NM1 - 6

ENFORCEMENT

DATE: 2004

SETTLEMENT AGREEMENT

This Settlement Agreement is entered into as of the 23rd day of January, 2004, by and between Controlled Recovery, Inc. ("CRI") and the New Mexico Oil Conservation Division of the Energy Minerals and Natural Resources Department ("Division").

WHEREAS, CRI operates a commercial surface waste management facility in Lea County, New Mexico, under the authority of Division Order R-9166;

WHEREAS, by letters dated July 3, 2000; September 27, 2000; and July 6, 2001, the Division sought to "re-permit" CRI's facility, impose new operational conditions, and revoke certain netting exemptions CRI has operated under since 1991;

WHEREAS, on August 17, 2001, CRI filed a Complaint for Declaratory and Injunctive Relief in the Fifth Judicial District Court of the State of New Mexico, Lea County, against the Division, its director and its district supervisor seeking declaratory and injunctive relief in a case styled *Controlled Recovery Inc., v. Chris Williams et al.*, Cause No. CV 2001-310G ("CRI's Complaint");

WHEREAS, without admission of liability or fault, the parties desire to resolve the issues raised by the Division's letters and CRI's Complaint without the necessity of further litigation and the costs associated with such litigation.

NOW, THEREFORE, in consideration of the mutual covenants and agreements of the parties and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, and for the purpose of fully and completely resolving the claims asserted in CRI's Complaint and all other claims, known or unknown, arising out of or concerning the operation of CRI's facility in Lea County, the parties agree as follows:

A. **Withdrawal of Prior Letters and Recognition of No Violations.** The letters issued by the Division to CRI Dated July 3, 2000; September 27, 2000; and July 6, 2001 are hereby withdrawn and shall have no force or effect. The Division acknowledges that to the best of its knowledge, pending formal inspection, CRI's facility is in full compliance with all applicable rules and orders of the Division.

B. **Netting Exemptions Remain.** The netting exemptions issued by the Division for CRI's facility in July of 1991 under Permit No. H-76 and by letter dated April 7, 1997, remain in full force and affect.

C. **Closure Plan, Bonding, and Closure of Pit Nos. 13 and 16.** The Division accepts and approves the closure plan submitted by CRI on September 1, 2000. CRI shall immediately increase its closure bond with the Division to the total amount of $53,000 plus tax. In addition, CRI shall close within six months storage pits Nos. 13 and 16 pursuant to CRI's closure plan. In the event that these storage pits are not closed within 6 months of the execution of this Settlement Agreement,

then CRI shall further increase its closure bond to a total amount of $73, 000 plus tax.

D. **Operational Conditions.** In addition to the operational conditions imposed on CRI's facility by Order R-9166 and Division Rule 711.C and 711.D as presently codified and enacted, CRI agrees to abide by the following additional operational conditions:

Overall Facility Operation

1. The facility must be fenced and have a sign at each entrance. The sign must be legible from at least 50 feet and contain the following information: a) name of the facility; b) location by section, township and range; c) emergency phone number; and d) OCD order number.

2. The facility will be maintained, contoured, and bermed to prevent runoff and runon of the portion of the facility containing contaminated solids and liquids.

3. All above ground tanks and fuel tanks will be bermed, the current berm height will be maintained, and the tanks will be labeled as to the contents with standard hazard labels.

4. Sumps and below grade tanks without leak detection systems shall have their integrity tested annually. Sumps and below grade tanks that can be removed from their emplacements may be tested by visual inspection. Other sumps and below grade tanks shall be tested by appropriate mechanical means.

5. Sumps and below grade tanks will be inspected weekly and fluid will be removed as necessary to prevent overflow. If any defects are noted, repairs must be made as soon as possible.

6. All saddle tanks and drums containing materials other than fresh water must be labeled as to contents with standard hazard labels.

7. A checklist of all inspections at CRI's facility will be kept and maintained for Division review.

8. The OCD shall be notified prior to the installation of any pipes or wells or other construction within the boundaries of the facility that are not associated with the operation of the facility.

9. Any major design changes to CRI's facility must be submitted to the Division's Santa Fe Office for approval.

Pond and Pit Operation

10. All produced water must be unloaded into tanks. The produced water must reside in the tank and skim pit system long enough to allow for oil separation. Oil recovered must be stored in above-ground storage tanks.

11. All pits and ponds that contain liquids must have sufficient freeboard to prevent overtopping and a minimum freeboard of (1) one foot.

12. Free oil within the ponds and pits must be removed as soon as possible.

13. Ponds and pits will be inspected on a weekly basis and, if any defect is noted, repairs must be made as soon as possible.

14. A sign or other such marker with the pit/pond number must be clearly posted at each pit/pond location.

H2S Prevention & Contingency Plan

15. CRI personnel will wear H2S personnel monitors under circumstances in which H2S may be present, including the unloading of materials that may contain H2S. The monitors shall issue a visual and audible signal at 10 ppm of H2S in the ambient air that becomes more rapid at 20 ppm. An inspection for the presence of H2S shall be conducted weekly and reported on the inspection checklist.

16. In the event that a reading of 10 ppm is registered at CRI's facility, CRI personnel will evacuate the area and CRI will monitor H2S levels along the downwind boundary of the facility. If H2S levels reach 20 ppm, the facility will be closed and notification will be given to the following:

    New Mexico State Police
    Lea County Sheriff
    The Division's Hobbs District office

17. CRI will notify Calaway Safety in Hobbs to provide personnel, equipment, and supplies to mitigate the source of an H2S reading of 10 ppm or greater.

18. CRI will log and report to the Division all incidences where a reading of 10 ppm H2S or greater is registered at CRI's facility.

Treating Plant Operations

19. The treating plant will be inspected weekly and if any defect is noted repairs will be made as soon as possible. If the defect will jeopardize the integrity of the plant, the plant will be shut down until repairs have been completed.

20. The treating plant may use diesel and gasoline from storage tanks that are to be pulled, repaired, or replaced. This material may only be used in the treating plant as a product to aid in the chemical treatment and blending of crude oil.

21. CRI shall submit to the Division a functional diagram or engineering schematic that depicts the functioning of the treating plant as a whole, and each major element thereof.

Solid Waste Disposal

22. CRI shall submit to the Division a general plan of operations for solid waste disposal areas 50 and 51 that will provide a written description of the ongoing excavation and closure operations. CRI will also submit an updated plat showing all current disposal cells and past burial operations.

23. Mechanical stabilization of liquids may be used prior to disposal.

24. Free liquids will not be disposed of in the solid waste disposal pits.

25. The solid waste disposal area will be inspected on a weekly basis and, if any defect is noted, repairs must be made as soon as possible.

26. The solid waste disposal area will be bermed to prevent runon and runoff of rain and storm water.

27. All trash accepted at the facility that has the potential for blowing away or being transported by other vectors must be covered with soil within 24 hours of disposal into the solid waste pit.

28. The Division will be notified before any new cells or expansion of existing cells in the solid waste disposal area are constructed.

E. **Dismissal of Complaint.** Upon the execution of this agreement, CRI's Complaint shall be dismissed, with each party bearing their own attorneys' fees, costs, expenses, and disbursements. The parties will cooperate to promptly file all documents necessary to accomplish such dismissal.

F. **No admission.** This Agreement represents the settlement of disputed claims, and does not constitute an admission of the correctness of any position asserted by any party, or an admission of liability of any wrongdoing by any party.

G. **Construction.** This Agreement shall be construed based upon its terms and stated intent, including the recitals, and shall not be construed in the favor of one or another party based upon who may have contributed to its drafting, or on any other basis.

H. **Counterparts.** This Agreement may be executed in counterparts, each of which is hereby deemed an original, but all of which together shall constitute one and the same instrument.

I. **Entire Agreement.** This Agreement constitutes the entire agreement between the parties, and any modification of or addition to this agreement must be in writing and signed by all parties hereto.

J. **Authority.** The signatories to this agreement represent and warrant that they have full power and authority to enter into this Agreement on behalf of the parties indicated.

K. **Advice of Counsel.** The parties acknowledge that they have been and are fully advised by competent legal counsel of their own choice, that they have read this entire agreement and fully understand its terms and conditions of this Agreement, and that their execution of this Agreement is with the advice of counsel and of their own free will and desire.

L. **Binding on Successors.** This agreement shall bind and benefit the successors and assigns of CRI's facility, provided this provision should not authorize transfer of CRI's facility or permit without permission of OCD in accordance with Order No. R-9166 and Rule 711.

IN WITNESS WHEREOF, the parties have executed this Agreement by their duly authorized representatives, whose signatures appear below.

NEW MEXICO ENERGY MINERALS AND
NATURAL RESOURCES DEPARTMENT

By: _____
Joanna Prukop, Secretary

NEW MEXICO OIL CONSERVATION DIVISION

By: _____
Lori Wrotenbery, Director

NEW MEXICO OIL CONSERVATION DIVISION

By: _____
Chris Williams, District 1 Supervisor

APPROVED

By: _____
David K. Brooks,
Special Assistant Attorney General

CONTROLLED RECOVERY INC.

By: _____
Ken Marsh, President

CRI
CONTROLLED RECOVERY INC.
P.O. BOX 388, HOBBS, NM 88241 (505) 393-1079

Certified Mail
Return Receipt No. 7099 3220 0002 3946 0992

July 27, 2000

Mr. Roger Anderson
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, NM 87050

Re: Notice of Violation 06-30-2000

Please accept CRI's response to the above referenced letter.

Item #1

CRI has signs at both entrances, which contain the following information:

Controlled Recovery, Inc.
Sec. 27, T 20S, R32E, Lea County, N.M.
Disposal Facility OCD Order R-9166
All trucks must report to office before unloading
Absolutely no unauthorized unloading allowed
No hazardous material accepted
No unescorted visitors
Emergency Phone: 393-1079

There are gates with locks at both entrances and to secure the produced water area. There is a gate to solids area. (Please see Photo Log A, #1, #2, & #4)

Gates are locked when there is no attendant on duty, as well as other times determined by CRI personnel to facilitate traffic flow and monitoring of vehicles.
Order R9166 states: Provided further that, prior to initiating operations, the facility shall be inspected by a representative of the Hobbs district office of the Division in order to determine the adequacy of fences, gates and cattleguards necessary to preclude livestock and unauthorized persons from entering and/or utilizing said facility, and also to determine the adequacy of dikes and berms needed to assure safe plant operation.
The inspection was completed before operations commenced, and approved.
N.M.O.C.D. inspection of April 1, 1997 indicates that fencing and signs are acceptable. There have been no changes.
CRI is in compliance with Rule 711 C. (6)

Item #2 (See above paragraph)

CRI is repairing berms and will be completed by July 30, 2000.
The land surface has natural drainage from the South (BLM Pasture) onto the site, which flows to a large basin in the west central portion of the site. The drainage flow does not come near any waste handling or storage area. This site is not in a flood plain. The average yearly rainfall is 9 inches.
The portion of the berms you cite in Item #2 are not near the contaminated soil area.

Item #3

CRI has a drum storage area.
CRI has conducted a clean up operation. There are no livestock on the site. CRI has operated 10 years without accident to personnel resulting from trash, debris, or empty containers. (Please see photo of existing drum storage area, Photo Log A, #5). CRI is unable to find this requirement in OCD rules or Order R9166.

Item #4

CRI is repairing berms and will be completed by July 30, 2000. CRI is unable to find this requirement concerning impermeable pad or volume in OCD rules or Order R9166.

Item #5

The containers at the produced water area are to contain leaks and to prevent spills, please note the piping arrangement (Photo Log A, #12), for emptying the containers when the truck is unloading. There have been no spills over 5 bbls. A plant inspection is done on regular business days, which includes the produced water area.
(Your photos 27 & 32 are inside a bermed area). There is no necessity for secondary containment. Order R9166 determines there is no usable ground water to be damaged.
CRI is unable to find this requirement in OCD rules or Order R9166.

Item #6

Leaking valves and pumps have been repaired. This site is permitted as an oilfield disposal facility. Your photos 25, 27, 32, & 39 are inside a bermed area.
CRI is unable to find this requirement in OCD rules or Order R9166.

Item #7

CRI has removed empty drums to the drum storage area, and will label chemical containers that are not properly marked.
CRI is unable to locate this requirement in OCD rules or Order R9166.

Item #8

N/A

Item #9

Tanks are currently labeled. (See Photo Log A, #6, #7, #8, #10, & #11)
CRI will re-stencil tanks.
CRI is unable to locate this requirement in OCD rules or Order R9166.

Item #10

N/A

Item #11

CRI puts sand and caliche on roadways in the facility and uses grader and blade to condition roads due to traffic, rain and leaks. There have been no spills over 5 bbls. Soil is transported to solids area when necessary.

Item #12

CRI has and will, on a "as needed basis", skim hydrocarbons from all pits to be processed in the treating plant.

Item #13

CRI has removed recoverable hydrocarbons from the liquids and is mixing dry solids with the remainder. (Please see Exhibit "A", N.M.O.C.D. publication February 15, 1996 which contains definition of solid waste.)
(Please see Exhibit "B")
(Please see Exhibit "C" as concerns open receptacles).
Pits 1A & 1B have poly liners.
Pit 13 has poly liner. Pit 13 is the only pit that receives tank bottoms. The remaining pits are for various exempt and non-exempt oilfield wastes.
CRI is unable to find this requirement in NMOCD rules or Order R9166.

Item #14

CRI has and will continue to do plant inspection on regular business days.
CRI is unable to find this requirement in NMOCD rules or Order R9166.

Item #15

CRI trains employees in H2S and other subjects as part of its safety program. Training is done by Callaway Safety.
CRI employees use H2S monitors. In 10 years of operation CRI's employees, customers, and truck drivers have not experienced effects of H2S. In 4 years of operation the produced water receiving computer H2S detector did not register amounts to set off alarms, except for testing.

CRI receives incoming materials only by truck. Oil companies safety requirements, trucking companies safety requirements, insurance companies requirements, DOT regulations, OSHA regulations, and OCD Rule 118 prevent and preclude receiving loads with H2S levels to present health problems. (Please see attached H2S information, Exhibit "D").
United States Environmental Protection Agency conducted an inspection of the facility on November 3, 1998. Their personnel were equipped with H2S monitors and testing equipment. The report did not indicate any concerns over H2S or CRI's H2S policies.
N.M.O.C.D.'s staff has conducted H2S monitoring at the facility and did not report levels of concern.
N.M.O.C.D.'s staff has conducted inspections and sampling without using H2S monitors or testing equipment. This indicates no level of concern.
CRI does not have wells or pipelines from wells to the facility, which could transport or produce H2S.
Produced water received at CRI for April, May, & June 2000, averaged 243 bbl.s per day.
CRI has conducted H2S tests and found no level of concern.
CRI has been audited and inspected by many various consultants and companies and they have expressed no concern with H2S and approved CRI's facility and its policies.
Rabbits and quail make their homes at this site. They appear to be healthy and are reproducing.
CRI's H2S policies are protective of public health and the environment.
CRI is unable to locate this requirement in NMOCD rules or Order R9166.

Item #16

N/A

The facility is operated and maintained in a manner as to preclude spills and fires, and protect persons and livestock.
The facility contains no livestock. Fences on South and West are BLM approved fences. Lea County fenced the East side. The State of New Mexico fenced the North side.
Smoking is not permitted at the treating plant, waste storage areas, produced water area, waste-handling areas, or in proximity to any tanks. Signs are posted and fire extinguishers are present.
There are bare ground fire barriers in place.

CRI does not believe we are in violation as per your letter of June 30, 2000 and respectfully request you rescind this notice of violation based on this response.

Please call if I may provide additional information.

Sincerely,

Ken Marsh

EXHIBIT "A"

DISPOSAL OF OIL FIELD "NON-EXEMPT" WASTE

IN NEW MEXICO

FOR

Controlled Recovery Inc. (CRI) Disposal Facility
Permit #R-9166

Feb. 15, 1996

BY: WAYNE PRICE
NMOCD ENVIRONMENTAL ENGINEER

PREFACE

This document is being presented to assist companies and their personnel who are planning on disposing of oil field type waste into commercial surface disposal facilities in the state of New Mexico.

These type of facilities are permitted by the New Mexico Oil Conservation Division and are designed and permitted to accept only oil field type waste, both exempt and non-exempt waste as defined by EPA-RCRA and contained in CFR 40 parts 260-280. This document also includes certain regulatory determinations which were issued in the Federal Register and have not been included in the regulations.

Emphasis is placed on disposing of "non-exempt" non-hazardous waste generated in the oil field. The definition of oil field type waste will be discussed, primarily from New Mexico's perspective.

There is a brief introduction and overview of New Mexico's environmental laws and regulations, followed by a section on waste classification and determinations. This section will aid the generator in determining what type of waste they have and to properly determine if it is hazardous or non-hazardous.

The third section will describe in detail the procedure in which a generator of oil field waste has to use in order to dispose of this type of waste into New Mexico.

The fourth section was included to make sure generators use EPA SW-846 procedures if they are required to sample, test and report the data. Emphasis will be place on what New Mexico likes to see so it will expedite the process.

The fifth section discusses the "old oilfield" practice of disposing of non-exempt waste into Class II Salt Water Disposal Wells. Documentation in the form of a Memorandum from the EPA is included which clarifies that only certain exempted waste are allowed to be disposed of into these type wells.

An appendix is included that contains information on commercial disposal companies that are permitted and operating in New Mexico and New Mexico Conservation Division District offices and telephone numbers.

The session will be concluded with a question and answer section at the end of the seminar.

DISPOSAL OF OIL FIELD "NON-EXEMPT" WASTE

IN NEW MEXICO

TABLE OF CONTENTS

I. INTRODUCTION AND REGULATORY OVERVIEW OF NEW MEXICO.

INTRODUCTION

The New Mexico Oil Conservation Division (OCD) administers several wide-ranging water quality protection programs. These programs are overseen by the OCD Environmental Bureau. Attachment I is a program summary which provides an overview of the OCD's environmental program. The OCD personnel organization chart and accompanying phone listing is detailed in Attachment II.

Oil and gas activities are regulated under the New Mexico Oil and Gas Act, the Geothermal Resources Act, and the Water Quality Act as delegated to the Water Quality Control Commission (WQCC).

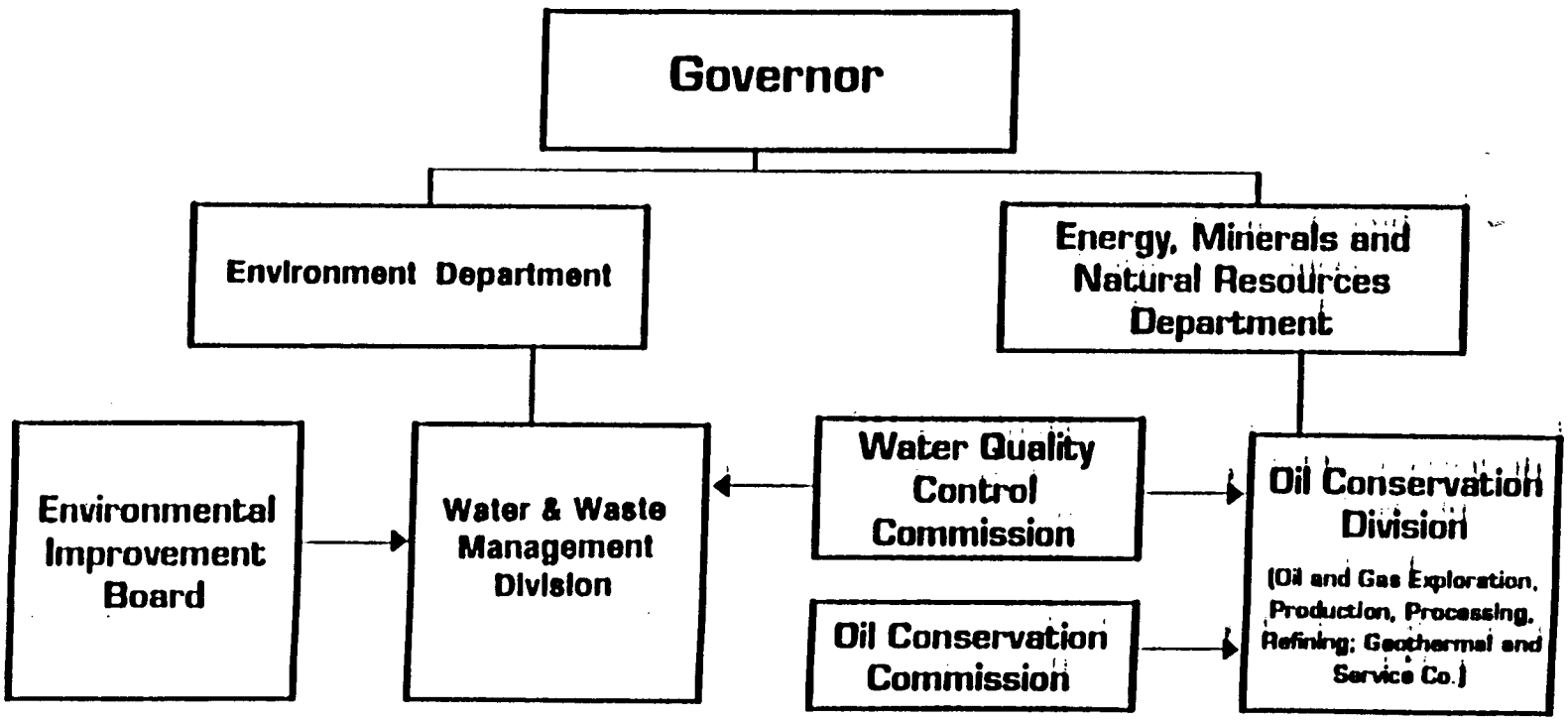
The New Mexico Oil and Gas Act (70-2-1 through 70-2-38, NMSA 1978) created the Oil Conservation Commission (OCC) in 1935. At that time, the OCC was responsible for prevention of waste and to protect correlative rights, but did not specifically address fresh water protection. In 1961 the Act was amended to allow the Division to make rules providing for fresh water protection from improper disposal of drilling or production waters. Exploration and production wastes are covered exclusively under Oil and Gas Act authorized rules and orders.

The New Mexico Water Quality Act (74-6-1 through 74-6-13, NMSA 1978) provides the statutory authority for OCD environmental regulation of major facilities through the review and approval of ground water discharge plans. Facilities regulated include oil refineries, natural gas processing plants, gas compressor stations, oil field service companies, and brine production operations. The Water Quality Act set up the Water Quality Control Commission with OCD as a member, to prevent water pollution by adopting regulations to control discharges to surface or ground waters. Federal delegation of the EPA Underground Injection Control Program is to the WQCC (Class I, III, IV and V) and the OCD (Class II wells).

The Geothermal Resources Act (71-5-1 through 71-5-24, NMSA 1978) adopted regulations similar to those of the Oil and Gas Act. Unlike the Oil and Gas Act, the Geothermal Resource Act has a clause allowing concurrent jurisdiction with other state agencies having regulatory jurisdiction. Storage and disposal for geothermal fluids are regulated under WQCC Regulations, while drilling and production operations fall under the jurisdiction of OCC Regulations and Orders.

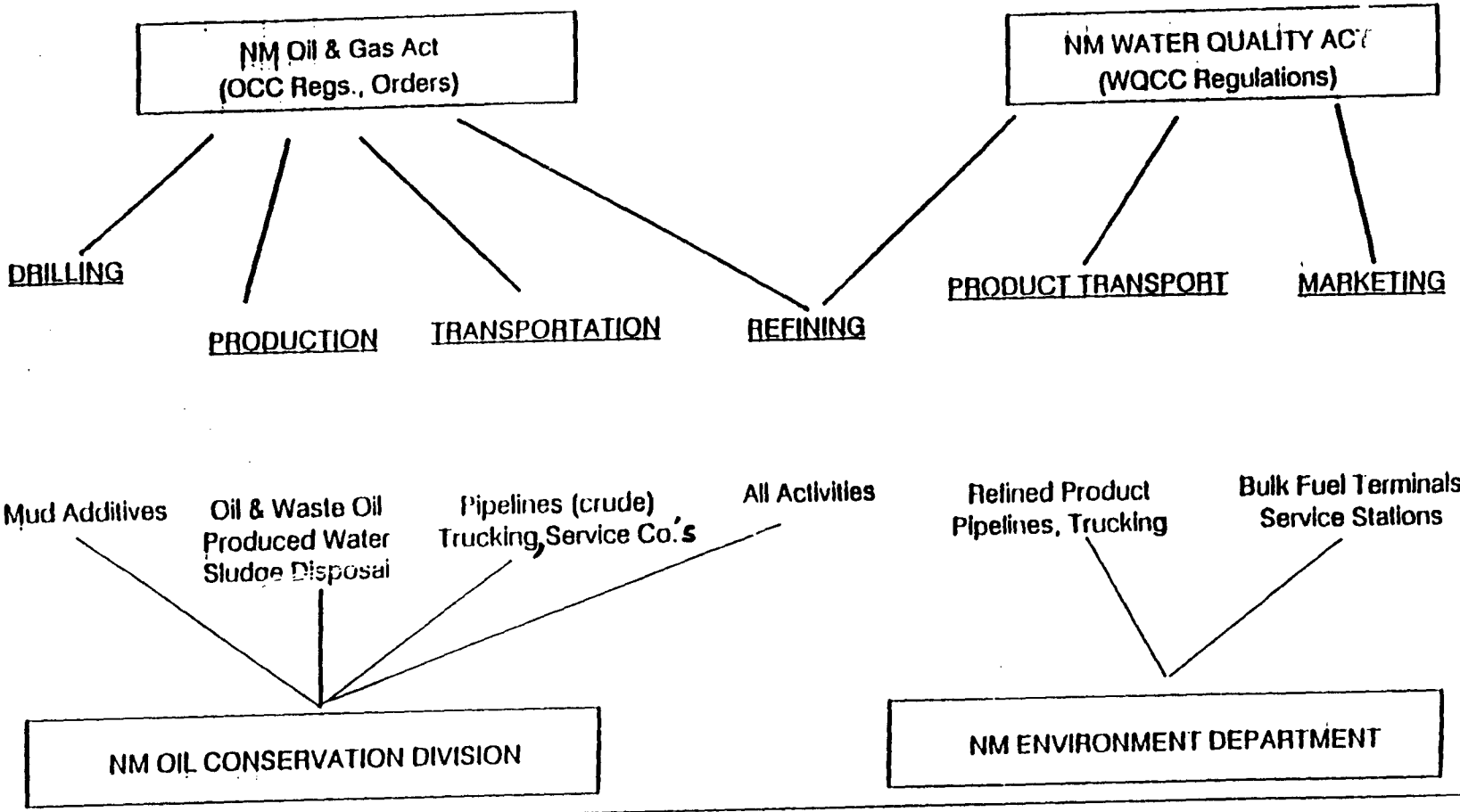
Amendments to the Oil and Gas Act (Chapter 70-Pamphlet III-1989 Cummulative Supplement, NMSA 1978 annotated) passed in 1989 specifically authorized OCD to regulate disposal of non-hazardous wastes from oil and gas exploration, production, refining, crude oil transportation and storage, and the oil field service industry.

