

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

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

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 din 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.

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 contaminates 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 contaminates 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

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 <u>Viking Petroleum v. Oil Conservation</u>
Commission, 100 N.M. 451, 453, 672 P.2d 280 (1983), the

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 (<u>De Novo</u>) 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 <u>19th</u> 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

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 <u>De Novo</u>.
- (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 runon 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.

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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

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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 Whis
WILLIAM W. WEISS, Mornber

WILLIAM J. LEMAY, Chairman

I Dissent

GARY CARLSON, Member

SEAL

dr/

Exhibit "A" Case No. 10507 <u>De Novo</u> 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

EXHIBIT B APPLICATION FOR REHEARING

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 is 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;
- (1) 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 redbeds 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 redbeds 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 redbeds;
- (c) Although the OCD-EB on February 21, 1992 expressed its concern about the potential migration of contaminants down gradient along the redbed surface, there is no evidence of any hydrologic studies of the area to determine the direction of migration of contaminates;
- (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 contaminates 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 50acre tract.
- (1) 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 40acre 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.

(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.

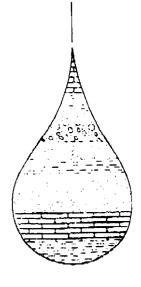
T. E. Kelly President

Tim Le

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

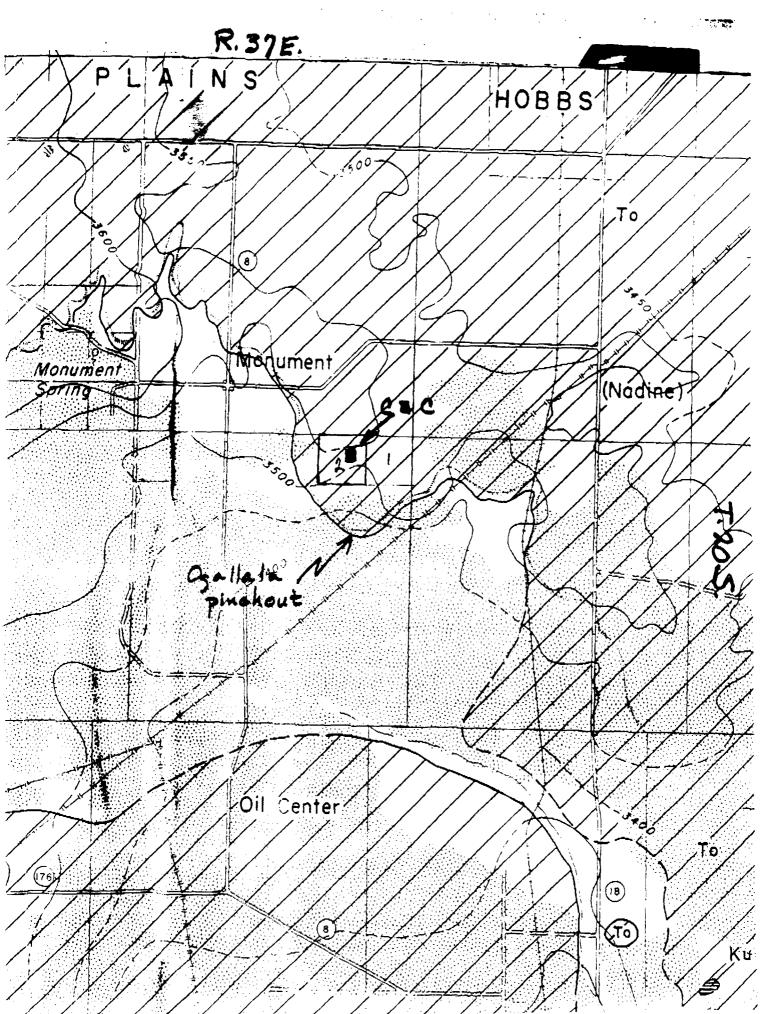
by ALEXANDER NICHOLSON, Jr. and ALFRED CLEBSCH, IR.

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



State of New Mexico Energy, Minerals and Natural Resources Department OIL CONSERVATION DIVISION P.O. Box 2088

Santa Fe, NM 87501

	APPLICATION FOR SURFACE WASTE DISPOSAL FACILITY (Refer to OCD Guidelines for assistance in completing the application.)
I.	Type: Produced Water Drilling Muds Treating Fluids Solids Other
11.	OPERATOR: 3 & C Landfarm Inc.
	ADDRESS: 30x 55 Monument, MM 38265
	CONTACT PERSON: Jimmie T. Jooper PHONE: 505-397-2015
III.	LOCATION: Si /4 IE /4 Section 3 Township 20 Range 37 E Submit large scale topographic map showing exact location.
IV.	is this an expansion of an existing facility? \square Yes \square No
V.	Attach the name and address of the landowner of the disposal facility site and landowners of record within one-haif me of the site.
VI.	Attach description of the facility with a diagram indicating location of fences, pits, dikes, and tanks on the facility.
VII.	Attach detailed engineering designs with diagrams prepared in accordance with Division guidelines for the construction/installation of the following: pits or ponds; leak-detection systems; aerations systems: enhance evaporation (spray) systems; waste treating systems and security systems.
VIII.	Attach a contingency plan for reporting and clean-up of spills or releases.
IX.	Attach a routine inspection and maintenance plan to ensure permit compliance.
X.	Attach a ciosure plan.
XI.	Attach geological/hydrological evidence demonstrating that disposal of oil field wastes will not adversely impact fre water.
XII.	Attach proof that the notice requirements of OCD Rule 711 have been met. (Commercial facilities only.)
XIII.	Attach a contingency plan in the event of a release of H.S.
XIV.	Attach such other information as is necessary to demonstrate compliance with any other OCD rules, regulations and, orders.
XV.	CERTIFICATION
	I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.
	Name: <u>Tidie !!. Seav</u> Title: <u>Agent/Consultant</u>
	Signature: Salar Date: October 4, 1991
	DISTRIBUTION: Original and one copy to Santa Fe with one copy to appropriate Division District Office.

APPLICATION FOR SURFACE WASTE DISPOSAL FACILITY

- I. Type: Solids Oil or Salt water contaminated soils from production facilities only.
- II. OPERATOR: C & C Landfarm Inc.
 ADDRESS: Box 55 Monument, NM 88265
 CONTACT PERSON: Jimmie T. Cooper
 PHONE: 505-397-2045
- III. LOCATION: SW 1/4 of the NE 1/4 of Section 3. Township 20, Range 37 East, Lea Co., NM.
- IV. IS THIS AN EXPANSION OF AN EXISTING FACILITY? No, this is a new facility.
- V. LANDOWNER OF FACILITY SITE Jimmie T. Cooper P.O. Box 55 Monument. NM 88265

LANDOWNERS OF RECORD WITHIN 1/2 MILE State of New Mexico State Land Office P.O. Box 1148 Santa Fe. NM 87504

> S & W Cattle Co. 8900 South County Rd. 58 Monument, NM 88265

J.R. Williams, et al P.O. Box 215 Monument, NM 88265

A.C. Doyall P.O. Box 188 Monument, NM 88265

VI. DIAGRAM (attached)

- (A) Excavate area as needed down to top of redbed approximately 10 to 12 feet. Use overburden to build burms around site to prevent and restrict rain run off and drainage to facility.
- (B) Fence around all sides, with chain link fence adjacent to County Road 58.
- (C) Gate with cattle guard at entrance. Open during daylight hours only.
- (D) 5 monitor wells on North, South, East, and West sides.
- (E) Signs posted with restrictions and permit no.

(F) Any other improvement as needed or required by OCD.

VII. DRAWING OF MONITOR WELL (attached)

Excavate land area down to redbed, dispose of contaminated soil in 6 in. lifts and till or plow every 30 to 60 days as needed to ensure proper aeriation so soil can be cleaned up by natural remediation according to government standards. Have soil tested for TPH and BTEX before adding new lift as required.

VII. CONTINGENCY PLAN (NA)

There will be no liquids at facility. Any soil accidentally spilled at facility will be picked up with front end loader and deposited within landfill. No material will be accepted without documentation.

IX. ROUTINE INSPECTION AND MAINTENANCE PLAN

- (1) Weekly inspection of monitor wells.
- (2) Road area around facility will be graded and kept free of oily dirt.
- (3) All loads will be documented and logged.
- (4) No liquids accepted.
- (5) No tank bottoms accepted.
- (6) Area will be posted with proper signs.
- (7) No dumping will be allowed unless facility is open.
- (8) May require letter from company showing waste has not been mixed with non-exempt waste.
- (9) All area properly fenced with locked gates.
- (10) Each lift will be tested for BTEX Method 602 and TPH Method 8015 EPA test requirements before adding new lift.

X. CLOSURE PLAN

All overburden will be removed down to the redbed, averaging from 12 ft. on the east side, to 16 ft. on the west side.

Disposal of solids will start at redbed, when area has been filled and tested to within 1 ft. of surface elevation, area will be backfilled with top soil, mound over and compacted. The mound should prevent rain or water from standing or leaching into backfill.

All fences will be left in tact and monitor wells left in place for future monitoring.

1-14 ft. Caliche, Rock 14-17 ft. Redbed All formations dry.

* An area in the middle of the east edge of the property, was excavated with a backhow. Rock and caliche at 0-12 ft. Redbed was encountered at 12 ft.

The wells were drilled with rotary rig, no water was excountered, only caliche, rock, and sand down to redbed. The redbeds came in at 12 ft, on the east side, down to 17 ft, on the west side. The five wells drilled were completed into the redbed and cased with 3 in. PVC pipe with 5 ft, of screen on bottom with the top 2 ft, cemented and capped. Wells to be secured with locks and used as monitor wells.

Researched State Engineers records and U.S.G.S. file. no fresh water was recorded or found within area of review. A physical inspection was made and a windmill was found approximately 1 mile SW of the site. a sample was taken and analysis recorded for future use.

We feel this is one of the better sites for deposit of contaminated soil due to the thickness of redbeds, little or no fresh water in the area, a monitor system is in place for control of system. This system is in the middle of the oil and gas production and will serve a valuable environmental need, both regulatory and industrial.

- XII. PROOF OF OCD RULE 711 (attached)
- XIII. CONTINGENCY PLAN FOR RELEASE OF H2S (NA)

Open pit system should not have H2S. If encountered. OCD Rule 118 will be adhered to.

XIV. All State of New Mexico, Oil Conservation rules will be enforced as they pertain to this system.

Also, any additional rule or regulation at time of closure will be adhered to.

XI. Geographically, the site is situated near the western boundary of the southern extension of the High Plains in Southeastern New Mexico. The site in question is a 40 acre tract located in Unit G. Section 3. Township 20. Range 37 E. Lea Co.. NM.

The site which is bordered by County road 58 on the east, has a gradual surface slope to the west. To the SE of this site in Unit Lettter O is a large pit with the redbed exposed. Redbed is a layer of relatively impermeable clays, red to reddish brown in color, underlying the fresh water aquifer in SE New Mexico ranging in thickness up to 1200 ft.

C & C Landfarm Inc. is located on or near the redbed layer. A series of test wells were drilled to define the redbed and check for fresh water.

TEST WELL LOGS

- #1 Located 100 yds. N of NW corner 0-1 ft. Top Soil 1-18 ft. Caliche, Rock 18-20 ft. Redbed All formations dry.
- #2 Located 125 ft. N of the south line on the extreme west edge.

 0-1 1/2 ft. Top Soil
 1 1/2-16 ft. Caliche, Rock
 16-18 ft. Redbed
 All formations dry.
- #3 Located 100 yds. E of the west line on the south side.
 0-1 ft. Top Soil
 1-15 ft. Caliche, Rock
 15-17 ft. Redbed
 All formations dry.
- #4 Located 50 yds. W of the east line on the south border.
 0-1 ft. Top Soil
 1-13 ft. Caliche, Rock
 13-16 ft. Redbed
 All formations dry.
- #5 Located 150 yds. W of east line on the north side.
 0-1 ft. Top Soil

CVV B DIVISION

I. The thickness of the redbeds varied from area to area 1.7951 in Section 3. The information was taken from logs of producing oil wells in the area and lithology reports.

Unit	С	Top	20	ft.	Base	960	ft.
	F	•		ft.		562	ft.
	В		14	ft.		880	ft.
	Н		15	ft.		1350	ft.
	М		30	ft.		1270	ft.
	L		40	ft.		1050	ft.

with the average thickness being 987 ft.

II. Groundwater in the area; Figure I is a copy of the State Engineer's water analysis and locations for this area, none were listed in Sect. 3. The windmill SSW of our proposed site appears to be located in Unit M of Sect. 3 approximately 3/4 mile from site; Figure II is a copy of analysis from S & W windmill. Figure III indicates water wells in the general area showing top and bottom of water formation and contour line indicating direction of flow, which is SE. Figure IV is a contour map of top of redbed, with slopes to the SSE. Figure V is a contour map of the surface for the surrounding area, the direction of slope is to the west.

The contour maps provided are information from the State Bureau of Mines, which shows any movement at our site would run SE along the redbed surface and west along the top of ground.

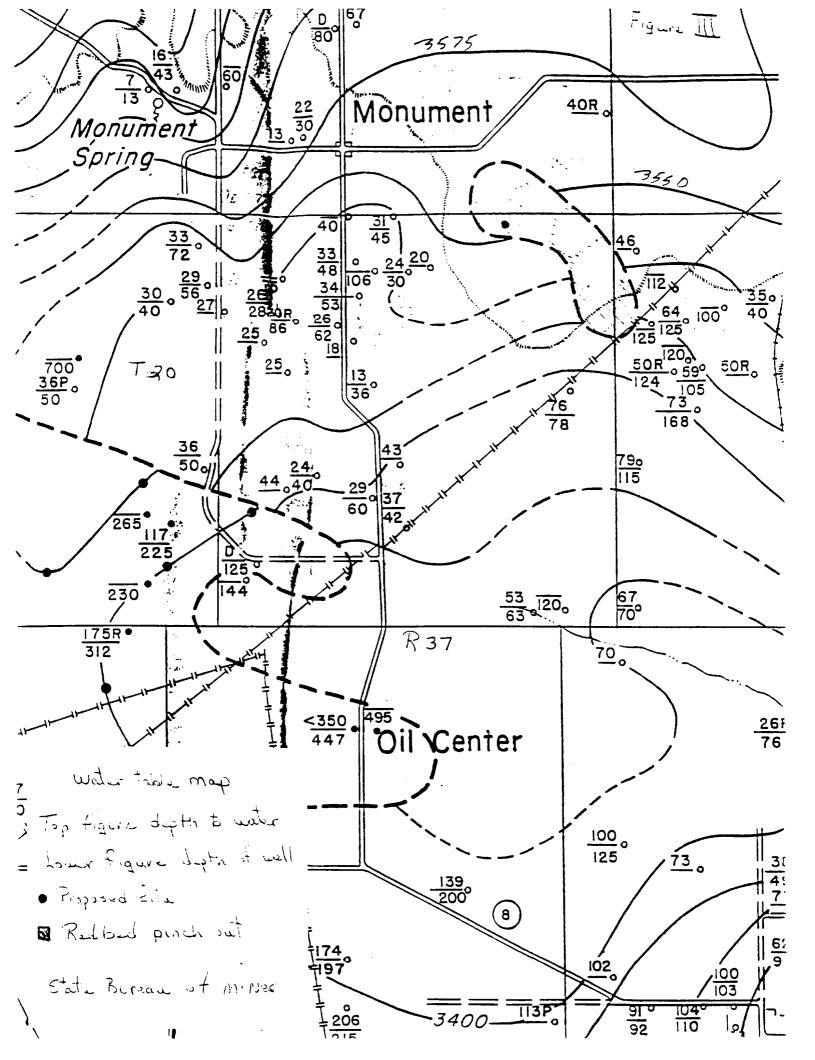
If the State feels it is necessary, additional monitor wells can be installed or a redbed barrier constructed on the SW portion of our site to prevent any contaminate from moving.

III. Also provided are the mail receipts from registered letters.

Any additional information needed, please call (505)392-2236.

Eddie W. Seay
Peak Consulting

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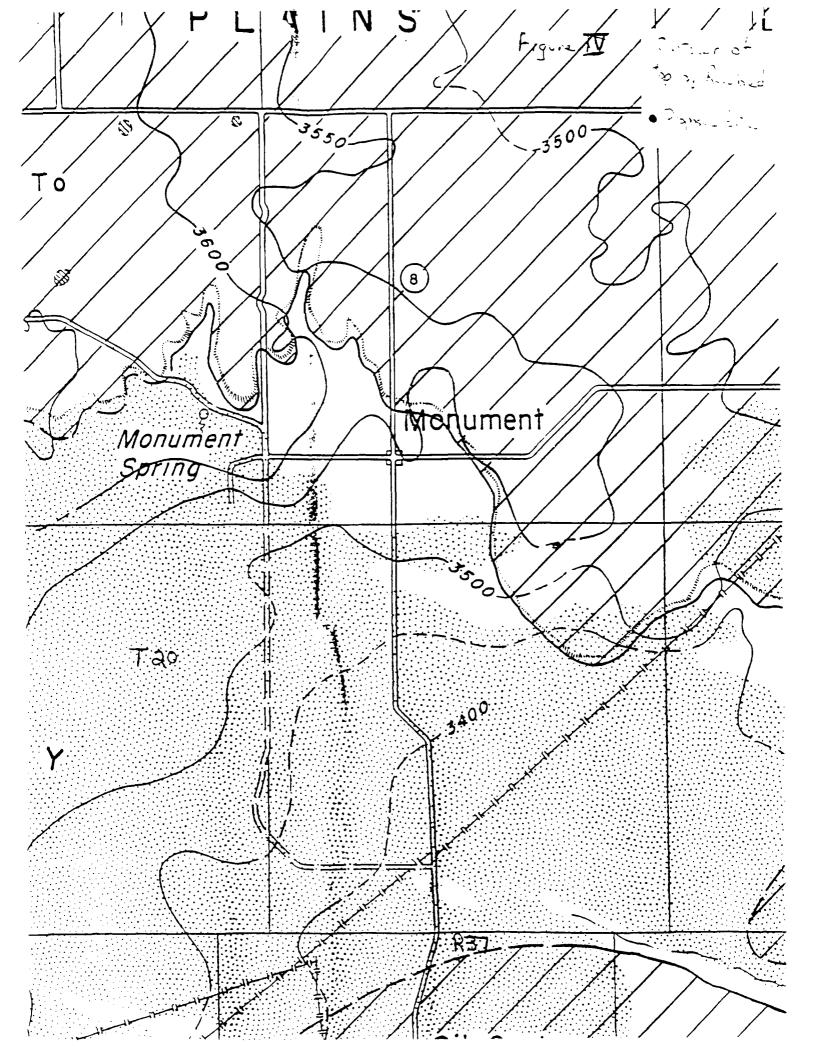


Figure II

WATER ANALYSIS REPORT

Company : S & W CATTLE CO
Address : HOBBS, NEW MEXICO
Lease : SECT 3 T20 R37
Well : UNIT M
Sample Pt. : WINDMILL Date : 10/29/91 Date Sampled : 10/28/91 Analysis No. : 876

	ANALYSIS		mg/L		* meq/L
1. 2. 3.		7.1 NEGATIVE 1.000	2245 2	·	
	Total Dissolved Solids Suspended Solids Dissolved Oxygen	•	2245.2		
8.	Dissolved CO2 Oil In Water				
9. 10.	Phenolphthalein Alkali Methyl Orange Alkalini) 291.0		
11.	Bicarbonate Chloride	HCO:	3 355.0 599.1	HCO3 Cl	5.8 16.9
13.	Sulfate Calcium	SO4 Ca	575.0 153.5	S04	12.0
15. 16.		Mg Na	66.1 496.4	Mg Na	5.4 21.6
17. 18.	Iron Barium	Fe Ba	0.0	114	21.0
19.	Strontium Total Hardness (CaCO3)	Sr	0.0 655.6		

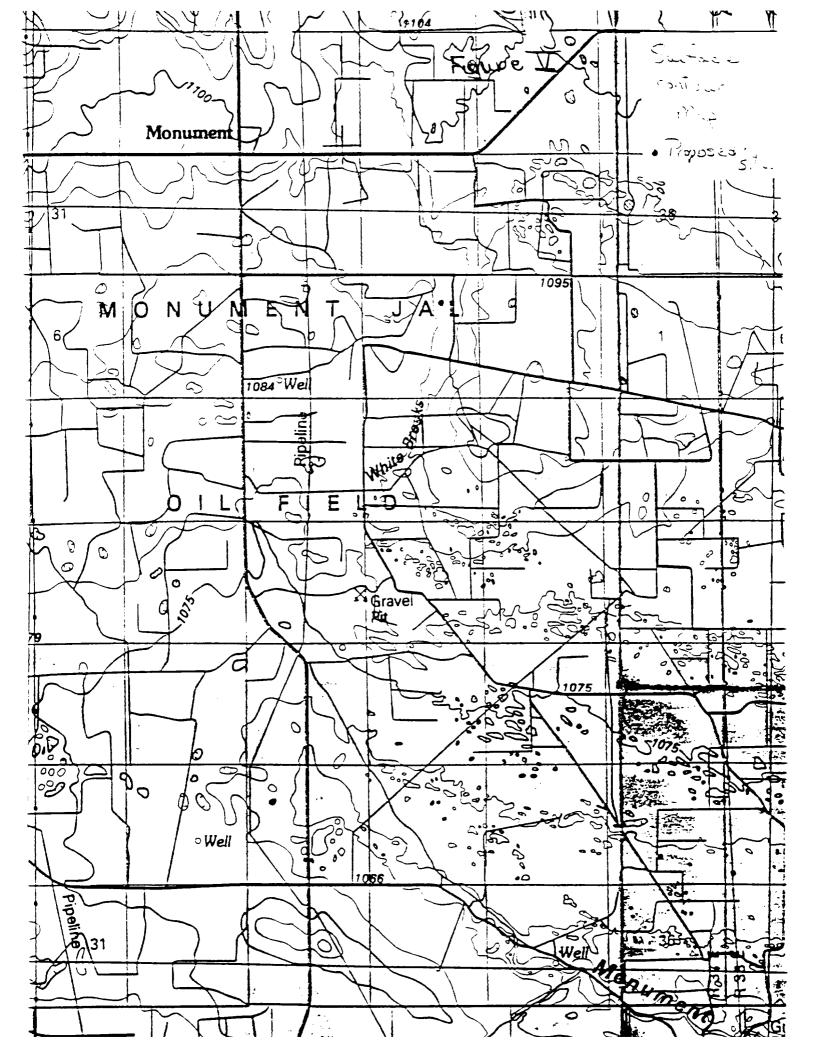
PROBABLE MINERAL COMPOSITION

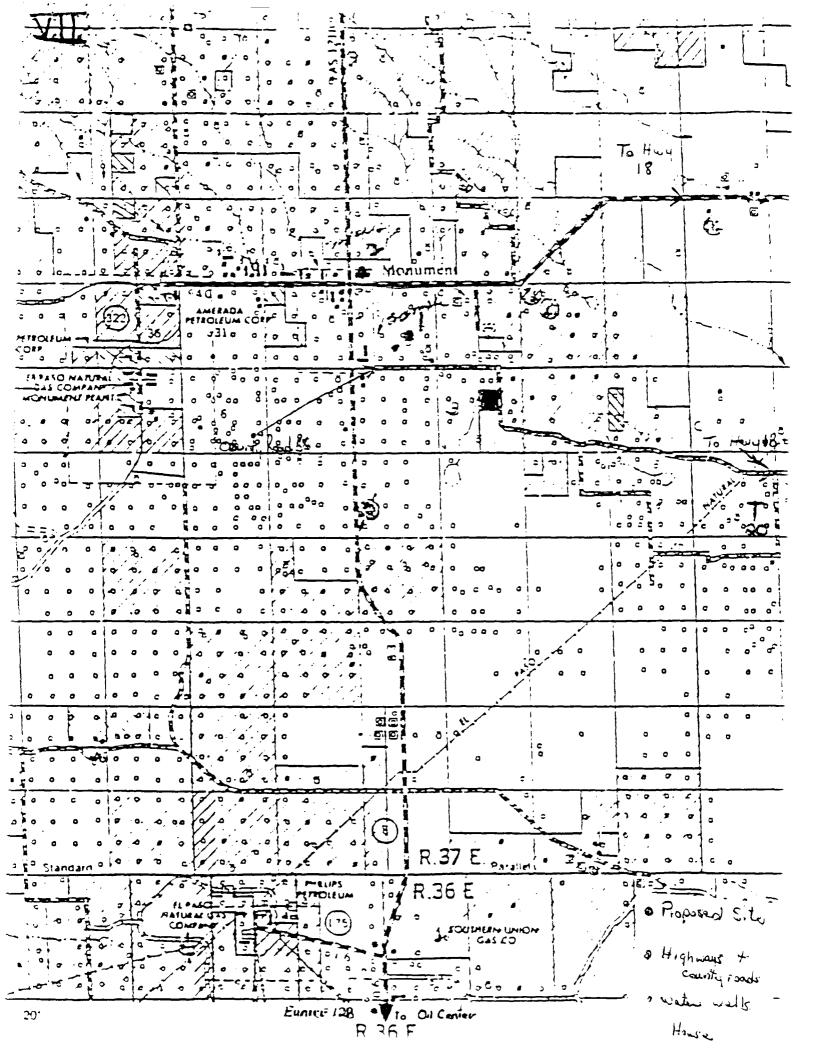
*milli equivalents per Liter	• •	Compound	Equiv wt	X meq/L	= mg/I
8 *Ca < *HCO3 /> 5 *Mg> *SO4 <br 22 *Na> *C1	12	Ca (HCO3) 2 CaSO4 CaC12 Mg (HCO3) 2 MgSO4	81.0 68.1 55.5 73.2 60.2	5.8 1.8 5.4	472 125 327
	g/L	MgCl2 NaHCO3 Na2SO4 NaCl	47.6 84.0 71.0 58.4	4.7 16.9	333 988

REMARKS: EDDIE SEAY

Petrolite Oilfield Chemicals Group

Respectfully submitted, ROZANNE JOHNSON





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3800 Form

PS Form **3800**, June 1990

C & C Landfarm Inc.

Jimmie T. Cooper P.O. Box 55 Monument, NM 88265
505-397-2045

October 1, 1991

Dear Sir:

Pursuant to Rule 711 of the Oil Conservation Commission. State of New Mexico. notice is hereby given that Jimmie T. Cooper, owner and operator of C & C Landfarm Inc., will be filing an application for a surface waste disposal facility located at SW 1/4 of the NE 1/4 of Section 3. Township 20. Range 37E. Lea Co., NM on deeded land. The facility will be for the disposal of contaminated soils only from oil and gas production. No produced waters or tank bottoms will be allowed. This disposal will allow a safe place for the natural occurance of remediation of the soil.

If there are any questions please contact:

Mr. Roger Anderson State of New Mexico Oil Conservation Division P.O. Box 2088 Santa Fe, NM 87501 505-827-5884

Thank You.

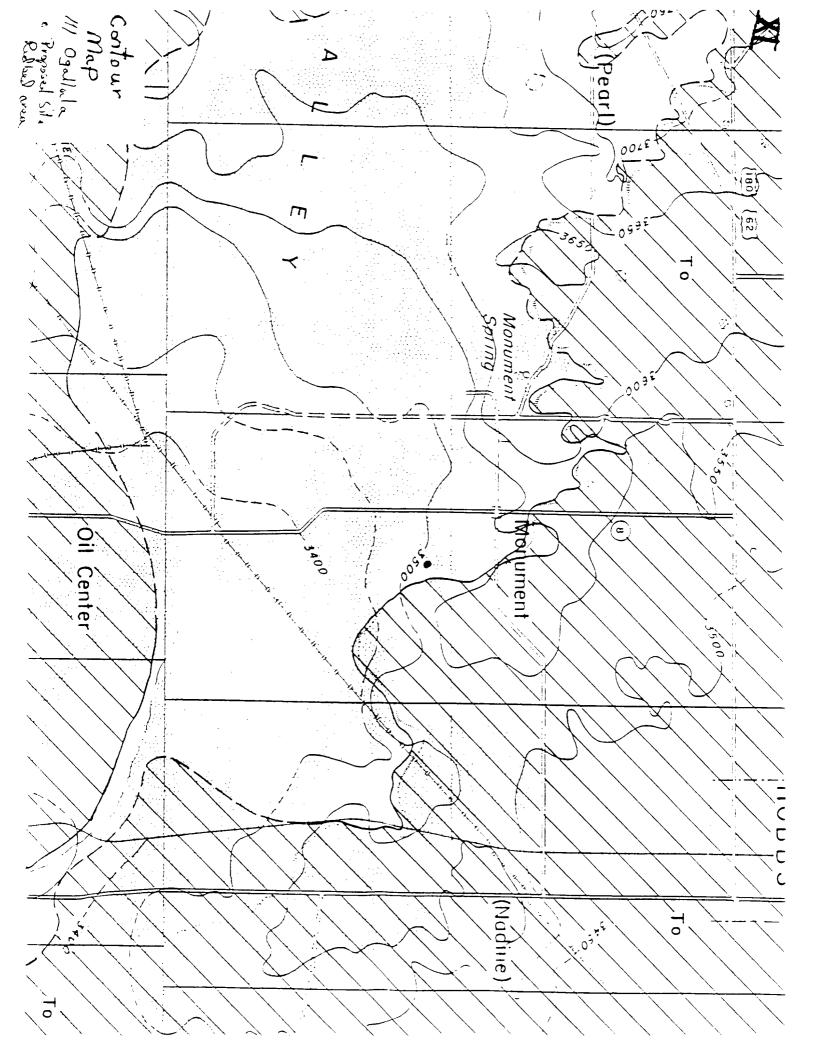
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STATE OF NEW MEXICO



ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION



BRUCE KING GOVERNOR

ANITA LOCKWOOD CABINET SECRETARY

January 6, 1993

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO B7504 (505) B27-5800

CERTIFIED MAIL RETURN RECEIPT NO. P-667-241-935

Mr. Jimmie T. Cooper C & C Landfarm Inc. Box 55 Monument, New Mexico 88265

RE:

C & C Landfarm Inc.

