NM2 - 3

INSPECTIONS & DATA

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

February 6, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. P-326-936-393

Mr. Buddy Shaw
AMOCO Production Company
200 Amoco Court
Farmington, New Mexico 87401

RE: 711 Centralized Waste Management Facility Inspection
AMOCO Production Company
SW/4 SE/4 Section 2, Township 29 North, Range 12 West, NMPM,
San Juan County, New Mexico

Dear Mr. Shaw:

The New Mexico Oil Conservation Division (OCD), inspected AMOCO Production Company's Crouch Mesa (Crouch Mesa) centralized landfarm and composting facility located in the SW/4 SE/4, Section 2, Township 29 North, Range 12 West, NMPM, San Juan County, New Mexico on June 11, 1997.

The OCD inspection and current file review of Crouch Mesa indicates some permit deficiencies. Attachment 1 lists the permit deficiencies found at Crouch Mesa during the inspection and the new Rule 711 requirements that are not on file. Attachment 2 contains photographs taken during the inspection. Crouch Mesa shall provide the OCD with a detailed description of how the corrections will be made and a time table of when each of the corrections will be completed. A response is required by Crouch Mesa to these deficiencies by April 7, 1998.

Pursuant to Order R-10411-B the OCD General 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.Crouch Mesa landfarm is included under the new Rule 711. A copy of Order R-10411-B along with the new bond forms is included with this report. A permit application, Form C-137 (attachment 3), shall be filed with the OCD according to the instructions in Attachment 1, Section 19. A copy of Order R-10609 the new rule on the disposal of naturally occurring radioactive materials (NORM) is also included within.

Bond # 365133

Please be advised that the bonding requirements have changed under the new Rule 711. The bonded amount will be $25,000 for centralized surface waste management facilities (see Rule 711.B.1.i and 711.B.3). Crouch Mesa must have a new bond in place for the approved

estimated closure amount prior to receiving a new waste management facility permit.

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

Sincerely,

Martyne J. Kieling
Environmental Geologist

Attachments
xc: Aztec OCD Office

ATTACHMENT 1
INSPECTION REPORT
June 11, 1997
AMOCO PRODUCTION COMPANY, CROUCH MESA
(SW/4 SE/4, Section 2, Township 29 North, Range 12 West, NMPM,)
SAN JUAN COUNTY, NEW MEXICO

1. Fencing and Signs: The facility will be fenced and have a sign at the entrance. The sign shall be maintained in good condition and shall be legible from at least fifty (50) feet and contain the following information: a) name of facility, b) location by section, township and range, and c) emergency phone number.

Facility is secured with fence and locking gate and has a sign at the entrance.

2. Berming : An adequate berm will be constructed and maintained to prevent runoff and runon for that portion of the facility containing contaminated soils.

The facility perimeter berm is adequate and in good shape. However, individual cells require berms to limit the commingling of cell material and to keep run off away from other cells (see pictures 1, 2, 4, 5, 6, 7, and 8).

3. Setbacks: All new landfarm facilities or modifications to existing landfarm facilities must have a setbacks along the facility boundary and along any pipelines crossing the landfarm. No contaminated soils will be placed within one-hundred (100) feet of the boundary of the facility. No contaminated soil will be placed within fifty (50) feet of any pipelines crossing the landfarm. In addition, no equipment will be operated within ten (10) feet of a pipeline. All pipelines crossing the facility will have surface markers identifying the location of the pipelines.

All future cells constructed must follow the setback requirements. All pipelines crossing the facility should have surface markers.

4. Compost Soil Spreading and Windrow Maintenance: All contaminated soils received at the facility will be put into compost piles within 72 hours of receipt. A berm shall be maintained around each compost cell. Soils within each cell will be allowed to reach a minimum of 120° F prior to turning to enhance biodegradation of contaminants. Weekly temperature measurement records shall be kept on each windrow and/or cell. These records shall be kept for a minimum of 5 years and be available for inspection by the OCD upon request.

At the time of inspection, several soil piles had not been windrowed and bermed to

prevent commingling of cell material (see picture 2). For renewal of this permit Crouch Mesa shall keep detailed records on windrow and cell designations and temperature measurements. These records shall be available for inspection by the OCD upon request. Cell designations shall be clearly posted at the facility.

