

GTLT - _____9_____

**(12-26)-18N-2E
Sunoco Energy
Development Corporation
(Sandoval County)**

**9-76-1A-G(PA); 9-76-2-E(PA);
9-76-4-M(PA); 9-76-3-I(PA);
9-76-5-I(PA) & 9-76-6-G(PA)**

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

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Operator	1
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SUNDRY NOTICES AND REPORTS
ON
GEOTHERMAL RESOURCES WELLS

5. Indicate Type of Lease
State <input type="checkbox"/> Fee <input checked="" type="checkbox"/>
5.a 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 <input type="checkbox"/> Temp. Observation <input type="checkbox"/> Low-Temp Thermal <input type="checkbox"/> Injection/Disposal <input type="checkbox"/>	7. Unit Agreement Name None
2. Name of Operator Sunoco Energy Development Corporation	8. Farm or Lease Name San Diego Grant
3. Address of Operator 12700 Park Central Pl., Suite 1500, Dallas, TX 75251	9. Well No. 9-76-1A
4. Location of Well Unit Letter <u>G</u> , 1950 Feet From The <u>N.</u> Line and <u>2450</u> Feet From The <u>E.</u> Line, Section <u>12</u> Township <u>18</u> N. Range <u>2</u> E. NMPM.	10. Field and Pool, or Wildcat None
15. Elevation (Show whether DF, RT, GR, etc.) 6550' G.L.	12. County Sandoval

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input checked="" type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	
OTHER <input type="checkbox"/>	

SUBSEQUENT REPORT OF:

REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG & ABANDONMENT <input checked="" type="checkbox"/>
CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER <u>Per verbal permission.</u>	

17. 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: a) cutting off 3/4" iron pipe 6" below ground level; b) filling top 10' of pipe with cement; c) covering the pipe with dirt; d) clearing site of all trash and debris and e) restoring site as nearly as practical to original condition. Abandonment operations commenced on 9/24/77 and were completed on 9/24/77.

This conforms with abandonment method prescribed by U.S. Geological Survey's Revised Special Stipulations for Shallow Temperature Gradient Holes.

OCT 31 1977

NEW MEXICO OIL CONSERVATION COMMISSION
SANTA FE

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

SIGNED [Signature] TITLE Vice President, Operations DATE 10/24/77
Geothermal Services, Inc.APPROVED BY Carl Ulvog TITLE SENIOR PETROLEUM GEOLOGIST DATE 12/12/77

CONDITIONS OF APPROVAL, IF ANY:

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

OIL CONSERVATION COMMISSION

SUNDRY NOTICES AND REPORTS
ON
GEOTHERMAL RESOURCES WELLS5. Indicate Type of Lease
State ☐ Fee ☒
5.a 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 ☐

2. Name of Operator
Sunoco Energy Development Corporation

3. Address of Operator
12700 Park Central Pl., Suite 1500, Dallas, TX 75251

4. Location of Well
Unit Letter G, 1950 Feet From The NORTH Line and 2450 Feet From
The EAST Line, Section 12 Township 18N Range 2E NMPM.

7. Unit Agreement Name
None

8. Farm or Lease Name
San Diego Grant

9. Well No.
9-76-1a

10. Field and Pool, or Wildcat
None

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

655012. County
Sandoval

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

NOTICE OF INTENTION TO:

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

SUBSEQUENT REPORT OF:

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

17. 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.

On 1/22/77 Hole No. 9-76-1a was spudded at 8:00 AM PMThe hole was T.D. 'd on 1/24/77 @ 41' BGL

OK - Inspected 12/12

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

SIGNED [Signature] TITLE Chief Geologist DATE 1/28/77
Geothermal Services, Inc.

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

NO. OF COPIES RECEIVED	
DISTRIBUTION	
File	<input checked="" type="checkbox"/>
N.M.B.M.	
U.S.G.S.	
Operator	
Land Office	

NEW MEXICO OIL CONSERVATION COMMISSION

P. O. Box 2088, Santa Fe 87501

OIL CONSERVATION COMMISSION

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

5. Indicate Type of Lease

STATE COM. FEE ☒

5a State Lease No.

1a. Type of Work	Drill <input checked="" type="checkbox"/>	Deepen <input type="checkbox"/>	Plug Back <input type="checkbox"/>	7. Unit Agreement Name	none
b. Type of Well	Geothermal Producer <input type="checkbox"/>	Temp Observation <input checked="" type="checkbox"/>	Injection/Disposal <input type="checkbox"/>	8. Farm or Lease Name	San Diego Grant
2. Name of Operator	Sunoco Energy Development Corporation			9. Well No.	9-76-1A
3. Address of Operator	12700 Park Central Pl., Suite 1500, Dallas, TX 75251			10. Field and Pool, or Wildcat	none
4. Location of Well**	UNIT LETTER <u>G</u> LOCATED <u>1950</u> FEET FROM THE <u>North</u> LINE AND <u>2450</u> FEET FROM THE <u>East</u> LINE OF SEC. <u>12</u> TWP. <u>18 N</u> RGE. <u>2 E.</u> NMPM			12. County	Sandoval
19. Proposed Depth	500 ft.	19A. Formation	unknown	20. Rotary or C.T.	rotary
21. Elevations (Show whether DF, RT, etc.)	6550 (GL)	21A. Kind & Status Plug. Bond	see note "A"	21B. Drilling Contractor	Geothermal Services
			22. Approx. Date Work will start	Oct. 1, 1976	

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
5-1/8"	3/4"	1.14 lbs.	500'	1.5	6" BGL

Program - See attached "Standard Shallow Temperature Gradient Hole Drilling Program"

** - All section lines projected

It is requested that this hole be made an addition to the State of New Mexico \$10,000 Multiple-Well Low-Temperature Well or Geothermal Observation Well Bond already in force. The bonding company is Federal Insurance Company and the bond No. is 8071-56-34.

Information is as follows: Lease - San Diego Grant
Well No. - 9-76-1A
Unit Letter - G
Section - 12
Township - T18N
Range - R2E

IN 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 Steph Quill Title Chief Geologist Date January 18, 1977
(This space for State Use) Geothermal Services, Inc.

APPROVED BY Carl Ulvog TITLE SENIOR PETROLEUM GEOLOGIST DATE 1/24/77
CONDITIONS OF APPROVAL, IF ANY:

GEOHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

All distances must be from the outer boundaries of the Section. JAN 24 1977

Operator Sunoco Energy Development Corp.		Lease San Diego Grant		Well No. 9-76-1A	
Unit Letter G	Section 12	Township 18N	Range 2E	County Santa Fe	
Actual Footage Location of Well: 1950 feet from the projected N line and 2450 feet from the East line (projected)					
Ground Level Elev. 6550	Producing Formation none	Pool none		Dedicated Acreage: none 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.

Hole # 9-76-1A to be located:
SW 1/4 NE 1/4, sec. 12, T. 18N, R2E.

CERTIFICATION

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

Name

Position

Chief Geologist

Company

Geothermal Services, Inc.

Date

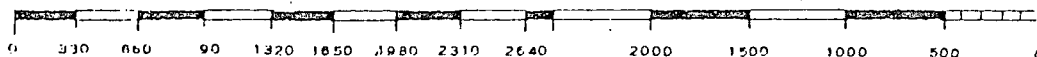
January 18, 1977

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.





GEO THERMAL SERVICES, INC.

