

GTLT - _____2_____

NMSU

UL:J 33-13S-04W

Sierra County

SOUTHWEST TECHNOLOGY DEVELOPMENT INSTITUTE

Box 30001/Dept. 3SOL/Las Cruces, New Mexico 88003-0001
Telephone: (505) 646-1846
Telefax: (505) 646-2960

OIL CONSERVATION DIVISION
RECEIVED

'91 JUL 22 AM 10



— Information Copy —
FEDERAL LAND/MINERALS

18 July 1991

Mr. Roy Johnson
District Supervisor
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Dear Roy:

Please find the enclosed Form G-103 in triplicate for the abandonment of the TORC1 temperature gradient borehole.

Sincerely,

A handwritten signature in cursive script, appearing to read 'J. Witcher'.

James C. Witcher
Geologist

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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

Form G-101
Adopted 10-1-74
Revised 10-1-78

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Operator	
Land Office	

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

5. Indicate Type of Lease
STATE ☐ none FEE ☐

5.a State Lease No.
N/A

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

7. Unit Agreement Name
N/A

8. Farm or Lease Name
City of T. or C.

2. Name of Operator New Mexico State University
Southwest Technology Development Institute

9. Well No.
TORC 1

3. Address of Operator P. O. Box 30001 Dept 3 SOL Las Cruces, New Mexico 88003

10. Field and Pool, or Wildcat
T. or C.

4. Location of Well UNIT LETTER J LOCATED 1970 FEET FROM THE south LINE
AND 1470 FEET FROM THE east LINE OF SEC. 33 TWP. 13 south RGE. 4 west NMPM

12. County
Sierra

19. Proposed Depth 300 feet	19A. Formation Santa Fe Group	20. Rotary or C.T. rotary
21. Elevations (Show whether DF, RT, etc.) 4290 feet	21A. Kind & Status Plug. Bond <u>RIDER TO 10K MULTI- WELL BOND FORTHCOMING</u>	21B. Drilling Contractor Larjon
		22. Approx. Date Work will start May 1990

PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
6 inch	1-2 inch				

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 James C. Witcher Title Geologist Date 4 May 1990

(This space for State Use)

APPROVED BY Ry E. Hume TITLE DISTRICT SUPERVISOR DATE 5-24-90

CONDITIONS OF APPROVAL, IF ANY:

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form G-103
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U. S. G. S.		
Operator		
Land Office		

SUNDRY NOTICES AND REPORTS
ON
GEOTHERMAL RESOURCES WELLS

5. Indicate Type of Lease
State ☐ (NONE) 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
Not applicable

2. Name of Operator
New Mexico State University/Southwest Technology Development Institute

8. Farm or Lease Name City of
Truth or Consequences

3. Address of Operator
P.O. Box 30001, Department 3SOL, Las Cruces, New Mexico 88003-0001

9. Well No.
TORCI

4. Location of Well
Unit Letter J 1970 Feet From The South Line and 1470 Feet From
The East Line, Section 33 Township 13 South Range 4 West NMPM.

10. Field and Pool, or Wildcat
T. or C.

15. Elevation (Show whether DF, RT, GR, etc.)
4290 (Surface)

12. County
Sierra

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 Information (See attached log) ☐

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.

Borehole was drilled to 68 meters depth June 1990, and abandoned July 1990. No water was encountered. Abandonment consisted of cutting PVC one inch casing below surface and capping. The borehole was then backfilled to surface.

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

SIGNED James C. WITCHER TITLE Geologist DATE 7/12/91

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

Table 4 Depth, logged temperature, and general lithologies for
TORC-1, Truth or Consequences, New Mexico

Location: Unit letter J located 1,933 feet from the South line and 3,850 feet from West line, Section 33, Township 13S, Range 4W, New Mexico; Elevation 4283 feet; Temperature logged, 6/22/90; Total depth, 68 meters; Bottom-hole temperature, 24.91 °C.