5. Landfarm Soil Spreading, Disking and Lift Thickness: All contaminated soils received at the facility will be spread and disked within 72 hours of receipt. Soils will be spread on the surface in six inch lifts or less. Soils will be disked a minimum of one time every two weeks (biweekly) to enhance biodegradation of contaminants.

At the time of inspection, several soil piles had not been spread accordingly (see picture 2).

6. Treatment Zone Monitoring and Reporting: Treatment Zone Monitoring and Reporting requirements according to Amoco's Crouch Mesa, July 28, 1992 permit approval and attachment;

A. Treatment Zone Monitoring:
A treatment zone not to exceed two (2) feet beneath the original land surface will be monitored. A minimum of one random soil sample will be taken form each individual cell six (6) months after the first contaminated soils are received in the cell and then annually thereafter. The sample will be taken at two to three (2-3) feet below the native ground surface.

The soil samples will be analyzed for total petroleum hydrocarbons (TPH) and volatile aromatic organics (BTEX) using approved EPA methods.

After obtaining the soil samples the boreholes will be filled with an impermeable material such as bentonite cement.

Any cells that have moisture added to them will be analyzed on a quarterly basis following the requirements above.

B. Reporting:
Analytical results from the treatment zone monitoring will be submitted to the OCD Santa Fe Office within thirty (30) days of receipt from the laboratory.

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 OCD Santa Fe office has not received any analytical results pertaining to

treatment zone monitoring since the approval of the 1992 permit. Crouch Mesa shall submit all treatment zone TPH and BTEX analytical results from 1992 through 1997.

7. Revised Permit Requirements for Treatment Zone Monitoring and Reporting: Permit requirements for treatment zone monitoring and reporting at composting and landfarm waste management facilities. Because a landfarm is designed to remediate contaminated soils and not transfer contaminants into the underlying native soil and/or groundwater, the applicant shall follow a plan to detect leaching of contaminants.

   a. One (1) background soil sample should be taken from the center portion of the landfarm two (2) feet below the native ground surface prior to operation. The sample should be analyzed for total petroleum hydrocarbons (TPH), major cations/anions, volatile aromatic organics (BTEX), and heavy metals using approved EPA methods.

   b. A treatment zone not to exceed three (3) feet beneath the landfarm should be monitored. A minimum of one random soil sample should be taken from each individual cell, with no cell being larger than five (5) acres, six (6) months after the first contaminated soils are received in the cell and then quarterly thereafter. The sample should be taken at two to three (2-3) feet below the native ground surface.

   c. The soil samples should be analyzed using approved EPA methods for TPH and BTEX quarterly, and for major cations/anions and heavy metals annually.

   d. After obtaining the soil samples the boreholes should be filled with an impermeable material such as cement.

   e. Analytical results from the treatment zone monitoring should be submitted to the OCD Santa Fe Office for review on a regular schedule to be proposed by the applicant.

Crouch Mesas shall commit to the above permit requirements for treatment zone monitoring and reporting for the repermitting of the Crouch Mesa surface waste management facility.

8. Trash and Potentially Hazardous Materials: All trash and potentially hazardous materials should be properly disposed of.

Little to no plastic trash was observed within the windrows or cells (see pictures 2, 3, 4, 5, 6, 7, and 8).

9. Free Liquids : No free liquids or soils with free liquids will be accepted at the facility. A material that fails the SW-846 Paint Filter Liquids Test Method 9095 by definition contains free liquids.

There were no free liquids or soils with free liquids at the facility during the inspection. However, there was ponding in several places of rainwater (see pictures 1, 4, and 6). Crouch Mesa is not permitted for stabilization of sludges (see picture 4). Picture 4 was defined as a stabilization pit. If Crouch Mesa wishes to add stabilization of sludges durring the repermittng process, a double lined pad with leachate collection will need to be proposed.

10. In State Waste: Only in-state (New Mexico) waste may be accepted at a centralized facility.

Crouch Mesa has in the past accepted waste (drilling mud) from out of state (Colorado). This is a violation of two points of the current permit, no free liquids will be accepted (see above #9) and no out of state waste will be accepted.

11. Above Ground Tanks: All above ground tanks which contain fluids other than fresh water must be bermed to contain a volume of one-third more than the total volume of the largest tank or of all interconnected tanks. All new facilities or modifications to existing facilities must place the tank on an impermeable type pad within the berm so that leaks can be identified.