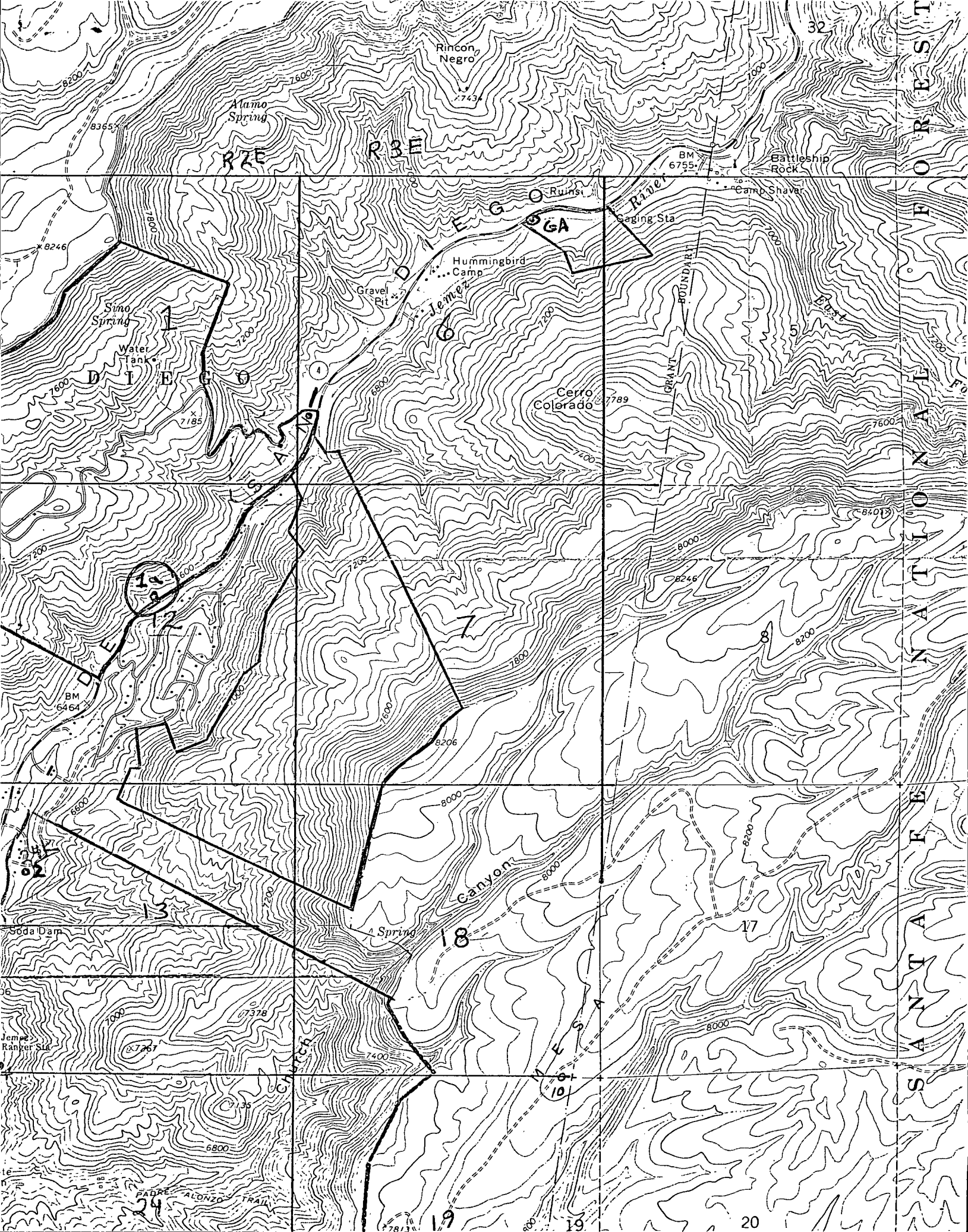
7860 CONVOY COURT, SAN DIEGO, CALIFORNIA 92111 • (714) 565-4712

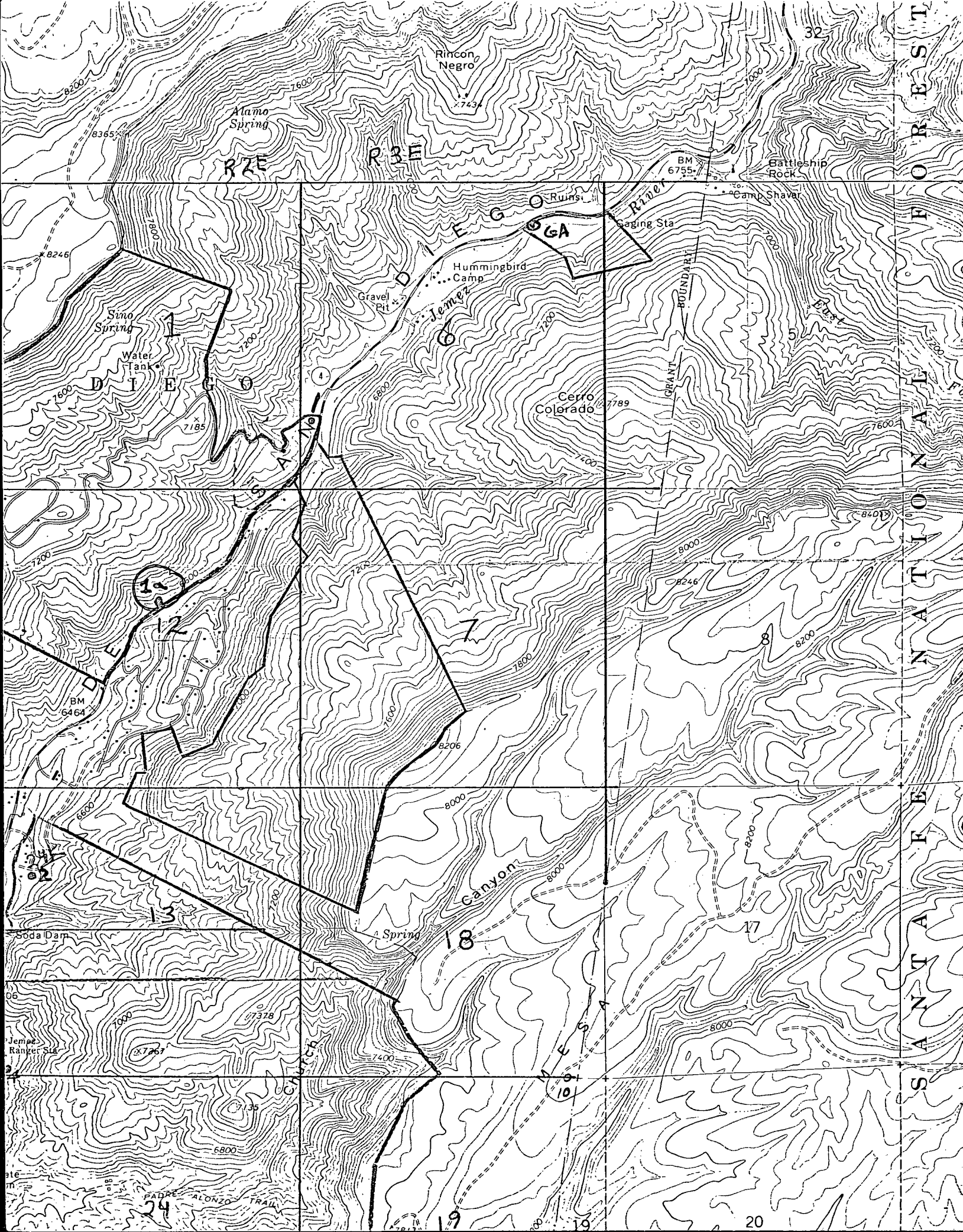
STANDARD SHALLOW TEMPERATURE GRADIENT HOLE DRILLING PROGRAM
(500'/150m; Rubber Tired Equipment; Rotary/Mud)

1. Coordinate "Special Stipulations" or other unusual requirements with the Project Geologist prior to set-up and spud.
2. Choose location and orientation of drilling rig so as to minimize surface disturbance.
3. Drill 4" to 6" hole to maximum depth of 500'/150m. Take cuttings samples, cores, etc. at direction of Project Geologist.
4. If drilling with mud, use regular Bentonite drilling mud. No toxic additives are to be used in drilling fluids without permission of Project Geologist. Have supply of lost circulation material available. Use portable mud pits unless specifically directed otherwise.
5. Have a supply of Barite available in case of artesian flow. If artesian flow is encountered, comply with United States Geological Survey's Stipulations.
6. Mud return temperature shall be measured and recorded on "Drilling History" every 10'/3m.
 - a. If temperature reaches 120°F/50°C, STOP DRILLING and circulate for 30 minutes, monitoring mud temperature and pit volume for possible hot artesian flow. If no flow, run pipe at this depth after logging is completed.
 - b. If there is a sudden increase in temperature of the drilling mud (several degrees in only a few feet) STOP DRILLING and circulate for 30 minutes, monitoring mud temperature and pit volume for possible hot artesian flow. If no flow, continue drilling CAUTIOUSLY, keeping a careful watch on return temperature of drilling fluid. In no case shall drilling continue after mud return temperature reaches 120°F/50°C.

7. Run pipe immediately after running electric logs or reaching T.D. (if hole is not logged).
 - a. Install cap on bottom of first length of pipe. (If using steel pipe, seal each joint with teflon tape to ensure watertight).
 - b. Steel pipe must be used when air temperature is 40°F or below, as PVC cement will not adhere.
 - c. Steel pipe must be used if drilling fluid temperature exceeds 100°F/40°C.
 - d. When pipe is landed, top must be 6" to 12"/15cm to 30cm below ground level. (Cut and thread as necessary).
 - e. Fill pipe with CLEAN WATER (water that is oily or contains solvents such as gasoline MUST NOT be used) and install cap. Do not seal.
 - f. Set paper, rag or dirt bridge down open annulus at least 10'/3m below ground level. Fill annulus with cement up to base of cap on pipe.
8. Clean up location THOROUGHLY.
9. Any excavated pits or sumps must be backfilled to conform to the original topography.
10. When temperature surveys are completed, fill pipe with cement from 10'/3m to top of pipe, fill excavation to original ground topography and restore location as nearly as possible to original condition.

GEO THERMAL SERVICES, INC.
San Diego, California
December, 1975





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U. S. G. S.	
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NEW MEXICO OIL CONSERVATION COMMISSION
P. O. Box 2088, Santa Fe 87501SUNDRY NOTICES AND REPORTS
ON
GEOTHERMAL RESOURCES WELLS

5. Indicate Type of Lease

State ☐Fee ☒

5.a 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

None

2. Name of Operator
Sunoco Energy Development Corporation

8. Farm or Lease Name

San Diego Grant

3. Address of Operator
12700 Park Central Pl., Suite 1500, Dallas, TX 75251

9. Well No.

9-76-2

4. Location of Well
Unit Letter E, 1600 Feet From The N. Line and 600 Feet From
The W. Line, Section 13 Township 18 N. Range 2 E. NMPM.

10. Field and Pool, or Wildcat

None

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

6380' G.L.

12. County

Sandoval

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☒
TEMPORARILY ABANDON ☐
PULL OR ALTER CASING ☐ CHANGE PLANS ☐OTHER ☐

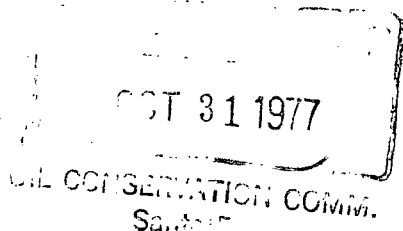
SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ PLUG & ABANDONMENT ☒
CASING TEST AND CEMENT JOB ☐OTHER Per verbal permission. ☐

17. 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: a) cutting off 3/4" iron pipe 6" below ground level; b) filling top 10' of pipe with cement; c) covering the pipe with dirt; d) clearing site of all trash and debris and e) restoring site as nearly as practical to original condition. Abandonment operations commenced on 9/24/77 and were completed on 9/24/77.

This conforms with abandonment method prescribed by U.S. Geological Survey's Revised Special Stipulations for Shallow Temperature Gradient Holes.



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

SIGNED

TITLE

Vice President, Operations
GeoThermal Services, Inc.

DATE 10/24/77

APPROVED BY

TITLE

SENIOR PETROLEUM GEOLOGIST

DATE

12/12/77

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION

P. O. Box 2088, Santa Fe 87501

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

5. Indicate Type of Lease

STATE ☐ FEE ☒

5.a State Lease No.

7. Unit Agreement Name

none

8. Farm or Lease Name

San Diego Grant

9. Well No.

9-76-2

10. Field and Pool, or Wildcat

none

12. County

Sandoval

1a. Type of Work Drill ☒ Deepen ☐ Plug Back ☐b. Type of Well Geothermal Producer ☐ Temp Observation ☒
Low-Temp Thermal ☐ Injection/Disposal ☐

2. Name of Operator

Sunoco Energy Development Corporation

3. Address of Operator

12700 Park Central Pl., Suite 1500, Dallas, TX 75251

4. Location of Well * * UNIT LETTER E LOCATED 1600 FEET FROM THE North LINEAND 600 FEET FROM THE West LINE OF SEC. 13 TWP. 18 N. RGE. 2 E. NMPM

19. Proposed Depth

500 ft.

19A. Formation

unknown

20. Rotary or C.T.

rotary

21. Elevations (Show whether DF, RT, etc.)

6380 ft. (GL)

21A. Kind & Status Plug. Bond

see note "A"

21B. Drilling Contractor

Geothermal Services

22. Approx. Date Work will start

Oct. 1, 1976

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE

5-1/8"

SIZE OF CASING

3/4"

WEIGHT PER FOOT

1.14 lbs.

SETTING DEPTH

500'

SACKS OF CEMENT

1.5

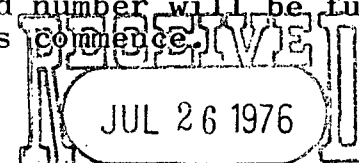
EST. TOP

6" BGL

Program- See attached "Standard Shallow Temperature Gradient
Hole Drilling Program"

**- All section lines projected

Note A- Type of bond will be \$10,000 multiple-well low-temperature well or geothermal observation well bond. The bond is in the process of being filed, and a bond number will be furnished as soon as available before operations commence.



OIL CONSERVATION COMM

Santa Fe

IN 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

Title Chief Geologist, Services, Inc. Date July 21, 1976

(This space for State Use)

APPROVED BY

TITLE

SENIOR PETROLEUM GEOLOGIST

DATE

9/9/76

CONDITIONS OF APPROVAL, IF ANY:

Quad 29



GEOThermal SERVICES, INC.

7860 CONVOY COURT, SAN DIEGO, CALIFORNIA 92111 • (714) 565-4712

STANDARD SHALLOW TEMPERATURE GRADIENT HOLE DRILLING PROGRAM (500'/150m; Rubber Tired Equipment; Rotary/Mud)

1. Coordinate "Special Stipulations" or other unusual requirements with the Project Geologist prior to set-up and spud.
2. Choose location and orientation of drilling rig so as to minimize surface disturbance.
3. Drill 4" to 6" hole to maximum depth of 500'/150m. Take cuttings samples, cores, etc. at direction of Project Geologist.
4. If drilling with mud, use regular Bentonite drilling mud. No toxic additives are to be used in drilling fluids without permission of Project Geologist. Have supply of lost circulation material available. Use portable mud pits unless specifically directed otherwise.
5. Have a supply of Barite available in case of artesian flow. If artesian flow is encountered, comply with United States Geological Survey's Stipulations.
6. Mud return temperature shall be measured and recorded on "Drilling History" every 10'/3m.
 - a. If temperature reaches 120°F/50°C, STOP DRILLING and circulate for 30 minutes, monitoring mud temperature and pit volume for possible hot artesian flow. If no flow, run pipe at this depth after logging is completed.
 - b. If there is a sudden increase in temperature of the drilling mud (several degrees in only a few feet) STOP DRILLING and circulate for 30 minutes, monitoring mud temperature and pit volume for possible hot artesian flow. If no flow, continue drilling CAUTIOUSLY, keeping a careful watch on return temperature of drilling fluid. In no case shall drilling continue after mud return temperature reaches 120°F/50°C.

JUL 26 1976
OIL CONSERVATION COMMISSION
Santa Fe

7. Run pipe immediately after running electric logs or reaching T.D. (if hole is not logged).
 - a. Install cap on bottom of first length of pipe. (If using steel pipe, seal each joint with teflon tape to ensure watertight).
 - b. Steel pipe must be used when air temperature is 40°F or below, as PVC cement will not adhere.
 - c. Steel pipe must be used if drilling fluid temperature exceeds 100°F/40°C.
 - d. When pipe is landed, top must be 6" to 12"/15cm to 30cm below ground level. (Cut and thread as necessary).
 - e. Fill pipe with CLEAN WATER (water that is oily or contains solvents such as gasoline MUST NOT be used) and install cap. Do not seal.
 - f. Set paper, rag or dirt bridge down open annulus at least 10'/3m below ground level. Fill annulus with cement up to base of cap on pipe.
8. Clean up location THOROUGHLY.
9. Any excavated pits or sumps must be backfilled to conform to the original topography.
10. When temperature surveys are completed, fill pipe with cement from 10'/3m to top of pipe, fill excavation to original ground topography and restore location as nearly as possible to original condition.

