GW - 55

INSPECTIONS & DATA

1996

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

<OCD - File Copy>

February 23, 1996

CERTIFIED MAIL
RETURN RECEIPT NO.Z-765-963-026

Mr. Jim Ratcliffe
Transportation Director
Thriftway Marketing Corporation
710 East 20th Street
Farmington, NM 87401

RE: Renewal Inspection
Discharge Plan GW-55
Thriftway Bloomfield Refinery

Dear Mr. Ratcliffe:

The New Mexico Oil Conservation Division (OCD) has completed this inspection report as part of the permit renewal process for discharge plan GW-55. The following OCD staff members were present during the renewal inspection on Wednesday February 14, 1996 - Mr. Bill Olson, Mr. Denny Foust, and Mr. Patricio Sanchez. The purpose of this report is to provide Thriftway with the information that is needed to ensure that the NMOCD can renew GW-55 on or before the expiration date of May 9, 1996. However, it will be Thriftways responsibility to provide the OCD with commitments and time lines that are approvable at least 30 days before the permit GW-55 expires.

- Before the Refinery can be started up - Thriftway will submit a plan to pressure test all below grade lines to 3 psig above normal working pressure of the line - see OCD "Discharge Plan Guidelines, Revised 12-95" page 9. The testing plan must be approved by the Santa Fe OCD office and executed before plant start up. Also, all below grade sumps that do not have leak detection and secondary containment must be cleaned and inspected for integrity before the plant can start up-further these type of sumps shall be cleaned and inspected yearly - with written documentation kept at the facility so that OCD may view the inspection results at any time during a facility inspection.

Note: Any new sumps, below grade tanks, double lined evaporation ponds, or modifications to the remmediation system will be approved by the OCD Santa Fe office before installation - Please see the enclosed "Discharge Plan Guidelines, Revised 12-95" for other items that require OCD approval.

- All results from the previous discharge plan approval tank testing shall be submitted to the OCD Santa Fe office - as the OCD has not yet received the results form these previous tests.

- The firewater pond needs to be investigated for contamination - please submit a work plan as part of the renewal to address possible contamination at the firewater pond. The work plan shall include sample analysis for BTEX, TPH, Heavy Metals, as well as other applicable Hazardous Constituents and Characteristics found in 40 CFR Part 261.

- During the inspection it was noted that several groundwater wells were ungrouted - see photo No. 20 - these type of wells need to be grouted to surface with a cement grout containing 5% bentonite.

- The two 55,000 bbl tanks that are currently being leased by Giant are in need of housekeeping - see photo No. 14.

- General housekeeping is a concern - all small spills shall be racked out.

- The below grade tank (UST) needs to have the water that was in the secondary containment evacuated. The PH and Conductivity of the water in the secondary containment needs to measured and compared with the PH and conductivity of the water inside of the UST to make certain that the UST still has integrity and is not leaking. Also, the secondary containment inspection pipe shall be capped.

- If Thriftway starts up the Refinery a monitoring plan for all leak detection and spill containment areas shall be proposed and implemented by Thriftway to ensure that minor spills and leaks are addressed promptly before they become major leaks and spills.

- Enclosed for Thriftways reference are the OCD approval letter dated May 13, 1991, and the OCD inspection report dated February 13, 1990. All items that have not been addressed as previously required must be addressed promptly as part of the renewal process.

- Please provide the OCD with the plugging information on the two Ojo Alamo wells at the site - SJ 103 and SJ 103-S. During the inspection it was stated that the two wells had been plugged and abandoned. In verbal conversation with the State Engineers office they indicated that they had no records of the wells being plugged. The OCD is concerned that these wells could act as conduits to the ground water.

- Under the Spill/Leak Prevention and solid waste disposal please refer to NMOCD Rule 116 and WQCC 1203 for spill reporting. Contact the Aztec District NMOCD office at 334-6178 for initial verbal reporting.

- Please include under section 7 and 8 as shown in the NMOCD "Discharge Plan Guidelines, Revised 12/95" on pages 6 through 11 of the guidelines all waste streams and their final disposition.

- Thriftway shall notify the OCD Aztec District office and the Santa Fe Division office 72 hours before start up of the Refinery so that OCD can make arrangements to conduct a compliance inspection during operations.

If Thriftway has any questions with regards to this inspection report feel free to contact the OCD (505)-827-7156.