Oil Conservation Commission Hearing

Eddy County, New Mexico

Dear Mr. Cooper:

The New Mexico Oil Conservation Division (OCD) has reviewed both the Division Order issued November 16, 1992 for C & C Landfarm, Inc., and the letter dated November 20, 1992 from Peak Consulting Services on behalf of C & C Landfarm, Inc. Based on review of these documents and on the current OCD requirements for commercial landfarm facilities, the OCD recommends that the attached conditions be placed on the proposed facility if the Oil Conservation Commission (OCC) deems it appropriate to approve the permit.

If you have any questions, please do not hesitate to contact me at (505) 827-5884.

Sincerely,

Kathy M. Brown

Geologist

Attachment

xc: Mike Williams, OCD Artesia Office

ATTACHMENT OCD 711 PERMIT RECOMMENDATIONS C & C LANDFARM, INC.

(January 6, 1993)

LANDFARM OPERATION

- 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 no attendant is 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: a) 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 runoff and runon 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 the 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 bioremediation 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 land farm 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.

C. GENE SAMBERSON MICHAEL T. NEWELL

LEWIS C. COX. III

311 NORTH FIRST STREET '92 MAY 15 AM 8 45 POST OFFICE DRAWER 1600 TELEPHONE (505) 396-5303 FAX (505) 398-5305

May 13, 1992

Mr. Roger Anderson State of New Mexico OIL CONSERVATION DIVISION Post Office Box 2088 Santa Fe, New Mexico 87504-2088

> Re: C & C Landfarms, Inc. Application

Dear Mr. Anderson:

On behalf of S-W Cattle Co., I submit the following objections to the above captioned Application for a commercial remedial surface disposal facility, to-wit:

- Based upon the information on file in your Office in connection with the above (1)Application, I am not aware of any written notice having been given to the Bureau of Land Management, who is an owner of surface lands within a 1/2 mile of the location of the proposed disposal facility. It is our understanding that the Applicant has applied for a permit on the Southwest Quarter of the Northeast Quarter (SW/4NE/4) of Section 3, Township 20 South, Range 37 East, N.M.P.M., Lea County, New Mexico, and it is our further understanding that the Bureau of Land Management owns at least a 40 acre tract (NE/4SW/4 of said Section 3) which is located in the immediate vicinity of the location Applicant seeks to permit. If our information is correct, we believe that under the Rules of the Oil Conservation Division written notice is required to be given to the Bureau of Land Management. Further, based on the information available to us, we do not find any written notice of the above captioned Application having been given to the Board of Commissioners for the County of Lea, State of New Mexico, which we believe is necessary in order to permit the County of Lea to determine whether the public interests requires action on its part with respect to areas not regulated by the OCD and EPA, examples of which areas being land use, zoning, subdivision regulations and other similar matters.
- (2) Applicant has requested that the entire 40 acre tract be permitted for land farming, notwithstanding that the existing pit presently occupies approximately 2 acres. The information on file in connection with the Application indicates that the proposed solution to how Applicant plans to prevent the migration of contaminants down gradient along the red bed surface is the construction of a dike consisting of a trench 2' to 3' wide, with the trench being dug deep enough to penetrate the red bed interval to a depth of approximately 2', but the information does not clearly show whether such dike (trench) will be located immediately adjacent to the existing 2 acre pit or is to be constructed and

FL - COR. 1913-1986) Page 2 May 13, 1992 Mr. Roger Anderson

located around the North, West and South perimeters of the 40 acre tract. Similar questions exist with respect to the five (5) monitor wells proposed by Applicant and additional questions exist whether five (5) monitor wells are sufficient if the area requested to be permitted is actually 40 acres, rather than the existing 2 acres occupied by an existing pit. The Application for permitting 40 acres is inconsistent with the description of the facility and diagram which appears to be applicable to 2 acres, rather than 40 acres. Applicant has not met the requirements of OCD's Rules for commercial surface waste disposal facilities.

- (3) Applicant's plan of constructing a dike (trench) to prevent the migration of contaminants down gradient along the red bed surface depends on backfilling and compacting the trench with red bed material, yet Applicant makes no showing that such compacted red bed material will be sufficiently impenetrable to prevent the migration of contaminants down gradient through the overburden above the red bed surface. S-W Cattle Co. believes that if the facility is to be approved a more appropriate approach to the construction and operation of such facility would be to require Applicant to construct its proposed facility by digging into the red bed to a sufficient depth so that all of its operations will be conducted below the overburden and therefore any contaminants would remain confined within the red bed and thus prevent migration of contaminants down gradient from the site, either along the red bed surface or through the undisturbed red bed walls of the pit.
- (4) Based upon the information of which we are aware that is on file in connection with Applicant's Application, there does not appear to have been any bond required, either in the form of a surety bond or cash bond, as required by OCD's Rules.
- (5) Applicant's proposed closure plan appears to be merely when the area, whether the present 2 acre pit or the requested 40 acre tract, has been filled and tested to within 1' of the surface elevation that area will be backfilled with top soil, mound over and compacted. S-W Cattle Co. objects to the closure plan on the basis that same is inadequate in view of its concerns stated above with respect to the proposed facility and size of same.
- (6) S-W Cattle Co. submits that a complete and proper Application has not been filed with the OCD and further that the Rules of the OCD have not been complied with by Applicant.

By reason of the foregoing, S-W Cattle Co. objects to the Director of the Oil Conservation Division administratively approving and issuing a Permit in connection with the above described Application.

Very truly yours,

HEIDEL, SAMBERSON & NEWELL

By C. Sene Samberson

LAW OFFICES

311 NORTH FIRST STREET

HEIDEL, SAMBERSON & NEWELL CONSER. IN STASION

REG: ED

C. GENE SAMBERSON MICHAEL T. NEWELL

LEWIS C. COX, III

POST OFFICE DRAWER 1599 LOVINGTON, NEW MEXICO 88260 TELEPHONE (505) 396-5303 FAX (505) 396-5305

192 JUN A AM 9 10

F.L. HEIDEL (1913-1985)

June 3, 1992

Ms. Kathy M. Brown Geologist OIL CONSERVATION DIVISION Post Office Box 2088 Santa Fe, New Mexico 87504-2088

> Re: C & C Landfarm, Inc. Application

Dear Ms. Brown:

Your letter dated May 20, 1992, addressed to W. T. Stradley, President, S-W Cattle Co., Hobbs, New Mexico, has been forwarded to me for handling.

Mr. Stradley and I are both confused with respect to the contents of your May 20th letter to him, particularly with respect to your statement that if Mr. Stradley does not request a hearing in the above matter by June 9, 1992, C & C LandFarm, Inc.'s Application will be administratively approved. We had understood that the public comment period for the above Application had been extended to July 6, 1992. I am enclosing a photocopy of a letter dated April 27, 1992, purporting to be from Roger C. Anderson, Acting Bureau Chief of the OCD. We believe that it is probable that additional objections to the Application in question will be made prior to July 6, 1992. We want the opportunity of having all public comments or objections made in this matter prior to July 6th before we are called upon to make a decision regarding a request for hearing when the comment period still is open for more than a month. Mr. Stradley may very well wish to request a hearing, but he wants the opportunity to evaluate all information available, particularly when you have requested him, if he wishes to request a hearing, to include a concise statement of his objection and concern and a summary of evidence that he will present at the hearing.

Although your May 20th letter does not so indicate, Mr. Stradley has submitted, in writing, his concerns and objections two (2) times, the last being my letter of May 13, 1992, outlining additional objections. The reason I mention the latter letter is that Mr. Stradley and I do not believe that even with your May 20, 1992, attachment of OCD conditions and approval all of the objections outlined in my May 13th letter to Mr. Anderson still do not appear to have been addressed.

Page 2 June 3, 1992 Ms. Kathy M. Brown

Would you please advise as soon as possible if the June 9, 1992, deadline for requesting a hearing will remain, notwithstanding that the public comment period does not end until July 6th.

Very truly yours,

HEIDEL. SAMBERSON & NEWELL

By C. Gene Samberson

CGS:lt

cc: Mr. W. T. Stradley

KELLAHIN, KELLAHIN AND AUBREY

ATTORNEYS AT LAW

EL PATIO BUILDING

117 NORTH GUADALUPE POST OFFICE BOX 2265 TELEPHONE (505) 982-4285 TELEFAX (505) 982-2041

W THOMAS KELLAHIN KAREN AUBREY

NEW MEXICO BOARD OF LEGAL SPECIALIZATION RECOGNIZED SPECIALIST IN THE AREA OF NATURAL RESOURCES-OIL AND GAS LAW

SANTA FE, NEW MEXICO 87504-2205

IALSO ADMITTED IN ARIZONA

JASON KELLAHIN IRETIRED 19911

June 5, 1992

Mr. William J. LeMay Oil Conservation Division 310 Old Santa Fe Trail Room 218 Santa Fe, New Mexico 87504

HAND DELIVERED

Objection to Application of C & C Landfarm Inc. and Request for Hearing

RECEIVED

JUN 0 5 1992

OIL CONSERVATION DIVISION

Dear Mr. LeMay:

Our firm represents Ms. Elsie Reeves in opposition to the referenced application filed by Mr. Jimmie T. Cooper of C & C Landfarm Inc. dated October 4, 1991.

By letter dated April 16, 1992, Ms. Reeves wrote to the Division requesting until July 6, 1992 to file her written objections. Her request was approved by the Division and confirmed by a letter dated April 27, 1992 from Mr. Roger Anderson, NMOCD.

Thereafter, Ms. Kathy Brown, NMOCD, sent Ms. Reeves a letter dated May 20, 1992 advising her to request a hearing and file her comments and objections by June 9, 1992. The Division's communications to my client are inconsistent and confusing.

However, in order to protect her interest, we hereby file the enclosed Request for Hearing and Objections to the referenced application within the time frame set forth in the Division's notice letter dated May 20, 1992. We reserve the right to file additional objections and comments by July 6, 1992 as approved by Mr. Anderson.

The first paragraph of the Division's May 20, 1992 letter states "The application and supplemental information submitted are in compliance with all Division rules and regulations.... That conclusion is Mr. William J. LeMay June 5, 1992 Page Two

not correct and a hearing is required to resolve this matter.

In as much as the Division has no other hearing process than the Examiner's regularly scheduled hearing docket, we request that this matter be docket for hearing on the July 23, 1992 Examiner's docket.

In addition, the Division's May 20, 1992 states that a hearing may be set only if the Director determines Ms. Reeves has "significant additional information to offer." We consider that criteria to be unconstitutionally vague and a denial of Ms. Reeves rights to due process. This procedure appears to shift the burden of proof to Ms. Reeves to prove that the application should not be granted when in fact the burden of proof belongs to the applicant. Accordingly, should you not grant a Hearing, I would appreciate notice of that decision in writing so that I can pursue Ms. Reeve's right to an appeal of this matter.

V. Thomas Kellahin

WTK/jcl

xc: with Enclosure

Elsie Reeves

Jimmie T. Cooper (C & C Landfarm Inc.)

William F. Carr, Esq.

Larry N. Henry

S-W Cattle

Walter C. Laughlin

Controlled Recovery Inc.

C. Gene Samberson, Esq

Peak Consulting Service

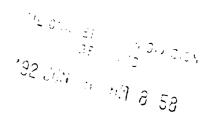
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NESCO - NEW MEXICO, INC.

P.O. Box 1417 Socorro, New Mexico 87801 (505) (35-0377 • \$35-0573

May 25, 1992



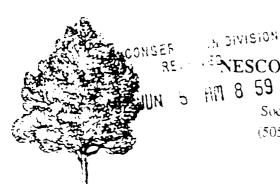
State of New Mexico Oil Conservation Division P. O. Box 2088 Santa Fe, New Mexico 87501

RE: Comments per Landfarm Request C & C Landfarm Inc. Lea County, New Mexico Requested by: Ms. Elsie M. Reeves 3902 W. Keim Phoenix, AZ 85019

- 1. Of prime concern, should be the investigation of facts stated in Mr. Walter C. Laughlin's letter of December 20, 1991 to NMOCD. Mr. Laughlin speaks of shallow water wells, at a depth of 25 feet, located down-dip from the proposed landfarm. Water this shallow, surely needs to be protected from any possible seepage of leachate contaminants.
- 2. In looking at figure 1 presented by C & C Landfarm Inc., it would appear that the monitoring wells should be located outside of the proposed redbed barrier. The purpose of the monitoring wells should be to notify the fact that contaminants have seeped outside the barrier.
- 3. To arrive at a proper compaction of the redbed barrier, I suggest that the dike would need to be thicker than the proposed 2 feet. It would be hard, if not impossible, for equipment to compact the soil in such a small area. I would suggest a barrier thickness of from 6 to 10 feet would be more in order; and surely compaction tests should be performed on lifts of no more than 24 inches per lift. Lab compaction tests should be performed to determine what percent of compaction is needed to stop the mobility of the leachate contaminants.

I suggest that the compacted barrier be extended into the insitu redbeds for at least 20 feet to stop any possible seepage of leachate through the non-compacted redbeds.

- 4. Rather than a caliche berm, a clay non-permeabile berm would be much more environmenly safe.
- 5. It would appear that additional tests should be performed on the redbed soil. Such as:



****NESCO - NEW MEXICO, INC.

HM 8 59 P.O. Box 1417

Socorro, New Mexico 87801 (505) 835-0377 • 835-0573

- a) Falling head permeability tests should be performed to determine the values for in place coefficient of permeability, K. in cm/s.
- b) Soil properties should be tested to predict the mobility of the leachate contaminants. Properties such as:
 - 1) Texture
 - 2) Content of hydrous oxides
 - 3) Type and content of organic matter
 - 4) Particle size distribution
 - 5) Cation exchange
 - 6) Soil pH

The total capacity of soils to exchange cations is called the Cation Exchange Capacity (CEC). I suggest that (CEC) tests be preformed on the redbed soils. A range for (CEC) in determining permeability suitability for this type of landfarm is from 5 to 10 meg/100g.

- 6. I suggest that liquid and plastic limit tests be performed on the redbeds.
- 7. In my opinion, a better barrier for this type of landfarm would be a barrier applied in stages: 1) graded sand section: 2) clay barrier section: 3) composite drainage section and a final clay barrier section. Each section applied in 3 foot sections.
- 8. The only cross section that I observed was from north to south; surely there is a cross section east to west and surely the barrier is intended to be on all four sides of the pit.

I hope that my thoughts are taken in a constructive view, as my comments are intended to help prevent any future environmental problems and to help insure that the project in completed by using excepted environmental enginnering practices.

Sincerely,

James R. Woods

Geological Engineer

JAMES R. WOODS
Geological Engineer
Cert # 31±113517
Lic + 24562

SHE SONSER CO

Elia Burn

100 April 10 8 8 NTROLLED RECOVERY INC.

P.O. BOX 369, HOBBS, NM 88241 (505) 393-1079

April 28, 1992

Mr. Bill LeMay
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504

FAX TRANSMISSION

RE: C&C Land Farm Inc.

Dear Mr. LeMay:

I have been receiving numerous phone calls, letters, and copies of correspondence concerning the application of C&C for land farming. I have also obtained copies of the file and reviewed them. Should I feel it necessary to make any comments on the issues, I will do so in another letter.

Many of the comments I have heard are about the public hearing process. The oil and gas industry does not need the perception that we are not being good neighbors or refusing to listen to public concerns.

CRI's management works very hard to be good citizens and neighbors and to go beyond our obligation required by rules, laws, and regulations. We have and we want to maintain the trust and respect of the industry, our customers, and the public.

If a public hearing is not held on this application, all disposal operations including CRI's could receive negative publicity and perhaps be suspect of ignoring public concerns. I would recommend that all disposal applications have a public hearing.

I respectfully request that the C&C application be sent for public hearing. Please advise.

Sincerely,

Ken Marsh

Elsie M. Reeves 192 APR NO WAY 8 38 3902 West Keim Drive Phoenix, Arizona 85019

Ms. Kathy M. Brown Oil Conservation Division P.O. Box 2088 Santa Fe, New Mexico 87504

RE: C&C Landfarm, Inc.

Dear Ms. Brown:

Rule 711 Section B requires notice to all landowners within one half mile of the property on which a disposal facility is to be located.

I have had Elliott & Waldron Abstract research the land owners. You will notice from the attached plats and your copy of C&C's application that Tommie Lee Schmidt aka Tanja Weir and the United States of America are owners of surface lands within one half mile and were not notified.

You will also see that Jimmie T. Cooper is not the sole owner of the property described in the application but that the owners are Delbert Dale Cooper, 1/3 undivided interest, Jimmie Tom Cooper 1/3 undivided interest, and Jimmie T. Cooper et ux Betty B. (JT), Jimmie B. Cooper, married, s&sp, Adana J. Hilliker, married, s&sp (JT), 1/3 undivided interests.

This noncompliance with the rules of the Commission are reason to reject the application, and I request that the application be rejected immediately.

I am having further technical data prepared as I have communicated to you in my previous correspondence.

I thank you for your consideration of this information.

Sincerely yours,

Elsie M. Reeves

₽033922 QC Deed 9-8-88 9-15-88 First Interstate Bank of Lea County, Trustee of the to Tommia-Lou Cooper, Telbert Dale-Cooper-and-Jimmy-Tom Cooper - out Wa ME4, MW4 Surface-SEC. TSP. 20 WINEL, NWY #70227 10-17-90 10-29-90 Tommie Lou Cooper, single, by Jimmie T. Cooper, Jimmie T. Cooper et ux Betty B. (JT), Jimmie B. Cooper, married, sasp, Adana J. Hilliker, married, s&sp (JT) (Convers_1/3 Surface TSP. 20 WINEL, NWL,

14356 RW 2-19-37

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R. 37 OL

37 OL

PHONE 393-7708 P.O. BOX 295 HOBBS, NEW MEXICO 88240 BILL PEVEY - Pres.

PHONE 396-5846 P.O. BOX 817 LOVINGTON, NEW MEXICO 88260 PEGGY PEVEY - Vice Pres.

ı	vara-33 1/	inches.
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1900 8/10 varas i mile.

5645 square varas-i acre.

4840 square yards or 43,560 square feet-1 acre.

1,000,000 square varas—1 labor or 177 1/10 acres.

25,000,000 square varas—i league or 4428 acres.

7.92 inches—i link.

1 rod-5 1/2 yards, or 161/2 feet, or 5.94 wares.

320 rods—1 mile.

100 links-1 chain, or 66 feet, or 23.76 varas.

80 chains, 3250 feer, 1760 yards—1 mile.

To reduce yards to varies multiply by 1.08.

To reduce varas to yards, divide by 1.05.

To reduce feet to varas, multiply by 36 and point off two decimals.

To reduce varue to feet, multiply by 100 and divide by 36.

1 Square Rod-2721/4 Square Feet

1 Acre-13,560 Square Feet 1 Acre-160 Square Rods

1 Acre is about 208% Feet Square

1 Acre is 8 Rods x 20 Rods (or any two numbers of rods whose product is 160.)

SCALE FOR SECTION. Scale large squares = 20 chains, 80 rads, 1320 feet; area of square 40 acres. Each side small squares \mp 5 chains, 20 rads, 1330 feet; area of square $2^{1/2}$ acres.

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	S-W CAHIE Co.	S-W CAHHE Co.	State	state	

P.O. BOX 295 HOBBS, NEW MEXICO 88240 BILL PEVEY - Pres.

P.O. BOX 817 LOVINGTON, NEW MEXICO 88260 PEGGY PEVEY - Vice Pres.

1 vara-331/2 inches.

1900 8/10 varas 1 mile.

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1,000,000 square varas—1 labor or 177 1/10 acres.

25,000,000 square varas—1 league or 4428 acres.

7.92 inches-1 link.

1 rad-51/2 yards, or 161/2 feet, or 5.94 varas.

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80 chains, 5250 feet, 1760 yards-1 mile.

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1 Acre-160 Square Rods

1 Acre is about 20814 Feet Square

1 Acre is 8 Rods x 20 Rods (or any two numbers of rods whose

product is 160.)

SCALE FOR SECTION, | Each side large squares = 20 chains, 80 rods, 1320 feet; area of square 40 acres.

600 ft. = 1 lack. | Each side small squares = 5 chains, 20 rods, 330 feet; area of square 2½ acres.

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P.O. BOX 295 HOBBS, NEW MEXICO 88240 BILL PEVEY - Pres.

P.O. BOX 817 LOVINGTON, NEW MEXICO 88260 PEGGY PEVEY - Vice Pres.

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7.92 inches—1 link.

1 rod—5½ yards, or 16½ feet, or 5.94 varas.

320 rods—1 mile.

100 links-i chain, or 66 feet, or 23.76 varas.

To reduce yards to varas multiply by 1.08.
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1 Acre-160 Square Rods

1 Acre is about 208 % Feet Square

1 Acre is 8 Rods x 20 Rods (or any two numbers of rods whose product is 160.)

SCALE FOR SECTION, § Each side large squares = 20 chains, 80 rads, 1320 feet; area of square 40 acres.

600 ft.—1 leek. § Each side small squares = 5 chains, 20 rads. 130 feet; area of square 2½ acres.

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2 Lot 4	Lo+ 3	Lot 2	Lot 1
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On Contract S-W Cat	- or LEASE to the Company		
	2-20	- 37	
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3902 W. Keim Drive Phoenix, Arizona 85019 April 16, 1992

William J. LeMay, Director Oil Conservation Division New Mexico Department of Energy P. O. Box 2088 Santa Fe, New Mexico 87504-2088

CERTIFIED MAIL
RETURN RECEIPT NO. P-509 518 446

Re: Application of C & C Landfarm, Inc. Lea County, New Mexico

Dear Mr. LeMay:

I am in receipt of certified correspondence from geologist Kathy M. Brown of your Division stating that the above referenced application is administratively approvable at this time, pending evaluation and substantive technical information from protestors to the aforesaid application, and giving a time limit of thirty (30) days to submit such information.

As I am an out-of-state landowner, as are the other co-owners, we would appreciate an extension on an additional sixty (60) days, i.e., July 6, 1992. Such an extension would give us enough time to receive and review the application in its entirety and to gather the required technical and regulatory information for substantiation of our protest.

In the event such an extension <u>cannot</u> be granted I would appreciate immediate notification by telephone, to be followed by a letter of refusal. I may be reached by phone at (602)841-6427. Meanwhile, we will proceed in the expectation that approval of this request will be granted.

Thanking you in advance for your consideration in this matter, $\ensuremath{\mathrm{I}}$ am,

incerety yours,

Elsie M. Reeves

emr

XC: file

THE CONSERS - N DIVISION RE SEE

No. 1996
Dear Sir, 192 JAN 21 AM 8 43
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Thank you,
Sorry D. Henry 500 E. Scharbauer
40 N.M. 8824C

DELOCHSER IN DIVISION IN RECORDS

'91 DET 20 - AM 8 42

(602) 841-6427 3902 W. Keim Drive Phoenix, Arizona 85019 December 17, 1991

Mr. William J. LeMay, Director Oil Conservation Division New Mexico Department of Energy P. O. Box 2088 Santa Fe. New Mexico 37504-2088

CERTIFIED MAIL
P-509 518 445

Re: Application of <u>C & C Land Farm</u>, <u>Inc.</u> for an oil field waste disposal system on the SWANE, Sec. 3, T20S, R37E Lea County, New Mexico

Gentlemen:

Regarding the above referenced application I hereby protest the installation of such a disposal system in that particular area and make formal request for a Public Hearing in this matter.

As an owner of a portion of the surface interests on the $S_2^{\frac{1}{2}}NE_4^{\frac{1}{2}}$, the SELNW4, and the $S_2^{\frac{1}{2}}$ of Section 4, T2OS, R37E and as a member of an Advisory Board which represents ninety-six percent of the remaining owners of the Section 4 property, as well as being one of the landowners of the $N_2^{\frac{1}{2}}$ of Section 9 in the same Township and Range, I am deeply concerned about the possibility of contamination of our ground water supply as a result of the installation of a waste disposal system at this particular location.

Historically, the ground water supply on our property has been from shallow wells at a depth of 25 to 30 feet. Currently our water source is from a shallow well located on the SW_4^1 of Section 4; however, shallow ground water at a depth of 25-30 feet is documented in a number of areas on Section 4 much closer to the proposed disposal site. On the Section 9 portion of my interests there are also several locations where shallow ground water has been documented.

According to various Geological Survey maps the approximate elevation of the proposed site on Section 3 is 3573 feet. While the location of our water supply on Section 4 is slightly further than one-half mile from the proposed disposal site, the elevation at our well is approximately 3556 feet and contour of the maps indicate to me a sloping of the terrain to the South and Southwest from the Section 3 area. That same configuration continues on to our property on the $N\frac{1}{2}$ of Section 9 where the elevation is approximately 3546 feet. My concern is that contamination may occur through the natural flow of gravity, whether it be via rainwater, flooding or gravitation along the surface of the Red Beds in that area.

It has come to my attention that a pit has already been dug at the proposed site in anticipation of approval of this application, said pit being approximately 7 feet in depth. If this is in fact the case, my concern is deepened in that it puts the contaminants only that much closer to the surface of the Red Beds, thereby increasing the possibility of gravitational displacement.

Our property on Section 4, 5, 8 and 9 is currently under a grazing lease and it is imperative to the landowners as well as to our tenant that the ground water supply be protected from even the slightest possibility of contamination.

It is my understanding that the New Mexico Conservation Division, by statute, has a duty to protect the correlative rights of all parties concerned. To that end I am confident that the Commission will exerxise its full responsibility to protect not only our rights, but the rights of all parties in the surrounding proximity.

Thanking you in advance for your consideration in this matter, I am,

erv trulv.vours.

Elsie M. Reeves

191 DE 123 AM 9 24

Mr. William J. LeMay, Director Oil Conservation Division New Mexico Department of Energy P. O. Box 2088 Santa Fe, New Mexico 87504-2088 December 20,1991

Re: Application of <u>C.S.C. Land Parm, Inc.</u> for an oil field waste disposal system on the SWENEL, Sec. 3, T20S, R37E Lea County, New Mexico

Gentlemen:

Regarding the above referenced application I hereby protest the installation of such a disposal system in that particular area and make formal request for a Public Hearing in this matter.

As an owner of a portion of the surface interests on the $S_2^{\rm L}NE_1^{\rm L}$, the SELNW1, and the $S_2^{\rm L}$ of Section 4, T208, R37E and as a member of an Advisory Board which represents ninety-six percent of the remaining owners of the Section 4 property, as well as being one of the landowners of the $N_2^{\rm L}$ of Section 9 in the same Township and Range, I am deeply concerned about the possibility of contamination of our ground water supply as a result of the installation of a waste disposal system at this particular location.

Wistorically, the ground water supply on our property has been from shallow wells at a depth of 25 to 30 feet. Currently our water source is from a shallow well located on the SWR of Section 4; however, shallow ground water at a depth of 25-30 feet is documented in a number of areas on Section 4 much closer to the proposed disposal site. On the Section 9 portion of my interests there are also several locations where shallow ground water has been documented.

