

GTLT - 7

**1-25S-20W
Chevron U.S.A. Inc.
(Hidalgo County)**

577-A(PA)

NEW MEXICO OIL CONSERVATION COMMISSION
P. O. Box 2086, Santa Fe 87501

Form G-101

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U.S.G.S.	1	
Operator	1	
Land Office		

APPLICATION FOR PERMIT TO DRILL, DEEPEN,
OR PLUG BACK---GEOTHERMAL RESOURCES WELL

NOV 14 1977

5A. Indicate Type of Lease
STATE REC

5. State Lease No.

4. Type of Work
Drill Deepen Plug Back
b. Type of Well
Geothermal Producer Temp Observation
Low-Temp Thermal Injection/Disposal

7. Unit Agreement Name

8. Form of Lease Name
V.C. Hatch

6. Name of Operator
CHEVRON U.S.A.. INC.

9. Well No.
577

3. Address of Operator
P.O. Box 3722 San Francisco, CA. 94119

10. Field and Pool, or Wildcat

1. Location of Well
UNIT LETTER A LOCATED 600' FEET FROM THE N LINE
600' FEET FROM THE E LINE OF SEC. 1 TWP. 25S RCE. 20W NMPM

12. County
Hidalgo

19. Proposed Depth 500' 19A. Formation
20. Rotary or C.T.
Rotary

21. Elevation (Show whether DF, RT, etc.) 4183'
21A. Kind & Status Plug. Bond
21B. Drilling Contractor to be named later
22. Approx. Date Work will start 12-1-77

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP

PLAN OF OPERATION ATTACHED

IF ABOVE SPACE DESCRIBE PROPOSED PROGRAM; IF PROPOSAL IS TO DEEPEN OR PLUG BACK, GIVE DATA ON PRESENT PRODUCTIVE ZONE AND PROPOSED NEW PRODUCTIVE ZONE. GIVE BLOWOUT PREVENTER PROGRAM, IF ANY.

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

Signed J. R. Turner Title Attorney-in-Fact Date 10-3-77

(This space for State Use)

APPROVED BY Carl Melvog TITLE SENIOR PETROLEUM GEOLOGIST DATE 1-13-78

CHEVRON RESOURCES COMPANY

PLAN OF OPERATION

SHALLOW TEMPERATURE GRADIENT HOLES

EXHIBIT "A"

1. Description of the Operation

The Shallow Temperature Observation Hole Program, as conducted by the Chevron Resources Company, requires the drilling of 250-500 foot holes with a diameter of 4-3/4 to 5-3/8 inches. The number of holes will vary with the size of the area to be evaluated. These holes will be drilled by a state licensed drilling contractor using a truck mounted drill rig. The mud-out temperature will be monitored continually during the actual drilling.

Once each hole is completed a 1 inch (I.D.) black steel pipe, sealed at the bottom, will be placed in the hole with the top being 8-12 inches from the ground surface. The pipe is then filled with water and capped. The hole is then back-filled with cuttings and/or drilling mud to within 10 feet of the surface. The remaining void is then filled with cement.

As necessary, the pipe is unearthed and a temperature probe is lowered to total depth. Once the series of temperature logs is completed, the pipe is then filled with cement and buried. The ground surface is then smoothed and returned to as nearly as practical to pre-drilling condition.

The drilling operations will be suspended if the mud-out temperature reaches 125°F and cannot be lowered or stabilized with the addition of well-head or cooling devices. The hole will then be completed as a temperature gradient hole or abandoned.

The drilling operations will also be suspended if flowing hot water or steam at 150°F or more is encountered. The hole will then be completed as a temperature gradient hole by placing 1 inch (I.D.), black, steel pipe to total depth and cementing from total depth to surface. If the hole is to be abandoned it will be plugged with cement from total depth to surface.

If cold artesian flow is encountered the hole will be completed or abandoned as described in the paragraph above.

The equipment for drilling, as well as the drill rig, consists of a water truck and a light pickup truck. The temperature probe consists of a thermometer or thermister device on the end of a wire line and a small tripod-mounted wheel for lowering the probe down the hole.

2. The following plan of operations as required by Section 270.34 of the Federal Regulations for Geothermal Operations on public acquired and

withdrawn lands, covering paragraphs (a) through (h), is submitted pursuant to Section 270.78:

- (a) The hole locations, lease numbers (Exhibit "B") and outline of a typical drill site layout (Exhibit "C") are attached.
- (b) No new roads will be constructed for this operation. Access to area of operations will be along existing roads.
- (c) No water sources on federally administered lands will be developed and no road building material will be used.
- (d) Campsites, airstrips or other supporting facilities will not be required.
- (e) Minimal access scars, limited mainly to tire impressions, may occur during the course of drilling the hole. All such disturbances will be restored as nearly as possible to pre-drilling condition. All materials will be removed from the area once the hole is completed.
- (f) Topographic features of the drill site areas and drainage can be observed from the attached map (Exhibit "B").
- (g) If drilling mud or foam are used they will be contained by portable steel containers. When the hole is completed, the mud residue will be dried and spread on the ground surface.
- (h) The Chevron Resources Company will use all reasonable precautions to prevent waste of geothermal resources and other natural resources found in the area. At all times during operations the following precautions will be taken:

Traffic will be light and only when necessary. Light pickups will be used whenever possible. To the extent possible, only existing roads, fence lines or jeep trails will be used.