GEO THERMAL SERVICES, INC.
San Diego, California
December, 1975

GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

Operator Sunoco Energy Development Corp.		Lease San Diego Grant		Well No. 9-76-2	
Unit Letter E	Section 13	Township 18 N.	Range 2 E.	County Sandoval	
Actual Footage Location of Well: 1600 feet from the projected N. line and 600 feet from the W. line (projected)					
Ground Level Elev. 6380 ft.	Producing Formation none		Pool none	Dedicated Acreage: none 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.

Hole #9-76-2 to be located:

NW1/4SW1/4NW1/4, sec. 13, T. 18N., R. 2E.

CERTIFICATION

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

Name
Steve Quiett
Position
Chief Geologist
Company
Geothermal Services, Inc.
Date
July 21, 1976

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.

JUL 26 1976
OIL CONSERVATION COMM.
Santa Fe

Date Surveyed

Registered Professional Engineer
and/or Land Surveyor

Certificate No.



NEW MEXICO OIL CONSERVATION COMMISSION
P. O. Box 2088, Santa Fe 87501APPLICATION FOR PERMIT TO DRILL, DEEPEN,
OR PLUG BACK--GEOTHERMAL RESOURCES WELL

5. Indicate Type of Lease

STATE ☐FEE ☒

5.a State Lease No.

7. Unit Agreement Name

none

8. Farm or Lease Name

San Diego Grant

9. Well No.

9-76-2

10. Field and Pool, or Wildcat

none

12. County

Sandoval

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

1a. Type of Work Drill ☒ Deepen ☐ Plug Back ☐b. Type of Well Geothermal Producer ☐
Low-Temp Thermal ☐Temp Observation ☒Injection/Disposal ☐

2. Name of Operator

Sunoco Energy Development Corporation

3. Address of Operator

12700 Park Central Pl., Suite 1500, Dallas, TX 75251

4. Location of Well ** UNIT LETTER E LOCATED 1600 FEET FROM THE North LINEAND 600 FEET FROM THE West LINE OF SEC. 13 TWP. 18 N. RGE. 2 E. NMPM

19. Proposed Depth

500 ft.

19A. Formation

unknown

20. Rotary or C.T.

rotary

21. Elevations (Show whether DF, RT, etc.)

6380 ft. (GL)

21A. Kind & Status Plug. Bond

see note "A"

21B. Drilling Contractor

Geothermal Services

22. Approx. Date Work will start

Oct. 1, 1976

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE

5-1/8"

SIZE OF CASING

3/4"

WEIGHT PER FOOT

1.14 lbs.

SETTING DEPTH

500'

SACKS OF CEMENT

1.5

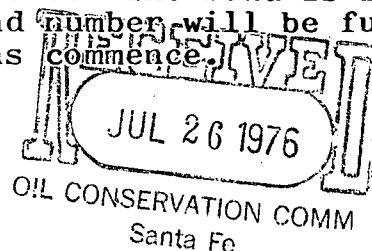
EST. TOP

6" BGL

Program- See attached "Standard Shallow Temperature Gradient
Hole Drilling Program"

**- All section lines projected

Note A- Type of bond will be \$10,000 multiple-well low-temperature well or geothermal observation well bond. The bond is in the process of being filed, and a bond number will be furnished as soon as available before operations commence.



IN 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

Title Chief Geologist, Geothermal Services, Inc. Date July 21, 1976

(This space for State Use)

APPROVED BY

Carl Ulvog

TITLE

SENIOR PETROLEUM GEOLOGIST

DATE

9/9/76

CONDITIONS OF APPROVAL, IF ANY:



GEO THERMAL SERVICES, INC.

7860 CONVOY COURT, SAN DIEGO, CALIFORNIA 92111 • (714) 565-4712

STANDARD SHALLOW TEMPERATURE GRADIENT HOLE DRILLING PROGRAM (500'/150m; Rubber Tired Equipment; Rotary/Mud)

1. Coordinate "Special Stipulations" or other unusual requirements with the Project Geologist prior to set-up and spud.
2. Choose location and orientation of drilling rig so as to minimize surface disturbance.
3. Drill 4" to 6" hole to maximum depth of 500'/150m. Take cuttings samples, cores, etc. at direction of Project Geologist.
4. If drilling with mud, use regular Bentonite drilling mud. No toxic additives are to be used in drilling fluids without permission of Project Geologist. Have supply of lost circulation material available. Use portable mud pits unless specifically directed otherwise.
5. Have a supply of Barite available in case of artesian flow. If artesian flow is encountered, comply with United States Geological Survey's Stipulations.
6. Mud return temperature shall be measured and recorded on "Drilling History" every 10'/3m.
 - a. If temperature reaches 120°F/50°C, STOP DRILLING and circulate for 30 minutes, monitoring mud temperature and pit volume for possible hot artesian flow. If no flow, run pipe at this depth after logging is completed.
 - b. If there is a sudden increase in temperature of the drilling mud (several degrees in only a few feet) STOP DRILLING and circulate for 30 minutes, monitoring mud temperature and pit volume for possible hot artesian flow. If no flow, continue drilling CAUTIOUSLY, keeping a careful watch on return temperature of drilling fluid. In no case shall drilling continue after mud return temperature reaches 120°F/50°C.

JUL 26 1976

OIL CONSERVATION COMM.
Santa Fe

7. Run pipe immediately after running electric logs or reaching T.D. (if hole is not logged).
 - a. Install cap on bottom of first length of pipe. (If using steel pipe, seal each joint with teflon tape to ensure watertight).
 - b. Steel pipe must be used when air temperature is 40°F or below, as PVC cement will not adhere.
 - c. Steel pipe must be used if drilling fluid temperature exceeds 100°F/40°C.
 - d. When pipe is landed, top must be 6" to 12"/15cm to 30cm below ground level. (Cut and thread as necessary).
 - e. Fill pipe with CLEAN WATER (water that is oily or contains solvents such as gasoline MUST NOT be used) and install cap. Do not seal.
 - f. Set paper, rag or dirt bridge down open annulus at least 10'/3m below ground level. Fill annulus with cement up to base of cap on pipe.
8. Clean up location THOROUGHLY.
9. Any excavated pits or sumps must be backfilled to conform to the original topography.
10. When temperature surveys are completed, fill pipe with cement from 10'/3m to top of pipe, fill excavation to original ground topography and restore location as nearly as possible to original condition.

GEO THERMAL SERVICES, INC.
San Diego, California
December, 1975

GEOHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

Operator Sunoco Energy Development Corp.		Lease San Diego Grant		Well No. 9-76-2
Unit Letter E	Section 13	Township 18 N.	Range 2 E.	County Sandoval
Actual Footage Location of Well: 1600 feet from the projected N. line and 600 feet from the W. line (projected)				
Ground Level Elev. 6380 ft.	Producing Formation none	Pool none	Dedicated Acreage: none 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 ownersip 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.

Hole #9-76-2 to be located:

NW1/4SW1/4NW1/4, sec. 13, T. 18N., R. 2E.

CERTIFICATION

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

Name

Steve Quiett

Position

Chief Geologist

Company

Geothermal Services, Inc.

Date

July 21, 1976

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.

JUL 26 1976

OIL CONSERVATION COMMISSION
Santa Fe

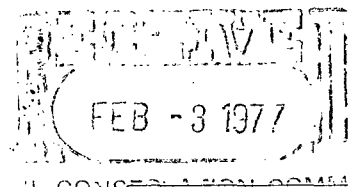
Date Surveyed

Registered Professional Engineer
and/or Land Surveyor

Certificate No.



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

NEW MEXICO OIL CONSERVATION COMMISSION
P. O. Box 2088, Santa Fe 87501SUNDRY NOTICES AND REPORTS
ON
GEOTHERMAL RESOURCES WELLS5. Indicate Type of Lease
State ☐ Fee ☒

5.a 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 <input type="checkbox"/> Temp. Observation <input checked="" type="checkbox"/> Low-Temp Thermal <input type="checkbox"/> Injection/Disposal <input type="checkbox"/>	2. Name of Operator Sunoco Energy Development Corporation	7. Unit Agreement Name None
3. Address of Operator 12700 Park Central Pl., Suite 1500, Dallas, TX 75251	4. Location of Well Unit Letter <u>M</u> , <u>100</u> Feet From The <u>SOUTH</u> Line and <u>200</u> Feet From The <u>WEST</u> Line, Section <u>13</u> Township <u>18 N</u> Range <u>2E</u> NMPM.	8. Farm or Lease Name San Diego Grant
15. Elevation (Show whether DF, RT, GR, etc.) <u>6370'</u>		9. Well No. <u>9-76-4</u>
16. Check Appropriate Box To Indicate Nature of Notice, Report or Other Data		10. Field and Pool, or Wildcat None

12. County
Sandoval

NOTICE OF INTENTION TO:

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

SUBSEQUENT REPORT OF:

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

17. 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.

On 1/19/77 Hole No. 9-76-4 was spudded at 8:00 AM PMThe hole was T.D.'d on 1/21/77 @ 33 ' BGL

OK - Inspected 12/12

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

SIGNED [Signature] TITLE Chief Geologist DATE 1/28/77
Geothermal Services, Inc.

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

NO. OF COPIES RECEIVED	2
DISTRIBUTION	
File	1
N. M. B. M.	
U. S. G. S.	
Operator	1
Land Office	

NEW MEXICO OIL CONSERVATION COMMISSION
P. O. Box 2088, Santa Fe 87501SUNDRY NOTICES AND REPORTS
ON
GEOTHERMAL RESOURCES WELLS

5. Indicate Type of Lease
State <input type="checkbox"/> Fee <input checked="" type="checkbox"/>
5.a 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 <input type="checkbox"/> Temp. Observation <input type="checkbox"/> Low-Temp Thermal <input type="checkbox"/> Injection/Disposal <input type="checkbox"/>	7. Unit Agreement Name None
2. Name of Operator Sunoco Energy Development Corporation	8. Farm or Lease Name San Diego Grant
3. Address of Operator 12700 Park Central Pl., Suite 1500, Dallas, TX 75251	9. Well No. 9-76-4
4. Location of Well Unit Letter <u>M</u> , <u>100</u> Feet From The <u>S.</u> Line and <u>200</u> Feet From The <u>W.</u> Line, Section <u>13</u> Township <u>18 N.</u> Range <u>2 E.</u> NMPM.	10. Field and Pool, or Wildcat None
15. Elevation (Show whether DF, RT, GR, etc.) 6310' G.L.	12. County Sandoval

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input checked="" type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	
OTHER <input type="checkbox"/>	

SUBSEQUENT REPORT OF:

REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG & ABANDONMENT <input checked="" type="checkbox"/>
CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER <u>Per verbal permission.</u>	

17. 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: a) cutting off 3/4" iron pipe 6" below ground level; b) filling top 10' of pipe with cement; c) covering the pipe with dirt; d) clearing site of all trash and debris and e) restoring site as nearly as practical to original condition. Abandonment operations commenced on 9/24/77 and were completed on 9/24/77.

This conforms with abandonment method prescribed by U.S. Geological Survey's Revised Special Stipulations for Shallow Temperature Gradient Holes.

OCT 31 1977
OIL CONSERVATION COMMISSION
Santa Fe

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

SIGNED [Signature] TITLE Vice President, Operations DATE 10/24/77
Geothermal Services, Inc.APPROVED BY Carl Ullvog TITLE _____ DATE 12/12/77

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION
P. O. Box 2088, Santa Fe 87501APPLICATION FOR PERMIT TO DRILL, DEEPEN,
OR PLUG BACK---GEOTHERMAL RESOURCES WELL

5. Indicate Type of Lease

STATE ☐FEE ☒

5.a State Lease No.