According to various Geological Survey maps the approximate elevation of the proposed site on Section 3 is 3573 feet. While the location of our water supply on Section 4 is slightly further than one-half mile from the proposed disposal site, the elevation at our well is approximately 3556 feet and contour of the maps indicate to me a sloping of the terrain to the South and Southwest from the Section 3 area. That same configuration continues on to our property on the N_2^4 of Section 9 where the elevation is approximately 3546 feet. My concern is that contamination may occur through the natural flow of gravity, whether it be via rainwater, flooding or gravitation along the surface of the Red Beds in that area.

It has come to my attention that a pit has already been dug at the proposed site in anticipation of approval of this application, said pit being approximately 7 feet in depth. If this is in fact the case, my concern is deepened in that it puts the contaminants only that much closer to the surface of the Red Beds, thereby increasing the possibility of gravitational displacement.

Our property on Section 4, 5, 8 and 9 is currently under a grazing lease and it is imperative to the landowners as well as to our tenant that the ground water supply be protected from even the slightest possibility of contamination.

It is my understanding that the New Mexico Conservation Division, by statute, has a duty to protect the correlative rights of all parties concerned. To that end I am confident that the Commission will exerxise its full responsibility to protect not only our rights, but the rights of all parties in the surrounding proximity.

Thanking you in advance for your consideration in this matter, I am,

Very truly yours,

Walter C. Laughlin
4139 E. Laughlin Road

Casa Grande, AZ 85222

P.O. BOX 1799 HOBBS, NEW MEXICO 88241

October 28, 1991

Pi

A DIVISION

Mr. Bill LeMay, Director State of New Mexico Oil Conservation Division P.O. Box 2088 Santa Fe, New Mexico 87504-2088

RE: Application For A Waste Disposal Facility SW½ of the NE½ of Section 3, Township 20, Range 37E Lea County, New Mexico Deeded Land

Dear Mr. LeMay:

We are in receipt of correspondence notifying us that Jimmy T. Cooper owner and operator of C & C Landfarm Inc. is filing an application for a Surface Waste Facility to be located on deeded land as described above.

The described land is bordered on two sides by New Mexico State Land, presently leased by S-W Cattle Co., and is cornered by a forty acre tract of BLM land which S-W Cattle Co. is in the process of purchasing. Further, the proposed site lies within one-half mile of an earthen tank supplied by windmill water from approximately thirty foot. Also, the elevation of the proposed site is higher than some of the adjoining land.

Our primary concern is for the security of this water and Mr. Roger Anderson of the New Mexico Oil Conservation Division nas assured me that precautions will be taken to guarantee the continued purity of the water.

Please keep us advised and informed as to the progress of this project. I can be contacted by phone at 505-393-4321 or 393-6420. Please direct all correspondence to P.O. Box 1799, Hobbs, NM 88241.

Yours Very Truly,

S-W CATTLE CO.

W. T. STRADLEY PRESIDENT



State of New Mexico

OFFICE OF THE

131 00 1 1 1 3 52

Commissioner of Public Lands

Sania Fe

P 0. BOX 1148 SANTA FE, NEW MEXICO 87504-1148

October 7, 1991

Roger Anderson State of New Mexico Oil Conservation Division P. O. Box 2088 Santa Fe, New Mexico 87501

Dear Mr. Anderson:

Please provide the State Land Office (Attn: Pleas M. Glenn) with a copy of the Jimmie T. Cooper, C & C Landfarm, Inc. permit for disposal of contaminated soils from oil and gas production. We have State Trust Lands both east and south of this proposed disposal area and would appreciate the opportunity to review and comment on this permit prior to O.C.D. action.

Thank you in advance for your cooperation.

Sincerely,

Pleas M. Glenn

Assistant Commissioner

PMG/d1

NOTICE OF PUBLICATION

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

Notice is hereby given that pursuant to New Mexico Oil Conservation Division Regulations, the following application to construct and operate a commercial surface waste disposal facility has been submitted for approval to the Director of the Oil Conservation Division, State Land Office Building, P.O. Box 2088, Santa Fe, New Mexico 87504-2088, Telephone (505) 827-5800:

C & C Landfarm Inc., Eddie W. Seay, Agent, P.O. Box 55, Monument, New Mexico 88265, has submitted an application to construct and operate a commercial landfarm facility for remediation of hydrocarbon contaminated soils. The proposed location of the facility is the SW/4 NE/4, Section 3, Township 20 South, Range 37 East, NMPM, Lea County, New Mexico. The facility is proposed to consist of a land management area where solids containing "non-hazardous" contaminants will be spread on the ground surface in six inch lifts or less and periodically stirred to enhance biodegradation contaminants. Groundwater most likely to be affected by any accidental discharges at the surface is not known to be present in the area of one-half mile from the boundaries of the facility. The facility is underlain by redbeds ranging in thickness from 430 to 1200 feet.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The application may be viewed at the above address between 8:00 a.m. and 5:00 p.m., Monday through Friday. Prior to ruling on any proposed permit or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 18th day of November, 1991.

STATE OF NEW MEXICO OIL CONSERVATION DIVISION

WILLIAM J. LEMAY, Director

SEAL

STATE OF BUBLICATION.
STATE OF MEN MEDICO
ENERGY, MINERALS AND
MATURAL RESOURCES SE proves to the Director of the Cili Conservation Division, State Land Office Building, P.D. Box 2008, Sersa. Fe. New Mexico 87504-2088, Tele-phone (SOS) 827-5800; [14] Ferra. C. & C. Landsern Inc., Eddle W. Seav, Agent, P.O. Box 55, Monu-ment, New Mexico 86265, him sub-ments, New Mexico 86265, him sub-ments and condension in agreement or and operate a commence of hydrocarbon by for remediation of hydrocarbon contaminated acids. The proposed location of the facility is the SW/4 NE-4, Section 5, Townerso 20 South, Range 37 Esst, NMPM, Les County, New Messoo. The facility is proposed OL CONSERVATION DIVISION
OF WELLAM & LEMAY, Director
Name November 27 alest alested

STATE OF NEW MEXICO

CLA-22-A (R-12/91)

County of Bernalillo

Thomas J. Smithson being duly sworn declares and says that he is National Advertising manager of the Albuquerque Journal, and that this newspaper is duly qualified to publish legal notices or advertisements within the meaning of Section 3. Chaper 131. DE: 2 RM 9 29 Session Laws of 1937, and that payment therefore has been made or assessed as court costs; that the notice, a copy of which is hereto attached, was published in said paper in the regular daily edition.

for	times, the first publication being on the
of	Nov
publications on	Chomar A. Emittano
MACULE LILES ETTE ORTIZ	Sworn and subscribed to before me, a Notary Public in and for the County of Bernalillo and State of New Mexico, this
LIC-NEW MEXICO ECRETARY OF STATE	PRICE 4 18.56
	Statement to come at end of month.

ACCOUNT NUMBER C 3 1184

SS

Affidavit of P 2n

STATE OF NEW MEXICO) ss. ١

COUNTY OF LEA

Joyce Clemens being first duly sworn on oath deposes and says that he is Adv. Director THE LOVINGTON DAILY LEADER, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached.	entitled
Notice Of Publication	
HOLICE OF PROTICE CONT.	
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and numbered	in the
Cour	t of Lea
County, New Mexico, was published in a reg	ular and
entire issue of THE LOVINGTON DAILY LEA	DER and
not in any supplement thereof, once each wee	k on the
same day of the week, for	
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consecutive massis, beginning with the issue of	
November 21	19 91
and ending with the issue of	
November 21	9 1 19
And that the cost of publishing said noti	ce is the
sum of \$ 22.90	
which sum has been (Paid) (Assessed as Co	urt Costs
larce lemen	Э
Subscribed and sworn to before me this	26th
day of November	1991
Mrs Jean des	uls
Notary Public, Lea County, Ne	
My Commission Expires Sept. 28	1994

LEGAL NOTICE NOTICE OF PUBLICATION STATE OF NEW MEXICO ENERGY, MINERALS AND **NATURAL RESOURCES** DEPARTMENT OIL CONSERVATION DIVISION

Notice is hereby given that pursuant to New Mexico Oil Conservation Division Regulations, the following application to construct and operate a commercial surface waste disposal facility has been submitted for approval to the Director of the Oil Conservation Division, State Land Office Building, P.O. Box 2038, Santa Fe, New Mexico 87504-2088. Telephone (505) 827-5800.

C & C Landfarm, Inc., Eddie W. Seay, Agent, P.O. Box 55, Monument, New Mexico 88265. has submitted an application to construct and operate a commercial landfarm facility for remediation of hydrocarbon contaminated soils. The proposed location of the facility is the SW/4 NE/4, Section 3, Township 20 South, Range 37 East, NMPM, Lea County, New Mexico. The facility is proposed to consist of a land management area where solids containing "non-hazardous" contaminants will be spread on the ground surface in six inch lifts or less and periodically stirred to enhance biodegradation of contaminants. Groundwater most likely to be affected by any accidental discharges at the surface is not known to be present in the area of one-half mile from the boundaries of the facility. The facility is underlain by recibeds ranging in thickness from 430 to 1200 feet.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The application may be viewed at the above ackings between 8:00 a.m. and 5:00 p.m., Monday through Friday. Prior to ruling on any proposed permit or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this 18th day of November, 1991. STATE OF NEW MEXICO

OIL CONSERVATION DIVISION WILLIAM J. LEMAY, Director

Published in the Lovington Daily Leader November 21, 1991.

Affidavit of Publication

STATE OF NEW MEXICO

) ss.

COUNTY OF LEA

Joyce Clemens

Adv. Director deposes and says that he is THE LOVINGTON DAILY LEADER, a daily newspaper A.M. on July 9, 1992, at the Oil of general paid circulation published in the English Conservation Division Conferlanguage at Lovington, Lea County, New Mexico; that Building, Santa Fe, New Mexico, said newspaper has been so published in such county Examiner or David R. Catanach, continuously and uninterruptedly for a period in excess appointed for said hearing as of Twenty-six (26) consecutive weeks next prior to the provided by law.

STATE OF NEW MEXICO TO: first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attached, entitled
Notice Of Publication
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And that the cost of publishing said notice is the
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Joe Clemens
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Subsoribed and sworn to before me this
day of June 19 92
Mrs Janes
Nøtary Public, Lea County, New Mexico

My Commission Expires Sept. 28

LEGAL NUTICE **NOTICE OF PUBLICATION** STATE OF NEW MEXICO ENERGY, MINERALS AND **NATURAL RESOURCES** DEPARTMENT **OIL CONSERVATION** DIVISION SANTA FE **NEW MEXICO**

The State of New Mexico by its Oil Conservation Division hereby gives notice pursuant being first duly sworn on oath to law and Rules and Regulations of said Division promulgatof ed thereunder of the following ence Room, State Land Office before Michael E. Stogner,

> All named parties and persons having any right, title, interest or claim in the following cases and notice to the public.

(NOTE: All land descriptions erein refer to the New Mexico rincipal Meridian whether or ot so stated.) ASE 10499:

polication of Mitchell Energy orporation for a unit greement, Lee County, New

Applicant, in the abovetyled cause, seeks approval f the Comanche State Unit greement for an area omprising 2558.56 acres; more r less, of State lands in all or ortions of Sections 3, 4, 9, and 0 of Township 21 South, Range 3 East, which is centered approximately 1.5 miles south of State Highway No. 176 at nile marker 19.

CASE 10497: (Readvertised)
Application of Mewbourne Oil Company for two secondry recovery pilot projects, Les County, New Mexico.

Applicant, in the abovetyled cause, seeks authorizaion to institute two secondary ecovery pilot projects in the Querecho Plaine-Upper Bone Spring Pool within Township 8 South, Range 32 East, on ts Government "K" Lease by he injection of water from eproximately 8454 feet to 8515 eet in Well No. 2 located 1950 eet from the South line and 980 feet from the West line Unit K) of Section 23 and on ts Federal "E" Lease by the njection of water into the perforated interval from approximately 8501 feet to 8530 eet in Well No. 10 located 2310 eet from the North and East ines (Unit G) and from approximately 8360 feet to 8486 eet in Well No. 11 located 660 feet from the North line and 530 feet from the East line (Unit A) both in Section 27. Said pool

NEW MONW. CASE 10502: **Application of Meridian Oil** inc. for compulsory pooling, Les County, New Mexico.

Applicant, in the abovestyled cause, seeks an order pooling all mineral interests from the surface to the base of the Delaware formation or to a depth of 8700 feet, whichever is deeper, underlying the NW/4 NW/4 (Unit D) of Section 23, Township 22 South, Range 33 East, forming a standard 40acre oil spacing and proration unit within said vertical extent. Said unit is to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as the operator of the well and a charge for risk involved in drilling said well. Said unit is located approximately 6.25 miles northnorthwest of the junction of State Highway No. 128 and the Delaware Basin Road.

CASE 10503:

Application of Meridian Oil inc. for computerry pecling, Les County, New Mexico.

Applicant, in the abovestyled cause, seeks an order pooling all mineral interests from the surface to the base of the Delaware formation or to a depth of 8700 feet, whichever is deeper, underlying the SWA NW/4 (Unit E) of Section 23, Township 22 South, Range 33 East, forming a standard 40acre oil spacing and proration unit within said vertical extent. Said unit is to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision, designation of applicant as the operator of the well and a charge for risk involved in drilling said well. Said unit is located approximately 6 miles north-northwest of the junction of State Highway No. 128 and the Delaware Basin

CASE 10504:

Application of Meridian Oil inc, for compulsory pooling, Lee County, New Mexico.

Applicant, in the abovestyled cause, seeks an order pooling all mineral interests from the surface to the base of the Delaware formation or to a depth of 8700 feet, whichever is deeper, underlying the NW/4 SW/4 (Unit L) of Section 24, Township 22 South, Range 33 East, forming a standard 40acre oil specing and proration unit within said vertical extent. Said unit is to be dedicated to a well to be drilled at a standard location thereon. Also to be considered will be the cost of drilling and completing said well

for supervision, designation applicant as the operator of t well and a charge for n involved in drilling said we Said unit is located appro mately 5.5 miles north by we of the junction of State Highw No. 128 and the Delaware Ba Road.

CASE 10505:

Application of United G Search, Inc. for a credit: enhanced oil recovery, L County, New Mexico.

Applicant, in the above styled cause, seeks a credit enhanced oil recovery cover the following leases: Glei Ryan (Leonard Federal) Les comprising all of Section 11 a the \$/2 of Section 14, Towns 26 South, Range 37 East, s: and except as to depths be-3600 feet subsurface in the S SE/4 of said Section 11 and to depths between the surf: and 3600 feet subsurface in SW/4 SW/4 of said Section Glenn-Ryan (Leonard Broth: Lease comprising all of Sec 13 and the N/2 of Section Township 26 South, Range East, save and except as to Queen formation in the S SW/4 of said Section 13; the Leonard Brothers "A" Le comprising the N/2 N/2, S NW/4, and the SW/4 NE/-Section 23, Township 26 Sc. Range 37 East, save and ex as to the Queen formatio the NE/4 NE/4 of said Sec. 23. Said leases are loca approximately 5 miles e southeast of Bennett, N Mexico.

CASE 10507: Application of C & C Lands ine, for a commercial sur waste disposal facility. County, New Mexico.

Applicant, in the abc styled cause, seeks author tion to construct and opea commercial landtarm far for remediation of non-haz. ous hydrocarbon-contamina soils using an enhan biodegradation process. 5 area is to be located in the S NE4 (Unit G) of Section Township 20 South, Range East, which is approxima 2 miles southeast of Monum New Mexico. This applica has been administrati determined to be approva and this hearing is schedu to allow parties the opports to present technical evide why the application should be approved pursuant to rules of the Division. In absence of objection, application will be taken ur advisement.

Given under the Seal of State of New Mexico Conservation Commissic Santa Fe, New Mexico on 18th day of June, 1992.

STATE OF NEW MEX OIL CONSERVAT DIVIS WILLIAM J. LEM

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OIL CONSERS. ON DIVISION

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

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

> CASE NO. 10507 Order No. R-9769

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

ELSIE REEVES, S-W CATTLE COMPANY'S AND W. T. STRADLEY'S REQUEST FOR A DE NOVO HEARING BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION

Comes now ELSIE REEVES, S-W CATTLE COMPANY AND W. T. STRADLEY, parties of record before the New Mexico Oil Conservation Division in Case 10507 and adversely affected by Division Order R-9769 entered November 16, 1992, by its attorneys Kellahin & Kellahin and pursuant to Section 70-2-13 NMSA-1978, hereby requests that the New Mexico Oil Conservation Commission hold a HEARING DENOVO in this matter.

NMOCD Case No. 10507 Request for Hearing DeNovo Elsie Reeves and S-W Cattle Company Page 2

Respectfully Submitted:

W. Thomas Kellahin
Kellahin & Kellahin
P. O. Box 2265
Santa Fe, New Mexico 87501
(505) 982-4285
ATTORNEYS FOR ELSIE REEVES,
W. T. (TRENT) STRADLEY AND
S-W CATTLE COMPANY

Gene Samberson, Esq.
P. O. Drawer 1599
Lovington, New Mexico 88260
(505) 396-5303
ATTORNEYS FOR W. T. (TRENT)
STRADLEY AND S-W CATTLE COMPANY

CERTIFICATE OF MAILING

I, W. Thomas Kellahin, hereby certify that on this day of December, 1992 I provided a copy of the foregoing pleading by US mail, postage pre-paid or hand delivery to all counsel and parties of record in this matter.

W. Thomas Kellahin

Affidavit of Publication

STATE	OF	NEW	MEXICO)	
)	SS.
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being first duly sworn on oath Joyce Clemens deposes and says that he is Adv. Director THE LOVINGTON DAILY LEADER, a daily newspaper of general paid circulation published in the English language at Lovington, Lea County, New Mexico; that said newspaper has been so published in such county continuously and uninterruptedly for a period in excess of Twenty-six (26) consecutive weeks next prior to the first publication of the notice hereto attached as hereinafter shown; and that said newspaper is in all things duly qualified to publish legal notices within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico.

That the notice which is hereto attache	d, entitled
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And that the cost of publishing said no	otice is the
sum of \$	
which sum has been (Paid) (Assessed) as (Court Costs
Kungi (Winner	<i>^</i>

Subscribed and sworn to before me this

Him Kenner Notary Public, Lea County, New Mexico

day of January , 19 93

My Commission Expires Sept. 28 19 94

LEGAL NOTICE NOTICE OF PUBLICATION STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION SANTA FE - NEW MEXICO The State of New Mexico by its Oil Conservation Commission hereby gives notice pursuant to law and Rules and Regulations of said Commission promulgated thereunder of the following public hearing to be held at 9:00 A.M. on THURS-DAY, JANUARY 14, 1993, at Morgan Hall, State Land Office Building, Santa Fe, New Mexico. STATE OF NEW MEXICO TO

All named parties and persons having any right, title, interest or claim in the following cases and notice to the public.

(NOTE: All land descriptions herein refer to the New Mexico Principal Meridian whether or not so stated.) **CASE 10507:** (DE NOVO)

Application of C & C Landfarm Inc. for a commercial surface waste disposal facility, Lea County, New Mexico. Applicant, in the above-

styled cause, seeks authorization to construct and operate a commercial landfarm facility for remediation of non-hazardous hydrocarbon-contaminated soils using an enhanced biodegradation process. Said area is to be located in the SW/4 NE/4 (Unit G) of Section 3, Township 20 South, Range 37 East, which is approximately 2 miles southeast of Monument, New Mexico. Upon application of intervenors Elsie Reeves, S-W Cattle Co. and W.T. (Trent) Stradley, this case will be heard De Novo pursuant to the provisions of Rule 1220. CASE 10444: (DE NOVO)
Application of Amerada Hess Corporation for pool contraction, pool creation, and promulgation of special pool rules, Lea County, New Mexico.

Applicant, in the abovestyled cause, seeks the creation of a new pool for the production of oil from the Lower Blinebry formation and the promulgation of special pool rules therefor including provisions for 80-acre oil spacing and proration units. designated well location requirements and a special gasoil ratio limitation of 10,000 cubic feet of gas per barrel of oil. Applicant also seeks the concomitant contraction of the vertical limits of the Hobbs-Blinebry Pool in conjunction with the creation of said new Lower Blinebry oil pool within the existing horizontal boundaries of the Hobbs-Blinebry Pool in portions of Townships 18 and 19 South, Range 38 East. Said area is located on the west side of Hobbs, New Mexico. Upon application of Amerada Hess Corporation this case will be heard De Novo pursuant to the provisions of Rule 1220.

Given under the Seal of the State of New Mexico Oil Conservation Commission at Santa Fe, New Mexico on this 22nd day of December, 1992. STATE OF NEW MEXICO OIL CONSERVATION DIVISION WILLIAM J. LEMAY,

Director

SEAL Published in the Lovington Daily Leader December 30, 1992.



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.

Application for Re-Hearing Case No. 10507 (DeNovo) Page 3

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 din 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.

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.

<u>Finding (11)(a):</u>

"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 contaminates 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 contaminates 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

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

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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. 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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ATTORNEYS FOR OPPOSITION-W.T. STRADLEY (S-W CATTLE CO.) AND ELSIE M. REEVES

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 (<u>De Novo</u>) 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

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 <u>De Novo</u>.
- (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 runon 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.

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Case No. 10507 (<u>De Novo</u>)
Order No. R-9769-A

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

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Case No. 10507 (<u>De Novo</u>)
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

WILLIAM W. WEISS, Momber

WILLIAM J. LEMAY, Chairman

I Dissent

GARY CARLSON, Member

SEAL

dr/

Exhibit "A" Case No. 10507 <u>De Novo</u> 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

FXHIBIT B APPLICATION FOR REHEARING

NMOCD Case No. 10507 (DeNovo) ORDER NO. R-9769-B Page 2

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."

NMOCD Case No. 10507 (DeNovo) ORDER NO. R-9769-B Page 3

- (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."

NMOCD Case No. 10507 (DeNovo) ORDER NO. R-9769-B Page 4

- (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 is
 / 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;
- (1) 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 redbeds 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 redbeds 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 redbeds;
- (c) Although the OCD-EB on February 21, 1992 expressed its concern about the potential migration of contaminants down gradient along the redbed surface, there is no evidence of any hydrologic studies of the area to determine the direction of migration of contaminates:
- (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 contaminates 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.
- (1) 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 40acre 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.

(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,

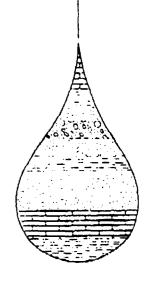
GEOHYDROLOGY ASSOCIATES, INC.

T. E. Kelly 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

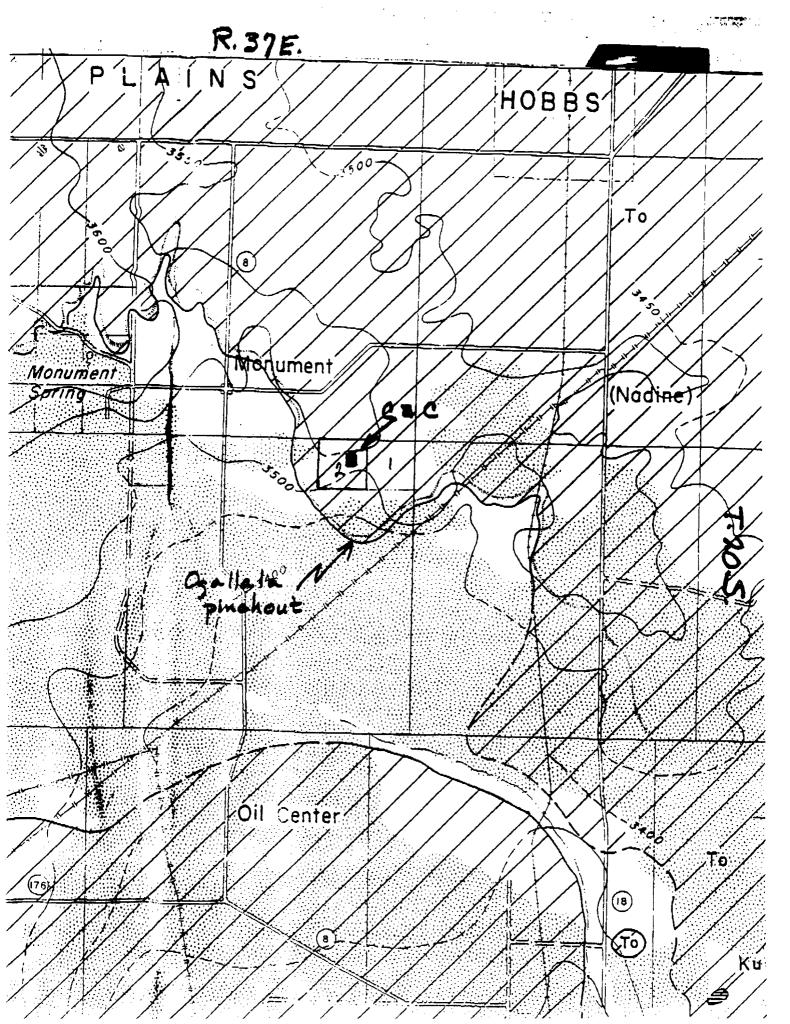
by ALEXANDER NICHOLSON, Jr. and ALFRED CLEBSCH, JR.

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



1	NEW MEXICO OIL CONSERVATION COMMISSION
2	STATE LAND OFFICE BUILDING
3	STATE OF NEW MEXICO
4	CASE NO. 10507
5	
6	IN THE MATTER OF:
7	
8	The Application of C & C Landfarm, Inc., for a Commercial Surface Waste
9	Disposal Facility, Lea County, New Mexico.
10	New Mexico.
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1 2	
13	
14	BEFORE:
15	CHAIRMAN WILLIAM LEMAY
16	COMMISSIONER BILL WEISS
17	COMMISSIONER GARY CARLSON
18	FLORENE DAVIDSON, Staff Specialist
19	
20	Mabry Hall
2 1	February 25, 1993
2 2	DEGELVE I
23	REPORTED BY:
2 4	CARLA DIANE RODRIGUEZ Certified Court Reporter
2 5	for the State of New Mexico

1	APPEARANCES	
2	FOR THE NEW MEXICO OIL CONSERVATION DIVISION	:
3	ROBERT G. STOVALL, ESQ.	
4	General Counsel	
5	State Land Office Building Santa Fe, New Mexico 87504	
6		
7	FOR THE APPLICANT:	
8	CAMPBELL, CARR, BERGE & SHERIDAN, P.A.	
9	Post Office Box 2208	
10	Santa Fe, New Mexico 87504-2208 BY: <u>WILLIAM F. CARR, ESQ</u> .	
11		
12		
13		
14	FOR MS. ELSIE REEVES and S-W CATTLE COMPANY:	
15		
16		
17	KELLAHIN & KELLAHIN Post Office Box 2265	
18	Santa Fe, New Mexico 87504-2265 BY: W. THOMAS KELLAHIN, ESQ.	
19	Zi. Million Halling Bog.	
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CHAIRMAN LEMAY: We shall continue by 1 calling Case No. 10507. 2 3 MR. STOVALL: Which is the application of C & C Landfarm, Inc., for a commercial surface 4 waste disposal facility, Lea County, New Mexico. 5 The case is heard de novo based upon the 6 application of Elsie Reeves, S-W Cattle Company 7 8 and W. T. "Trent" Stradley. CHAIRMAN LEMAY: Appearances in case 9 10 10507? MR. CARR: May it please the 11 12 Commission, my name is William F. Carr with the 13 Santa Fe law firm Campbell, Carr, Berge & 14 Sheridan. I represent C & C Landfarm, Inc., and I have one witness. 15 CHAIRMAN LEMAY: Additional 16

MR. KELLAHIN: Mr. Chairman, I'm Tom Kellahin, of the Santa Fe law firm of Kellahin and Kellahin. I'm appearing today on behalf of Ms. Elsie Reeves. Ms. Reeves is here in the audience with me. And Mr. Trent Stradley is sitting behind her in the audience. He is president of S-W Cattle Company. I intend to

appearances. Mr. Kellahin?

call them both as witnesses.

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In addition, my hydrologist is Mr. Tim Kelly from Albuquerque, and he is my third witness.

MR. STOVALL: Robert G. Stovall on behalf of the Division. The Division is not a party to this case, but this has involved some administrative processing by the Environmental Bureau of the Division, and there may be a strong likelihood—there will be a member of that Bureau testify to explain what has happened at the Division and where the Division Bureau stands with respect to this application.

Again, we don't take a position, but with respect to keeping the Commission informed, I think it's almost essential that that occur and that that witness be put on.