Site preparation will be limited to driving the truck-mounted drill rig to the site and setting it up for drilling.

Since the topography is not severe, the construction of drill pads will not be required.

All vehicles will be equipped with spark arresters and will carry the required fire-fighting equipment and all adequate fire protection measures will be taken to prevent any damage from fire.

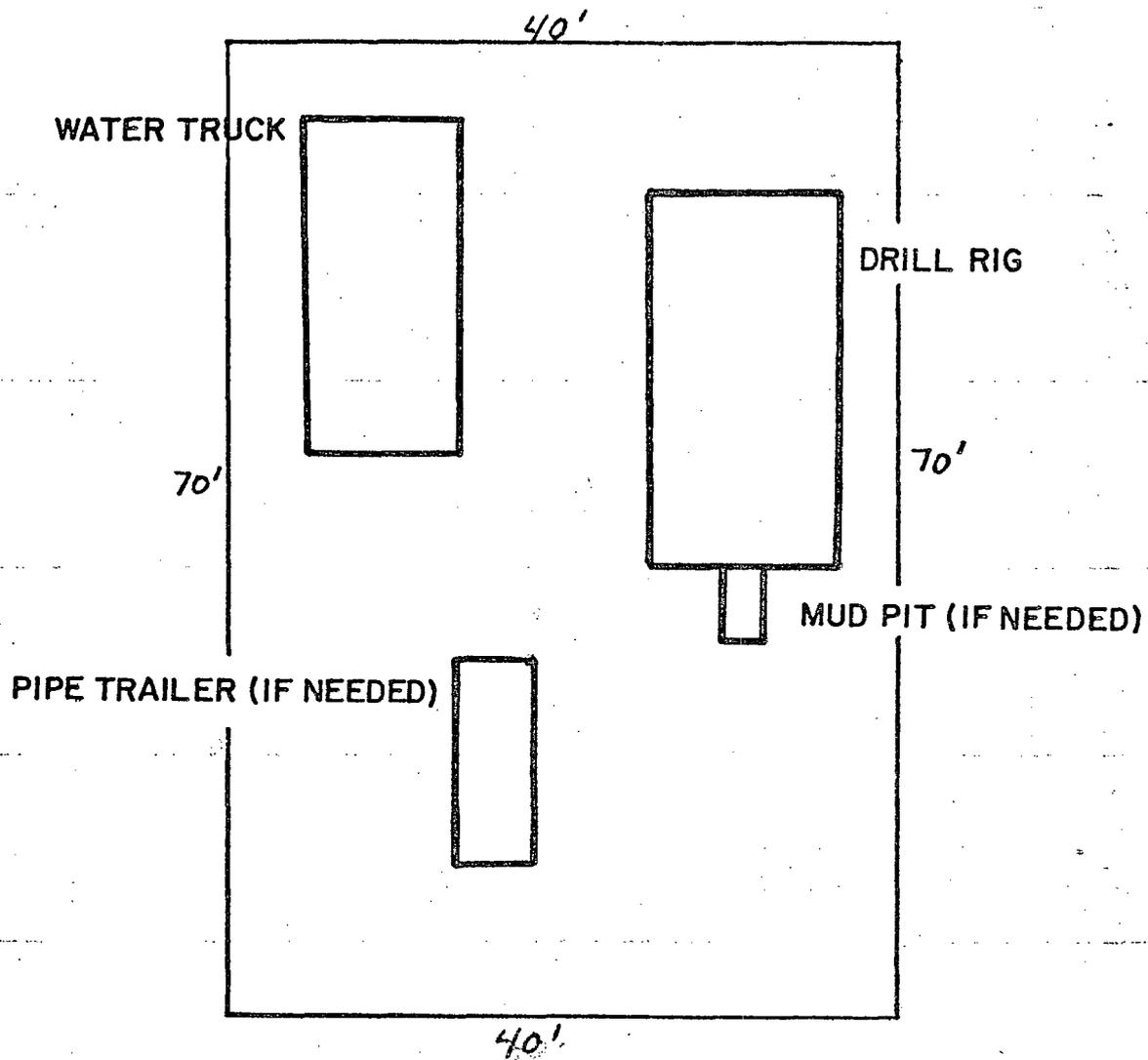
No water or other material will be pumped onto the surface of the ground which might result in soil erosion. Appropriate care will be taken so that natural drainage will not be affected and so that no pollution can occur to surface or ground water.