The tanks located at this facility are lacking the proper containment (see picture 1 and 3). Berms to contain the appropriate volume need to be constructed around all above ground tanks that contain fluids other than fresh water. If possible tanks that are not in use should be removed from the facility and/or recycled.

12. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums should be stored on their sides with the bungs in and lined up on a horizontal plane. Chemicals in other containers such as sacks or buckets should also be stored on an impermeable pad and curb type containment.

There were no drums at this facility.

All drums and chemical containers should be clearly labeled to identify their contents and other emergency information necessary if they were to rupture, spill or ignite.

13. Above Ground Saddle Tanks: Above ground saddle tanks must have impermeable pad and curb type containment unless they contain fresh water or fluids that are gases at

atmospheric temperature and pressure.

There were no above ground saddle tanks at this facility.

14. Tank Labeling: All tanks, drums and containers should be clearly labeled to identify their contents and other emergency information necessary if the tank were to rupture, spill or ignite.

The above ground tanks and containers are not appropriately labeled as to their contents or the hazards of the contents.

15. Housekeeping: All systems designed for spill collection/prevention should be inspected frequently to ensure proper operation and to prevent overtopping or system failure.

Material within cells, piles, and windrows were not bermed to keep materials from different projects from commingling.

16. Spill Reporting: All spills/releases shall be reported pursuant to OCD Rule 116 to the appropriate OCD District Office.

There were no spills/releases at the time of the inspections.

17. Ponding, Pooling or Run-off of Water: Moisture should be added as necessary to enhance bioremediation and to control blowing dust. There shall be no ponding, pooling or run-off of water allowed. Any ponding of precipitation should be removed within seventy-two (72) hours of discovery.

Several ponds of accumulated run-off were observed (see pictures 1, 4 and 6,). These should be removed within seventy-two (72) hours.

18. Naturally Occurring Radioactive Material (NORM): All generators submitting waste to a New Mexico Oil Conservation Division Permitted Commercial or Centralized 711 Waste Management Facility must include a Naturally Occurring Radioactive Material status declaration. The generator must declare that the waste was tested for Naturally Occurring Radioactive Material (NORM) and does not contain NORM at regulated levels pursuant to 20 NMAC 3.1 Subpart 1403.C and D.

Under the new 711 Waste Management Facility Permit all waste must be accompanied with a signed NORM declaration from the waste generator.

19. Application Requirements for Permit Under the New Rule 711: An application, Form C-137, for a permit renewal shall be filed in DUPLICATE with the Santa Fe Office of the

Division and ONE COPY with the appropriate OCD district office. The application shall comply with Division guidelines and shall include:

(a) The names and addresses of the applicant and all principal officers of the business if different from the applicant;

Please submit with C-137 application.

(b) A plat and topographic map showing the location of the facility in relation to governmental surveys (1/4 1/4 section , township, and range), highways or roads giving access to the facility site, watercourses, water sources, and dwellings within one (1) mile of the site;

This is already on file with the OCD.

(c) The names and addresses of the surface owners of the real property on which the management facility is sited and surface owners of the real property of record within one mile of the site;

Please submit with C-137 application.

(d) A description of the facility with a diagram indicating location of fences and cattle guards, and detailed construction/installation diagrams of any pits, liner, dikes, piping, sprayers, and tanks on the facility;

Please submit an updated facility map that shows all current and discontinued status landfarm cells, composting cells, tanks, materials stockpile area, roads, fences, gates, and buildings.

(e) A plan for management of approved wastes;

Please submit an updated waste management plan that includes contaminated soils. In addition, include procedures and ingredients such as microbes and water used in the maintenance of the landfarm and composting piles

(f) A contingency plan for reporting a cleanup of spills or releases;

Please submit with C-137 application a detailed contingency plan.

(g) A routine inspection and maintenance plan to ensure permit compliance;

Please submit an updated inspection maintenance plan to include the above

ground tanks as well as the landfarm/composting cells, berms, dikes and fences.

(h) A Hydrogen Sulfide (H_2S) Prevention and Contingency Plan to protect public health;

Please submit with C-137 application.

(i) A closure Plan including a cost estimate sufficient to close the facility to protect public health and the environment; said estimate to be based upon the use of equipment normally available to a third party contractor;

Please submit with C-137 application.