MR. KELLAHIN: Mr. Chairman, I think this is a unique case. Mr. Carr, Mr. Stovall and I, I think, have been plowing new ground with this case and we continue to perhaps make it up as we go.

I think it would be appropriate to have opening comments in an effort to put in context what each of us thinks are the issues for concern to the Commission at this point.

CHAIRMAN LEMAY: Okay. Let's swear in the witnesses, and then we'll go to opening comments. Those that will give testimony, please stand.

[And the witnesses were duly sworn.]

CHAIRMAN LEMAY: Let's begin with

opening comments, then. Mr. Carr.

MR. CARR: May it please the Commission, in October 1991, C & C Landfarm, Inc., filed an application with the Oil Conservation Division seeking approval to run and operate a commercial landfarm in Lea County, New Mexico.

Meetings were held with the

Environmental Division Bureau of the Oil

Conservation Division, and on May 20, 1992, the

Environmental Bureau advised that the application
had been determined to be approvable if certain

conditions were met, and those conditions were
set forth.

C & C agreed to meet these conditions, and a case was advertised before an examiner of the Oil Conservation Division, and the advertisement noted that unless there were objections, the application would be approved.

Following that, the people that Mr.

Kellahin represents here today filed written

objections, the matter was set for hearing, and

following an examiner hearing an order was

entered approving the application and imposing a

set of conditions on the operation of this

facility.

Following that and on January 6th, another letter was delivered from the Environmental Bureau, and still new and additional conditions concerning how this facility was to be installed and operated were at least recommended by the Division. And those conditions are also, I might add, acceptable to C & C.

We're here today because of the objections that have been filed, and although the Environmental Bureau has determined that this application is approvable, the question is for you to decide whether or not this application is, in fact, to be approved.

We will call Michael Pierce. He's a consulting geologist from Hobbs. Mr. Pierce is going to review for you what they're proposing, how the project will operate, and he will show

you that what we are proposing will not contaminate fresh water, is environmentally sound, and will not pose a threat to human

health.

And after 18 months of working with this matter, we believe we are finally in a position where we can come to you and seek your final approval.

CHAIRMAN LEMAY: Thank you, Mr. Carr. Mr. Kellahin.

MR. KELLAHIN: Mr. Chairman, I have a plat that illustrates the area that I would like to put up. There's not an easel in the room, but perhaps I can position it here so that the only person that can't see it will be Mr. Stovall.

MR. STOVALL: I think I've seen it before, Mr. Kellahin.

MR. KELLAHIN: I believe you have, Mr. Stovall.

MR. KELLAHIN: Gentlemen, my clients' position is that adjoining ranchers and owners will be materially affected by the approval of what C & C Landfarm proposes to do. We'll give you some more illustrations, some more maps, but just to orient you, let me explain to you what

1 C & C originally applied for back in October of 2 1991.

We filed, with the Oil Conservation
Division's Environmental Bureau, a request for
surface commercial disposal facilities within a
40-acre tract located here and outlined in red on
the exhibit, which will be Exhibit No. 2. It's
Section 3. Within that 40-acre tract, then, that
was the facility or the siting of the landfarm
facility.

Outlined in blue is some 200 acres, of which 40 acres has been carved out. This is land under the control of Mr. Cooper. Mr. Cooper has arranged with C & C Landfarm to use the 40-acre tract as the landfarm.

You can see identified on the display a yellow outlined tract, and that is the farm or ranch that Elsie Reeves and her family controls, that is west and southwest of the facility.

Mr. Trent Stradley, as S-W Cattle
Company, controls the acreage to the south and to
the east of the site, and it is outlined
generally by the green border.

The major sources of fresh water are very shallow aquifers lying above the redbed.

There is a windmill down here, identified in the southwest quarter of 3, by the blue dot that is Mr. Stradley's windmill. That has been there for decades. It produces continually from shallow groundwater. From the surface to the depth of the water is about 20 feet, give or take a couple of feet. That is a principal point of withdrawal of the shallow water.

You can see from the topo map and, as Mr. Kelly will describe to you and Mr. Stradley will document, that this is in the area called White Breaks. Topographically, it's simply a slump or a sink in this area, and is a natural collection point for shallow fresh water.

In addition, Mr. Stradley has two other points down here on the display, shown on the south side of the display by two blue dots.

Those are submersible pump wells, where he also produces and extracts fresh water at shallow depths. Those three withdrawal points are the only points within six to eight sections where Mr. Stradley waters his cattle. There's no other water available to him other than those control points.

The application, as originally filed,

sought to place contaminated soils, soils that were contaminated with hydrocarbon, taking them from sites where wells were located, taking that material and concentrating it at the facility. The Applicant originally sought to put that contaminated soil in an excavated pit.

The pit originally started in the southeast corner of the 40-acre tract. Caliche was removed from that area and was used in other oil field sites, on roads and whatever, off the property.

The plan was to take the contaminated soils and put them back in the pit. That was the original plan. C & C submitted that to the Environmental Bureau.

The Environmental Bureau, through a course of exchanges of correspondence, asked the Applicant to provide documentation, a design for that facility, and to further document what they sought to do.

Based upon that review, then, the Environmental Bureau, in May of 92, issued some conditions. The conditions would approve putting the contaminated soils into the excavated pit.

The protective device to be utilized to protect

the shallow groundwater was something called a redbed dike. The plan was to excavate along the edge of the pit and construct a deep, narrow dike to protect or constitute a barrier so that contaminants or leachates would move off the property. That was the condition of approval, in substance, of the May conditions.

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My clients objected, sought to preclude the administrative approval of this landfarm concept with those conditions, and sought a hearing. That hearing was held before Examiner Stogner in September of 92.

At that hearing, we presented testimony from Ms. Reeves, Mr. Stradley, and Mr. Kelly, describing and identifying for the Examiner the issues we had of concern for the contamination of the groundwater.

After that hearing, Mr. Stogner entered an order denying our objections and approving the facility, attaching to it substantially the same conditions as were set forth in the May 20, 1992 letter of conditions from the Environmental Bureau.

We then timely filed for a <u>de novo</u> hearing. Pending a hearing before the

Commission, the Environmental Bureau now issues substantially revised recommendations, on January 6, 1993. What the Bureau did is they now preclude the Applicant from putting contaminated soils in the excavated pit. They say, "That poses a risk and you can't do it," and so now the Applicant can only utilize native soil within the 40-acre tract, and put it on top of undisturbed soil.

Mr. Kelly finds fault with the amendment, he finds fault with the original concept, and we're here to object to the approval of this facility at this site.

Procedurally, we're in no man's land, I contend. We're here on the rehearing or the de novo hearing of the examiner order and yet, as we go through that process, we are now subject to additional conditions from the Environmental Bureau that have substantially altered the facility as approved by Examiner Stogner. It would be my position that it is premature to be before the Commission today, and what should happen is this case ought to be reopened and the recommendations taken by the Environmental Bureau be taken back to the Examiner, so he can

reexamine whether or not that ought to be changed.

We are here today to oppose the facility either under the original concept or under the current proposed amendments of January 6, 1993.

CHAIRMAN LEMAY: Let me interrupt you for just a point here. Mr. Carr and Mr. Stovall, have you discussed procedurally what Mr. Kellahin is talking about, whether that would be the procedure for this type of an application, or do you agree or disagree?

MR. STOVALL: I'll allow Mr. Carr to respond first and then I'll be glad to explain.

CHAIRMAN LEMAY: I didn't mean to interrupt you at that point, Counselor, but I thought while we were on that point, I would like to clarify that.

MR. KELLAHIN: I think it's worth clarifying at this point. The processing of the case was originally administrative. The Division is currently undertaking to develop guidelines for landfarms. They haven't been issued, as best I know. What we have is an experiment, if you will, with this application, in determining what

1 criteria, standards and guidelines are applied to it.

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As we go through the process, the conventional case would have taken this to an Examiner because of objections. The Examiner enters an order, and we come before you if we're dissatisfied. But that process has now been interrupted by a significant change in what's happened, and I don't know why you ought to be hearing it.

CHAIRMAN LEMAY: Let's look at that issue by itself. Mr. Carr.

MR. CARR: As I indicated in my opening statement, this application was originally filed in October 1991. Since that time, the procedures have been evolving at the Division level as to how to handle a project of this nature.

To come in and say now because 18 months later there has been some change in recommendations from the agency, which you're here to consider, means that we have to go start the process all over again, I think is absurd.

This isn't the unique case Mr. Kellahin wants it to be perceived as. You have approved two of these in less than 90 days, in the

interim, since this application was originally approved under the guidelines developed by your Environmental Bureau.

We have a situation here where there are two ways to keep us from going forward; beat us on the merits, which they've been unsuccessful in doing, or defeat us with a war of attrition, and if after 18 months because there is an evolving set of rules and regulations we're told to go start all over again, it means we'll be back before you 18 months from now, and you're going to deny the Bureau its flexibility in continuing to evolve effective regulations for needed projects just like this one.

This isn't an argument being advanced by Mr. Kellahin, because he's worried about the new conditions. They were mailed out January the 6th. Certainly there's opportunity and has been opportunity since that time for their expert to review them. They're trying to delay a final resolution of a question that they have been able to keep before you for now 18 months. And we think it's time to get this thing revolved. We have been ready to go for 18 months.

If you would like to discuss when your

Bureau's witnesses are up, the kinds of changes, and if you'll compare those changes to the very objections raised by Mr. Kellahin at the Examiner level, you will see in fact they were responding to those objections. And if you now start the process over and deny that flexibility to your agency, you're really creating a situation where when someone comes forward and tries to work with your Environmental Bureau to develop a sound project, we're really laying ourselves wide open to absolutely endless delay.

CHAIRMAN LEMAY: Mr. Stovall, would you respond.

MR. STOVALL: Mr. Chairman, procedurally, I think they've pretty well described what has happened. As you're aware, applications for all disposal facilities have normally been processed administratively by the Division's Environmental Bureau, and the director of the Division issues a permit authorizing operations.

One of the things about those permits and about the whole process is that it's iterative. The application comes in, the Bureau reviews it, they take pieces of it, they put it

together, and come up with a final package.

The original case, the first time we had a case was a surface disposal facility for produced water. That lasted, at the Examiner level, five days.

Part of the reason for that was because they stopped the iterative administrative process; decided, the next time what we would do is go through the administrative review, analyze it, come to a hearing—analyze it, make a preliminary determination whether or not an application was approvable or not, and give the party who didn't like the decision the opportunity to request a hearing.

That's essentially what we've done in this case, and indeed it is a bit experimental, in that sense. What has happened in this case that has caused the additional complication is that the Environmental Bureau reviewed the order and had some specific concerns about the Examiner order which came out, and quite frankly welcomed this opportunity to review and come back in.

Procedurally, and something we've always got to insist is, regardless of whether it's an administrative approval or an order

approval, the Division must retain authority to modify any permit conditions based upon future information that's acquired.

With respect to the January changes, I think that was the nature of the process, legally speaking, procedurally speaking, that the Division said, "We really think that these changes ought to be made to the process." At that time it was made in the context of knowing this case was going to come de novo and come before you.

This is truly, and the Division views this, as a <u>de novo</u> case. It is the obligation of the Applicant to show that this facility can be constructed and operated in a manner which is environmentally sound and meets the requirements of the Division, including the fresh water protection, the human or public health and the environment protections that are required. All the requirements of the OCD rules must be satisfied.

Procedurally, I would agree with Mr.

Carr that the only effect of trying to take it back and go through an Examiner hearing again would be to extend and draw out the process, and

indeed this one has been a wrong one.

As far as the establishment of guidelines, it is actually hearing processes such as this that really aid and assist in the development of guidelines, and they are just that. They are a set of conditions or operational requirements which the Division publishes and says, "If you meet these, you can probably get approval."

But they're not rules, they're not hard and fast. Out of this hearing it's very likely that there may be some additional revisions to the guidelines. Those will be changed. They're intentionally not rules because somebody may come up with a better idea, and we want the opportunity to adopt that better idea.

I think, in fairness to everybody, I think you should go ahead and hear this case. It is de novo. It's a standing case. Make your decision, issue your order. We'll have some guidance to go forward and know how to operate in the future, but you're doing this one from scratch and need to get all of the right information in.

That's one of the reasons, as I stated

earlier, that I intend to put on a Division witness to explain the scientific basis for the conditions, and the things the Division is looking at are the January conditions that were put out; again, put out in anticipation of this hearing and knowing that they would be reviewed at this hearing. And the Division is prepared to explain those. So procedurally, I recommend that the Commission go forward with this case.

CHAIRMAN LEMAY: Let's take a couple of minutes here.

COMMISSIONER CARLSON: Do we have a motion, Mr. Kellahin? Are you moving that we dismiss this or send it back to the Examiner, or what are we acting on?

MR. KELLAHIN: I so move, that the application before you is premature because, as I understand it, both the Division Environmental Bureau and the Applicant have agreed to material changes to modifications of the Examiner order, as issued, and that's the order from which we've taken our de novo appeal. So it's premature to have the case before the Commission.

If you want it in the context of a motion, I move that this Commission direct this

case to be reopened at the Examiner level to take 1 testimony concerning the changes. 2 3 MR. CARR: And I would ask you to refer to my prior statement, obviously. 4 COMMISSIONER CARLSON: I have a 5 question of Mr. Stovall. Isn't there, 6 7 statutorily, isn't there a provision that this 8 Commission can take cases without having first 9 going through an Examiner if it is obvious to the 10 Chairman that it's likely to be appealed anyway? 11 MR. STOVALL: Yes, that's true, Commissioner Carlson. It's not a procedural 12 13 requirement that it go back and be reheard. You 14 have every authority in the world to take this 15 case, and I recommend you do so as an original 16 case at this point. CHAIRMAN LEMAY: Commissioner Weiss. 17 COMMISSIONER WEISS: Have there been 18 19 any new measurements since the original case? 20 MR. KELLAHIN: I'm sorry? COMMISSIONER WEISS: Have there been 21 22 any new measurements? anything measured that's 23 different than it was back when you started? 24 MR. KELLAHIN: My understanding is,

there are no new scientific data available for

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1	consideration.
2	COMMISSIONER WEISS: Thank you. Let's
3	take a couple minutes.
4	[Discussion off the record.]
5	CHAIRMAN LEMAY: We all agree
6	unanimously that we do want to hear this case, so
7	we shall carry forward with it today.
8	MR. KELLAHIN: That concludes, Mr.
9	Chairman, my opening remarks.
10	CHAIRMAN LEMAY: I didn't mean to
11	interrupt you at that point.
12	MR. KELLAHIN: No, I was finished.
13	Let's get on with it.
1 4	CHAIRMAN LEMAY: Okay. Thank you, Mr.
15	Kellahin.
16	MR. CARR: May it please the
17	Commission, at this time we'll call Michael L.
18	Pierce.
19	MICHAEL L. PIERCE
20	Having been first duly sworn upon his oath, was
2 1	examined and testified as follows:
22	EXAMINATION
23	BY MR. CARR:
2 4	Q. Will you state your name for the
25	record, please?

- 1 A. Michael L. Pierce.
- Q. Where do you reside?
 - A. In Hobbs, New Mexico.
 - Q. By whom are you employed and in what capacity?
 - A. By Peak Consulting Services, and I'm owner of that company.
 - Q. Have you previously testified before this Division or before the Oil Conservation Commission?
 - A. I have.

- Q. Have you previously testified before the Commission?
- 14 A. No, I have not.
 - Q. Would you briefly summarize your educational background and then review your work experience.
 - A. I received a bachelor of science degree in geology from the University of New Mexico in 1979. I spent a year working as a mine geologist in Grants, in a uranium mine. I moved to Hobbs, New Mexico, in 1981, provided as a petroleum geologist. I worked there until 1986 and I have been an independent consultant in Hobbs ever since then.

1 When were you employed by C & C Q. Landfarm, 2 Inc., on this matter? 3 Α. In approximately August of 1991. What were you asked to do? 4 Q. 5 To develop a plan for a commercial Α. 6 landfarm facility. 7 Q. Were you also asked to help secure the necessary regulatory approvals? 8 Yes, I was. 9 Α. 10 Are you familiar with the application Q. that has been filed in this case on behalf of 11 12 C & C Landfarm, Inc.? I am. 13 Α. 14 Q. Did you assist with the preparation of the application itself? 15 I did, yes. 16 Α. 17 Q. Subsequent to the filing of the application, have you been involved in meetings 18 with the Environmental Bureau staff of the Oil 19 20 Conservation Division? 21 Α. Numerous meetings. 22 0. Did you testify in support of this 23 application at the Examiner hearing? 24 Α. Yes, I did. 25 MR. CARR: At this time we would tender

1 Mr. Pierce as an expert in petroleum geology. MR. KELLAHIN: May I ask the witness 3 some questions, Mr. Chairman? CHAIRMAN LEMAY: Sure. 4 EXAMINATION 5 BY MR. KELLAHIN: 6 7 0. Mr. Pierce, your current experience and 8 the recent past experience has been in the field of petroleum geology, has it not? 9 10 Α. The majority of it, yes. 11 Q. Do you hold a degree in hydrology? 12 Α. No, sir, I do not. 13 Do you have any experience in modeling Q. 14 or studying groundwater movement? No, sir, I do not. 15 Α. MR. KELLAHIN: Mr. Chairman, I don't 16 17 believe Mr. Carr has laid an appropriate 18 foundation to qualify this witness as an expert. 19 MR. CARR: May it please the Commission, I tendered him as an expert in 20 21 geology. Mr. Kellahin maybe is trying to suggest that he is more than that, but we're going to try 22 23 and stand on what his qualifications are, and I 24 would request that he be so qualified.

CHAIRMAN LEMAY: I think he's qualified

- 1 as a geologist, and we'll hear his testimony.
- 2 You can always object to an area you feel he's
- 3 not qualified in.
- 4 MR. KELLAHIN: Thank you, Mr.
- 5 Chairman.

FURTHER EXAMINATION

- 7 BY MR. CARR:
- Q. Would you briefly state what C & C
- 9 | Landfarm seeks with this application?
- 10 A. We seek to permit a landfarm, pursuant 11 to the Division Rule 7-11.
- Q. Are you also one of the owners of C & C Landfarm?
- 14 A. I am. I have an interest in C & C
 15 Landfarm.
- Q. Could you tell us, initially, what is a landfarm?
- A. It's a facility designed--and specifically this facility is designed to remediate oil-contaminated soil.
- Q. Is what we're talking about here today a new facility?
- 23 A. Yes, sir, it is.
- Q. Are there any similar landfarms in this area?

A. No, there are not.

Q. Could you tell the Commission where
this facility is actually located?

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- A. It's approximately two miles southeast of Monument, New Mexico, in the southwest quarter of the northeast quarter of Section 3, Township 20 South, Range 37 East, in Lea County.
- Q. How much acreage are you actually proposing to utilize as a landfarm?
 - A. We would like 40 acres permitted.
- Q. Can you identify what has been marked as C & C Landfarm Inc. Exhibit No. 1?
- A. That's the original application we filed in October of 1991.
 - Q. Following the filing of this application, could you tell us what transpired?
- A. Would you repeat that question?
 - Q. Following the filing of this application, were there meetings with the Oil Conservation staff?
 - A. Yes. We consulted with the Environmental Division of the Oil Conservation Division a number of times in order to develop a plan to develop this facility.
- Q. This is the plan that the Division

- advised in May of 1992 as being approvable, is that correct?
 - A. Yes, sir.

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- Q. Were you advised at that time that it would also have to be advertised for hearing?
 - A. Yes, it was.
 - Q. And set for hearing?
- 8 A. Yes, sir, it was.
- 9 Q. And objections were filed, is that 10 correct?
- 11 A. Yes.
- Q. Let's go to what has been included in
 Exhibit No. 1 as an area map. It's the first map
 in that exhibit. Would you identify that,
 please?
 - A. That's a land map with a half-mile radius around the proposed facility, and it's showing offset operators in oil and gas wells, and, in some cases, the offset surface owners.
 - Q. The shaded area in the center of the circle is the proposed facility?
 - A. That's correct.
 - Q. What is the radius on that circle around that facility?
- 25 A. That's half a mile radius.

Q. Could you just quickly identify the owners of the acreage, the offsetting owners to the proposed facility side?

- A. Mr. Kellahin did that very aptly with his map. Mrs. Elsie Reeves owns the surface to the west of the facility, Mr. Stradley to the east and to the south, and Mr. Cooper to the north.
- Q. Let's take out what has been marked as Exhibit No. 4, please. Could you identify this, please?
- A. Yes. This is a map of the 40-acre tract that we had done by a registered surveyor.
- Q. All right. Would you refer to this plat and just review what you're proposing the site to look like when it's fully installed?
- A. This is an actual representation of what the 40-acre tract looks like today. You can see have two pits, labeled Pit No. 1, that is approximately one-and-a-half acres in size, and Pit 2, immediately to the north, that's one-and-three-quarter acres in size.

And immediately to the west and slightly to the south of Pit No. 2 is what we call Cell No. 1, and it's approximately--just

1 | slightly under two acres in size.

The heavy dark line on the west and south side is a berm that's in place right now. You see what's identified as Wells 1 through 5. Those are monitor wells that are in place at the facility right now. We have labeled, in the hatchered area, several other cells, Cells 2, 3 and 4. These cells are proposed cells and they have not been constructed yet. There is an oil well in this facility that Amerada Hess operates, and then several pipelines crossing the facility.

The 40-acre tract is completely fenced, and there is a gate, a locked gate on the southeast side of the facility.

- Q. Will there be an office at the facility?
 - A. Yes, close to the gate.
- Q. And is there a proposed setback from the outer boundary of the 40-acre tract?
 - A. Yeah. Pursuant to the rules and the recommendations from the Environmental Division in their January 6th letter, they proposed a buffer zone of 100 feet from offsetting acreage.
 - Q. Is this property directly bordering the

county road?

- A. Yes, sir, it is. I believe it's County Road 58 or Billy Walker Ranch Road is north/south along the east side of the facility.
- Q. Is any right-of-way going to be needed as part of the proposed facility?
- A. No. Mr. Cooper owns the 40-acre tract and it has access from Billy Walker Ranch Road.
- Q. You've talked about cells. Could you tell us what you mean by when you say there's Cell No. 1?
- A. This is the location where we would first like to begin landfarming. The cell, per OCD regulations, can be up to five acres in size. This cell is intact. It has been built.
- Q. Cell 1 is where you propose to commence operation?
- A. That's correct.
- Q. Can you tell me exactly how you go about constructing a cell or what it looks like?
 - A. Under the January 6th letter, we are going to use a method called the treatment zone monitoring method, where we're going to landfarm on the original land surface of the area. All we have done here is scraped off the native grasses

and mesquite bushes in the area of Cell No. 1, removing very little of the topsoil material.

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- Q. Have you constructed a berm around that cell?
 - A. Cell 1 is completely enclosed in the berm that is shown as the heavy black line along the south and the west side.
 - Q. Are there plans to extend the berm?
 - A. Yes. Before the facility is opened, the berm will be totally around the facility.
- Q. In addition to the berm around the facility, will there be berms around the individual cell?
- A. Right. There will be berms separating individual cells.
- Q. Now, what is the status of the land on which this facility is located?
- A. It is owned by Mr. Jimmy Cooper.
- Q. And is it fee land?
- 20 A. Yes, sir, it's fee land.
 - Q. Could you explain to the Commission how you propose to operate this landfarm?
- A. Like I mentioned, we are going to use
 the treatment zone monitoring method, where we'll
 deposit oil-contaminated soil on the original

land surface in up to six-inch lifts or less. No
more than six inches at a time, per lift.

This material will be tilled biweekly to ensure proper aeration of the soil, so that the bioremediation can occur.

- Q. Are you required to run any sort of tests before you deposit the oil-contaminated soil in a cell?
- A. We are required to do a background test on the facility, just to get a background number or something we can compare it to at a later date. That's before any material is deposited in the soil.
- Q. When you say you're going to get a background test, what do you do?
- A. The first test, the initial test in the facility, will be tested for TPH, total petroleum hydrocarbons, a general chemistry in heavy metals, using approved EPA methods.
- Q. What do you do? Do you take a sample of the soil?
- A. That's correct. We'll take a sample in what they call the treatment zone, and that is an interval of two and a half to three feet below the original land surface where there's no

contaminated material. This is undisturbed material where we would take this test.

- Q. So if I understand your testimony, you build the cell by constructing a berm and grading off the surface vegetation?
 - A. Correct.

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- Q. Then you test the treatment zone, as you've indicated, being the top two or three feet, and that gives you a base sample?
 - A. That's correct.
- Q. Or base reading on the constituent elements in that soil?
- A. That's correct.
- Q. Then, at that point in time, in layers
 of not more than six inches, you spread the
 oil-contaminated soil?
- 17 A. That's correct.
- Q. And then at least every two weeks you said you disk it? You plow it?
- 20 A. Right.
 - Q. Now, are there other tests that you're required to take of the soil in the cell?
- A. On a quarterly basis after we've

 started depositing material in an individual

 cell, on a quarterly basis we're required to take

additional tests for TPH and BTEX, and this is
every quarter after we've started landfarming in
a particular cell.

If we are active in three cells, we will have to test each one of those cells every quarter.

- Q. When you test within those cells, what is it you're testing?
- A. We're trying to determine if there is any migration of contaminants into the treatment zone, the interval of two and a half to three feet below the original land surface.
- Q. So do you again take a sample of the treatment zone?
 - A. That is correct.
- Q. And then you have that analyzed?
- 17 A. Yes, sir.

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- 18 Q. What do you do with that information?
 - A. We are required to report that to the OCD and retain those records at the facility.
 - Q. Now, after you take a sample out of the treatment zone, the layer of soil under the contaminated zone, what do you with that, the place where you took the--
 - A. We're required by OCD rules to backfill

- this sample hole with an impermeable material 1 2 such as bentonite cement.
 - Q. And this method of landfarming is called what?
 - Α. Treatment zone monitoring.

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- Q. Why are you proposing to utilize this 7 method?
 - This is the method that the Α. Environmental Division recommended us to look at in their January 6th letter. And, after talking with their representatives, we were more comfortable with this method.
 - If you use this method and if there is Q. contamination, how often will you be testing for that?
 - Every three months. Α.
 - Q. And you report that, as you indicated, to the OCD?
 - That's correct. Α.
 - What happens if there should be contamination in this treatment zone?
 - Α. We would obviously not deposit any more material in this individual cell, and we would report the results of the tests that showed contamination to the OCD, and we would consult

with them on the best procedure to take care of this problem.

- Q. Now, you indicated, I believe, that the facility would be fenced?
 - A. Yes, sir. It is fenced now.
- Q. And will there be a gate, a lock on the facility?
- A. Yes, there is a gate and a lock on that gate now.
- Q. When the facility is open and receiving product, will there be an attendant on duty at all times?
- A. That's correct.

- Q. Now, as soils are brought into this facility and delivered to the site, how are they documented? What do you do?
- A. We have to keep track of where the material came from, how much material is in the load, the date received, whether it's exempt or nonexempt, the transporter. We have to keep on record in which cell it was deposited in.
- Q. Is all of this required by OCD guidelines?
- A. Yes, this is all required by OCD guidelines.

- Will any free liquids be received by 1 Q. 2 the facility? Α. No, no free liquids will be received. Will any water be permitted to pool or Q. stand within the facility? 5 6 Α. We will be required to use fresh 7 water on occasion to control the dust, if this develops a problem at the facility, and to keep the remediated soil from drying out completely, 9 10 so that the remediation process can progress. 11 Ο. If there is any evidence of 12 contamination, you check that every three months 13 to see if there is? 14 Α. That's correct. 15 Ο. And if there is any sign of it, then 16 you immediately report it to the OCD? That's correct. 17 Α. 18 ٥. Are there fresh water zones under the 19 proposed facility? No, sir, there are not. 20 Α.
 - A. The five marker wells we drilled, that are shown on Exhibit 4, were drilled down to a depth of two feet into the redbed and screened off approximately five feet in the bottom of the

What do you base that statement on?

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Q.

hole, and we encountered no fresh water in any of the five wells on this.

Q. Were the wells dry?

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- A. Yes, sir, they were dry.
- Q. Did you check the records at the state engineer's office to see if there were water zones reported under the facility site?
 - A. Yes, sir, we did.
 - Q. What did you discover?
- 10 A. They had no record of fresh water on that 40-acre tract.
- Q. Did you check the records at the BLM for the existence of any fresh water?
 - A. Yes, sir, we did.
- 15 Q. What did those records show?
- 16 A. They showed no evidence of fresh water on this tract.
 - Q. Mr. Kellahin, in his opening, indicated that there was a windmill in the vicinity that was operated by Mr. Stradley, I believe?
- 21 A. Yes, sir.
 - Q. And that is how close to the proposed disposal facility site?
- A. Approximately half a mile to the southwest.

