than 1560 psi.

(3) That the Director of the Division may authorize an increase in injection pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the injected fluid from the Glorieta formation.

(4) That the operator shall notify the supervisor of the Artesia district office of the Division of the date and time of the installation of disposal equipment so that the same may be inspected.

(5) That the operator shall immediately notify the supervisor of the Division's Artesia district office of the failure of the tubing, casing, or packer, in said well or the leakage of water from or around said well and shall take such steps as may be timely and necessary to correct such failure or leakage.

(6) That the applicant shall submit monthly reports of its disposal operations in accordance with Rules 702, 703, 704, 705, 706, 708, and 1120 of the Division Rules and Regulations.

(7) 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

JIM BACA, Member

ED KELLEY, Member

JOE D. RAMEY, Chairman and
Secretary



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

8234

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

June 17, 1997

Titan Resources I, Inc.
500 W. Texas
Suite 500
Midland, Texas 79701

Re: Dagger Draw SWD Well No. 1
Unit E, Section 22, T-19S, R-25E,
Eddy County, New Mexico

Attention: Mr. Rodney Woodard

Dear Mr. Woodard:

In an effort to update our records concerning the Dagger Draw SWD Well No. 1, the Division is requesting that you supply the following described information:

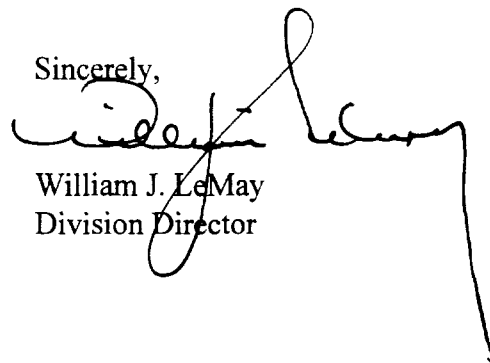
A description and analysis of the fluid being injected into the commercially operated Dagger Draw SWD Well No. 1. This includes an analysis of each and every water source and a description of its point of origin (i.e. San Andres produced water from the Grayburg-Jackson Pool). In addition, this includes water delivered to the well by pipeline and truck.

Division and Federal UIC Rules and Regulations require that all operators of disposal wells provide source water analysis at a reasonable frequency. Our records indicates that the Dagger Draw SWD Well No. 1 was permitted by Anadarko Production Company in August, 1984.

Please provide the information requested within 60-days from the date of this letter. If you need additional time, or you wish to discuss the matter further, please contact Mr. David Catanach at (505) 827-8184.

Failure to comply may result in the imposition of fines and/or the termination of injection authority.

Sincerely,

A handwritten signature in black ink, appearing to read 'William J. LeMay', with a long, sweeping vertical line extending downwards from the end of the signature.

William J. LeMay
Division Director

xc: Case File-8234 /
OCD-Artesia
UIC Enforcement File

BEFORE THE
OIL CONSERVATION DIVISION
NEW MEXICO DEPARTMENT OF ENERGY AND MINERALS

RECEIVED

JUN 14 1984

OIL CONSERVATION DIVISION

IN THE MATTER OF THE APPLICATION
OF ANADARKO PRODUCTION COMPANY FOR
SALT WATER DISPOSAL AND AN UNORTHODOX
WELL LOCATION, EDDY COUNTY, NEW MEXICO.

Case 8234

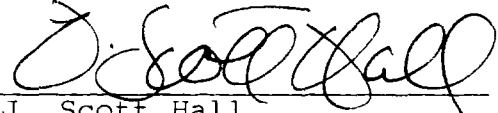
ENTRY OF APPEARANCE

Comes now, CAMPBELL, BYRD & BLACK, P.A., and hereby enters
its appearance in the above-referenced cause for Chama Petroleum
Company.

Respectfully submitted,

CAMPBELL, BYRD & BLACK, P.A.