STATE OF NEW MEXICO
ORGANIZATION CHART FOR OIL, NATURAL GAS AND GEOTHERMAL ENVIRONMENTAL PROGRAMS



Air Quality, Hazardous Waste and OSHA Programs located in the Environment Department

Regulatory Authority



ADMINISTRATING AGENCY

H. OCD shall have general jurisdiction over the oil field service industry. Many activities that would ordinarily be regulated by EID are regulated by OCD when those activities occur in the oil field service industry. The following list, which is not intended to be inclusive, serves to help clarify this delegation:

OCD	EID
waste oil handled or processed by oil field service companies or treating plants	used motor oil handlers
all underground and above-ground tanks on refinery premises, unless the tanks contain unmixed sewage; all underground and above-ground tanks not on refinery premises which contain crude petroleum, produced water or oil field service chemicals	all underground and above-ground tanks not on refinery premises, unless the tanks contain crude petroleum, produced water or oil field service chemicals
tanker trucks hauling, spilling or disposing of well-service chemicals, kill water, produced water, crude oil, tank bottom sludge and other oil field wastes and oil field service materials	tanker trucks spilling or disposing of non-oil and gas production wastes, non-oil and gas service materials, or refined petroleum products
washings from trucks and other equipment used in the transport, production or refining of oil and gas crude products, production wastes or service materials	washings from trucks and other equipment not used for oil and gas production related purposes

II. WASTE CLASSIFICATION AND DETERMINATIONS.

All generators of solid waste is bound by law to make a positive waste determination and to properly dispose of the waste.

In order to dispose of waste into a NMOCD "oil field type" permitted facility, the New Mexico Oil Conservation Division classifies waste in the following fashion under rule 711.

1. **Exempt Oilfield Waste. Ref. 711-C4a**
2. **Exempt, Non-Oilfield Waste.**

   Note: This material is not allowed to be disposed of into 711 facilities. Examples would be "UST" soils, CESQG waste, Common Trash etc.

3. **Non-exempt, Non-hazardous Waste from Oil & Gas Activities, service Co's, etc. Ref. 711-C4b.**

4. **Non-Exempt,Non-hazardous,Non-Oilfield Waste. Ref. 711-C4c. (Requires special permission).**

5. **Hazardous Waste. NOT ALLOWED under any circumstances.**

The NMOCD requires generators to classify and determine if the waste is non-hazardous before it can be accepted, except for exempt oilfield waste.

Items one (1) and three (3) above are allowed to be disposed of into NMOCD permitted facilities with conditions.

Items (2) is not allowed any more.

Items (4) is allowed only upon emergency conditions and must have joint approval from constituent agencies, such as NMED and NMOCD and or EPA.

Item (5) is never allowed in NMOCD facilities.

It should be pointed out that NMOCD does not allow any quantities of Hazardous waste to be disposed of into New Mexico NMOCD facilities. This means that the exemption for small quantity generators under the RCRA laws is not allowed to be used if disposing into a NMOCD permitted facility.

Included in this section is various view graphs and a copy of a recent publication of the Federal Register clarifying the EPA-RCRA E&P exemptions.

DEFINITION OF SOLID WASTE

A solid waste is ANY DISCARDED, ABANDONED, RECYCLED, or INHERENTLY WASTE-LIKE MATERIAL that is not EXCLUDED.

The term **"solid waste"** does not refer to the physical state.

* solid
* liquid
* semi-solid
* containerized gas

EXCLUDED WASTE that **are not** solid waste, examples are:

* domestic sewage
* discharges permitted by the CWA
* irrigation return flows
* certain recycled waste

DEFINITION OF "OIL FIELD" WASTE

An "**Oil Field**" **Waste** is certain solid waste that has been

EXEMPTED from being defined a <u>hazardous waste.</u>

The oil field **EXEMPTION** includes the following items and criteria:

* Drilling fluids.
* Produced water.
* Other associated waste.
* E & P exempt waste listed and issued in Fed. Reg. July 6, 1988.
* Special rules apply to the above lists to remain exempt.

All oil field waste that is **NON-EXEMPT** includes the following items and criteria:

* Non-exempt waste listed and issued in Fed. Reg. July 6, 1988.
* Any **"Oil Field"** waste that <u>is not</u> exempted.
* Hazardous waste determinations must be made to determine if material is hazardous. If so, then duel authority exist between NMOCD and NMED.

DEFINITION OF "OIL FIELD" WASTE

IN

NEW MEXICO

* Any waste[1] that is defined as a "SOLID WASTE" AND;

* Is generated as a result of any of the following "Oil Field" activities:

  * Exploration, development, production or storage of crude oil or natural gas;

  * Water produced or used in connection with the drilling for or producing of oil or gas or both;

  * Crude oil reclamation plants;

  * Waste disposal facilities;

  * UIC facilities, such as class II salt water disposal wells;

  * WQCC discharge plan facilities such as:

    Crude oil refineries, gas plants and compressor stations, brine extraction facilities, geothermal installations, and all "oil field" service company facilities;

  * Certain pipeline activities i.e. leaks, spills and hydrostatic test de-watering.

---

[1] The term waste does not include domestic waste such as common office trash i.e. paper, household items, etc that would normally be disposed of into a sanitary landfill.

Scope of the Exemption

For a Waste to Be Exempt It Must Be:

1. **Intrinsic to Exploration, Development or Production**
2. **Uniquely Associated with Exploration, Development or Production**
3. **Not Generated as Part of Transportation or Manufacturing**

SIMPLE RULE OF THUMB

- Has the waste come from down-hole, i.e., was it brought to the surface during oil and gas E&P operations?
- Has the waste otherwise been generated by contact with the oil and gas production stream during the removal of produced water or other contaminants from the product?

If the answer to either question is yes, then the waste is most likely considered exempt from RCRA Subtitle C regulations.

Misconceptions Concerning the Scope of the Exemption

A. "All Wastes Onsite Are Exempt"

B. "All Service Company Wastes Are Exempt"

C. "Unused Products Are Exempt"

D. "RCRA Exempt Wastes Are CERCLA Exempt"

impact on any small entities affected. Moreover, due to the nature of the federal-state relationship under the CAA, preparation of a regulatory flexibility analysis would constitute Federal inquiry into the economic reasonableness of state action. The CAA forbids EPA to base its actions concerning SIPs on such grounds. *Union Electric Co.* v. *U.S.E.P.A.*, 427 U.S. 246, 256–66 (S. Ct. 1976); 42 U.S.C. 7410(a)(2).

This action has been classified as a Table 3 action by the Regional Administrator under the procedures published in the **Federal Register** on January 19, 1989 (54 FR 2214–2225). On January 6, 1989, the Office of Management and Budget waived Table 2 and Table 3 SIP revisions (54 FR 2222) from the requirements of section 3 of Executive Order 12291 for a period of two years. EPA has submitted a request for a permanent waiver for Table 2 and Table 3 SIP revisions. OMB has agreed to continue the temporary waiver until such time as it rules on EPA's request.

List of Subjects in 40 CFR Part 52

Air pollution control, Hydrocarbons, Incorporation by reference, Intergovernmental relations, Ozone, Reporting and recordkeeping requirements.

Dated: February 12, 1993.

John C. Wise,

Acting Regional Administrator.

Part 52, chapter I, title 40 of the Code of Federal Regulations is amended as follows:

PART 52—[AMENDED]

1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401–7671q.

Subpart F—California

2. Section 52.220 is amended by adding paragraph (c)(187)(i)(A)(*2*) to read as follows:

§ 52.220 Identification of plan.

* * * * *

(c) * * *

(187) * * *

(i) * * *

(A) * * *

(*2*) Rule 460.2, adopted on September 19, 1992.

[FR Doc. 93–6454 Filed 3–19–93; 8:45 am]

BILLING CODE 6560–50–M

40 CFR Part 261

[FRL–4606–6]

Clarification of the Regulatory Determination for Wastes From the Exploration, Development and Production of Crude Oil, Natural Gas and Geothermal Energy

AGENCY: Environmental Protection Agency.

ACTION: Clarification.

SUMMARY: This document provides additional clarification of the Resource Conservation and Recovery Act (RCRA) *Regulatory Determination for Oil and Gas and Geothermal Exploration, Development and Production Wastes* dated June 29, 1988 (53 FR 25446; July 6, 1988). This document clarifies the regulatory status of wastes generated by the crude oil reclamation industry, service companies, gas plants and feeder pipelines, and crude oil pipelines. Since this document only further clarifies the status of these wastes under the RCRA Subtitle C hazardous waste exemption discussed in EPA's 1988 Regulatory Determination, and does not alter the scope of the current exemption in any way, comments are not being solicited by the Agency on this notice.

FOR FURTHER INFORMATION CONTACT: For general information on the scope of the RCRA Subtitle C exemption for wastes from the exploration, development and production of crude oil, natural gas and geothermal energy, contact the RCRA/Superfund hotline at (800) 424–9346 (toll free) or (703) 412–9810. For technical information, contact Mike Fitzpatrick, U.S. Environmental Protection Agency OS–323W, 401 M Street, SW., Washington, DC 20460; phone (703) 308–8411.

SUPPLEMENTARY INFORMATION:

Table of Contents

I. Introduction

In the Solid Waste Disposal Act Amendments of 1980 (Pub. L. 94–580), Congress amended the Resource Conservation and Recovery Act (RCRA) to add sections 3001 (b)(2)(A), and 8002(m). Section 3001(b)(2)(A) exempted drilling fluids, produced waters, and other wastes associated with exploration, development, and production of crude oil, natural gas a geothermal energy from regulation as hazardous wastes. Section 8002(m) required the Administrator to compil a Report to Congress on these wastes and provide an opportunity for publi comment. The Administrator was als required by section 3001 (b)(2)(A) to make a determination no later than s months after completing the Report t Congress as to whether hazardous wa regulations under RCRA Subtitle C w warranted for these wastes.

EPA's Report to Congress was transmitted to Congress on December 28, 1987. In the process of preparing Report to Congress, the Agency found necessary to define the scope of the exemption for the purpose of determining which wastes were considered "wastes from the exploration, development or producti of crude oil, natural gas or geotherma energy." Based upon statutory langua and legislative history, the Report to Congress identified several criteria us in making such a determination. In particular, for a waste to be exempt fr regulation as hazardous waste under RCRA Subtitle C, it must be associate with operations to locate or remove o or gas from the ground or to remove impurities from such substances and must be intrinsic to and uniquely associated with oil and gas exploratio development or production operation (commonly referred to simply as exploration and production or E&P); t waste must not be generated by transportation or manufacturing operations.

Transportation of oil and gas can be for short or long distances. For crude oil, "transportation" is defined in the Report to Congress and the subsequen Regulatory Determination as beginnin after transfer of legal custody of the oil from the producer to a carrier (i.e., pipeline or trucking concern) for transport to a refinery or, in the absenc of custody transfer, after the initial separation of the oil and water at the primary field site. For natural gas, "transportation" is defined as beginnin after dehydration and purification at a gas plant, but prior to transport to market. To accurately determine the scope of the exemption, the reader is referred to the December 28, 1987, Report to Congress, Management of Wastes from the Exploration, Development, and Production of Crude Oil, Natural Gas, and Geothermal Energy (NTIS # PB88–146212) for the specific application of the criteria.

The Agency's Regulatory Determination was published in the Federal Register on July 6, 1988 (53 FR

B. Service Companies

Oil and gas service companies are those companies hired by the principal operating company to, among other things, supply materials for use at a drilling or production site or provide a service to be performed. Some of the activities of service companies take place on-site while others may take place off-site. Examples of the types of activities that may take place off-site are product formulation, transport of materials, laboratory analysis, and waste handling and disposal.

The 1988 Regulatory Determination stated that "oil and gas service company wastes, such as empty drums, drum rinsate, vacuum truck rinsate, sandblast media, painting wastes, spent solvents, spilled chemicals, and waste acids" are not covered by the oil and gas E&P exemption. The Agency intended this statement to identify those wastes, including unused and discarded product materials, generated by service companies that are not uniquely associated with primary field operations. (Primary field operations occur at or near the wellhead or gas plant and include only those operations necessary to locate and recover oil and gas from the ground and to remove impurities.) Similar to the reference to crude oil reclamation wastes, the Agency did not intend to imply that under no circumstances will a service company ever generate a RCRA Subtitle C-exempt waste. For example, if a service company generates spent acid returns from a well work-over, the waste is exempt since the waste acid in this case came from down-hole and was part of primary field operations.

EPA is aware that some confusion exists in various segments of the industry with regard to the scope of the exemption from RCRA Subtitle C for solid wastes not uniquely associated with oil and gas exploration and production. One common belief is that any wastes generated by, in support of, or intended for use by the oil and gas E&P industry (including most service company wastes) are exempt. This is not the case: in fact, only wastes generated by activities uniquely associated with the exploration, development or production of crude oil or natural gas at primary field operations (i.e., wastes from down-hole or wastes that have otherwise been generated by contact with the production stream during the removal of produced water or other contaminants from the product) are exempt from regulation under RCRA Subtitle C regardless of whether they are generated on-site by a service company or by the principal operator. In other words, wastes generated by a service company (e.g., unused frac or stimulation fluids and waste products) that do not meet the basic criteria listed in the Report to Congress (i.e., are not uniquely associated with oil and gas E&P operations) are not exempt from Subtitle C under the oil and gas exemption, just as wastes generated by a principal operator that do not meet these criteria are not exempt from coverage by RCRA Subtitle C.

The 1988 Regulatory Determination also stated that "vacuum truck and drum rinsate from trucks and drums transporting or containing non-exempt waste" is not included within the exemption (emphasis added). The unstated corollary to this is that vacuum truck and drum rinsate from trucks and drums transporting or containing exempt wastes is exempt, provided that the trucks or drums only contain E&P-related exempt wastes and that the water or fluid used in the rinsing is not subject to RCRA Subtitle C (i.e., is itself non-hazardous). This is consistent with the general policy principle that certain wastes derived exclusively from RCRA Subtitle C-exempt wastes remain exempt from RCRA Subtitle C.

C. Crude Oil Pipelines

Crude oil is produced from the ground through a system of one or more wells in an oilfield. The oil and any related produced water typically is directed to a series of tanks known as a tank battery where the water and oil separate naturally due to gravity; sometimes, separation is enhanced by the use of heat. Most water is separated from the oil at the tank battery. The volume of oil produced is then metered prior to a change in custody or ownership of the oil and/or its transportation off-site.

In the case of crude oil, all production-related activities occur as part of primary field operations at or near the wellhead. Wastes generated as part of the process of transporting products away from primary field operations are not exempt. Generally, for crude oil production, a custody transfer of the oil (i.e., the product) or, in the absence of custody transfer, the end point of initial product separation of the oil and water, will define the end point of primary field operations and the beginning of transportation. Only wastes generated before the end point of primary field operations are exempt. In this context, the term end point of initial product separation means the point at which crude oil leaves the last vessel, including the stock tank, in the tank battery associated with the well or wells. The purpose of the tank battery is to separate the crude oil from the produced water and/or gas. The movement of crude oil by pipeline other means after the point of custo transfer or initial product separatic not part of primary field operation:

Therefore, any waste generated b transportation or handling of the c oil (product) after custody transfer the absence of custody transfer, aft end point of initial product separat of the oil and water, is not within t scope of the exemption. Examples non-exempt wastes resulting from transportation include transportati pipeline pigging wastes, contamin water and snow resulting from spil from transportation pipelines or ot forms of transport of the product, a soils contaminated from such spill. should be noted that the hydrocarb bearing soils identified in the 1987 Report to Congress and listed in the 1988 Regulatory Determination as h exempt are limited to those hydrocarbon-bearing soils that occ oil or gas E&P sites or result from s of exempt waste. As discussed abo the exempt status of wastes generat primary field operations and transported off-site for treatment or disposal is not affected by custody transfer.

D. Gas Plants and Feeder Pipelines

Natural gas is produced from the ground through a system of one or r wells in a gas field. Some water ma separated from the gas at the wellhe but due to economy of scale, the ga from several wells is generally commingled and sent to a central ga plant where additional water and o impurities are removed. The owner or custody, of the natural gas comm changes hands between the wellhea and the gas plant, yet the removal o impurities from the gas at a gas plan still a necessary part of the product process for natural gas.

For natural gas, primary field operations (as defined in the 1987 Report to Congress) include those production-related activities at or ne the wellhead and at the gas plant (regardless of whether or not the gas plant is at or near the wellhead) but prior to transport of the natural gas f the gas plant to market. Because the movement of the natural gas betwee the wellhead and the gas plant is considered a necessary part of the production operation, uniquely associated wastes derived from the production stream along the gas plan feeder pipelines (e.g., produced wate gas condensate) are considered exem wastes, even if a change of custody o the natural gas has occurred between

EPA WASTE CLASSIFICATION
O & G EXPLORATION AND PRODUCTION WASTES*

Oil and Natural Gas Exploration and Production Materials and Wastes Exempted by EPA from Consideration as "Hazardous Wastes" (provided non-exempt waste which is or may be "hazardous" has not been added):

- Produced water;
- Drilling fluids;
- Drill cuttings;
- Rigwash;
- Drilling fluids and cuttings from offshore operations disposed of onshore;
- Geothermal production fluids;
- Hydrogen sulfide abatement wastes from geothermal energy production;
- Well completion, treatment, and stimulation fluids;
- Basic sediment and water and other tank bottoms from storage facilities that hold product and exempt waste;
- Accumulated materials such as hydrocarbons, solids, sand, and emulsion from production separators, fluid treating vessels, and production impoundments;
- Pit sludges and contaminated bottoms from storage or disposal of exempt wastes;
- Workover wastes;
- Gas plant dehydration wastes, including glycol-based compounds, glycol filters, filter media, backwash, and molecular sieves;
- Gas plant sweetening wastes for sulfur removal, including amines, amine filters, amine filter media, backwash, precipitated amine sludge, iron sponge, and hydrogen sulfide scrubber liquid and sludge;
- Cooling tower blowdown;
- Spent filters, filter media, and backwash (assuming the filter itself is not hazardous and the residue in it is from an exempt waste steam);
- Packing fluids;
- Produced sand;
- Pipe scale, hydrocarbon solids, hydrates, and other deposits removed from piping and equipment prior to transportation;
- Hydrocarbon-bearing soil;
- Pigging wastes from gathering lines;
- Wastes from subsurface gas storage and retrieval, except for nonexempt wastes listed below;
- Constituents removed from produced water before it is injected or otherwise disposed of;
- Liquid hydrocarbons removed from the production stream but not from oil refining;
- Gases from the production stream, such as hydrogen sulfide and carbon dioxide, and volatilized hydrocarbons;
- Materials ejected from a producing well during the process known as blowdown;
- Waste crude oil from primary field operations and production;
- Light organics volatilized from exempt wastes in reserve pits or impoundments or production equipment;
- *Liquid and solid wastes generated by crude oil and crude tank bottom reclaimers****.

Materials and Wastes Not Exempted (may be a "hazardous waste" if tests or EPA lists define as "hazardous") **:

- Unused fracturing fluids or acic
- Gas plant cooling tower cleani. wastes;
- Painting wastes;
- Oil and gas service compa: wastes, such as empty drum drum rinsate, vacuum tru. rinsate, sandblast media, paintir wastes, spent solvents, spill chemicals, and waste acids;
- Vacuum truck and drum rinsa from trucks and drum transporting or containing nor exempt waste;
- Refinery wastes;
- *Liquid and solid wastes generate by refined oil and product tan bottom reclaimers****;
- Used equipment lubrication oils;
- Waste compressor oil, filters, anc blowdown;
- Used hydraulic fluids;
- Waste solvents;
- Waste in transportation pipeline related pits;
- Caustic or acid cleaners;
- Boiler cleaning wastes;
- Boiler refractory bricks;
- Boiler scrubber fluids, sludges, and ash;
- Incinerator ash;
- Laboratory wastes;
- Sanitary wastes;
- Pesticide wastes;
- Radioactive tracer wastes;
- Drums, insulation, and miscellaneous solids.

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* Source: Federal Register, Wednesday, July 6, 1988, p.25,446 - 25,459.

** See important note on 1990 disposal restrictions for non-exempt waste on reverse.

*** See reverse side for explanation of oil and tank bottom reclaimer listings.

(rev. NMOCD 9/91)

MIXTURES

of Oilfield Waste

Exempt Waste (mgt. on site or off site).....= Remain Exempt

Exempt Waste + Any Other Solid Waste .....= Exempt Waste
(test required)++

Exempt Waste + Any Other Solid Waste* ..... = Non-Exempt Waste
(test required)++

Exempt Waste + Characteristic Hazardous Waste = Hazardous Waste**

or = Non-exempt Waste
(test required)++

Exempt Waste + Listed Hazardous Waste ..... = Hazardous Waste**

Oilfield Waste + Non-Oilfield Waste.....= Non-Oil Field Waste

*** except rain water**

**** There are no small quantity exemptions for hazardous waste for NMOCD disposal facilities.**

++ Usually requires Full TCLP per RCRA CFR 40 261 & EPA SW-846 or "Knowledge of process".

NOTE: Mixing a characteristic hazardous waste with a non-hazardous or exempt waste for the purpose of rendering the hazardous waste non-hazardous or less hazardous might be considered a treatment process subject to RCRA Subtitle C hazardous waste regulations and appropriate permitting requirements.

Rule 711-Operating Requirements and Documentation Require to Accept Waste

C. Operational Requirements

(1) All surface waste management facility permittees shall file forms C-117-A, C-118, and C-120-A as required by OCD rules.

(2) Facilities permitted as treating plants will not accept sediment oil, tank bottoms and other miscellaneous hydrocarbons for processing unless accompanied by an approved Form C-117A or C-138.

(3) Facilities will only accept oilfield related wastes except as provided in C.4.c. below. Wastes which are determined to be RCRA Subtitle C hazardous wastes by either listing or characteristic testing will not be accepted at a permitted facility.

(4) The permittee shall require the following documentation for accepting wastes, other than wastes returned from the wellbore in the normal course of well operations such as produced water and spent treating fluids, at commercial waste management facilities:

(a) Exempt Oilfield Wastes: As a condition to acceptance of the materials shipped, a generator, or his authorized agent, shall sign a certificate which represents and warrants that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recovery Act (RCRA) Subtitle C regulations; and not mixed with non-exempt wastes. The permittee shall have the option to accept on a monthly, weekly, or per load basis a load certificate in a form of its choice. While the acceptance of such exempt oilfield waste materials does not require the prior approval of the Division, both the generator and permittee shall maintain and shall make said certificates available for inspection by the Division for compliance and enforcement purposes.

(b) Non-exempt, Non-hazardous Oilfield Wastes: Prior to acceptance, a "Request For Approval To Accept Solid Waste", OCD Form C-138, accompanied by acceptable documentation to determine that the waste is non-hazardous shall be submitted to the appropriate District office. Acceptance will be on a case-by-case basis after approval from the Division's Santa Fe office.

(c) Non-oilfield Wastes: Non-oilfield wastes may be accepted in an emergency if ordered by the Department of Public Safety. Prior to acceptance, a "Request To Accept Solid Waste", OCD Form C-138 accompanied by the Department of Public Safety order will be submitted to the appropriate District office and the Division's Santa Fe office.

(5) The permittee of a commercial facility shall maintain for inspection the records for each calendar month on the generator, location, volume and type of waste, date of disposal, and hauling company that disposes of fluids or material in the facility. Records shall be maintained in appropriate books and records for a period of not less than five years, covering their operations in New Mexico.

(6) Disposal at a facility shall occur only when an attendant is on duty unless loads can be monitored or otherwise isolated for inspection before disposal. The facility shall be secured to prevent unauthorized disposal when no attendant is present.

(7) No produced water shall be received at the facility from motor vehicles unless the transporter has a valid Form C-133, Authorization to Move Produced Water, on file with the Division.

(8) To protect migratory birds, all tanks exceeding 16 feet in diameter, and exposed pits and ponds shall be screened, netted or covered. Upon written application by the permittee, an exception to screening, netting or covering of a facility may be granted by the district supervisor upon a showing that an alternative method will protect migratory birds or that the facility is not hazardous to migratory birds.

(9) All facilities will be fenced in a manner approved by the Director.

(10) A permit may not be transferred without the prior written approval of the Director. Until such transfer is approved by the Director and the required financial assurance is in place, the transferor's financial assurance will not be released.

(4) The permittee shall require the following documentation for accepting wastes, other than wastes returned from the wellbore in the normal course of well operations such as produced water and spent treating fluids, at commercial waste management facilities:

(a) Exempt Oilfield Wastes: As a condition to acceptance of the materials shipped, a generator, or his authorized agent, shall sign a certificate which represents and warrants that the wastes are: generated from oil and gas exploration and production operations; exempt from Resource Conservation and Recovery Act (RCRA) Subtitle C regulations; and not mixed with non-exempt wastes. The permittee shall have the option to accept on a monthly, weekly, or per load basis a load certificate in a form of its choice. While the acceptance of such exempt oilfield waste materials does not require the prior approval of the Division, both the generator and permittee shall maintain and shall make said certificates available for inspection by the Division for compliance and enforcement purposes.

(b) Non-exempt, Non-hazardous Oilfield Wastes: Prior to acceptance, a "Request For Approval To Accept Solid Waste", OCD Form C-138, accompanied by acceptable documentation to determine that the waste is non-hazardous shall be submitted to the appropriate District office. Acceptance will be on a case-by-case basis after approval from the Division's Santa Fe office.

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III. NEW MEXICO OIL CONSERVATION DIVISION'S PROCEDURE FOR ACCEPTING "NON-EXEMPT" WASTE.

The NMOCD has instituted the following procedure to be used by generators of "non-exempt" waste.

1. The generator should contact one of the approved disposal facilities listed in the appendix.

2. The operator of the disposal facility will then require certain information from the generator in order to properly fill out the "REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE" form.

3. Typically if it is the first request from a generator to dispose of waste, then the operator of the disposal will require the generator to supply a complete description of the process generating the waste, other words a waste profile will have to be supplied.

