GTLT - ____9___

(9&16)-2S-2W Sunoco Energy Development Corporation (Socorro County)

5-77-5 & 5-77-6

NEW MEXICO OIL C	ONSERVATION COMMISSION	Adopted 10/1,
NO. OF CONTESTICATION	088, Santa Fe 87501	
File / /	·	
	ICES AND REPORTS	
G. S	ON	5. Indicate Type of Lease
	RESOURCES WELLS	State Fee X
Land Office	MESOCHOES WEELS	5.a State Lease No.
Do Not Use This Form for Proposals to Drill or to Deepen or Plug Back to For Permit —" (Form G-101) for Such Proposals.)	to a Different Reservoir. Use "Application	
1. Type of well Geothermal Producer Temp. Observation	n X	7. Unit Agreement Name
Low-Temp Thermal Injection/Disposal	ı	None
2. Name of Operator		8. Farm or Lease Name
Sunoco Energy Development Corpor	ration	
3. Address of Operator		9. Well No.
12700 Park Central Pl., Suite 150	00, Dallas, TX 75251	5-77-5
4. Location of Well Unit Letter N, 2000 Feet From The W.	Line and <u>400</u> Feet From	10. Field and Pool, or Wildcat None
The S_{\bullet} Line, Section 9 Township 2	Range <u>2W</u> NMPM.	
11111111111111111111111111111111111111	nether DF, RT, GR, etc.)	12. County
6000	G.L.	Socorro
**************************************	Nature of Notice, Report or Other Da	
NOTICE OF INTENTION TO:	1	NT REPORT OF:
	REMEDIAL WORK	ALTERING CASING
TEMPORARILY ABANDON	COMMENCE DRILLING OPNS.	PLUG & ABANDONMENT
PULL OR ALTER CASING	X CASING TEST AND CEMENT JOB	
· _	OTHER	
OTHER	-	
17. Describe Proposed or completed Operations (Clearly state all pertin	nent details, and give pertinenet dates, inclu	ding estimated date of starting any
proposed work) SEE RULE 203.		
The referenced temperate		
dropped from the drilling	ng program and will not	be .
drilled. The site has n	not been occupied by an	у
drilling equipment.	•	
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31 1977		
31 1977		-
SL. Will		
S. A. COpenia		
1		
hereby certify that the information above is true and complete to the	e best of my knowledge and belief.	
		•
SIGNED TITLE	VICE PRESIDENT	_DATE <u>10/25/77</u>
	Geothermal Services, I	• •
0 2 - 0 1,0	SENIOR PETROLEUM GEOLOGISI	11 /6 - /
APPROVED BY WWW TITLE_	Priator I Franciscom officials.	_DATE /// 22/77_
CONDITIONS OF APPROVAL, IF ANY:		

,7							Form G-101 Adopted 10
		1				O (*	
NO. OF COPIES RECEIVED	4	NEW MEXICO OIL CONSERVATION COMMISSION				25 107	
DISTRIBUTION			P. O. Box 2088	, Santa Fe 87501			
F-ile	1 /		•		104 FUE	10.1.001 C	
N.M.	1				*. 	T	Type of Lease
U.S.E.S.	1	APPLI	CATION FOR PER	STATE L			
Operator	<u> </u>	OR PLU	OR PLUG BACKGEOTHERMAL RESOURCES WELL 5.a State				
Land Office							· · · · · · · · · · · · · · · · · · ·
BLM	T						
1a. Type of Work Drill	X	C	Deepen 🗆	Plug Back		7. Unit Agr	cement Name
. T. Cooth	ormal D	roducer 🔲		Temp Observation	X)	non	
• • • • • • • • • • • • • • • • • • • •	ermar r emp Th		-	Injection/Disposal		8. Farm or Lease Name	
2. Name of Operator						9. Well No.	•
SUNOCO ENERG	Y DE	VELOPMENT	CORPORATIO	N		(5 -	-77-5
3. Address of Operator						10. Field an	d Pool, or Wildcat
12700 Park C	entra	al Pl., Su	nite 1500,	Dallas, Texa	as 75251	non	e
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ONT LE	- 1 1 ER _	LOCATI	FEET	PROM THE			
AND 400 FEET FROM	м тне	S LINE OF S	SEC. 9 TWP.	2S RGE.	2W NMPM		
						12. County Socorr	
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	M			19. Proposed Depth	19A. Formation	on	20. Rotary or C.T.
				500 ft	unknov	vn	rotary
21. Elevations (Show whether E 6000 ft (G				21B. Drilling Contra Geothermal	ctor	22. Appro	x. Date Work will start 10, 1977
(4)	<u></u>	<u> </u>	11000 11	ideo oner mar	<u> </u>	1	
		PF	ROPOSED CASING A	AND CEMENT PROGR	:AM		•71
SIZE OF HOLE	SIZE	OF CASING	WEIGHT PER FOO	T SETTING DEP	TH SACKS OF	CEMENT .	EST. TOP
5-1/8"		3/4"	1,14#	500 '	1.		6" BGL
•							