By


J. Scott Hall
Post Office Box 2208
Santa Fe, New Mexico 87501
(505) 988-4421

ATTORNEYS FOR CHAMA PETROLEUM
COMPANY

7-1

CAMPBELL, BYRD & BLACK, P.A.
LAWYERS

JACK M. CAMPBELL
EARL D. BYRD
BRUCE D. BLACK
MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
J. SCOTT HALL
PETER N. IVES
RUTH S. MUSGRAVE
ROURDES A. MARTINEZ

JEFFERSON PLACE
SUITE 110 NORTH GUADALUPE
POST OFFICE BOX 2208
SANTA FE, NEW MEXICO 87501
TELEPHONE: (505) 988-4421
TELECOPIER: (505) 983-6043

June 14, 1984

RECEIVED

JUN 14 1984

OIL CONSERVATION DIVISION

Mr. Joe D. Ramey, Director
Oil Conservation Division
New Mexico Department of Energy
& Minerals
Post Office Box 2088
Santa Fe, New Mexico 87501


Re: Case 8234: Application of Anadarko Production Company for
Salt Water Disposal and an Unorthodox Well Location, Eddy
County, New Mexico.

Dear Mr. Ramey:

This letter is to request, on behalf of Chama Petroleum
Company, that the Examiner Hearing on the above-referenced matter
scheduled for June 20, 1984, be continued until the Examiner
Hearing of July 11, 1984.

Thank you.

Very truly yours,


J. Scott Hall

JSH/cv

cc: Mr. Charles Nearburg

M.S.

Chama Petroleum Company

Chama Petroleum Company
P.O. Box 1440
Midland, Texas 79702
Tel. (512) 734-2100

June 8, 1984

Certified Mail

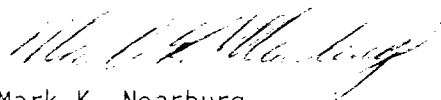
New Mexico Oil Conservation Commission
310 Old Santa Fe Trail
State Land Office Building, Room 206
Santa Fe, New Mexico 87501

RE: Anadarko Production Company
Application for Authority to
Inject Salt Water
Sec. 22, 19S, 25E
Eddy County, New Mexico

Gentlemen:

Please be advised that Chama Petroleum Company objects to Anadarko's application for the location and drilling of a salt water disposal well 1495' FNL and 225' FWL Section 22, 19S, 25E, Eddy County, New Mexico.

Yours truly,



Mark K. Nearburg
Landman

cc: Anadarko Production Company
P.O. Box 2497
Midland, Texas 79702

Jason Kellahin
W. Thomas Kellahin
Karen Aubrey

KELLAHIN and KELLAHIN
Attorneys at Law
El Patio - 117 North Guadalupe
Post Office Box 2265
Santa Fe, New Mexico 87504-2265

Telephone 982-4285
Area Code 505

May 31, 1984

RECEIVED

JUN 1 1984

OIL CONSERVATION DIVISION

Mr. Joe D. Ramey
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

"Hand Delivered"

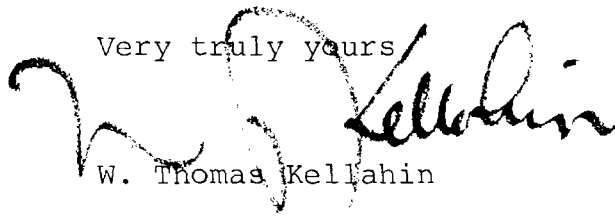
Re: Anadarko Production Company
Dagger Draw SWD Well No. 1

Dear Mr. Ramey:

On May 25, 1984, we filed on behalf of Anadarko Production Company an application for approval of a salt water disposal well which is set for hearing on June 20, 1984.

Please find enclosed the completed C-108 for that case.

Very truly yours



W. Thomas Kellahin

WTK:ca
Enc.

cc: Mr. Dan Kernaghan
Anadarko Production Company
P. O. Box 2497
Midland, Texas 79702

APPLICATION FOR AUTHORIZATION TO INJECT

- I. Purpose: ☐ Secondary Recovery ☐ Pressure Maintenance ☒ Disposal ☐ Storage
Application qualifies for administrative approval? ☐ yes ☒ no
- II. Operator: Anadarko Production Company
Address: Box 130, Artesia, New Mexico 88210
Contact party: Jerry Buckles Phone: 505/748-3368
- 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: D. C. Kernaghan Title Division/Operations Manager
Signature: [Signature] Date: 5/30/84
- * 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. Logs will be filed when run.