7. Unit Agreement Name

none

8. Farm or Lease Name

San Diego Grant

9. Well No.

9-76-4

10. Field and Pool, or Wildcat

none

12. County

Sandoval

NO. OF COPIES RECEIVED	4
DISTRIBUTION	
File	1
N.M.B.M.	
U.S.G.S.	
Operator	1
Land Office	

1a. Type of Work	Drill <input checked="" type="checkbox"/>	Deepen <input type="checkbox"/>	Plug Back <input type="checkbox"/>
b. Type of Well	Geothermal Producer <input type="checkbox"/>	Temp Observation <input checked="" type="checkbox"/>	Injection/Disposal <input type="checkbox"/>
Low-Temp Thermal <input type="checkbox"/>			
2. Name of Operator Sunoco Energy Development Corporation			
3. Address of Operator 12700 Park Central Pl., Suite 1500, Dallas, TX 75251			
4. Location of Well * UNIT LETTER <u>M</u> LOCATED <u>100</u> FEET FROM THE <u>South</u> LINE AND <u>200</u> FEET FROM THE <u>West</u> LINE OF SEC. <u>13</u> TWP. <u>18 N.</u> RGE. <u>2 E.</u> NMPM			

19. Proposed Depth

500 ft.

19A. Formation

unknown

20. Rotary or C.T.

rotary

21. Elevations (Show whether DF, RT, etc.)

6310 ft. (GL)

21A. Kind & Status Plug. Bond

see note "A"

21B. Drilling Contractor

Geothermal Services

22. Approx. Date Work will start

Oct. 1, 1976

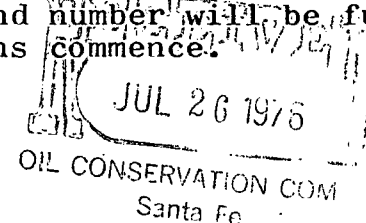
PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
5-1/8"	3/4"	1.14 lbs.	500'	1.5	6" BGL

Program- See attached "Standard Shallow Temperature Gradient
Hole Drilling Program"

**- All section lines projected

Note A- Type of bond will be \$10,000 multiple-well low-temperature well or geothermal observation well bond. The bond is in the process of being filed, and a bond number will be furnished as soon as available before operations commence.



Quad 29

IN 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 [Signature] Title Chief Geologist, Services, Inc. Date July 21, 1976

(This space for State Use)

APPROVED BY Carl Ulvog TITLE SENIOR PETROLEUM GEOLOGIST DATE 9/9/76

CONDITIONS OF APPROVAL, IF ANY:

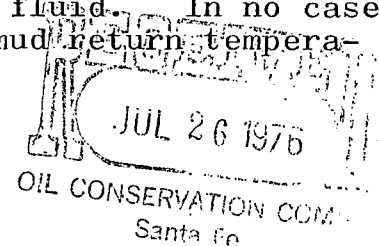


GEOThermal SERVICES, INC.

7860 CONVOY COURT, SAN DIEGO, CALIFORNIA 92111 • (714) 565-4712

STANDARD SHALLOW TEMPERATURE GRADIENT HOLE DRILLING PROGRAM (500'/150m; Rubber Tired Equipment; Rotary/Mud)

1. Coordinate "Special Stipulations" or other unusual requirements with the Project Geologist prior to set-up and spud.
2. Choose location and orientation of drilling rig so as to minimize surface disturbance.
3. Drill 4" to 6" hole to maximum depth of 500'/150m. Take cuttings samples, cores, etc. at direction of Project Geologist.
4. If drilling with mud, use regular Bentonite drilling mud. No toxic additives are to be used in drilling fluids without permission of Project Geologist. Have supply of lost circulation material available. Use portable mud pits unless specifically directed otherwise.
5. Have a supply of Barite available in case of artesian flow. If artesian flow is encountered, comply with United States Geological Survey's Stipulations.
6. Mud return temperature shall be measured and recorded on "Drilling History" every 10'/3m.
 - a. If temperature reaches 120°F/50°C, STOP DRILLING and circulate for 30 minutes, monitoring mud temperature and pit volume for possible hot artesian flow. If no flow, run pipe at this depth after logging is completed.
 - b. If there is a sudden increase in temperature of the drilling mud (several degrees in only a few feet) STOP DRILLING and circulate for 30 minutes, monitoring mud temperature and pit volume for possible hot artesian flow. If no flow, continue drilling CAUTIOUSLY, keeping a careful watch on return temperature of drilling fluid. In no case shall drilling continue after mud return temperature reaches 120°F/50°C.



7. Run pipe immediately after running electric logs or reaching T.D. (if hole is not logged).
 - a. Install cap on bottom of first length of pipe. (If using steel pipe, seal each joint with teflon tape to ensure watertight).
 - b. Steel pipe must be used when air temperature is 40°F or below, as PVC cement will not adhere.
 - c. Steel pipe must be used if drilling fluid temperature exceeds 100°F/40°C.
 - d. When pipe is landed, top must be 6" to 12"/15cm to 30cm below ground level. (Cut and thread as necessary).
 - e. Fill pipe with CLEAN WATER (water that is oily or contains solvents such as gasoline MUST NOT be used) and install cap. Do not seal.
 - f. Set paper, rag or dirt bridge down open annulus at least 10'/3m below ground level. Fill annulus with cement up to base of cap on pipe.
8. Clean up location THOROUGHLY.
9. Any excavated pits or sumps must be backfilled to conform to the original topography.
10. When temperature surveys are completed, fill pipe with cement from 10'/3m to top of pipe, fill excavation to original ground topography and restore location as nearly as possible to original condition.

GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

Operator Sunoco Energy Development Corp.		Lease San Diego Grant		Well No. 9-76-4
Unit Letter M	Section 13	Township 18 N.	Range 2 E.	County Sandoval
Actual Footage Location of Well: 100 feet from the projected S. line and 200 feet from the W. line (projected)				
Ground Level Elev. 6310 ft.	Producing Formation none	Pool none	Dedicated Acreage: none 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.

Hole #9-76-4 to be located:
SW1/4SW1/4SW1/4, sec. 13, T. 18N., R. 2E.

CERTIFICATION

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

Name

Steve Quiett

Position

Chief Geologist

Company

Geothermal Services, Inc.

Date

July 21, 1976

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.

JUL 26 1976

OIL CONSERVATION COMM

Date Surveyed **Santa Fe**

Registered Professional Engineer and/or Land Surveyor

Certificate No.

0 300 600 900 1200 1500 1800 2100 2400 2700 3000 3300 3600 3900 4200 4500 4800 5100 5400 5700 6000

NEW MEXICO OIL CONSERVATION COMMISSION

P. O. Box 2088, Santa Fe 87501

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

5. Indicate Type of Lease

STATE ☐FEE ☒

5.a State Lease No.

7. Unit Agreement Name

none

8. Farm or Lease Name

San Diego Grant

9. Well No.

9-76-4

10. Field and Pool, or Wildcat

none

12. County

Sandoval

19. Proposed Depth

500 ft.

19A. Formation

unknown

20. Rotary or C.T.

rotary

21. Elevations (Show whether DF, RT, etc.)

6310 ft. (GL)

21A. Kind & Status Plug. Bond

see note "A"

21B. Drilling Contractor

Geothermal Services

22. Approx. Date Work will start

Oct. 1, 1976

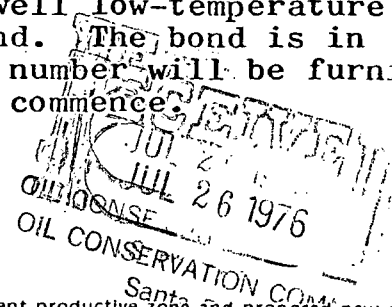
PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
5-1/8"	3/4"	1.14 lbs.	500'	1.5	6" BGL

Program- See attached "Standard Shallow Temperature Gradient
Hole Drilling Program"

**-- All section lines projected

Note A- Type of bond will be \$10,000 multiple-well low-temperature well or geothermal observation well bond. The bond is in the process of being filed, and a bond number will be furnished as soon as available before operations commence.



IN 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 [Signature] Title Chief Geologist, Geothermal Services, Inc. Date July 21, 1976

(This space for State Use)

APPROVED BY Carl Hennig TITLE SENIOR PETROLEUM GEOLOGIST DATE 9/9/76
CONDITIONS OF APPROVAL, IF ANY:



GEO THERMAL SERVICES, INC.

7860 CONVOY COURT, SAN DIEGO, CALIFORNIA 92111 • (714) 565-4712

STANDARD SHALLOW TEMPERATURE GRADIENT HOLE DRILLING PROGRAM (500'/150m; Rubber Tired Equipment; Rotary/Mud)

1. Coordinate "Special Stipulations" or other unusual requirements with the Project Geologist prior to set-up and spud.
2. Choose location and orientation of drilling rig so as to minimize surface disturbance.
3. Drill 4" to 6" hole to maximum depth of 500'/150m. Take cuttings samples, cores, etc. at direction of Project Geologist.
4. If drilling with mud, use regular Bentonite drilling mud. No toxic additives are to be used in drilling fluids without permission of Project Geologist. Have supply of lost circulation material available. Use portable mud pits unless specifically directed otherwise.
5. Have a supply of Barite available in case of artesian flow. If artesian flow is encountered, comply with United States Geological Survey's Stipulations.
6. Mud return temperature shall be measured and recorded on "Drilling History" every 10'/3m.
 - a. If temperature reaches 120°F/50°C, STOP DRILLING and circulate for 30 minutes, monitoring mud temperature and pit volume for possible hot artesian flow. If no flow, run pipe at this depth after logging is completed.
 - b. If there is a sudden increase in temperature of the drilling mud (several degrees in only a few feet) STOP DRILLING and circulate for 30 minutes, monitoring mud temperature and pit volume for possible hot artesian flow. If no flow, continue drilling CAUTIOUSLY, keeping a careful watch on return temperature of drilling fluid. In no case shall drilling continue after mud return temperature reaches 120°F/50°C.

JUL 26 1976
OIL CONSERVATION COM.
Santa Fe

7. Run pipe immediately after running electric logs or reaching T.D. (if hole is not logged).
 - a. Install cap on bottom of first length of pipe. (If using steel pipe, seal each joint with teflon tape to ensure watertight).
 - b. Steel pipe must be used when air temperature is 40°F or below, as PVC cement will not adhere.
 - c. Steel pipe must be used if drilling fluid temperature exceeds 100°F/40°C.
 - d. When pipe is landed, top must be 6" to 12"/15cm to 30cm below ground level. (Cut and thread as necessary).
 - e. Fill pipe with CLEAN WATER (water that is oily or contains solvents such as gasoline MUST NOT be used) and install cap. Do not seal.
 - f. Set paper, rag or dirt bridge down open annulus at least 10'/3m below ground level. Fill annulus with cement up to base of cap on pipe.
8. Clean up location THOROUGHLY.
9. Any excavated pits or sumps must be backfilled to conform to the original topography.
10. When temperature surveys are completed, fill pipe with cement from 10'/3m to top of pipe, fill excavation to original ground topography and restore location as nearly as possible to original condition.

GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

Operator Sunoco Energy Development Corp.		Lease San Diego Grant		Well No. 9-76-4
Unit Letter M	Section 13	Township 18 N.	Range 2 E.	County Sandoval
Actual Footage Location of Well: 100 feet from the projected S. line and 200 feet from the W. line (projected)				
Ground Level Elev. 6310 ft.	Producing Formation none	Pool none	Dedicated Acreage: none Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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.

Hole #9-76-4 to be located:
SW1/4SW1/4SW1/4, sec. 13, T. 18N., R. 2E.

CERTIFICATION

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

Steve Quiett
Name

Steve Quiett

Position

Chief Geologist

Company

Geothermal Services, Inc.

Date

July 21, 1976

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.
OIL CONSERVATION COMM
Santa Fe

Date Surveyed

Registered Professional Engineer
and/or Land Surveyor

Certificate No.



NO. OF COPIES RECEIVED	2
DISTRIBUTION	
File	1
N. M. B. M.	
U. S. G. S.	
Operator	1
Land Office	

NEW MEXICO OIL CONSERVATION COMMISSION
P. O. Box 2088, Santa Fe 87501SUNDRY NOTICES AND REPORTS
ON
GEOTHERMAL RESOURCES WELLS5. Indicate Type of Lease
State ☐ Fee ☒5.a 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 <input type="checkbox"/> Temp. Observation <input type="checkbox"/> Low-Temp Thermal <input type="checkbox"/> Injection/Disposal <input type="checkbox"/>	7. Unit Agreement Name None
2. Name of Operator Sunoco Energy Development Corporation	8. Farm or Lease Name San Diego Grant
3. Address of Operator 12700 Park Central Pl., Suite 1500, Dallas, TX 75251	9. Well No. 9-76-3
4. Location of Well Unit Letter <u>I</u> , <u>1500</u> Feet From The <u>S.</u> Line and <u>350</u> Feet From The <u>E.</u> Line, Section <u>14</u> Township <u>18 N.</u> Range <u>2 E.</u> NMPM.	10. Field and Pool, or Wildcat None

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

6320' G.L.