Sincerely,

Patricio W. Sanchez
Petroleum Engineer

enclosure

XC: Mr. Denny Foust

NMOCD
DISCHARGE PLAN GUIDELINES
12/95 VERSION

GUIDELINES FOR THE PREPARATION OF DISCHARGE PLANS

AT NATURAL GAS PLANTS, REFINERIES, COMPRESSOR AND CRUDE OIL PUMP STATIONS

(Revised 12-95)

OIL CONSERVATION DIVISION
2040 SOUTH PACHECO
SANTA FE, NEW MEXICO 87505
PHONE: 505-827-7131
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Introduction

The New Mexico Oil Conservation Division (OCD) regulates disposal of non-domestic wastes resulting from the activities at Natural Gas Plants, Refineries, Compressor and Crude Oil Pump Stations pursuant to authority granted in the New Mexico Oil and Gas Act and the Water Quality Act. OCD administers, through delegation by the New Mexico Water Quality Control Commission (WQCC), all Water Quality Act regulations pertaining to surface and ground water except sewage. However, if the sewage is in a combined waste stream, the OCD will have jurisdiction.

Sections 3104 and 3106 of the WQCC Regulations stipulate that, unless otherwise provided for by the regulations, no person shall cause or allow effluent or leachate to discharge so that it may move directly or indirectly into the ground water unless such discharge is pursuant to a discharge plan approved by the director. The Oil and Gas Act (Section 70-2-12.B(22)) authorizes the OCD to regulate the disposition of non-domestic, non-hazardous wastes at oil field facilities to protect public health and the environment. The OCD has combined these requirements into one document, (a "discharge plan") that will provide protection to ground water, surface water and the environment through proper regulation of the transfer and storage of fluids at the facility, and disposal of waste liquids and solids.

A proposed discharge plan shall set forth in detail the methods or techniques the discharger proposes to use which will ensure compliance with WQCC regulations and the Oil and Gas Act. The proposed discharge plan must provide the technical staff and the director of the regulating agency (in this case, the OCD) with sufficient information about the operation to demonstrate that the discharger's activities will not cause state regulations or ground water standards (WQCC Section 3103) to be violated.

A facility having no intentional liquid discharges still is required to have a discharge plan. Inadvertent discharges of liquids (ie. leaks and spills, or any type of accidental discharge of contaminants) or improper disposal of waste solids still have a potential to cause ground water contamination or threaten public health and the environment. The discharge plan must address surface facility operations including storage pits, tankage and loading areas.

For new or proposed facilities, WQCC Regulation 3106.B. requires the submittal and approval of a discharge plan prior to the start of discharges. The regulation further specifies that "for good cause shown, the director may allow such a person to discharge without an approved discharge plan for a period not to exceed 120 days."

For existing facilities, WQCC Regulation 3106.A. provides for submittal of a ground water discharge plan within "120 days of receipt of written notice that a discharge plan is required, or such longer time as the director shall for good cause allow." Dischargers not having an approved discharge plan may continue discharging "without an approved discharge plan until 240

days after written notification by the director that a discharge plan is required or such longer time as the director shall for good cause allow."

After a discharge application plan has been received, the OCD must publish a public notice pursuant to Section 3108 of the regulations, and allow 30 days for public comment before a discharge plan may be approved or otherwise resolved. If significant public interest is indicated, a public hearing will be held which will delay a decision on plan approval.

Once a plan has been approved, discharges must be consistent with the terms and conditions of the plan. Similarly, if there is any facility expansion or process change that would result in any significant modification of the approved discharge of water contaminants, the discharger is required to notify this agency, and have the modification approved prior to implementation. Approval of a discharge plan application by OCD will not relieve the operator of the necessity to become familiar with other applicable state and federal regulations, especially EPA's Hazardous Waste Regulations.

The review of a proposed discharge plan can require several months depending on complexity. This includes time for requests to the discharger for additional information and clarification, in-house information gathering and analysis, and field investigations of the discharge site, and a public notice and comment period. Review time will, to a large extent, be dependent on the extent to which a facility has generally self-contained processes to prevent movement of fluids and leaching of solids from the work area into the environment.

For example, the review process will be expedited when effluent, process or other fluids are routed to tanks, or double lined pits with underdrains for leak detection, when accurate monitoring of fluid volumes and pressure and/or integrity testing is performed for leak detection in below grade or underground tanks, and when the possibility of accidental spills and leaks is addressed by adequate contingency plans (e.g. containment by curbing and drainage to properly constructed sumps). Other examples allowing faster review include recycling of used lube oils, proper disposal of dried sludges to minimize potential ground water contamination, and closure of previously used ponds. The more rapid review of discharge plans for such facilities is possible because much less geologic and hydrologic study of the site is required in order to delineate impact.