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.

WELL AND OPERATING DATA
PROPOSED
ANADARKO DAGGER DRAW SWD #1 WELL

LOCATION: 1495' FNL & 225' FWL
Sec. 22, T19S, R25E
Eddy County, New Mexico

WELL DATA

Casing and Tubing: As shown on attached schematic subject to NMOCD rules and permit approval. Cement circulated on surface and intermediate casing. Cement calculated to reach surface on long string.

Packer: Tension packer set as close to perfs as preactical.

Stimulation: NE HCL or other acid in sufficient volume to clean perfs and formation near wellbore.

Logs: To be filed when run.

FORMATION DATA

Injection Formation: Cisco-Canyon

Thickness: 400 feet.

Lithology: Limestone w/scattered dolomite

Interval: Perforations from 7800' to 8030' approx.

Possible productive zones in area: Yeso - 2500'
Wolfcamp - 6200'
Strawn - 8300'
Atoka - 9000'
Morrow - 9300'

Lowest Fresh Water: 1100' est.

SYSTEM DATA

Closed system

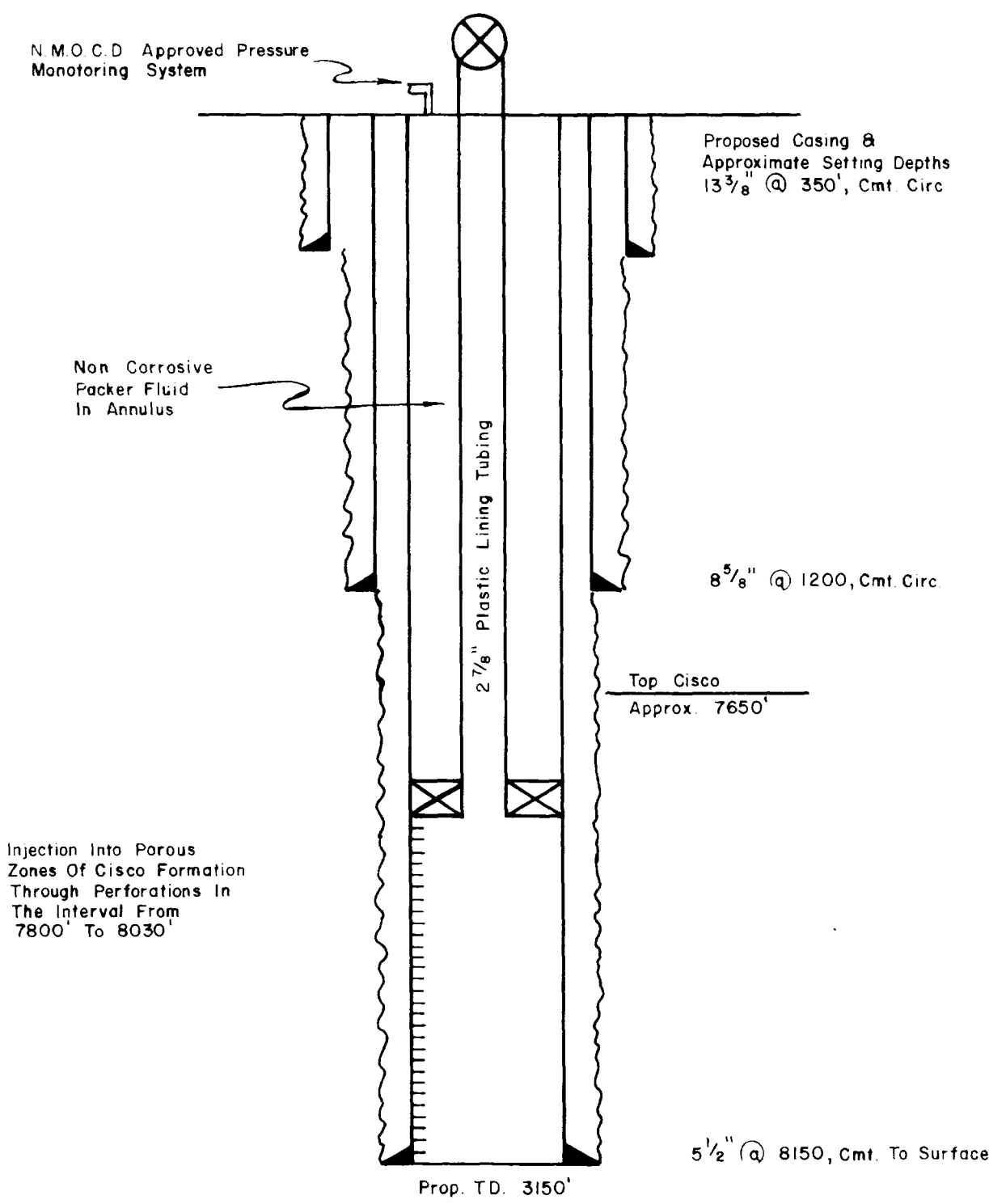
Water Treatment: Corrosion inhibitors as needed