Depth (M)	Temperature °C	Lithology
0	-	Pebbly sand: Terrace deposit.
10	22.30	Pebble conglomerate: Palomas Formation (fluvial facies-?)
15	22.25	Clay to clayey pebble conglomerate: Palomas Formation.
20	22.43	
25	22.67	Muddy, cobble-boulder conglomerate and mudstone: Palomas Formation (older proximal piedmont facies-?).
30	22.89	
35	23.11	
40	23.30	
45	23.58	
50	23.89	
55	24.18	
60	24.37	
65	24.74	
68	24.91	

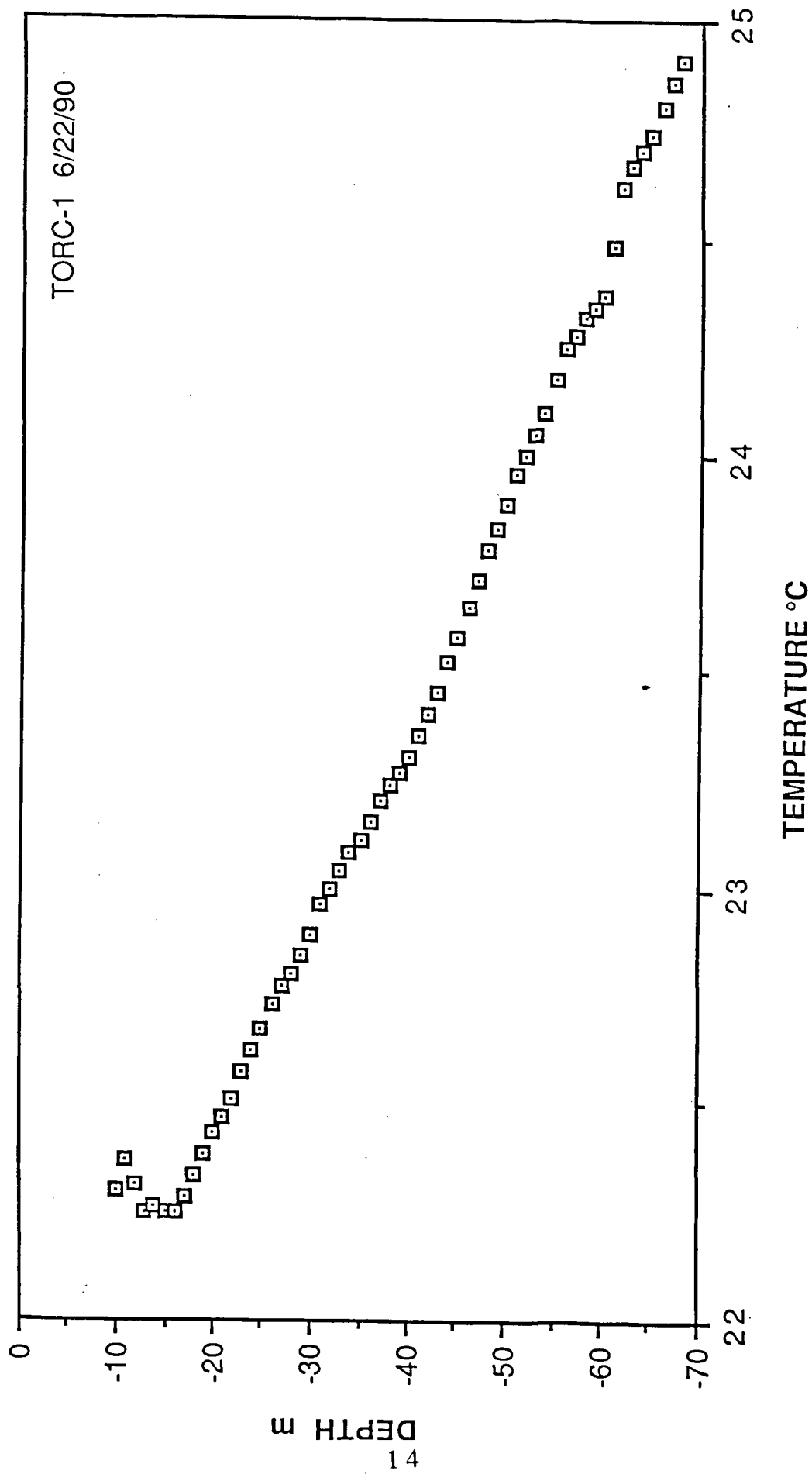


Figure 4b. Depth versus temperature plot for TORC-1.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2088

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Form G-103
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SUNDRY NOTICES AND REPORTS
ON
GEOTHERMAL RESOURCES WELLS