   An analysis of the waste stream will be required. This should include full TCLP testing of the waste stream. It should include as a minimum the following:

   A. RCI...Reactivity, Corrosivity, and Ignitability

   B. TC ..Toxicity Characteristics
      1. Volatiles.
      2. Semi-volatiles.
      3. TCLP metals.

   C. Typically herbicides and pesticides do not have to be run.

   D. All of the above requirements shall be per EPA SW-846 procedures. This will be discussed in the next section in order so the generator of the waste will understand what NMOCD is looking for.

   The generator will also be required to certify that the waste stream does not contain any RCRA "listed" hazardous waste. This can be accomplished by using the form included in this document called "CERTIFICATE OF WASTE STATUS FOR NON-EXEMPT WASTE MATERIAL". The NMOCD does allow other versions of this form.

4. Once all of the above has been completed, then the operator of the disposal facility submits this paper work to the local NMOCD District office. At this time the district reviews all of the submitted material.

   If everything thing is in order then this submittal is forwarded on to our Santa Fe Environmental Bureau for final approval. If approved, then it is forwarded back to the district and the district will notify and forward on to the disposal operator. Please note the turn around time for this procedure is approximately seven days. Generators should allow for this time so as not to let their tanks or sumps overfill.

   The disposal operator then makes arrangements with the generator to transport the waste to it's facility. At this time the NMOCD does not require manifesting, however we recommend it for waste tracking purposes. There are requirements placed on the transporter by the operator of the disposal facility which is required under its permit.

5. Steps one through four is the normal procedure to be used every time a generator request to dispose of waste. Please note there are no blanket approvals for "non-exempt" waste. Each shipment of waste must be handled on a case-by-case basis. However, there can be multiple loads approved on one request, in other words it requires more than one truck to haul the waste.

6. The NMOCD does allow a generator to use the same analytical work for a particular waste to be good for a period of one year. In this case, we require that the generator submit with his request a "WASTE STREAM CERTIFICATION FORM" stating that the waste stream has not changed from the last time the analytical work was performed.

7. Additional paper work for out-of-state generators may be required. For example, generators located in the state of Texas usually are ask to supply their Texas registration and waste code numbers.

District I - (505) 393-6161
O. Box 1980
Hobbs, NM 88241-1980
District II - (505) 748-1283
11 S. First
Artesia, NM 88210
District III - (505) 334-6178
000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-138
Originated 8/8/95

Submit Original
Plus 1 Copy
to appropriate
District Office

REQUEST FOR APPROVAL TO ACCEPT SOLID WASTE

1. RCRA Exempt: ☐ Non-Exempt: ☐	4. Generator
Verbal Approval Received: Yes ☐ No ☐	5. Originating Site
2. Management Facility Destination	6. Transporter
3. Address of Facility Operator	8. State
7. Location of Material (Street Address or ULSTR)	

9. Circle One:

A. All requests for approval to accept oilfield exempt wastes will be accompanied by a certification of waste from the Generator; one certificate per job.
B. All requests for approval to accept non-exempt wastes must be accompanied by necessary chemical analysis to PROVE the material is not-hazardous and the Generator's certification of origin. No waste classified hazardous by listing or testing will be approved.

All transporters must certify the wastes delivered are only those consigned for transport.

BRIEF DESCRIPTION OF MATERIAL:

Estimated Volume _____ cy Known Volume (to be entered by the operator at the end of the haul) _____ cy

SIGNATURE: _____ TITLE: _____ DATE: _____
Waste Management FacilityAuthorized Agent

TYPE OR PRINT NAME: _____ TELEPHONE NO. _____

(This space for State Use)

APPROVED BY: _____ TITLE: _____ DATE: _____

APPROVED BY: _____ TITLE: _____ DATE: _____

Hazardous Characteristics

IGNITABILITY — A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has any of the following properties:

- It is a liquid, other than an aqueous solution containing less than 24 percent alcohol by volume and has flash point less than 60°C (140°F).
- It is not a liquid and is capable, under standard temperature and pressure, of causing fire through friction, absorption of moisture or spontaneous chemical changes and, when ignited, burns so vigorously and persistently that it creates a hazard.
- It is an ignitable compressed gas as defined in 49 CFR 173.300 and as determined by the test methods described in that regulation or equivalent test methods approved by EPA under sections 260.20 and 260.21.

CORROSIVITY — A solid waste exhibits the characteristic of corrosivity if a representative sample of the waste has either of the following properties:

- It is aqueous and has a pH less than or equal to 2 or greater than or equal to 12.5.
- It is a liquid and corrodes steel at a rate greater than 6.35 mm (0.250 inch) per year at a test temperature of 55°C (130°F).

REACTIVITY — A solid waste exhibits the characteristic of reactivity if a representative sample of the waste has any of the following properties:

- It is normally unstable and readily undergoes violent change without detonating.
- It reacts violently with water.
- It forms potentially explosive mixtures with water.
- When mixed with water, it generates toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.
- It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 2 and 12.5, can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment.
- It is capable of detonation or explosive reaction if it is subjected to a strong initiating source or if heated under confinement.
- It is readily capable of detonation or explosive decomposition or reaction at standard temperature and pressure.
- It is a forbidden explosive as defined by EPA.

TOXICITY — A solid waste exhibits the characteristic of toxicity if the extract from a representative sample of the waste contains any contaminants listed by EPA at a concentration equal to or greater than a respective thresholds value.

T C L P

COMPLIANCE CRITERIA

Maximum Concentrations

Metals:	mg/l
Arsenic	5.0
Barium	100
Cadmium	1.0
Chromium	5.0
Lead	5.0
Mercury	0.2
Selenium	1.0
Silver	5.0

Herbicides:	mg/l
2,4-D	10
2,4,5-TP (Silvex)	1.0

Volatiles:	mg/l
Benzene	0.5
Carbon Tetrachloride	0.5
Chlorobenzene	100
Chloroform	6.0
1,2-Dichloroethane	0.5
1,1-Dichloroethylene	0.7
Methyl Ethyl Ketone	200
Tetrachloroethylene	0.7
Trichloroethylene	0.5
Vinyl Chloride	0.2

Semivolatiles:	mg/l
o-Cresol	200
m-Cresol	200
p-Cresol	200
2,4-Dinitrotoluene	0.13
Hexachlorobenzene	0.13
Hexachlorobutadiene	0.5
Hexachloroethane	3.0
Nitrobenzene	2.0
Pentachlorophenol	100
Pyridine	5.0
2,4,5-Trichlorophenol	400
2,4,6-Trichlorophenol	2.0
1,4-Dichlorobenzene	7.5

Pesticides:	mg/l
Chlordane	0.03
Endrin	0.02
Heptachlor	.008
Heptachlor Epoxide	.008
Lindane	0.4
Methoxychlor	10
Toxaphene	0.5

CERTIFICATE OF WASTE STATUS

NON-EXEMPT WASTE MATERIAL

Originating Location: _____

Source: _____

Disposal Location: _____

"As a condition of acceptance for disposal, I hereby certify that this waste is a non-exempt waste as defined by the Environmental Protection Agency's (EPA) July 1988 Regulatory Determination. To my knowledge, this waste will be analyzed pursuant to the provisions of 40 CFR Part 261 to verify the nature as non-hazardous. I further certify that to my knowledge no "hazardous or listed waste" pursuant to the provisions of 40 CFR, Part 261, Subparts C and D, has been added or mixed with the waste so as to make the resultant mixture a "hazardous waste" pursuant to the provisions of 40 CFR, section 261.3(b)."

I, the undersigned as the agent for the _____ concur with the status of the waste from the subject site.

EXAMPLE ONLY

Name _____

Title/Agency _____

Address _____

Signature _____

Date _____

BAKER OIL TOOLS
P.O. BOX 1828
HOBBS, NM 88241
(505) 393-4147

STATEMENT OF CONDITION FOR ACCEPTANCE

We are requesting permission to dispose of waste material from our Hobbs yard at the Controlled Recovery, Inc. facility. The waste is generated from our sump, which is a concrete holding area for water that is used to wash off oil tools at our yard. As a condition of acceptance for disposal, I hereby certify that the analytical results dated March 17, 1994 still reflect the characteristics of this waste. In addition, I certify that no "hazardous waste" has been added or mixed with the sump waste.

BY: Dennis Bellew J.
Name

District Manager
Title

10-31-94
Date

Hobbs yard -- 507 West County Road
Project Location

RECEIVED
NOV 04 1994
OCD HOBBS OFFICE

IV. SAMPLING, ANALYTICAL TESTING AND DATA REPORTING REQUIREMENTS.

As indicated in the previous information the NMOCD generally requires that a full TCLP analysis be completed on the waste stream and that EPA-SW 846 procedures be used.

One of the most important aspects of sampling is to ensure that a representative sample of the waste stream is taken.

It is recommended that personnel taking samples should be trained or have on the job experience in this area, if not then we recommend that a third party consultant perform these task.

The following discussions and view graphs are designed to help you if sampling, testing and data reporting is required.

* EPA has mandated that certain solid waste be analyzed for physical and chemical properties.

* EPA has set guidelines for sampling and testing solid waste for analytical properties.

* These guidelines are set forth in four volumes called EPA-SW 846

  Volume 1A, 1B, 1C - All pertain to the laboratory methods required to determine if a waste is hazardous within certain definitions of section 3001 of RCRA.

  Volume 2 - Is the field manual which pertains to collecting representive samples of solid waste

* QA/QC - Quality Assurance/Quality Control is an integral part of each manual.

sampling.

1. Requires that representative samples of waste be collected. (Sampling Accuracy)

2. Requires that a minimum of four samples be collected over a period of time sufficient to represent the variability of the waste, in order for it to be exempt or excluded from being listed as hazardous wastes. (Mainly applies to petitions) - (Sampling Variability)

3. Ground Water Monitoring Systems mandates that four replicates (sub samples) be taken from each ground water sample intended for chemical analysis and that the mean concentration and variance for each chemical constituent be calculated from these four sub samples and compared with background levels for ground water. (Sampling Variability)

EPA RECOGNIZES FOUR BASIC TYPES OF SAMPLING IN ORDER OF PREFERENCE

* Simple random sampling with fundamental statistical concepts applied.

* Stratified random sampling (up to four samples).

* Systematic random sampling (GRAB).

* Authoritative or "Knowledge of Process.

COMPOSITE SAMPLING

* A number of random samples collected and combined in a single sample.

* Advantages include:
    1. Gives a good average of the entire waste
    2. Reduces sampling time
    3. Reduces analytic test
    4. Saves money

* Major disadvantage is that information concerning the chemical contaminants of each individual sample is lost!

ENVIRONMENTAL INVESTIGATIONS

CHAIN OF CUSTODY RECORD

Laboratory:

Project No. Project Name

SAMPLERS: (Signature)

Site Number	Date	Time			Sample Identification	Site Description									REMARKS

Relinquished by: (Sign.)	Date	Time	Received by: (Sign.)	REMARKS:
Relinquished by: (Sign.)	Date	Time	Received by: (Sign.)	
Relinquished by: (Sign.)	Date	Time	Received for Laboratory by: (Sign.)	

CHAIN OF CUSTODY

UNICHEM INTERNATIONAL

DATE NAME

DATE NAME

UNICHEM INTERNATIONAL

PHONE (505) 393-7751
P.O. BOX 1499
HOBBS, NEW MEXICO 88240

SAMPLE ID: _____ PRESERVATIVE: _____

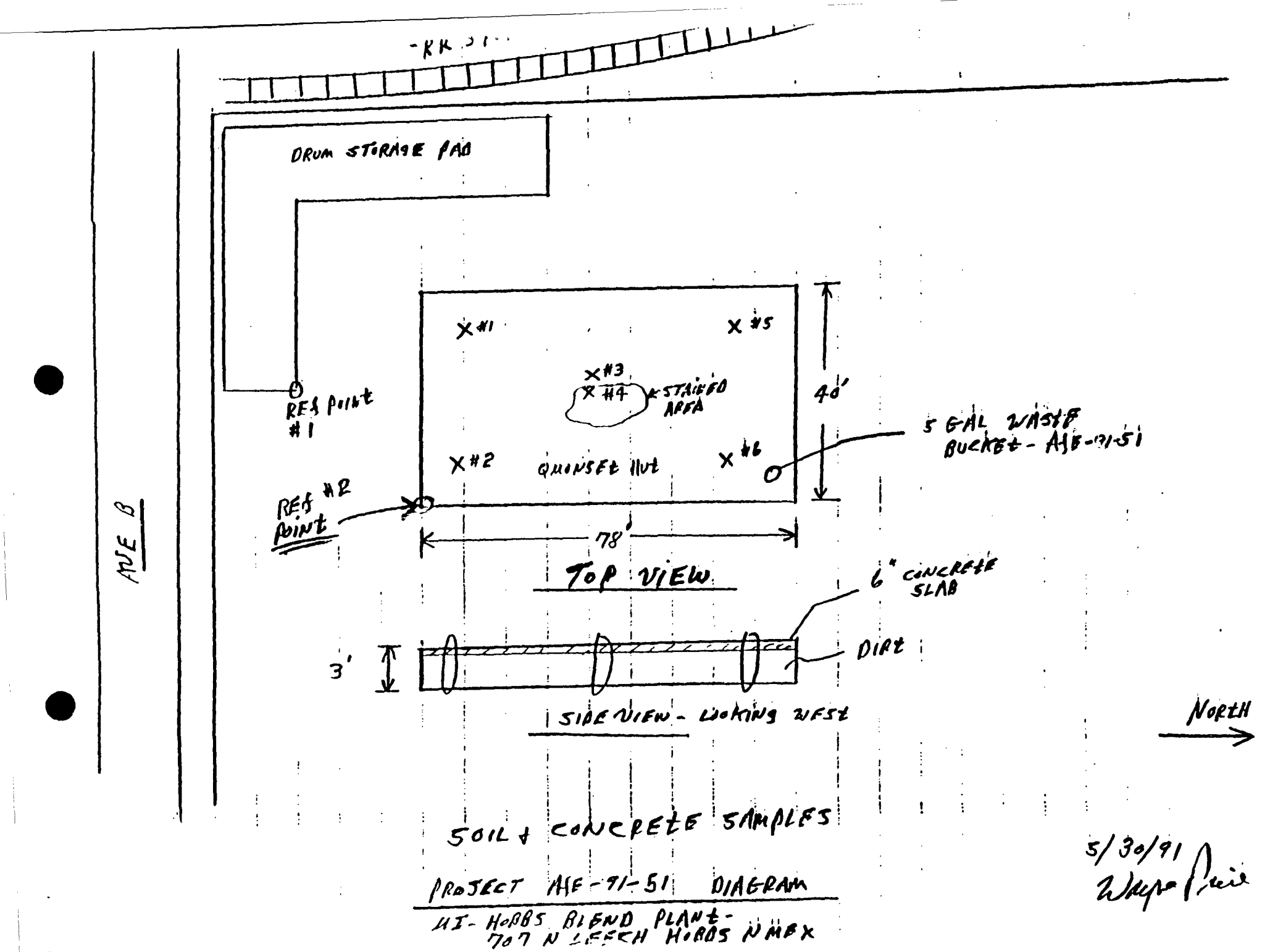
SAMPLE DESCRIPTION: _____ SUBMISSION DATE TO LAB: _____

SAMPLE DATE/TIME: _____ SAMPLER'S SIG: _____

REQUESTED ANALYSES: _____ PHONE #: _____

PROJECT #: _____

_____



SOIL & CONCRETE SAMPLES

PROJECT AJE-91-51 DIAGRAM

U.I. - HOBBS BLEND PLANT - 707 N. LEECH HOBBS NMEX

5/30/91

FIELD NOTES

SHALL INCLUDE, AS A MINIMUM:

- Sample identification number.
- Purpose of sample.
- Analysis method to be used.
- Who collected the sample.
- How the sample was collected.
- Sample quantity.
- Sample preservation, if any.
- Date and time of sample.
- Where the sample was collected.

NECESSARY INFORMATION ON LABORATORY DATA REPORT FORMS

* Name of laboratory.

* Name of person responsible for analysis.

* Data (units)
  Sample description (solid, liquid, etc.)
  Field Code
  Sampling Date
  Receiving Date

* Cross reference to laboratory analysis record.

* Parameter being analyzed.

* Result of analysis with units specified.

* Analytical method used. (Must have SW-846 numbers)

* Minimum detection value of analytical method used.
  (statement "ND" not acceptable)

* Quality control results (as appropriate).
  - Precision (deviation between sample and duplicate)
  - Extracation Accuracy (recovery of spike)
  - Instrument Accuracy (documentation of calibration)

* Signature of person responsible for analysis.

5601 West 19th Street • Lubbock, Texas 79407
(806) 796-8900

ANALYTICAL RESULTS FOR
UNICHEM INTERNATIONAL, INC.
P. O. Box 1499
Hobbs, NM 88240

September 10, 1991
Receiving Date: 8/22/91
Sample Type: Soil
Project No: NA
Project Location:

Sampling Date: 8/21/91
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: plant x

Analysis Date: 8/28/91

LCUIWR #	Field Code	REACTIVITY Sulfides (ppm)	REACTIVITY Cyanides	CORROSIVITY pH (s.u.)	IGNITABILITY
Y27733	Dirt Sample (Composite) Roadway	<25.0	<2.5	11.23	Nonignitable
QC	Quality Control	---	---	7.04	---
% Precision		100	100	100	100
% Instrument Accuracy		---	---	101	---

METHODS: EPA SW 846-7.3.4.2, 7.3.3.2, 9040, 1010.

Director, Dr. Blair Leftwich

Assi. Dir., Dr. Bruce McDonell

9-10-91
Date

5601 West 19th Street • Lubbock, Texas 79407
(806) 796-8900

ANALYTICAL RESULTS FOR
UNICHEM INTERNATIONAL, INC.
P.O. Box 1499
Hobbs, NM 88240

September 10, 1991
Receiving Date: 8/22/91
Sample Type: Soil
Project No: NA
Project Location:

Sampling Date: 8/21/91
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: Plant X
Analysis Date: 8/28/91

TCLP METALS (ppm)

LCUIWR #	FIELD CODE	As	Se	Cr	Cd	Pb	Ba	Hg	Ag
	EPA LIMITS =	5.0	1.0	5.0	1.0	5.0	100	0.20	5.0
Y27733	Dirt Sample (Composite) Roadway	<0.1	<0.2	101	<0.1	<0.1	1.0	<0.005	<0.01
	Corr. Sample	<0.1	<0.2	101	<0.1	<0.1	1.0	<0.005	<0.01
QC	Quality Control	1.09	1.03	0.96	1.01	0.95	1.01	0.0097	1.00
% Precision		100	100	97	100	100	100	100	100
% Extraction Accuracy		91	95	100	97	88	96	71	84
% Instrument Accuracy		109	103	96	101	95	101	97	100
Detection Limit		0.1	0.2	0.1	0.1	0.1	1.0	0.001	0.01

METHODS: EPA SW 846-1311, 6010, 7471.
TCLP METALS QC: Blank Spiked with 1.00 ppm As, Se, Cr, Cd, Pb, Ba, Ag; 0.0100 ppm Hg.

Director, Dr. Blair Leftwich

Asst. Dir., Dr. Bruce McDonell

9-10-91
Date

Lubbock Christian University Institute of Water Research
5601 West 19th Street • Lubbock, Texas 79407 • (806) 796-8900

ANALYTICAL RESULTS FOR
UNICHEM INTERNATIONAL, INC.
P. O. Box 1499
Hobbs, NM 88240

September 10, 1991
Receiving Date: 8/22/91
Sample Type: Soil
Project No: NA
Project Location:

Sampling Date: 8/21/91
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: Plant X

Analysis Date: 9/03/91

TCLP SEMI-VOLATILES (ppm)	EPA Limit	Y27733 Dirt Sample (Composite) Roadway	Y27733 Corrected	Detection Limit	QC	%P	%EA
Chlordane	0.03	<0.002	<0.002	0.0002	0.0017	100	83
m-Cresol	200.0	<0.001	<0.001	0.001	0.80	108	124
o-Cresol	200.0	<0.001	<0.001	0.001	0.96	104	124
p-Cresol	200.0	<0.001	<0.001	0.001	0.80	108	124
Total Cresol	200.0	<0.001	<0.001	0.001	85	107	124
1,4-Dichlorobenzene	7.5	<0.0005	<0.0005	0.0005	0.83	100	100
2,4-Dinitrotoluene	0.13	<0.001	<0.001	0.001	0.85	100	90
Heptachlor (and its hydroxide)	0.008	<0.001	<0.001	0.001	0.99	100	124
Hexachloro-1,3-butadiene	0.5	<0.001	<0.001	0.001	0.74	100	84
Hexachlorobenzene	0.13	<0.001	<0.001	0.001	0.85	100	104
Hexachloroethane	3.0	<0.001	<0.001	0.001	0.91	100	118
Nitrobenzene	2.0	<0.001	<0.001	0.001	0.94	100	132
Pyridine	5.0	<0.001	<0.04	0.001	0.98	100	56
Pentachlorophenol	100.0	<0.001	<0.001	0.001	0.88	100	96
2,4,5-Trichlorophenol	400.0	<0.001	<0.001	0.001	0.87	100	84
2,4,6-Trichlorophenol	2.0	<0.001	<0.001	0.001	0.49	100	50
Endrin	0.02	<0.005	<0.005	0.005	1.03	100	124
Lindane	0.4	<0.001	<0.001	0.001	0.88	100	102
Methoxychlor	10.0	<0.0005	<0.0005	0.0005	0.77	100	92
2,4-D	10.0	<0.01	<0.01	0.01	0.71	100	56
2,4,5-T-P (Silvex)	1.0	<0.01	<0.01	0.01	0.86	100	NR
Toxaphene	0.5	<0.005	<0.005	0.005	0.023	100	96

METHODS: EPA SW 846-8270, 8080, 1311.

BLB

9-10-91

Director, Dr. Blair Leftwich

Asst. Dir., Dr. Bruce McDonell

Date

Lubbock Christian University Institute of Water Research
5601 West 19th Street • Lubbock, Texas 79407 • (806) 796-8900

ANALYTICAL RESULTS FOR
UNICHEM INTERNATIONAL, INC.
P. O. Box 1499
Hobbs, NM 88240

September 10, 1991
Receiving Date: 8/22/91
Sample Type: Soil
Project No: NA
Project Location:

Sampling Date: 8/21/91
Sample Condition: Intact & Cool
Sample Received by: MS
Project Name: Plant X
Analysis Date: 8/27/91

TCLP VOLATILES (ppm)	EPA LIMIT	Y27733 Dirt Sample (Composite) Roadway	Y27733 Corrected	Detection Limit	QC	%P	%EA	%
Vinyl chloride	0.2	<0.002	<0.002	0.002	0.992	100	100	9
1,1-Dichloroethylene	0.7	<0.002	<0.002	0.002	0.886	100	90	8
Chloroform	6.0	<0.02	<0.02	0.02	1.000	100	108	1C
Methyl ethyl ketone	200.0	<0.02	<0.02	0.02	10.000	100	117	1C
1,2-Dichloroethane	0.5	<0.002	<0.002	0.002	1.000	100	116	1C
Carbon Tetrachloride	0.5	<0.02	<0.02	0.02	1.000	100	140	1C
Trichloroethylene	0.5	<0.002	<0.002	0.002	0.918	100	106	9
Benzene	0.5	<0.002	<0.002	0.002	1.013	100	109	1C
Tetrachloroethylene	0.7	<0.002	<0.002	0.002	0.961	100	99	9
Chlorobenzene	100.0	<0.002	<0.002	0.002	1.011	100	108	1C

METHODS: EPA SW 846-3810 USING AUTOMATED HEAD SPACE; EPA SW 846-8020, 1311.

BB

Director, Dr. Blair Leftwich

Asst. Dir., Dr. Bruce McDonell

9-10-91

Date

V. PROHIBITIONS OF DISPOSING "NON-EXEMPT" WASTE INTO CLASS II SALT WATER DISPOSAL WELLS.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

AL FORM 99 (7-90)

AX TRANSMITTAL

# of pages ▶ 3	
AVID CATANACH	From DAVID ABSHIRE
ency NG. / NMOCD	Phone # (214) 655-7188
505) 827-5741	Fax # (214) 655-2191

10-01-317-7368 5099-101 GENERAL SERVICES ADMINISTRATION

DRAFT

OFFICE OF WATER

MAR 7 1993

MEMORANDUM

SUBJECT: RCRA - Exempt Oil and Gas Exploration and Production Wastes and Authorization for Injection into Class II Wells – Underground Injection Control Program Guidance # XX

FROM: James R. Elder, Director
Office of Ground Water and Drinking Water

TO: Water Management Division Directors
Region II - X

PURPOSE

This guidance clarifies which waste fluids generated by the oil and gas exploration and production industry (E&P wastes) can be injected into a Class II well under the underground injection control (UIC) program.

BACKGROUND

The UIC regulations list as fluids that can be injected in a Class II well fluids "which are brought to the surface in connection with natural gas storage operation; or conventional oil or natural gas production and may be commingled with waste waters from gas plants which are an integral part of production operations, unless those waters are classified as a hazardous waste at the time of injection." This definition was promulgated in 1982, and was intended to be somewhat flexible since as stated in the

* David: if you have any comments, please Fax them to me by 4/5/93.

preamble: "The Agency believes that national minimum standards are not the appropriate place to classify all individual practices, some of which may be unique to geological and hydrologic condition or the regulatory program peculiar to one or a few States. The classification scheme is intended as a framework for State Directors and the decision to place ...borderline wells in one class or another shall be made on a case-by-case basis." (47 FR 4995 February 3, 1982).

A memorandum dated July 31, 1987, further clarified that air scrubber waste and water softener regeneration brines could be injected in Class II wells as long as they were not hazardous and were integrally associated with oil and gas production. This memorandum went on to state that fresh water whether from ground water or surface water sources added to or substituted for brine could also be injected in Class II wells as long as the fluids were integrally associated with oil and gas production or storage.

Both the original definition and the policy memorandum were written before EPA published its Regulatory Determination for Oil and Gas and Geothermal Exploration, Development, and Production Wastes dated June 29, 1988 and published in the Federal Register on July 6, 1988 (53 FR 25446). This determination established the scope of the exemption from regulation under RCRA Subtitle C for wastes generated by the oil and gas industry. Exploration and Production (E&P) wastes are RCRA exempt and therefore non-hazardous if they are generated in primary field operations intrinsic to exploration, development or production activities or are uniquely associated with the field activities. It is important to note that these wastes retain their exempt status regardless of transfer of custody or off-site transport.