- Q. Was a water analysis, a sample taken and analyzed from that well?
 - A. Yes, it was included in the original application.
 - Q. And the analysis is in Exhibit 1?
 - A. Yes, sir.

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- Q. So there's base information to judge if, in fact, anything ever should happen to that well.
- 10 A. That's correct.
- Q. Does Exhibit 1 also show the other

 water wells in the area that were reviewed by Mr.

 Kellahin in his opening?
 - A. I think his map is a little more detailed. We were only required to show the water wells within a mile, I believe, of the facility, in the original application.
 - Q. Now, you've been at the site?
- 19 A. Yes, sir.
 - Q. Is there any slope to the surface?
- 21 A. The general topography, where our 22 facility is, slopes to the west.
- Q. Now if there should be a spill of one of these hydrocarbon-contaminated-soil facilities, how do you propose that be handled?

A. Well, as there's not going to be any free liquids, we would just pick up any spill and deposit it in a cell to be remediated.

- Q. Will the 100-foot buffer zone be kept clean and free of any oil-contaminated dirt or soil?
- A. Right. There will be no oil-contaminated soil in the buffer zone at all.
- Q. Is this facility located in a flood plain?
- A. It is on the west side of a gentle hill. I mean, it's not in a low spot, no, sir.
 - Q. Is there, in your opinion, any danger resulting from rainfall in the area?
- A. As you know, we experienced a hundred-year flood in May of 1992, and at the time the facility did not have any berms around it. The way the facility is laid out with the county road there on the east side of it, the county road is below grade of the facility, so any water that ran off the hill from above us ran down to the county road and either went south or north, and nothing from the east side flowed into the facility.

With the installation of the berms

around the facility, this will ensure that we get no run-on from rainwater in future events on the facility, and the berms will also keep any water, any rainwater from leaving the facility, also.

- Q. After the flood last summer, did the Oil Conseravation Division inspect the facility?
- A. Yes. Chris Eustice, of the Environmental Division, went out there and we tested the monitor wells to see if they had any water in them, and they were still, all five, dry.
- Q. Now, if I understand it, all the disposal that you're proposing will be confined to those cells that are shown on what we have marked as our Exhibit No. 4?
 - A. That's correct.
- Q. Does C & C Landfarm have a \$25,000 bond on file with the Division as required by the guidelines in the Environmental Bureau?
 - A. They do.

- Q. Now, as we know from the opening statements, the Division has imposed certain conditions on the operation of this facility, is that correct?
- 25 A. Yes, sir, they have.

- Q. And certain conditions were included and incorporated into the Order that resulted from the Examiner hearing?

 A. That's correct.
 - Q. Was C & C prepared to comply with all those conditions?
 - A. Yes, sir, we were.
 - Q. Those conditions have been subsequently changed, is that right?
- 10 A. That's correct.

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- Q. Are those changes contained in the letter that has been marked as C & C Exhibit No.
- 14 A. Yes, sir, that's correct.
 - Q. What were the changes that were actually proposed?
 - A. Essentially, the major change in that was to no longer use the redbed dike, and to use the treatment zone monitoring method.

During the original Examiner hearing,
Mr. Kellahin and his witnesses objected to this.
First of all, they didn't know how effective it
would be and, secondly, they didn't know how you
could construct such a barrier.

Q. And that's no longer a requirement?

- A. Yeah. With the letter in Exhibit 3, we're no longer proposing this in lieu of the treatment zone monitoring method.
 - Q. Now, are the conditions proposed by the Environmental Bureau in its January 6th letter, acceptable to C & C Landfarm?
 - A. Yes, sir, they are.

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- Q. Will C & C Landfarm, in operating this facility, keep all records and make all reports and otherwise fully comply with Division rules, regulations, and with the guidelines of the Environmental Bureau for a landfarm of this nature?
- A. Yes, sir, they will.
- Q. How long are these records to be kept?
- A. A minimum of two years.
- Q. What are the closure plans of Seay & Seay for this facility?
- A. When we decide that we are going to close this facility, we notify the OCD immediately. We're no longer allowed to accept any contaminated soil, but we must continue the remediation process until all the material on the side has been remediated to OCD and EPA standards.

Then, once that has been accomplished, the area will be reseeded and all equipment and buildings and all will be removed from the site.

- Q. If the Commission should approve this application, how soon could Seay & Seay be ready to commence operation?
- A. Just very soon. Like I say, the facility is in place, and all we need to do to comply with all the conditions is to do the background check at the facility.
- Q. Do you anticipate encountering any H2S in any of these open pits?
 - A. No, sir, we do not.
- Q. And, if you do, will you comply with the provisions of Division Rule 118 concerning H2S emissions?
- A. Yes, sir.

- Q. In your opinion, will the proposed facility provide an economical and efficient way to dispose of oil field waste?
- A. Yes, it would be economical, and it's a much needed system. Right now we're very limited on what we can do with oil-contaminated soil.
- Q. In your opinion, as the operator of the facility, have you fully complied with the

guidelines set forth by the OCD? Are you prepared to do that?

A. Yes, sir, we are.

- Q. And are you prepared to comply with all of their regulations designed to protect human health, the environment, and avoid contamination of groundwater?
 - A. Yes, we are.
- Q. And are you prepared to comply not only with the guidelines as they stand today, but with subsequent changes in those guidelines if and when in those guidelines are amended or changed?
- A. Yes, we will.
 - Q. Were Exhibits 1 through 5 either prepared by you or compiled under your direction?
- A. They were.
 - MR. CARR: At this time, we would move the admission of C & C Landfarm Exhibits 1 through 5.
- CHAIRMAN LEMAY: Without objection, Exhibits 1 through 5 will be admitted into record.
- MR. CARR: That concludes my direct examination of Mr. Pierce.
- 25 CHAIRMAN LEMAY: Thank you, Mr. Carr.

1 Mr. Kellahin.

EXAMINATION

BY MR. KELLAHIN:

Q. Mr. Pierce, let me ask you about what I propose to use as S-W Cattle Exhibit No. 1. It's the illustration of this area that I made my opening comments from.

As best as you understand it, have I correctly depicted the relationship of the various owners within this given area?

- A. Yeah. I don't know Mr. Stradley and Mrs. Reeves' acreage positions out there, but I do know they own acreage in approximately where you've indicated.
- Q. In terms of complying with the notice requirements that the Bureau has placed upon you as the Applicant, do you find, in your search of owners, any different ownership than I have expressed to you in my opening statements?
- A. Yeah. We did notify several other owners to the north, and I don't recall their names.
- Q. This information, though, is consistent with what you have found?
 - A. Yes, sir.

- When we look at what has been 1 Q. characterized as the Cooper tract outlined in 2 blue in Section 3, a portion of which is the 40-acre tract that is to be the facility? Yes, sir. 5 Α. As part of your analyzing for site 0. selection, did you look at the 40-acre tract 7 north of the proposed site as a potential site? 8 Α. No, sir, we did not. 10 Q. Did you look at the 40-acre tract west of the proposed site as a possible site? 11 No, we did not. 12 Α. How about the northwest diagonal 13 ο. 14 40-acre tract to the site? 15 Α. No, sir. 16 Q. Within that site, then, you have prepared what I call a site plat, Exhibit No. 4. 17 Do you have one of those? 18 19 Α. Yes, sir. 20 Q. Have you satisfied yourself that the 21 five wells listed in your application are 22 properly located on Exhibit No. 4?
 - A. I believe they are. We had a surveyor do this. I would assume that he put them in the right position.

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- Q. My only question is, when you look at Exhibit No. 1 and go over to the test well logs on page 4, am I correct in understanding that those test well logs on page 4 of Exhibit 1 are the wells that you've identified on Exhibit 4?
 - A. Yes, sir.

- Q. So if there's a slight misdescription in that Exhibit 1, may I use Exhibit 4 to tell me where those wells are located?
- A. Yes, sir. That is probably closer to being correct than these. I mean, the surveyor did that.
- Q. All right. Pit No. 1, as it existed in the ground when we had the hearing back in September, did it encompass the entire 1.53 acres as depicted on Exhibit 4?
- A. It probably was not as large back in September. They were still hauling caliche out of it.
- Q. This represents the current size and shape of Pit No. 1 now?
 - A. To the best of my knowledge, yes, sir.
- Q. Do you have intentions of enlarging this pit?
- 25 A. They're still hauling caliche; I mean,

on an as-needed basis, out of these pits.

- Q. So, in terms of this display, Pit 1, over the life of the facility, could be enlarged?
 - A. Yes, sir, it could.
- Q. Does Pit No. 2 exist in this size and shape now in the ground?
- A. Yes, sir.

- Q. Do you have plans to increase the size and the shape of this pit?
- A. No, sir. This is the pit that the road department hauled caliche out of to redo the Billy Walker Ranch Road. Mr. Cooper donated caliche out of this pit to do that road.
- Q. What's the size of any individual cell within a cell display here?
 - A. The size of each cell is there. They can be no larger than five acres, by OCD rules. The Cell No. 1 is 1.85 acres.
- Q. I misspoke. The interior grid of each cell, what's the significance of the grid?
 - A. It's just showing the aerial extent of Cell No. 1 and proposed Cell No. 4 and proposed Cell No. 3.
- Q. As part of your proposal to be the operator of this facility, have you done any soil

- 1 samples or tests within the 40-acre proposed
 2 facility?
 - A. No, sir, we haven't done any tests.
 - Q. Have you done any compaction tests?
- 5 A. These tests are not required for this 6 application, by the OCD.
- 7 Q. But you haven't done them?

- 8 A. No, sir, I haven't. They're not 9 required.
- Q. If you would just answer my question, we'll get through this easier.
- 12 A. I did answer your question, sir.
- Q. I didn't ask you if they were required by the Division, I asked you if you had done the test.
- A. Well, if they were not required, I wouldn't have done them.
- Q. Did you do any permeability tests?
- A. No, sir, I didn't.
- Q. Did you do any liquid or plastic tests on the redbeds?
- 22 A. No, sir, I haven't.
- Q. Did you do any soil property tests or data?
- 25 A. No, sir, I haven't.

1	Q. Did you do any hydrology tests?
2	A. No, sir, I haven't.
3	Q. Any groundwater studies?
4	A. We drilled five monitor wells and they
5	were all dry.
6	Q. Any percolation tests or data?
7	A. No, sir.
8	Q. Any groundwater migration tests or
9	data?
10	A. We have no groundwater at the site, so
11	we can't do those tests.
12	Q. Any contaminant mobility tests or data?
13	A. No, sir.
14	Q. Whose idea was it to have a redbed
15	dike, as proposed in the conditions in May of 92?
16	A. I don't know that I recall. We were
17	speaking with several people in the Environmental
18	Division. I don't know if it was an idea that we
19	come up with or one that the OCD come up with.
20	Q. Summarize for me the sequence, starting
2 1	with the application and then the proposal to put
22	this material in the excavated pit. Give me a
23	summary of the evolvement of the processing of
24	the application, starting off with, what was the

first proposal? What did you you want to do?

- A. The first proposal, we proposed to use the cell caliche out of the pits for locations and road use, and landfarm in these pits, and fill the pits back up with this landfarmed remediated material so that we wouldn't have a hole in the ground after we were through.
- Q. And part of that original plan, then, included this redbed dike concept?
 - A. Yes, sir, it did.

- Q. You don't recall who suggested that idea as--
- A. It was either the Environmental Division or us.
 - Q. Help me understand the material that you now propose to take through the gate of the facility and put on the surface within the cell blocks. Describe for me what material you're seeking approval to put on the facility.
 - A. This will be material from around wellheads, oil-contaminated soil from around wellheads, tank batteries from flow line leaks, and spills.
 - Q. To try to understand it as a layman, is this simply contaminated soil material that has been contaminated with hydrocarbons?

1 A. Yes, sir.2 Q. It's not tank bottoms?

- A. No, no tank bottoms.
- Q. There are not solids? It does not produce salt water?
- A. No, there will be no free liquids in the facility.
- Q. No liquid hydrocarbons except those that may have been saturated in the contaminated soil?
- A. There's not going to be any free hydrocarbons that you can hold up in your hand and see dripping out of the soil. No, sir.
- Q. Under the January 6, 1993 recommendations from the Environmental Bureau, do you propose to accept all of those conditions?
 - A. Yes, sir.
- Q. In paragraph 1, what is your understanding of what you can do with the contaminated soils in relation to the excavated caliche pits?
- A. We cannot use the excavated caliche pits for any contaminated soil. We cannot deposit any contaminated soil in the caliche pits.

- Q. In addition, is it also your understanding of that condition in this paragraph, that even if those soils are remediated, that even the remediated soils can not be put in the excavated pits unless you get subsequent approval from the Division?
 - A. That's my understanding, yes, sir.
- Q. Skip down with me to No. 9 on the conditions or recommendations. I believe that's the one that gives you the contaminants or the constituents to test for. What contaminants are you suppose to test for?
- A. The total petroleum hydrocarbons, benzene, toluene. I don't personal know everything that these two tests test for. I don't run those tests, so I don't know.
- Q. Are you going to be running tests for total dissolved solids?
- 19 A. No, sir.

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- Q. Any salt chloride concentrations?
- 21 A. No, sir.
- Q. Any sulfur conservations?
- 23 A. No, sir.
- Q. Any heavy metals?
- 25 A. Yes, sir.

- 0. Heavy metals would be, or constituents 1 2 of those materials would be tested?
- 3 Α. Yes, sir. Let me, on its last 4 page--no, I take that back. In the treatment zone monitoring, on page 2--5
- Yes, sir. Which paragraph are you Q. 7 looking at?
 - I'm trying to find it. Α. Under No. 1, under treatment zone monitoring, it says the initial test will include a general chemistry, so some of what you mentioned may be tested in that. I don't know what a "general chemistry" encompasses.
 - That's your initial background test so Q. you can have background levels for all those constituents.
- 17 Α. Right.

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- 0. But the subsequent test of the treatment zone does not include some of those items?
- 21 Α. That's correct. Right.
 - What's the source of the materials that Q. are coming into the facility?
- 24 We anticipate the source to be from Α. 25 producing well locations, around tank battery

1 | facilities, from old flow line leaks and spills.

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- Q. You said you reached a conclusion about the economic necessity for a facility such as this located in this area. Did you or did you not reach that conclusion?
- A. I think a facility like this is needed, yes, sir.
- Q. Upon what basis did you reach that opinion?
- A. Under even new OCD regulations, when you abandon a lease, this lease will have to be reclaimed for state land, under state leases.

 And, under current federal leases, once you abandon a lease, this lease must be reclaimed.

So, you can either remediate it on site, or you can hall this material over to an appropriate facility.

- Q. Have you made projections of the volume of material that you will bring into the facility over a certain range of time?
 - A. No, sir, we have not.
- Q. Have you done any economic projections about the feasibility of the project.
 - A. No, sir, we haven't.
- Q. Does Exhibit No. 4 represent the final

design plan for this facility that you would submit to the Environmental Bureau, if the Commission approves your facility?

- A. Some of the cells may be smaller or larger, you know, depending on what takes place, but this would be a general schematic of what we anticipate, yes, sir.
- Q. Help me understand what you'll do with regards to berming individual cells or individual pits to keep contaminated material from moving into the escavated caliche pits?
- A. The caliche pits have berms around them now where they push the topsoil off to get to the caliche.
- Q. Describe for me how those berms are created. To what height, what width, and to what compaction?
- A. They're not compacted at all, they're in various heights up to 10 feet in places, and maybe 20-feet wide in some places.
- Q. Do you propose that the size of the cells for the placement of contaminated soils in the facility is going to be enlarged?
- A. Due to the locations of the pits, I think we're pretty well limited on how big we can

make Cell 1 and Cell 4. With the pipelines we have crossing this, I don't anticipate enlarging any of these cells very much.

- Q. Help me visualize the scale of Exhibit No. 4. When I look at Mr. Stradley's property along the southern boundary, that is a common boundary between the facility and Mr. Stradley?
 - A. Yes, sir.

- Q. When I'm looking at that line, how many feet north do I go before I hit the southern edge of the berm?
- A. The scale on this is one inch is equal to 80 feet, and our buffer zone will be 100 feet from the property line, so no material will be deposited within a hundred feet of the property line in the buffer zone.
- Q. So, to get from the edge of the property line into 100 feet, it's going to be on the north side of the berm but outside of the cell?
- A. Right.
- Q. You've accepted the Environmental Bureau's horizontal buffer of a hundred feet?
 - A. Yes, sir.
 - Q. Did you make any independent study or

1	scientific inquiry about the adequacy of the
2	hundred feet?
3	A. That was the recommendation they had
4	and used in other landfarms they permitted.
5	Q. And you accepted what they proposed?
6	A. Yes, sir.
7	MR. KELLAHIN: Thank you, Mr.
8	Chairman.
9	CHAIRMAN LEMAY: Thank you, Mr.
10	Kellahin. Additional questions of the witness?
11	MR. CARR: No additional questions.
1 2	MR. STOVALL: I have some questions, if
13	I might, Mr. Chairman, very briefly.
14	CHAIRMAN LEMAY: Mr. Stovall.
15	EXAMINATION
16	BY MR. STOVALL:
17	Q. Mr. Pierce, I'm asking these questions
18	primariy to make sure you understand what the
19	Division's concerns are.
20	First of all, will you be involved
2 1	directly in management and operation of the
2 2	facility?
23	A. As it exists now, yes, sir, I am.
2 4	Q. I see think it's important that we make
2 5	sure you understand why we impose some

requirements or recommend some requirements.

First off, what is your understanding as to what

the most significant environmental risk is, if

you will? What is the most important resource

A. The fresh water in the area.

that we're trying to protect with this?

- Q. Your statement was, there was no fresh water underneath your facility?
 - A. That's correct.
- Q. But you acknowledge that there are some fresh water wells, as indicated on Mr. Kellahin's map?
 - A. Yes, sir.

Q. Do you have any knowledge or opinion of what is the most likely manner in which contaminants from the soils could possibly get to fresh water?

MR. KELLAHIN: Objection, Mr. Chairman. This witness has not been qualified to express an opinion within the scope of a hydrologist's expertise, and I would object that that question is outside the scopy of this witness's qualifications.

MR. STOVALL: Mr. Chairman, I did not offer this witness and I'm not relying on his

expertise. I'm asking him, as the Division attorney, because I want to make sure he has some comprehension of the issues he has to address as the operator of the facility. I'm here to find out whether he has some understanding of those issues.

MR. KELLAHIN: It doesn't matter, Mr. Chairman, who asks the questions. The witness has not been qualified to answer any question from anyone on that topic.

CHAIRMAN LEMAY: Let me ask the witness; does he feel qualified to answer that question?

THE WITNESS: Yes, sir, I think I can.

CHAIRMAN LEMAY: Let's hear the answer

and we'll go from there?

- A. Would you repeat your question?
- Q. My question was, how would contaminants from the soil that you place on the site get to the fresh water sources in the area?
- A. Using this treatment zone monitoring method, there's not any way that we can get any migration of contaminants into any fresh water. With this treatment zone monitoring, we monitor these individual cells on a quarterly basis. If

we see any migration of contaminants into this treatment zone, we immediately stop what we're doing and devise a plan to take ation to prevent this from going any further.

As long as we operate this facility per these guidelines, it doesn't take a hydrologist or an engineer or a hydrologist to operate this, as long as we use these rules. We're testing these on a quarterly basis, and if we operate under these rules, there's no way we're going to get any contaminants into any fresh water.

- Q. In other words, it's your understanding that the treatment zone method that is being recommended, the purpose of that is to prevent contaminants from getting underground, is that correct? under the surface of the ground?
- A. It's not designed to prevent it, but it's designed to detect it, and so that we can minimize any impact of the migration. On a quarterly testing schedule, if we have a problem, we're going to pick it up very fast. It won't be five years down the road when we first discover that we've got a problem.

Additionally, we've got monitor wells around this facility that we will test on a

regular basis, that we will look at, to see if we see any material in these monitor wells; any water or whatever. So we have an extra measure of protection there.

- Q. Would it be fair to characterize, then, that the concern that you perceive that is being addressed by these solutions is the potential fluid flow, somehow, through beneath the surface of the earth to, potentially, those water sources?
 - A. Yes, sir.

- Q. The two pits that you referred for,
 Pits 1 and 2, those are caliche pits and that's
 why they exist, is that correct?
 - A. That's right.
- Q. Your testimony is that Pit 2 is about as big as it can get without interfering with the cells?
- A. Right. The landfarming operation will, hopefully, generate more capital than selling caliche. So, it's not in our best interest to enlarge these pits at this point.
 - Q. I believe you testified, in response to either Mr. Carr or Kellahin, that in Pit 1 there was some potential that there would be some

additional caliche removed?

A. Yes, sir.

- Q. Would you understand or would you agree that there ought to be some distance from any cell closer than which the pit could not be enlarged?
- A. Oh, yes, sir. We would not encroach

 Cell No. 1. The capital we generate from

 landfarming would be hopefully much more than we could get through the sale of caliche.
- Q. Do you have an opinion, yourself, as to what that distance might be, assuming the noneconomic factors?
- A. I would just as soon the pit didn't get any larger right now, and that has been my recommendation to Mr. Cooper.
- Q. You're speaking from the standpoint of an operator of a facility, and I'm thinking from the standpoint of potentially causing a flow of contaminants. Is there a distance, safety wise, that you would recommend that we not allow the pit to get any--I'm getting convoluted in my words here, but, a safety distance between the pit and the cell?
- A. I think we could probably use the same

1 buffer zone around that as we did offset.

- Q. A hundred feet?
- A. Yes, sir.

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- Q. Now, you indicated that there will be berm around the entire facility, is that correct?
 - A. That's correct.
- Q. If I look at your scale, it looks like that's approximately 50 feet—the outer edge of the berm is approximately 50 feet from the property line, give or take half an inch or so?
- A. I think it's a little more than that, but, yes, sir. All on the sought side, yes. On the west side it's much more than hundred feet in the buffer zone.
- Q. And the southeast corner is the low point in the property, is that correct, topographically?
 - A. Probably the same all across the west side..
 - Q. You also indicated that you're going to berm each cell, is that correct?
 - A. That's correct, to separate the cells from one another.
 - Q. What is the purpose of the berms, as you understand it?

- A. We want to separate the cells and to keep any inflow or runoff from moving to and out of these cells, from one cell into another, or from off the property onto the property, or from on the property off the property, or whatever.

 Whatever is out, keep it out; and whatever is in, keep it in.
 - Q. To prevent the fluid flow of any sort, whatever it might be?
 - A. Right.

- Q. Now, under the proposal by the Division, we've talking, actually, about three tests. There additional background tests to start with, is that correct?
 - A. Yes, sir.
- Q. And that is the least comprehensive, actually, of the tests? It's looking for TPH and general chemistry, is that correct?
- A. And heavy metals. It's just designed as a background test to give us a baseline which to compare future tests.
- Q. There are quarterly tests within the treatment zones to determine if there has been any downward migration of any contaminants, is that correct?

1 A. That's correct.

- Q. And again the guidelines have been presented--not the guidelines, but the conditions recommended by the Division, if specified the specific types of tests and components to look for, constituents to look for?
 - A. Yes, sir.
- Q. And, additionally, there is required an annual testing or more comprehensive testing, looking for some additional constituents. Do you understand that?
 - A. Yes.
- Q. I gather, from your testimony and in response to Mr. Kellahin, you aren't specifically knowledgeable and would not begin to testify as to the nature of these tests or exactly what they look for?
 - A. No, sir.
- Q. But you understand they would have to be conducted by a laboratory in under accepted and approved laboratory conditions?
 - A. Certainly. Yes, sir.
- Q. What is your opinion as to what the remediated soil can be used for? What can be done with the soil after it has been treated, and

I believe the conditions again state a level to 1 which you must treat it, is that correct? 2 3 Α. Yes, sir. 4 Q. What is the potential use or disposition of that soil? 5 Α. Depending on the consistency, you might 6 7 use it for roads, or locations even. 8 The real question is, once treated to Q. 9 the level set by the Division, it's your opinion 10 that those soils could safely be distributed and spread at most locations in that area? 11 12 Α. That's my understanding, yes, sir. MR. STOVALL: I have no further 13 14 questions. CHAIRMAN LEMAY: Any additional 15 16 questions? 17 Commissioner Carlson? COMMISSIONER CARLSON: Yes, I do. 18 EXAMINATION 19 BY COMMISSIONER CARLSON: 20 21 I guess I don't quite understand how 22 this thing is going to work. You say you 23 put--you'll bring in contaminated soil and put 24 six-inch lifts--

Yes, sir.

Α.

- 1 | Q. --over Cell 1, initially?
- A. Or a portion of Cell 1, you know, depending.
 - Q. And then you would disk that once every two weeks--
 - A. Yes, sir.

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- Q. --until the soil is remediated?
- A. That's correct.
- Q. And then you can put an additional lift on top of those other six lifts?
- A. Yes, sir, after we've performed tests to show that that soil is remediated to OCD regulations. Right now, once we start this, we don't know how long this process is going to take. It's going to be trial-and-error.
 - Q. That was going to be my next question. How long will you be looking at?
- A. We don't know that. We're going to
 have to spend some money and do these tests,
 until we have something to go by, whether it be
 do days or 90 days before we can add another
 lift, or 120 days. We just don't know that right
 now.
- I imagine that the temperature is going
 to play a part in this. I mean, the remediation

process is going to be much slower in the wintertime. This is going to be a learning thing as far as the remediation process goes.

- Q. But I mean, can it feasibly take years to remediate six inches of soil? Are we looking at 60, 90, 120 days, or are we looking at years?
- A. I think we're looking at something more like 180 days. I have seen locations where they have gone in there and tilled the material on site at a specific location and kept it wet and aerated it, and grown grass in the same season on this material. So, I don't think we're looking at extended periods of time.
- Q. So, is it your intent to do a lift over Cell 1, remediate that, then do another lift over that cell or move on to Cell 2?
- A. No, to apply another lift on Cell 1 after the initial lift is tested.
 - Q. Before you move on to another cell?
- A. No. We're going to get varying soils. Some soils will probably test when we bring them in the facility. They've already been remediated on site, they've been there so long.
- Other material, you know, will be newer spills or whatever, and will take longer, so

we'll probably have cells divided into how concentrated—not concentrated, but the amount of hydrocarbon in the soil. And that's going to be just an estimate of that, you know. I guess I don't know how to explain that to you.

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- Q. Okay. You mentioned as part--I think in your application, you agreed to identify what is exempt and nonexempt. Would you explain what you mean by that? Is that from RCRA?
 - A. Yes, sir, RCRA, subtitle Seay.
- Q. Oil field wastes, by definition, are exempt from RCRA, isn't that correct?
- A. Yes, sir, but in our application we propose to only take oil-contaminated soil, and that's primarily what—that is what we want to do. We don't want to get into nonexempt waste, where we have to test it before we bring it in. We want to go with RCRA-exempt waste.
- Q. You have no intention at all of bring anything else but oil-field waste into this?
- A. There are other facilities in the area, Parabo, CRI, that can take these other materials. We don't need to take that type of material.
 - Q. You mentioned the pits. Initially you

planned to put the contaminated soil in the pits,
but I guess that's no longer the plan, is that
correct?

- A. That's correct. We will not deposit any contaminated materials in the pitts.
- Q. And obviously you're not going to backfill it, you'll berm them and they'll stay as pits during the life of this operation?
 - A. That's correct.

- Q. Do you have any estimated time frame about the life of this operation?
- A. I think that goes back to how fast the material can be remediated. If the material that we end up taking remediates very fast--well, I guess, to back up, I see this facility being there 10 or 15 years.
- Q. Okay. You put a six-inch lift on, the soil gets remediated, you add another six inches. Sooner or later the level of these cells is going to increase.
 - A. Right.
- Q. How high are you going to build the level before you're going to move to another cell or do something with that remediated soil?
 - A. I don't think we've addressed that

1 question.

MR. STOVALL: Commissioner Carlson, if I might, I think there seems to be--I want to make sure everybody understands how this is done. I might try to ask some questions to clarify for you how the operation would actually work?

COMMISSIONER CARLSON: Is it your intent, Mr. Stovall, to have a witness from the Division?

MR. STOVALL: I do intend to have somebody to explain that, but I think in terms of depositing, your questions would indicate or my understanding would be that there would be lifts deposited at different locations and remediated at those different locations within the cells, and so it's sort of an ongoing process. It's not fill one cell and complete it and then move on to the next, and that's what I wanted to get to with Mr. Pierce.

And that's correct?

THE WITNESS: That's correct.