5. Indicate Type of Lease
State ☐ (NONE) 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 Not applicable
2. Name of Operator New Mexico State University/Southwest Technology Development Institute	8. Farm or Lease Name City of Truth or Consequences
3. Address of Operator P.O. Box 30001, Department 3SOL, Las Cruces, New Mexico 88003-0001	9. Well No. TORC1
4. Location of Well Unit Letter <u>J</u> <u>1970</u> Feet From The <u>South</u> Line and <u>1470</u> Feet From The <u>East</u> Line, Section <u>33</u> Township <u>13 South</u> Range <u>4 West</u> NMPM.	10. Field and Pool, or Wildcat T. or C.
15. Elevation (Show whether DF, RT, GR, etc.) 4290 (Surface)	12. County Sierra

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 Information (See attached log) ☐

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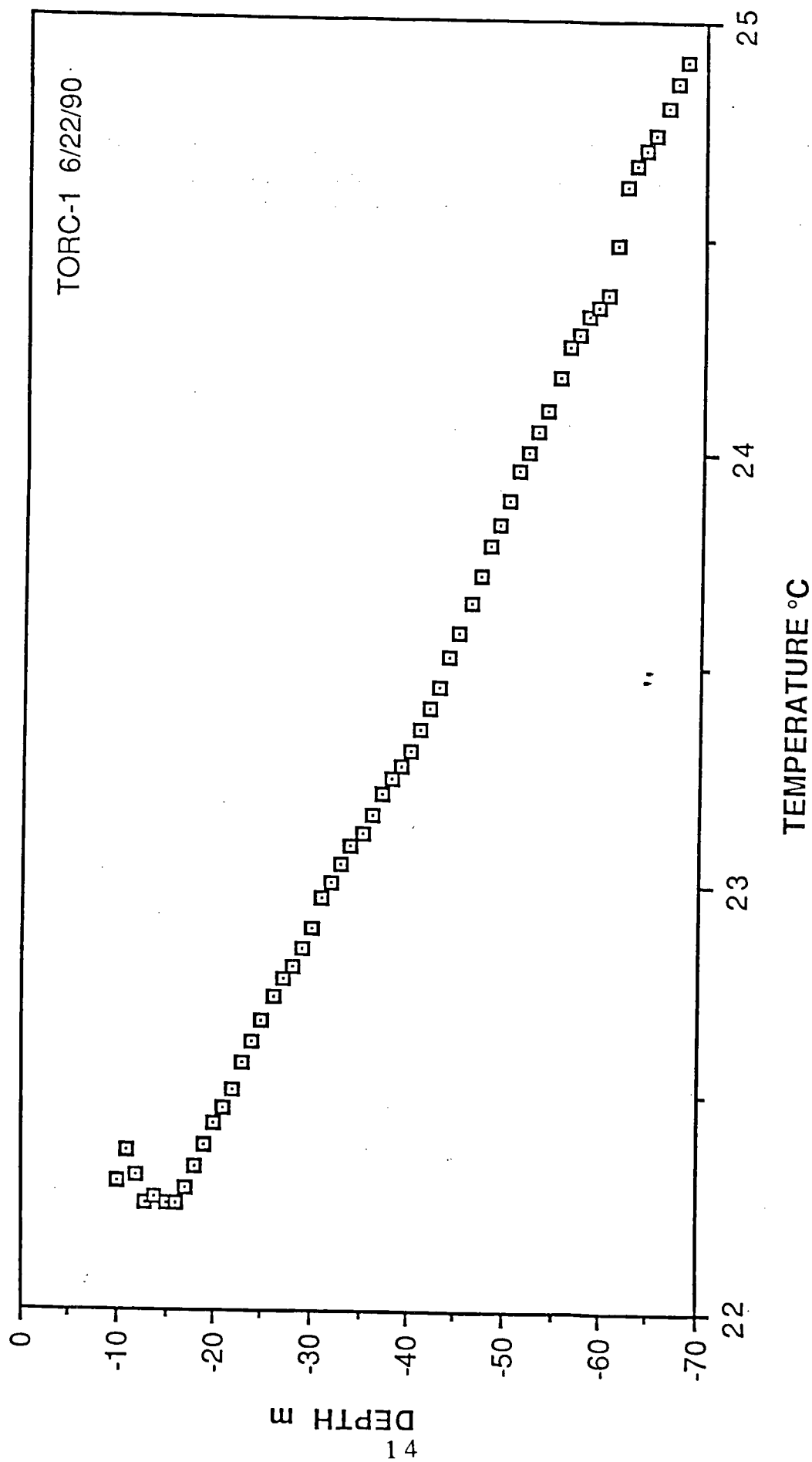