Geothermal operations will have no material impact on fish and the

disturbance of wildlife and vegetation in the area will be minor due to the short duration of operations and the limited number of personnel comprising the field crews. No significant damage or destruction of vegetation will occur and unavoidable dislocation of wildlife will be short term only.

Mufflers and other available devices will be used on all vehicles to control noise pollution. Minor air pollution will occur from vehicle exhaust, but all feasible measures will be used to control this pollution, in compliance with applicable laws, rules and regulations. Minor air pollution will occur from dust caused by vehicle traffic on dirt roads. Since this pollution is dependent upon natural road conditions and is temporary it therefore has no significant affect on the areas environment.

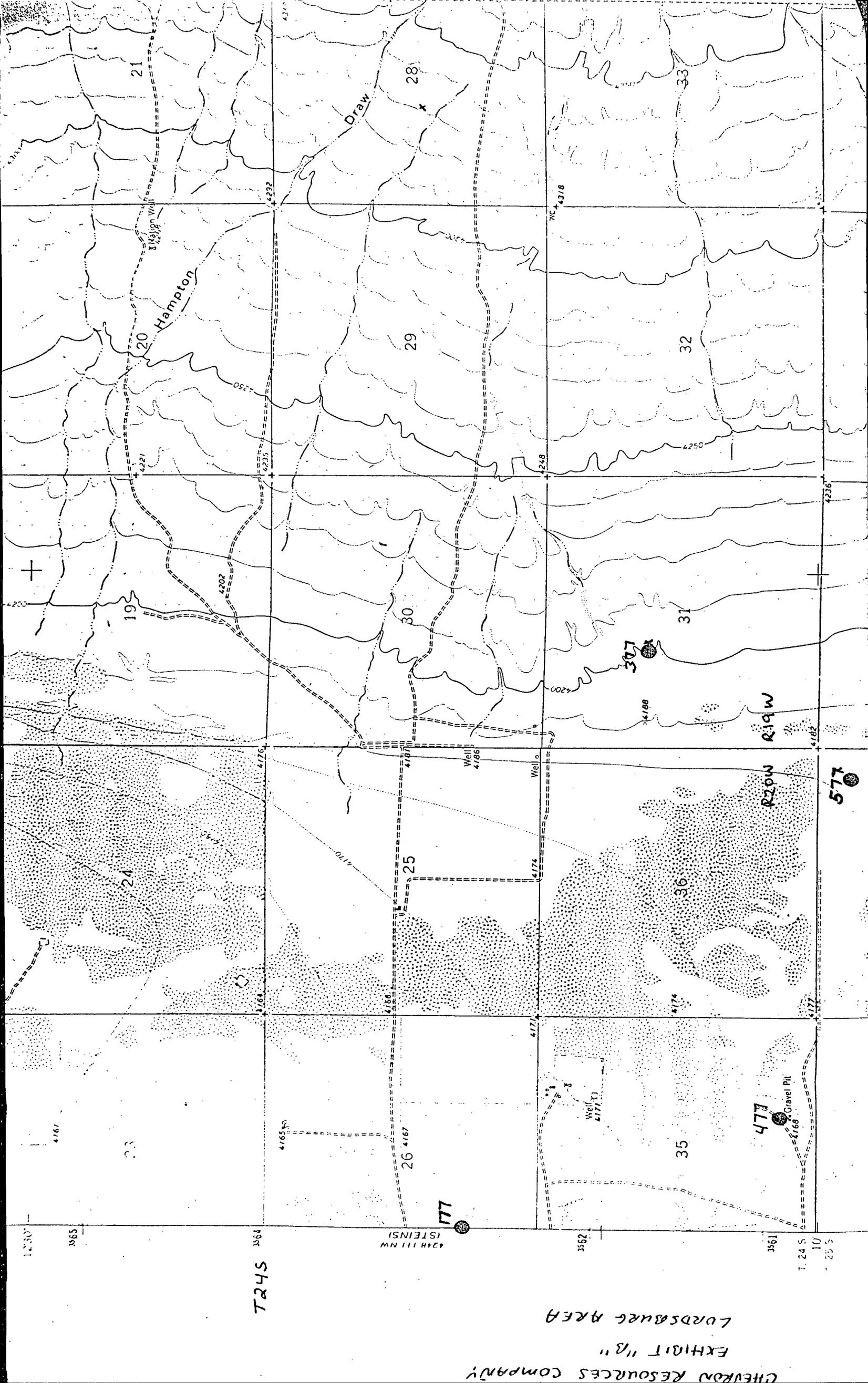
There will be very little hazard to public health and safety due to the lack of population in the area. All such hazard is confined to the crew or the rig. All appropriate safety measures and equipment will be utilized.