DETERMINATION

The key concepts that have been used by the UIC program to determine whether waste fluids could be injected in Class II wells were that they had to be non-hazardous and integrally associated with oil and gas production. Under RCRA the Agency has defined a series of wastes which are non-hazardous because they are uniquely associated with oil and gas exploration and production. This Office followed closely the development of the E&P policy to ensure that the UIC regulatory scheme would not be unnecessarily disrupted. Similarly we believe that all exempt E&P wastes

under RCRA can be injected in Class II wells as long as their physical state allows it. The list of exempt wastes currently stands as follows:

EXEMPT WASTES

Produced water

Drilling fluids

Drill cuttings

Rigwash

Well completion fluids

Workover wastes

Gas plant dehydration wastes

Gas plant sweetening wastes

Spent filters and backwash

Packing fluids

Produced sand

Production tank bottoms

Gathering line pigging wastes

Hydrocarbon-bearing soil

Waste crude oil from primary field sites:

PROGRAM CONTACTS

For questions relating to this guidance, please contact Bruce J. Kobelski, Underground Injection Control Branch, at (202) 260-7275, or Jeffrey B. Smith, (202) 260-5586. Another source of information on this guidance is the EPA Regional Office for your State. UIC Primacy State inquiries may be directed to the appropriate EPA State Class II oversight coordinator.

VI. APPENDIX

APPENDIX "A"

SURFACE WASTE MANAGEMENT FACILITIES

located in Southeast NM
permitted by NMOCD rule 711

C & C Landfarm
Box 55
Monument, New Mexico 88265
Contact: Mr. Jimmy Cooper
505-397-2045
505-369-7108 mobil
Location: Southeast of Monument, NM
sec 3-Ts 20s-R 37 e
Lea Co. NM

Controlled Recovery Inc.
P.O. Box 369
Hobbs, New Mexico 88240
Contact: Donna L. Roach-Office Manager
505-393-1079
Location: Half way between Hobbs & Carlsbad NM
sec 27-Ts 20s-R 32 e
Lea Co. NM

Environmental Plus, Inc. (EPI)
P.O. Box 969
Eunice, New Mexico 88231
Contact: Mr. Charlie Bettis
505-394-2588
Location: South of Eunice, NM
sec 14,15- Ts 22s- R 37 e
Lea Co. NM

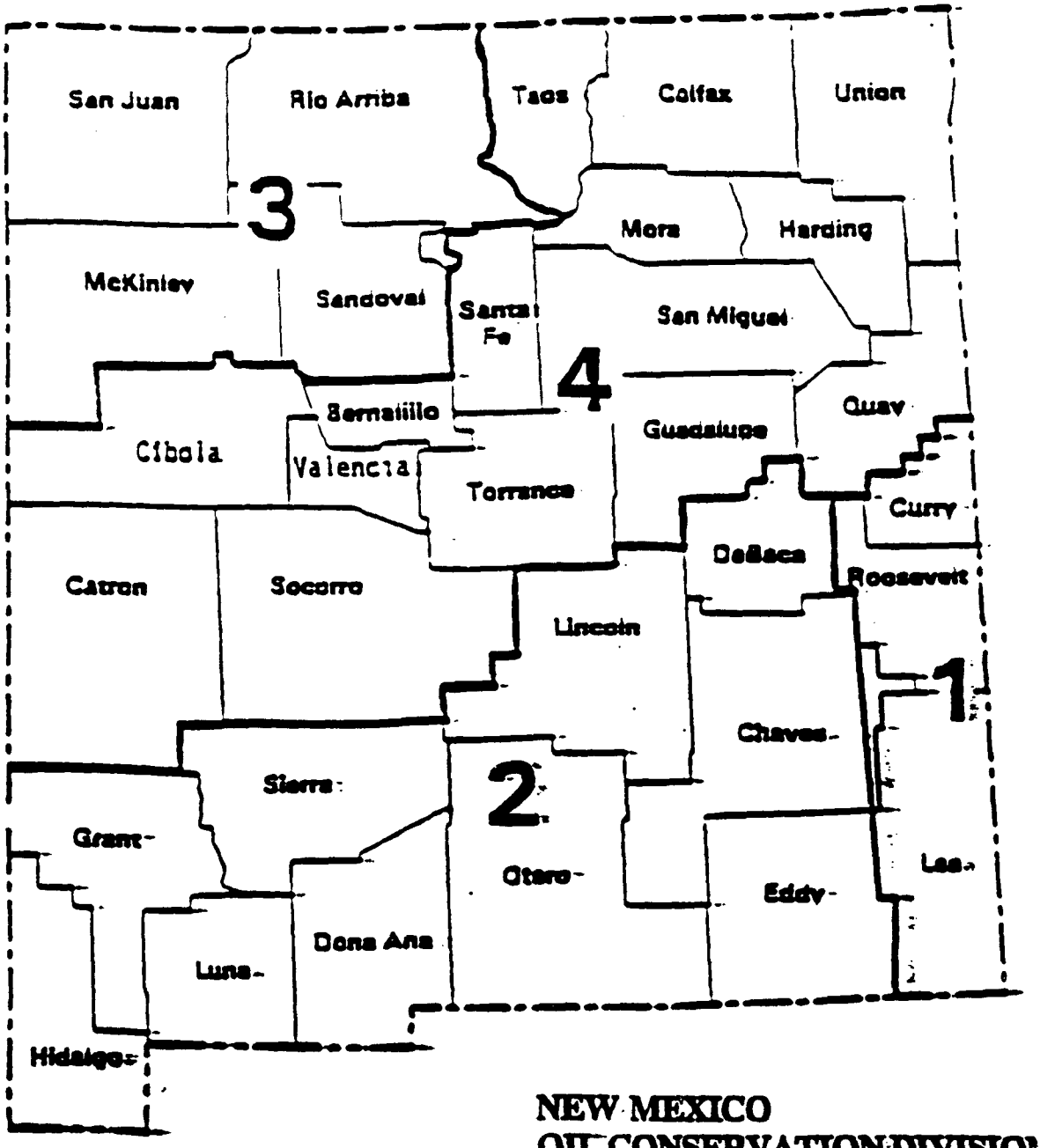
Gandy Marley, Inc.
P.O. Box 827
Tatum, New Mexico 88267
Contact: Mr. Larry Gandy
505-398-4960
Location: Half way between Tatum and Roswell NM
of Hwy 380, sec 4,5,8,9- Ts 11 s - R 31 e
Chavez Co. NM

Goo-Yea Landfarm, Inc.
P.O. Box 2327
Hobbs, New Mexico 88241
Contact: Mr. Royce Cooper, Jr.
Mr. Steve Dyer-Rhino Environmental Ser.
505-392-4498
Location: 7 miles N of Bronco, Tx.
sec 14-Ts 11s-R 38 e
Lea Co. NM

Loco Hills Water Disposal
P.O. Box 68
Loco Hills, NM 88255
Contact: James R. Maloney
505-677-2118
Location: Loco Hills, NM 88255
Eddy Co. NM

Parabo, INC.
P.O. Box 1737
Eunice, New Mexico 88231
Contact: Richard Brakey
505-394-2511
Location: 5 mi. east of Eunice, NM
sec 29-Ts 21s-R38 e
Lea Co. NM

APPENDIX "B"



NEW MEXICO
OIL CONSERVATION DIVISIO
DISTRICT OFFICES

District		AREA 505
1	HOBBS	393-616
2	ARTESIA	748-128
3	AZTEC	334-617
4	SANTA FE	827-580

NEW TELEPHONE LISTING
OIL CONSERVATION DIVISION

FAX NUMBER
827-7177

MAIN LINE

827-7131

DIRECTOR'S OFFICE

LeMay, William	827-7132
Davidson, Florene	827-7132
Martinez, Sally	827-7133

ADMINISTRATIVE BUREAU

Martin, Edwin	827-7151
Anaya, Mary	827-7150
Valdes, Kathy	827-7131

RECORDS CENTER

Roybal, Elizabeth	827-8164
Romero, Lawrence	827-8166

ENGINEERING BUREAU

Morrow, Jim	827-8183
Catanach, David	827-8184
Vacant	827-8182
Johnson, Roy	827-8198
Stogner, Michael	827-8185
Stone, Ben	827-8186

ENVIRONMENTAL BUREAU

Anderson, Roger	827-7152
Ashley, Mark	827-7155
Davis, David	827-7156
Eustice, Chris	827-7153
Olson, William	827-7154

LEGAL BUREAU

Carroll, Rand	827-8156
Richardson, Diane	827-8153

GAS MARKETING BUREAU

Merrett, Ron	827-7146
Hebert, Lyn	827-7147
Phillips, Dorothy	827-7137
Romero, Angela	827-7148
Williams, Chris	827-7149

DATA PROCESSING BUREAU

Nelson, Dave	827-5925
Lubet, Lloyd	827-5925

Key Entry Section

Macpherson, Kirk	827-5925
McDonald, Donna	827-5925
Brown, Rick	827-8197
Chavez, Fran	827-7158
Chavez, Robert	827-8196
Huffman, Dolly	827-8196
Montoya, Isabel	827-8195
Rivera, Lynn	827-8195
Vacant	827-8194

ONGARD IMPLEMENTATION

Martin, Edwin	827-7151

DISTRICTS		FAX
Aztec	334-6178	334-6170
Artesia	748-1283	748-9720
Hobbs	393-6161	393-0720

NEW MEXICO ENERGY, MINERALS & NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
DISTRICT I Hobbs
PO BOX 1980
Hobbs, NM 88241-1981
(505) 393-6161

Jennifer A. Salisbury
CABINET SECRETARY

October 6, 1998

EXHIBIT "B"

Mr. Ken Marsh
Controlled Recovery, Inc. (CRI)
P.O. Box 388
Hobbs, NM 88241

Re: Complaints concerning Odors generated at the CRI Surface Waste Management facility Permit # R-9166 located in S/2 N/2 & N/2 S/2 of Sec 27-Ts20s-R32e NMPM Lea County, New Mexico.

Dear Mr. Marsh:

The New Mexico Oil Conservation Division (NMOCD) District I has received complaints concerning repulsive odors coming from CRI's surface waste management facility located at the above referenced site.. A copy of documented complaints are attached for your reference.

The NMOCD District I office is respectfully requesting CRI's assistance in resolving this issue. NMOCD District I is requesting that CRI investigate this situation and provide to the NMOCD by October 15, 1998 your findings and recommendations. Please note if your findings and recommendations requires a modification in your existing operating permit please notify the NMOCD Environmental Bureau of your plans.

Sincerely Yours,

Chris Williams- NMOCD District I Supervisor

CW/wp: file cri (on CT) computer

cc: Roger Anderson-NMOCD Environmental Bureau Chief
Martyne Kieling-NMOCD Environmental Bureau
CRI-Hobbs file

attachments-yes

CRI
CONTROLLED RECOVERY INC.

P.O. BOX 388, HOBBS, NM 88241
(505) 393-1079 • FAX (505) 393-3615

October 6, 1998

Mr. Chris Williams
New Mexico Oil Conservation Division
P.O. Box 1980
Hobbs, New Mexico 88241

RE: Complaint concerning odors at Controlled Recovery, Inc. Halfway Facility

Dear Mr. Williams,

I am aware of the complaints you mention in your letter of October 6, 1998.

I have had phone and fax communication with Mr. Campbell of Mississippi Potash, Mr. Norman Driskell of the Safety Department of Martin Transport and Ms. Kristin Koblis of Duke Energy Field Services.

We have discussed the odor problem and possible solutions, which include treatment before transporting, treatment at Controlled Recovery, Inc., process change, and use of odor control chemicals.

We have also considered the health risks that could be associated with the odor and have exchanged various material data information.

Controlled Recovery, Inc. has conducted numerous H2S checks since this information was conveyed to us. There have been no levels to cause concern.

Controlled Recovery, Inc. personnel have not reported any symptoms similar to those mentioned in the Mississippi Potash letter.

We do not have any knowledge or experience that indicates a health hazard. We do however, agree at times there is a nuisance odor.

Controlled Recovery, Inc. will continue to work on a solution to the odor problem and be a good neighbor to the community.

We are in the process of trying different approaches to our handling of the suspected waste stream and will discuss the methods and the effectiveness of them with you in the near future.

Controlled Recovery, Inc. does not require or ask for any modification of our existing order, which you refer to as an operating permit.

Controlled Recovery, Inc. will be proactive in resolution of these complaints.

I am enclosing copies of the information I mention in the above paragraph.

Please call if I may provide additional information.

Sincerely,

Ken Marsh

CRI
CONTROLLED RECOVERY INC.

P.O. BOX 388, HOBBS, NM 88241
(505) 393-1079 • FAX (505) 393-3615

November 4, 1998

Martyne J. Kieling
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87504

RE: Complaint concerning odors Controlled Recovery, Inc. facility

Dear Ms. Kieling,

Enclosed please find copy of my letter to Chris Williams (NMOCD Hobbs) of October 6, 1998 and attachments.

The generator has improved the process in their plant, and Controlled Recovery, Inc. is now mixing the stream with dry solids in our solid pit.

This was discussed with and agreed to by Chris Williams and Wayne Price as a test at our site last month and seems to have solved the problems.

I have discussed this with Mr. Jeff Campbell of Mississippi Potash and he seems satisfied with the result.

We plan to continue this method to confront the odor.

Please call if I may provide additional information.

Sincerely,

Ken Marsh

CRI
CONTROLLED RECOVERY INC.
P.O. BOX 369, HOBBS NM 88241 (505) 393-1079

EXHIBIT "C"

April 7, 1997

Mr. Jerry Sexton
District Supervisor
State of New Mexico
Oil Conservation Division
P.O. Box 1980
Hobbs, New Mexico 88241

Dear Mr. Sexton,

N.M.O.C.D. Rule 711 Section C.8 provides for an exception to the requirements that tanks, pits and ponds exceeding sixteen feet in diameter be covered, screened or netted.

Controlled Recovery, Inc. is requesting that you issue this exception to CRI's facility located in Section 27 Township 20 South Range 23 east NMPM, Lea County permitted under order R-9166 April 27, 1997.

CRI's facility has night security lights, twenty-four hour truck traffic, is adjacent to US Highway 62-180 and County Road C-29. Machinery on site generates noise and movement. There are two dogs on site at all times. There are four full time employees assigned to facility operations.

In six years of operations there have been no incidents harmful to migratory birds at the facility. CRI's facility has been visited and inspected by U.S. Fish and Wildlife Services. Mr. Nicholas E. Chavez has been at the facility in the past 120 days and reported no problems or concerns. CRI also utilizes flags in some locations.

These alternate methods are more than adequate to protect migratory birds and clearly this facility is not hazardous to migratory birds.

Rule 711 provides that the NMOCD District Supervisor may grant the exception, which CRI now requests.

Sincerely,

Ken Marsh

Ken Marsh

The above request is granted this 14 day of April 1997.

Jerry Sexton

Jerry Sexton
District Supervisor
New Mexico Oil Conservation Division

EXHIBIT "D"

Compliance Services

1220 N. Grimes · PO Box 2734 · Hobbs NM 88240 · Phone: (505) 391-7797
Dyke Cell Phone # (505) 370-5924 · Wade Cell Phone # (505) 370-5024

Re: New Mexico Oil Conservation Division letter dated July 3, 2000

The action level specified in the letter to *Controlled Recovery Inc.* received from the OCD for sampling is 1.0 ppm H_2S. That level is extremely low. In fact, there is no governmental or industrial hygiene agency (to my knowledge) which has ever required monitoring of H_2S for health reasons at less than 10 ppm. The *accepted industry standard for monitoring and controlling H_2S in the workplace in our industry is 10 ppm (*See attachment #1 - ANSI H_2S Instructor Training Manual, page 3), whereas ANSI (American National Standards Institute) recommends a level for the protection of health of workers for an 8 hour day, 5 day week of less than 15 ppm (See above attachment). NIOSH (National Institute for Occupational Safety and Health) Pocket Guide to Chemical Hazards currently lists an exposure limit of 10 ppm (ceiling) (See attachment #4). Nonetheless the *actual OSHA acceptable ceiling concentration is 20 ppm, or 50 ppm for a single exposure of 10 minutes or less.* (See attachment #2 - OSHA Z Table) Throughout our industry, workers are taught that it is safe to work for 40 hours per week in levels of H_2S below 10 ppm.

H_2S is not considered Carcinogenic (National Toxicology Program 9th Annual report on Carcinogens 5/15/2000) or even suspected as causing Cancer. The hazard category listed for H_2S is acute (immediately hazardous) and the first action level is listed at 50 ppm. (See attachment #3)

In the NIOSH Criteria Document "Occupational Exposure to Hydrogen Sulfide" (See attachment #6) it is stated that "conclusive evidence of adverse health effects from repeated, long-term exposure to hydrogen sulfide at low concentrations was not found." (p.1) It is further recommended that in the workplace "Exposure to hydrogen sulfide shall be controlled so that no employee is exposed to hydrogen sulfide at a ceiling concentration greater than 15 mg/m^3." Both of these statements tend to support the hypothesis that low level monitoring such as that suggested by the NMOCD at your facility is unwarranted.

NMOCD rule 118 requires that any "well, lease, or related facility handling H_2S gas with concentration of 500 ppm or more shall have a warning sign at the entrance." Further, it specifies that any well, lease, or related facility with "H_2S concentration and volume such that the H_2S fraction equates to 10 MCF per day or more of H_2S and which is located within one-fourth mile of a dwelling, public place or highway shall install safety devices and maintain them in operable condition or shall establish safety procedures designed to prevent the undetected continuing escape of H_2S." (See attachment #5) There is no possibility that your facility will ever emit H_2S in those concentrations at that volume and yet the requirements for public protection in these circumstances are much less than those proposed in the letter sent to *Controlled Recovery Inc.*

Compliance Services

1220 N. Grimes · PO Box 2734 · Hobbs NM 88240 · Phone: (505) 391-7797
Dyke Cell Phone # (505) 370-5924 · Wade Cell Phone # (505) 370-5024

The specific guidelines that the NMOCD sent in the letter are not found in OCD Rule 711 on their web site. Neither was it found in the 7/97 revision of that rule. The OCD also referenced the guidelines for Rule 711 (Arabic number 13). Both of the rule and the guidelines require H_2S Contingency planning, but only the guidelines mention monitoring. The guidelines are not specific as to how the monitoring is to be performed and at what levels actions are required.

As I could not find the specifics mentioned in the letter (after searching NMOCD's entire web site), I still have some question as to whether these requirements apply to an existing facility (such as *Controlled Recovery Inc.*), a new facility, or as part of a closure plan. Nowhere did I find the proposed 1.0 ppm monitoring guidelines as part of any Rule, proposed Rule, or elsewhere.

The OCD letter also requires dissolved Oxygen and dissolved Sulfide testing of the pond if 1.0 or greater H_2S levels are encountered. I am puzzled by why they would require these tests. These tests are not particularly good indicators of potential H_2S release. There are far better methods. A simple titrimetric method will determine the actual H_2S concentration of the water, and thus the maximum potential release. (EPA 600/4-020 376.2)

On 07/14/00, I sampled the produced water evaporation pond at *Controlled Recovery Inc.* The sample was immediately iced, placed under chain of custody, and taken to a laboratory for analysis of hydrogen sulfide content in the water. The results (taken at the very end of a normal business week) show that there is little or no potential for harmful H_2S exposure from this source. (See attachment #7) The results show 6.8 ppm H_2S in the water, indicating that the maximum potential release at 0" from the pit is below all permissible and recommended exposure limits to protect public health and safety.

The regulation exercised by the NMOCD over waste water that *Controlled Recovery Inc.* is receiving is another consideration. Are the companies that are hauling this waste placarding it as a "poison gas"? I suspect not. If these wastes are not dangerous in transportation, then they would not, by definition, be dangerous during evaporation or disposal. And taking this line of reasoning back a step further, are the generating companies handling this produced water as if it contains dangerous quantities of poisonous gases? Are they monitoring their produced water tanks to determine whether they contain the 1 ppm of H_2S that the NMOCD is requiring *Controlled Recovery Inc* to monitor for? Oil producers and transporters which are within the city limits and adjacent to populated areas are not required to monitor at 1 ppm. They are not even required to perform continuous monitoring at the 10 ppm level. They are only required to restrict access and to provide signs warning of danger.

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It is my professional opinion that the 1.0 ppm level of monitoring that the NMOCD is asking for is unnecessary and overly burdensome. This monitoring level does not compare equitably with requirements placed upon other facilities with a far greater potential for H_2S release. Since the evaporation pond which *Controlled Recovery Inc.* maintains is not stratified, nor is it deep enough or stagnant enough to ever become stratified, there is no potential for anaerobic conditions to exist, and therefore no potential for the creation of H_2S such as might exist in a landfill or another facility. The only H_2S which could be released from the evaporation pond is that which is brought into the facility in solution (in the waste water). This H_2S would naturally seek equilibrium with the atmosphere, and thus be released slowly over time. For all of the above listed reasons, I see no necessity to monitor H_2S levels at the evaporation pond at *Controlled Recovery Inc.* And finally, given *Controlled Recovery Inc.*'s remote location and the negligible potential radius of exposure, I can see no public safety reason to perform any monitoring at all beyond routine personnel monitoring of your employees as they work directly with the waste water. It is my professional opinion that such monitoring is not necessary to protect public health and the environment.

It would certainly not be out of order to send a letter to the New Mexico Oil Conservation Division asking for a substantiation of these specific requirements and a detailed explanation as to what health concerns generated such rigid sampling levels.

If I can be of further service, please do not hesitate to call.

Thanks,

Dyke Browning - Registered Environmental Manager #7771
Certified Environmental Inspector #12441

Compliance Services

Phone (505) 391-7797 **Fax (505) 391-7954**
1220 N. Grimes, Hobbs, NM 88240 **Cell (505) 370-5924**

Dyke A. Browning is a Safety and Environmental Professional with over 15 years of experience in hazardous materials handling, chemical hygiene, occupational safety and health, hazardous waste operations, hazardous waste disposal, environmental cleanup and stewardship. He is a Registered Environmental Manager, and a Certified Environmental Inspector. Mr. Browning has an extensive background in the chemistry of hazardous materials, having served as a petrochemical service company laboratory manager for 7 years. Mr. Browning holds certifications in RCRA hazardous waste management, Land Ban, HAZWOPER (Level 5), First Aid and CPR, Substance Abuse, Radiation Safety, Continuous Improvement of Process, and others. Mr. Browning's academic and field experience have enabled him become a respected Safety, Health, and Environmental Trainer and consultant.

Education

Baylor University – Environmental Science Major
College of the Southwest – Bachelor of General Studies – (Biology,Business)

Registrations and Affiliations

- Trainer, Medic First Aid - International Registry # 17943, EMP America
- Member, National Environmental Training Association
- Member, Environmental Assessment Association
- Registered Environmental Manager #7771
- National Registry of Environmental Professionals
- Certified Environmental Inspector #12441 - Environmental Assessment Association
- Licensed Radiation Safety Consultant, State of New Mexico #399-6
- Corporate Representative, American Trucking Association
- Corporate Representative, National Fire Protection Association
- Corporate Representative, International Association of Drilling Contractors
- Corporate Representative, Association of Oilwell Service Contractor
- Professional Member - American Society of Safety Engineers
- Defensive Driving Instructor #45672 - National Safety Council

Experience

June 1999-Present	Compliance Services
1995-1999	Co-Owner, Safety & Environmental Solutions, Inc.
1993-1995	Environmental Specialist – Callaway Safety Equipment Co., Inc.
1985-1992	Laboratory Manager, Emergency Response Team - Unichem
1987-1992	Safety & Environmental Coordinator – Unichem International

Email = compliance@cleanweb.net
Website = http://members.cleanweb.net/compliance

III. Effects of H_2S

A. .13 p.p.m. -- *minimum level for odor to be detected*

B. 4.6 p.p.m. -- easily detectable

C. 100 p.p.m. -- begins to cause throat and eye irritation, odor will be undetectable after 2-15 minutes

D. 200-300 p.p.m. -- eye inflammation with extended (1 hour) exposure: dizziness, headaches, nausea

E. 300 p.p.m. -- threshold that can cause death--IDLH (Immediate Danger to Life and Health)

F. 500-700 p.p.m. -- can cause unconsciousness and death in 30 minutes to one hour

G. 700-1000 p.p.m. -- rapid unconsciousness, breathing stops and death occurs quickly.

H. 1000-2000 p.p.m. -- immediate unconsciousness, death in a few minutes. Death can occur even if removed to fresh air at once.

IV. Acceptable Working Limits

A. **Acceptable Ceiling Concentration.** The acceptable concentration for protection of health for an eight-hour, five day week shall be 15 p.p.m. Fluctuations are to occur below this concentration.

B. **Acceptable Eight-Hour Time-Weighted Average.** To avoid discomfort, the time-weighted average concentration of hydrogen sulfide shall not exceed 10 p.p.m.

C. P.P.M. = parts of gas per million-parts of air by volume. How little is 1 ppm of any gas?
   1. **If one inch would represent one p.p.m. of gas, this would be like comparing one inch in 15 1/2 miles in distance.**
   2. **If one second would represent one p.p.m. of gas, this would be like comparing one second in 11 1/2 days.**

D. H_2S disables breathing mechanisms.

D. If the oxidizing ability of the blood is reduced, H_2S will accumulate to dangerous levels. (This is why it is dangerous even at fairly low concentrations with time.)

E. Some time (24 hours) is needed to completely remove H_2S from your system.

F. **Physiological effects depend upon four factors.**
   a. **Duration of Exposure**
   b. **Frequency -- Time of previous exposures, effects residual in blood.**
   c. **Intensity -- Can cause peak blood concentrations above acceptable limits.**
   d. **Individual Susceptibility -- Blood breakdown rate of individuals may vary. "Outside" factors such as alcohol or drugs can drastically reduce tolerance to H_2S. Breathing problems such as asthma reduce available blood oxygen. Other health problems such as epilepsy, coronary diseases, and emphysema can limit ability to cope with H_2S exposure.**

Attachment #1

Federal Regulations - OSHA
29 CFR 1910.1000 Table Z-2 (excerpt 07/18/00)

TABLE Z-2

Substance	8-hour time weighted average	Acceptable ceiling concentration	Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift	
			Concentration	Maximum duration
Hydrogen sulfide (Z37.2-1966)	.....	20 ppm.....	50 ppm...	10 mins. once only if no other meas. exp. occurs.