12. County

Sandoval

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input checked="" type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	
PULL OR ALTER CASING <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
OTHER <input type="checkbox"/>	

SUBSEQUENT REPORT OF:

REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
COMMENCE DRILLING OPNS. <input type="checkbox"/>	PLUG & ABANDONMENT <input checked="" type="checkbox"/>
CASING TEST AND CEMENT JOB <input type="checkbox"/>	
OTHER <u>Per verbal permission.</u> <input type="checkbox"/>	

17. 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: a) cutting off 3/4" iron pipe 6" below ground level; b) filling top 10' of pipe with cement; c) covering the pipe with dirt; d) clearing site of all trash and debris and e) restoring site as nearly as practical to original condition. Abandonment operations commenced on 9/24/77 and were completed on 9/24/77.

This conforms with abandonment method prescribed by U.S. Geological Survey's Revised Special Stipulations for Shallow Temperature Gradient Holes.

OCT 31 1977
OIL CONSERVATION COMMISSION
Santa Fe

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

SIGNED [Signature] TITLE Vice President, Operations DATE 10/24/77
Geothermal Services, Inc.APPROVED BY Carl Ulvog TITLE SENIOR PETROLEUM GEOLOGIST DATE 12/12/77

CONDITIONS OF APPROVAL, IF ANY:

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION

P. O. Box 2088, Santa Fe 87501

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

5. Indicate Type of Lease

STATE ☐FEE ☒

5.a State Lease No.

7. Unit Agreement Name

none

8. Farm or Lease Name

San Diego Grant

9. Well No.

9-76-3

10. Field and Pool, or Wildcat

none

12. County

Sandoval

19. Proposed Depth

500 ft.

19A. Formation

unknown

20. Rotary or C.T.

rotary

21. Elevations (Show whether DF, RT, etc.)

6320 ft. (GL)

21A. Kind & Status Plug. Bond

see note "A"

21B. Drilling Contractor

Geothermal Services

22. Approx. Date Work will start

Oct. 1, 1976

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE

5-1/8"

SIZE OF CASING

3/4"

WEIGHT PER FOOT

1.14 lbs.

SETTING DEPTH

500'

SACKS OF CEMENT

1.5

EST. TOP

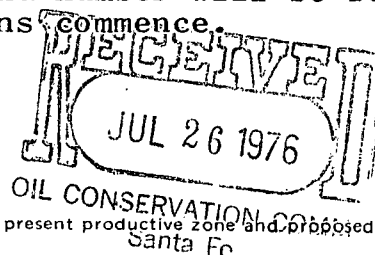
6" BGL

Program- See attached "Standard Shallow Temperature Gradient
Hole Drilling Program"

**- All section lines projected

Note A- Type of bond will be \$10,000 multiple-well low-temperature well or geothermal observation well bond. The bond is in the process of being filed, and a bond number will be furnished as soon as available before operations commence.

Quad 29



IN 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

Title

Geothermal

Chief Geologist, Services, Inc. July 21, 1976

(This space for State Use)

APPROVED BY

TITLE

SENIOR PETROLEUM GEOLOGIST

DATE

9/9/76

CONDITIONS OF APPROVAL, IF ANY:

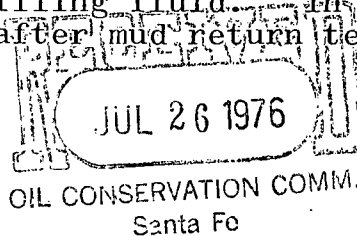


GEOThermal SERVICES, INC.

7860 CONVOY COURT, SAN DIEGO, CALIFORNIA 92111 • (714) 565-4712

STANDARD SHALLOW TEMPERATURE GRADIENT HOLE DRILLING PROGRAM (500'/150m; Rubber Tired Equipment; Rotary/Mud)

1. Coordinate "Special Stipulations" or other unusual requirements with the Project Geologist prior to set-up and spud.
2. Choose location and orientation of drilling rig so as to minimize surface disturbance.
3. Drill 4" to 6" hole to maximum depth of 500'/150m. Take cuttings samples, cores, etc. at direction of Project Geologist.
4. If drilling with mud, use regular Bentonite drilling mud. No toxic additives are to be used in drilling fluids without permission of Project Geologist. Have supply of lost circulation material available. Use portable mud pits unless specifically directed otherwise.
5. Have a supply of Barite available in case of artesian flow. If artesian flow is encountered, comply with United States Geological Survey's Stipulations.
6. Mud return temperature shall be measured and recorded on "Drilling History" every 10'/3m.
 - a. If temperature reaches 120°F/50°C, STOP DRILLING and circulate for 30 minutes, monitoring mud temperature and pit volume for possible hot artesian flow. If no flow, run pipe at this depth after logging is completed.
 - b. If there is a sudden increase in temperature of the drilling mud (several degrees in only a few feet) STOP DRILLING and circulate for 30 minutes, monitoring mud temperature and pit volume for possible hot artesian flow. If no flow, continue drilling CAUTIOUSLY, keeping a careful watch on return temperature of drilling fluid. In no case shall drilling continue after mud return temperature reaches 120°F/50°C.



7. Run pipe immediately after running electric logs or reaching T.D. (if hole is not logged).
 - a. Install cap on bottom of first length of pipe. (If using steel pipe, seal each joint with teflon tape to ensure watertight).
 - b. Steel pipe must be used when air temperature is 40°F or below, as PVC cement will not adhere.
 - c. Steel pipe must be used if drilling fluid temperature exceeds 100°F/40°C.
 - d. When pipe is landed, top must be 6" to 12"/15cm to 30cm below ground level. (Cut and thread as necessary).
 - e. Fill pipe with CLEAN WATER (water that is oily or contains solvents such as gasoline MUST NOT be used) and install cap. Do not seal.
 - f. Set paper, rag or dirt bridge down open annulus at least 10'/3m below ground level. Fill annulus with cement up to base of cap on pipe.
8. Clean up location THOROUGHLY.
9. Any excavated pits or sumps must be backfilled to conform to the original topography.
10. When temperature surveys are completed, fill pipe with cement from 10'/3m to top of pipe, fill excavation to original ground topography and restore location as nearly as possible to original condition.

GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

Operator Sunoco Energy Development Corp.		Lease San Diego Grant		Well No. 9-76-3
Unit Letter I	Section 14	Township 18 N.	Range 2 E.	County Sandoval
Actual Footage Location of Well: 1500 feet from the projected S. line and 350 feet from the E. line (projected)				
Ground Level Elev. 6320 ft.	Producing Formation none	Pool none	Dedicated Acreage: none 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.

Hole #9-76-3 to be located:
SE1/4NE1/4SE1/4, sec. 14, T. 18N., R. 2E.

CERTIFICATION

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

Steve Quiett
Name
Steve Quiett
Position
Chief Geologist
Company
Geothermal Services, Inc.
Date
July 21, 1976

DEFERRED
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.
CONSERVATION COMM
Santa Fe

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

0 310 600 900 1320 1650 1980 2310 2640 2000 1500 1000 500 0

NEW MEXICO OIL CONSERVATION COMMISSION

P. O. Box 2088, Santa Fe 87501

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

5. Indicate Type of Lease

STATE ☐FEE ☒

5.a State Lease No.

7. Unit Agreement Name

none

8. Farm or Lease Name

San Diego Grant

9. Well No.

9-76-3

10. Field and Pool, or Wildcat

none

12. County

Sandoval

19. Proposed Depth

500 ft.

19A. Formation

unknown

20. Rotary or C.T.

rotary

21. Elevations (Show whether DF, RT, etc.)

6320 ft. (GL)

21A. Kind & Status Plug. Bond

see note "A"

21B. Drilling Contractor

Geothermal Services

22. Approx. Date Work will start

Oct. 1, 1976

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE

5-1/8"

SIZE OF CASING

3/4"

WEIGHT PER FOOT

1.14 lbs.

SETTING DEPTH

500'

SACKS OF CEMENT

1.5

EST. TOP

6" BGL

Program- See attached "Standard Shallow Temperature Gradient
Hole Drilling Program"

**- All section lines projected

Note A- Type of bond will be \$10,000 multiple-well low-temperature well or geothermal observation well bond. The bond is in the process of being filed, and a bond number will be furnished as soon as available before operations commence.

JUL 26 1976
OIL CONSERVATION COMM
Santa Fe

IN 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 Chief Geologist, Services, Inc. Title Chief Geologist, Services, Inc. Date July 21, 1976

(This space for State Use)

APPROVED BY Carl W. Wog TITLE SENIOR PETROLEUM GEOLOGIST DATE 9/9/76
CONDITIONS OF APPROVAL, IF ANY:



GEOThermal SERVICES, INC.

7860 CONVOY COURT, SAN DIEGO, CALIFORNIA 92111 • (714) 565-4712

STANDARD SHALLOW TEMPERATURE GRADIENT HOLE DRILLING PROGRAM (500'/150m; Rubber Tired Equipment; Rotary/Mud)

1. Coordinate "Special Stipulations" or other unusual requirements with the Project Geologist prior to set-up and spud.
2. Choose location and orientation of drilling rig so as to minimize surface disturbance.
3. Drill 4" to 6" hole to maximum depth of 500'/150m. Take cuttings samples, cores, etc. at direction of Project Geologist.
4. If drilling with mud, use regular Bentonite drilling mud. No toxic additives are to be used in drilling fluids without permission of Project Geologist. Have supply of lost circulation material available. Use portable mud pits unless specifically directed otherwise.
5. Have a supply of Barite available in case of artesian flow. If artesian flow is encountered, comply with United States Geological Survey's Stipulations.
6. Mud return temperature shall be measured and recorded on "Drilling History" every 10'/3m.
 - a. If temperature reaches 120°F/50°C, STOP DRILLING and circulate for 30 minutes, monitoring mud temperature and pit volume for possible hot artesian flow. If no flow, run pipe at this depth after logging is completed.
 - b. If there is a sudden increase in temperature of the drilling mud (several degrees in only a few feet) STOP DRILLING and circulate for 30 minutes, monitoring mud temperature and pit volume for possible hot artesian flow. If no flow, continue drilling CAUTIOUSLY, keeping a careful watch on return temperature of drilling fluid. In no case shall drilling continue after mud return temperature reaches 120°F/50°C.

OIL CONSERVATION COM.
Santa Fe

7. Run pipe immediately after running electric logs or reaching T.D. (if hole is not logged).
 - a. Install cap on bottom of first length of pipe. (If using steel pipe, seal each joint with teflon tape to ensure watertight).
 - b. Steel pipe must be used when air temperature is 40°F or below, as PVC cement will not adhere.
 - c. Steel pipe must be used if drilling fluid temperature exceeds 100°F/40°C.
 - d. When pipe is landed, top must be 6" to 12"/15cm to 30cm below ground level. (Cut and thread as necessary).
 - e. Fill pipe with CLEAN WATER (water that is oily or contains solvents such as gasoline MUST NOT be used) and install cap. Do not seal.
 - f. Set paper, rag or dirt bridge down open annulus at least 10'/3m below ground level. Fill annulus with cement up to base of cap on pipe.
8. Clean up location THOROUGHLY.
9. Any excavated pits or sumps must be backfilled to conform to the original topography.
10. When temperature surveys are completed, fill pipe with cement from 10'/3m to top of pipe, fill excavation to original ground topography and restore location as nearly as possible to original condition.

GEO THERMAL SERVICES, INC.

San Diego, California

December, 1975

GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

Operator Sunoco Energy Development Corp.		Lease San Diego Grant		Well No. 9-76-3
Unit Letter I	Section 14	Township 18 N.	Range 2 E.	County Sandoval
Actual Footage Location of Well: 1500 feet from the projected S. line and 350 feet from the E. line (projected)				
Ground Level Elev. 6320 ft.	Producing Formation none	Pool none	Dedicated Acreage: none 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.

Hole #9-76-3 to be located: SE1/4NE1/4SE1/4, sec. 14, T. 18N., R. 2E.			

CERTIFICATION

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

Steve Quiett

Name

Steve Quiett

Position

Chief Geologist

Company

Geothermal Services, Inc

Date

July 21, 1976

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.