SCHEMATIC OF SHALLOW TEMPERATURE HOLE DRILL SITE

EXHIBIT "C"

CHICKEN RESOURCES COMPANY
EXHIBIT "B"
LORDSBURG AREA



T24S

1248 111 NW
1548 111 S

3561

T. 24 S
10
25 S

1250

3565

3552

4236

577

477

477

407

195

24

25

26

30

36

35

31

32

33

29

28

21

Hampton

Draw

R19W

R20W

R21W

R19W

R20W

R21W

R19W

R20W

R21W

+

+

4236

4182

4177

4177

4378

4248

4176

4176

4176

4232

4235

4176

4176

4165 75

4221

4202

4170

4167

4161

1250

3565

3561

1248 111 NW
1548 111 S

3552

3561

T. 24 S
10
25 S

NEW MEXICO OIL CONSERVATION COMMISSION
 GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

Form G-102

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

Operator CHEVRON U.S.A. INC.		Lessee V. C. HATCH	
Unit Letter A	Section 1	Township T25S	Range R20W
Actual Entry Location of Well: 600 feet from the N line and 600 feet from the E line		County HIDALGO	
Ground Level Elev. 4183'	Producing Formation	Pool	Dedicated Acreage: Acres

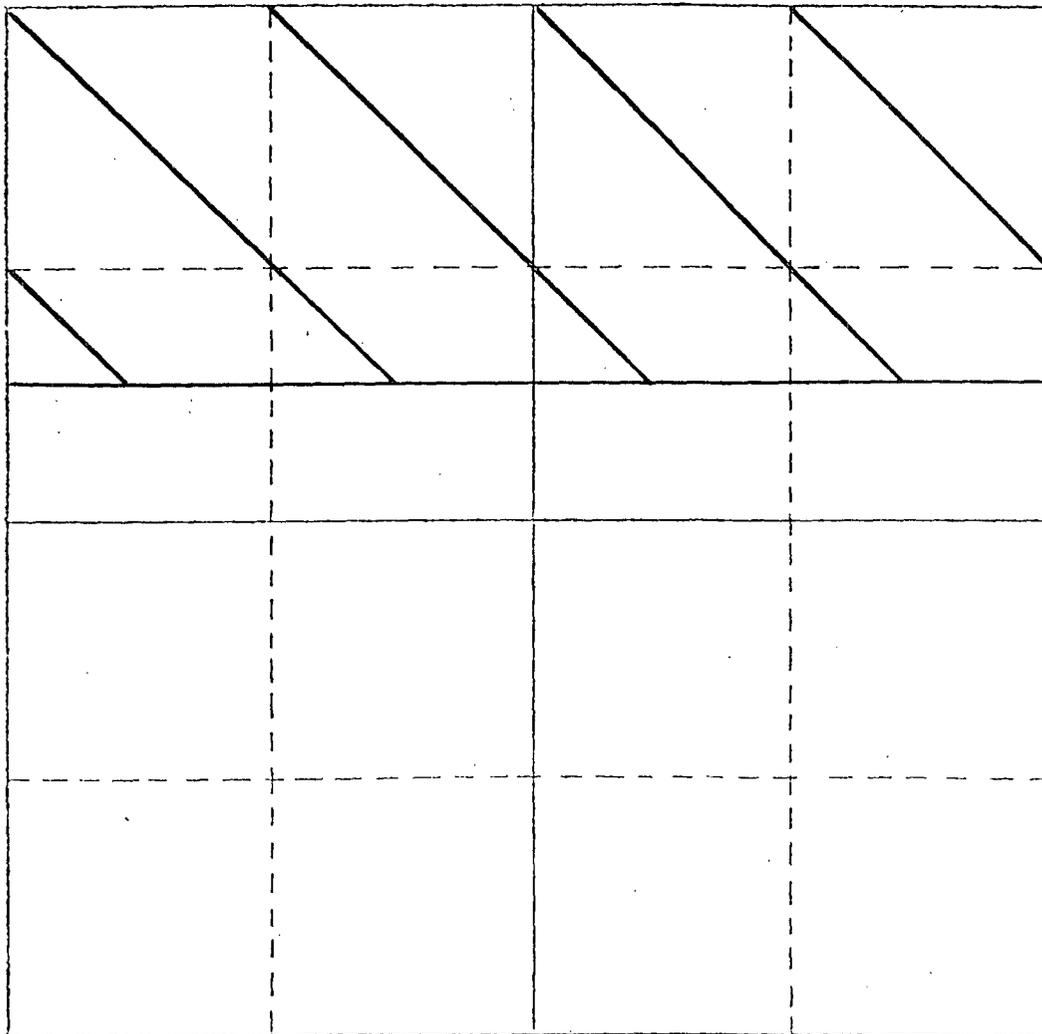
MAR 28 1978
 577
 OIL CONSERVATION COMMISSION
 Santa Fe

- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- 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.

Name
J. H. [Signature]

Position
Attorney-in-Fact

Company
Chevron U.S.A. Inc.

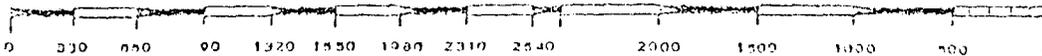
Date
January 31, 1978

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

Registered Professional Engineer and/or Land Surveyor

Certificate No.



GEOHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

Operator CHEVRON U.S.A. INC.		Location V. C. HATCH		Date MAR 02 1978		Well No. 577
Unit Letter A	Section 1	Township T25S	Range R20W	County HIDALGO		

Approximate Location of Well:
 600 feet from the **N** line and 600 feet from the **E** line.
 Section **3**

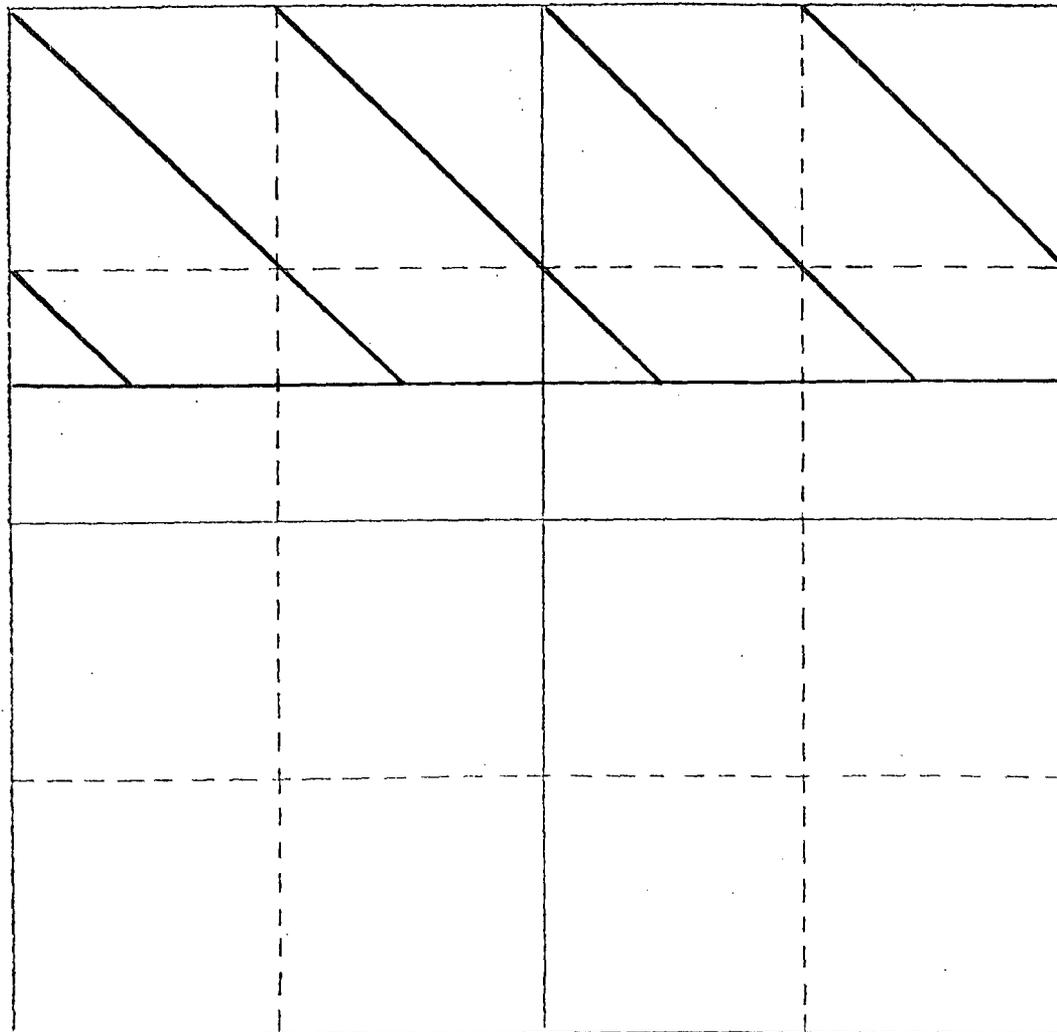
Stratigraphic Layer 4183'	Producing Formation	Pool	Dedicated Acreage: Acres
-------------------------------------	---------------------	------	---------------------------------

- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- 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.) _____

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CERTIFICATION

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Name
J. K. [Signature]

Position
Attorney-in-Fact

Company
Chevron U.S.A. Inc.

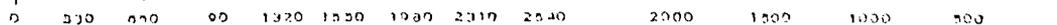
Date
January 31, 1978

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Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.