(j) Geological/hydrological evidence, including depth to and quality of groundwater beneath the site, demonstrating that disposal of oil field wastes will not adversely impact fresh water;

Please submit with C-137 application.

(l) Certification by an authorized representative of the applicant that information submitted in the application is true, accurate and complete to the best of the applicant's knowledge.

Please submit with C-137 application.

AMOCO CROUCH MESA 711 FACILITY INSPECTION (PHOTOS BY OCD)

PHOTO NO. 1 DATE: 06/11/97

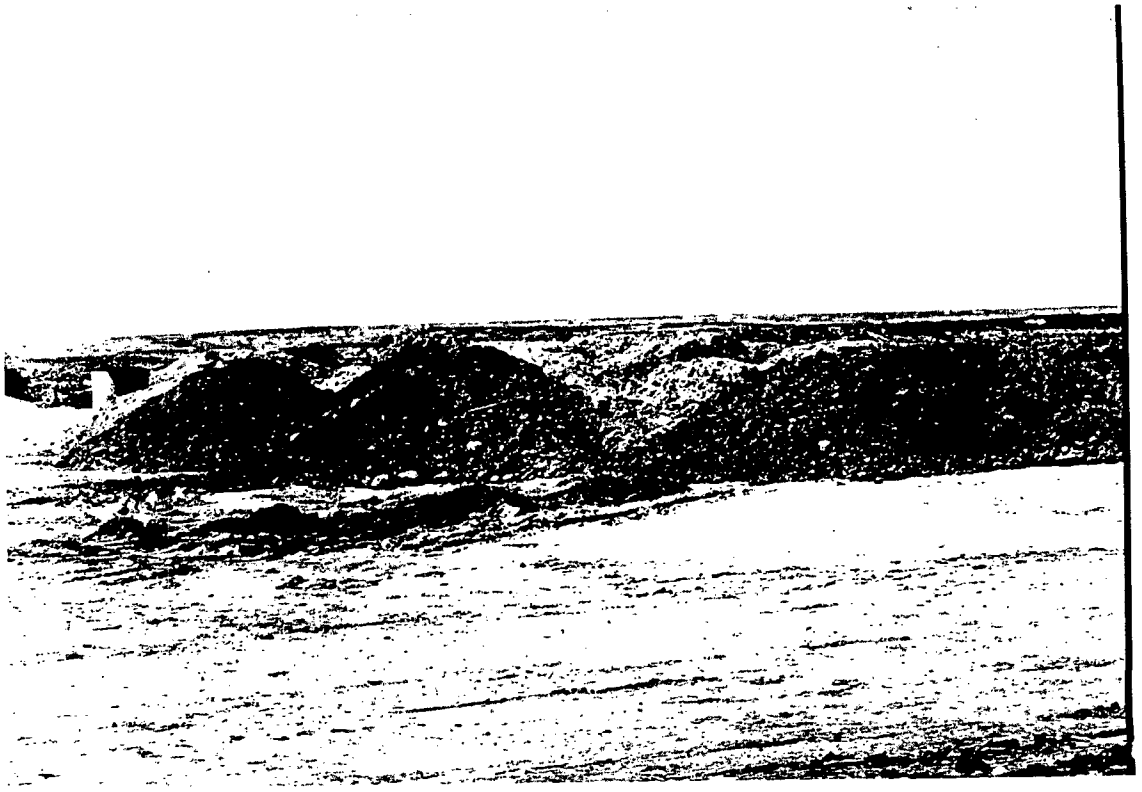

PHOTO NO. 2 DATE: 06/11/97

AMOCO CROUCH MESA 711 FACILITY INSPECTION (PHOTOS BY OCD)