OIL CONSERVATION COMM
Santa Fe

Date Surveyed

Registered Professional Engineer
and/or Land Surveyor

Certificate No.



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

NO. OF COPIES RECEIVED		
DISTRIBUTION		
File	1	✓
N. M. B. M.		
U. S. G. S.		
Operator	1	
Land Office		

SUNDRY NOTICES AND REPORTS
ON
GEOTHERMAL RESOURCES WELLS5. Indicate Type of Lease
State ☐ Fee ☒5.a 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

None

2. Name of Operator

8. Farm or Lease Name

San Diego Grant

3. Address of Operator

9. Well No.

9-76-5

4. Location of Well

10. Field and Pool, or Wildcat

None

Unit Letter I, 2150 Feet From The S. Line and 250 Feet FromThe E. Line, Section 23 Township 18 N. Range 2 E. NMPM.

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

6280' G.L.

12. County

Sandoval

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☒
TEMPORARILY ABANDON ☐
PULL OR ALTER CASING ☐ CHANGE PLANS ☐OTHER ☐

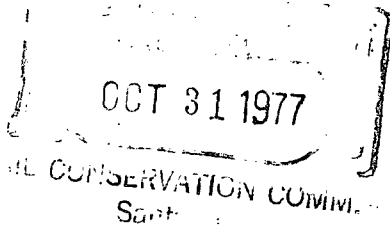
SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ PLUG & ABANDONMENT ☒
CASING TEST AND CEMENT JOB ☐OTHER Per verbal permission. ☐

17. 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: a) cutting off 3/4" iron pipe 6" below ground level; b) filling top 10' of pipe with cement; c) covering the pipe with dirt; d) clearing site of all trash and debris and e) restoring site as nearly as practical to original condition. Abandonment operations commenced on 9/24/77 and were completed on 9/24/77.

This conforms with abandonment method prescribed by U.S. Geological Survey's Revised Special Stipulations for Shallow Temperature Gradient Holes.



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

SIGNED [Signature] TITLE Vice President, Operations DATE 10/24/77
Geothermal Services, Inc.APPROVED BY Carl Ulvog TITLE SENIOR PETROLEUM GEOLOGIST DATE 12/12/77

CONDITIONS OF APPROVAL, IF ANY:

NO. OF COPIES RECEIVED		
DISTRIBUTION		
File		
N. M. B. M.		
U. S. G. S.		
Operator		
Land Office		

NEW MEXICO OIL CONSERVATION COMMISSION

P. O. Box 2088, Santa Fe 87501

SUNDRY NOTICES AND REPORTS
ON
GEOTHERMAL RESOURCES WELLS

Indicate Type of Lease	
State <input type="checkbox"/>	Fee <input checked="" type="checkbox"/>
5.a 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 <input type="checkbox"/> Temp. Observation <input checked="" type="checkbox"/> Low-Temp Thermal <input type="checkbox"/> Injection/Disposal <input type="checkbox"/>	7. Unit Agreement Name None
2. Name of Operator Sunoco Energy Development Corporation	8. Farm or Lease Name San Diego Grant
3. Address of Operator 12700 Park Central Pl., Suite 1500, Dallas, TX 75251	9. Well No. 9-76-5
4. Location of Well Unit Letter <u>I</u> , <u>2150</u> Feet From The <u>S</u> Line and <u>250</u> Feet From The <u>E</u> Line, Section <u>23</u> Township <u>18N.</u> Range <u>2E.</u> NMPM.	10. Field and Pool, or Wildcat None
15. Elevation (Show whether DF, RT, GR, etc.) <u>6280' G.L.</u>	12. County Sandoval

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	OTHER <input type="checkbox"/>

SUBSEQUENT REPORT OF:

REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
COMMENCE DRILLING OPNS. <input checked="" type="checkbox"/>	PLUG & ABANDONMENT <input type="checkbox"/>
CASING TEST AND CEMENT JOB <input type="checkbox"/>	OTHER <input type="checkbox"/>

17. 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.

On 1/3/77 Hole No. 9-76-__ was spudded at 9:00 AM PMThe hole was T.D.'d on 1/13/77 @ 95 ' BGL

OK Inspected

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

SIGNED [Signature] TITLE Chief Geologist DATE 1/13/77
Geothermal Services, Inc.APPROVED BY Carl Ulvog TITLE SENIOR PETROLEUM GEOLOGIST DATE 1/18/77

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION

P. O. Box 2088, Santa Fe 87501

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

5. Indicate Type of Lease

STATE ☐FEE ☒

5.a State Lease No.

7. Unit Agreement Name

none

8. Farm or Lease Name

San Diego Grant

9. Well No.

9-76-5

10. Field and Pool, or Wildcat

none

12. County

Sandoval

19. Proposed Depth

500 ft.

19A. Formation

unknown

20. Rotary or C.T.

rotary

21. Elevations (Show whether DF, RT, etc.)

6280 ft. (GL)

21A. Kind & Status Plug. Bond

see note "A"

21B. Drilling Contractor

Geothermal Services

22. Approx. Date Work will start

Oct. 1, 1976

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE

5-1/8"

SIZE OF CASING

3/4"

WEIGHT PER FOOT

1.14 lbs.

SETTING DEPTH

500'

SACKS OF CEMENT

1.5

EST. TOP

6" BGL

Program- See attached "Standard Shallow Temperature Gradient
Hole Drilling Program"

**- All section lines projected

Note A- Type of bond will be \$10,000 multiple-well low-temperature well or geothermal observation well bond. The bond is in the process of being filed, and a bond number will be furnished as soon as available before operations commence. 26 1976

OIL CONSERVATION COMM
Santa Fe

Quad 29

IN 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

Geothermal

Title Chief Geologist, Services, Inc. Date July 21, 1976

(This space for State Use)

APPROVED BY

Carl Ulvog

TITLE

SENIOR PETROLEUM GEOLOGIST

DATE

9/9/76

CONDITIONS OF APPROVAL, IF ANY:



GEOThermal SERVICES, INC.

7860 CONVOY COURT, SAN DIEGO, CALIFORNIA 92111 • (714) 565-4712

STANDARD SHALLOW TEMPERATURE GRADIENT HOLE DRILLING PROGRAM (500'/150m; Rubber Tired Equipment; Rotary/Mud)

1. Coordinate "Special Stipulations" or other unusual requirements with the Project Geologist prior to set-up and spud.
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01010005E
S. S. S. S.

7. Run pipe immediately after running electric logs or reaching T.D. (if hole is not logged).
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 - c. Steel pipe must be used if drilling fluid temperature exceeds 100°F/40°C.
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9. Any excavated pits or sumps must be backfilled to conform to the original topography.
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GEO THERMAL SERVICES, INC.
San Diego, California
December, 1975

GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

Operator Sunoco Energy Development Corp.		Lease San Diego Grant		Well No. 9-76-5
Unit Letter I	Section 23	Township 18 N.	Range 2 E.	County Sandoval
Actual Footage Location of Well: 2150 feet from the projected S. line and 250 feet from the E. line (projected)				
Ground Level Elev. 6280 ft.	Producing Formation none	Pool none	Dedicated Acreage: none Acres	

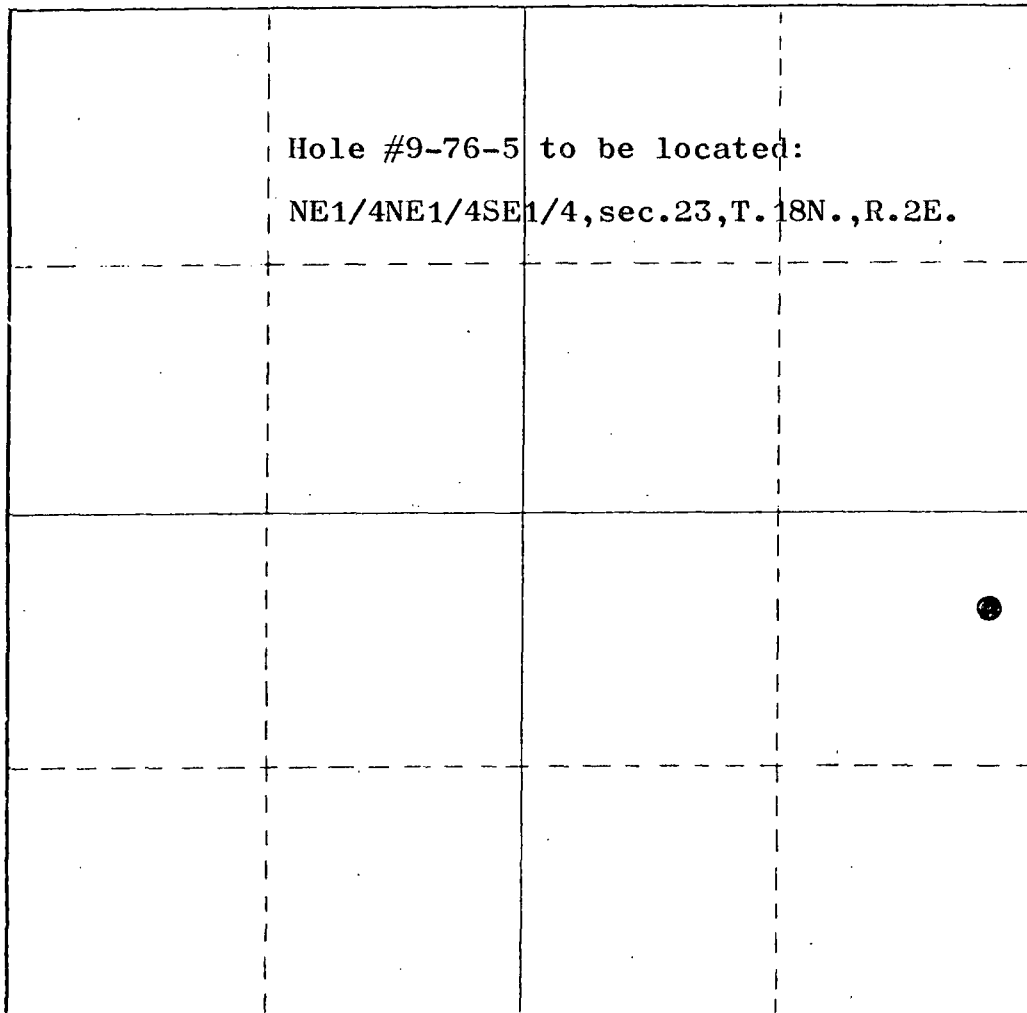
1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
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☐ Yes ☐ No If answer is "yes," type of consolidation _____

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.

Santa Fe Conservation Com.



CERTIFICATION

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

Steve Quiett

Name

Steve Quiett

Position

Chief Geologist

Company

Geothermal Services, Inc.

Date

July 21, 1976

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.

0 300 600 900 1200 1500 1800 2100 2400 2700 3000 3300 3600 3900 4200 4500 4800 5100 5400 5700 6000

NEW MEXICO OIL CONSERVATION COMMISSION

P. O. Box 2088, Santa Fe 87501

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

NO. OF COPIES RECEIVED	
DISTRIBUTION	
File	
N.M.B.M.	
U.S.G.S.	
Operator	
Land Office	

5. Indicate Type of Lease
STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
5.a State Lease No.

1a. Type of Work	Drill <input checked="" type="checkbox"/>	Deepen <input type="checkbox"/>	Plug Back <input type="checkbox"/>
b. Type of Well	Geothermal Producer <input type="checkbox"/>	Temp Observation <input checked="" type="checkbox"/>	Injection/Disposal <input type="checkbox"/>
2. Name of Operator	Sunoco Energy Development Corporation		
3. Address of Operator	12700 Park Central Pl., Suite 1500, Dallas, TX 75251		
4. Location of Well **	UNIT LETTER <u>I</u> LOCATED <u>2150</u> FEET FROM THE <u>South</u> LINE AND <u>250</u> FEET FROM THE <u>EAST</u> LINE OF SEC. <u>23</u> TWP. <u>18 N.</u> RGE. <u>2 E.</u> NMPM		

7. Unit Agreement Name
none
8. Farm or Lease Name
San Diego Grant
9. Well No.
9-76-5
10. Field and Pool, or Wildcat
none

12. County
Sandoval

19. Proposed Depth	500 ft.	19A. Formation	unknown	20. Rotary or C.T.	rotary
21. Elevations (Show whether DF, RT, etc.)	6280 ft. (GL)	21A. Kind & Status Plug. Bond	see note "A"	21B. Drilling Contractor	Geothermal Services
				22. Approx. Date Work will start	Oct 1, 1976

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
5-1/8"	3/4"	1.14 lbs.	500'	1.5	6" BGL

Program- See attached "Standard Shallow Temperature Gradient Hole Drilling Program"

** - All section lines projected

Note A- Type of bond will be \$10,000 multiple-well low-temperature well or geothermal observation well bond. The bond is in the process of being filed, and a bond number will be furnished as soon as available before operations commence.