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

- Type of bond will be "\$10,000 Multiple-Well Low-Temperature Well or Geothermal Observation Well Note A Bond". Bond is in the process of being filed; a bond number will be furnished as soon as available before operations commence.

> APPROVAL VALID FOR 90 DAYS UNLESS DRILLING COMMENCED

give data on present productive zone and proposed new productive

bove is true and complete to the hest of my knowledge and helief.

Geothermal Title Chief Geologist, Services, Inc. Date April

(This space for State Use)

SENIOR PETROLEUM GEOLOGIST

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

GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

All distances must be from the outer boundaries of the Section RDD 25 m Sunoco Energy Development Corp. Range Township Letter Section Socorro **2**S 2W Actual Footage Location of Well: 2000 feet from the West 400 South line and Ground Level Elev. Producing Formation Pool 6000 None None 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? ☐ 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 Hole #5-77+5 to be located: Chief Geologist SW1/4SE1/4\$W1/4, sec.9, T.2S, R.2W Company Geothermal Services, Inc April 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 ² knowledge and beli<mark>ef</mark>. Date Surveyed Registered Professional Engineer and/or Land Surveyor Certificate No. 1920 1650 : 1980 2310 2640 2000 1500 1000 500



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 <u>CLEAN WATER</u> (water that is oily or contains solvents such as gasoline <u>MUST NOT</u> 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.

,		Adopted 10/1,
NO. OF COPIES RECEIVED NEW MEXICO OIL CONS		
DISTRIBUTION P. O. Box 2088,	Santa Fe 87501	
File /		
M. B. M. SUNDRY NOTICE	S AND REPORTS	
. G. S		. Indicate Type of Lease
	-	State Fee X
GEO MEMMAL NE	SOURCES WELLS	a State Lease No.
Land Office		
	·	minmm
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.)	<u>N</u>	
1. Type of well Geothermal Producer - Temp. Observation	7.	. Unit Agreement Name · ·
Low-Temp Thermal Injection/Disposal		None
2. Name of Operator	8.	Farm or Lease Name
Sunoco Energy Development Corporat	ion	
3. Address of Operator	9.	Well No.
•	Dallag TV 75951	5 77 6
12700 Park Central Pl., Suite 1500,	Dallas, TX 75251	5-77-6 D. Field and Pool, or Wildcat
4. Location of Well		
Unit Letter I 1600 Feet From The S.	Line and300Feet From	None
^		
The E. Line, Section 16 Township 2S.	Range $2W_{\bullet}$ NMPM.	
15. Elevation (Show whether	er DF, RT, GR, etc.)	2. County
	G.L. S	
16. Check Appropriate Box To Indicate Na		0.0110(\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
16. Check Appropriate Box To Indicate Na	nure of Notice, Report of Other Data	
NOTICE OF INTENTION TO:	SUBSEQUENT	REPORT OF:
PERFORM REMEDIAL WORK D PLUG AND ABANDON	REMEDIAL WORK	☐ ALTERING CASING
TEMPORARILY ABANDON	COMMENCE DRILLING OPNS.	PLUG & ABANDONMENT
PULL OR ALTER CASING CHANGE PLANS	CASING TEST AND CEMENT JOB	
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17. Describe Proposed or completed Operations (Clearly state all pertinent	details and give pertinenet dates, including	g estimated date of starting any
proposed work) SEE RULE 203.	, ,	
<i>p</i> -	•	
	2.2.2	•
The referenced temperature	e observation well has	been
dropped from the drilling	program and will not b	ne .
mopped from the drifting.	program and will noo	
drilled. The site has not	been occupied by any	
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drilling equipment.		
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hereby certify that the information above is true and complete to the bes	it of my knowledge and belief.	
1 SP		
SIGNED TITLE VI	CE PRESIDENT	DATE 10/25/77
Ge	othermal Services, Inc	
·	•	
APPROVED BY Carl Illura TITLE SEN	IOR PETROLEUM GEOLOGIST	DATE 11/22/77
The state of the s		
CONDITIONS OF APPROVAL, IF ANY		