Similarly, longer review times will be required for operators seeking to continue to use unlined ponds or to utilize other procedures that have a high probability of allowing infiltration and movement of effluent and leachate to the subsurface. For these instances large amounts of technical data generally will be required including: 1) detailed information on site hydrogeology, natural and current water quality, and movement of contaminants; 2) processes expected to occur in the vadose and saturated zones to attenuate constituents to meet WQCC standards at a place of present or reasonably foreseeable future use of ground water; and 3) monitoring of ground water (including post operational monitoring as necessary).

If an operator desires to change or modify effluent or solid waste disposal practices it is not necessary to have completed all such changes prior to plan approval. A commitment to make the changes together with submittal of proposed modification details and a timely completion schedule can be included in the plan. These become plan requirements after the plan is approved.

The following discharge plan application guidelines have been prepared for use by the discharger to aid in fulfilling the requirements of Sections 3106 and 3107 of the WQCC regulations and to expedite the review process by minimizing OCD requests for additional information. It sets up a logical sequence in which to present the information required in a discharge plan for this type of facility. It is suggested that you read the entire document before preparing your application. Not all information discussed may be applicable to your facility. However, all sections of the application must be completed.

NOTE: A completed "Discharge Application" form including date and signature must be included with the application along with the filing fee described in WQCC 3114. The filing fee should be made payable to - NMED Water Quality Management Fund.

If there are any questions on the preparation of a discharge plan, please contact OCD's Environmental Bureau. (2040 S. Pacheco, Santa Fe, New Mexico 87505 or by telephone at (505) 827-7131).

DISCHARGE PLAN GUIDELINES

1. Type of Operation

Indicate the major operational purpose(s) of the facility.(i.e. Gas Plant, Refinery, Crude Oil pump station, or Compressor station.) If the facility is a compressor station include the total combined site rated horsepower.

2. Name of Operator or Legally Responsible Party and Local Representative

Include address and telephone number.

3. Location of the Discharge Plan Facility

Give a legal description of the location (i.e. 1/4. 1/4, Section, Township, Range) and county. Use state coordinates or latitude/longitude on unsurveyed land. Submit a large scale topographic map, facility site plan, or detailed aerial photograph for use in conjunction with the written material. If within an incorporated city, town or village also provide a street location and map.

4. Landowners

Attach the name, telephone number, and address of the landowner(s) of record of the facility site.

5. Facility Description

Attach description of the facility with a diagram indicating location of fences, pits, berms, and tanks on the facility. The diagrams of the facility should depict the locations of discharges, storage facilities, disposal facilities, processing facilities and other relevant areas including drum storage. Show the facility/property boundaries on the diagram.

6. Materials Stored or Used at the Facility

For each category of material listed below provide information on the general composition of the material or specific information (including brand names if requested),whether a solid or liquid, type of container (tank, drum, etc.), estimated volume stored, and location (yard, shop, drum storage, etc.). **MSD sheets need only be provided as requested; sheets for all chemicals should be maintained at the facility.**

A. Process specific chemicals - i.e. TEG, Amine, Lean Oil, etc.

B. Acids/Caustics;

C. Detergents/soaps;

D. Solvents, inhibitors and degreasers;

E. Paraffin Treatment/Emulsion breakers;

F. Biocides;.

G. Others;

7. Sources and Quantities of Effluent and Waste Solids Generated at the Facility

A. For each source include types of major effluent (e.g. produced water, spent gas treating fluids, heat media, hydrocarbons, sewage, etc.) estimated quantities in barrels or gallons per month, and types and volumes of major additives (e.g. acids, biocides, detergents from steam cleaner, degreasers, corrosion inhibitors etc.)