Figure 4b. Depth versus temperature plot for TORC-1.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

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SUNDRY NOTICES AND REPORTS
ON
GEOTHERMAL RESOURCES WELLS

5. Indicate Type of Lease State <input type="checkbox"/> (NONE) Fee <input type="checkbox"/>
5.a State Lease No.

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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 New Mexico State University/Southwest Technology Development Institute
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7. Unit Agreement Name Not applicable
8. Farm or Lease Name City of Truth or Consequences
9. Well No. TORCI
10. Field and Pool, or Wildcat T. or C.

15. Elevation (Show whether DF, RT, GR, etc.) 4290 (Surface)	12. County Sierra
---	----------------------

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

<p>NOTICE OF INTENTION TO:</p> <p>PERFORM REMEDIAL WORK <input type="checkbox"/> PLUG AND ABANDON <input type="checkbox"/></p> <p>TEMPORARILY ABANDON <input type="checkbox"/> CHANGE PLANS <input type="checkbox"/></p> <p>PULL OR ALTER CASING <input type="checkbox"/></p> <p>OTHER <input type="checkbox"/></p>	<p>SUBSEQUENT REPORT OF:</p> <p>REMEDIAL WORK <input type="checkbox"/> ALTERING CASING <input type="checkbox"/></p> <p>COMMENCE DRILLING OPNS. <input checked="" type="checkbox"/> PLUG & ABANDONMENT <input checked="" type="checkbox"/></p> <p>CASING TEST AND CEMENT JOB <input type="checkbox"/></p> <p>OTHER Information (See attached log) <input type="checkbox"/></p>
---	---

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.

Borehole was drilled to 68 meters depth June 1990, and abandoned July 1990. No water was encountered. Abandonment consisted of cutting PVC one inch casing below surface and capping. The borehole was then backfilled to surface.