Attachment #2

Attachment #3

National Toxicology Program Report on Carcinogens

- What is the Report on Carcinogens (RoC)?
- Q's & A's on the RoC
- 9th Report on Carcinogens
  - **Factsheet** - 9th Report on Carcinogens
  - **Factsheet** - Listing of Tamoxifen as a known human carcinogen in the 9th Report on Carcinogens
  - Reviews of Chemicals for the RoC, 9th Edition
- **What is under consideration for the RoC, 10th Edition**
- **Listing and Delisting Procedures**
- **Listing Criteria**
- **Call for Nominations to the NTP Report on Carcinogens**
- **The Report on Carcinogens Board Members & Meeting Minutes**
- **Ongoing Review of Process & Procedures:**
  - Notice: DHHS/PHS; National Institute of Environmental Health Sciences, National Toxicology Program; RE-SCHEDULED MEETING ON REPORT ON CARCINOGENS (RoC) -- National Toxicology Program Public Meeting to receive comment on the review procedures and listing criteria used in the preparation of the DHHS Report on Carcinogens (RoC); is re-scheduled from September 15 (see 64 FR 37992 or pdfversion*) to October 21 and 22, 1999, DoubleTree Hotel Rockville, 1750 Rockville Pike, Rockville, Maryland, beginning at 9 am.
    Dated: October 6, 1999 [Volume 64, Number 193]) (pdf version*)

    Transcripts from Public Meeting

  - **NTP's Response** to Public Comments and Discussion on the Preparation and Review of the RoC

Chemical name, structure/formula, CAS and RTECS Nos., and DOT ID and guide Nos.	Synonyms, trade names, and conversion factors	Exposure limits (TWA unless noted otherwise)	IDLH	Physical description	Chemical and physical properties: MW, BP, SOL, Fl.P, IP, Sp, Gr, flammability	VP, FRZ, UEL, LEL	Incompatibilities and reactivities	Measurement method (See Table 1)
Hydrogen sulfide H_2S 7783-06-4 MX1225000 1053 117	Hydrosulfuric acid, Sewer gas, Sulfuretted hydrogen 1 ppm = 1.40 mg/m³	NIOSH C 10 ppm (15 mg/m³) [10-min] OSHA† C 20 ppm 50 ppm (10-min max peak)	100 ppm	Colorless gas with a strong odor of rotten eggs. [Note: Sense of smell becomes rapidly fatigued & can NOT be relied upon to warn of the continuous presence of H_2S. Shipped as a liquefied compressed gas.]	MW: 34.1 BP: -77°F Sol: 0.4% Fl.P: NA (Gas) IP: 10.46 eV	VP: 17.6 atm FRZ: -122°F UEL: 44.0% LEL: 4.0% RGasD: 1.19 Flammable Gas	Strong oxidizers, strong nitric acid, metals	Char; NH_4OH/H_2O_2; IC; IV [#6013]
Hydroquinone $C_6H_4(OH)_2$ 123-31-9 MX3500000 2662 153	p-Benzenediol; 1,4-Benzenediol; Dihydroxybenzene; 1,4-Dihydroxybenzene; Quinol	NIOSH C 2 mg/m³ [15-min] OSHA 2 mg/m³	50 mg/m³	Light-tan, light-gray, or colorless crystals.	MW: 110.1 BP: 545°F Sol: 7% Fl.P: 329°F (Molten) IP: 7.95 eV Sp.Gr: 1.33 Combustible Solid; dust cloud may explode if ignited in an enclosed area.	VP: 0.00001 mm MLT: 338°F UEL: ? LEL: ?	Strong oxidizers, alkalis	Filter; CH_3COOH; HPLC/UVD; IV [#5004]
2-Hydroxypropyl acrylate CH_2=CHCOOCH$_2$CHCH$_3$ 999-61-1 AT1925000	HPA, ß-Hydroxypropyl acrylate, Propylene glycol monoacrylate 1 ppm = 5.33 mg/m³	NIOSH 0.5 ppm (3 mg/m³) [skin] OSHA† none	N.D.	Clear to light-yellow liquid with a sweetish, solvent odor.	MW: 130.2 BP: 376°F Sol: ? Fl.P: 149°F IP: ? Sp.Gr: 1.05 Class IIIA Combustible Liquid	VP: ? FRZ: ? UEL: ? LEL: 1.8%	Water [Note: Can become unstable at high temperatures & pressures or may react with water with some release of energy, but not violently.]	None available
Indene C_9H_8 95-13-6 NK8225000	Indonaphthene 1 ppm = 4.75 mg/m³	NIOSH 10 ppm (45 mg/m³) OSHA† none	N.D.	Colorless liquid. [Note: A solid below 29°F.]	MW: 116.2 BP: 359°F Sol: Insoluble Fl.P: 173°F IP: 8.81 eV Sp.Gr: 0.997 Class IIIA Combustible Liquid	VP: ? FRZ: 29°F UEL: ? LEL: ?	None reported [Note: Polymerizes & oxidizes on standing. It has exploded during nitration with (H_2SO_4 + HNO_3).]	None available

Personal protection and sanitation (See Table 3)	Recommendations for respirator selection — maximum concentration for use (MUC) (See Table 4)	Route	Symptoms (See Table 5)	First aid (See Table 6)	Target organs (See Table 5)
Skin: [illegible] Eyes: [illegible] Wash skin: N.R. Remove: When wet (flamm) Change: N.R. Provide: [illegible] [Hydrogen sulfide]	[illegible] PAPRS/GMFS/SA*/SCBAF §: SCBAF:PD,PP/SAF:PD,PP:ASCBA Escape: GMFS/SCBAE	Inh Con	Irrit eyes, resp sys; apnea, coma, convuls; conj, eye pain, lac, photo, corn vesic; dizz, head, fig; irrity, insom; GI dist	Eye: Frostbite Skin: Frostbite Breath: Resp support	Eyes, resp sys, CNS
Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contam Remove: When wet or contam Change: Daily Provide: Eyewash (>7%) [Hydroquinone]	NIOSH/OSHA 50 mg/m³: PAPRD£/HiEF/SAT:CF£/SCBAF/SAF §: SCBAF:PD,PP/SAF:PD,PP:ASCBA Escape: HiEF/SCBAE	Inh Ing Con	Irrit eyes; conj; kera; CNS excitement; colored urine, nau, dizz, suffocation, rapid breath; musc twitch, delirium; collapse; skin irrit, sens, derm	Eye: Irr immed Skin: Water flush Breath: Resp support Swallow: Medical attention immed	Eyes, skin, resp sys, CNS
Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: When contam Remove: When wet or contam Change: N.R. Provide: Eyewash, Quick drench [2-Hydroxypropyl acrylate]	TBAL	Inh Abs Ing Con	Irrit eyes, skin, resp sys; eye, skin burns; cough, dysp	Eye: Irr immed Skin: Soap flush immed Breath: Resp support Swallow: Medical attention immed	Eyes, skin, resp sys
Skin: Prevent skin contact Eyes: Prevent eye contact Wash skin: Daily Remove: When wet or contam Change: N.R. [Indene]	TBAL	Inh Ing Con	In animals: irrit eyes, skin, muc memb; derm, skin sens; chemical pneu (aspir liq); liver, kidney, spleen inj	Eye: Irr immed Skin: Soap wash Breath: Resp support Swallow: Medical attention immed	Eyes, skin, resp sys, liver, kidneys, spleen

NIOSH Pocket Guide to Chemical Hazards (June 1997)
U.S. Department of Health and Human Services
Public Health Service
Centers for Disease Control and Prevention
National Institute for Occupational Safety and Health

Attachment #4

CARDINAL LABORATORIES

PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603
PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
CONTROLLED RECOVERY, INC.
ATTN: DYKE BROWNING
1220 N. GRIMES
HOBBS, NM 88240
FAX TO: (505) 391-7954

Receiving Date: 07/14/00
Reporting Date: 07/18/00
Project Owner: KEN MARSH
Project Name: PRODUCED WATER EVAP. PIT
Project Location: 40 MILES W. OF HOBBS

Analysis Date: 07/14/00
Sampling Date: 07/14/00
Sample Type: WASTEWATER
Sample Condition: COOL & INTACT
Sample Received By: BC
Analyzed By: GP

LAB NUMBER	SAMPLE ID	SULFIDE (mg/L)
H5008-1	PRODUCED WATER PIT	6.8
Quality Control		NR
True Value QC		NR
% Accuracy		NR
Relative Percent Difference		NR

METHOD: EPA 600/4-020 376.2

Chemist

07/18/2000
Date

Attachment #7

PHOTO LOG A

Attachment #5

RULE 118. - HYDROGEN SULFIDE GAS - PUBLIC SAFETY (as of 3-1-91)

A. The intent of this rule is to provide for the protection of the public's safety in areas where hydrogen sulfide (H_2S) gas in concentrations greater than 100 parts per million (PPM) may be encountered.

B. Producing operations should be conducted with due consideration and guidance from American Petroleum Institute (API) publication "Conducting Oil and Gas Production Operations Involving Hydrogen Sulfide" (RP-55). The operator of a lease producing, or a gas processing plant handling H_2S or any other related facility where H_2S gas is present in concentrations of 100 PPM or more shall take reasonable measures to forewarn and safeguard persons having occasion to be on or near the property. In addition to training operator's employees in H_2S safety such measures may include, but are not necessarily limited to, posting of warning signs, fencing of surface installations, installation of safety devices and wind direction indicators, and maintaining tanks, thief hatches and gaskets, valves and piping in condition so as to prevent avoidable loss of vapors. Where release of hydrogen sulfide is unavoidable, the operator shall burn or vent the gas stream in such a manner as to avoid endangering human life.

C. Wells drilled in known H_2S gas producing areas, or where there is substantial probability of encountering H_2S gas in concentrations of 100 PPM or more, should be planned and drilled with due regard to and guidance from API RP-49 "Recommended Practices for Safe Drilling of Wells Containing Hydrogen Sulfide", latest edition. Wells completed and serviced by well servicing units where there is substantial probability of encountering H_2S gas in concentrations of 100 PPM or more should be worked on with due regard to the latest industry accepted practices. These practices may include, but are not necessarily limited to, the proper training of personnel in H_2S safety and the use of H_2S safety equipment as listed for safe operations by the American Petroleum Institute draft report for "Land, Oil and Gas Well Servicing and Workover Operations Involving Hydrogen Sulfide."*

D. Within ninety (90) days after completion of the first well on a lease, or within ninety (90) days after H_2S is discovered in a gas stream, each operator shall submit in writing to the Division's district office having jurisdiction, on a form acceptable to the Division, for each lease in each pool in production at that time, the H_2S concentration from an analysis of a representative sample of the gas stream. The analysis shall be performed by an industry-recognized method and procedure. The measurement report shall specify the name of the operator, lease or facility name, pool, testing point, tester, test method, and the measured H_2S concentration. Tests within the past three (3) years and which are still representative may be utilized for submittal from previously producing leases. NOTE: Owners or operators of existing wells and facilities shall have until July 1, 1987, to come into compliance with this paragraph of these rules.

E. (1) Any well, lease, processing plant or related facility handling H_2S gas with concentration of 500 PPM (0.05%) or more shall have a warning sign at the entrance. The sign, as a minimum, shall be legible from at least fifty (50) feet, and contain the words "poison gas." The use of existing signs will meet the requirements of this section providing they convey the intended safety message.

(2) Any lease producing gas or related facility having storage tanks containing gas with a H_2S concentration of 1,000 PPM (0.1%) or more shall have, in addition to the sign required in subparagraph E. (1), a sign at the foot of the battery stairway that shall accomplish the requirements of E. (1), plus specify any protective measures that may be necessary. This paragraph does not apply to gas processing plants.

(3) Any well, lease or processing plant handling gas with H_2S concentration and volume such that the H_2S fraction equates to 10 MCF per day or more of H_2S and which is located within one-fourth (1/4) mile of a dwelling, public place or highway shall install safety devices and maintain them in operable condition or shall establish safety procedures designed to prevent the undetected continuing escape of H_2S. Wind direction indicators shall be installed at at least one strategic location at or near the site and shall be readily visible throughout the site. Also, unattended surface facilities or plants within one-fourth (1/4) mile of a dwelling or public meeting place shall be protected from public access by fencing and locking, or other equivalent security means. In addition, the operator shall prepare a contingency plan to be carried out should the public be threatened by a release. The plan shall provide for notification of endangered parties, as well as public safety personnel, for evacuation of threatened parties as warranted, and institution of measures for closing in the flow of gas. Contingency plans shall be available for Division inspection and shall be retained at the location which lends itself best to activation of any such plan. The operator, as an alternative, may utilize Figure 4.1 of API (RP-55) Revised March, 1983 and if the 100 PPM radius of exposure includes a dwelling, public place or highway, the operator must meet the public safety requirements as specified in this section.

(4) The provisions of this section shall be applicable within 30 days after the filing of sample data showing the existence and concentration of H_2S gas described in paragraphs E. (1) through E. (3) above. In unusual circumstances guidance on placement and content of signs may be obtained from the supervisor of the appropriate Division District Office.

F. The Director of the Division may administratively grant exceptions or extensions to the requirements of this rule for good cause shown and where such exception will not result in a threat to human life.

*At such time as the American Petroleum Institute adopts the "Recommended Practice for Land Oil and Gas Well Servicing and Workover Operations on Involving Hydrogen Sulfide", it shall take the place of any previous draft

I. RECOMMENDATIONS FOR A HYDROGEN SULFIDE STANDARD

The National Institute for Occupational Safety and Health (NIOSH) recommends that worker exposure to hydrogen sulfide in the workplace be controlled by adherence to the following sections. The standard is designed to protect the health and to provide for the safety of employees for up to a 10-hour work shift, 40-hour workweek, over a working lifetime. Compliance with all sections of the standard should prevent adverse effects of hydrogen sulfide on the health and safety of workers. Techniques recommended in the standard are valid, reproducible, and available to industry and government agencies. Sufficient technology exists to permit compliance with the recommended standard. The criteria and standard will be subject to review and revision as necessary.

Hydrogen sulfide is a nearly ubiquitous, acute acting toxic substance. It is a leading cause of sudden death in the workplace. Brief exposures to hydrogen sulfide at high concentrations have caused conjunctivitis and keratitis, and exposures at very high concentrations, have caused unconsciousness, respiratory paralysis, and death. Conclusive evidence of adverse health effects from repeated, long-term exposure to hydrogen sulfide at low concentrations was not found. However, there is some evidence that hydrogen sulfide alone at low concentrations or in combination with other chemical substances (eg, hydrocarbons or carbon disulfide) has caused nervous-system, cardiovascular, and gastrointestinal disorders, and effects on the eyes.

Hydrogen sulfide is especially dangerous when it occurs in low-lying areas or confined workspaces or when it exists in high concentrations under

pressure. As a result, work practices, such as continuous monitoring and the use of specified respiratory protective equipment in certain work situations, are of great importance.

"Hydrogen sulfide" refers to either the gaseous or liquid forms of the compound. Synonyms for hydrogen sulfide include hydrosulfuric acid, sulfurated hydrogen, sulfur hydride, rotten-egg gas, and stink damp. "Occupational exposure to hydrogen sulfide" refers to any workplace situation in which hydrogen sulfide is stored, used, produced, or may be evolved as a consequence of the process. All sections of this standard shall apply where there is occupational exposure to hydrogen sulfide.

Section 1 - Environmental (Workplace Air)

(a) Concentration

Exposure to hydrogen sulfide shall be controlled so that no employee is exposed to hydrogen sulfide at a ceiling concentration greater than 15 mg of hydrogen sulfide per cubic meter of air (15 mg/cu m or approximately 10 ppm), as determined with a sampling period of 10 minutes, for up to a 10-hour work shift in a 40-hour workweek. Evacuation of the area shall be required if the concentration of hydrogen sulfide equals or exceeds 70 mg/cu m.

(b) Sampling and Analysis

Procedures for sampling and analysis of workplace air for the ceiling limit shall be as provided in Appendices I and II or by any other methods shown to be at least equivalent in precision, accuracy, and sensitivity to the methods specified.

PHOTO LOG A

7-11-2000

#1

CRI Sign at West Gate

#2

CRI Sign at East Gate

PHOTO LOG A

7-11-2000

#3

East Berm around Solids Area

#4

Existing Gate to Solids Area

PHOTO LOG A

7-11-2000

#5

Existing Dum Storage Area with Berm

#6

Tank Labels

PHOTO LOG A

7-11-2000

#7

Tank Labels

#8

Tank Labels

PHOTO LOG A

7-11-2000

#9

Drums with Scrap Materials

#10

250 BBL. Tank at Jet Out Area
No Hazards

PHOTO LOG A

7-11-2000

#11

Tank Labels

#12

Drip Containers at SWD
Note piping arrangement for emptying of container

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

September 13, 1990

CERTIFIED MAIL
RETURN RECEIPT NO. P-918-402-355

EXHIBIT "F"

Mr. Ken Marsh, President
Controlled Recovery, Inc.
P. O. Box 369
Hobbs, New Mexico 88241

RE: Landfarm Operation
Controlled Recovery Disposal Facility
Lea County, New Mexico

Dear Mr. Marsh:

The Oil Conservation Division (OCD) has reviewed your application for operation of an oilfield waste landfarm at your previously approved disposal facility located in Section 27, Township 20 South, Range 32 East, NMPM, Lea County, New Mexico.

Pursuant to OCD Rule 711 the landfarm operation is hereby approved. The landfarm will be constructed and operated pursuant to the terms and conditions contained in your application dated August 2, 1990 and in your information dated September 12, 1990 submitted as a supplement to the application.

Please be advised approval of this landfarm does not relieve you of liability should your operation result in actual pollution of surface or ground water or the environment actionable under other laws and/or regulations.

If you have any questions, please contact Roger Anderson at (505) 827-5884.

Sincerely,

William J. LeMay, Director

WJL/RCA/sl

cc: OCD Hobbs Office

ATTACHMENT I

COMMERCIAL SURFACE WASTE MANAGEMENT FACILITIES

Revised 6-4-99

SOUTHEAST

COMPANY	ORDER/PERMIT NO.	LOCATION	WASTE	DATE
C & C Landfarm Inc.	R-9769-A /NM-01-0012	S03 T20S R37E	LF	1993
Chaparral	NM-01-0024	S17 T23S R37E	PW TP	1995
Controlled Recovery Inc.	R-9166 / NM-01-0006	S27 T20S R32E	PW TP S LF M	1990
Environmental Plus Inc.	NM-01-0013	S15 T22S R37E	LF	1993
Gandy Corp.	R-4594 / NM-01-0025	S11 T10S R35E	PW TP	1973
Gandy Marley Inc.	NM-01-0019	S04 T11S R31E	LF	1995
GooYea	NM-01-0015	S14 T11S R38E	LF	1995
J&L Landfarm Inc.	NM-01-0023	S9 T20S R38E	LF	1999
Jenex Operating Co.	NM-01-0026	S14 T20S R38E	PW TP	1993
Kelly Maclaskey	NM-01-0027	S16 T20S R37E	PW TP	1992
Loco Hills Water Disposal	R-6811-A / NM-01-0004	S16 T17S R30E	PW TP	1982
Pool Co.	R-7333 / NM-01-0022	S3 T19S R37E PW	TP	1983
Rhino Environmental Inc	NM-01-0021	S11 T20S R38E	LF	1998
Sundance Services Inc.	R-6940 / NM-01-0003	S29 T21S R38E	PW TP S M	1982 1995
Watson	R-6095	S34 T08S R35E	TP	1979

PW - Produced Water
TP - Waste Oil Treating Plant
S -- Solids
LF - Landfarm (Solids)
M - Drilling Muds

NORTHWEST

Revised 6-4-99

Netting - Fial Dcision From OCD on Netting ✓ Separate Ite
CRI - Fish wli Fire Fire

Closer Plan - CRI ✓ ✓

Cost Est. - CRI ✓

Operational Issues Changes ☆ OCD Response .....

H2S Plan → Final Soppital of Plan in 1997 and its Adequacy.

✓ H_2S Requirement Plan Of Ken 1997

OCD Time Estimate to Lyn on Mondy...

Ken to →

CAMPBELL, CARR, BERGE
& SHERIDAN, P.A.
LAWYERS

MICHAEL B. CAMPBELL
WILLIAM F. CARR
BRADFORD C. BERGE
MARK F. SHERIDAN
MICHAEL H. FELDEWERT
TANYA M. TRUJILLO

JACK M. CAMPBELL
1916-1999

OIL CONSERVATION DIV.
00 JUL -7 PM 1:52

JEFFERSON PLACE
SUITE 1 - 110 NORTH GUADALUPE
POST OFFICE BOX 2208
SANTA FE, NEW MEXICO 87504-2208
TELEPHONE: (505) 988-4421
FACSIMILE: (505) 983-6043
E-MAIL: law@westofpecos.com

July 7, 2000

VIA HAND DELIVERY

Lori Wrotenbery, Director
Oil Conservation Division
New Mexico Department of Energy, Minerals and Natural Resources
2040 South Pacheco Street
Santa Fe, NM 87505

Re: OCD Rule 711 Permit Approval (NM-01-0006); Controlled Recovery, Inc.; Commercial Surface Waste Management Facility; S/2 N/2 and the N/2 S/2 Section 27, Township 20 South, Range 32 East, NMPM; Lea County, New Mexico

Dear Ms. Wrotenbery:

Your July 3rd letter issuing a new permit to Controlled Recovery Inc. ("CRI") requests return of a signed copy of the conditions of approval "within five working days of receipt" of your letter. Please realize CRI cannot possibly evaluate the twelve pages of conditions within your proposed time frame. CRI therefore requests 30 days to review the proposed conditions and identify the areas of disagreement. After that time, CRI would like to schedule a meeting with you and your staff to discuss the issues.

CRI understands that similarly situated waste management facilities have been afforded the opportunity to be heard on the bonding, netting, and other requirements of their proposed permits with the Division. CRI is entitled to the same due process rights and will act to protect those rights.

Please inform our office if our request for an extension of time is not acceptable.

Sincerely,

Michael H. Feldewert

MHF/ras
cc. Martyne Kieling
Ken Marsh, Controlled Recovery, Inc.

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

MEMORANDUM OF MEETING OR CONVERSATION

____Telephone ____Personal Time 12:35 Date 7-7-00

Originating Party: Marilyn Kieling

Other Parties: Michael Feldmann

Subject: 30 day Extension Request For Permit to allow time to Review it.

Discussion: Will Send a written Request.

Ken will then Probably Want to Come Discuss the Permit with OCD & Lori.

Possibly Have Quest Concerns over ~~$250~~.000 Bond and Netting

Conclusions or Agreements: Will Probably Get extension

No Problem

Distribution

Signed Marilyn J Kieling

Microsoft TerraServer Display Image USGS Aerial Photograph

47 km E of Carlsbad, New Mexico, United States 22 Oct 1996

USGS
science for a changing world

0 100M 0 100yd

Microsoft TerraServer Display Image USGS Aerial Photograph

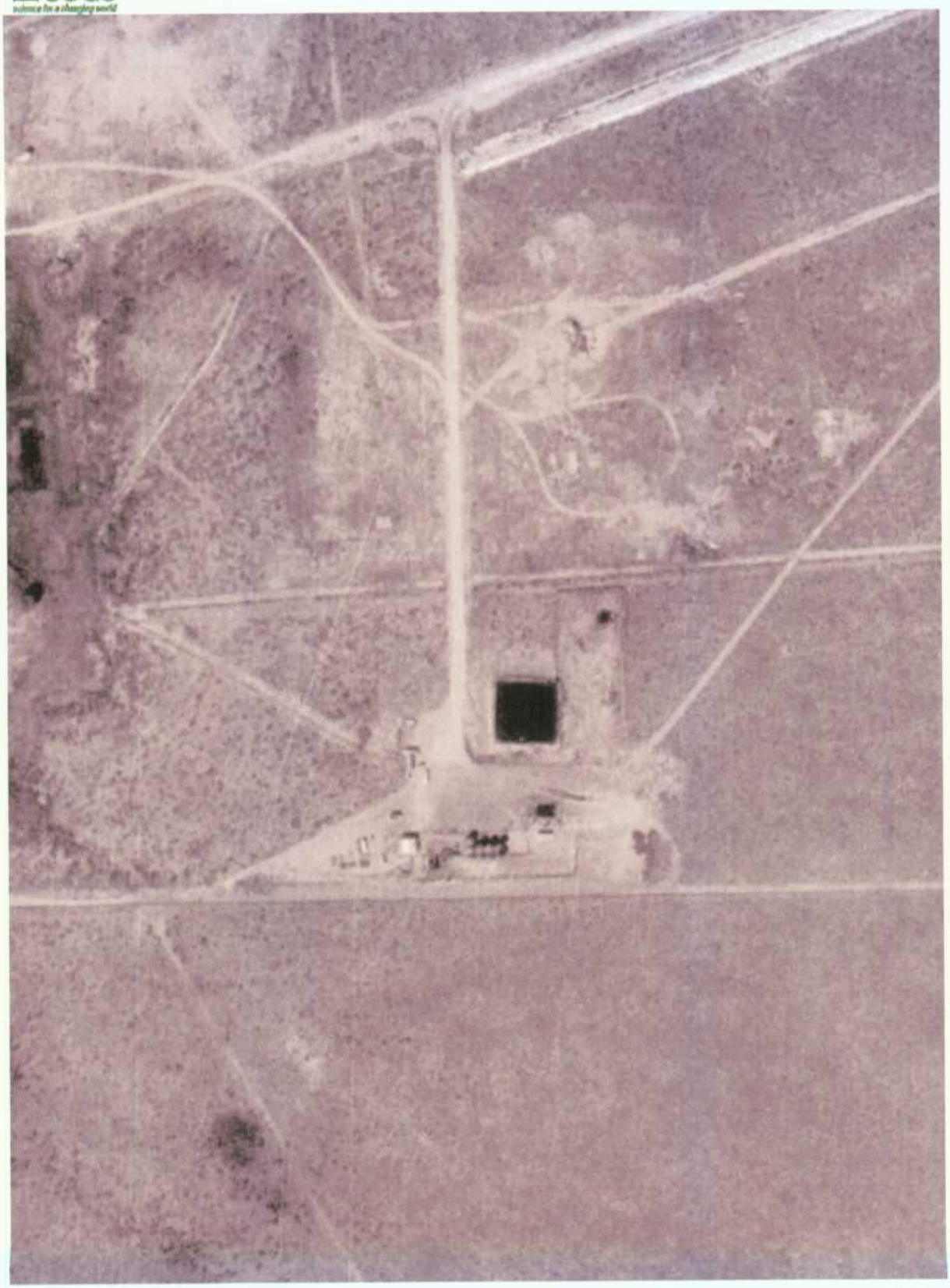
46 km E of Carlsbad, New Mexico, United States 22 Oct 1996

USGS
science for a changing world

Microsoft TerraServer Display Image USGS Aerial Photograph

47 km E of Carlsbad, New Mexico, United States 22 Oct 1996

USGS



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

March 4, 1996

CERTIFIED MAIL
RETURN RECEIPT NO. Z-765-962-618

Mr. Art Hilliker, General Manager
Controlled Recovery, Inc.
PO Box 369
Hobbs, New Mexico 88241

Re: Drum Disposal
CRI Waste Management Facility
Lea County, New Mexico

Dear Mr. Hilliker:

It has come to the attention of the Oil Conservation Division (OCD) that Controlled Recovery, Inc. (CRI) has received for disposal drums that are either empty or function as the container for solid waste approved to be disposed of at the CRI waste management facility. The OCD has developed the following policy for disposal of drums.