COMMISSIONER CARLSON: Well, I

24 understand that. There comes a time, though,

25 when the level of these cells will get X feet

high, and you have to either stop or move the soil, I assume.

I don't have any other questions.

CHAIRMAN LEMAY: Commissioner Weiss?

EXAMINATION

BY COMMISSIONER WEISS:

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- Q. I guess your feeling that bioremediation will work, is personal experience, where you've seen it in the field?
- A. Yes, it has been done. It hasn't been extremely effective because, in our part of the state, you know, we don't have a lot of rainfall and moisture content of the soil for the natural remediation process to take place. We need a certain amount of moisture in the soil. And, to add quote-unquote bugs and stuff like that, you have to have a certain moisture content or these organisms don't survive or they don't prosper.

In a localized facility, we can monitor, you know, the moisture content of the soil and make optimum use of the natural biodegradation of the naturally occurring organisms in the soil, or these guidelines give us the option, with OCD approval, of adding organisms to the soil to enhance the process.

Q. Now that I understand what you're talking about, around the battery or something like that where oil has been spilled over the past years before people are real concerned about it, is that similar to asphalt? I was just wondering if the oil content was similar?

- A. I think that most of the light ends of the hydrocarbon have been dissipated through the years, you know, and you're going to end up, potentially, with some concentrated material there, yes, sir. But that's part of the process of tilling it, you know, on a regular basis and breaking this soil up, so that the remediation process can go faster.
- Q. I don't know what the state does with the asphalt that they chop up out of these roads when they replace them, but would that stuff fit in your site?
- A. No, sir. We're just taking stuff from oil field-related facilities, from producing locations; tank batteries, spills, flow lines, and material like that.

CHAIRMAN LEMAY: I just have a couple

of questions for you, Mr. Pierce.

EXAMINATION

BY CHAIRMAN LEMAY:

- Q. You mentioned if there was evidence of contamination, you would notify the OCD. Do you have any contingency plans, if there is contamination?
- A. We talked with the Environmental Division. I guess it depends on what we've seen. Say if we start to see the migration of fluids down, that might mean we're applying too much moisture to the facility to control the dust and to the moisture content of the soil.

We might back off on that and monitor it on a closer interval, instead of every three months, every month, and see if that's taking care of the problem. I guess eventually, you know, we could excavate that site and deposit it in another cell and remediate it there, you know. We would get with the Environmental Division and see what we would need to do with that.

Q. What about another facility, like
Parabo or something like that, could they take
your contaminated soil in the event that--well,
say it didn't work?

1 A. Yes, sir, they could.

Q. In terms of your five well logs, if I get into an area that you feel uncomfortable or Mr. Kellahin objects, feel free not to answer the question.

I was curious, at least at a geologist, if you could identify the type of rock or soil you encountered below the redbed? It looked like you penetrated below the redbeds, and there's no description of what was below that.

A. I did not participate in the drilling of these wells. Mr. Eddie Seay actually drilled the wells and, as you know, Eddie was an employee of the state for a number of years and has drilled several hundred monitor wells for the state. Mr. Seay did that part.

CHAIRMAN LEMAY: Is Mr. Seay going to testify, or not?

MR. CARR: We were not planning to call him, but I can call him and ask he be sworn, and he can respond to your question if you sire.

THE WITNESS: I was not available to witness the drilling of those wells. I was on another job.

CHAIRMAN LEMAY: I might ask then, is

the hydrologist you have --1 MR. KELLAHIN: I have no objection to 2 3 you asking Mr. Seay those questions right now. CHAIRMAN LEMAY: I think it would help. 4 We're at that point right now, and if you're 5 going to get into the hydrology, I would like to 6 7 know what's below the redbeds. MR. KELLAHIN: I don't think you need 8 9 to swear him in or qualify him; just ask him the 10 questions. 11 CHAIRMAN LEMAY: Eddie, what was below the redbeds? 12 MR. SEAY: We did not drill below the 13 14 redbeds. The redbeds are 900-feet thick below 15 our site. We only drilled two feet into the 16 redbeds. 17 CHAIRMAN LEMAY: Where it says "16 to 18 feet," that means that you drilled two feet of 18 19 redbed and stopped? It doesn't mean you had 16 or 18 feet of redbeds? 20 21 MR. SEAY: Oh, right. 22 CHAIRMAN LEMAY: That was my question. 23 I didn't mean to--THE WITNESS: No, I misunderstood your 24

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questions.

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question.

1 CHAIRMAN LEMAY: The wells don't give 2 how deep they are, they just give the location. And then you have a description of the rock, and 3 I was just assuming you penetrated the redbeds. 4 5 Those are the only questions I have. MR. CARR: I have no further questions 6 7 of Mr. Pierce. 8 CHAIRMAN LEMAY: The witness may be 9 excused, if there are no additional questions. 10 MR. CARR: And that concludes our 11 direct presentation. 12 CHAIRMAN LEMAY: Okav. Let's take a 13 short break and then we'll come back. 14 [A recess was taken.] 15 CHAIRMAN LEMAY: Please continue. 16 W. TRENT STRADLEY 17 Having been first duly sworn upon his oath, was examined and testified as follows: 18 19 EXAMINATION BY MR. KELLAHIN: 20 21 Mr. Stradley, for the record, would you Q. 22 please state your name? 23 Α. My name is W. Trent Stradley, 419 24 Jemez, Hobbs, New Mexico. I'm president and owner 2.5 of S-W Cattle Company.

- Q. Mr. Stradley, did you testify as an opponent before the Examiner of the Division when this case was heard back in September of 1992?
 - A. Yes, sir, I did.
- Q. And you're appearing again today in opposition to the Applicant?
- A. Yes, sir.

- Q. Let me ask you, sir, to help us identify some plats and help us get oriented as to your ranch property.
- First of all, if you'll look at Exhibit
 No. 1, which is two portions of a quadrangle map
 put together, have you satisfied yourself that
 the topographic maps that are published by the
 U.S. geological survey, to the best of your
 knowledge, accurately depict the surface of this
 area as you know it to exist?
- A. Yes, sir, I do. This information was furnished by John West Engineering Company out of Hobbs.
- Q. Did they assist you in enlarging this information so that the details of this facility could be more easily visualized by parties?
- A. Yes, sir.
- Q. Have you examined what is identified as

S-W Cattle Company Exhibit No. 2, which is the large display, and satisfied yourself that that's an accurate reproduction of the topographic maps?

- A. I briefly looked at it, yes, sir.
- Q. The area that's outlined, being south and east on the display, of a line that's shown in green, can you see that, sir?
 - A. Yes, sir.

- Q. What does that generally depict?
- A. That looks like part of Section 3. If you're going to the east, it goes into Section 2 and to Section 1, and if you go into 38, it's in Section 6.

Our ranch consists of approximately 16 sections. It's almost a square entity, four by four miles in area, and we operate it in four areas that we rotate our cattle in, working off a hub in the center that we work our cattle at.

- Q. Insofar as that ranch property that you control is adjacent to or potentially affected by this application, does Exhibit No. 2 accurately show that?
- A. Yes, sir.
- Q. On Exhibit No. 2, there is a windmill circled in blue in a portion of Section 3. Do

you know about that windmill?

- A. Yes, sir, I do.
- Q. Is that accurately located on the display?
 - A. Yes, sir.
- Q. In addition, down, I believe it is, in section--
- A. 9.

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- Q. --9, there are two other well locations indicated by blue dots. What do those represent?
- 11 A. They are wells; one that we just

 12 recently drilled, and the other was an old

 13 existing well that was homesteaded by the--I

 14 don't know whether it was the Laughlin family or

 15 it could have been the Buchanan family. It was

 16 an old homestead well.

They're submersible wells, and we actually have laid fast lines to some of our country that has no water, so we can utilize these wells to water these areas where we normally didn't use to run our cattle.

- Q. Give us a summary of your personal involvement with this portion of the ranch property.
- 25 A. I actually started riding this ranch

when I was 14 years old, with my father-in-law who was Billy Walker, and I have been over most of this country. And in regard to this windmill well, we actually used to pull this well by hand because it's so shallow.

- Q. Describe for us what the current water level is in the windmill, as you know it.
- A. I measured this well myself just before the last hearing, and the well from the top of the casing, which is about two foot above ground level, it was 33 foot to the redbed--I assume the redbed. The well has been there forever. It gauged 18 foot of water, so the water level was approximately, oh, 12 to 15 foot below ground level.
- Q. Over your experience of dealing with this windmill, does it continue to have water in it or is it one where water levels fluctuate?
- A. It's been there since I have been going to the place.
- Q. All right. Go down and give us the water levels on the two wells that have the submersible pumps in them.
- A. The furthest est well, which is right at the edge of the highway, approximately three

miles or two and a half miles south of Monument, this well is the old homestead well. It's approximately 52 foot deep. This well has approximately 25 foot of water standing in it, and with this submersible pump actually servicing four surface tanks for my cattle, this well has never pumped off.

The other well is the well that we drilled. It's not as good a well but it was drilled down to approximately 46 to 50 foot. It had approximately 18 to 20 foot of water standing in it, and it will produce something like 35 gallons per minute.

We primarily did this because Texaco was furnishing the electricity and I wanted a backup in case we did loose any of these watering places.

- Q. Are these your sources of fresh water for this portion of the ranch?
- A. These three wells actually furnish water for approximately eight sections of country. There is one exception. In the center of the hub, which is the center of these 16 sections, I do have water there that I pump in from over on the east side of the ranch, which I

have my own submersible pumps there, and I can pump into the center of this area. It would be four to five miles, in some instances, from my boundary line to the center point, if we didn't have this other water available to us.

Q. Let's talk about the topography. Let me direct your attention to Exhibit 3, a locator plat. This is the plat you utilized at the last hearing, Mr. Stradley.

Prior to the last hearing, did you prepare Exhibit No. 3?

A. Yes, sir, I did.

Q. And in conjunction with that, in Exhibit No. 4, there are some colored photographs for the Commission--and I apologize I don't have sufficient color photographs, but we can share them with Mr. Carr.

Exhibit 4 represents the photographs 1 through 17?

- A. Yes, sir.
- Q. These are all photographs that you've taken and had photocopied and enlarged?
 - A. Yes, sir, that's right.
- Q. Take us through, and I will let you do
 this for us, if you use the locator plat, Exhibit

- 3, each of the numbers corresponds to a photograph, does it not?
 - A. Yes, sir, that's right.
 - Q. And the purpose of the arrow is to show the point of view you had when you took the picture, is that correct?
 - A. That's right.

- Q. And does the photograph as reproduced, give you an accurate depiction as you could see that property from that point of view when you stood on the ground?
- A. That's right.
 - Q. Take us, with No. 1, and give us a sense of the topography of this area.
 - A. If you were to start at the southeast corner of the 40-acre tract that is intended to be the landfill, C & C, there is a cattle guard there that we recently put in to restrict the movement of my cattle into this county road.

I stood at this cattle guard and actually took these pictures to the four different directions, the north, east, west and south, primarily to show the fact that the topography of this landscape actually moves very strongly from this point to a west and southwest

area, on to a draw that traverses across this

Cooper country and actually moves on down to this

area where my windmill is.

At the time that the engineering company gave me this information, they estimated from this point, to my windmill, was probably in excess of a 40-foot drop from the point of the corner, which is the highest point in that area, to my windmill. In all this area, it all moves to either the west or the southwest towards my property and my windmill.

- Q. When you look at the surface, there is an area identified on Exhibit No. 2 to the south and identified as White Breaks?
 - A. Yes, sir.

- Q. Is that a name known to you?
- A. Yes, sir. This is a caliche-looking gypsum-type formation that actually lays back to the east. It's been pretty common knowledge that any water lays below this White Break cliff. I actually have Sections 1 and 2, and we have no water in that area that we've been able to find, or usable water. What water we do have is a gypsum content to the extent that the cattle won't hardly drink it, so we actually don't pick

up good water until you do fall off of this White Break cap.

- Q. Identify for us the next series of photographs. You've compiled them together as Photographs 2 through 6. Take us through those and these us what we're seeing.
- A. No. 2, I'm standing at the cattle guard that I referred to, which is at the corner of the C & C proposed facility and my lease property. I have shot from that point to the south.

Now, at this point we're on top, this is before you fall off the White Break, and this facility, you can actually see a caliche pit and a clay pit right directly south, pretty close to this arrow that's showing the curve, and the old clay pit has been there for years and years.

The caliche pit was dug 15 years ago, and it's real strange that within a 50- to 60-foot range that you've actually got a bona fide caliche pit, and then you move into a clay pit that's probably 12- to 15-feet deep that will hold water--fresh water.

The No. 3 is actually shooting from this same point, shooting to the west. My prime reason for doing this, if you'll look at the

stakes of the fence that's running from east to west, you can see how it is traversing down from this point.

To the right of that is when they originally started this C & C facility and, I might add, in my opinion the pit is already within approximately 75 to 80 foot of our property line.

Also, it's hard to see, but approximately 200 foot down this fence line going to the west, you can actually see the first monitor well. Now this monitor well serves no purpose because it's up above, and I would acknowledge there has never been any water in this particular area.

If you move on down this line 500 foot you pick up the next monitor well, and then at this point they actually moved on to the west approximately 500 foot, but they also moved back to the north 60 to a hundred foot, so these are the three wells and, in my opinion, only the furtherst west well would have any value as far as a monitor well.

This does show how the country does decline down, and you can actually see in the

background where it actually is higher over approximately a mile from us and actually works back to this low area, which is this draw that runs north and south.

No. 4 is a shot back to the east, and this shows how the country--this goes into section--this is the east quarter of Section 3 and then on into Section 2, and you can see how much higher it is back into that area.

Shot No. 5 is taken from this same corner, shooting to the north, and this is the county road that they would primarily be bringing the material in. You can actually see where they have got their area there where they will go into this facility.

On the north side, you'll see where I've recently built a fence to help control our livestock from being on this road, because I felt like with the additional traffic that we might pick up in this area, that it would be a hazard to animals and humans not to have this area fenced.

Some of my country is open area and we've asked the county to give us some help as far as fencing, but they don't fence so any

fencing we build, we have to bear the expense and the labor to do it.

No. 6 is primarily shooting from this cattle guard into the C & C facility, when they first started building it. And in the background you can actually see some of the houses over in the Monument area.

No. 7 is the first monitor well, which is approximately 200 foot from this cattle guard, going west down this fence line. As you can see, testimony was given that there was approximately 20 foot from the fence line. I would venture to say that it's probably closer to 12 foot than 20 foot.

No. 8 is the second monitor well, and again you can see from the fence line the fact that it's probably not over 12 foot at a maximum from the property line. And then also, if you look down that fence line, you can see how this property—how the terrain traverses downhill, and back to the left of this is my windmill.

Q. No. 9 is taken from the second monitor well, just looking back to the facility as it was first laid out. This is actually taken back to the northeast.

The No. 10 photograph is actually taken from the fence line, and this is the third monitor well which is the west well which, as I say, in my opinion was the only one that might have any credibility. You can see that it was actually moved in from the fence line, I would estimate, somewhere in the hundred-foot range. Also, if you look at the back, you can see also how the terrain is moving downward in a steep decline towards that draw.

No. 11 was taken from the quarter section support marker. In other words, normally, when you build fence, about every quarter of a mile you'll put in a cross-member to help support your fence, and this was actually taken from the point. You can see just to the right of this support area, you can see this third monitor well which I was alluding to. You can also see in the background how this country is coming down towards us.

No. 12 is, again, taken down my fence line to describe how this country does continue to move to the west and southwest from the high point of this facility.

[Referring to No. 13] I turned and

shot towards my mill, and while they estimated this area to be--the distance from the fence line to my mile to be in excess of a half a mile, in fact it's less than four-tenths of a mile.

The No. 14 was actually back up at the cattle guard again, shooting towards my mill, which you can barely see the mill but you can see how all this country is moving downward towards my mill. This whole area here actually works like a huge funnel or a bowl type, and all these areas move to this low point. And then it continues to move lower as it moves on to the south and southwest.

No. 15 was a dry hole marker. This actual location is on BLM land. Now, I have made application to BLM to buy this land. They, at first, sent me a letter saying they were going to sell it to me, and now they're going to reconsider.

However, you can see how the vegetation has grown up around this location, and while I have no control over the BLM land, on some of my deeded land I will not be in very good humor if someone comes in there and starts tearing up my soil again after I have already lost as many

acres as I have to the oil people. I would be remiss to agree to let them come in and tear up my country again.

But, in essence, this is from this dry hole marker shooting back towards the pit, which again you can see that the area moves downhill from the pit area to this dry hole marker on the BLM hand.

I turned directly south from this same location and shot my mill, and at the time I think my mill was approximately 1,700 foot south of this location where I was shooting, and my deeded land actually is just to the area of where this road comes through and then moves on down. And I have deeded land that moves to all different directions from this mill.

The No. 17 was actually taken from the windmill itself, shooting back towards the area where C & C--and you can see this area just to the right of my windmill. However, it's not very legible, but you can see the fact that it's quite a bit higher than the area where my mill is.

- Q. How long has that windmill been there?
- A. I started going to the ranch with Mr. Walker when I was 14 years old, and that's been

1 | some 45 years ago, and the well was there then.

- Q. Have you personally drunk the water out of the windmill?
 - A. Yes, sir, I have.
 - Q. Can you drink it?
- A. Yes, sir.

Q. Let me show you Exhibit 5, Mr. Stradley. If you'll turn to page 2. The first page is a cover sheet. If you'll turn to the second page, at the bottom of the water analysis there's a code by which each of the three water samples has been analyzed and coded to a particular source.

Can you identify for us where sources

1, 2 and 3 are in the water analysis?

- A. These are the two submersible wells and the windmill that lie on our deeded property.
- Q. These were water samples extracted from those sources back in July of last year?
 - A. Yes, sir, that's right.

MR. KELLAHIN: That concludes my examination of Mr. Stradley, Mr. Chairman. We would move the introduction of Exhibits 1 through 5.

CHAIRMAN LEMAY: Without objection,

Exhibits 1 through 5 will be admitted into the record.

Mr. Carr.

EXAMINATION

BY MR. CARR:

- Q. Mr. Stradley, if I understand your testimony, you're concerned about possible contamination of these fresh water wells on your ranch as a result of this disposal activity?
- A. That would be the most devastating thing that could happen to me. My operation is a cow-calf operation. We've been there, the Weirs homesteadd the place. My father-in-law bought the land from the Weirs. It took in excess of two years to buy the place because they had checkerboarded this place in 40-acre tracts, and we had to deal with some 10 to 12 heirs, so it took over two years to get this under purchase.

Yes, it would be very devastating, considering the fact that we just got through with our taxes and we spent over \$300,000 out there this year, most of it in the State of New Mexico. If it gets to be any more expensive to me, I suspect that I can no longer afford to keep this place.

Q. Is it important to you that the Oil Conservation Division has developed guidelines for the installation and operation of facilities like this?

A. Let me commend them. This is a far cry from what we first started with. But there again, even your oil companies such as Conoco, which is one of the best companies when it comes to protecting the landowner, I think I just recently received a check from them for something like 25 leaks. Now, they didn't intend for those leaks to be there, but they were.

Chevron has one little pipeline across me and they sent me a check for six leaks. If these major oil companies can make these mistakes, it concerns me what a landfill might do there just above my property.

- Q. Isn't it also important to you that the OCD guidelines require or provide that they'll monitor this site at least quarterly?
- A. I appreciate that. I would hope they would do it, but having dealt with the government for many years, sometimes these things fall through the cracks.
 - Q. If this application was approved, would

you prefer that the guidelines developed by this agency for facilities of this nature be incorporated into this order and made conditions of its approval?

- Well, you suggested maybe I want it in Roosevelt County. Now, I don't want it in I wouldn't wish this on Roosevelt County. Roosevelt County. What I would prefer to see, the Coopers have a great deal of land that lays back to the west and southwest of us, probably many sections. There's no reason why they couldn't move this facility onto some of this land where it wouldn't be of any consequence to their neighbors--they're probably polluting our water--and actually made this 16-section ranch worthless, rather than have this facility on some of their property.
- Q. Maybe you didn't understand my question.
- A. I'm sorry.

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Q. My question was, if this application should be approved, would it be important to you that these guidelines, which you've commended the agency for, be incorporated into that order and made a condition of the operation of this

1 facility?

A. Yes, sir. Yes, sir. I'm sorry.

MR. CARR: That's all.

CHAIRMAN LEMAY: Additional questions?

Commissioner Carlson?

COMMISSIONER CARLSON: Yes.

EXAMINATION

BY COMMISSIONER CARLSON:

- Q. You mentioned, I think it was photograph 15, that that was BLM land?
- A. Yes, sir, that's right. This facility was constructed and, in essence, what I have of the 16 sections, I have approximately 1800 acres of BLM land, there's 2200 acres of state land, and approximately 6000 acres of fee land. This is all mixed together.

I've always had a lease on the state land. I have a cow-calf allotment on the BLM land, and then of course, my fee land.

Where this facility is, right due south is a 40-acre tract that belongs to the State of New Mexico. Right adjoining that is a 40-acre tract that belongs to BLM. Then, just to the west of that is a 40-acre that is my fee land.

It looks to me like if the wind gets

high enough to blow these contaminants over in this area, not only will it hurt me, but possibly the State of New Mexico and the BLM may have some concern.

- Q. So, within Section 3, there is federal, state, and fee land, all interspersed through there?
 - A. Yes, sir, that's right.
- Q. And the 40 acres directly south of this site is state?
- A. And then the 40 acres to the southwest of the facility is BLM land.
 - Q. I see.

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- A. So the corner of the BLM land actually hooks up with the corner of this facility.
- Q. Okay. And you have the lease on the BLM, and that state 40, plus--
- A. I have the lease on the state land.

 This old federal allotment is a cow-calf

 allotment, where they allow us to run so many

 mama cows for a certain length of time in this

 area.
- COMMISSIONER CARLSON: That's my only question. Thank you.
- 25 CHAIRMAN LEMAY: Commissioner Weiss?

COMMISSIONER WEISS: Yes, sir.

EXAMINATION

BY COMMISSIONER WEISS:

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- Q. I looked at your water analysis here, and No. 3 is the windmill sample. Is that the same sample point, do you know, that was reported in C & C's report as a analysis?
- A. I don't know, because I didn't give
 C & C permission to take this analysis. So, I'm
 not for sure that they did take an analysis, but
 possibly they did.
- Q. They're totally different waters, I guess, is what I notice.
 - A. Well, then, possibly we ought to have it redone.
 - Q. It's not important. I don't know.

 They're both fairly fresh water. But I see that neither analysis included any tests for organics or oil, or that nature. Is there any oil in the water now?
 - A. Sir, I wouldn't know. I would doubt it because there's not a whole lot of production in that particular area.
 - Now, if you move south, probably two miles, Amoco just got through doing remediation

1	work on a well. They dug down to approximately
2	28 foot, at which point they picked up the fresh
3	water. They claimed to have done a water
4	analysis on it. They did cover the whole back up
5	and wrote me a letter saying the water wasn't
6	contaminated. I truthfully don't know, but I
7	take their word for it.
8	COMMISSIONER WEISS: Thank you. That's
9	my only question.
10	CHAIRMAN LEMAY: I don't have any
11	questions. Thank you very much. I appreciate
12	your attendance.
13	THE WITNESS: Did I do good?
14	CHAIRMAN LEMAY: That's why I don't
15	have any questions. You answered them all.
16	THE WITNESS: Thank you.
17	MR. KELLAHIN: Call, at this time, Mr.
18	Chairman, Elsie Reeves.
19	ELSIE REEVES
20	Having been first duly sworn upon his oath, was
2 1	examined and testified as follows:
22	EXAMINATION
2 3	BY MR. KELLAHIN:
2 4	Q. Ms. Reeves, for the record, would you
2 5	please state your name and occupation?

1	A. My name is Elsie M. Reeves, and I'm
2	retired.
3	Q. Where do you reside now?
4	A. At 3902 West Kaim Drive, in Phoenix,
5	Arizona.
6	Q. At the Examiner hearing back in
7	September of 92, you testified as one of the
8	opponents to the Applicant in this case?
9	A. That's correct.
10	Q. We have illustrated on Exhibit No. 2 an
11	area outlined in yellow on the display. Have you
12	examined that area?
13	A. Yes, I have seen that.
1 4	Q. What does that represent?
15	A. That is the property owned by the
16	Laughlin family in Lea County.
17	Q. You characterize it as the Laughlin
18	Ranch or the Laughlin Farms, is that correct?
19	A. That is correct.
20	Q. What is your relationship to that
21	property?
2 2	A. My father and my grandparents
23	homesteaded that property in the early 1900s.
24	0. Do you currently have any management

interest in that facility or that ranch property?

- A. Yes. I am one of the three-member advisory board that takes care of--looks after the property, and we are currently leasing it.
 - Q. We have identified on Exhibit No. 2 a windmill in the approximate center of the Laughlin property identified by a blue dot in Section 4?
- A. That's correct.
 - Q. Are you familiar with that windmill?
- 10 A. Yes, I am.

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- Q. Is that windmill utilized for any purpose at this point?
- 13 A. Yes. Currently, our tenant is using it to water his cattle.
 - Q. Okay. Your concern is the same as Mr. Stradley's, of potential contamination to shallow groundwater sources?
 - A. Very definitely.
 - Q. As part of your review of available groundwater in this vicinity, did you go to Roswell, New Mexico, and visit with the Office of the State Engineer and study, with their assistance, the public documents concerning water locations and water level measurements?
- 25 A. Yes, sir, I did.

- 1 Q. When did you do that?
- A. Tuesday.

- Q. Did you bring those documents to my office and, with the assistance of my secretary, did you prepare a plat that located all those water sources and make copies of all the documents you obtained from the State Engineer's Office?
 - A. Yes, sir.
 - Q. In looking at Exhibit No. 6, did you attempt to locate, from the information supplied to you by the State Engineer in Roswell, the location of any points that had penetrated water in this area?
- A. Yes, sir.
 - Q. Did you locate them or, with the assistance of my secretary, locate them as best you could on the topo map?
- 19 A. Yes, we did.
- Q. What do the numbers represent when we look over at Exhibit 7, to the compilation of all that data?
 - A. The numbers on Exhibit 7 are reflected on Exhibit 6 as locations of places where water had been documented.

1	Q. How did you determine from the State
2	Engineer records the water level that you've
3	shown on the exhibit?
4	A. From the well records that are copied
5	here in Exhibit 7.
6	Q. And as you turn to Exhibit 7 and move
7	past the index and go to the section and past the
8	section cover sheet, then, each well record is
9	numbered with a number that corresponds to the
10	index?
11	A. Yes.
1 2	Q. Were there available to you in Roswell
13	water analysis from any of these wells?
14	A. Yes, I believe they did have that
15	information.
16	Q. You had not had the opportunity to
17	tabulate yet the water analysis for any of the
18	wells?
19	A. That's correct.
20	Q. At this point you simply had the
2 1	measurements of the reported depths of water in
22	the area and have depicted them on the display?
23	A. That's correct.
24	MR. KELLAHIN: That concludes my

examination of Ms. Reeves, Mr. Chairman. We move

1	the introduction of Exhibits 6 and 7.
2	CHAIRMAN LEMAY: Thank you, Mr.
3	Kellahin.
4	Mr. Carr?
5	MR. CARR: We have no objections to the
6	admission of the exhibits, and we have no
7	questions.
8	CHAIRMAN LEMAY: The exhibits will be
9	admitted into the record.
10	Additional questions of the witness?
11	Commissioner Carlson?
1 2	COMMISSIONER CARLSON: No.
13	COMMISSIONER WEISS: I have no
14	questions.
15	CHAIRMAN LEMAY: I have, I guess, one.
16	EXAMINATION
17	BY CHAIRMAN LEMAY:
18	Q. Your points of water there from the
19	State Engineer's Office, they indicate a depth of
20	water. Is there anything to indicate volumes?
2 1	You said you had no quality data. How about
2 2	quantity?
23	A. I believe some of these well records in
24	Exhibit 7 indicate gallons per minute on some of
2 5	these locations. I'm looking at the first one

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1	that says 10 gallons per minute, the second one
2	says 25 gallons per minute.
3	Q. I see a water levelokay. Oh, 10
4	gallons per minute on your well records, yes.
5	Okay.
6	CHAIRMAN LEMAY: Thank you very much.
7	THE WITNESS: You're welcome.
8	MR. KELLAHIN: Mr. Chairman, at this
9	time I would call Mr. Tim Kelly.
10	T. E. "TIM" KELLY
11	Having been first duly sworn upon his oath, was
12	examined and testified as follows:
13	EXAMINATION
14	BY MR. KELLAHIN:
15	Q. Mr. Kelly, would you please state your
16	name and occupation?
17	A. My name is Tim Kelly, and I'm President
18	of Geohydrology Associates in Albuquerque.
19	Q. Do you hold any professional degrees,
20	Mr. Kelly?
21	A. Yes, sir, I hold a bachelor's degree in
2 2	geology and a master's degree in geology.
23	Q. Describe for us your education and
24	employment experience as a geohydrologist in the
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State of New Mexico.

- A. After receiving my master's degree, I was hired by Chevron and worked for Chevron for two years. Then I resigned from Chevron and went to work for the water resources of the U.S. Geological Survey, and I worked for them for 15 years, after which, in 1975, I resigned and established the firm of Geohydrology Associates in Albuquerque. And we've been in business as consulting hydrologists since 1975.
 - Q. Have you conducted groundwater studies and geohydrologic studies in Southeastern New Mexico?
- 13 A. Yes, sir.

- Q. Have you testified and qualified as an expert hydrologist before the Oil Conservation Commission in prior cases?
 - A. Yes, sir.
- Q. Did you testify as an expert

 hydrologist before Examiner Stogner back in

 September, in this case?
- 21 A. Yes, sir.
 - Q. When did you first become involved in this particular issue, Mr. Kelly?
- A. Probably in July or August, prior to the first hearing.

1 Q. Was that that point I hired you to make a study on behalf of my clients of the 2 3 applications filed by the Applicant in this case? Yes, sir. Α. 4 5 Have you reviewed the OCD case file Ο. concerning this application? 6 7 Α. Yes, sir. Have you had conversations with Kathy 8 Q. 9 Browne, Roger Anderson, and Bill Olsen of the 10 Environmental Bureau, concerning this 11 application? 12 Α. Yes, sir. 13 Q. Have you reviewed the conditions of 14 approval of May 20, 1992? 15 Α. Yes, sir. And did you review the recommendations 16 Q. 17 that the Environmental Bureau issued and 18 distributed by letter of January 6, 1993? 19 Α. Yes, sir. 20 And, based upon that entire review, do Q. 21 you now have professional opinions and 22 conclusions about this application? 23 Yes, sir. Α.

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an expert hydrologist.

MR. KELLAHIN: We tender Mr. Kelly as

CHAIRMAN LEMAY: His qualifications are acceptable.

Q. Mr. Kelly, I've shown you what is marked as S-W Cattle Exhibit No. 8. It's an exhibit numbered from pages 1 through 43.

Does this include information that you have examined out of the OCD case file concerning this application?

A. Yes, sir.

- Q. The initial document is the C & C Landfarm application, and you examined that prior to the last hearing?
 - A. Yes, I did.
- Q. Following that is the various correspondences between the Applicant and the Environmental Bureau, and the Examiner Order, and then finally the recommended changes from January 6th of 93?
 - A. Yes, sir.
- Q. I want to focus most of our attention on the January 6, 1993 recommendations, but in order to place that in context, I would like you to summarize for the Commission what were your concerns as a hydrologist about the original application as it was presented to Mr. Stogner?

What was that issue for you?

A. Well, my major concern is not whether or not Mr. Cooper has a soil farming operation on his land, but the location of this particular site relative to the existing water wells which are used by your clients.

At the first hearing before Mr.

Stogner, I felt that it was kind of like fighting a cloud. We didn't see anything until the hearing. We saw no drawings. As a matter of fact, it was my conclusion that the system was still under design. In fact, I think testimony shows that some of the activities were being discussed between Mr. Pierce and the OCD within a matter of days prior to the hearing, so we were asked to testify in opposition to a plan which really was not even on paper.

So that made it difficult to address some of the problems other than, based on my knowledge of the geology and experience and looking at the data that had been presented, I didn't feel that the data presented justified granting the application.

Q. What was your opinion concerning the use of the excavated caliche pits as a place to

put the contaminated soils?

- A. I felt that was just a pathway to any nearby water.
- Q. Did you have an opinion with regards to the viability of the redbed dike as a mechanism to ensure that the leachates would not contaminate into the groundwater that existed off-site?
- worked. It couldn't have been constructed. It would have been a physical impossibility. But then they were proposing to use a local material, the clay for the dike, but, in fact, they didn't have any tests on the clay to know how permeable it was. So, if they didn't know how permeable the clay was before they dug it up, they would have no idea what it was going to be like after they built the dike. And I think physically it would have been impossible to build the dike.
- Q. Based upon your study at that point, would you characterize for us the potential groundwater migration, the hydrology of this area that Mr. Stradley has identified as being west of the White Breaks?
- A. Yes, sir. I think on one of the

exhibits that you've given me here, it's identified as figure 3, and this is a reproduction--it's this illustration that I'm referring to. It's probably on page 5 or 6 of the exhibit.

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- Q. The pages are numbered at the bottom, Mr. Kelly.
- A. Thank you. It's on page 10 of Exhibit

 8. This is an enlargement of a U.S. Geological

 Survey map that was published in cooperation with

 the Bureau of Mines, which shows the water table

 contours in the area, and groundwater flow moves

 at right angles to those contours. But in the

 vicinity of the facility, the water table or the

 groundwater movement would be generally from

 north to south.
 - Q. What's your conclusion?
- A. So, my conclusion from that is that anything that got away from the pits would move directly onto the S-W property and the adjoining property, and certainly towards the well with which he is concerned.
- Q. Is there any relationship to the topography of the surface and the position or the location of the groundwater?

A. There may or may not be. It's relative. Certainly the topography will carry runoff in the direction of the well, as indicated by Mr. Stradley. And during the movement of water down that drainage, it will percolate into the soils and eventually reach the water table where it may change direction of flow in accordance with the illustration shown here on page 10.

- Q. Is there sufficient scientific data available to you at this point, from which you can conclude or project with reasonable certainty the extent or degree of groundwater movement of leachates, if they're introduced at this facility?
 - A. Yes, sir, I would say there is.
- Q. All right. Where will they go?
 - A. Well, it's on figure 10--I mean, page 10.
 - Q. What, in your opinion, is the necessary scientific information in order to have sufficient comfort, as a hydrologist, to site this facility as the Applicant proposes? What would you want done and what information would you want to see?

A. Well, certainly more monitoring wells.

And the letter of January 6th, which begins on

page 41, specifies certain things which are

certainly an improvement over what was proposed

by the Applicant at the September hearing.

However, I don't think these are adequate to

protect the environment.

- Q. Let's specifically talk about those items. Looking at the January 6, 1993, recommendations, page 42 of Exhibit No. 8, going down to No. 9, or anywhere else in that recommendation, do you see any testing protocol to identify and test the volumes of salt that may be introduced into the groundwater?
 - A. No, sir. They haven't been addressed.
 - Q. Is that an issue of importance to you, as a hydrologist?
 - A. Yes, sir, because those water wells can be contaminated by salt probably more easily than they can be contaminated by the hydrocarbons.

 Salts are much more mobile.
 - Q. The treatment zone monitoring that is proposed by the Environmental Bureau on the next page, indicates one background soil sample for the entire facility located in the center of that

facility?

- A. Yes, sir.
- Q. In your opinion as a hydrologist, is that an adequate sample to give you a representative test to identify the character of the soil for the entire 40-acre tract?
- A. No, sir, it's not.
 - Q. Why not?
- A. Because there's enough variations in the soils of that part of the state that you could collect 10 different samples in the 40-acre tract and the only way you would come up with a background would probably be to average the results of the 10.

I might also mention, going back--you had alluded to No. 9, what that specifies for is the sum of all the aromatics, the BTEX, but, in fact, as related to water quality standards, there's a lot of difference in the maximum permissible limits for benzene than there is for toluene or ethel benzene or xylene. Just giving the sum really doesn't tell you anything.

And I think it's important to talk about the water quality standard because that's what we're concerned with in this well.

- Q. The use of a horizontal buffer, it's Item No. 2 on page 42, it says, "No disposal or remediation of contaminated soils will occur within one hundred feet of the boundary of the property"?
- A. Yes, sir.

- Q. To the best of your knowledge, information and belief, is there any scientific basis for that footage setback for this type of facility?
- A. At the meeting that we had with members of the environment group from OCD, it was stated that that hundred feet was an arbitrary value.
- Q. Are you aware of any scientific basis, within the context of your own knowledge, to justify a setback of a hundred feet?
 - A. No, sir.
- Q. Do you have an opinion or recommendation as an expert as to what that buffer zone setback ought to be?
 - A. No, sir. I think that would have to be determined on a case-by-case basis.
 - Q. How would you go about making a determination on a case-by-case basis?
 - A. I would simply require a much more

1 stringent monitoring program associated with this, including additional drilling and testing.

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- Q. In determining the amount of buffer zone to have for the facility where it joins another property, would it be important to you as a hydrologist to know how deep it was vertically before you got to groundwater?
- Yes, sir, it is. Α. The other thing at this particular site which makes it difficult to establish a horizontal parameter, is the drill logs, which Mr. Seay analyzed, all show a considerable amount of caliche. And, contrary to popular belief, caliche is not impermeable. Ιn fact, it's often fractured and jointed so it's extremely difficult to determine how and where water is going to move through it.
- Ο. Do you have a copy of the water values from Cardinal Laboratories? I believe it was Exhibit No. 6. I'm sorry, Exhibit 5. Here is one.

What is your opinion of the quality of the water as identified from the windmill source on the S-W Cattle Ranch?

I would say that this would certainly Α. be acceptable water for cattle ranching

operations.

- Q. Is that water quality sufficient that that water is protected by the State Engineer?
 - A. Yes, it is.
- Q. Did you attempt to determine from the Environmental Bureau what standard, what criteria, what guidelines they were utilizing by which to develop the recommendations that are now set forth on the January 6, 1993 recommendations?
 - A. Yes, sir, I did.
- Q. What were you advised was the basis upon which, either by experience or by literature, those recommendations were made?
- A. Well, I visited the environment department and got a copy of the permit that was given to Rhino Tank Company, and it's my understanding that it is that site that was used as the guidelines for the system which is now proposed by C & C.

After examining that and talking with Mr. Robert Garcia, who is in charge of that particular monitoring system, my conclusion is there's a lot of difference between what Rhino has been required to do by the Environment Department and what OCD has required in these

recommendations that you've given me here.

- Q. Let me show you what's marked as

 Exhibit No. 9, Mr. Kelly. If the Environmental

 Bureau is using as a basis of experience or at

 least as an example of a landfarm facility by

 which to analyze and judge the C & C Landfarm, if

 they're using the Rhino facility as a benchmark,

 if you will, what are the differences?
- A. Well, they require, as you can see the first item, that four samples be collected, one per acre; whereas the OCD has required one per 40 acres.

Also, I think it's important to note that the Rhino facility cannot accept the same type of waste which is proposed by C & C Landfarms. Rhino only can accept waste from underground storage tanks.

This is soils which have been contaminated either by diesel or by conventional gasoline, and both of those products are highly volatile and therefore much more easily remediated through soil farming. And the volatiles are driven off much more quickly.

As a result, the entire concept for the Rhino site versus the C & C site are based on two

entirely different sets of parameters. Also, there's no reference in this permit from Rhino Tank concerning groundwater monitoring, and I was concerned about that. So, when I talked with Mr. Garcia, he advised me that four wells have been drilled to a depth of 200 feet at this site to confirm that there was no free water present.

And then, when I asked him if there was water at 18 feet below land surface in the vicinity, would they require monitoring wells, and he said, "Definitely." I said, "What about 50 feet?" and he said, "Yes." And I said, "What about a hundred feet?" and he said, "There's a place at Portales where they have monitoring wells beneath the soil farming operation where the water table is 100 feet below land surface," and he said that this was due to the fact it was on the Ogallala formation. And of course, I think it's been brought out in earlier testimony, that this is on the Ogallala formation.

Q. Do you have an opinion as to the environmental risk and the potential risk to groundwater of taking this material from various well sites and consolidating it or concentrating it within a facility such as this, as potential

risk?

A. Well, yes, sir. It certainly leaves it available to the effects of rainfall and runoff. Regardless of the amount of protection that they can give for runoff, no concern has been provided in either of the new guidelines provided in the letter of January 6th, or in any of the earlier work, for the salts.

And the salts, as I mentioned, are going to be highly mobile. There are always salts associated with this type of waste. So, those would certainly percolate into the groundwater, and there's no monitoring regulations for them.

- Q. Mr. Pierce talked about the potential to remediate the contaminated soils by degradation. What, in your opinion, is the viability of that concept in which to remediate the soils?
- A. I think it will take a considerable length of time to remediate these soils.
 - Q. Why do you say that?
- A. Because, as Mr. Pierce alluded earlier, the volatiles are primarily gone, so you're left with the heavy fraction which is take a much

1 longer time for the bacteria to break down. think it's going to take a much longer time than 3 they believe.

- Q. The Environmental Bureau has proposed a monitoring of the treatment zone and that monitoring, then, is to be the fail-safe for the system so that the detection of contaminants in the native soil underneath the contaminated soil is going to be the protection.
- Yes, sir. Α.

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- Ο. Do you share their belief that that is an adequate fail-safe device in order to protect groundwater that's present in the area?
 - Α. No, sir.
 - Why not? Ο.
- Well, they're going to look to the contamination once it gets three feet in the ground and then, as Mr. Pierce testified, if it gets down there, then they're going to go to a Plan B, but Plan B hasn't been provided.

So presumably, once they find a contamination there, they're going to have to figure out what they're going to do about it. I think that the number of samples are going to collect. Certainly the location of the

monitoring wells which they have proposed are not sited in such a way that they would intercept anything getting away, at least not all of the monitoring wells. So I just think there's a tremendous opportunity for this stuff to get away from them and they would never know it.

- Q. In your opinion as a hydrologist, for this area, is there at adequate vertical as well as horizontal separation from groundwater so that this facility can be approved as proposed?
- A. They've never identified groundwater and I think that's because they haven't drilled enough holes or drilled them in the right places. But certainly four-tenths of a mile to the one windmill is not very much protection for Mr. Stradley.
 - Q. Anything else in summary, Mr. Kelly?
 - A. No. sir.

MR. KELLAHIN: That concludes my examination of Mr. Kelly. We move the admission of Exhibits 8 and 9 into the record.

CHAIRMAN LEMAY: Without objection, Exhibits 8 and 9 will be admitted into the record.

EXAMINATION

BY MR. CARR:

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- Q. Mr. Kelly, the last time we talked was last July or August, and I think at that time you told me you only had a short period of time to review the proposal, is that correct?
- A. I only think we discussed this at the hearing, which was in September.
- Q. If I recall, you had only been involved in the project for just a matter of days at that time?
- A. Yes, sir, that's right.
- Q. And at that point in time, in fact, you had only limited data available to you?
- 14 A. Yes, sir.
 - Q. Have you ever been employed to consult on a project similar to this one?
 - A. Yes, sir.
 - O. A landfarm of this nature?
- 19 A. We have been involved in several
 20 instances where we set up the landfarming
 21 operation for an operator. We did not ever go
 22 through the permitting process.
- Q. Were they in New Mexico?
- 24 A. Yes.
- Q. Could you identify those for me, or any

1 of them?

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- A. They were primarily in the San Juan Basin area.
 - Q. Do you know the name of the operator of any of those?
 - A. Well, that's proprietary.
 - Q. Were they landfarms where there was simply going to be no liquids but just a contaminated hydrocarbon soil remediated?
 - A. Yes, sir, they were.
 - Q. When you did that, when you're called to consult on a project like that, is it important to visit the site?
- A. Is it what?
 - Q. Important to go out and actually visit the site?
- 17 A. It depends on what they want done.
- Q. In terms of trying to reach conclusions
 about the viability of a project, you, as a
 consultant, would be able to do this without ever
 going to the site? Is that what you're telling
 me, or would you want to go out and look at it?
 - A. Normally I would go out and look at the site, yes, sir.
 - Q. Is there certain testing and sampling

that you would do?

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- A. There are certain tests and samples that we would recommend be done, yes, sir.
- Q. Mr. Kellahin, every time we do this, rattles off these tests. Compaction tests, is that one of the things you would want to do?
 - A. Yes, sir.
 - Q. Permeability tests?
- 9 A. Yes.
- 10 Q. Percolation tests?
- 11 A. Yes, sir.
- Q. Groundwater migration tests?
- 13 A. Yes.
- 14 Q. And contamination mobility tests?
- 15 A. Right.
 - Q. So these are things that you would need to reach a conclusion and make a determination about whether or not a project is sound, is that fair?
 - A. Well, it would depend on--as I said, it would depend on the site that it was at, the amount of material you're dealing with, and a lot of different factors. On a site like this, that's certainly what I would want, yes, sir.
 - Q. Have you ever visited this site?

No, sir. 1 Α. Following the Examiner hearing, Mr. 2 Q. 3 Kellahin requested permission, and it was granted, to go out and collect samples and run 4 5 tests. To your knowledge, were any tests or sampling done by you in preparation for this 6 hearing? 7 Α. 8 No. 9 Q. Or anyone else for Mr. Kellahin's clients, that you're aware of? 10 11 Α. Not that I'm aware of. 12 I assume you have seen the OCD Q. 13 guidelines for landfarms that they have prepared? 14 Α. Yes. 15 You're not finding fault with these 0. 16 guidelines, are you? Α. No, I'm not. 17 18 Q. You're just saying that here maybe 19 something else may be required? 20 Α. Pardon me? 21 Q. You're saying, in this particular case 22 something else may be required?

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its own merits.

as written, but each site must be evaluated on

I think that the guidelines are as good

1	Q. And that would require the kind of
2	testing and visual inspections and things that
3	you've discussed?
4	A. Yes, sir.
5	Q. Now, your concern about contamination
6	of these offsetting water wells is really based
7	on the concern that the contaminants will get
8	away from this facility, isn't that right?
9	A. I'm concerned that they won't stay on
10	Cooper's property.
11	Q. In fact, they would get not only out of
12	the treatment zone that they're talking about,
13	but away from the facility altogether?
14	A. Yes, sir.
15	Q. If that didn't happen, we wouldn't have
16	a problem?
17	A. That's correct.
18	MR. CARR: Thank you.
19	CHAIRMAN LEMAY: Mr. Stovall?
20	MR. STOVALL: I have a few questions.
2 1	EXAMINATION
2 2	BY MR. STOVALL:
23	Q. Mr. Kelly, do you know of your own
2 4	knowledge if there's any groundwater directly
25	under the facility?

- A. Based on the information that's been submitted at this hearing, I do not know whether there's any there or not, underneath that particular 40 acres.
- Q. Would you explain to me, just as a hydrologist, what does it take to cause movement of fluids? We're talking about this situation, obviously. If contaminants got down there, what does it take to move them down and then move them away from the facility underground?
 - A. Free water.

- Q. What does "free water" mean?
- A. Rainfall or runoff or water that's added during the remediation process.
- Q. How much would it take to move them how far?
 - A. I can't answer that question.
- Q. Is this something you would have to calculate to figure out?
- A. No. I think that the rule of thumb is that on the Ogallala formation, approximately one-half inch of precipitation infiltrates per year to the water table.
- Q. Do you know that this is the Ogallala formation in this area?

- A. I have worked in that immediate vicinity, and there are geologic maps, and I believe that one of the exhibits identifies it as the Ogallala, yes, sir. I don't think anybody questions whether or not it's the Ogallala.
- Q. You're saying that if any moisture at all hits the surface, hits one of the lifts, that contaminants are going to flow down?
 - A. No, sir.

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- Q. There's a volume which causes it to flow, is that right?
- A. Yes, sir.
- Q. And in order to help design criteria that would make this specific facility safe, would it not be useful or do you think it would be useful for the Division to have those numbers, or is there some point at which you could say, clearly there's not enough volume of fluid or contaminant to do something? Where do we go?
- A. To my knowledge, there's only been one study that's ever looked at this, and that was that one-half inch of precipitation, per year, percolates through the Ogallala to the water table, and that's in an area where the annual precipitation is roughly 10 inches a year. Now,

that was a study that was done on this particular aquifer.

The only way that you would ever get to what you're looking for, I believe, is to have a highly detailed monitoring system and one in which you were able to measure the rainfall and the water levels and monitoring wells, and see how they react. The rainfall takes time to percolate in. For example, you could get half-inch rainfalls for five years and never see anything get to the bottom. But if you got one three-inch rainfall, you could suddenly have an awful lot of water on the ground.

There are a lot of records with a lot of data in the geological survey and, I'm sure, in the Environment Department, that would verify that.

- Q. You don't have any specific calculations for this site? no knowledge you have that would specifically guide us in making any sort of measurement or calculations?
 - A. No. sir.

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Q. You don't have any saturated or unsaturated flow models that would be applicable or useful?

- A. We have the use of those, but with a model like that, it's garbage-in-garbage-out, and we don't have enough information to be able to say. We don't know what the vertical or horizontal permeability is out there.
- Q. Shifting to something else and talking about some of the testing, you were concerned about the sum of all the aromatic hydrocarbons, the BTEX in less than 50 parts per million?
 - A. Right.

- Q. You thought that was not specific enough?
- A. I think that as long as you're going to get the sum, you ought to be reporting benzene, toluene, ethel benzene and xylene, so that you can look at the specific contaminants rather than just the bulk number.
 - Q. Do you have the January 6th order?
 - A. Yes, I do.
- Q. I would ask you to take a look at that and, after it says 50 parts per million, do you see where that is in paragraph 9, third line?
 - A. Yes, sir.
- Q. What's the next phrase after that?
 - A. "And the benzene is less than 10 ppm."

1	Q. You also expressed concerns about the
2	salts?
3	A. Right.
4	Q. If you would turn to the next page,
5	paragraphs 1 and 3, are you familiar with what
6	the general chemistry test tests for?
7	A. No, sir.
8	MR. STOVALL: Thank you. I have no
9	further questions.
10	CHAIRMAN LEMAY: Commissioner Carlson?
11	EXAMINATION
1 2	BY COMMISSIONER CARLSON:
13	Q. I think you heard Mr. Pierce say that
14	he thought 180 days may be enough to remediate
15	the soil, and you testified that you thought it
16	would take much longer than that. How much
17	longer?
18	A. That's a very difficult question to
19	answer. I have personal experience in which it
20	has taken gasoline-contaminated soils over a year
21	to be remediated.
22	As I mentioned, gasoline is much more
23	volatile than the material which would be put in
24	this facility. I think it's reasonable to assume
25	that it may take certainly more than a year.

Also, Mr. Pierce mentioned that some of 1 the sites or some of the material brought in 2 might already be remediated. I'm not sure why 3 they would bring it in if it was already 4 remediated, but it would depend on what the 5 concentrations were. But I think it would take a 6 lot longer than they propose. 7 8 COMMISSIONER CARLSON: That's all I have. 9 10 CHAIRMAN LEMAY: Commissioner Weiss? 11 COMMISSIONER WEISS: Yes, sir. 12 EXAMINATION BY COMMISSIONER WEISS: 13 14 On the drinking water issue, is Sample No. 3 that's in this packet of data, S-W Cattle 15 16 Company, is that drinking water quality? 17 Α. No, sir. It's not human drinking water quality. It's certainly adequate for stock 18 water. 19 20 Is that maybe the reason that people Q. don't measure the amount of oil in the water 21 22 because people don't drink it? My point is, I 23 keep hearing that people are worried about oil 24 getting in the water, but nobody tests for it.

Well, I wasn't a party at collecting

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Α.

these samples. I probably would have had them analyzed for that. That wasn't one of my responsibilities.

- Q. And then, perhaps, in your experience, what do people do with asphalt? What does the state do when they haul it off of roads? What do they do with it?
- A. Some of it's buried in very dry soils and some of it--where they've removed base coat along I-25, it has been spread along the shoulder and left at the surface.
- Q. In my mind, that's similar to what's going to be added to this facility.
- A. Well, I'm not sure that that's true because the base coat is a very hard, compact media, and it is in dry chunks and relatively immobile; whereas, what they're bringing in is contaminated soil, and the only way they can remediate it is to keep it broken up, by disking. So, they have to keep it soft and loose and permeable, in order for the system to work.

COMMISSIONER WEISS: Okay. Thank you. That's the only question I have.

CHAIRMAN LEMAY: I've got one.

EXAMINATION

BY CHAIRMAN LEMAY:

- Q. I'm going to go back to the Ogallala.

 It hasn't been mentioned before. I think you mentioned it. Do you know for a fact there is Ogallala in this area?
- 7 A. Yes, sir, I think I've got a map that 8 shows that.
 - Q. Could you present it to us?
 - A. Yes, sir. This is identified as plate 1, geologic map of Southern Lea County, New Mexico. It was prepared by the U.S. Geological Survey in cooperation with the U.S. Bureau of Mines, and I'll give you the document from which it was taken. Here is the symbol right here for Ogallala, and here is the site.
 - Q. Getting pretty close to the edge, though, isn't it?
 - A. Yes, it is. What this is, right here, is the sand overlying the Ogallala down here.
 - Q. Are you familiar with the areas where the Ogallala is absent because of redbeds?
- A. Yes, sir, there are some down there.

 In fact, the clay pit which Mr. Stradley alluded

 to, is one of those.

Where would the Ogallala be in this 1 0. area, do you think? Underneath the Triassic, if 2 3 it's there? The wells that were penetrated show 4 nothing but caliche on down to the Triassic redbeds. I'm just wondering where the Ogallala 5 would be. 6 7 THE WITNESS: Would you like to answer 8 that question, or should I? 9 MR. SEAY: Where the Ogallala is? 10 THE WITNESS: In these test holes. MR. SEAY: There is none in these test 11 12 holes. 13 MR. STOVALL: Mr. Chairman, we're now 14 having the sworn witness asking an unsworn 15 participant questions, to answer the Commissioner's question. 16 17 CHAIRMAN LEMAY: Sorry. We got carried 18 away. 19 MR. STOVALL: It's geologically 20 exciting, but I think it's terrible to build a 21 record this way. 22 CHAIRMAN LEMAY: It's also very hard 23 for the court reporter to translate, I know. The answer to that question is, the 24 Α. 25 caliche is within the Ogallala. The caliche at

1 | that point is in the Ogallala.

- Q. The caliche's in the Ogallala?
- A. Yes, sir.

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- Q. That's an interesting one.
- A. The caliche is simply calcium carbonate that's been deposited by groundwater in an existing formation of sand and gravel, and the existing formation that was there was the Ogallala, and then the caliche formed in it later.
 - So, when the drilling was done, they reported the rock tight, which was caliche, but the name of the formation is the Ogallala formation.
- Q. Assuming we don't talk about names, then, but what characteristics do you normally associate with the Ogallala? Is it a good aquifer?
 - A. Yes.
 - Q. Is caliche a good acquifer?
- A. Caliche is very permeable. It's generally quite shallow and water is commonly found beneath it.
- Q. Is water found in it?
- 25 A. Water is found in it over at Monument.

1	Q. Does it supply water for any areas that
2	you know? Are there any water wells in the
3	caliche that produce water?
4	A. Yes, they are municipal wells near
5	Monument, dug wells and old homesteads wells that
6	are in the caliche that produce water from the
7	Ogallala.
8	Q. From the caliche?
9	A. Yes.
10	Q. Are you sure of that?
11	A. Yes, sir. We put monitor wells in the
12	caliche at the Climax Chemical Company Plant,
13	which is just west of this facility.
14	Q. You can pump out of caliche?
15	A. Yes, sir. If I may, this is
16	Groundwater Report No. 6, and the authors are
17	Nicholson & Clebsch. It was published by the
18	Bureau of Mines and Mineral Resources. The date
19	is 1961.
20	CHAIRMAN LEMAY: Thanks for the
21	reference. I have no further questions.
2 2	FURTHER EXAMINATION
23	BY COMMISSIONER CARLSON:
24	Q. One more question, following up on

something Mr. Weiss asked earlier, if I look on

- page 9, the water analysis report in your Exhibit
 and I compare that to sample 3 in your Exhibit
 by the sample 4 in your Exhibit
 by the sample 5 in your Exhib
 - A. I have the one from Cardinal Labs. I don't have the other one that you're referring to.
- Q. The other one is on page 9 of Exhibit 8 8.
 - A. Okay. I do have it.

- Q. Now, as I understand this, these are supposedly from the same well. My question is, is the margin of error so great between these two analyses that that could possibly be from the same well?
- A. I don't think they're from the same well. One of them is a sodium sulfate water and the other one is a sodium chloride water. It does have a lot of sodium in it--I mean a lot of sulfate in it, but they look like different samples to me.
- Q. Aren't they reputed to be from the same well? Am I reading something wrong here?
- A. It's my understanding they're from the same well.
- 25 | COMMISSIONER CARLSON: That's all I

1 have. CHAIRMAN LEMAY: Additional questions 2 of the witness? If not, he may be excused. 3 Thank you. 4 5 MR. KELLAHIN: That completes my direct presentation, Mr. Chairman. 6 7 CHAIRMAN LEMAY: Thank you, Mr. Kellahin. Mr. Stovall? 8 9 MR. STOVALL: Mr. Chairman, if I could 10 have two minutes to step out of the room, I'll be ready to start with Mr. Browne. 11 CHAIRMAN LEMAY: Okay. Let's take a 12 two- to five-minute break. 13 14 [A recess was taken.] 15 CHAIRMAN LEMAY: Okay. We shall 16 continue. Mr. Stovall. 17 MR. STOVALL: Mr. Chairman, I was about to call Kathy Browne to testify. Again, I want 18 19 to reiterate that the Division is not taking a 20 position. It's not supporting this application. 21 However, the testimony is going to indicate that the Division has found conditions 22 under which it believes the Environmental Bureau 23 staff believes that this permit could be 24

approved, and were it being processed

administratively it would, most likely, be 1 approved subject to these conditions. 2

The purpose of Ms. Browne's testimony is to explain the conditions, why they're imposed, what they looked at and how they came up with them, to help clarify the issues. And then, of course, her purpose is to be available to answer any questions that the parties or the Commission may have with respect to how the Environmental Bureau processed it, and the concerns it may have, and the factors it has looked at.

KATHY BROWNE

Having been called to the stand, was examined and testified as follows:

EXAMINATION

BY MR. STOVALL: 17

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- Ms. Browne, would you state your name, Q. please, and place of residence?
- Α. Kathy Browne, Santa Fe, New Mexico.
 - Q. How are you employed?
- Α. I'm a geologist for the Oil Conservation Division Environmental Bureau. 23
- 24 Have you testified before this Q. 25 Commission and had your credentials as a

geologist accepted as a matter of record?

A. No, I haven't.

- Q. Would you tell the Commission your educational background, please?
- A. I have a bachelor of science in geology from the University of Texas, and a master's of science in geology from Northern Arizona University.
- Q. What is your work experience that might be relevant to this, your work for the Division on this application?
 - A. My work with the Division?
- Q. Your work experience prior to and with the Division that's relevant, that is useful, for them to understand your expertise.
- A. Well, I'm familiar with the oil patch.

 I've worked as well tender in the summers of college out in the oil patch.

I worked for two and a half years with Shell Offshore in New Orleans as a production geologist and also in the field, and I've worked for the last two years with the Environmental Bureau, permitting disposal facilities, reviewing the ones we have, and all the other operations that we do as an Environmental Bureau for the oil

1 and gas industry.

- Q. Are you familiar with the development of guidelines and conditions for approval of landfarm facilities, such as this one?
- A. Yes, I am, because landfarms are fairly new in the oil patch, and I have been working with them as the permits have come into the OCD, so I have been working them from the beginning, basically.
- Q. Mr. Carr submitted earlier what are called guidelines for landfarm operations. Are you familiar with those guidelines?
 - A. Yes, I am.
- Q. Did you participate in the development of those guidelines?
- A. Yes, I did. I was the lead person in developing them. However, everything we do in our Bureau is worked between myself and the other members, who are hydrogeologists and chemical engineers, and any other input from the engineers in our Division.
- Q. With respect to this particular application, the C & C Landfarm application, are you familiar with that application?
- A. Yes, I am.

1 Q. Are you the lead person who is responsible for processing the administrative 2 3 process? Α. Yes, I am. 4 5 Are you the person who primarily was Q. 6 the lead person in the development of the permit 7 recommendations contained in the January 6th letter, which has been referred to numerous times 8 9 today? 10 Yes, I was the primary person in that, Α. however, as I said, with confrontations with the 11 rest of the Bureau. 12 13 Q. Confrontations or consultations, or both? 14 15 Α. Consultations. MR. STOVALL: I would offer Ms. Browne 16 17 at this time, as an expert geologist familiar 18 with the landfarm operations. 19 CHAIRMAN LEMAY: Her qualifications are 20 acceptable. I wonder if she was sworn in 21 earlier? 22 MR. STOVALL: No, I'm sorry, she was 23 not.

raise your right hand please?

CHAIRMAN LEMAY: Would you stand and

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1 [Ms. Browne was duly sworn at this 2 time.1 3 MR. STOVALL: Thank you. I had forgotten she was not here during the initial 4 5 period. (BY MR. STOVALL) Talking first in Q. 7 generalities, you say landfarms are relatively 8 new in the oil field operations in New Mexico? 9 Α. Yes. 10 Q. How new? Last year and a half. This was the 11 Α. first one, basically, to come in. No, I'm sorry, 12 13 we do have one up in the Northwest before that. Was that facility you're referring to, 14 Q. 15 is that the Tierra facility? No, that's the Enviro-Tech facility. 16 Α. 17 It was permitted before I did come in. 18 Q. That was permitted by the OCD as a landfarm operation? 19 20 Α. Yeah. 21 Ο. Broadly similar to this one, in terms of operation? 22 23 This one has many more stringent 24 requirements put on it than the Enviro-Tech one

in the Northwest.

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- Q. But the methodology is the same, put the stuff on the ground, till it, and bioremediate?
 - A. Exactly.

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- Q. Is there not another one in the Northwest that was approved through a hearing process?
- A. There are two other ones in the Northwest.
 - Q. The Tierra facility was approved through an Examiner Hearing, is that correct?
- 12 A. Exactly. TNT was also approved
 13 administratively.
 - Q. Is landfarming becoming, or is it reasonably well-established as a technique for dealing with contaminated soils?
- 17 A. Yes, it is.
 - Q. How does it work, basically? Just real quickly, what happens?
 - A. You take the contaminated soils and spread them out as we've indicated in a lift, six inches or less, and then you till the soil so that you have oxygen and the nutrients being mixed in with the oil and basically they are bioremediating or eating up the contaminants, the

1 | hydrocarbons in the soils.

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- Q. It's a natural process?
- A. Yes. Some people do add the bugs, but it's specific case-by-case.
- Q. We're talking about in the oil field, and there was reference earlier to RCRA nonexempt. This field specifically deals with, excuse me, RCRA nonhazardous or exempt wastes, is that correct?
- A. Right. Most of the wastes are exempt, but you could have pit clean-ups in, say, a service company that was not exempt. Those are case-by-cased only, to be accepted at the landfarm.
- Q. When we're talking about exempt, it means it may have hazardous constituents by characteristics, but they're exempt from RCRA subtitle (C) regulations, as far as disposal?
 - A. Correct.
- Q. When we're talking about nonexempt waste, we're talking about wastes which are not exempted from hazardous waste disposal, and if those are to be accepted here they have to be nonhazardous by characteristics, is that correct?
 - A. Right, and those would only be accepted

1 on a case-by-case basis.

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- Q. After testing, to ensure that they have no hazardous characteristics?
 - A. After testing, that's correct.
- Q. Is landfarming ever used for hazardous material disposal?
- A. Yes. In refineries, the hazardous wastes they have for that, but those are permitted through a different agency, however.
 - Q. Through the Environmental Department?
- A. Right, through their Hazardous Waste

 Bureau.
 - Q. But my point is, it can be used for a wide variety of contaminants?
 - A. Right. We tend to look at remediation, as opposed to disposal. If we can find methods of remediation, recycling, those types of thing, as opposed to just a disposal facility, that's where we see the waste management going.
 - Q. Because then you have a usable or at least nondangerous material left?
- 22 A. Correct.
- Q. That's a "yes," I take it?
- A. Yes.
- Q. Now, looking more specifically at the

permitting conditions, the bureau has developed a set of guidelines for landfarm permitting, is that correct?

A. Yes.

- Q. Is that fairly recently, based upon the experience you've had with the other facilities?
 - A. Yeah, it is.
- Q. With respect to this facility and the conditions that are part of, I believe it's Mr. Carr's Exhibit No. 3, your letter of January 6th which contained the recommended conditions, tell me how you developed those.
 - A. The different conditions?
- Q. Yeah, the package of conditions as a totality?
- A. They really evolved from the beginning of when this application came in, and through the other applications. Through our own discussions, through concerns from outside, from the public, through the two hearings that we've had, they've been an evolving process, trying to look at all the concerns and how we can protect the groundwater, health, and the environment.
- Q. Were these specific ones in this letter developed with this specific site in mind?

- 1 A. Yes, with this site in mind, yeah.
 - Q. I think you mentioned earlier that some of the facilities in the northwest have less stringent conditions actually, is that correct?

 Not all of them, but at least one or two are less stringent?
 - A. Right.

- Q. So, when you go to permit a facility, am I correct in assuming you start with the guidelines and then adapt them to the specific site?
 - A. They're site-specific.
- Q. Let's talk a little bit about the site now. In earlier questions, I talked to Mr. Pierce, and I think Mr. Kelly's testimony largely alluded to the fact that the primary environmental concern is the protection of fresh water in this area, is that correct?
 - A. Correct.
- Q. Do you have knowledge whether there is any fresh water in this area to be protected?
- A. I believe that there's no fresh water directly below the site. I know that there's water in Mr. Stradley's well, but below the site I don't believe there is any fresh water.

Q. All the testimony about the water wells that we have heard, in the area, you assume that to be true and that water is to be protected when you develop these criteria, is that correct?

A. Yes.

- Q. What is the significance of the fact that there is no water directly below the site, that you believe there's no water directly below the site itself?
- A. Well, the fact that there is no water directly below the site, would make it very difficult to have the contaminants migrate vertically down and then laterally out through the water. And there's no water to contaminate if there's no water directly below the site.
- Q. Let's look quickly at Mr. Kellahin's Exhibit No. 6, the map that was prepared.
 - A. This one?
- Q. That's the one, yes. Now, looking specifically at Nos. 27 to 28, and then if you look at the tabulation behind--
- A. Right. Those show the water to be at in excess of 500 feet in those wells.
- Q. If you go to No. 26, you find it's considerably shallower than 500 feet, is it not?

1 A. Yes.

- Q. And have you also examined the data from the monitor wells which we've never permitted Mr. Seay to talk about too much, the specific wells that are identified by C & C?
- A. Right. The wells around the facility, yes.
- Q. Does that help you confirm that there's probably no water under this specific site?
- A. Yes, based on the monitor wells. And north of there, those wells, I would state that there's no fresh water underneath the facility, that there's no water at all under the facility.
- Q. Based upon the information that you and the Bureau team--and I understand this is a collaborative effort and you're speaking, in a sense, for the rest of the staff as well--what is the most probable threat that contaminants could move to a fresh water source? How would it get there? How would contaminants get to a fresh water source from this site?
- A. To get to the fresh water source of Mr. Stradley's well?
 - Q. Yes, for example.
 - A. They would have to migrate down to the

surface of the redbeds and then laterally out to the southwest.

- Q. So as you designed the guidelines or the requirements for this facility, is it designed to prevent that?
- A. That's how it's designed, yes.
- Q. You heard Mr. Pierce's testimony about how the facility will be operated. Is that substantially consistent with what your conditions are based upon, with the cells, berm cells, and a berm facility?
- 12 A. Yes.

- Q. And is his statement about the monitoring of the treatment zone correct?
- A. Yes. It would be background sample, and then quarterly for TPH and BTEX, and annually for heavy metals and general chemistry.
- Q. Do you feel that the background sampling that is proposed, and I believe I was looking for one site in the center area of the landfarm, is that going to provide you an adequate indication of the composition of the soil?
- A. Yes. We've discussed that and we believe that one sample would be significant or

would be enough to represent the soils below the landfarm.

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- Q. In the Examiner hearing, there was discussion about putting the material into the pits that have been excavated for the caliche, and I believe the Division has come to the conclusion that that is probably not the appropriate way to do it, is that correct?
- A. That's correct. Like I said, this has been an evolving process. We were concerned from the beginning with migration along the redbed surface, and that's why, in our first correspondence to C & C, we told them they had to propose some type of method to ensure that that would not happen. And that was when the redbed dike was proposed by them.

However, if that's how it would have been processed, the facility still would not have been operable until we had inspected the redbed dike and been assured, ourselves, that it was going to be enough of a guarantee.

Q. If my recollection is correct from the testimony in the original hearing and the Examiner hearing, is that one of the concerns is because of the topography, those would be low

points and gathering points for water which could cause migration, is that correct?

A. Yes.

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- Q. Are you satisfied that with the berming that is proposed around each cell, that surface flow of contaminants can be contained?
 - A. Yes.
- Q. Now, explain to me how this treatment zone works and why you believe that that is an appropriate way to watch for and prevent the significant downward flow of contaminants such that it could flow along the redbeds to the water sources?
- A. Well, we believe that the monitor zone is the most effective way to detect any movement of contaminants before they get away from you, as it has been put, because the monitor zone, you sample two to three feet below the native surface and analyze that, and right then you can tell if there's any contaminants that have reached that level. And if they have, then steps can be taken immediately to cease putting anything else on and to determine the extent it's gone, and then to increase, say, your tilling and microbes or whatever might be necessary to stop any further

1 leaching.

- Q. You're talking two to three feet, taking the sample at two to three feet, but that would detect contaminants that might have only gone six inches, is that correct? I mean, would you see those? Are you going to wait until they get to two or three feet before you do something, or if you see it anywhere in the treatment zone?
- A. Anywhere in the treatment zone; but the sample is taken at two to three feet below.
- Q. Now, there was some concern expressed that there is no plan in the event that contaminants are found, is that correct?
- A. No, there is a plan. I mean, if contaminants are found, the OCD is notified immediately. No more soils are put on there. The levels of the contaminants are looked at and we would proceed, then, with further tilling of the soils, determining the extent the contaminants have gone to.
- Q. So, in other words, if I understand correctly, we don't want to build some specific thing into an order or conditions, but rather be able to respond to specifics?
- 25 A. Exactly. Right.

- Q. But you have some idea what you would require, once you found out?
 - A. Exactly, right.

- Q. It could be just stop adding soil, for example?
- A. And determine the extent of how far down it's gone.
- Q. So, if you've found some at three feet, you might have to drill further to find out if it went any further?
 - A. You would.
- Q. Possibly stop, leave the soil in place, but stop adding water so that you would reduce the flow? I mean, the watering is part of the remediation process, is that correct?
- A. Right. At that time you would stop any water addition though.
- Q. Then you could increase tilling? That would increase the rate of bioremediation, is that correct?
- A. Yes.
 - Q. You talked about bugs earlier, in terms of other facilities. You could add bugs to this one, microbes, that would actually enhance the bioremediation?

1 A. Right.

- Q. Ultimately, is it possible that you could require them to remove it from that particular site?
- A. Right. If it was that bad, you could have them remove that, and there are facilities in the area that it could be taken to.
- Q. I'm going to skip around here for just a second and talk about bugs. This facility does not propose, at this time, to use an enhanced bioremediation, using microbes of any sort, is that correct?
 - A. Correct.
- Q. Conceivably, that could be something that was used later if it was determined to be feasible and practical?
- A. Right. They would have to submit all the materials, the specifics on the bug additions.
- Q. Why not take samples more often, rather than once quarterly in each cell? Why not do it monthly, for example?
- A. We believe quarterly is frequent enough to detect any contaminates. And also, the more holes you start putting out there, the more

possibility you could have for some type of conduit. So, we believe quarterly is a proper amount.

- Q. And if you found something in one of these samples and took these remediation measures, are you satisfied that you could prevent, even in cases of extreme rainfall, you could remediate quickly enough the problem to prevent fluids from leaving the property?
- A. Yes.

- Q. When Mr. Kellahin was talking to Mr. Kelly, he was talking about a variety of tests that could be performed. I think you heard that testimony, is that correct?
 - A. Yes.
- Q. Would those be particularly useful to you?
- A. No, I feel like they're irrelevant, since the whole system is designed to detect any contaminants before they go below the monitoring zone.
- Q. In other words, those would discuss flow rates and that sort of thing, and is it your intent that there be no flow--
- 25 A. Yes.

- Q. --because there's not going to be contaminants in the soil, is that correct?
 - A. Yes.

- Q. Let's talk about the test. There's some concern about the test. Would you just explain briefly what the various tests are going to look for that they're going to be required to run on a quarterly and annual basis?
- A. Quarterly, they're required to test for total petroleum hydrocarbons and for BTEX. Total petroleum hydrocarbons pick up any of the heavier ends of the hydrocarbon spectrum, and the BTEX picks up the organics, the lighter ends.

Then annually they would be required to test for heavy metals and for general chemistry, and the general chemistry does include all the salts; the sodium, the chlorides, those that would be associated with produced water.

- Q. Now, with respect to the hundred-foot buffer zone from the nearest cell to the facility boundary, do you have an opinion as to whether that provides an adequate buffer to prevent the migration of contaminants off the property?
 - A. I believe it does.
 - Q. What is the basis for that? Do you

have any scientific or measurement basis for
that, or is it--

- A. No, we don't. It was discussed at the Examiner Hearing. That number was thrown around.
- Q. Has anybody done any measurements which would indicate how long it would take contaminants to move off?
 - A. Not to my knowledge.
- Q. With that in mind, then, is it the Division and the Bureau— Well, let me ask the background question. The Bureau would be responsible for enforcing the compliance with these conditions, is that not correct?
 - A. Yes.

- Q. With that in mind, once you started to see contaminants get into the native soil, is it the Bureau's intent that they would prevent that from continuing to happen? That they would stop that infiltration of contaminants?
- A. Yes, that would be the number one action of the Bureau, is to make sure those contaminants did not migrate any further.
- Q. If I understood you correctly, those contaminants have to go down to the redbed before they go out?

1 A. Yes.

- Q. Do you feel like it's a substantial safety zone? It's not just a minimal requirement?
- A. Yes. I believe with all the conditions we've imposed that there's substantial, enough precautions that the contaminants would not migrate off of the site.
- Q. The monitor wells, are there adequate monitor wells properly placed to determine, should you be wrong, that there might be some movement? Are they going to pick that up?
 - A. I believe that they would.
- Q. Would you like to retain the authority to require additional monitor wells if there was some reason to determine that is was not adequate?
 - A. Yes, and we have that authority.
- Q. Commissioner Carlson expressed some concern, and his question was, basically, how long do you keep putting dirt on here, on the contaminated soils on here, before you get too much? What's going to govern the limit of how much contaminated soil you can put on any particular cell or part of the cell before you

have to cease using--

- A. Well, the height of the berm would determine how much soil you could put in there. You'd have to increase your berm height if you wanted to further increase within the cell.
- Q. Now, given the requirement that you've got to reduce a lift to the stated levels of hydrocarbon and various other constituents before you can add to that cell, before you can put more on top of that particular lift, does that lift, in effect, become an additional buffer from the ground?
 - A. Yes, it does.
- Q. In other words, contaminants from the new lift would have to go through that lift before they got to the ground? before they got into the treatment zone?
- A. Right, so you're increasing your buffer zone vertically.
 - Q. What can be done with these soils after they've been remediated?
 - A. Various things. There's lots of pit clean-ups and closures, and they can be used to fill back into those pits. Lease roads. We do not give the authority for them to just take it

off site, though. Any time they would want to remove those soils it would be a site-specific case. They would have to have the analyses of the soils they wanted to remove and where they would be going to.

- Q. In other words, different uses might require different levels below the minimum level here that we've talked about, before it could be removed?
- A. Correct.

- Q. Mr. Stradley talked a little bit about dust. Can dust be controlled?
 - A. Yes, through the addition of moisture.
 - Q. Is there a balancing process that you're required to make, to make sure you've got enough moisture to control the dust to keep remediation, without having so much that you start a flow?
 - A. Yes.
 - Q. Can that balance be attained and maintained periodically, recognizing that there's not always the same volume of water involved?
 - A. Correct.
 - Q. Do you have experience with other facilities that are in operation that show that

1	this can be done?
2	A. Yes, we do.
3	Q. The ones you referred to earlier?
4	A. Yes.
5	Q. Assuming, and we don't assume, we take
6	it as a given fact, that the water sources
7	described by Mr. Stradley and Ms. Reeves are, in
8	fact, valuable water sources, particularly in
9	this part of the country; and given the fact, as
10	Mr. Stradley has said, he's got a 16-section
11	ranch which ruination of these waters could
12	condemn, are you satisfied that this facility can
13	be operated with these conditions without
14	creating any significant risk to Mr. Stradley or
15	Ms. Reeves, to their
16	A. Yes, I am, to their water.
17	Q. Do you have anything further you would
18	like to add to your testimony?
19	A. No.
20	MR. STOVALL: I have no further
2 1	questions. I would pass the witness.
2 2	CHAIRMAN LEMAY: Mr. Carr?
23	MR. CARR: I have no questions.
2 4	CHAIRMAN LEMAY: Mr. Kellahin?
25	MR. KELLAHIN: Just a few, Mr.

1 | Chairman.

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EXAMINATION

BY MR. KELLAHIN:

- Q. Ms. Brown, about the time Mr. Stogner was processing the C & C Landfarm application in that hearing, he was also processing the order for the Tierra Environmental Company Landfarm in San Juan County, New Mexico?
 - A. Yes.
 - Q. Are you familiar with that facility?
- 11 A. Yes, I am.
 - Q. To expedite this, let me share with you a copy of his order that included the conditions from the Environmental Bureau for the Tierra Environmental Company case.

You are proposing recommendations for C & C that are shown on the January 6, 1993, recommendations. Are there any material differences between the recommendations you have for this case and what was adopted by Examiner Stogner in Case 10539, Order No. R-9772?

A. Well, the Tierra Landfarm application had some other concerns that were brought out by someone who lived basically next to the facility, on air emissions, so those were incorporated into

their order by Mr. Stogner.

- Q. Do you have any air emission control or monitoring procedures proposed for the C & C Landfarm facility that's under discussion here this afternoon?
- A. No. We don't believe that air emissions are a problem at the landfarms. The landfarm is designed to remediate soils, not to have volatilization to be the primary method.

 So, we don't believe that to be a problem.

However, in the Tierra case, because of the closeness of the residents there, other precautions were taken.

- Q. When we look at paragraph No. 1 under the recommended changes for C & C Landfarm, what materials do you understand are being approved to be placed in that facility?
- A. Exempt oil field waste solids, hydrocarbon contaminated solids, or nonexempt nonhazardous oil field solids.
- Q. Mr. Pierce said that he was limiting that material to contaminated soils. Are you approving, by this recommendation, more than contaminated soils for the facility?
 - A. I'm not quite sure what you're asking.

- Q. Can you take tank bottoms and put in this facility?
 - A. No.

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- Q. Are you and Mr. Pierce talking the same language when you talk about materials that are going in this facility?
- A. Yes. Well, I guess I should take that back. Tank bottoms, if they had no free liquids on them and were a solid, could be taken there.

 Those are an exempt oil field material.
- Q. What other kinds of solids could be put on this facility other than that, that you just described?
 - A. What other kind of solids?
- 15 Q. Yes.
- A. I'm not sure what you're asking.
- Q. Well, he's applied to put contaminated soils on the facility?
- 19 A. Yes.
- Q. Are you proposing to approve any other materials other than the contaminated soils?
- 22 A. No.
- Q. It says, in paragraph 1, "A
 case-by-case approval of the Oil Conservation
 Division to put materials in the caliche pits."

What do you propose to mean by that paragraph?
What's going to happen?

- A. You're saying which one, No. 1?
- Q. Yes, No. 1.

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- A. Our recommendation is that nothing is placed, no contaminated soils are placed in the caliche pit. At a later time, if it was proposed to place clean soils in there, we would not tell them they could not do that.
- Q. How would you process that under this proposed change in the order?
- A. That would be a modification to their permit.
 - Q. Is that a material modification to their permit?
 - A. I believe it would be, yes.
 - Q. Are you going to provide notice to the general public of that material change?
- 19 A. Yes.
- Q. The buffer zone, the hundred-foot
 buffer zone that's set forth in paragraph 2, is
 there any scientific basis for that distance?
 - A. No. We don't have buffer zones at any of our facilities, and we don't have any scientific basis for it. That was discussed and

- that was what had been discussed at the hearing, and that's what we chose.
 - Q. That was discussed by Mr. Pierce at the Examiner Hearing with regards to the setback?
- A. Right, but we did not hear any technical evidence from either side giving us an option.
 - Q. As to any footage setback?
- 9 A. Exactly.
- MR. KELLAHIN: No further questions.
- MR. CARR: I would like to follow up on
- 12 that.

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13 EXAMINATION

- 14 BY MR. CARR:
- Q. Ms. Browne, you participated in the development of the conditions for the Tierra application, did you not?
- 18 A. Yes, I did.
- Q. And you developed these applications on a site-by-site basis?
- 21 A. Yes.
- Q. And what is applicable to Tierra may or may not be applicable to C & C, is that correct?
- 24 A. Yes.
- Q. And you participated in the development

1 of the conditions that you're recommending for the C & C facility? 2 Α. Yes. 3 4 In your opinion, if this facility is 5 approved and operated in accordance with those conditions, will it pose a threat to fresh water 6 in the area? 7 8 Α. No, it will not pose a threat. 9 If it is approved and operated in 10 accord with those conditions, will it pose a threat to the environment? 11 12 Α. No. 13 Q. Will it pose a threat to human health? 14 Α. No. 15 MR. CARR: Thank you. CHAIRMAN LEMAY: Commissioner Carlson? 16 17 EXAMINATION BY COMMISSIONER CARLSON: 18 19 C & C Landfarm would do their own 0. 20 testing under your proposal, is that correct? 21 Α. Yes. 22 Ο. Would the Bureau do any on-site testing at all? 23 24 Α. That would be a good idea, to go out 25 there as a Bureau and possibly take a random

1 | check sample.

then.

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- Q. But you don't envision doing it?
- A. Sure, yeah. We get out in the field when we get through with the paperwork, now and
- Q. The testing done by C & C would be,
 they would take the soil samples, submit it to a
 laboratory, and the laboratory would then forward
- A. Yes. I'm sure it would probably come back to C & C, and then to us.
- Q. The \$25,000 bond, is that pursuant to statute, or regulation, or is that just--
- 14 A. Yes, that's pursuant to Rule 7-11.
- 15 Q. Is that the maximum under that rule?
- 16 A. Well, that's just the set--
- 17 Q. The set bond?

it to the Bureau?

- 18 A. The set bond, yes.
- Q. So, you have no authority to lower it or raise it, depending on the circumstances around a particular site?
- 22 A. Correct.
- COMMISSIONER CARLSON: That's all I
- 24 have. Thank you.
- 25 CHAIRMAN LEMAY: Commissioner Weiss?

1	COMMISSIONER WEISS: I have no
2	questions.
3	CHAIRMAN LEMAY: I have one.
4	EXAMINATION
5	BY CHAIRMAN LEMAY:
6	Q. Is there Ogallala underneath this site?
7	A. I don't believe that's Ogallala under
8	the site.
9	CHAIRMAN LEMAY: Are there any
10	additional questions of the witness? If not, she
1 1	may be excused. Thank you very much.
1 2	Anything in addition in the case?
13	MR. KELLAHIN: Mr. Chairman, the hour
1 4	is late. I would propose to waive closing
15	arguments and simply submit to you a proposed
16	order setting forth the position of my client in
17	this matter.
18	CHAIRMAN LEMAY: Mr. Carr?
19	MR. CARR: If Mr. Kellahin won't bore
20	us with a closing, I won't either.
2 1	CHAIRMAN LEMAY: Mr. Stovall, any
2 2	closing?
23	MR. STOVALL: I have no desire
2 4	whatsoever.
25	CHAIRMAN LEMAY: Well, let's leave

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1	theis two weeks enough, or do you want more?
2	Let's leave the record open for two
3	weeks to present a closing argument, preferably a
4	draft order by each of you, and we shall take the
5	case under advisement. Thank you very much.
6	(And the proceedings concluded.)
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1	CERTIFICATE OF REPORTER
2	STATE OF NEW MEXICO)
3) ss.
4	COUNTY OF SANTA FE)
5	I, Carla Diane Rodriguez, Certified
6	Court Reporter and Notary Public, HEREBY CERTIFY
7	that the foregoing transcript of proceedings
8	before the Oil Conservation Division was reported
9	by me; that I caused my notes to be transcribed
10	under my personal supervision; and that the
1 1	foregoing is a true and accurate record of the
1 2	proceedings.
1 3	I FURTHER CERTIFY that I am not a
1 4	relative or employee of any of the parties or
1 5	attorneys involved in this matter and that I have
16	no personal interest in the final disposition of
17	this matter.
18	WITNESS MY HAND AND SEAL March 18,
19	1993.
2 0	
2 1	
2 2	(alla) jane Locheauez
2 3	CARLA DIANE RODRIGUEZ, RPR
2 4	