NO. OPECOPIES RECEIVE	D 4	NEV	V MEXICO OIL CONSERV)된 VATION COMMISSION	CAPR 2	5 1077	انار	
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Operator	1		IG BACKGEOTHERN			5.a State Le	ase No.	
Land Office		0	A Brion GEOTHEIN					
BLM	1							
la. Type of Work D	rill 🛣	[Deepen 🗆	Plug Back			ement Name	-7-7-7
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2. Name of Operator						9. Well No.		
SUNOCO ENE	ERGY DEVELO)PMENT	CORPORATION			(5-7)	7 -6	
3. Address of Operator						10. Field and	d Pool, or Wilde	at
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AND 300 FEET	FROM THE East	LINE OF	SEC. 16 TWP. 2S	RGE. 2W	NMPM			
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IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new producti ove is true and complete to the best of my knowledge and belief.

Geothermal

TuteChief Geologist, Services, Inc. Date April 18, 1977

Signed -(This space for State Use)

SENIOR PETROLEUM GEOLOGIST

NEW MEXICO OIL CONSERVATION COMMISSION: P. O. BOX 2088 SANTA FE 87501

GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLA

All distances must be from the outer boundaries of the Section Lease Operator 5-77-6 unoco Energy Development Corp. Range County Township Letter Section Socorro 16 2W Actual Footage Location of Well: feet from the South 1600 line and 300 East feet from the Dedicated Acreage: Ground Level Elev. Producing Formation Pool 6000 None None 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. CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Steve Quiett Hole #5-77-6 to be located: Chief Geologist Company SE1/4NE1/4SE1/4, sec.16, T.2S, R.2W Geothermal Services, Inc. April 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. 1320 1650 - 1680 2310 2640 2000 1500 1000 500



GEOTHERMAL SERVICES, INC.

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



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1. 1. 6b. STANDARD SHALLOW TEMPERATURE GRADIENT HOLE DRILLING PROGRAM Ag To (500'/150m; Rubber Tired Equipment; Rotary/Mud)

- Coordinate "Special Stipulations" or other unusual 1. requirements with the Project Geologist prior to set-up and spud.
- Choose location and orientation of drilling rig so 2. as to minimize surface disturbance.
- 医乳头 医磺酸酚 医二氏道 Drill 4" to 6" hole to maximum depth of 500'/150m. 3. Take cuttings samples, cores, etc. at direction of Project Geologist:
- If drilling with mud, use regular Bentonite drilling 4. 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.
- Mud return temperature shall be measured and recorded 6. on "Drilling History" every 10 // 3m. Section 1
 - a. If temperature reaches 120°F/50°C, STOP DRILLING * 37 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.

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