> All drums containing waste for delivery to CRI's waste management facility must receive prior OCD approval if the drums are to be disposed of in conjunction with the associated waste(s). All drums will be triple rinsed prior to disposal at the facility and a "Generators Statement" that all associated drums have been triple rinsed and are therefore considered EPA clean. The "Generators Statement will be included with the C-138 package. All drums will be crushed prior to disposal.

Any C-138 requesting authorization to dispose of empty drum(s) must be accompanied with the same "Generators Statement". In addition, the drums must be oil field waste, this is not authorization or procedure to dispose of any non-oil field drums .

If you have any questions, please do not hesitate to call me at (505) 827-7152 or Chris Eustice at (505) 827-7153.

Sincerely,

Roger C. Anderson, Chief
Environmental Bureau

xc: OCD Artesia Office
OCD Hobbs Office
OCD Aztec Office

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

New Mexico DRUG FREE It's a State of Mind!

BRUCE KING
GOVERNOR

May 15, 1992

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

CERTIFIED MAIL
RETURN RECEIPT NO. P-670-683-592

Mr. Ken Marsh
Controlled Recovery Inc.
P.O. Box 369
Hobbs, New Mexico 88241

RE: **Fluids from Underground Storage Tanks Remediations**
Controlled Recovery Inc. Disposal Facility
Lea County, New Mexico

Dear Mr. Marsh:

The Oil Conservation Division (OCD) has received your request, dated May 12, 1992, to accept fluids from underground storage tank (UST) remediation sites for disposal at your facility.

Because these materials are exempt from RCRA Subtitle C regulations, the OCD approves your request to accept fluids from UST sites. Prior to accepting any fluids, the OCD requires Controlled Recovery Inc. (CRI) to obtain a signed statement from the New Mexico Environment Department (NMED) verifiying that the fluids are from UST remediation sites that are exempt from RCRA Subtitle C regulations. CRI must obtain an individual statement from the NMED for each site where fluids are received from. The OCD requires CRI to maintain these records on file at the facility. Note that this approval is only for fluids from UST sites and does not apply to soils.

If you have any questions, contact me at (505) 827-5884.

Sincerely,

Kathy M. Brown

Kathy M. Brown
Geologist

xc: Jerry Sexton, OCD Hobbs Office
Mike Williams, OCD Artesia Office
Chris Eustice, OCD Hobbs Office

STATE OF NEW MEXICO

OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☑ Telephone ☐ Personal	Time	Date
	330 pm	4-6-95

Originating Party	Other Parties
Chris Eustice - OCD	Annette Curiel - CRI

Subject: Disposal of UST fluids at CRI (ATTACHMENT)

Discussion:

Annette faxed a request for clarification as to whether or not CRI can accept fluids associated w/ UST remediations.

Conclusions or Agreements:

I told Annette 'No'!
Pursuant to OCD 93 directive

Distribution:

Signed Chris Eustice

Submit 4 Copies
to Appropraite
District Office

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSE... N DIVISION
...ED
'91 JUL ... AM 10 02

Form C-134
Aug. 1, 1989

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Permit No. H-76
(For Division Use Only)

APPLICATION FOR EXCEPTION TO DIVISION ORDER R-8952
FOR PROTECTION OF MIGRATORY BIRDS Rule 8(b), Rule 105(b), Rule 312(h), Rule 313, or Rule711(I)

Operator Name: Controlled Recovery Inc (CRI)

Operator Address: P.O. Box 369 Hobbs, NM 88241

Lease or Facility Name Halfway Location ____ 27 20S 32E
Ut. Ltr. Sec. Twp. Rge

Size of pit or tank: large

Operator requests exception from the requirement to screen, net or cover the pit or tank at the above-described facility.

____ The pit or tank is not hazardous to migratory waterfowl. Describe completely the reason pit is non-hazardous.

The pit contains only production water.

1) If any oil or hydrocarbons should reach this facility give method and time required for removal:

Within 24 hours, plant employees will remove oil by use of vacuum truck.

2) If any oil or hydrocarbons reach the above-described facility the operator is required to notify the appropriate District Office of the OCD with 24 hours.

____ Operator proposes the following alternate protective measures: All production water goes through a tank skimming process then into a 30'x40' safety pit then enters open pits which are flagged.

CERTIFICATION BY OPERATOR: I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature [signature] Title President Date July 15, 1991

Printed Name Ken Marsh Telephone No. (505) 393-1079

FOR OIL CONSERVATION DIVISION USE

Date Facility Inspected ____

Inspected by ____

Approved by ORIGINAL SIGNED BY JERRY SEXTON
DISTRICT I SUPERVISOR

Title ____

Date JUL 30 1991

CRI
CONTROLLED RECOVERY INC.
P.O. BOX 369, HOBBS, NM 88241 (505) 393-1079

August 22, 1997

Martyne J. Kieling
New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505

Re: Controlled Recovery, Inc.
S/2 N/2 and the N/2 S/2 of Sec. 27, Twn. 20 S, Rng. 32 E, NMPM
Lea County, New Mexico
Order No. R 9166

Dear Ms. Keiling,

I am responding to your letter of June 27, 1997 in reference to the above inspection.

1.) Empty Drums will be stored in an area isolated from other materials and active disposal and treatment operations. Estimated completion date December 1997.

2.) No response necessary.

3.) Tanks will be labeled and bermed as necessary. Estimated completion Date December 1997.

4.) OCD Rule 711 C. 8 provides for an exception for a facility. This exception has been requested and granted. See attached.

5.) Fuel tanks that do not have containment will be bermed. There is no ground water to be protected at the site. Estimated completion date December 1997.

6.) Tanks will be labeled. Estimated completion date December 1997.

7.) The tank at the wash out area is inside a disposal pit. The tank is not buried – one end is open for inspection. The tank is cleaned as needed approximately every sixty days and any damage would be observed in the cleaning operation – any leaks would flow into the approved disposal pit.

8.) Any underground lines will be pressure tested prior to being placed in service.

9.) No response needed.

10.) See item # 1.

11.) No response needed

12.) No response needed.

13.) No response needed.

14.) No response needed.

15.) CRI is not required to file a C137 as CRI is not permitting a new facility or modifying the existing facility approved by order No. R1966. CRI will be responsive to all requests for information from the OCD, as has been our past policy.

A.) Controlled Recovery, Inc.
Ken Marsh President
Johnny Cope Secretary
P.O. Box 369
Hobbs, New Mexico 88241

B.) No response required.

C.) No response required.

D.) CRI will furnish updated site information. Estimated completion date December 1997.

E.) No response required.

F.) CRI performs inspection tour every business day and has numerous employees on site that are required to report any spills or releases. Any spills, releases or cleanups that require reporting to the OCD will be done within OCD's requirements.

G.) CRI requires exempt and non-exempt waste certification, C138 for non-exempt waste, C117 as required, facility employees are trained in acceptance procedures, OCD Rule 711 and company policy. All shipment documents are reviewed by two employees in our business office one of whom is the compliance officer. CRI has been briefed by Wayne Price (OCD Hobbs) on these procedures and communicates regularly with Mr. Price concerning waste shipments. Please see 15 (F).

H.) CRI employees wear H2S monitors when in areas that H2S may be present. No employees are allowed into tanks without confined entry training with all the necessary equipment. Customers, drivers, and service personnel are not allowed to enter their own truck tanks without the proper equipment and training. Employees undergo H2S training course with approved instructors. CRI conducts safety meetings. CRI has H2S plan in company handbook. (copy enclosed)

I.) A closure plan is attached.

J.) No response is required.

L.) I certify that the above information is true, accurate, and complete to the best of my knowledge.

Sincerely,

Ken Marsh

25.0 Hydrogen Sulfide Safety (H_2S)

25.1 Hydrogen Sulfide (H_2S) is a highly toxic and colorless gas. In concentrations as low as 1000 ppm, or 1/10 of 1%, it can cause unconsciousness, breathing to stop, and death in a few minutes. Even low concentrations can affect the eyes and the respiratory system.

25.1.1 When the amount of H_2S gas absorbed into the blood system exceeds that which the blood system can oxygenize, systemic poisoning occurs, creating an effect on the central nervous system. Labored respiration occurs shortly and respiratory paralysis will follow immediately at concentrations of 700 ppm and above. Death will occur by asphyxiation unless the exposed person is removed immediately to fresh air and breathing is stimulated by artificial resuscitation.

25.2 There are many hazards associated with H_2S. In addition to asphyxiation, exposures to H_2S may result in eye disorders, heart disorders, and nerve disorders.

25.2.1 Symptoms of low level exposure may include one or more of the following, increasing with length of exposure:

25.2.1.1 Fatigue.

25.2.1.2 Irritation to Eyes.

25.2.1.3 Headache.

25.2.1.4 Dizziness.

25.2.1.5 Excitement.

25.2.1.6 Coughing.

25.2.1.7 Drowsiness.

25.2.1.8 Nausea.

25.2.1.9 Sensation of pain in nose, throat, and chest.

25.2.2 Another characteristic of H_2S is its offensive odor of rotten eggs. However, H_2S rapidly deadens your sense of smell, so odor is a very unreliable means of detection. Due to its rapid effects, H_2S is considered one of the most dangerous industrial gases.

25.3 H_2S is found in a variety of industries. However, CRI is concerned foremost with operations associated with services provided for the oil & gas industry. H_2S gas may be found in many facets of production, including but not limited to, well heads, storage tanks, pipelines, treating equipment, and even low lying areas such as pits or cellars.

25.4 The characteristic properties of H_2S are:

25.4.1 Odor. Very offensive, commonly referred to as the odor of rotten eggs.

25.4.2 Color. H_2S is colorless.

25.4.3 Flammability. H_2S is highly flammable and burns with a blue flame.

25.4.4 Explosive Limits. 4.3% to 46% by volume in air. H_2S forms explosive mixtures with oxygen.

25.4.5 Vapor Density is 1.189 (air = 1). H_2S is heavier than air and will settle in low lying areas unless disbursed.

25.4.6 Solubility. H_2S is water soluble.

25.4.7 Corrosive. H_2S is highly corrosive to certain metals.

25.4.8 Ignition Temperature. 500 degrees F.

25.4.9 Boiling Temperature. 76 degrees F.

25.4.10 When burned, H_2S burns with a blue flame and produces another poisonous gas, Sulfur dioxide (SO_2). Sulfur dioxide is toxic, very irritating to eyes and lungs, and can also cause serious injury or death.

25.5 The effects of H_2S depend on the following factors:

Duration: The length of time an individual is exposed.

Frequency: How often an individual has been exposed.

Intensity: The dosage or concentration of exposure.

Individual Susceptibility: The individual's physiological make-up.

25.5.1 Symptoms of H_2S exposure vary considerably due to an individuals physiological make-up. Studies indicate that some people are more susceptible than others to exposure at the same levels of exposure. Factors that may effect susceptibility are but not limited to the following: previous exposure, some types of health problems, alcoholism or psychiatric problems. Some individuals' previous exposure may increase their susceptibility rather than build up a tolerance to H_2S. Health problems reducing tolerance might be such problems as a perforated ear drum, emphysema, angina pectoris, myocardial infarction of progressive or severe hypertension, diabetes, Grand Mal epilepsy, eye infections, or anemia. A perforated ear drum would allow air passage into the respiratory tract through the Eustachian tube. Alcoholics and individuals who have consumed alcohol within 24 hours of exposure and persons having psychiatric problems are at risk at any level of H_2S exposure.

25.5.1.1 The following table indicates normal effects on humans at specified concentration levels. Persons with the above mentioned factors may be more quickly or more intensely affected by exposure to levels as listed.

Amount of H_2S	Effect
10 ppm	Unpleasant odor, safe for eight hour exposures.
100 ppm	Kills sense of smell in three to five minutes. May cause eyes and throat to sting.
200 ppm	Kills sense of smell rapidly. Stings eyes and throat.
500 ppm	Dizziness, loss of reasoning ability, breathing paralyzed within 30 minutes,
	artificial respiration required at once.
1000 ppm	Unconsciousness at once, followed by death within minutes

25.6 Areas where H_2S may be present or suspected shall be periodically tested to determine employee exposure to H_2S. Testing should be repeated when a change occurs that could have an effect on H_2S concentrations.

25.6.1 No CRI employee shall enter an area where H_2S levels are or may reasonably be expected to be greater than 10 ppm by volume in air, without satisfying the requirements established in this section and approval from management.

25.7 Training shall be provided for each employee required to work in environments that may be or suspected to be an H_2S containing environment. Training will be given prior to assignment and shall consist of the following:

25.7.1 Hazards and characteristics of both H_2S and SO_2.

25.7.2 Toxicity and properties of H_2S and SO_2.

25.7.3 H_2S detection devices and their use.

25.7.4 Respiratory Protection. Its use and limitations.

25.7.5 Exposure levels an symptoms of exposure.

25.7.6 First Aid and equipment of rescue.

25.7.7 The "Buddy System" and emergency procedures including rescue and evacuation procedures.

25.7.8 H_2S alarms and contingency plans.

25.7.9 Site specific planning development

25.7.10 Training shall be documented and maintained for permanent record.

25.7.11 Refresher courses shall be conducted annually.

25.8 Protective breathing equipment (respirators) are required in an environment exceeding 10 ppm H_2S content. Two common types suitable for use in H_2S environments are the self contained breathing apparatus (SCBA) and supplied air or airline respirator.

25.8.1 Personnel required to use respirator protection devices shall be examined by a physician to determine the individuals physical ability to perform work while wearing a respirator. (See Respirator Program Section 8 of this manual.)

25.8.2 Respirators require a "facial seal" to be effective. This following is a list of items that could prevent a respirator mask from sealing.

25.8.2.1 Beard or long facial hair.

25.8.2.2 Long or bushy sideburns.

25.8.2.3 Hair down on forehead.

25.8.2.4 Eyeglass temples protruding past seal on mask.

25.8.2.5 Facial scars.

25.8.2.6 See Respirator Program Section 8 of this manual for additional information and fit testing instructions.

25.9 Detection devices and alarms are essential instrumentation for H_2S operations. There are a variety of detection devices available for use. However, two main types are commonly used, mechanical detectors and electronic detectors.

25.9.1 Testing shall be performed in areas designated as H_2S areas or areas suspected to contain H_2S and incoming tank tracks prior to the acceptance of each load. Air supplied full-face or self-contained breathing apparatus may be required for respiratory protection when performing testing as determined by management.

25.9.2 Anytime a situation requires the use of a hand held detection device. Respiratory protection must be available for immediate use if needed.

25.9.3 Detection alarm systems are installed on many permanent sites where a continuous possibility of encountering H_2S is possible. These electronic detection units continuously monitor the area in which the sensor heads are located, whether stationary or portable. It is important to find out what the alarms and settings are for each permanent system. Regardless of the cause of the alarm, you should treat every alarm as real until proven otherwise.

25.10 Wind direction consciousness is important at all times. Because H_2S is heavier than air, you should remain upwind from a source of H_2S. In the event of an alarm, you should move upwind, or crosswind away from the source and uphill if possible. Unless dispersed, H_2S will remain concentrated, so you must avoid low lying areas.

25.10.1 You should be familiar with wind socks and wind direction indicator locations and use them to maintain an upwind position.

25.11 Briefing areas and escape routes should be set up according to wind direction. a minimum of two briefing areas are required at least 250 feet away from well heads. At least one briefing area should be upwind at all times. Briefing areas shall have a sign prominently displayed and visible from anywhere on the site. Briefing areas are numbered and are to be used as refill stations for SCBAs. All personnel shall go to the briefing area upwind, as indicated by wind direction devices, in the event of an alarm.

25.12 Condition signs are commonly used to communicate the current conditions at most well sites containing H_2S. They will generally be colored flags displayed on a large sign and consist of three different colors to indicate the condition stage.

Stage #1	Green Flag	Normal Conditions.
Stage #2	Yellow Flag	There is a possibility of encountering H_2S or it has already been encountered in small quantities (1 ppm to 20 ppm).

Stage #3	Red Flag	Extreme Danger. Special operations are being done or there is a real possibility of encountering H_2S in harmful quantities (over 20 ppm).

25.12.1 Do not approach an H_2S location without proper authorization and a breathing apparatus while the red flag is displayed.

25.13 Escape and rescue should be the first consideration when arriving on a H_2S site. You should first note the location of windsocks, H_2S alarms, briefing areas, and escape routes. In addition, check in with the safety supervisor or proper company representative and be assigned a "buddy".

25.13.1 The procedures to be followed during your activity on location are:

25.13.1.1 Always know where your "buddy" is and make certain he knows where you are.

25.13.1.2 Always have your assigned breathing apparatus readily accessible and ready for use.

25.13.1.3 Should alarms sound, don breathing apparatus and go immediately to the "safe" upwind briefing area.

25.13.1.4 Stay constantly aware of wind direction.

25.13.1.5 Before you attempt to assist someone else, make positively sure that you are adequately protected yourself.

25.13.1.6 Should a rescue be required, you should attempt to drag the victim by grabbing his shirt collar and supporting the head. If clothing is unsuitable as a handhold, the victims arms may be stretch above the head, crossing the wrists, and use the arms to drag the victim. Be certain to support the victim's head.

25.13.1.6.1 Rescue by lifeline is another method were several people from a clear area can pull the victim out while a person wearing SCBA equipment supports the victim's head.

25.14 Contingency planning should be performed and available to all personnel. Some items covered in contingency plans are listed below:

25.14.1 General Information and Physiological response to H_2S and SO_2 exposure.

25.14.2 Safety Procedures, Equipment, Training and Smoking Rules.

25.14.3 Procedures for operating conditions.

25.14.3.1 Normal operations

25.14.3.2 Potential Danger

25.14.3.3 Extreme Danger

25.14.4 The responsibility of personnel for each operating condition.

25.14.5 Designation of "Safe" briefing areas.

25.14.6 Designation of escape routes.

25.14.7 Evacuation plan including alarm system explanation.

25.14.8 Agencies to be notified in the event of an emergency. Includes definitions of emergencies at varying degrees.

25.14.9 A list of all residents, their location and phone numbers within a two mile radius of exposure.

25.14.10 A layout of rig, location and its proximity to local maps and topography sketch.

25.15 All personnel should read and become familiar with the contingency plan and be prepared to follow its procedures during an actual release of H_2S.

25.16 Each individual assigned to work in a H_2S area, as a portion of this necessary training should be trained in first aid and CPR. Each individual should review first aid and CPR guidelines and procedures at the start of each operation.

CRI
CONTROLLED RECOVERY INC.
P.O. BOX 369, HOBBS, NM 88241 (505) 393-1079

Item 1 closure plan

1.) Lock gate, post closed and no trespassing signs.

2.) Remove fluids from tanks to evaporation ponds or drying pits, drain all lines.

3.) Allow all fluids to evaporate and solids dry.

4.) Remove all contaminated residue from pits, tanks, and ponds to landfill.
Cap landfill with 18" cap with drainage design to flow away from landfill area.

Cost (1.)	$30.00	$30.00
(2.)	Vacuum truck 20 hours @ $61.00 /hr	$1220.00
(3.)	See attached bid Mid Tex Construction Co.	$23200.00
(4.)	Roustabout crew and dump truck to remove solids from tanks to landfill. Five days at $875.00 per day.	$4375.00
	Total	**$28825.00**

This closure plan will protect public health and the environment, as required by Rule 711. The remaining facilities and equipment can be used by the landowners for other purposes.

MID-TEX CONSTRUCTION COMPANY
P. O. BOX 3047 • PHONE 381-2710
ODESSA, TEXAS 79760

August 15,1997

Controlled Recovery, Inc.
P. O. Box 369
Hobbs, New Mexico 88241
Attn: Ken Marsh

Dear Mr. Marsh,

Per your request, I visited the Controlled Recovery, Inc. facility and offer the following assumption and estimates for closure. All pit residue will be stirred and dried to a state suitable for transportation by dump truck. I estimate that 200 cubic yards of material will be removed from each of the 12 surface inpoundments. After each impoundment has been cleaned, all berm soil will be pushed in and graded for proper drainage.

The large pit on the West Side will have the residue and contaminated soil transported to the landfill. The storage pit at the treating plant will have the residue hauled to the landfill and the berm pushed in and graded for proper drainage.

The landfill will be capped with 18" of virgin soil and graded for proper drainage.

Cost using current pricing would be as follows:

A.)	12 surface inpoundments	
	Stabilize residue	$6000.00
	Transport to land fill	$4800.00
	Closure	$6000.00
B.)	West Side pit	
	Stabilize residue	$800.00
	Transport to land fill	$1200.00
C.)	Storage pit treatment plant	
	Stabilize residue	$800.00
	Transport to landfill	$1200.00
	Closure	$400.00

MID-TEX CONSTRUCTION COMPANY
P. O. BOX 3047 • PHONE 381-2710
ODESSA, TEXAS 79760

D.)	**Landfill** **Cap with soil and graded for** **Proper drainage**	**$2000.00**
Total		**$23200.00**

CRI
CONTROLLED RECOVERY INC.
P.O. BOX 388, HOBBS, NM 88241 (505) 393-1079

December 7, 1999

Mr. Roger Anderson
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87504

RE: Controlled Recovery, Inc. Order
R-9166

Dear Sir:

Controlled Recovery, Inc. would like to accept material for recycling in our treating plant that will have refined products, such as diesel and gasoline. The material will be a mixture of product and BS&W. The source will be from spill recovery, bottoms of storage tanks and other occurrences of fuel contamination.

The recycled product will be blended with crude oil recovered from our plant to achieve a more salable product.

Please call if I may provide additional information.

Sincerely,

Ken Marsh

CRI
CONTROLLED RECOVERY INC.
P.O. BOX 388, HOBBS, NM 88241 (505) 393-1079

November 18, 1999

State of New Mexico
Energy, Minerals and Natural Resources Department
2040 South Pacheco
P. O. Box 6429
Santa Fe, NM 87505-5472

Please change our address to the following:

Controlled Recovery, Inc.
P. O. Box 388
Hobbs, NM 88241-0388

Sincerely,

Kath Harper

Kath Harper
Bookkeeper

CRI
CONTROLLED RECOVERY INC
P.O. BOX 388, HOBBS, NM 88241 (505) 393-1079

November 2, 1999

Martyne J. Kieling
NMOCD
2040 South Pacheco St.
Santa Fe, NM 87505

RE: Request for information, Controlled Recovery, Inc., September 13, 1999

Dear Ms. Kieling:

Per your request:

#1	Inspection and skim pit for SWD
#2	Jet pit - truck, frac tank washout
#3	Evaporation pond - drilling mud, sediment from SWD
#4,5,6.7,8,9,10	Exempt solids/ liquid for drying
#11,12	Non-exempt solids/liquids for drying
#13	Tank bottoms BS&W storage for processing
#15	Solid waste pit exempt and non-exempt
#16,17	Solid material for processing

The entire facility is designated as land farm area - there is no active land farming at this time.

Please call if I may provide additional information.

Sincerely,

Ken Marsh

CRI
CONTROLLED RECOVERY INC.

P.O. BOX 388, HOBBS, NM 88241 (505) 393-1079

September 17, 1999

CERTIFIED MAIL
RETURN RECEIPT NO. P-209-876-330

Martyne J. Kieling
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, NM 87505

RE: Request for information
September 13, 1999

Dear Ms. Kieling:

Controlled Recovery, Inc. has submitted all information and financial assurance required by Rule 711, and is, therefore, in compliance with the rule.

CRI does not request, and is not required, to be "re-permitted," but applauds your diligence in enforcing rules of the OCD and protection of public health and the environment.

CRI will provide you with additional information to assist you in updating your files, as we have always done in our ongoing spirit of cooperation.

This information will be forwarded to you under separate letter, as our work schedule permits.

If you have any questions, please do not hesitate to contact me at (505) 393-1079.

Sincerely,

Ken Marsh

CC: NMOCD
Hobbs, NM

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

September 13, 1999

CERTIFIED MAIL
RETURN RECEIPT NO. P-326-936-576

Mr. Ken Marsh
Controlled Recovery, Inc.
P.O. Box 388
Hobbs, NM 88241

RE: Request for Information
Controlled Recovery, Inc.
Commercial Surface Waste Management Facility
S/2 N/2 and the N/2 S/2 Section 27, Township 20 South, Range 32 East, NMPM
Lea County, New Mexico

Dear Mr. Marsh:

The New Mexico Oil Conservation Division (OCD) is requesting additional information in order to proceed with the re-permitting of Controlled Recovery, Inc. (CRI) commercial surface waste management facility at the above location. Pursuant to Order R-10411-B the OCD Rule 711 has been revised. The OCD is currently in the process of re-permitting all surface waste management facilities under the new Rule 711. CRI treating plant is included under the new Rule 711. A permit application, Form C-137, shall be filed with the OCD.

The OCD has reviewed the CRI file and information dated August 22, 1997 and February 5, 1998. To be able to complete the re-permitting process the OCD requires the following information:

1. Form C-137 parts 1, 2, 3, 4, 5 (facility site only), and 15;

2. A detailed description of the type of waste or recyclable material that is handled at each pit, pond, tank, or storage location. Please be specific about which wastes (produced water, tank bottoms, sump sludge, drilling mud, solid waste, *etc...*) are handled at each location outlined in your letter and map dated February 5,1998 (see attachment);

3. Location #3 and #15 on the attached map are listed as solids pits. OCD field notes have location #3 as a produced water evaporation pond and 15 as a solid waste landfill. Please clarify the type of waste that is handled in these locations;

4. Locations #4, 5, 6, 7, 8, 9, 10, 11, and 12 are listed as evaporation areas. Please clarify the type of waste that is handled in these locations;

5. Location #13, 16, and 17 are listed as storage areas. OCD field notes have locations #16 and 17 as closed. Please clarify and list the type of waste stored in these locations; and

6. The landfarm was not located on the attached map. Please clarify if landfarming is performed at CRI. Please locate the landfarm on a map of the facility.

CRI shall provide the OCD with the requested information by **October 1, 1999.**

If you have any questions please do not hesitate to contact me at (505) 827-7153.