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

SIGNED James C. Witcher TITLE Geologist DATE 7/12/91

APPROVED BY _____ TITLE _____ DATE _____

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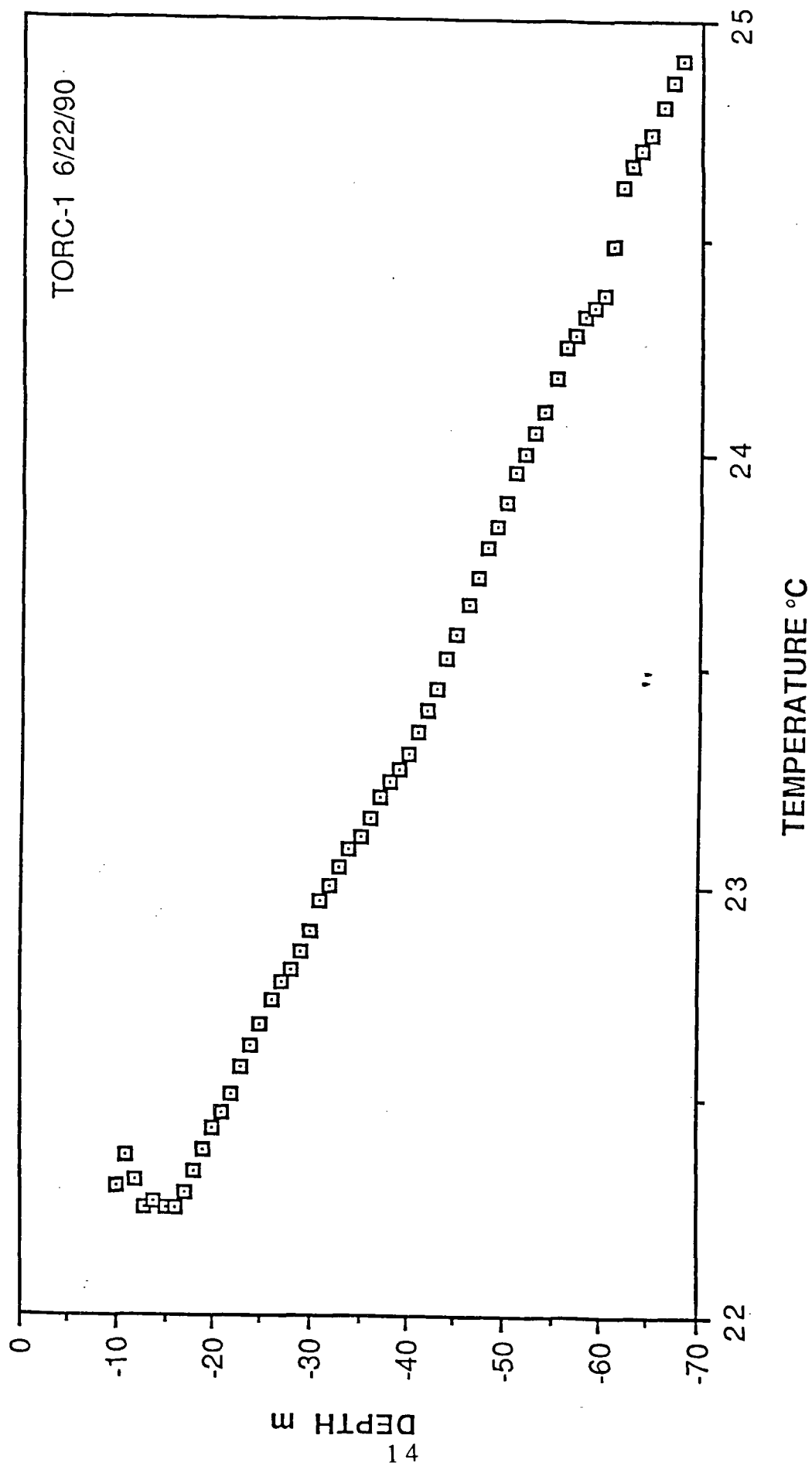


Figure 4b. Depth versus temperature plot for TORC-1.

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form G-103
Adopted 10-1-74
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SUNDRY NOTICES AND REPORTS
ON
GEOTHERMAL RESOURCES WELLS

5. Indicate Type of Lease
State ☐ (NONE) Fee ☐
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2. Name of Operator New Mexico State University/Southwest Technology Development Institute	8. Farm or Lease Name City of Truth or Consequences
3. Address of Operator P.O. Box 30001, Department 3SOL, Las Cruces, New Mexico 88003-0001	9. Well No. TORC1
4. Location of Well Unit Letter <u>J</u> <u>1970</u> Feet From The <u>South</u> Line and <u>1470</u> Feet From The <u>East</u> Line, Section <u>33</u> Township <u>13 South</u> Range <u>4 West</u> NMPM.	10. Field and Pool, or Wildcat T. or C.
15. Elevation (Show whether DF, RT, GR, etc.) 4290 (Surface)	12. County Sierra

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 ☒
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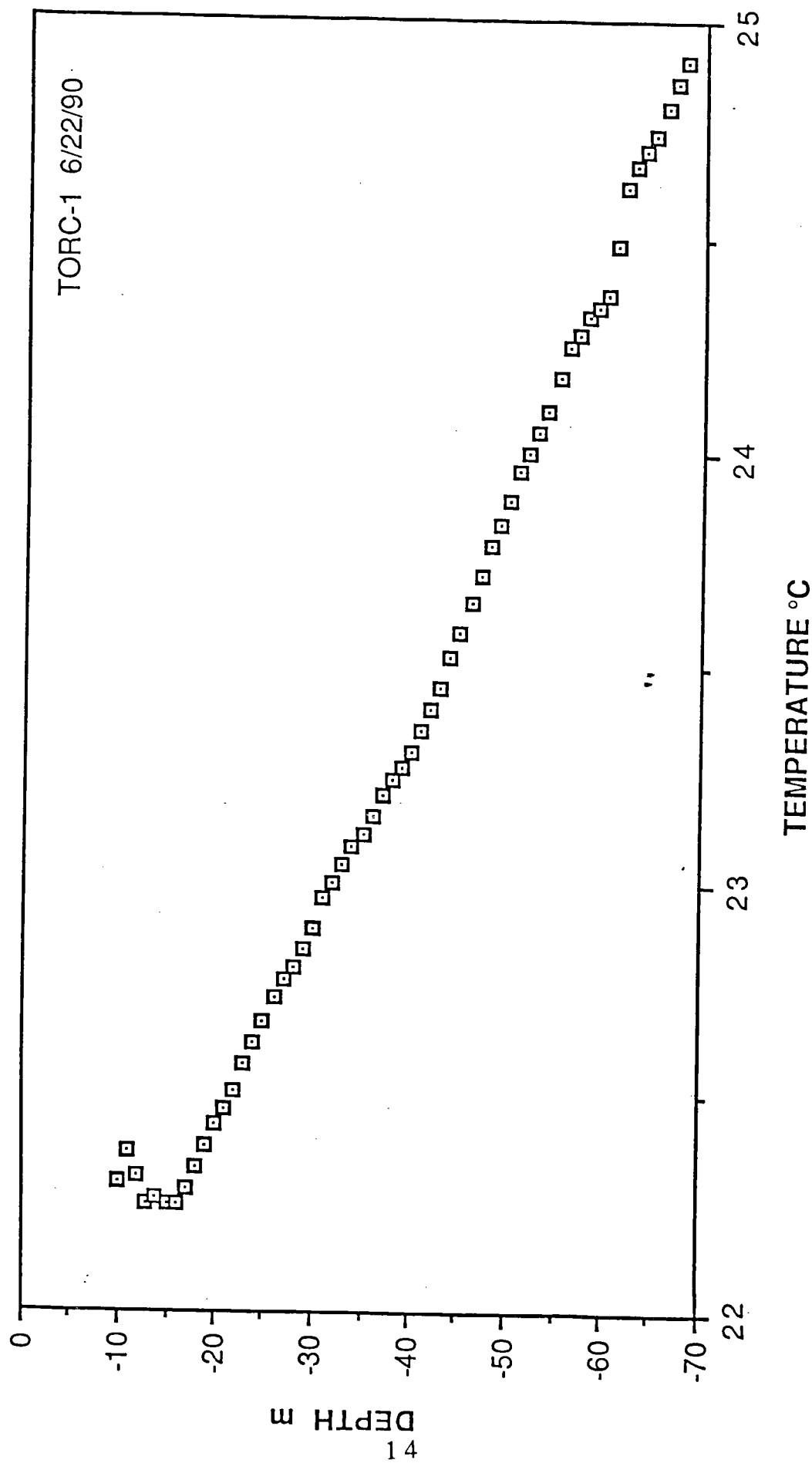


Figure 4b. Depth versus temperature plot for TORC-1.



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

May 21, 1996

United States Fidelity and Guaranty Co.
PO Box 7
Denver, Co. 80201-0007

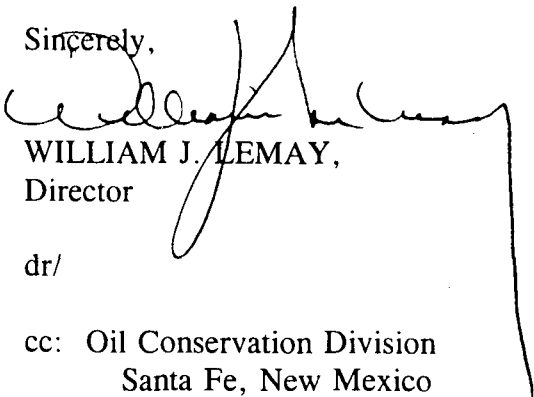
Attention: Julie M. Folwell

Re: \$5,000 One-Well Geothermal Bond
City of Truth or Consequences, Principal
United States Fidelity and Guaranty
Company, Surety
Bond No. 01-0130-320-80

Dear Ms. Folwell:

The Oil Conservation Division hereby approves cancellation of the above-referenced plugging bond and releases United States Fidelity and Guaranty Company of any liability.

Sincerely,


WILLIAM J. LEMAY,
Director

dr/

cc: Oil Conservation Division
Santa Fe, New Mexico

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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

Form G-101
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APPLICATION FOR PERMIT TO DRILL, DEEPEN,
OR PLUG BACK--GEOTHERMAL RESOURCES WELL

5. Indicate Type of Lease
STATE ☐ none FEE ☐

5.a State Lease No.
N/A

7. Unit Agreement Name
N/A

8. Farm or Lease Name
City of T. or C.

9. Well No.
TORC 1

10. Field and Pool, or Wildcat
T. or C.

12. County
Sierra

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 New Mexico State University
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3. Address of Operator P. O. Box 30001 Dept 3 SOL Las Cruces, New Mexico 88003
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AND 1470 FEET FROM THE east LINE OF SEC. 33 TWP. 13 south 4 west NMPM

19. Proposed Depth
300 feet

19A. Formation
Santa Fe Group

20. Rotary or C.T.
rotary

21. Elevations (Show whether DF, RT, etc.)
4290 feet

21A. Kind & Status Plug. Bond
*RIDER TO 10K MULTI-
WELL BOND FORTHCOMING*

21B. Drilling Contractor
Larjon

22. Approx. Date Work will start
May 1990

PROPOSED CASING AND CEMENT PROGRAM

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

Signed James C. Witcher Title Geologist Date 4 May 1990

(This space for State Use)

APPROVED BY R. E. Johnson TITLE DISTRICT SUPERVISOR DATE 5-24-90

CONDITIONS OF APPROVAL, IF ANY:

GEOTHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

Operator New Mexico State University Southwest Technology Development Institute		Lease City of T. or C.		Well No. TORC 1
Unit Letter J	Section 33	Township 13 south	Range 4 west	County Sierra

Actual Footage Location of Well:

1970	feet from the south	line and	1470	feet from the east	line
Ground Level Elev. 4290 feet	Producing Formation Tertiary Santa Fe Group	Pool T. or C.	Dedicated Acreage: 1.0 Acres		

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

CERTIFICATION

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

[Signature]
Name

James C. Witcher

Position

Geologist

Company

SWTDI-NMSU

Date

4 MAY 1990

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.

0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 6500 7000 7500 8000 8500 9000 9500 10000

SOUTHWEST TECHNOLOGY DEVELOPMENT INSTITUTE

Box 30001/Dept. 3SOL/Las Cruces, New Mexico 88003-0001
Telephone: (505) 646-1846
Telefax: (505) 646-2960



10 May 1990

Mr. Roy Johnson
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

Dear Roy:

Please find the enclosed OCD Forms G-101 and G-102 for a temperature-gradient hole drilling project in Truth or Consequences. Also, enclosed is a multiple-well bond to cover the drilling. A rider to this bond covering the T. or C. well is forthcoming in a few days. I am at 646-3949 if you need more information or have questions concerning the TORC-1 borehole. Thank you.

Sincerely,

A handwritten signature in cursive script, appearing to read 'J. C. Witcher'.

James C. Witcher
geologist

OIL CONSERVATION DIVISION

RECEIVED

SOUTHWEST TECHNOLOGY DEVELOPMENT INSTITUTE

Box 30001/Dept. 3SOL/Las Cruces, New Mexico 88003-0001
Telephone: (505) 646-1846
Telefax: (505) 646-2960



10 May 1990

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Oil Conservation Division
P. O. Box 2088
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geologist

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ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION
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Adopted 10-1-74
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APPLICATION FOR PERMIT TO DRILL, DEEPEN,
OR PLUG BACK--GEOTHERMAL RESOURCES WELL

5. Indicate Type of Lease
STATE ☐ none FEE ☐

5.a State Lease No.
N/A

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

7. Unit Agreement Name
N/A

8. Farm or Lease Name
City of T. or C.

2. Name of Operator New Mexico State University
Southwest Technology Development Institute

9. Well No.
TORC 1

3. Address of Operator P. O. Box 30001 Dept 3 SOL Las Cruces, New Mexico 88003

10. Field and Pool, or Wildcat
T. or C.

4. Location of Well UNIT LETTER J LOCATED 1970 FEET FROM THE south LINE
AND 1470 FEET FROM THE east LINE OF SEC. 33 TWP. 13 south RGE. 4 west NMPM

12. County
Sierra

21. Elevations (Show whether DF, RT, etc.) 4290 feet	21A. Kind & Status Plug. Bond	21B. Drilling Contractor Larjon	22. Approx. Date Work will start May 1990
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PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
6 inch	1-2 inch				

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.

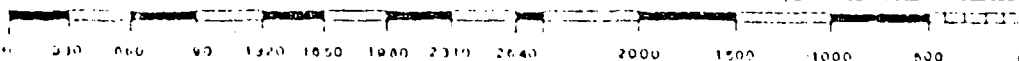
I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Signed James C. Witcher Title Geologist Date 4 May 1990
(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

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

Certificate No. _____

GEOHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

Operator New Mexico State University Southwest Technology Development Institute		Lease City of T. or C.		Well No. TORC 1
Unit Letter J	Section 33	Township 13 south	Range 4 west	County Sierra
Actual Footage Location of Well: 1970 feet from the south line and 1470 feet from the east line				
Ground Level Elev. 4290 feet	Producing Formation Tertiary Santa Fe Group	Pool T. or C.	Dedicated Acreage: 1.0 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 Division.

CERTIFICATION

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

[Signature]

Name James C. Witcher

Position Geologist

Company SWTDI-NMSU

Date 4 May 1990

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.

0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 6500 7000 7500 8000 8500 9000 9500 10000

GEOHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

Operator New Mexico State University Southwest Technology Development Institute		Lease		City of T. or C.		Well No. TORC 1	
Unit Letter J	Section 33	Township 13 south	Range 4 west	County Sierra			
Actual Footage Location of Well: 1970 feet from the south line and 1470 feet from the east line							
Ground Level Elev. 4290 feet	Producing Formation Tertiary Santa Fe Group		Pool T. or C.		Dedicated Acreage: 1.0 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).
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TORC 1 →○			

CERTIFICATION

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

James C. Witcher
Name
James C. Witcher

Position
Geologist

Company
SWTDI-NMSU

Date
4 May 1990

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

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0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 6500 7000 7500 8000 8500 9000 9500 10000

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

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

Form G-101
Adopted 10-1-74
Revised 10-1-78

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U.S.G.S.	
Operator	
Land Office	

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

5. Indicate Type of Lease
STATE ☐ none FEE ☐
5.a State Lease No.
N/A

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 New Mexico State University
Southwest Technology Development Institute
3. Address of Operator P. O. Box 30001 Dept 3 SOL Las Cruces, New Mexico 88003
4. Location of Well UNIT LETTER J LOCATED 1970 FEET FROM THE south LINE
AND 1470 FEET FROM THE east LINE OF SEC. 33 TWP. 13 south RGE. 4 west NMPM

7. Unit Agreement Name
N/A
8. Farm or Lease Name
City of T. or C.
9. Well No.
TORC 1
10. Field and Pool, or Wildcat
T. or C.

12. County
Sierra

19. Proposed Depth 300 feet 19A. Formation Santa Fe Group 20. Rotary or C.T. rotary
21. Elevations (Show whether DF, RT, etc.) 4290 feet 21A. Kind & Status Plug. Bond RIDER TO 10K MULTI-
WELL BOND FORTHCOMING 21B. Drilling Contractor Larjon 22. Approx. Date Work will start May 1990
PROPOSED CASING AND CEMENT PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
6 inch	1-2 inch				

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 James C. Witcher Title Geologist Date 4 May 1990

(This space for State Use)
APPROVED BY R. E. [Signature] TITLE DISTRICT SUPERVISOR DATE 5-24-90
CONDITIONS OF APPROVAL, IF ANY:

GEOHERMAL RESOURCES WELL LOCATION AND ACREAGE DEDICATION PLAT

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

Operator New Mexico State University Southwest Technology Development Institute		Lease City of T. or C.		Well No. TORC 1
Unit Letter J	Section 33	Township 13 south	Range 4 west	County Sierra
Actual Footage Location of Well: 1970 feet from the south line and 1470 feet from the east line				
Ground Level Elev. 4290 feet	Producing Formation Tertiary Santa Fe Group	Pool T. or C.	Dedicated Acreage: 1.0 Acres	

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TORC 1 →			

CERTIFICATION

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James C. Witcher

Name
James C. Witcher

Position
Geologist

Company
SWTDI-NMSU

Date
4 May 1990

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.

0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000 5500 6000 6500 7000 7500 8000 8500 9000 9500 10000