1. Separator(s), Scrubber(s), and Slug Catcher(s);

2. Boilers, Waste Heat Recovery Units, cogeneration facilities, and cooling towers/fans;

3. Wash down/Steam out effluent from process and storage equipment internals and externals;

4. Solvent/degreaser use;(Describe)

5. Spent acids or caustics; (Describe).

6. Used engine coolants;(i.e. antifreeze)

7. Used lubrication and motor oils;

8. Used lube oil and process filters;

9. Solids and sludges from tanks (provide description of materials)

10. Painting wastes;

11. Sewage (Indicate if other wastes are mixed with sewage; if no commingling occurs domestic sewage under jurisdiction of the NMED);

12. Laboratory wastes;

13. Other waste liquids; (Describe in detail)

14. Other waste solids; (e.g. used drums, molecular sieve materials, charcoal filter media, etc.)

B. Quality Characteristics.

Provide the following information for each above listed source where applicable:

1. Provide concentration analysis for Total Dissolved Solids (TDS) and Major Cations/Anions (eg. F,Br,Ca,K,Mg,Na,HCO3,CO3,Cl,SO4 in mg/l), Ph, and Conductivity in umhos/cm.

2. Provide hydrocarbon analysis for benzene, ethyl benzene, toluene, and meta-, ortho-, and Para-xylene (i.e. BTEX).

3. Provide analyses for WQCC section 3103 standards not included within above analyses. Exceptions can be approved upon request for certain constituents if not used in processing or not expected to be present in the waste water effluent.

4. Discuss the presence or absence of toxic pollutants (WQCC 1101.TT) in each process where a discharge/possible discharge effluent may be generated. If present, provide volumes and concentrations. Estimates may be used pending Director evaluation of discharge plan submittal and proposed discharge methods.

5. Discuss sampling locations, methods, and procedures used to obtain values for #1, 2, and 3 above. Include information as to whether the sample was "grab" or "time-composite", and sample collection and preservation techniques, laboratory used for the analysis, etc. Sources for sampling and analytical techniques to be used are listed in WQCC 3107.B.

6. Discuss any variations that could produce higher or lower values than those shown by the sampling procedures outlined above in #5 - i.e. flowrate variations, process upsets, etc. If major variations are expected or inherent with a particular process, provide ranges and the expected average.

C. Commingled Waste Streams.

Note: It is recommended that waste streams be segregated as much as possible-especially those wastes that are exempt from RCRA Subtitle C regulations and those that are non-exempt. If hazardous wastes are on site they should never be commingled with exempt wastes or non-exempt non-hazardous wastes. For guidance in dealing with hazardous wastes contact the NMED Hazardous and Radioactive Materials Bureau at 505-827-1558.

1. If produced and process fluids are commingled within the facility, and if individual rates, volumes and concentrations do not vary beyond a set range, and if process units are entirely self-contained to prevent intentional discharges and spills or inadvertent discharges (see B. 3,4 previous page), then chemical characterization of commingled effluent or process streams may be sufficient to satisfy discharge plan requirements.

2. If the discharger wishes to submit information on commingled streams in lieu of submittal of individual stream characteristics, adequate information should be provided to justify the request.

8. Description of Current Liquid and Solid Waste Collection/Storage/Disposal Procedures

A. Summary Information.

For each source listed in Part 7, provide summary information about onsite collection, storage and disposal systems. Indicate whether collection/storage/disposal location is tank or drums, floor drain or sump, lined or unlined pit, onsite injection well, leach field, or offsite disposal.

B. Collection and Storage Systems.

1. For collection and storage systems named in Part A, provide sufficient information to determine what water contaminants may be discharged to the surface and subsurface within the facility. Water and wastewater flow schematics may be used provided they have sufficient detail to show individual treatment units. Information desired includes whether tanks, piping, and pipelines are pressurized, above ground or buried. If fluids are drained to surface impoundments, oil skimmer pits, emergency pits, shop floor drains, sumps, etc. for further transfer and processing, provide size and indicate if these collection units are lined or unlined. If lined describe lining material (e.g. concrete, steel tank, synthetic liner, etc.).

2. Tankage and Chemical Storage Areas - Storage tanks for fluids other than fresh water must be bermed to contain a volume one-third more than the

largest tank. If tanks are interconnected, the berm must be designed to contain a volume one-third more than the total volume of the interconnected tanks. All new tank installations must be placed on an impermeable type pad. Chemical and drum storage areas must be paved, curbed and drained such than spills or leaks from drums are contained on the pads or in lined sumps.

3. All facilities must demonstrate the integrity of buried piping. If the facility contains underground process or wastewater pipelines the age and specifications (i.e., wall thickness, fabrication material, etc.) of said pipelines should be submitted. A proposed hydrostatic test method and schedule for testing of piping must be included as part of the submittal. All lines must be tested to a pressure of 3 pounds per square inch above the normal operating pressure in the line, and a duration time for the test will also be proposed for OCD approval. If hydrostatic tests have already been conducted, details of the program and the results should be submitted.