Sincerely,

Martyne J. Kieling
Environmental Geologist

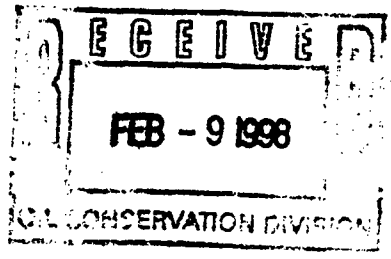
Attachments
xc: Hobbs OCD Office

CRI

CONTROLLED RECOVERY INC.

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

February 5, 1998



Martyne J. Kieling
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87504

Re: Controlled Recovery, Inc. Order No. R9166

Dear Ms. Kieling,

Enclosed please find plot of Controlled Recovery, Inc. facility with attachments.

Please contact me if I may be of further assistance.

Sincerely,

Ken Marsh

CRI

CONTROLLED RECOVERY INC.

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

1 SWD

2 Jet Pit

3 Solids Pit

4, 5, 6, 7, 8, 9, 10, 11, and 12 Evaporation areas

13 Storage Pond above ground

14 Treating Plant See attachment

15 Solids Pit

16 Storage

17 Storage

18 Security

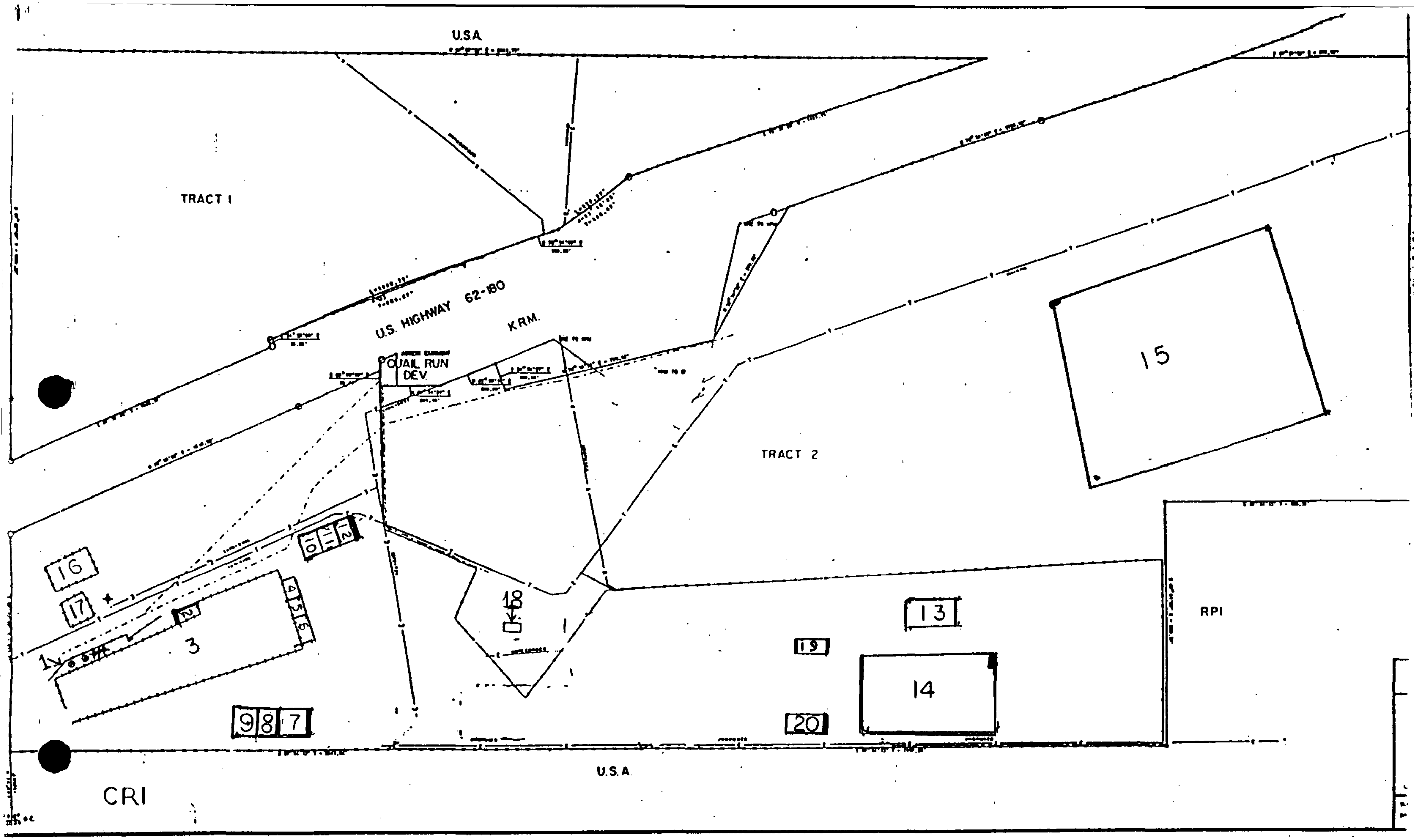
19 Laboratory & Office

20 Boiler

CONTROLLED RECOVERY, INC.

NORMS - NEW MEXICO

SITE PLAN AND EQUIPMENT LAYOUT


U.S.A.
TRACT 1
U.S. HIGHWAY 62-180
K.R.M.
QUAIL RUN DEV.
TRACT 2
15
16
17
1
2
3
4
5
6
10
11
12
18
13
19
14
9
8
7
20
RPI
U.S.A.
CRI

30-5704

CRI

CONTROLLED RECOVERY INC.

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

April 7, 1997

Mr. Jerry Sexton
District Supervisor
State of New Mexico
Oil Conservation Division
P.O. Box 1980
Hobbs, New Mexico 88241

Dear Mr. Sexton,

N.M.O.C.D. Rule 711 Section C.8 provides for an exception to the requirements that tanks, pits and ponds exceeding sixteen feet in diameter be covered, screened or netted.

Controlled Recovery, Inc. is requesting that you issue this exception to CRI's facility located in Section 27 Township 20 South Range 23 east NMPM, Lea County permitted under order R-9166 April 27, 1997.

CRI's facility has night security lights, twenty-four hour truck traffic, is adjacent to US Highway 62-180 and County Road C-29. Machinery on site generates noise and movement. There are two dogs on site at all times. There are four full time employees assigned to facility operations.

In six years of operations there have been no incidents harmful to migratory birds at the facility. CRI's facility has been visited and inspected by U.S. Fish and Wildlife Services. Mr. Nicholas E. Chavez has been at the facility in the past 120 days and reported no problems or concerns. CRI also utilizes flags in some locations.

These alternate methods are more than adequate to protect migratory birds and clearly this facility is not hazardous to migratory birds.

Rule 711 provides that the NMOCD District Supervisor may grant the exception, which CRI now requests.

Sincerely,

Ken Marsh

Ken Marsh

The above request is granted this 14 day of April 1997.

Jerry Sexton

Jerry Sexton
District Supervisor
New Mexico Oil Conservation Division

State of New Mexico
ENERGY, M[redacted]RALS and NATURAL RESOURCES D[redacted]RTMENT
Santa Fe, New Mexico 87505

New Mexico DRUG FREE It's a State of Mind!

February 22, 1995

CERTIFIED MAIL
RETURN RECEIPT NO. Z-765-962-823

Mr. Ken Marsh
Controlled Recovery, Inc.
P.O. Box 369
Hobbs, New Mexico 88241

RE: Permit Modification
Controlled Recovery Disposal Facility
Lea County, New Mexico

Dear Mr. Marsh:

The Oil Conservation Division (OCD) has received your request dated February 10, 1995, for permit modification for the above referenced facility. The modification consists of the addition of a dedicated monocell for Navajo Refining Company. The issuance of public notice is not required since the modification is considered to be minor in nature.

Pursuant to OCD Rule 711, Order R-9166, and the information provided in your request, the proposed modification **is hereby approved.**

Please be advised that OCD approval does not relieve Controlled Recovery, Inc. (CRI) of liability should it later be found that contamination exists which could pose a threat to surface water, ground water, human health or the environment. In addition, OCD approval does not relieve CRI of responsibility for compliance with any other federal, state or local laws and/or regulations.

VILLAGRA BUILDING - 408 Galisteo
Forestry and Resources Conservation Division
P.O. Box 1948 87504-1948
827-5830
Park and Recreation Division
P.O. Box 1147 87504-1147
827-7465

2040 South Pacheco
Office of the Secretary
827-5950
Administrative Services
827-5925
Energy Conservation & Management
827-5900
Mining and Minerals
827-5970
Oil Conservation
827-7131

If you have any questions regarding this matter please feel free to contact Mark Ashley at (505) 827-7155.

Sincerely,

William J. LeMay
Director

WJL/mwa

xc: Jerry Sexton, OCD Hobbs Office
Wayne Price, OCD Hobbs Office

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

August 16, 1993

CERTIFIED MAIL
RETURN RECEIPT NO. P-667-242-008

Mr. Ken Marsh
Controlled Recovery Inc.
P.O. Box 369
Hobbs, New Mexico 88241

RE: **Approval of Treating Plant Improvements**
Controlled Recovery Inc.
Lea County, New Mexico

Dear Mr. Marsh:

The New Mexico Oil Conservation Division (OCD) has received your August 6, 1993 request for approval to improve your treating plant facilities at the Controlled Recovery Inc. Treating Plant/Disposal Facility. The improvements consist of adding additional tanks and equipment to increase the volume of material which can be processed. The treating plant was approved by the Division under Order R-9166 on April 27, 1990.

Based on the information supplied in the August 6, 1993 request, the OCD hereby approves the improvements and additions to your treating plant pursuant to Order R-9166, Page 5, Paragraph 5, Item (3) and under the following conditions:

1. CRI will submit as built engineering plans within 30 days of completion of the treating plant improvements and additions.

2. No chemicals (ie. chlorinated solvents) will be used in the waste oil processing operation without obtaining prior OCD approval. At no time will the OCD approve the use of chemicals which result in the creation of a hazardous waste as listed in the 40 Code of Federal Regulations, Part 261, Subparts C and D.

3. All tanks that contain materials other than fresh water that, if released, could contaminate fresh water or the environment will be bermed to contain one and one-third times the capacity of the tank.

4. All drips, leaks and spills will be contained within sumps or drip pans and disposed of periodically to prevent overflow. Additional containment will be installed in areas where repeated leaks, spills, overflows, etc. are reaching the ground surface.

5. All sumps and below-grade tanks will incorporate secondary containment and leak detection in their designs. The leak detection systems will be inspected quarterly, at a minimum. If fluids are detected in the leak detection system the conductivity of the fluids will measured and the OCD will be notified upon discovery.

6. All drums will be stored on pad and curb type containment.

7. 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.

The operation, monitoring and reporting shall be as specified in the original Order R-9166 and the conditions above. All modifications and alternatives to the approved waste oil processing methods must receive prior OCD approval. You are required to notify the Director of any facility expansion or process modification and to file the appropriate materials with the Division.

Please be advised that all tanks exceeding 16 feet in diameter and exposed pits, ponds or lagoons must be screened, netted or otherwise rendered nonhazardous to migratory birds. In addition, OCD Rule 310.A. states that oil shall not be stored or retained in earthen reservoirs, or in open receptacles.

Please be advised that approval of this facility modification does not relieve you of liability should your operation result in actual pollution of surface or ground waters or the environment actionable under other laws and/or regulations. In addition, the OCD approval does not relieve you of liability for compliance with any other laws and/or regulations.

If you have any questions, please contact Kathy M. Brown at (505) 827-5884.

Sincerely,

William J. LeMay
Director

WJL/kmb

xc: Jerry Sexton, OCD Hobbs Office

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

August 6, 1991

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

CERTIFIED MAIL
RETURN RECEIPT NO. P-756-666-892

Mr. Ken Marsh, President
Controlled Recovery, Inc.
P. O. Box 369
Hobbs, New Mexico 88241

RE: Permit Modification
Controlled Recovery Disposal Facility
Lea County, New Mexico

Dear Mr. Marsh:

The Oil Conservation Division (OCD) has received your requests dated July 16, 1991, for permit modifications for the above referenced facility. The modifications consist of the addition of a second safety, skimming and observation pond in series with the existing pond and the enlargement of the solids disposal pits.

Pursuant to OCD Rule 711 and based on the information provided in your requests, the proposed modifications are hereby approved.

The modifications are considered minor modifications, therefore, the issuance of public notice is not required.

Please be aware that this approval does not relieve you of liability should your operation result in actual pollution of surface or ground waters or the environment actionable under other laws and/or regulations.

If you have any questions, please do not hesitate to call Roger Anderson at (505) 827-5884.

Sincerely,

William J. LeMay
Director

WJL/RCA/sl

cc: OCD Hobbs Office

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

GARREY CARRUTHERS
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

September 13, 1990

CERTIFIED MAIL
RETURN RECEIPT NO. P-918-402-355

Mr. Ken Marsh, President
Controlled Recovery, Inc.
P. O. Box 369
Hobbs, New Mexico 88241

RE: **Landfarm Operation**
Controlled Recovery Disposal Facility
Lea County, New Mexico

Dear Mr. Marsh:

The Oil Conservation Division (OCD) has reviewed your application for operation of an oilfield waste landfarm at your previously approved disposal facility located in Section 27, Township 20 South, Range 32 East, NMPM, Lea County, New Mexico.

Pursuant to OCD Rule 711 the landfarm operation is hereby approved. The landfarm will be constructed and operated pursuant to the terms and conditions contained in your application dated August 2, 1990 and in your information dated September 12, 1990 submitted as a supplement to the application.

Please be advised approval of this landfarm does not relieve you of liability should your operation result in actual pollution of surface or ground water or the environment actionable under other laws and/or regulations.

If you have any questions, please contact Roger Anderson at (505) 827-5884.

Sincerely,

William J. LeMay, Director

WJL/RCA/sl

cc: OCD Hobbs Office

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. 9882
Order No. R-9166

APPLICATION OF CONTROLLED RECOVERY INC. FOR AN OIL TREATING PLANT PERMIT, SURFACE WASTE DISPOSAL AND AN EXCEPTION TO ORDER NO. R-3221, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on April 4, 1990, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 27th day of April, 1990, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

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

(2) Decretory Paragraph No. (3) of Division Order No. R-3221, as amended, prohibits in that area encompassed by Lea, Eddy, Chaves, and Roosevelt Counties, New Mexico, the disposal, subject to minor exceptions, of water produced in conjunction with the production of oil or gas, or both, on the surface of the ground, or in any pit, pond, lake, depression, draw, streambed, or arroyo, or in any water course, or in any other place or in any manner which would constitute a hazard to any fresh water supplies.

(3) The aforesaid Order No. R-3221 was issued in order to afford reasonable protection against contamination of fresh water supplies designated by the State Engineer through disposal of water produced in conjunction with the production of oil or gas, or both, in unlined surface pits.

(4) The State Engineer has designated all underground water in the State of New Mexico containing 10,000 parts per million or less of dissolved solids as fresh water supplies to be afforded reasonable protection against contamination; except that said designation does not include any water for which there is no present or reasonably foreseeable beneficial use that would be impaired by contamination.

(5) The applicant, Controlled Recovery Inc., seeks authority to construct and operate a surface waste disposal facility and an oil treating plant for the purpose of treating and reclaiming sediment oil and for the collection, disposal, evaporation, or storage of produced water, drilling fluids, drill cuttings, completion fluids and other non-hazardous oilfield related waste in unlined surface pits at a site in the S/2 N/2 and the N/2 S/2 of Section 27, Township 20 South, Range 32 East, NMPM, Lea County, New Mexico.

(6) The applicant proposes to install and operate an effective system, consisting of separating tanks, a water disposal pit, a solids disposal pit, and associated skimming, heat, and/or chemical separating equipment for the removal and reclamation of oil and basic sediments from the produced water to be disposed of, and a settling area to separate other solid waste.

(7) The proposed plant and method of processing will efficiently process, treat, and reclaim the aforementioned waste oil, thereby salvaging oil which would otherwise be unrecoverable.

(8) No interested party appeared at the hearing in opposition to the application.

(9) A naturally occurring salt lake (Laguna Toston) is located in the S/2 of Section 21 and the N/2 of Section 28, Township 20 South, Range 32 East, NMPM, Lea County, New Mexico, and is approximately three-quarters of a mile from the proposed disposal area.

(10) The hydrogeologic evidence presented in this case establishes that:

a) Triassic redbeds, comprised of the Chinle Shale, Santa Rosa sandstone, and the Dewey Lake formation, underlies both Laguna Toston and the proposed water disposal site;

b) Shales within the Triassic redbeds underlying the proposed waste disposal site and Laguna Toston are virtually impermeable and therefore prevent vertical seepage of the waters from the site and Laguna Toston into sand stringers within the redbeds which may contain fresh water;

c) The surface of the Triassic redbeds is depressed in the vicinity of the waste disposal site and Laguna Toston thus creating a "collapse feature";

d) The major flow of surface and subsurface water within the boundaries of the "collapse feature" is toward Laguna Toston;

e) Seepage from the impoundments at the proposed waste disposal site will infiltrate into the subsurface and migrate toward Laguna Toston;

f) After the seepage reaches Laguna Toston, practically all of the seepage will evaporate;

g) There is no present or reasonably foreseeable beneficial use of the waters of Laguna Toston;

h) There are no known sources of potable groundwater in sediments underlying the Triassic redbeds at Laguna Toston;

i) The utilization of the proposed disposal site adjacent to Laguna Toston for the disposal of water produced in conjunction with the production of oil or gas, or both, and other non-hazardous oilfield waste products, including drill cuttings and drilling muds should not constitute a hazard to any fresh water supplies.

(11) The applicant should be authorized to utilize the unlined pits described in Finding Paragraph Nos. (5) and (6) above, for the disposal of water produced in conjunction with the production of oil or gas, or both, and other non-hazardous oilfield waste products, including drill cuttings and drilling muds.

(12) The maximum fill level in both of the above-described pits should be limited to a plane below the crest of the dikes surrounding the pits in order to preclude over-tapping of the dikes.

(13) The proposed oil treating plant and disposal facility should be constructed in accordance with the engineering plat and topographic map presented as evidence in this case and in accordance with such additional conditions and requirements as may be directed by the Division Director, and should be operated and maintained in such a manner as to preclude spills and fires, and protect persons and livestock.

(14) Prior to initiating operations, the facility should be inspected by a representative of the Hobbs district office of the Division in order to determine the adequacy of fences, gates and cattleguards necessary to preclude livestock and unauthorized persons from entering and/or utilizing said facility, and also to determine the adequacy of dikes and berms needed to assure safe plant operation.

(15) The Director of the Division should be authorized to administratively grant approval for the expansion or modification of the proposed treating plant.

(16) Authority for operation of the treating plant and disposal facility should be suspended or rescinded whenever such suspension or rescission should appear 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.

(17) Prior to constructing said facility, the applicant should be required to submit to the Santa Fe office of the Division a surety or cash bond in the amount of $25,000 in a form approved by the Division.

(18) Authority for operation of the treating plant and disposal facility should be transferrable only upon written application and approval by the Division Director.

(19) The granting of this application should not endanger designated fresh water supplies, and will prevent waste by allowing the recovery of otherwise unrecoverable oil.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Controlled Recovery Inc., is hereby authorized to construct and operate a surface waste disposal facility complete with unlined surface pits and an oil treating plant at a site in the S/2 N/2 and the N/2 S/2 of Section 27, Township 20 South, Range 32 East, NMPM, Lea County, New Mexico, for the purpose of treating and reclaiming sediment oil and for the collection, disposal, evaporation, or storage of produced water, drilling fluids, drill cuttings, completion fluids and other non-hazardous oilfield related waste.

PROVIDED HOWEVER THAT, the proposed oil treating plant and disposal facility shall be constructed in accordance with the engineering plat and topographic map presented as evidence in this case 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 and fires, and protect persons and livestock.

PROVIDED FURTHER THAT, prior to initiating operations, the facility shall be inspected by a representative of the Hobbs district office of the Division in order to determine the adequacy of fences, gates and cattleguards necessary to preclude livestock and unauthorized persons from entering and/or utilizing said facility, and also to determine the adequacy of dikes and berms needed to assure safe plant operation.

(2) The maximum fill level in both of the proposed unlined surface pits shall be limited to a plane below the crest of the dikes surrounding the pits in order to preclude over-tapping of the dikes.

(3) The Director of the Division shall be authorized to administratively grant approval for the expansion or modification of the proposed treating plant.

(4) Authority for operation of the treating plant and disposal facility shall be suspended or rescinded whenever such suspension or rescission should appear 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.

(5) Prior to constructing said facility, the applicant shall submit, to the Santa Fe office of the Division, a surety or cash bond in the amount of $25,000 in a form approved by the Division.

(6) Authority for operation of the treating plant and disposal facility shall be transferrable only upon written application and approval by the Division Director.

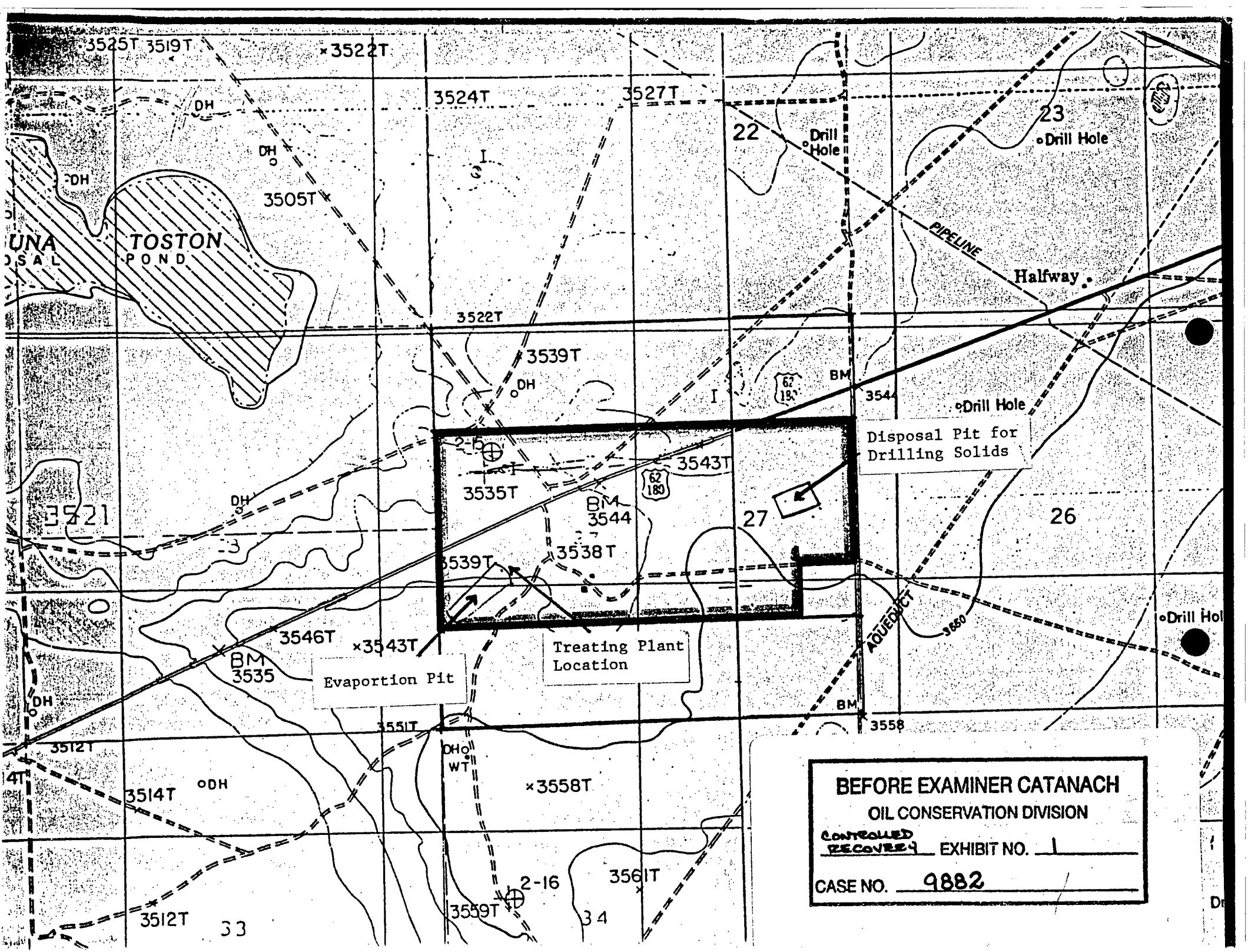
(7) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year herein-above designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY
Director

S E A L


3525T 3519T
3522T
3524T
3527T
DH
3505T
TOSTON POND
22
23
Drill Hole
PIPELINE
Halfway
3522T
3539T
BM
3544
Drill Hole
Disposal Pit for Drilling Solids
2-15
3543T
3535T
62 180
3521
27
26
3544
3538T
3539T
3546T
×3543T
Evaportion Pit
Treating Plant Location
AQUEDUCT
3550
Drill Hol
3535
3551T
3558
3512T
3514T
WT
×3558T
2-16
3561T
3559T
33
34
BEFORE EXAMINER CATANACH
OIL CONSERVATION DIVISION
CONTESTED RECOVERY EXHIBIT NO. 1
CASE NO. 9882

RECORD OF DRILL HOLES IN THE VICINITY OF SECTION 27 T20S R32E

LOCATION NUMBER	OWNER	AQUIFER	HOLE DEPTH	LAND SURFACE ELEVATION	WATER LEVEL	DATE MEASURED	WATER TABLE ELEVATION	THICKNESS OF ALLUVIUM	DEPTH TO RED BED	RED BED ELEVATION	CASING SIZE	USE OF WATER	REMARKS
20.32.01.314114	V. N. SNYDER	ALLUVIUM	30	3510.0	21.77	07-01-54	3488	UNK	UNK	0	6"	STOCK	WELL DRY IN 1968
20.32.22.322142	KEN MARSH	ALLUVIUM	55	3527.0	35.40	01-26-90	3492	45	45	3482	3"	NONE	TEST HOLE #2a
20.32.22.322142	KEN MARSH	ALLUVIUM	55	3527.0	35.00	02-05-90	3492	45	45	3482	3"	NONE	REPT. WATER LEVEL
20.32.22.322142	KEN MARSH	ALLUVIUM	55	3527.0	35.80	02-16-90	3491	45	45	3482	3"	NONE	JETTED DRY 2-5-90
20.32.23.33132	UNK	ALLUVIUM	UNK	3541.0	39.14	02-25-76	3502	UNK	UNK	0	7"	NONE	UNEQUIPPED WELL
20.32.23.33132	UNK	ALLUVIUM	UNK	3541.0	39.83	02-19-81	3501	UNK	UNK	0	7"	NONE	UNEQUIPPED WELL
20.32.23.43312	BILL STANFORD	ALLUVIUM	78	3551.0	39.40	05-29-68	3512	UNK	UNK	0	6"	STOCK	SUBMERSIBLE PUMP
20.32.23.43312	BILL STANFORD	ALLUVIUM	78	3551.0	37.46	02-02-71	3514	UNK	UNK	0	6"	STOCK	SUBMERSIBLE PUMP
20.32.23.43312	BILL STANFORD	ALLUVIUM	78	3551.0	36.78	02-19-81	3514	UNK	UNK	0	6"	NONE	WELL ABANDONED
20.32.23.43312	BILL STANFORD	ALLUVIUM	78	3551.0	38.42	03-25-86	3513	UNK	UNK	0	6"	NONE	WELL ABANDONED
20.32.23.43312A	BILL STANFORD	ALLUVIUM	UNK	3551.0	37.63	02-19-81	3513	UNK	UNK	0	6"	NONE	UNEQUIPPED
20.32.24.33333	G.H. BINGHAM	ALLUVIUM	65	3555.0	38.55	05-29-68	3516	UNK	UNK	0	6"	STOCK	WINDMILL
20.32.24.33333	G.H. BINGHAM	ALLUVIUM	65	3555.0	37.59	02-02-71	3517	UNK	UNK	0	6"	STOCK	WINDMILL
20.32.24.33333	G.H. BINGHAM	ALLUVIUM	65	3555.0	35.33	02-24-76	3520	UNK	UNK	0	6"	STOCK	WINDMILL
20.32.24.33333A	G.H. BINGHAM	ALLUVIUM	65	3555.0	38.04	05-29-68	3517	UNK	UNK	0	6"	STOCK	PUMP JACK
20.32.24.33333A	G.H. BINGHAM	ALLUVIUM	65	3555.0	37.83	02-02-71	3517	UNK	UNK	0	6"	STOCK	PUMP JACK
20.32.24.33333A	G.H. BINGHAM	ALLUVIUM	65	3555.0	37.42	09-11-72	3518	UNK	UNK	0	6"	STOCK	PUMP JACK
20.32.24.33333A	G.H. BINGHAM	ALLUVIUM	65	3555.0	35.68	02-24-76	3519	UNK	UNK	0	6"	STOCK	PUMP JACK
20.32.24.33333A	G.H. BINGHAM	ALLUVIUM	65	3555.0	37.69	02-19-81	3517	UNK	UNK	0	6"	STOCK	PUMP JACK
20.32.24.33333A	G.H. BINGHAM	ALLUVIUM	65	3555.0	38.99	03-25-86	3516	UNK	UNK	0	6"	STOCK	PUMP JACK
20.32.27.132121	KEN MARSH	ALLUVIUM	50	3529.0	23.91	11-01-89	3505	32	32	3497	3"	NONE	TEST HOLE #6
20.32.27.132121	KEN MARSH	ALLUVIUM	50	3529.0	23.63	11-09-89	3505	32	32	3497	3"	NONE	REPT. WATER LEVEL
20.32.27.132121	KEN MARSH	ALLUVIUM	50	3529.0	23.77	11-21-89	3505	32	32	3497	3"	NONE	TEST HOLE #6
20.32.27.132121	KEN MARSH	ALLUVIUM	50	3529.0	24.50	02-16-90	3505	32	32	3497	3"	NONE	TEST HOLE #6
20.32.27.14332	JOEL FREY	ALLUVIUM	25	3539.0	23.32	09-18-72	3516	UNK	UNK	0	DUG	NONE	WINDMILL
20.32.27.144133	KEN MARSH	ALLUVIUM	60	3539.0	25.91	11-01-89	3513	34	34	3505	3"	NONE	TEST HOLE #5
20.32.27.144133	KEN MARSH	ALLUVIUM	60	3539.0	25.50	11-09-89	3514	34	34	3505	3"	NONE	REPT. WATER LEVEL
20.32.27.144133	KEN MARSH	ALLUVIUM	60	3539.0	25.88	11-21-89	3513	34	34	3505	3"	NONE	TEST HOLE #5
20.32.27.144133	KEN MARSH	ALLUVIUM	60	3539.0	26.44	02-16-90	3513	34	34	3505	3"	NONE	TEST HOLE #5
20.32.27.234210	KEN MARSH	NONE	50	3542.0	DRY	11-01-89	0	34	34	3508	3"	NONE	TEST HOLE # 3
20.32.27.234210	KEN MARSH	ALLUVIUM	50	3542.0	41.10	11-09-89	3501	34	34	3508	3"	NONE	REPT. WATER LEVEL
20.32.27.234210	KEN MARSH	ALLUVIUM	50	3542.0	32.56	11-21-89	3509	34	34	3508	3"	NONE	TEST HOLE # 3
20.32.27.234210	KEN MARSH	ALLUVIUM	50	3542.0	34.41	02-16-90	3508	34	34	3508	3"	NONE	JETTED DRY 2-5-90
20.32.27.314122	KEN MARSH	ALLUVIUM	50	3541.0	49.07	11-01-89	3492	35	35	3506	3"	NONE	TESTHOLE #7
20.32.27.314122	KEN MARSH	ALLUVIUM	50	3541.0	38.25	11-09-89	3503	35	35	3506	3"	NONE	REPT. WATER LEVEL
20.32.27.314122	KEN MARSH	ALLUVIUM	50	3541.0	33.31	11-21-89	3508	35	35	3506	3"	NONE	TESTHOLE #7
20.32.27.314122	KEN MARSH	ALLUVIUM	50	3541.0	33.33	02-16-90	3508	35	35	3506	3"	NONE	TESTHOLE #7
20.32.27.322331	KEN MARSH	ALLUVIUM	UNK	3527.0	15.30	03-29-68	3512	UNK	UNK	0	6"	STOCK	PUMP SHUT OFF 34 MIN.
20.32.27.322331	KEN MARSH	ALLUVIUM	UNK	3527.0	0.94	02-25-76	3526	UNK	UNK	0	6"	NONE	WELL UNEQUIPPED
20.32.27.322331	KEN MARSH	ALLUVIUM	UNK	3527.0	15.33	02-19-81	3512	UNK	UNK	0	6"	NONE	WELL UNEQUIPPED
20.32.27.322331	KEN MARSH	ALLUVIUM	UNK	3527.0	17.60	11-01-89	3509	UNK	UNK	0	6"	NONE	WELL UNEQUIPPED
20.32.27.322331	KEN MARSH	ALLUVIUM	UNK	3527.0	17.53	11-21-89	3509	UNK	UNK	0	6"	NONE	WELL UNEQUIPPED
20.32.27.322331	KEN MARSH	ALLUVIUM	UNK	3527.0	17.40	02-16-90	3510	UNK	UNK	0	6"	NONE	WELL UNEQUIPPED

TABLE 1

RECORD OF DRILL HOLES IN THE VICINITY OF SECTION 27 T20S R32E

LOCATION NUMBER	OWNER	AQUIFER	HOLE DEPTH	LAND SURFACE ELEVATION	WATER LEVEL	DATE MEASURED	WATER TABLE ELEVATION	THICKNESS OF ALLUVIUM	DEPTH TO RED BED	RED BED ELEVATION	CASING SIZE	USE OF WATER	REMARKS
20.32.27.322333	T. BINGHAM	ALLUVIUM	75	3530.0	16.55	02-02-71	3513	UNK	UNK	0	6 5/8"	STOCK	WINDMILL
20.32.27.322333	T. BINGHAM	ALLUVIUM	75	3530.0	4.69	02-25-89	3525	UNK	UNK	0	6 5/8"	STOCK	WINDMILL
20.32.27.412333	KEN MARSH	NONE	60	3550.0	DRY	11-01-89	0	39	39	3511	3"	NONE	TEST HOLE #4
20.32.27.412333	KEN MARSH	NONE	60	3550.0	DRY	11-09-89	0	39	39	3511	3"	NONE	REPT. WATER LEVEL
20.32.27.412333	KEN MARSH	NONE	60	3550.0	DRY	11-21-89	0	39	39	3511	3"	NONE	TEST HOLE #4
20.32.27.412333	KEN MARSH	NONE	60	3550.0	DRY	02-16-90	0	39	39	3511	3"	NONE	TEST HOLE #4
20.32.27.422221	KEN MARSH	NONE	50	3546.0	DRY	11-01-89	0	38	38	3508	3"	NONE	TEST HOLE #2
20.32.27.422221	KEN MARSH	NONE	50	3546.0	DRY	11-09-89	0	38	38	3508	3"	NONE	REPT. WATER LEVEL
20.32.27.422221	KEN MARSH	NONE	50	3546.0	DRY	11-21-89	0	38	38	3508	3"	NONE	TEST HOLE #2
20.32.27.422221	KEN MARSH	NONE	50	3546.0	DRY	02-16-90	0	38	38	3508	3"	NONE	TEST HOLE #2
20.32.27.424443	KEN MARSH	NONE	99	3533.0	DRY	11-01-89	0	39	39	3494	3"	NONE	TEST HOLE #1
20.32.27.424443	KEN MARSH	NONE	99	3533.0	DRY	11-09-89	0	39	39	3494	3"	NONE	REPT. WATER LEVEL
20.32.27.424443	KEN MARSH	NONE	99	3533.0	DRY	11-21-89	0	39	39	3494	3"	NONE	TEST HOLE #1
20.32.27.424443	KEN MARSH	NONE	99	3533.0	DRY	02-16-90	0	39	39	3494	3"	NONE	TEST HOLE #1
20.32.28.222224	KEN MARSH	ALLUVIUM	37	3519.0	14.76	01-26-90	3504	28	28	3491	3"	NONE	TEST HOLE #1a
20.32.28.222224	KEN MARSH	ALLUVIUM	37	3519.0	14.00	02-05-90	3505	28	28	3491	3"	NONE	REPT. WATER LEVEL
20.32.28.222224	KEN MARSH	ALLUVIUM	37	3519.0	14.87	02-16-90	3504	20	20	3499	3"	NONE	TEST HOLE #1a
20.32.28.243123	KEN MARSH	ALLUVIUM	55	3522.0	17.25	01-26-90	3505	20	20	3502	3"	NONE	TEST HOLE #3a
20.32.28.243123	KEN MARSH	ALLUVIUM	55	3522.0	15.20	02-05-90	3507	20	20	3502	3"	NONE	REPT. WATER LEVEL
20.32.28.243123	KEN MARSH	ALLUVIUM	55	3522.0	15.95	02-13-90	3506	20	20	3502	3"	NONE	REPT. WATER LEVEL
20.32.28.243123	KEN MARSH	ALLUVIUM	55	3522.0	17.32	02-16-90	3505	20	20	3502	3"	NONE	JETTED DRY 2-5-90
20.32.36.21424	G.H. BINGHAM	ALLUVIUM	60	3585.0	46.60	06-06-55	3538	UNK	UNK	0	6 5/8"	DOM	PUMPED RECENTLY
20.32.36.21442	G.H. BINGHAM	ALLUVIUM	50	3581.0	43.88	09-18-72	3537	UNK	UNK	0	DUG	DOM	WINDMILL
20.32.36.22311	G.H. BINGHAM	ALLUVIUM	65	3586.0	44.51	05-29-68	3541	UNK	UNK	0	6"	STOCK	PUMPING
20.32.36.22311	G.H. BINGHAM	ALLUVIUM	65	3586.0	46.01	02-03-71	3540	UNK	UNK	0	6"	STOCK	PUMPING
20.32.36.22311	G.H. BINGHAM	ALLUVIUM	65	3586.0	41.26	02-25-76	3545	UNK	UNK	0	6"	STOCK	WINDMILL BROKEN
20.32.36.22311	BILL SMITH	ALLUVIUM	65	3586.0	45.82	02-19-81	3540	UNK	UNK	0	6"	STOCK	WINDMILL
21.31.01.13143	MIKE CAMPBELL	ALLUVIUM	36	3576.1	30.31	05-29-68	3546	UNK	UNK	0	10 3/4"	STOCK	WINDMILL
21.31.01.13143	MIKE CAMPBELL	ALLUVIUM	36	3576.1	26.31	02-03-71	3550	UNK	UNK	0	10 3/4"	STOCK	WINDMILL
21.31.01.13143	MATTHEWS	ALLUVIUM	36	3576.1	20.80	09-18-72	3555	UNK	UNK	0	10 3/4"	STOCK	WINDMILL
21.31.01.13143	MATTHEWS	ALLUVIUM	36	3576.1	19.68	02-25-76	3556	UNK	UNK	0	10 3/4"	STOCK	WINDMILL
21.31.01.13143	MATTHEWS	ALLUVIUM	36	3576.1	24.34	12-28-76	3552	UNK	UNK	0	10 3/4"	STOCK	WINDMILL
21.31.01.13143	MATTHEWS	ALLUVIUM	36	3576.1	DRY	01-17-81	0	UNK	UNK	0	10 3/4"	NONE	WELL DRY
21.31.02.22123	MIKE CAMPBELL	ALLUVIUM	35	3572.7	30.10	05-29-68	3543	UNK	UNK	0	UNK	STOCK	WINDMILL
21.31.02.22123	MIKE CAMPBELL	ALLUVIUM	35	3572.7	30.59	02-02-71	3542	UNK	UNK	0	UNK	STOCK	WINDMILL
21.31.02.22123	MATTHEWS	ALLUVIUM	35	3572.7	29.80	09-18-72	3543	UNK	UNK	0	UNK	STOCK	WINDMILL
21.31.02.22123	MATTHEWS	ALLUVIUM	35	3572.7	28.67	02-25-76	3544	UNK	UNK	0	UNK	STOCK	WINDMILL
21.31.02.22123	MATTHEWS	ALLUVIUM	35	3572.7	30.26	12-28-76	3542	UNK	UNK	0	UNK	STOCK	WINDMILL
21.31.02.22123	MATTHEWS	ALLUVIUM	35	3572.7	DRY	10-14-81	0	UNK	UNK	0	UNK	NONE	WELL DRY

TABLE 1 (continued)

Q. And this line starts at the approximate location of the liquids evaporation pit?

A. Actually, the way it's drawn on here, it started a little bit back east of the liquid evaporation pit, but it pretty much comes through where the pit would be.

Q. Mr. Wright, what happens? The water is put in the pit, and then what would happen to that water?

A. Okay, well, some of it will evaporate and some of it will percolate down by the force of gravity until it intercepts the Red Bed formation. And at that point it will move laterally along the subsurface drainage, and in this case will eventually discharge into Laguna Toston.

Q. Now, the contours are on the top of the water. How would these contours compare to the slope of the Red Beds in this area?

A. Well, in an area where you have thin zones of saturation like we do here, the water-table map and the contours on the top of the Red Beds are almost the same. The gradients might be slightly different, but the configuration will be very similar.

Q. And the Red Beds would slope in the same direction as the contours indicated on Table 4?

A. That's correct.

A. Yes.

Q. And the east pit would be 368,000?

A. Right.

Q. And what quantity would you anticipate being in the facility at any particular time?

A. Oh, I wouldn't think it would be over a third full at any time.

Q. What are the actual dimensions of these pits?

A. These pits are 925 feet -- I think -- Let's see, the -- Where the solids would be disposed of is 925 by 225, I think. Well, let me see here.

The east pit is 540 feet wide, 300 feet long, and the west pit is 225 feet wide and 950 feet long.

Q. Will these pits be netted?

A. They will be netted to -- as required to protect wildlife, according to the OCD and the Environmental Protective Agency, wildlife people.

Q. Is there any danger of flooding in the area of the pits?

A. No, there's a -- It's in a no-flood area, and the chance of it flooding a hundred-year flood here is about 100 years, and I don't think there's any chance of any floods in this area.

There's a -- Let's see.

Q. Is Exhibit Number 8 a letter from, I guess,

Q. And what is the general gradient in this area for the slope?

A. It's about 15 feet per mile.

Q. Anything else you would like to point out with Exhibit Number 4?

A. There's only one thing. The circles shown on the map are the control points which were used in the drawing of this water-table map --

Q. Mr. Wright, do you --

A. -- and the values are given in Table 1.

Q. Do you believe that you have sufficient control information to satisfy you that this accurately depicts the direction of the subsurface migration of fluids in the area?

A. Yes, sir.

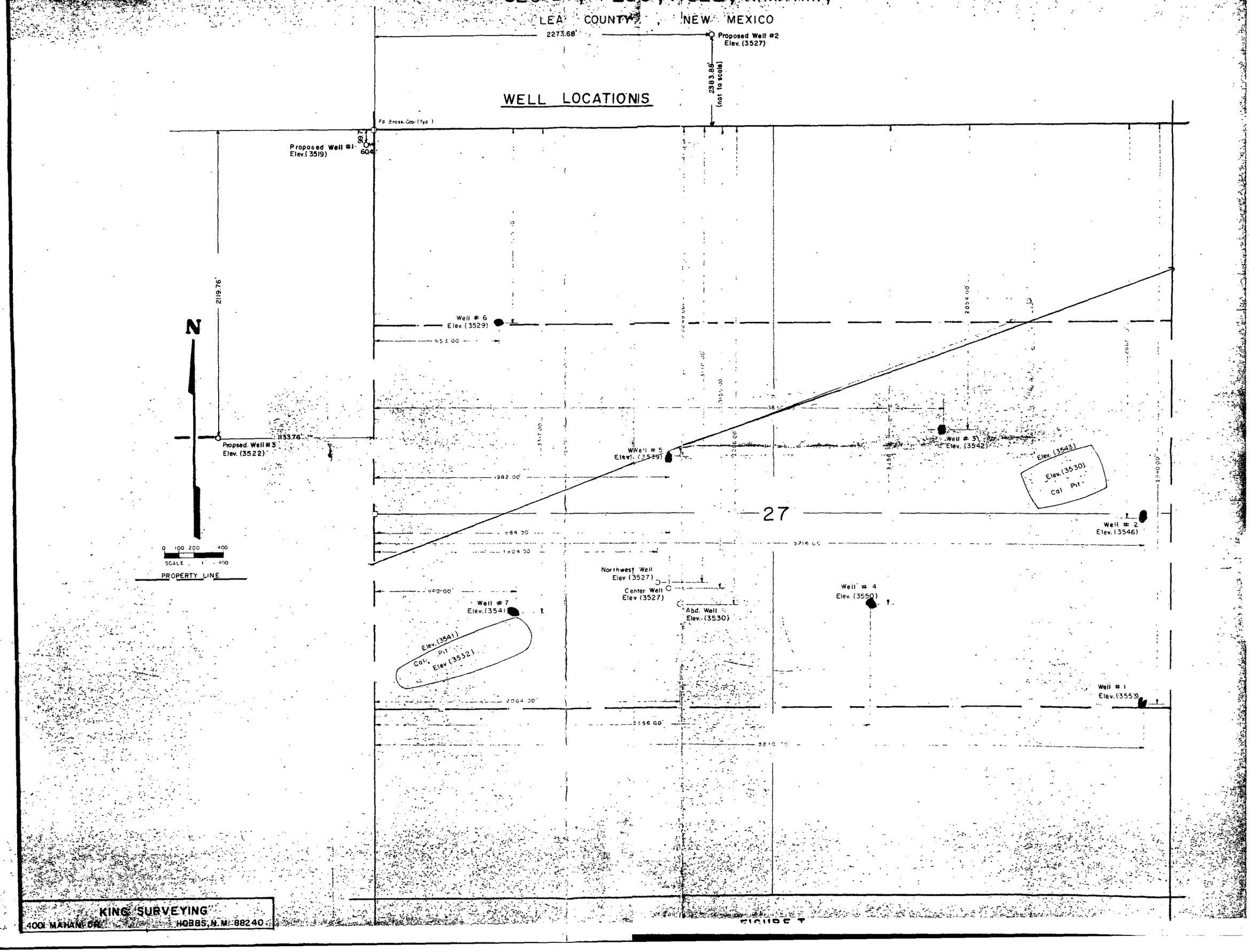
Q. If we could, let's now go to Figure Number I in the back of this packet. Could you identify Figure Number I, please?

A. Figure Number I is a survey plat which was done by King Surveying, which shows the location of the drill holes, the surface elevation at those drill holes. It also shows the pits which were on the property, and it also shows schematically the wells that were drilled off of the Marsh property. It just gives footage from the corners.

SEC. 27, T20S, R32E, N.M.P.M.,

LEA COUNTY, NEW MEXICO

WELL LOCATIONS



KING SURVEYING
400I MAHAN DR. HOBBS, N.M. 88240

FIGURE 1

ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS, NEW MEXICO

WATER ANALYSIS REPORT FORM

WELL OWNERSHIP: Controlled Recovery Inc. WELL #: 2A

LAND STATUS: STATE _____ FEDERAL _____ FEE _____

WELL LOCATION: Unit Letter _____ Section 27 Township 20 Range 32

QUARTER/QUARTER - FOOTAGE LOCATION: _____

WELL TYPE: Moniter well DEPTH ? feet

WELL USE: _____

SAMPLE NUMBER: 1 TAKEN BY: Eddie Seay & Ken Marsh

DATE: 2/27/90

Specific Conductance:	1700	m/h
Total dissolved solids:	1190	PPM
Chlorides:	568	PPM
Sulfates:		PPM

Ortho-phosphates: Very Low _____ Low _____ Med _____ Hi _____

Sulfides: None _____ Low _____ Med _____ Hi _____

OTHER:

DATE ANALYZED: 2/28/90 BY: Eddie W. Seay

OIL CONSERVATION DIVISION
Eddie W. Seay

REMARKS: Sample taken at 44 feet.

Top of water at 38 feet.

5 ml sample 710 x .8 = 568 ppm Cl

SC - metered 1700

TDS - calculated

20.32.22.322142

ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS, NEW MEXICO

WATER ANALYSIS REPORT FORM

WELL OWNERSHIP: Controlled Recovery Inc. WELL #: 6

LAND STATUS: STATE _____ FEDERAL _____ FEE _____

WELL LOCATION: Unit Letter _____ Section 27 Township 20 Range 32

QUARTER/QUARTER - FOOTAGE LOCATION: _____

WELL TYPE: Moniter Well DEPTH ? feet

WELL USE: _____

SAMPLE NUMBER: 1 TAKEN BY: Eddie Seay & Ken Marsh

DATE: 2/27/90

Specific Conductance:	2750	mh
Total dissolved solids:	1925	PPM
Chlorides:	866.1	PPM
Sulfates:		PPM

Ortho-phosphates: Very Low _____ Low _____ Med _____ Hi _____

Sulfides: None _____ Low _____ Med _____ Hi _____

OTHER:

DATE ANALYZED: 2/28/90 BY: Eddie W Seay

OIL CONSERVATION DIVISION
Eddie W. Seay

REMARKS: Sample taken at 40 feet.

Top of water at 23 feet.

25 ml sample 142 x 6.1 titration = 866.1 ppm Cl

SC - metered 2750

TDS - calculated

20.32.27./32/2d

ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS, NEW MEXICO

WATER ANALYSIS REPORT FORM

WELL OWNERSHIP: Controlled Recovery Inc. WELL #: 5

LAND STATUS: STATE _____ FEDERAL _____ FEE _____

WELL LOCATION: Unit Letter _____ Section 27 Township 20 Range 32

QUARTER/QUARTER - FOOTAGE LOCATION: _____

WELL TYPE: Moniter well DEPTH ? feet

WELL USE: _____

SAMPLE NUMBER: 1 TAKEN BY: Eddie Seay & Ken Marsh

DATE: 2/27/90

Specific Conductance:	50,000+	mh
Total dissolved solids:	??	PPM
Chlorides:	37,275	PPM
Sulfates:		PPM

Ortho-phosphates: Very Low _____ Low _____ Med _____ Hi _____

Sulfides: None _____ Low _____ Med _____ Hi _____

OTHER:

DATE ANALYZED: 2/28/90 BY: Eddie W Seay

OIL CONSERVATION DIVISION
Eddie W. Seay

REMARKS: Sample taken at 40 feet.
Top of water at 28 feet.
1 ml sample 3550 x 10.5 = 37,275 ppm Cl
SC - meter pegged out at 50,000+.

20.32.27. 144133

ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS, NEW MEXICO

WATER ANALYSIS REPORT FORM

WELL OWNERSHIP: Controlled Recovery Inc. WELL #: 1A

LAND STATUS: STATE _____ FEDERAL _____ FEE _____

WELL LOCATION: Unit Letter _____ Section 27 Township 20 Range 32

QUARTER/QUARTER - FOOTAGE LOCATION: _____

WELL TYPE: Moniter well DEPTH ? feet

WELL USE: _____

SAMPLE NUMBER: 1 TAKEN BY: Eddie Seay & Ken Marsh

DATE: 2/27/90

Specific Conductance:	50,000+	m/h
Total dissolved solids:	??	PPM
Chlorides:	136,675	PPM
Sulfates:		PPM

Ortho-phosphates: Very Low _____ Low _____ Med _____ Hi _____

Sulfides: None _____ Low _____ Med _____ Hi _____

OTHER:

DATE ANALYZED: 2/28/90 BY: Eddie W Seay

OIL CONSERVATION DIVISION
Eddie W. Seay

REMARKS: Sample taken at 35 feet.

Top of water at 20 feet.

1 ml sample 2550 x 38.5 titration = 136,675 ppm Cl

SC - meter pegged out at 50,000 plus.

20.32.28.222224

ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
HOBBS, NEW MEXICO

WATER ANALYSIS REPORT FORM

WELL OWNERSHIP: Controlled Recovery Inc. WELL #: 3A

LAND STATUS: STATE _____ FEDERAL _____ FEE _____

WELL LOCATION: Unit Letter _____ Section 27 Township 20 Range 32

QUARTER/QUARTER - FOOTAGE LOCATION: _____

WELL TYPE: Moniter well DEPTH _____ feet

WELL USE: _____

SAMPLE NUMBER: 1 TAKEN BY: Eddie Seay & Ken Marsh

DATE: 2/27/90

Specific Conductance:	50,000+	m/h
Total dissolved solids:	??	PPM
Chlorides:	95,850	PPM
Sulfates:		PPM

Ortho-phosphates: Very Low _____ Low _____ Med _____ Hi _____

Sulfides: None _____ Low _____ Med _____ Hi _____

OTHER:

_____ _____

DATE ANALYZED: 2/28/90 BY: Eddie W Seay

OIL CONSERVATION DIVISION
Eddie W. Seay

REMARKS: Sample taken at 40 feet.
Top of water at 20 feet.
1 ml sample 3550 x 27 titration = 95,850 ppm Cl
SC - meter pegged out at 50,000 plus.

20.32.28.243/23