IN 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 Steve Furey Title Chief Geologist, Geothermal Services, Inc. Date July 21, 1976

(This space for State Use)

APPROVED BY Carl Ulvog TITLE SENIOR PETROLEUM GEOLOGIST DATE 9/9/76
CONDITIONS OF APPROVAL, IF ANY:



GEOThermal SERVICES, INC.

7860 CONVOY COURT, SAN DIEGO, CALIFORNIA 92111 • (714) 565-4712

STANDARD SHALLOW TEMPERATURE GRADIENT HOLE DRILLING PROGRAM (500'/150m; Rubber Tired Equipment; Rotary/Mud)

1. Coordinate "Special Stipulations" or other unusual requirements with the Project Geologist prior to set-up and spud.
2. Choose location and orientation of drilling rig so as to minimize surface disturbance.
3. Drill 4" to 6" hole to maximum depth of 500'/150m. Take cuttings samples, cores, etc. at direction of Project Geologist.
4. If drilling with mud, use regular Bentonite drilling mud. No toxic additives are to be used in drilling fluids without permission of Project Geologist. Have supply of lost circulation material available. Use portable mud pits unless specifically directed otherwise.
5. Have a supply of Barite available in case of artesian flow. If artesian flow is encountered, comply with United States Geological Survey's Stipulations.
6. Mud return temperature shall be measured and recorded on "Drilling History" every 10'/3m.
 - a. If temperature reaches 120°F/50°C, STOP DRILLING and circulate for 30 minutes, monitoring mud temperature and pit volume for possible hot artesian flow. If no flow, run pipe at this depth after logging is completed.
 - b. If there is a sudden increase in temperature of the drilling mud (several degrees in only a few feet) STOP DRILLING and circulate for 30 minutes, monitoring mud temperature and pit volume for possible hot artesian flow. If no flow, continue drilling CAUTIOUSLY, keeping a careful watch on return temperature of drilling fluid. In no case shall drilling continue after mud return temperature reaches 120°F/50°C.

JUL 26 1976
OIL CONSERVATION COM.
Santa Fe

7. Run pipe immediately after running electric logs or reaching T.D. (if hole is not logged).
 - a. Install cap on bottom of first length of pipe. (If using steel pipe, seal each joint with teflon tape to ensure watertight).
 - b. Steel pipe must be used when air temperature is 40°F or below, as PVC cement will not adhere.
 - c. Steel pipe must be used if drilling fluid temperature exceeds 100°F/40°C.
 - d. When pipe is landed, top must be 6" to 12"/15cm to 30cm below ground level. (Cut and thread as necessary).
 - e. Fill pipe with CLEAN WATER (water that is oily or contains solvents such as gasoline MUST NOT be used) and install cap. Do not seal.
 - f. Set paper, rag or dirt bridge down open annulus at least 10'/3m below ground level. Fill annulus with cement up to base of cap on pipe.
8. Clean up location THOROUGHLY.
9. Any excavated pits or sumps must be backfilled to conform to the original topography.
10. When temperature surveys are completed, fill pipe with cement from 10'/3m to top of pipe, fill excavation to original ground topography and restore location as nearly as possible to original condition.

GEOHERMAL SERVICES, INC.
San Diego, California
December, 1975

GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

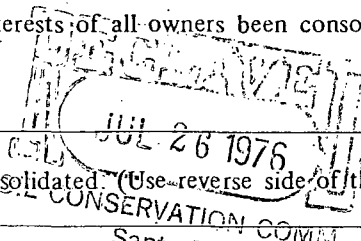
Operator Sunoco Energy Development Corp.		Lease San Diego Grant		Well No. 9-76-5
Unit Letter I	Section 23	Township 18 N.	Range 2 E.	County Sandoval
Actual Footage Location of Well: 2150 feet from the projected S. line and 250 feet from the E. line (projected)				
Ground Level Elev. 6280 ft.	Producing Formation none	Pool none	Dedicated Acreage: none 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.



Hole #9-76-5 to be located:

NE1/4NE1/4SE1/4, sec. 23, T. 18N., R. 2E.

CERTIFICATION

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

Name

Steve Quiett

Position

Chief Geologist

Company

Geothermal Services, Inc.

Date

July 21, 1976

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.



NO. OF COPIES RECEIVED	2
DISTRIBUTION	
File	/
N. M. B. M.	
U. S. G. S.	
Operator	/
Land Office	

NEW MEXICO OIL CONSERVATION COMMISSION
P. O. Box 2088, Santa Fe 87501SUNDRY NOTICES AND REPORTS
ON
GEOTHERMAL RESOURCES WELLS5. Indicate Type of Lease
State ☐ Fee ☒5.a 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 ☐

2. Name of Operator
Sunoco Energy Development Corporation

3. Address of Operator
12700 Park Central Pl., Suite 1500, Dallas, TX 75251

4. Location of Well
Unit Letter **G**, **2350** Feet From The **N.** Line and **2475** Feet From
The **E.** Line, Section **26** Township **18** N. Range **2** E. NMPM.

7. Unit Agreement Name
None

8. Farm or Lease Name
San Diego Grant

9. Well No.
9-76-6

10. Field and Pool, or Wildcat
None

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

6180' G.L.

12. County

Sandoval

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☒
TEMPORARILY ABANDON ☐
PULL OR ALTER CASING ☐ CHANGE PLANS ☐
OTHER ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ PLUG & ABANDONMENT ☒
CASING TEST AND CEMENT JOB ☐
OTHER Per verbal permission. ☐

17. 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: a) cutting off 3/4" iron pipe 6" below ground level; b) filling top 10' of pipe with cement; c) covering the pipe with dirt; d) clearing site of all trash and debris and e) restoring site as nearly as practical to original condition. Abandonment operations commenced on 9/24/77 and were completed on 9/24/77.

This conforms with abandonment method prescribed by U.S. Geological Survey's Revised Special Stipulations for Shallow Temperature Gradient Holes.

OCT 31 1977

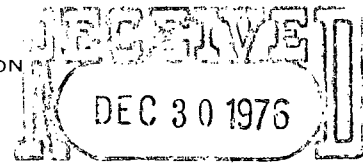
18. I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNED Steve Zurell TITLE Vice President, Operations DATE 10/24/77
Geothermal Services, Inc.APPROVED BY Carl Ullvog TITLE SENIOR PETROLEUM GEOLOGIST DATE 12/12/77

CONDITIONS OF APPROVAL, IF ANY:

NO. OF COPIES RECEIVED	
DISTRIBUTION	
File	
N. M. B. M.	
U. S. G. S.	
Operator	
Land Office	

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



SUNDRY NOTICES AND REPORTS
ON
GEOTHERMAL RESOURCES WELLS

IL CONSERVATION COMM
5. Indicate Type of Lease
Santa Fe State ☐ Fee ☒

5.a 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 <input type="checkbox"/> Temp. Observation <input checked="" type="checkbox"/> Low-Temp Thermal <input type="checkbox"/> Injection/Disposal <input type="checkbox"/>	7. Unit Agreement Name None
2. Name of Operator Sunoco Energy Development Corporation	8. Farm or Lease Name San Diego Grant
3. Address of Operator 12700 Park Central Pl., Suite 1500, Dallas, TX 75251	9. Well No. 9-76-6
4. Location of Well Unit Letter <u>G</u> <u>2350</u> Feet From The <u>North</u> Line and <u>2475</u> Feet From The <u>East</u> Line, Section <u>26</u> Township <u>18 N.</u> Range <u>2 E.</u> NMPM.	10. Field and Pool, or Wildcat None
15. Elevation (Show whether DF, RT, GR, etc.) 6180 ft. (GL)	12. County Sandoval

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

NOTICE OF INTENTION TO:

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

SUBSEQUENT REPORT OF:

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

17. 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.

On 12/19/76 Hole No. 9-76-6 was spudded at noon.

The hole was T.D.'d on 12/22 @ 340' BGL

OK - Inspected

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

SIGNED [Signature] TITLE Chief Geologist DATE 12/28/76
Geothermal Services, Inc.

APPROVED BY Carl Ulrey TITLE SENIOR PETROLEUM GEOLOGIST DATE 1/3/77

CONDITIONS OF APPROVAL, IF ANY:

NEW MEXICO OIL CONSERVATION COMMISSION
P. O. Box 2088, Santa Fe 87501APPLICATION FOR PERMIT TO DRILL, DEEPEN,
OR PLUG BACK---GEOTHERMAL RESOURCES WELL5. Indicate Type of Lease
STATE ☐ FEE ☒
5.a State Lease No.

7. Unit Agreement Name

none

8. Farm or Lease Name

San Diego Grant

9. Well No.

9-76-6

10. Field and Pool, or Wildcat

none

12. County

Sandoval

NO. OF COPIES RECEIVED	4
DISTRIBUTION	
File	1 ✓
N.M.B.M.	
U.S.G.S.	
Operator	1
Land Office	

1a. Type of Work Drill ☒ Deepen ☐ Plug Back ☐b. Type of Well Geothermal Producer ☐ Temp Observation ☒
Low-Temp Thermal ☐ Injection/Disposal ☐

2. Name of Operator

Sunoco Energy Development Corporation

3. Address of Operator

12700 Park Central Pl., Suite 1500, Dallas, TX 75251

4. Location of Well ** UNIT LETTER G LOCATED 2350 FEET FROM THE North LINEAND 2475 FEET FROM THE East LINE OF SEC. 26 TWP. 18 N. RGE. 2 E. NMPM

19. Proposed Depth

500 ft.

19A. Formation

unknown

20. Rotary or C.T.

rotary

21. Elevations (Show whether DF, RT, etc.)

6180 ft. (GL)

21A. Kind & Status Plug. Bond

see note "A"

21B. Drilling Contractor

Geothermal Services

22. Approx. Date Work will start

Oct. 1, 1976

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE

5-1/8"

SIZE OF CASING

3/4"

WEIGHT PER FOOT

1.14 lbs.

SETTING DEPTH

500'

SACKS OF CEMENT

1.5

EST. TOP

6" BGL

Program- See attached "Standard Shallow Temperature Gradient
Hole Drilling Program"

**- All section lines projected

Note A- Type of bond will be \$10,000 multiple-well low-temperature well or geothermal observation well bond. The bond is in the process of being filed, and a bond number will be furnished as soon as available before operations commence.

Quad 29

IN 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

Title

Chief Geologist, Services, Inc. July 21, 1976

(This space for State Use)

APPROVED BY

TITLE

SENIOR PETROLEUM GEOLOGIST

DATE

9/9/76

CONDITIONS OF APPROVAL, IF ANY:



GEO THERMAL SERVICES, INC.

7860 CONVOY COURT, SAN DIEGO, CALIFORNIA 92111 • (714) 565-4712

STANDARD SHALLOW TEMPERATURE GRADIENT HOLE DRILLING PROGRAM (500' / 150m; Rubber Tired Equipment; Rotary/Mud)

1. Coordinate "Special Stipulations" or other unusual requirements with the Project Geologist prior to set-up and spud.
2. Choose location and orientation of drilling rig so as to minimize surface disturbance.
3. Drill 4" to 6" hole to maximum depth of 500' / 150m. Take cuttings samples, cores, etc. at directions of Project Geologist.
4. If drilling with mud, use regular Bentonite drilling mud. No toxic additives are to be used in drilling fluids without permission of Project Geologist. Have supply of lost circulation material available. Use portable mud pits unless specifically directed otherwise.
5. Have a supply of Barite available in case of artesian flow. If artesian flow is encountered, comply with United States Geological Survey's Stipulations.
6. Mud return temperature shall be measured and recorded on "Drilling History" every 10' / 3m.
 - a. If temperature reaches 120°F / 50°C, STOP DRILLING and circulate for 30 minutes, monitoring mud temperature and pit volume for possible hot artesian flow. If no flow, run pipe at this depth after logging is completed.
 - b. If there is a sudden increase in temperature of the drilling mud (several degrees in only a few feet) STOP DRILLING and circulate for 30 minutes, monitoring mud temperature and pit volume for possible hot artesian flow. If no flow, continue drilling CAUTIOUSLY, keeping a careful watch on return temperature of drilling fluid. In no case shall drilling continue after mud return temperature reaches 120°F / 50°C.