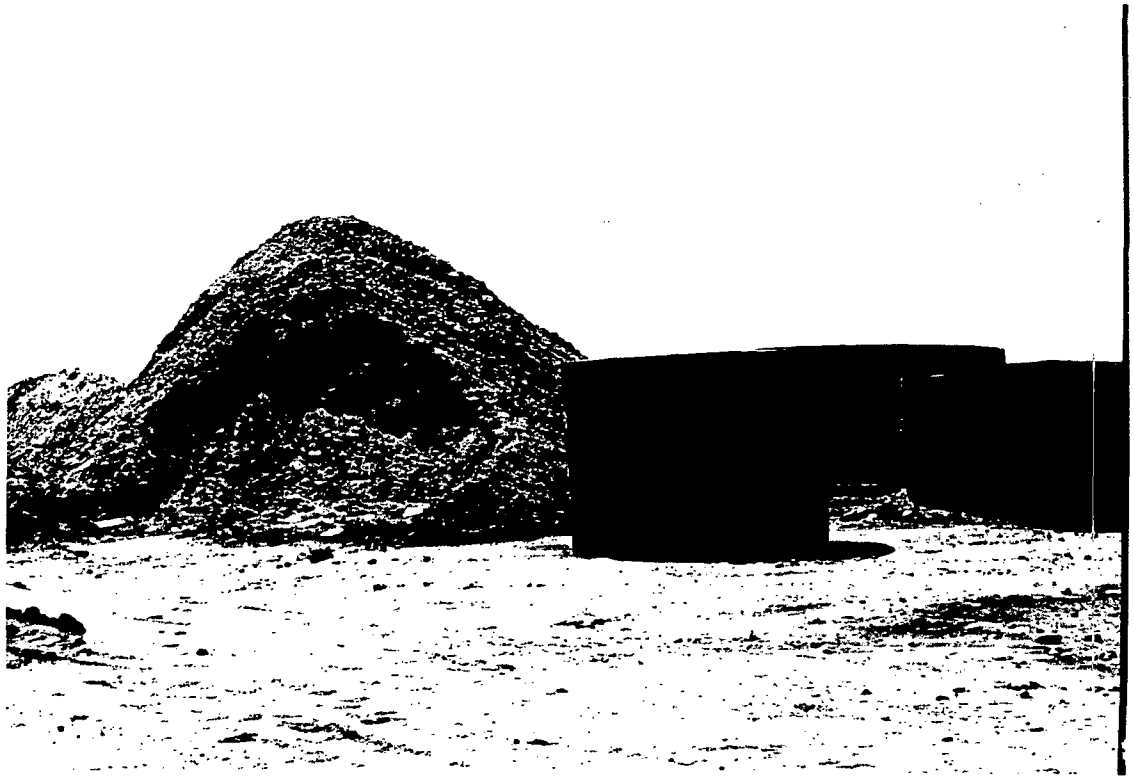

PHOTO NO. 3 DATE: 06/11/97

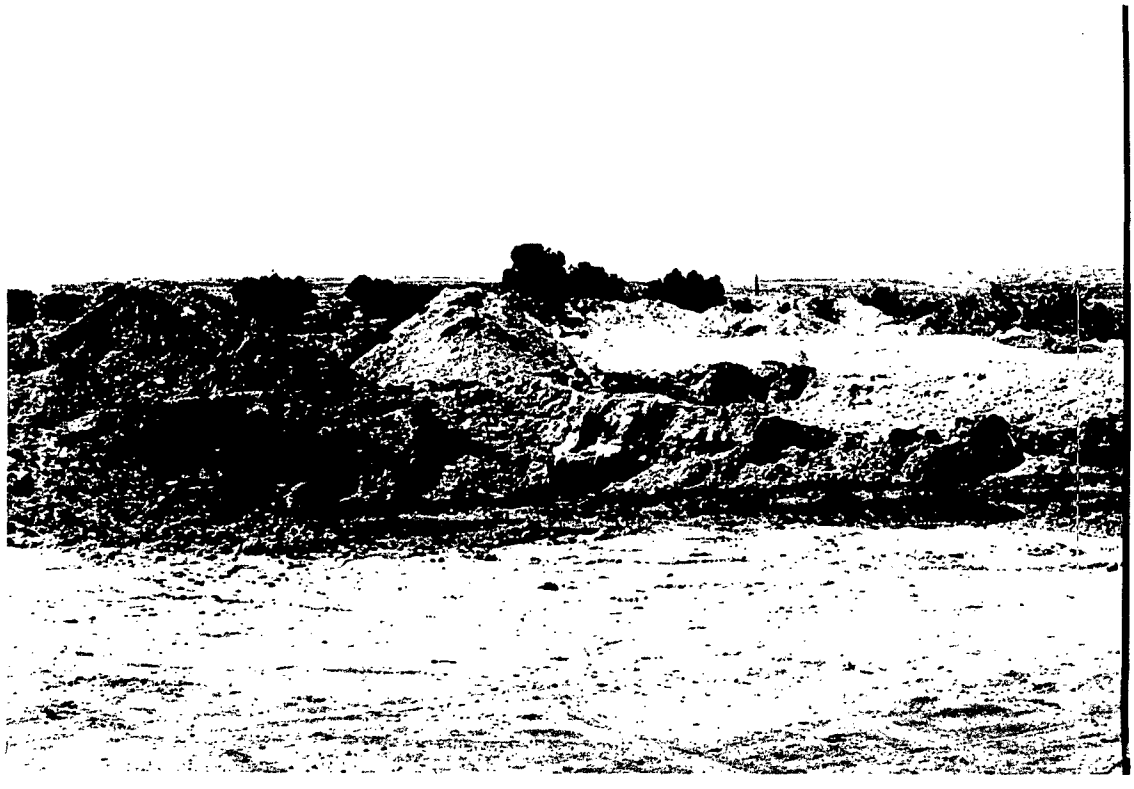

PHOTO NO. 4 DATE: 06/11/97

AMOCO CROUCH MESA 711 FACILITY INSPECTION (PHOTOS BY OCD)

PHOTO NO. 5 DATE: 06/11/97

PHOTO NO. 6 DATE: 06/11/97

AMOCO CROUCH MESA 711 FACILITY INSPECTION (PHOTOS BY OCD)

PHOTO NO. 7 DATE: 06/11/97

PHOTO NO. 8 DATE: 06/11/97

Location:	Amoco Compositing Crouch Mesa 711 Facility
Date:	April 22, 1998
Time :	9:30 Am
OCD Personnel:	Roger Anderson, Denny Foust, Martyne Kieling
Picture 1 :	Looking Southeast into cell 4.
	Cell 4 status : Empty with excellent berm

Location:	Amoco Compositing Crouch Mesa 711 Facility
Date:	April 22, 1998
Time :	9:30 Am
OCD Personnel:	Roger Anderson, Denny Foust, Martyne Kieling
Picture 2 :	Looking Northeast into cell 1.
	Cell 1 status : One active compost cell #101, excellent berm.


52

Location:	Amoco Compositing Crouch Mesa 711 Facility
Date:	April 22, 1998
Time :	9:30 Am
OCD Personnel:	Roger Anderson, Denny Foust, Martyne Kieling
Picture 3 :	Looking Southeast into cell 3.
	Cell 3 status : Two remediated compost cells #52 and #50 ,
	Soil shiped out as fill material, excellent berm.

Location:	Amoco Compositing Crouch Mesa 711 Facility
Date:	April 22, 1998
Time :	9:30 Am
OCD Personnel:	Roger Anderson, Denny Foust, Martyne Kieling
Picture 4 :	Looking South into cell 2.