NEW MEXICO OIL CONSERVATION COMMISSION Form G-102
 GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

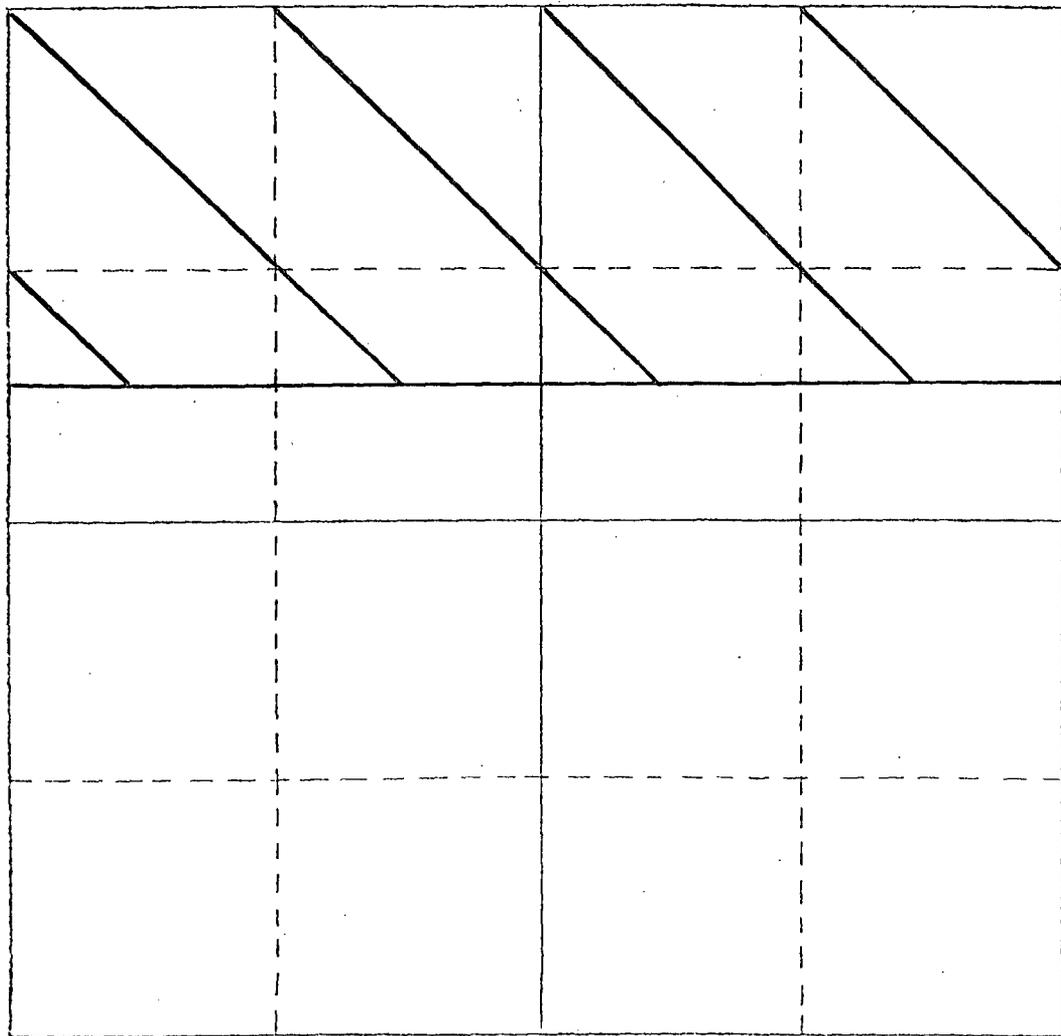
All distances must be from the outer boundaries of the Section.

Name CHEVRON U.S.A. INC.		Lease V. C. HATCH		Well No. 577	
Half Section A	Section 1	Township T25S	Range R20W	County HIDALGO	
Actual Well Location of Well:					
600 feet from the N line and		600 feet from the E line			
Shall Depth Elev. 4183'	Producing Formation	Post	Dedicated Acreage: Acres		

- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- 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 _____

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CERTIFICATION

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Name
J. K. Turner

Position
Attorney-in-Fact

Company
Chevron U.S.A. Inc.

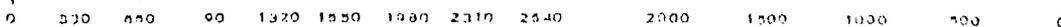
Date
January 31, 1978

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

Registered Professional Engineer and/or Land Surveyor

Certificate No.



GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

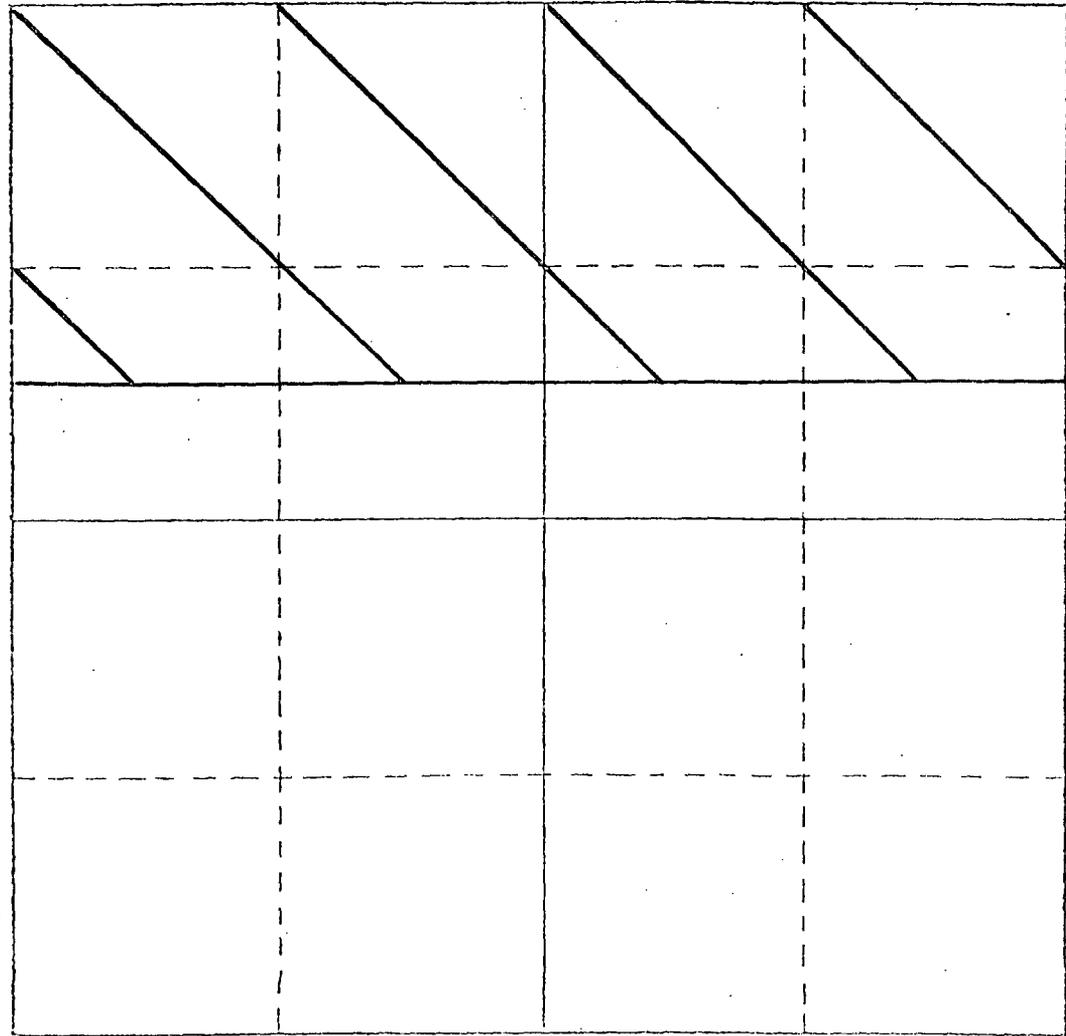
Operator CHEVRON U.S.A. INC.		Lease V. C. HATCH		Date MAR 02 1978		Well No. 577	
Unit A	Section 1	Township T25S	Range R20W	County CHIDALGO			
Actual Well Location of Well: 600 feet from the N line and 600 feet from the E line							
Ground Level Elev. 4183'	Producing Formation		Pool		Dedicated Acreage: 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 _____

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CERTIFICATION

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

Name *J. H. Turner*

Position **Attorney-in-Fact**

Company **Chevron U.S.A. Inc.**

Date **January 31, 1978**

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

Registered Professional Engineer and/or Land Surveyor

Certificate No.



GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

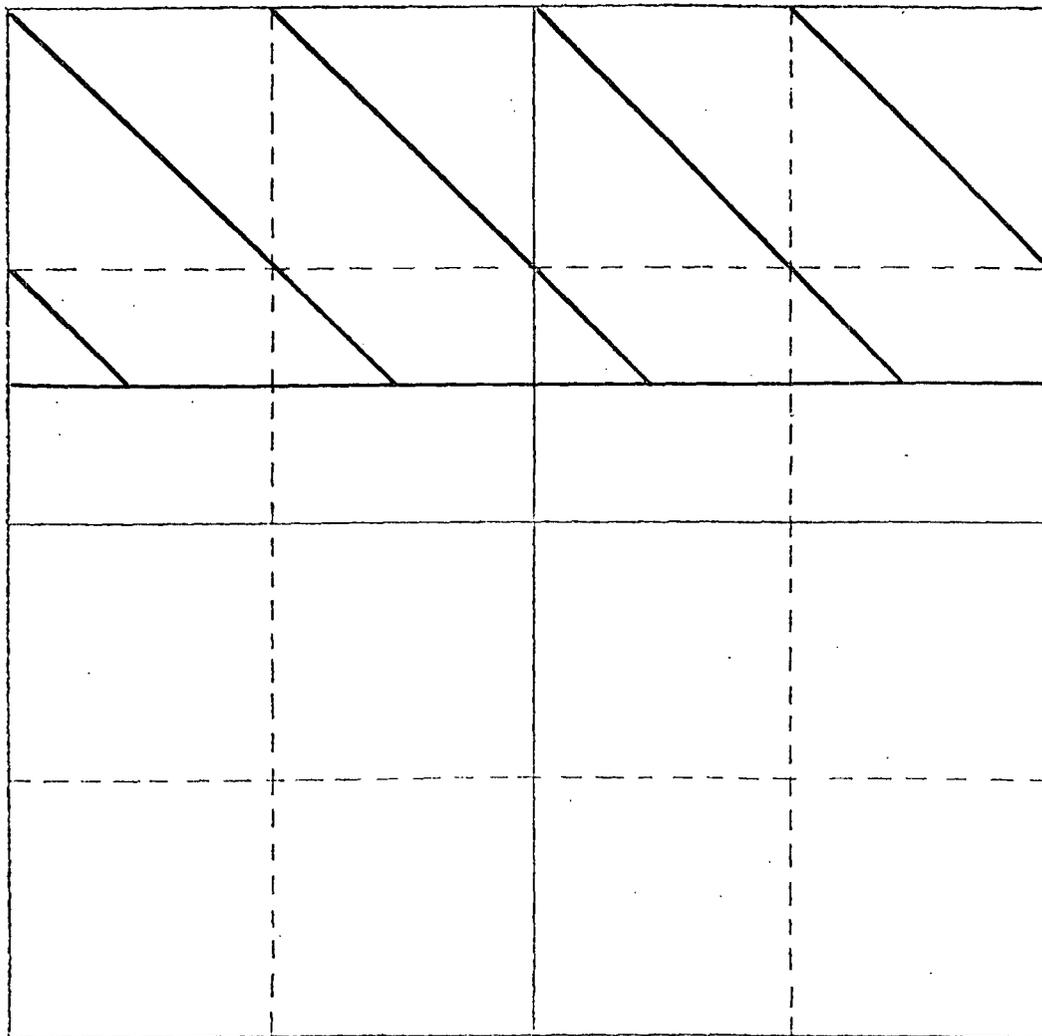
Owner CHEVRON U.S.A. INC.		Lease V. C. HATCH		Well No. 577
Tract Letter A	Section 1	Township T25S	Range R20W	County HIDALGO
Actual Eastern Location of Well: 600 feet from the N line and 600 feet from the E line				
Ground Level Elev. 4183'	Producing Formation	Pool	Dedicated Acreage: Acres	

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- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- 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 _____

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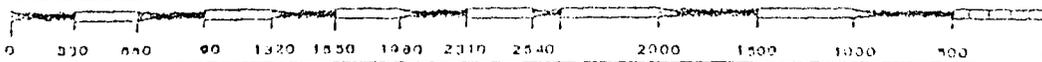
CERTIFICATION

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

Name: *J. H. Turner*
 Position: **Attorney-in-Fact**
 Company: **Chevron U.S.A. Inc.**
 Date: **January 31, 1978**

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: _____
 Registered Professional Engineer and/or Land Surveyor: _____
 Certificate No.: _____



NEW MEXICO OIL CONSERVATION COMMISSION
P. O. Box 2088, Santa Fe 87501

JUN 29 1978

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N. M. B. M.		
U. S. G. S.		
Operator		
Land Office		

SUNDRY NOTICES AND REPORTS
ON
GEOTHERMAL RESOURCES WELLS

5. Indicate Type of Lease
State Fee
State Lease No.

Do Not Use This Form for Proposals to Drill or to Deepen or Plug Back to a Different Reservoir. Use "Application for Permit -" (Form G-101) for Such Proposals.

1. Type of well Geothermal Producer Temp. Observation
Low-Temp Thermal Injection/Disposal

7. Unit Agreement Name

2. Name of Operator
Chevron U.S.A. Inc.

8. Farm or Lease Name
Hatch

3. Address of Operator
P.O. Box 3722 San Francisco, CA 94119

9. Well No.
577

4. Location of Well
Unit Letter A 600 Feet From The N Line and 600 Feet From

10. Field and Pool, or Wildcat
Wildcat

The E Line, Section 1 Township 255 Range 20W NMPM.

15. Elevation (Show whether DF, RT, GR, etc.)

4183' (Ground)

12. County
Hidalgo

6. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK PLUG AND ABANDON
TEMPORARILY ABANDON
DRILL OR ALTER CASING CHANGE PLANS
OTHER

SUBSEQUENT REPORT OF:

REMEDIAL WORK ALTERING CASING
COMMENCE DRILLING OPNS. PLUG & ABANDONMENT
CASING TEST AND CEMENT JOB
OTHER _____

7. Describe Proposed or completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 203.

Hole was abandoned by filling with drilling mud and cuttings to within 10 feet of the surface. The remaining void was filled with a cement, and the ground surface smoothed. Exact date of abandonment is not available.

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

SIGNED J. G. Turner TITLE Attorney-In-Fact DATE 5/2/78

APPROVED BY Carl Ulvog TITLE SENIOR PETROLEUM GEOLOGIST DATE 5/23/79

CONDITIONS OF APPROVAL, IF ANY: