

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION COMMISSION

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

CASE NO. 10507 (DeNovo)
ORDER NO. R-9769-A

APPLICATION OF C & C LANDFARM INC.
FOR A COMMERCIAL SURFACE WASTE
DISPOSAL FACILITY, LEA COUNTY,
NEW MEXICO

APPLICATION FOR REHEARING
BY
ELSIE REEVES AND W. TRENT STRADLEY

This Application for Re-Hearing is submitted by W. Thomas Kellahin, Esq. and C. Gene Samberson, Esq. on behalf of W. T. (Trent) Stradley and S-W Cattle Co. and by W. Thomas Kellahin on behalf of Elsie M. Reeves (hereinafter collectively the Opponents").

In accordance with the provisions of Section 70-2-25 NMSA (1978), the Opponents request the New Mexico Oil Conservation Commission grant this Application for

Application for Re-Hearing
Case No. 10507 (DeNovo)
Page 2

ReHearing in Case 10507 (DeNovo) to correct erroneous findings and conclusions set forth in Order R-9769-A, attached as Exhibit "A" and to substitute Opponents' proposed Commission Order attached as Exhibit "B" hereto, and IN SUPPORT THEREOF OPPONENTS STATE:

INTRODUCTION

On April 27, 1993, the New Mexico Oil Conservation Commission met at a public meeting to enter its decision in this case. During that public deliberation, Commissioner Carlson, the only attorney on the Commission, correctly applied his legal training and concluded that C & C Landfarm Inc. ("Applicant") had failed to meet its "burden of proof."

Commissioner Weiss concluded that the Opponents had failed to meet their "burden of proof" because the Opponents' hydrologist had not visited the site and had not presented any site specific scientific data proving the probable contamination of ground water.

Commission LeMay made no public comments but voted with Commissioner Weiss to approve the Applicant's request.

GROUNDS FOR REHEARING

**POINT I: THE COMMISSION IGNORED THE ULTIMATE
ISSUE IN DISPUTE**

This is a simple case. The ultimate factual issue is whether this surface waste facility creates a risk of contamination to the fresh water aquifer from which Trent Stradley's well has produced continuously in excess of forty-five (45) years and is the only fresh water supply for cattle in some nine sections and is referred to herein as the "Stradley Aquifer."

To answer that issue, it is essential for the Commission to have proper scientific evidence about the Stradley Aquifer including its size, shape and recharge mechanics. The Applicant's failure to submit that evidence is fatal to its case and is what Commissioner

Application for Re-Hearing
Case No. 10507 (DeNovo)
Page 4

Carlson meant when he said the Applicant had failed to meet its "Burden of Proof."

The fact that the Applicant did not find the Stradley Aquifer with some five shallow monitor wells drilled on the proposed facility does not substitute for a proper hydrologic study to determine the risk to the Stradley Aquifer. Contaminates can be introduced on the surface and with the introduction of rain will percolate into the ground both vertically and horizontally and migrate into the Stradley Aquifer.

Nobody knows how the Stradley Aquifer is recharged and from what source. Nobody knows the size and shape of the Stradley Aquifer. The Commission ignored that absence of evidence and in doing so, failed to decide the ultimate issue in this case.

**POINT II: ORDER R-9769-A WAS ADOPTED BY A
 MAJORITY OF THE COMMISSION BASED
 UPON AN INCORRECT UNDERSTANDING OF
 "BURDEN OF PROOF"**

The Commission improperly placed the "Burden of Proof" on the Opponents to demonstrate that the waste facility would harm the fresh water aquifer. During public deliberations Commissioner Weiss commented that he had specifically edited Finding (13) of Order R-9769-A to place emphasis upon the Opponent's hydrologist's failure to visit the site and take samples and conduct tests.

The Commission missed the purpose of Mr. Kelly's testimony. As the only qualified hydrologic expert presented to the Commission on this matter, Mr. Kelly's testimony was to show the Commission what should be required of the Applicant (not the Opponents) before a proper decision could be made about this waste facility.

It is not the Opponents' burden to prove that this surface waste facility will contaminate the Stradley Aquifer. To the contrary, it is the Applicant's Burden of Proof to persuade the Commission that it will not.

The following is presented to guide the Commission in understanding the legal concept of "Burden of Proof." The term "proof" is the end result of conviction or persuasion produced by the evidence. The term encompasses two separate burdens of proof: one is the burden of producing evidence and the second is the burden of persuading the trier of fact that the alleged fact is true.

In this case, the alleged fact is that the approval of this facility will not pose a risk to ground water, human health and the environment. The Applicant always retains the ultimate burden of producing evidence AND the burden of persuasion that the facility would not pose a risk to the Stradley

Aquifer. The Applicant's failure to provide evidence of the size, shape and hydrology of the Stradley Aquifer from which the Stradley windmill produces fresh water is a failure of the Applicant to meet its "Burden of Proof."

All that the Opponents needed to do, they did by introducing evidence of the location of the fresh water sources in the Stradley Aquifer in close proximity to the waste facility. It then was the Applicant's Burden of Proof to produce the hydrologic study of the Stradley Aquifer which must provide convincing evidence that no risk was being imposed upon the Stradley Aquifer by this waste facility.

While the Applicant introduced evidence of five monitor wells having failed to encounter the Stradley Aquifer, the Applicant failed to provide evidence as to any of the following:

- (1) composition samples and tests
- (2) soil samples and tests
- (3) compaction tests
- (4) permeability tests

- (5) Cation Exchange capacity tests
- (6) liquid and plastic tests of the redbeds
- (7) any soil properties tests and data
- (8) any hydrology studies
- (9) any groundwater studies
- (10) any percolation tests or data
- (11) any ground water migration tests/data
- (12) any contaminant mobility tests/data

It is improper to put the Applicant's failure of proof on the Opponents.

**POINT III: THE COMMISSION VIOLATED EVIDENCE
RULE 703 WHEN IT REJECTED EXPERT
OPINIONS NOT BASED UPON PERSONAL
KNOWLEDGE OF THE EXPERT**

The Commission accepted the opinions of the Division's Environmental Bureau ("NMOCD-EB") even though its witness was not a hydrologist because she had made a personal visual inspection of the site. The Commission rejected the expert opinions of Mr. Kelly, the Opponent's qualified hydrologist, because he had not made a recent personal visual inspection of the site. The Commission ignored the fact that Mr. Kelly

had been present for and reviewed all of the transcripts and exhibits of the Division Examiner hearing of this case including the various topographical maps and testimony of others concerning the appearance of the facility and the site.

New Mexico Rule of Evidence 703 provides:

The facts or data in the particular case upon which an expert bases an opinion or inference may be those perceived by or made known to him at or before the hearing. If of a type reasonably relied upon by experts in the particular field in forming opinions or inferences upon the subject, the facts or data need not be admissible in evidence.

Apparently, the Commission failed to remember the testimony of Mr. Stradley who had repeatedly been over every part in this "White Breaks" area for decades. Mr. Stradley testified that the surface waste facility was located on the northeast edge of a natural topographical depression with his fresh water windmill located in the bottom of that depression and in excess of 30 feet lower than the surface waste facility. As an expert witness, Mr. Kelly does not have to

personally visit the site. He is entitled to rely upon the observations of Mr. Stradley and others and did so to support his expert opinions.

Mr. Kelly concluded that the likely direction of contaminant movement from the waste facility will be down gradient along the redbed surface. But there have been no hydrologic studies of the area to determine gradients and therefore no way to know the length of time and distance of travel of the contaminants. There has been no scientific study of the redbeds and the movement cannot be predicted. His point was that the Commission cannot approve this facility until that determination is made.

While a visual inspection of the surface of the facility is hardly scientific and does not allow the observer to divine the subsurface conditions in the area, the only inference for the Commission to have drawn from site inspection was that the surface topography would increase the risk of contamination to the Stradley Aquifer.

Application for Re-Hearing
Case No. 10507 (DeNovo)
Page 11

As an apparent excuse for disregarding the lack of technical data by the Applicant, the Commission decided this case based upon what witness had made a personal visual inspection of the site and thereby rejected the expert opinions of the Opponent's witness because he had not made a personal inspection of the site. Although the Commission enjoys the ability to relax the rules of evidence they should not decide cases based upon an erroneous application of those rules.

POINT IV: THE COMMISSION BASED ITS ORDER R-9769-A UPON FINDING (11) WHICH IS CONTRARY TO THE EVIDENCE AND CONTAINS AN IRRELEVANT FINDING.

Finding (11)(a):

"There is no fresh water under the disposal site because there is no Ogalalla aquifer present."

At the hearing the Commission raised the irrelevant issue of the location of the Ogalalla

aquifer and then used that irrelevant fact as a basis for approval of the Application. See Finding (11)(a). The aquifer at risk and for which the Commission failed to address any findings was the Stradley Aquifer in the shallow alluvium down slope from the proposed waste facility. The issue is where are the vertical and horizontal limits of that aquifer and its recharge system.

It is of no consequence whether the Ogalalla aquifer is present under the waste facility. However, if the Commission wants to decide this case based upon the presence or absence of the Ogalalla aquifer under the facility, it has made a fundamental error in finding the Ogalalla aquifer absent. In fact, the Ogalalla aquifer IS PRESENT UNDER this surface waste facility. See Exhibit "C" attached hereto and incorporated by reference.

To decide this case based upon location of an aquifer not at issue in this case is to wrongly decide this case.

Finding (11)(b):

"The berm to be constructed and maintained and operational requirements will be adequate to prevent precipitation run-off and run-on for the treatment portion of the facility"

This finding makes no grammatical sense. But more importantly, this finding is contrary to the evidence. There are no scientific data introduced on soils tests and therefore no compaction data, no composition data, and permeability data from which to determine the construction and maintenance standards for the berm. Further the order does not detail the constructions, maintenance or operations requirements for the berm.

This finding is simply an assumption without proper basis and cannot be supported by the record in this case.

**POINT V: THE COMMISSION ERRONEOUSLY BASED ITS
DECISION ON A "VISUAL INSPECTION OF THE
SURFACE OF THE SITE" AND IGNORED THE
ABSENCE OF A SCIENTIFIC HYDROLOGIC
STUDY**

The Commission erroneously based its decision on a visual inspection of the surface of the facility by a non-hydrologist staff member of the Oil Conservation Division's Environmental Bureau ("OCD-EB"). See Finding (14). The Commission also in error found it significant that the Opponents' hydrologist had not made a personal inspection of the surface of the facility.

The Commission ignored the testimony of Mr. Stradley about the slope of the topography and the fact the facility was some 35 feet higher in elevation to his down slop fresh water well. The Commission ignored the testimony of Opponent Reeves who had located and identified some forty-six (46) water wells in the area.

The Commission failed to explain how that surface inspection could substitute for a scientific hydrologic study of the potential contamination of Mr. Stradley's fresh water well.

**POINT VI: THE IS NO SUBSTANTIAL EVIDENCE TO
SUPPORT FINDING (12) CONCERNING A
NEED FOR THIS WASTE FACILITY**

Finding (12) states:

"There is a need for landfarms to
remediate oil contaminated soils in
the oil fields of Southeast New Mexico."

Contrary to this finding, the uncontested evidence was that the location of the facility was arbitrary; that the applicant had not conducted any economic analysis to justify this facility or establish its need; that there was nothing introduced about the capacity of existing OCD approved waste facilities or their location or inability to meet the "needs" of the industry; there was no testimony from any operator of oil & gas wells in this area supporting this application.

The Commission made an error. The need for this facility at this site was NOT established by substantial evidence.

**POINT VII: THE ADMINISTRATIVE PROCESS OF
THIS CASE AND ORDER R-9796-A
VIOLATE PROCEDURAL DUE PROCESS**

On October 8, 1991, the Applicant, C&C Landfarm, Inc. filed its application with the Division seeking authority to construct and operate a commercial "landfarm" facility ONLY for the remediation of soils contaminated with hydrocarbon substances with are exempt from the Federal Resources Conservation and Recovery Act (RCRA) on a 40-acre site owned by Jimmie T. Cooper. On November 27, 1991, notice concerning the original Application was published in The Lovington Daily Leader, a newspaper of general circulation in Lea County, New Mexico. No published notification was made of any of the amendments to the application.

The Commission granted the Applicant more than Applicant sought. While the Applicant only sought to construct and operate a commercial "landfarm" facility specifically limited to the remediation of non-hazardous hydrocarbon contaminated soils, the OCD Conditions appended to the Order R-9769-A as Exhibit "A" also authorize other contaminants to be received into the facility.

Specifically, OCD Conditions #1 and #10 set up a process for the Applicant to expand its waste facility to accept other contaminants and to do so without public notice or public hearing.

Since April, 1992, the Opponents have complained about receiving inadequate notice of about this Application, including the NMOCD-EB approving this facility and the various amendments to that Application without notice to Opponents. The public notice in this case is flawed and continues to violate due process. The Commission has perpetuated that violation of procedural due process by approving an order which

Application for Re-Hearing
Case No. 10507 (DeNovo)
Page 18

allows amendments to take place without public notice
or hearing.

**POINT VIII: THE COMMISSION FAILED TO PROPERLY AMEND
THE OCD-EB PROPOSED CONDITIONS DATED
JANUARY 6, 1993 AND THEREFORE ORDER
R-9769-A IS ARBITRARY, CAPRICIOUS AND
NOT SUPPORTED BY SUBSTANTIAL EVIDENCE**

Should the Commission disagree with the other
Points raised by the Opponents in this Application for
Rehearing, Order R-9769-A is still legally deficient
because certain conditions adopted by the Commission
are directly contrary to the uncontested evidence in
this case:

(1) Condition (2):

"No disposal or remediation of contaminated soils
will occur within one hundred (100) feet of your
property boundary."

The 100 foot horizontal setback ("buffer") was recommended by Kathy Brown of the OCD-EB. On cross examination, she admitted that there is no scientific basis for the distance being 100 feet.

A Buffer Zone is essential but the proper distance must be based upon some site specific scientific reasons to determine that distance is adequate. The Commission has adopted an arbitrary distance for the Buffer Zone without any scientific basis.

(2) Treatment Zone Monitoring:

The Commission has made a mistake when it adopted the OCD-EB proposed conditions concerning the Treatment Zone and its Monitoring. The OCD-EB speculates that the first three feet of native soils will be an adequate "Treatment Zone" and with monitoring will protect ground water.

Again, Kathy Brown, testifying in support of the adoptions of the OCD-EB conditions was not a qualified expert hydrologist and did not undertake an adequate scientific study to justify its Treatment Zone Monitoring.

The proposed monitoring of the Treatment Zone has no scientific basis for determining its reliability. There is no data from which to determine that the location of the cells in which the contaminated soils will be placed have been located an adequate distance from either the excavated pits or from the boundary of the adjoining Stradley property. Nobody knows how frequently to sample and how many samples per acre to take in order to detect contamination in the Treatment Zone. The OCD-EB Revised Recommendations are inadequate to detect any leaching process of movement of contaminants that could cause the pollution of nearby fresh water supplies.

In summary, while the OCD-EB recommendations are well intended, they are inadequate to provide reasonable protection of the valuable groundwater present in the immediate adjacent tracts.

**POINT IX: THE COMMISSION VIOLATED THE FASKEN,
 THE VIKING PETROLEUM AND THE CONTINENTAL
 OIL CASES WHEN ITS FAILED TO ADDRESS AND
 DECIDE THE OPPONENTS' ISSUES AND
 OBJECTIONS**

The Commission is required to make findings of ultimate facts which are material to the issues and to make sufficient findings to disclose the reasoning of the Commission in reaching its ultimate findings with substantial support in the record for such findings. Fasken v. Oil Conservation Commission, 87 N.M. 292, 532 P.2d 588 (1975). Continental Oil Company v. Oil Conservation Commission, 70 N.M. 310, 373 P.2d 809 (1962).

Likewise, in Viking Petroleum v. Oil Conservation Commission, 100 N.M. 451, 453, 672 P.2d 280 (1983), the

Application for Re-Hearing
Case No. 10507 (DeNovo)
Page 22

New Mexico Supreme Court reiterated its opinions in Continental Oil and Fasken, that administrative findings by the Commission should be sufficiently extensive to show the basis of the order and that findings must disclose the reasoning of the Commission in reaching its conclusions.

It is not enough in this case for the Commission to simply adopted the OCD-EB revised Conditions of Approval and to then append those conditions to Order R-9769-A as Exhibit "A." The Commission needs to articulate its decision on each of the conditions which were opposed by the Opponents.

The Commission failed to explain why it found it important to summarize the disputed Applicant's evidence but omitted a summary of the Opponent's evidence.

A rehearing is required, if for no other reason than for the Commission to adopt an adequate order

which complies with state law. An adequate order would specifically address the issues described in the Opponents' Pre-Hearing Statement and which are summarized as follows:

Opponent Stradley stated he has fresh water in the immediate vicinity of the subject project which he currently uses and which is at risk of contamination if this project is approved as outlined by the "OCD Conditions of Approval" notice dated May 20, 1992 or as outlined in "OCD Recommendations" dated January 6, 1993.

Opponent Reeves, after extensive personal search of the State Engineer's records concerning fresh water wells in the area introduced evidence of the presence of some forty-six (46) water wells in the area. The Commission, with no explanation, ignored that evidence.

The Applicant had some 240 contiguous acres from which to select a possible site for the facility. The Commission could have and should have required that

this facility be located farther north within the same tract of land controlled by the Applicant. Instead the Commission chose to avoid this solution and approved a facility on the southern end of the Applicant's tract adjacent to Mr. Stradley's tract. That puts the risk of contamination directly upon Mr. Stradley and not upon the Applicant.

The procedure applied by the Division in processing this case violated procedural due process. This was a make it up as you go process.

The NMOCD "Conditions of Approval" notice dated May 20, 1992 and "OCD Recommendations" dated January 6, 1993 contain substantial errors and fail to protect ground water, human health and the environment.

The subject facility is being designed by the OCD and not the Applicant and is being permitted without any science or experience to know that it will work and prior to the OCD adopting guidelines for such a facility.

The Opponents presented evidence that the granting of the application by the Commission failed to protect human health and the environment and constitutes a risk of contamination of ground water, including the following:

(a) The Applicant's proposed plan will place at risk shallow water wells located down-dip from the proposed landfarm which will be subject to contamination from seepage of leachate contaminants.

(b) The Applicant's plans to prevent migration of contaminants down gradient along the redbed surface is inadequate.

(c) The proposed monitor wells are improperly located and will not afford adequate assurance of detection of contaminants.

(d) The proposed dike identified in OCD Condition (10) in said Order is insufficient and conditions on compaction and verification are inadequate to stop the mobility of the leachate contaminants.

(e) The composition of the berm is not environmentally safe.

(f) Additional soil tests should be performed on the redbed soil including:

- (1) Falling head permeability tests,
- (2) Soil property tests,
- (3) Cation Exchange Capacity tests,

(g) Applicant needs to perform liquid and plastic tests on the redbeds.

(h) The Applicant's proposed barrier is inadequate for its proposed landfarm.

(i) Applicant's geology is inadequate and fails to include an east-west cross section.

The OCD-Environmental Bureau's (OCD-EB) January 6, 1993 Recommendations assume that the contaminated soils will be kept from any shallow fresh water because of about 10 feet of native soil being used as a "treatment zone."

There is no characterization of the "redbeds." In this area there are the Triassic deposits, probably the Chinle shale, and referred to as the "redbeds." The integrity of this landfarm system is dependent upon the impermeability of the redbeds, but the Applicant has presented no data about the physical characteristics of these deposits, such as cation exchange rates, in-situ permeability, remolded permeability at specified compaction ratios, swelling characteristics, etc. All of these are critical factors that ensure that there would be no migration of leachate along the top of or through the redbeds.

There are inadequate horizontal and vertical buffer zones surrounding this proposed facility. The configuration of the upper surface of the redbeds in the 40-acre tract has not been defined.

Commission Order R-9769-A is fatally flawed and should be withdrawn and a Rehearing granted to address all of the issues set forth in this Application for Rehearing.

CONCLUSION

The Commission should withdraw Order R-9769-A and substitute Order R-9697-B which is attached hereto as Exhibit A and incorporated herein by reference. In order to preserve Opponents' right to further appeals of this matter, all of the issues set forth in our proposed Order R-9697-B are made a part of this Application for Rehearing.

Respectfully submitted,

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STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION COMMISSION

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

Case No. 10507 (De Novo)
Order No. R-9769-A

APPLICATION OF C & C LANDFARM, INC.
FOR A COMMERCIAL SURFACE WASTE
DISPOSAL FACILITY, LEA COUNTY,
NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9:00 a.m. on February 25, 1993, at Santa Fe, New Mexico, before the Oil Conservation Commission of the State of New Mexico, hereinafter referred to as the "Commission."

NOW, on this 29th day of April, 1993, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) Sections 70-2-12.B(21) and (22) N.M.S.A. (1978) Compilation, also known as the New Mexico Oil and Gas Act, authorizes the New Mexico Oil Conservation Commission ("Commission") to regulate the disposition of non-domestic wastes resulting from various oil and gas activities and operations and to protect public health and the environment.

(3) The applicant, C & C Landfarm, Inc. (C & C) filed an application, pursuant to General Rule 711 with the Division on October 8, 1991 seeking authorization to construct and operate a commercial landfarm facility for the remediation of non-hazardous and exempt hydrocarbon contaminated soils. C & C proposes to utilize biodegradation process on a site located in the SW/4 NE/4 (Unit G) of Section 2, Township 20 South, Range 37

EXHIBIT A TO APPLICATION
FOR REHEARING

East, NMPM, Lea County, New Mexico, which is located approximately two miles southeast of Monument, New Mexico. The term "non-hazardous and exempt" is synonymous as defined in the Resource Conservation and Recovery Act (RCRA) Subtitle C Regulations.

(4) This application was reviewed by the Environmental Bureau of the Oil Conservation Division and determined to be approvable.

(5) A Division Examiner hearing was scheduled to provide to interested parties an opportunity to present technical evidence why this application should not be approved pursuant to the applicable rules of the Division.

(6) Within the time frame authorized by Division rule, certain parties of interest filed written objections to the proposed facility including Elsie M. Reeves and W. T. Stradley, President of S-W Cattle Company.

(7) An Examiner hearing was held on September 1, 1992 at which time Elsie M. Reeves and W. T. Stradley presented evidence in opposition to this application.

(8) On November 16, 1992 the Division entered Order No. R-9769 approving this application and thereafter Elsie M. Reeves, S-W Cattle Company and W. T. Stradley timely filed for a hearing De Novo.

(9) Properly managed landfarming is an excellent method to manage contaminated soil, because those soils are remediated to a useful condition and contaminants can be contained and any movement observed and stopped before they cause any harm.

(10) The proposed landfarm is to be located on a forty-acre tract of land, as described in Finding Paragraph No. (3) which is bordered on the east by Lea County Road No. 58. Oil field contaminated soils will be trucked to the site and deposited within cells in six inch lifts; these soils will be tilled or plowed to ensure proper aeration and bioremediation to proper government standards. Prior to any soil being deposited in a cell, the soil in the cell or "treatment zone" will be sampled and tested. Six months after the first oil field contaminated soil is deposited in the cell and quarterly thereafter the treatment zone will be tested again to assure that no contamination is occurring.

(11) Applicant presented factual evidence that supports the following conclusions:

- (a) There is no fresh water under the disposal site because there is no Ogalalla aquifer present.
- (b) The berm to be constructed and maintained and operational

requirements will be adequate to prevent precipitation run-off and run-on for the treatment portion of the facility.

- (c) Quarterly testing within the treatment zone will determine if there has been downward migration of contaminants.
- (d) The process of bio-remediation to be employed at the proposed landfarm is a proven, cost effective technology for treatment of oil contaminated soils.

(12) There is a need for landfarms to remediate oil contaminated soils in the oil fields of Southeast New Mexico.

(13) Elsie M. Reeves and W. T. Stradley, property owners in the area, appeared in opposition to the application and expressed concern that the proposed facility could contaminate fresh water. They called a hydrologist who testified that additional requirements might be necessary to assure there was no contamination of fresh water supplies but admitted that such requirements would need to be developed based on inspection of the facility and sampling and testing of the water and soil in the area. He stated he had not been to the site and had taken no samples nor conducted any tests at the proposed facility. His expert opinion was based upon general hydrologic information from the literature and not upon specific knowledge at the site and the type of operation and therefore was not useful in this case.

(14) The Division's Environmental Bureau has reviewed the proposed facility, inspected the site and made specific permit recommendations for this facility which it requests be incorporated into and made part of a Commission Order approving this application. These "Conditions of Approval" should be adopted to assure safe operations and to provide for a monitoring system to detect any leaching or movement of contaminants that could cause the pollution of nearby underground fresh water supplies.

(15) If contaminant migration occurs, the Division should immediately order the operator to stop taking additional contaminated soils and implement steps to remediate the contaminated zone and provide a procedure to prevent future contamination migration.

(16) Approval of this application and operation of the proposed landfarm in accordance with the Environmental Bureau's proposed "Conditions of Approval" will not impair fresh water supplies in the area, will have no adverse effect on human health nor on the environment, will not cause waste and should be approved.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, C & C Landfarm, Inc. is hereby authorized to construct and operate a commercial "landfarm" facility for the remediation of non-hazardous hydrocarbon contaminated soils utilizing an enhanced biodegradation process on a site located in the SW/4 NE/4 (Unit G) of Section 2, Township 20 South, Range 37 East, NMPM, Lea County, New Mexico.

PROVIDED HOWEVER THAT: the proposed facility shall be constructed and operated in accordance with the permit conditions attached hereto as Exhibit "A" which are incorporated herein and made a part of this order, and in accordance with such additional conditions and requirements as may be directed by the Division Director, and shall be operated and maintained in such a manner as to preclude spills, fires, limit emissions and protect persons, livestock and the environment.

PROVIDED FURTHER THAT, prior to initiating operations, the facility shall be inspected by a representative of the Hobbs District Office of the Oil Conservation Division in order to determine the adequacy of fences, gates and cattle guards necessary to preclude livestock and unauthorized persons from entering and/or utilizing said facility, and also to determine the adequacy of berms to assure safe facility operations.

(2) Prior to commencing operations on said facility, the applicant shall submit, to the Santa Fe Office of the Division, a surety or cash bond pursuant to General Rule 711, in the amount of \$25,000 in a form approved by the Division.

(3) The Director of the Division shall be authorized to administratively grant approval for the expansion or modification of the proposed disposal facility after notice to interested parties.

(4) Authority for operation of the landfarm shall be transferrable only upon written application and approval by the Division Director.

(5) Authority for operation of the landfarm facility shall be suspended or rescinded whenever such suspension or rescission appears necessary to protect human health or property, to protect fresh water supplies from contamination, to prevent waste, or for non-compliance with the terms and conditions of this order or Division Rules and Regulations.

(6) The permit granted by this order shall become effective only upon acceptance by the applicant of the "Conditions of Approval" attached hereto as Exhibit A.

(7) The Division shall have the authority to administratively change any condition

Page 5
Case No. 10507 (De Novo)
Order No. R-9769-A

of this permit to protect fresh water, human health and the environment. Applicant may request a hearing upon any change which materially affects the operation of the facility.

(8) Jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Bill Weiss

WILLIAM W. WEISS, Member

William J. Lemay

WILLIAM J. LEMAY, Chairman

I Dissent

Gary Carlson

GARY CARLSON, Member

S E A L

dr/

Exhibit "A"
Case No. 10507 De Novo
Order No. R-9769-A

**C & C LANDFARM, INC. APPLICATION
OCD CONDITIONS OF APPROVAL**

LANDFARM OPERATIONS

1. Remediation of contaminated soils will occur only on the native ground surface. The caliche pit present on the facility will not be used for the disposal, storage or remediation of **any materials** without the case-by-case approval of the OCD.
2. No disposal or remediation of contaminated soils will occur within one hundred (100) feet of your property boundary.
3. Disposal will only occur when an attendant is on duty. The facility will be secured when attendant is not present.
4. The facility will be fenced and have a sign at the entrance. The sign will be legible from at least fifty (50) feet and contain the following information: 1) name of the facility, b) location by section, township and range, and c) emergency phone number.
5. An adequate berm will be constructed and maintained to prevent run-off and run-on for that portion of the facility containing contaminated soils.
6. All contaminated soils received at the facility will be spread and disked within 72 hours of receipt.
7. Soils will be spread on the surface in six inch lifts or less.
8. Soils will be disked a minimum of one time every two weeks (biweekly) to enhance biodegradation of contaminants.
9. Successive lifts of contaminated soils will not be spread until a laboratory measurement of Total Petroleum Hydrocarbons (TPH) in the previous lift is less than 100 parts per million (ppm), and the sum of all aromatic hydrocarbons (BTEX) is less than 50 ppm, and the benzene is less than 10 ppm. Comprehensive records of the laboratory analyses and the sampling locations will be maintained at the facility. Authorization from the OCD will be obtained prior to application of successive lifts.
10. Only oilfield wastes which are exempt from RCRA Subtitle C regulations or non-hazardous by characteristic testing will be accepted at the facility. Solids from operations not currently exempt under RCRA Subtitle C or mixed exempt/non-exempt solids will be tested for appropriate hazardous constituents. Test results must

be submitted to the OCD along with a request to receive the non-exempt solids, and a written OCD approval (case specific) must be obtained prior to disposal. Any non-oilfield wastes which are RCRA Subtitle C exempt or are non-hazardous by characteristic testing will only be accepted on a case-by-case basis and with prior OCD approval. Comprehensive records of all laboratory analyses and sample locations will be maintained by the operator.

11. Moisture will be added as necessary to enhance bio-remediation and to control blowing dust. There will be no ponding, pooling or run-off of water allowed. Any ponding of precipitation will be removed within seventy-two (72) hours of discovery.
12. Enhanced bio-remediation through the application of microbes (bugs) and/or fertilizers will only be permitted after prior approval from the OCD. Request for application of microbes must include the location of the area designated for the bio-remediation program, composition of additives, and the method, amount and frequency of application.
13. No free liquids or soils with free liquids will be accepted at the facility.
14. Comprehensive records of all material disposed of at the facility will be maintained at the facility. The records for each load will include: 1) the origin, 2) date received, 3) quantity, 4) exempt or non-exempt status and analysis for hazardous constituents if required, 5) transporter, and 6) exact cell location and any addition of microbes, moisture, fertilizers, etc.
15. The monitor wells will be inspected for the presence of fluids on a quarterly basis on the same schedule as the treatment zone monitoring. If fluids are discovered the OCD will be notified immediately.

TREATMENT ZONE MONITORING

1. One (1) background soil sample will be taken from the center portion of the landfarm two (2) feet below the native ground surface. The sample will be analyzed for total petroleum hydrocarbons (TPH), general chemistry, and heavy metals using approved EPA methods.
2. A treatment zone not to exceed three (3) feet beneath the landfarm will be monitored. A minimum of one random soil sample will be taken from each individual cell, with no cell being larger than five (5) acres, six (6) months after the first contaminated soils are received in the cell and then quarterly thereafter. The sample will be taken at two to three (2-3) feet below the native ground surface.
3. The soil samples will be analyzed using approved EPA methods for TPH and BTEX quarterly, and for general chemistry and heavy metals annually.
4. After obtaining the soil samples the boreholes will be filled with an impermeable

material such as bentonite cement.

REPORTING

1. Analytical results from the treatment zone monitoring will be submitted to the OCD Santa Fe Office within thirty (30) days of receipt from the laboratory.
2. The OCD will be notified of any break, spill, blow out, or fire or any other circumstance that could constitute a hazard or contamination in accordance with OCD Rule 116.

BOND

Pursuant to OCD Rule 711 a surety or cash bond in the amount of \$25,000, in a form approved by the Division, is required prior to commencing construction of the commercial surface disposal facility.

CLOSURE

The operator will notify the Division of cessation of operations. Upon cessation of disposal operations for six (6) consecutive months, the operator will complete cleanup of constructed facilities and restoration of the facility site within the following six (6) months, unless an extension for time is granted by the Director. When the facility is to be closed no new material will be accepted. Existing soils will be remediated until they meet the OCD standards in effect at the time of closure. The area will then be reseeded with natural grasses and allowed to return to its natural state. Closure will be pursuant to all OCD requirements in effect at the time of closure, and any other applicable state and/or federal regulations.

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION COMMISSION

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

CASE NO. 10507 (DENOVO)
ORDER NO. R-9769-B

APPLICATION OF C & C LANDFARM, INC.
FOR A COMMERCIAL SURFACE WASTE
DISPOSAL FACILITY, LEA COUNTY, NEW MEXICO.

ELSIE REEVES AND W. TRENT STRADLEY'S
PROPOSED
ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9:00 AM on Thursday, February 25, 1993, at Santa Fe, New Mexico, before the Oil Conservation Commission of New Mexico, hereinafter the "Commission."

NOW, on this 20th day of May, 1993, the Commission, a quorum being present, having considered the testimony presented and the exhibits received at said hearing, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.

(2) The New Mexico Oil and Gas Act, Section 70-2-12.B(21) and (22), NMSA (1978) authorizes the New Mexico Oil Conservation Division ("Division") to regulate the disposition of non-domestic wastes resulting from various oil and gas activities and operations and to protect public health and the

environment.

(3) Pursuant to that authority the Division has adopted regulations governing the operation of commercial surface waste disposal facilities (Rule 711 of the Rules and Regulations of the Oil Conservation Division, hereinafter "OCD Rules").

(4) On October 8, 1991, the Applicant, C & C Landfarm, Inc. ("C&C"), filed its Application with the Division seeking authority to construct and operate a commercial "landfarm" facility ONLY for the remediation of soils contaminated with hydrocarbon substances which are exempt from the Federal Resource Conservation and Recovery Act (RCRA), (42 USA 6921-6939b), Subtitle C regulations (40 CFR Parts 260-272) on a 40-acre site, owned by Jimmie T. Cooper and located in the SW/4NE/4 (Unit G) of Section 3, Township 20 South, Range 37 East, NMPM, Lea County, New Mexico, which is approximately two miles southeast of Monument, New Mexico.

(5) In its original Application, C&C applied for approval to excavate the native soil within the facility down to the Triassic formation ("redbeds") (about 10-16 feet) and then to fill the excavated pit with hydrocarbon contaminated soils.

(6) C&C asserted it had drilled five "monitor" wells within the 40-acre site and did not encounter groundwater under the facility.

(7) The Oil Conservation Division's Environmental Bureau ("OCD-EB") commenced processing the C&C application pursuant to Division Rule 711 which provides among other things that "If there is objection by owners or occupants of adjacent lands, the Director of the Division may set any application for a surface waste disposal permit for public hearing."

(8) On November 27, 1991 public notice concerning the subject Application was published in The Lovington Daily Leader, a newspaper of general circulation in Lea County, New Mexico.

(9) Within the 30-day public notice provision set forth in OCD Rule 711(B), written objections were filed with the Division by Elsie M. Reeves and W. T. "Trent" Stradley of S-W Cattle Company, each of whom is an adjoining land owner and unless otherwise stated are referred herein collectively as "Opponents."

(10) Despite receiving timely objections from the Opponents, the OCD did not set the C&C Application for hearing, but rather continued with its administrative processing.

(11) On February 21, 1992, the OCD-EB wrote to C&C expressing, among other things, concern for the "possibility of contaminants migrating off of your property along the surface of the redbed" and requested a detailed description of how C&C planned to prevent the migration of contaminants down gradient along the redbed surface.

(12) On March 2, 1992, C&C submitted to OCD-EB a schematic for the excavated pit now showing a proposal to install a "redbed dike" on the south, west and north edges of the facility with the south edge of the dike touching the north edge of the Stradley property.

(13) On April 3, 1992, OCD-EB notified the Opponents that, "The application at this time is administratively approvable since it meets all of the technical requirements to protect ground water, human health and the environment." and informs the Opponents that they had 30-days to submit comments which responded with "substantive technical information."

(14) The Opponents renewed their protest and filed objections which raised the following issues:

(a) That the OCD-EB "Conditions of Approval" contained substantial errors and failed to protect ground water, human health and the environment;

(b) That C&C's proposed facility would place at risk shallow water wells located down-dip from the facility which will be subject to contamination from seepage of leachate contaminates;

(c) That there was inadequate notice of the C&C Application and of the various amendments to that Application and that the Application, as amended, should be dismissed;

(d) That the administrative processing by the OCD-EB had violated procedural due process and did not comply with the rules of the OCD;

(e) That the Application requested approval of a 40-acre tract but proposed to use only 2 acres;

(f) That the OCD-EB proposed to grant C&C significantly greater disposal authority than the C&C had requested;

(g) That C&C's plan to prevent migration of contaminants down gradient along the redbed surface was inadequate;

(h) That there was no scientific data submitted by the Applicant to support its Application; and

(i) That the design of the facility was grossly inadequate.

(15) On May 20, 1992, the OCD-EB notified the Opponents that the OCD-EB, without a hearing, would grant the C&C application subject to the "Conditions of Approval" dated May 20, 1992.

(16) Prior to June 9, 1992, the Opponents again requested a public hearing.

(17) Finally the OCD set a hearing not for C&C to present its case but rather for the limited purpose of hearing the Opponents' technical evidence in opposition to the OCD-EB conditional approval of May 20, 1992.

(18) The limited Hearing was held before OCD Examiner Michael Stogner on September 1, 1992.

(19) On November 16, 1992, the OCD issued Order R-9769 approving the disposal of contaminated soils and solids into the excavated pit subject to the May 20, 1992 conditions proposed by the OCD-EB.

(20) The Opponents timely filed for a DeNovo hearing of Case 10507 before the Commission.

(21) On January 6, 1993, the OCD-EB issued newly proposed "Revised Recommendations" which provided for the disposal of the contaminated soils within the facility but precluded disposal into the excavated pits.

(22) At the Commission Hearing, C&C presented the following in support of its Application:

(a) That out of the 200 acres controlled by Jimmie Cooper, C&C proposed to use a 40-acre tract the southern boundary of which is immediately adjacent to a tract controlled by Trent Stradley;

(b) That C&C had not examined any other site in this area or any other portion of the Cooper tract as a possible site;

(c) That it had drilled five "monitor" wells within the 40-acre site and did not encounter groundwater under the facility;

(d) That it proposed to limit the material taken into the facility to oil field contaminated soils; and

(e) That it would adopt and abide by all of the OCD-EB Revised Recommendations dated January 6, 1993.

(23) At the Commission Hearing, the Opponents presented the following in opposition to the Application:

(a) That C&C failed to present a qualified expert hydrologist and did not undertake an adequate scientific study to justify its Application;

(b) That Stradley's fresh water windmill well some 1,700 feet to the southwest of the facility is at risk of contamination if the project was approved as outlined by the OCD-EB;

(c) The location of the facility within this proposed 40-acres within the Cooper tract is arbitrary;

(d) C&C failed to provide any reasonable reasons for selecting this site over available sites within the Cooper property which would be farther away from Stradley and Reeves;

(e) The need for this facility at this site was not established;

(f) The design of the facility is flawed and will not provide adequate protection for ground water, public health or the environment;

(g) The 100 foot buffer recommended by the OCD-EB is arbitrary and inadequate;

(h) The proposed monitoring of the treatment zone has no scientific basis for determining its reliability;

(i) There is no data from which to determine that the location of the cells in which the contaminated soils will be placed have been located an adequate distance from either the excavated pits or from the boundary of the adjoining Stradley property;

(j) The OCD-EB recommendations, while well intended, are inadequate to provide reasonable protection of the valuable groundwater present in the immediately adjacent tract;

(k) The facility is an environmental accident waiting to happen;

(l) The \$25,000 Bond recommended by the OCD-EB is grossly inadequate;

(m) The Applicant failed to undertake any scientific study and allowed the OCD-EB to attempt to design the facility for the Applicant based upon the OCD-EB's best guess; and

(n) The January 6, 1993 OCD-EB Revised Recommendations are inadequate to detect any leaching process or movement of contaminants that could cause the pollution of nearby underground fresh water supplies.

(24) At the Commission Hearing, the OCD-EB presented the following in support of its January 6, 1993 Revised Recommendations:

(a) Although the OCD-EB originally approved the C&C request to place contaminated soils into the excavated pits, the OCD-EB now (January 6, 1993) recommends against such a request;

(b) C&C originally sought to put the facility and contaminated soils right up to the property line common with Trent Stradley. The OCD-EB May 20, 1992 conditions approved the facility without a set back or "buffer zone." The OCD Order approved the application also without a buffer zone. Now, the OCD-EB proposes a 100 foot setback from the property line as a "buffer zone."

(c) The OCD-EB admitted that the 100 foot buffer was an arbitrary distance without any scientific basis;

(d) The integrity of the proposed landfarm is dependent upon the impermeability of the redbeds and the apparent absence of shallow groundwater at five locations under the facility;

(e) The OCD-EB proposes that the first three feet of native soils will be an adequate "treatment zone" and proper monitoring will protect ground water;

(f) The OCD-EB January 6, 1993 Recommendations are predicated upon the assumption that the contaminated soils will be kept from any shallow ground water by monitoring for potential contaminant in a "treatment zone" consisting of the first three feet of native soil upon which the contaminated soils have been placed; and

(g) The OCD-EB proposes that a single soil sample can be taken at the center of the facility and provide a background soil sample.

(25) It is of significance to the Commission, which must rely upon expert witnesses, to judge the creditability and expertise of each such witness.

(26) In this case, the Opponents presented a well-recognized geohydrologist with both bachelor and master degrees in hydrology who had specific knowledge of the immediate subject area and who has testified before this Commission on a number of prior occasions.

(27) C&C relied upon a petroleum geologist without expertise in hydrology who had not undertaken any hydrology studies and who was unable to express any expert opinions concerning this matter.

(28) The OCD-EB relied upon the testimony of a petroleum geologist, who had in fact designed the facility for C&C, but who had no hydrology degrees and no experience with the actual operation of this type of facility.

(29) Based upon the foregoing and upon the entire record in this case, the Commission finds that:

(a) The rebeds are the first layer which will divert shallow ground water but they have not been mapped in this area and their characteristics are unpredictable;

(b) the Applicant presented no data about the physical characteristics of the rebeds such as cation exchange rates, in-situ permeability, remolded permeability at specified compaction ratios, swelling characteristics, etc., all of which would be critical factors to ensure that there is no migration of leachate along the top of or through the rebeds;

(c) Although the OCD-EB on February 21, 1992 expressed its concern about the potential migration of contaminants down gradient along the rebed surface, there is no evidence of any hydrologic studies of the area to determine the direction of migration of contaminants;

(d) There was no scientific data presented to support the OCD-EB conclusion that the disposal of contaminated soils on top of undisturbed native soil constitutes an adequate vertical buffer between the contaminants and the potential source of ground water recharge to the Stradley windmill water well;

(e) Although a monitoring procedure of the treatment zone is proposed, there is no assurance that such a monitoring procedure will timely detect potential contaminants and the facility should be substantially removed from any potential ground water both horizontally and vertically so as not to pose a risk;

(f) The OCD-EB proposed monitoring system for the "treatment zone" is inadequate and not based upon either experience with similar sites nor upon published scientific literature;

(g) An adequate horizontal "buffer zone" is essential but there is no evidence, scientific data, experience or anything else presented to determine what that distance should be;

(h) C&C's proposed facility is the 40-acre tract at the SE corner of a 200 acre tract owned by Jimmie Cooper. The NE/4 40-acre tract appears to be sufficiently removed from the Stradley tract so as not to pose a risk to his groundwater but no effort was made by C&C to investigate the feasibility of any alternative sites;

(i) While C&C expressed a "need" for this facility there was no economic justification for this facility presented;

(j) There was no evidence presented as to the risk to public health and the environment when contaminated soils are concentrated at this facility rather than leaving those contaminants at the well sites;

(k) The OCD-EB January 6, 1993 Recommendations propose that one soil sample of the treatment zone be taken quarterly for not more one sample for a 50-acre tract.

(l) The Applicant did not present any soil samples or analysis for the facility;

(m) There have been no studies to determine if a single soil sample will be representative of the soil conditions and characteristics over the entire 40-acre tract;

(n) There was no evidence introduced from which to determine how frequently to sample and how many samples per how many acres should be taken;

(o) A single soil sample monitoring procedure is inadequate;

(p) The OCD-EB proposed sampling assumes the ability to detect contaminants percolating into the native soil treatment zone but is not based upon anything more than speculation;

(q) There are no published scientific reports or OCD-EB experience about any similar facilities from which to determine the potential success or failure of the proposed treatment zone monitoring;

(r) That while the C&C application sought approval ONLY for disposal of oil field contaminated soils, the OCD-EB proposed to allow the disposal of oil field solids and other contaminates;

(s) That the OCD-EB Revised Recommendations provide a method for future modification of the C&C facility which fails to provide adequate public notice and will violate procedural due process; and

(t) That the OCD-EB Rules and Regulations fail to provide adequate protection for ground water, public health or the environment.

(30) The Commission finds that the Application should be DENIED.

IT IS THEREFORE ORDERED THAT:

(1) This application is hereby DENIED.

(2) Order No. R-9769, entered in this matter on November 16, 1992, and Order R-9769-A entered in this matter on April 29, 1993 are hereby rescinded and are of no effect.

NMOCD Case No. 10507 (DeNovo)
ORDER NO. R-9769-B
Page 12

(3) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

GARY CARLSON
Member

WILLIAM W. WEISS
Member

WILLIAM J. LeMAY
Chairman

Geohydrology Associates, Inc.

May 17, 1993

W. Thomas Kellahin, Esq.
P. O. Box 2265
Santa Fe, New Mexico 87501

RE: C & C LANDFARM

Dear Tom:

By FAX I am sending copies of a portion of a map prepared by Nicholson and Clebsch, which clearly shows that the C & C Landfarm facility is located well within the outcrop area of the Ogallala formation. Also listed below are four other references, all of which have mapped the site within the outcrop area of the Ogallala.

Conover, C. S. and Akin, P. D., 1942, Progress report on the ground water supply of northern Lea County, New Mexico: New Mexico State Engineer Biennial Report.

Bretz, J. H., 1949, The Ogallala formation west of the Llano Estacado: Journal of Geology.

Judson, S. S., Jr., 1950, Depressions of the northern portion of the southern High Plains of eastern New Mexico: Geological Society of America Bulletin.

Dane, C. H. and Bachman, G. O., 1965, Geologic map of New Mexico: U. S. Geological Survey and New Mexico Bureau of Mines.

Hopefully this information will be of use to you.

Sincerely,

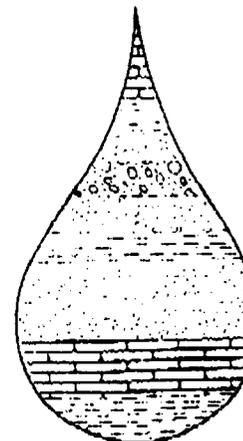
GEOHYDROLOGY ASSOCIATES, INC.

T. E. Kelly
T. E. Kelly
President

attachment

TEK/kc

EXHIBIT C TO APPLICATION
FOR REHEARING



GEOHYDROLOGY ASSOC., INC.

GROUND-WATER REPORT 6

Geology and Ground-Water Conditions in Southern Lea County, New Mexico

by ALEXANDER NICHOLSON, Jr.
and ALFRED CLEBSCH, JR.

UNITED STATES GEOLOGICAL SURVEY

Prepared in cooperation with the
New Mexico Institute of Mining and Technology,
State Bureau of Mines and Mineral Resources Division
and the New Mexico State Engineer

1961

STATE BUREAU OF MINES AND MINERAL RESOURCES
NEW MEXICO INSTITUTE OF MINING & TECHNOLOGY
CAMPUS STATION SOCORRO, NEW MEXICO

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