	Cell 2 status : Four active compost cells #63, 64, 65, 66 and 60, excellent berm.


52

Location:	Amoco Compositing Crouch Mesa 711 Facility
Date:	April 22, 1998
Time :	9:30 Am
OCD Personnel:	Roger Anderson, Denny Foust, Martyne Kieling
Picture 3 :	Looking Southeast into cell 3.
	Cell 3 status : Two remediated compost cells #52 and #50 ,
	Soil shiped out as fill material, excellent berm.

Location:	Amoco Compositing Crouch Mesa 711 Facility
Date:	April 22, 1998
Time :	9:30 Am
OCD Personnel:	Roger Anderson, Denny Foust, Martyne Kieling
Picture 2 :	Looking Northeast into cell 1.
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Date:	April 22, 1998
Time :	9:30 Am
OCD Personnel:	Roger Anderson, Denny Foust, Martyne Kieling
Picture 1 :	Looking Southeast into cell 4.
	Cell 4 status : Empty with excellent berm

Location:	Amoco Compositing Crouch Mesa 711 Facility
Date:	April 22, 1998
Time :	9:30 Am
OCD Personnel:	Roger Anderson, Denny Foust, Martyne Kieling
Picture 4 :	Looking South into cell 2.
	Cell 2 status : Four active compost cells #63, 64, 65, 66 and 60, excellent berm.


FED.ID.NO.
14-20-603-239
SUPERIOR OIL CO.
TANK 58-2
PRODUCTION
551

Amoco Crouch Mesa

6/11/97

Amoco Crouch Mesa

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Amoco Crouch Mesa

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