Injection Pressure: Vac to 1500 psig

Volume of Disposed Water: Up to 10,000 B/D.
4000 B/D initially only from Cisco-Canyon

PROPOSED COMPLETION

ANADARKO - DAGGER DRAW SWD # 1 WELL
1495' FNL & 225' FWL SEC. 22, T 19 S R 25 E
EDDY COUNTY, NEW MEXICO

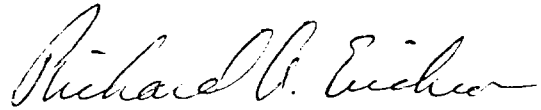


TABULATION OF WELL DATA

WELL NAME	LOCATION		STATUS	DATE COMPL.	TD	CASING, DEPTH & CEMENT	PERFS	FORMATION
	FOOTAGE	STR						
Anadarko Osage No.1	1980'FN&EL	21-19-25	Prod. Oil	9/23/82	7954 PBTD	13-3/8" @ 500' w/500 sxs 8-5/8" @ 1299' w/850 sxs 5-1/2" @ 7926' w/475 sxs	7672-7704	Cisco
Orig. Coquina Osage No.1			D&A	8/16/73	9410 TD			

AFFIRMATIVE STATEMENT
(ITEM XII)

I affirmatively state that I have thoroughly 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 quality water.

A handwritten signature in cursive script, reading "Richard A. Erickson".

Richard A. Erickson
Staff Geological Engineer
Anadarko Production Company

Waylan C. Martin, M. A.

709 W INDIANA
MIDLAND TEXAS 79701
PHONE 683-4521

LABORATORY NO. 583326
SAMPLE RECEIVED 5-20-83
RESULTS REPORTED 5-24-83

By _____
Waylan C. Martin, M. A.

RESULT OF WATER ANALYSES

LABORATORY NO. 583334

to: Anadarko Production Company:
P.O. Drawer 130, Artesia, NM 88210

SAMPLE RECEIVED 5-20-83
RESULTS REPORTED 5-24-83

COMPANY Anadarko Production Company LEASE

FIELD OR POOL

SECTION _____ BLOCK _____ SURVEY _____ COUNTY Eddy STATE NM

SOURCE OF SAMPLE AND DATE TAKEN:

NO 1 Raw water - taken from Section 22 windmill.