7. Run pipe immediately after running electric logs or reaching T.D. (if hole is not logged).
 - a. Install cap on bottom of first length of pipe. (If using steel pipe, seal each joint with teflon tape to ensure watertight).
 - b. Steel pipe must be used when air temperature is 40°F or below, as PVC cement will not adhere.
 - c. Steel pipe must be used if drilling fluid temperature exceeds 100°F/40°C.
 - d. When pipe is landed, top must be 6" to 12"/15cm to 30cm below ground level. (Cut and thread as necessary).
 - e. Fill pipe with CLEAN WATER (water that is oily or contains solvents such as gasoline MUST NOT be used) and install cap. Do not seal.
 - f. Set paper, rag or dirt bridge down open annulus at least 10'/3m below ground level. Fill annulus with cement up to base of cap on pipe.
8. Clean up location THOROUGHLY.
9. Any excavated pits or sumps must be backfilled to conform to the original topography.
10. When temperature surveys are completed, fill pipe with cement from 10'/3m to top of pipe, fill excavation to original ground topography and restore location as nearly as possible to original condition.

GEOHERMAL SERVICES, INC.
San Diego, California
December, 1975

GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

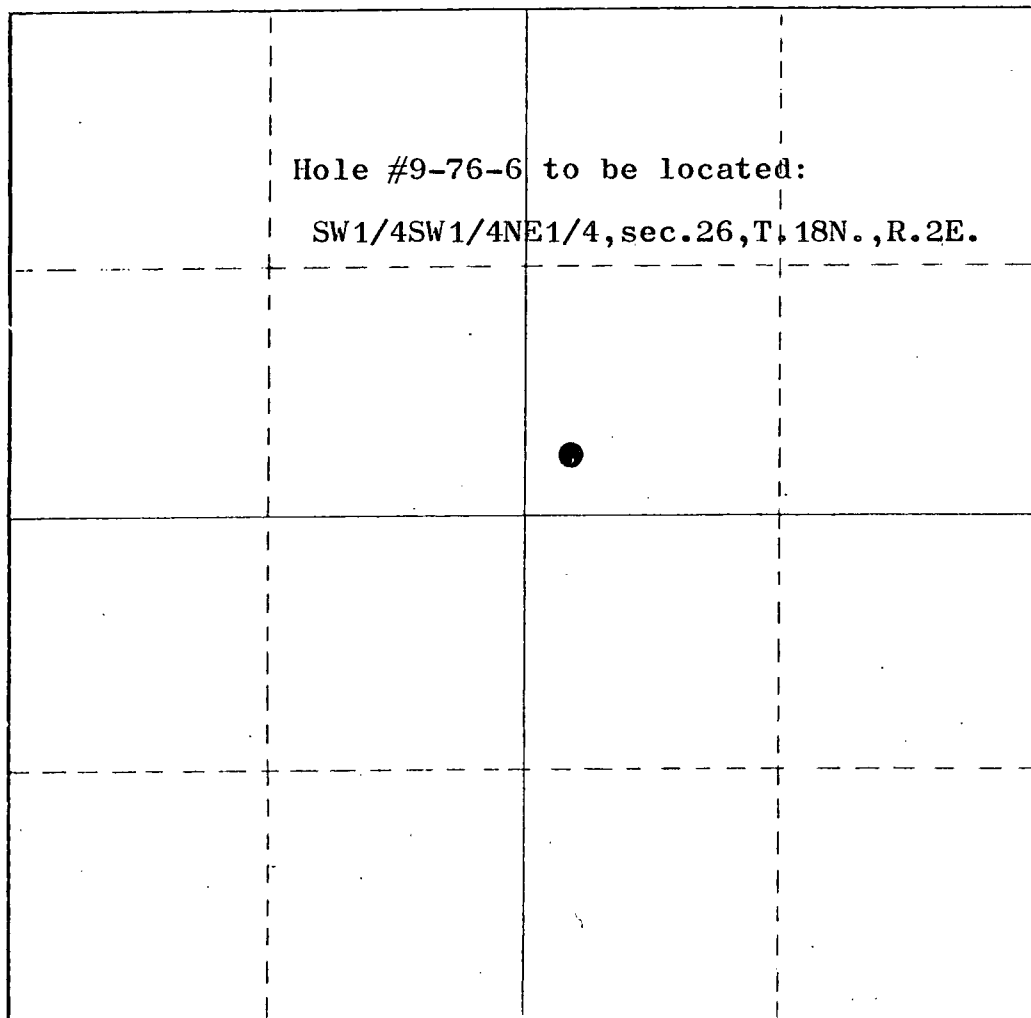
Operator Sunoco Energy Development Corp.		Lease San Diego Grant		Well No. 9-76-6
Unit Letter G	Section 26	Township 18 N.	Range 2 E.	County Sandoval
Actual Footage Location of Well: 2350 feet from the projected N. line and 2475 feet from the E. line (projected)				
Ground Level Elev. 6180 ft.	Producing Formation none	Pool none	Dedicated Acreage: none 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.

Name

Steve Quiett

Position

Chief Geologist

Company

Geothermal Services, Inc.

Date

July 21, 1976

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.

0 300 600 900 1320 1650 1980 2310 2640 2000 1500 1000 500 0

NEW MEXICO OIL CONSERVATION COMMISSION

P. O. Box 2088, Santa Fe 87501

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

NO. OF COPIES RECEIVED	
DISTRIBUTION	
File	
N.M.B.M.	
U.S.G.S.	
Operator	
Land Office	

5. Indicate Type of Lease
STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
5.a State Lease No.

1a. Type of Work	Drill <input checked="" type="checkbox"/>	Deepen <input type="checkbox"/>	Plug Back <input type="checkbox"/>
b. Type of Well	Geothermal Producer <input type="checkbox"/>	Temp Observation <input checked="" type="checkbox"/>	Low-Temp Thermal <input type="checkbox"/>
		Injection/Disposal <input type="checkbox"/>	
2. Name of Operator	Sunoco Energy Development Corporation		
3. Address of Operator	12700 Park Central Pl., Suite 1500, Dallas, TX 75251		
4. Location of Well **	UNIT LETTER <u>G</u> LOCATED <u>2350</u> FEET FROM THE <u>North</u> LINE		
	AND <u>2475</u> FEET FROM THE <u>East</u> LINE OF SEC. <u>26</u> TWP. <u>18 N.</u> RGE. <u>2 E.</u> NMPM		

7. Unit Agreement Name
<u>none</u>
8. Farm or Lease Name
<u>San Diego Grant</u>
9. Well No.
<u>9-76-6</u>

10. Field and Pool, or Wildcat
<u>none</u>

12. County
<u>Sandoval</u>

19. Proposed Depth	500 ft.	19A. Formation	unknown	20. Rotary or C.T.	rotary
21. Elevations (Show whether DF, RT, etc.)	6180 ft. (GL)	21A. Kind & Status Plug. Bond	see note "A"	21B. Drilling Contractor	Geothermal Services
				22. Approx. Date Work will start	Oct. 1, 1976

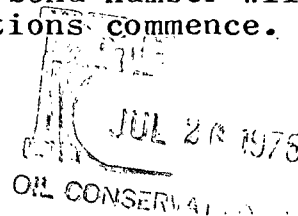
PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
5-1/8"	3/4"	1.14 lbs.	500'	1.5	6" BGL

Program- See attached "Standard Shallow Temperature Gradient Hole Drilling Program"

** - All section lines projected

Note A- Type of bond will be \$10,000 multiple-well low-temperature well or geothermal observation well bond. The bond is in the process of being filed, and a bond number will be furnished as soon as available before operations commence.

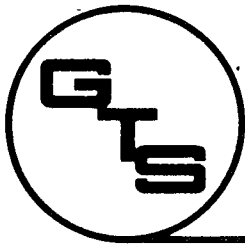


IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. Give blowout preventer program, if any.

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

Signed Steph J. Smith Title Chief Geologist, Geothermal Services, Inc. Date July 21, 1976
(This space for State Use)

APPROVED BY Carl Ulvog TITLE SENIOR PETROLEUM GEOLOGIST DATE 9/9/76
CONDITIONS OF APPROVAL, IF ANY:

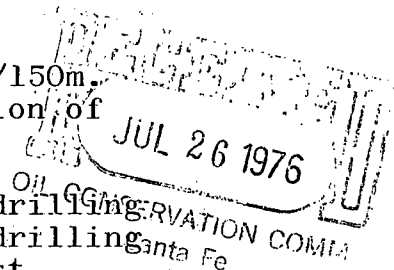


GEO THERMAL SERVICES, INC.

7860 CONVOY COURT, SAN DIEGO, CALIFORNIA 92111 • (714) 565-4712

STANDARD SHALLOW TEMPERATURE GRADIENT HOLE DRILLING PROGRAM (500'/150m; Rubber Tired Equipment; Rotary/Mud)

1. Coordinate "Special Stipulations" or other unusual requirements with the Project Geologist prior to set-up and spud.
2. Choose location and orientation of drilling rig so as to minimize surface disturbance.
3. Drill 4" to 6" hole to maximum depth of 500'/150m. Take cuttings samples, cores, etc. at direction of Project Geologist.
4. If drilling with mud, use regular Bentonite drilling mud. No toxic additives are to be used in drilling fluids without permission of Project Geologist. Have supply of lost circulation material available. Use portable mud pits unless specifically directed otherwise.
5. Have a supply of Barite available in case of artesian flow. If artesian flow is encountered, comply with United States Geological Survey's Stipulations.
6. Mud return temperature shall be measured and recorded on "Drilling History" every 10'/3m.
 - a. If temperature reaches 120°F/50°C, STOP DRILLING and circulate for 30 minutes, monitoring mud temperature and pit volume for possible hot artesian flow. If no flow, run pipe at this depth after logging is completed.
 - b. If there is a sudden increase in temperature of the drilling mud (several degrees in only a few feet) STOP DRILLING and circulate for 30 minutes, monitoring mud temperature and pit volume for possible hot artesian flow. If no flow, continue drilling CAUTIOUSLY, keeping a careful watch on return temperature of drilling fluid. In no case shall drilling continue after mud return temperature reaches 120°F/50°C.



7. Run pipe immediately after running electric logs or reaching T.D. (if hole is not logged).
 - a. Install cap on bottom of first length of pipe. (If using steel pipe, seal each joint with teflon tape to ensure watertight).
 - b. Steel pipe must be used when air temperature is 40°F or below, as PVC cement will not adhere.
 - c. Steel pipe must be used if drilling fluid temperature exceeds 100°F/40°C.
 - d. When pipe is landed, top must be 6" to 12"/15cm to 30cm below ground level. (Cut and thread as necessary).
 - e. Fill pipe with CLEAN WATER (water that is oily or contains solvents such as gasoline MUST NOT be used) and install cap. Do not seal.
 - f. Set paper, rag or dirt bridge down open annulus at least 10'/3m below ground level. Fill annulus with cement up to base of cap on pipe.
8. Clean up location THOROUGHLY.
9. Any excavated pits or sumps must be backfilled to conform to the original topography.
10. When temperature surveys are completed, fill pipe with cement from 10'/3m to top of pipe, fill excavation to original ground topography and restore location as nearly as possible to original condition.

GEOHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

Operator Sunoco Energy Development Corp.		Lease San Diego Grant		Well No. 9-76-6
Unit Letter G	Section 26	Township 18 N.	Range 2 E.	County Sandoval
Actual Footage Location of Well: 2350 feet from the projected N. line and 2475 feet from the E. line (projected)				
Ground Level Elev. 6180 ft.	Producing Formation none	Pool none	Dedicated Acreage: none 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.) _____

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. *Oil Conservation Commission*

Hole #9-76-6 to be located:
SW1/4SW1/4NE1/4, sec. 26, T. 18N., R. 2E.

CERTIFICATION

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

Name
Steve Quiett
Position
Chief Geologist
Company
Geothermal Services, Inc.
Date
July 21, 1976

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. _____

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0