NO. 2

NO. 3

NO. 4

REMARKS:

CHEMICAL AND PHYSICAL PROPERTIES				
	NO. 1	NO. 2	NO. 3	NO. 4
Specific Gravity at 60° F.	1.0012			
pH When Sampled				
pH When Received	7.58			
Bicarbonate as HCO ₃	95			
Supersaturation as CaCO ₃				
Undersaturation as CaCO ₃				
Total Hardness as CaCO ₃	1,645			
Calcium as Ca	966			
Magnesium as Mg	117			
Sodium and/or Potassium	4			
Sulfate as SO ₄	1,376			
Chloride as Cl	29			
Iron as Fe	1.5			
Barium as Ba				
Turbidity, Electric				
Color as Pt				
Total Solids, Calculated	2,187			
Temperature °F.				
Carbon Dioxide, Calculated				
Dissolved Oxygen, Winkler				
Hydrogen Sulfide	0.0			
Resistivity, ohms/m at 77° F.	3.40			
Suspended Oil				
Filtrable Solids as mg/l				
Volume Filtered, ml				

RECEIVED

MAY 20 1960

NOTES: 10/2/60

Results Reported As Milligrams Per Liter

Additional Determinations And Remarks The undersigned certifies the above to be true and correct to the best of his knowledge.

Form No. 3

cc: Mr. Bill Griffin, Midland
Mr. Dan Kernaghan, Midland

By

Waylan C. Martin, M. A.



May 30, 1984

ADDRESS LIST ATTACHED

Gentlemen:

Anadarko Production Company is making application for Authority to Inject salt water into the Cisco-Canyon formation in a well to be drilled as a SWD well at a location 1495' FNL & 225' FWL of Section 22, T19S, R25E, Eddy County, New Mexico. A copy of the C-108 form and a map showing the proposed location are attached.

Anadarko intends to request permission to dispose of water from our Osage No.1 well and other company operated Cisco-Canyon wells in the area as well as possible outside water on a commercial basis. Total volume will range from 4000 BPD initially to 10,000 BPD at a later date. Surface pressure will be a maximum of 1500 psig.

A hearing will be required by the N.M.O.C.D. to consider this application. Anyone wishing to file an objection should notify the Oil Conservation Division, P. O. Box 2088, Santa Fe, New Mexico, 87501 within 15 days.

If you have any questions please contact me at 915/682-1666.

Sincerely,

A handwritten signature in dark ink, appearing to read "D. G. Kernnaghan". The signature is fluid and cursive, with a long horizontal stroke at the end.

D. G. Kernnaghan

DGK:gks

ATTACH.

A. J. Antweil
814 W. Marland
Hobbs, New Mexico

Armour Properties
c/o R. E. Chambers
1107 Oil & Gas Bldg.
Wichita Falls, Texas 76301

D. E. Blackmar
1407 Highland Road
Roswell, New Mexico 88201

Conoco, Inc.
P. O. Box 1959
Midland, Texas 79702

Mary Elaine Cribbs
231 East Iliff Ave 1/2
Denver, Colorado 80210

Crown Central Petroleum Corporation
731 West Wadley
Building K, Suite 200
Midland, Texas 79701

Flag-Redfern Oil Company
P. O. Box 2280
Midland, Texas 79702

Hondo Oil & Gas Co.
P. O. Box 1610
Midland, Texas 79702

Marshall & Winston, Inc.
P. O. Box 874
Midland, Texas 79702

Monsanto Company
1330 Midland National Bank Tower
Midland, Texas 7701

C. E. Nearburg
P. O. Box 31405
Dallas, Texas 75231

Reading & Bates Oil & Gas
1100 Midcontinent Bldg.
409 S. Boston Ave.
Tulsa, Oklahoma 74103

T. J. Sivley
214 Booker Bldg.
Artesia, New Mexico 88210

Suburban Propane Gas Corp.
P. O. Box 17689
San Antonio, Texas 78217

Leslie and Jean Whitney
12723 Richmond Ave. 1/2
Grandview, MO 64030

Yates Petroleum Corp.
207 South 4th
Artesia, New Mexico 88201

APPLICATION FOR AUTHORIZATION TO INJECT

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

II. Operator: Anadarko Production Company

Address: Box 130, Artesia, New Mexico 88210

Contact party: Jerry Buckles

Phone: 505/748-3368

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: D. G. Kernaghan

Title Division/Operations Manager

Signature: [Signature]

Date: 5/30/84

* 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. Logs will be filed when run.

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