C. Existing Effluent and Solids Disposal.

1. On-Site Facilities

a. Describe existing on-site facilities used for effluent or solids disposal of water, sludges, waste oils, solvents, etc., including surface impoundments, disposal pits, leach fields, floor drains, injection wells, and landfarms etc. (If effluents and solids are shipped off-site for recycling or disposal, see C.2. on pg. 11.) Locate the various disposal areas on the facility site plan or topographic map. Provide technical data on the design elements of each disposal method:

(1) Surface impoundments - date built, use, type and volume of effluent stored, area, volume, depth, slope of pond sides, sub-grade description, liner type and thickness, compatibility of liner and effluent, installation methods, leak detection methods and frequency checked, freeboard, runoff/run on protection.

(2) Leach fields - Type and volume of effluent, leach field are and design layout. If non-sewage or mixed flow from any process units or internal drains is, or has been, sent to the leach fields, include dates of use and disposition of septic tank sludges.

(3) Injection wells - Describe effluent injected, volume, depth, formation, OCD order number and approval date. The effluent must not be classified as a hazardous waste at the time of injection. (Note - Any sump, floor drain or hole deeper than wide used for subsurface emplacement of fluids may be considered an injection well unless its integrity to contain fluids can be (demonstrated). Class II injection wells are required to have an OCD permit and can only inject produced water or other waste fluids brought to the surface that are Exempt from RCRA Subtitle C Hazardous Waste regulations. A Part 5 WQCC Class I Non-Hazardous discharge plan approval will be required if the injection well is used to dispose of Non-Exempt, Non-Hazardous effluent. The effluent can not be classified as a Hazardous Waste by characteristics or listing as spelled out in RCRA Subtitle C.

(4) Drying beds or other pits - Types and volumes of waste, area, capacity, liner, clean-out interval and method, and ultimate disposal location.

(5) Solids disposal - Describe types volumes frequency and location of on-site solids dried disposal. Types solids include sands, sludges, filters, containers, cans and drums.

(6) Landfarms- Describe the surface dimensions of the landfarm area and the operational and monitoring procedures.

NOTE: The OCD has developed specific guidelines for the construction, operation, and monitoring of landfarms.

b. For leach fields, pits, and surface impoundments having single liners of any composition, clay liners or that are unlined and not proposed to be modified or closed as part of this discharge plan:

(1) Describe the existing and proposed measures to prevent or retard seepage such that ground water at any place of present or future use will meet the WQCC Standards of Section 3103, and not contain any toxic pollutant as defined in Section 1101.TT.

(2) Provide the location and design of site(s) and method(s) to be available for effluent sampling. and for measurement or calculation of flow rates.

(3) Describe the monitoring system existing or proposed in the plan to detect leakage or failure of the discharge system. If ground water monitoring exists or is proposed, provide information on the number, location, design, and installation of monitoring wells.

2. Off-Site Disposal.

If wastewater, sludges, solids etc. are pumped or shipped off-site, indicate general composition (e.g. waste oils), method of shipment (e.g. pipeline, trucked), and final disposition (e.g. recycling plant, OCD permitted Class II disposal well, or domestic landfill, etc.). Include name, address, and location of receiving facility. If receiving facility is a sanitary or modified landfill show operator approval for disposal of the shipped wastes.

9. Proposed Modifications

A. If collection and storage systems do not meet the criteria of Section 8 B. above, or if protection of ground water cannot be demonstrated pursuant to Section 8 C.1.b.(1) above, describe what modification of that particular method (including closure), or what new facility, is proposed to meet the requirements of the Regulations. Describe in detail the proposed changes. Provide the information requested in 8 B, and C.1.a. and b. above for the proposed facility modifications and proposed time schedule for construction and completion. (Note: OCD has developed specific guidelines for lined surface impoundments, land farms, below grade tanks, and closure guidelines that are available on request.)

B. For ponds, pits, leach fields, etc. where protection of ground water cannot be demonstrated, describe the proposed closure of such units so that existing fluids are removed, and emplacement of additional fluids and runoff/run on of precipitation are prevented. Provide a proposed time schedule for closure.(Note: The OCD has closure guidelines and are available upon request.)

10. Inspection, Maintenance and Reporting

A. Describe proposed routine inspection procedures for surface impoundments and other disposal units having leak detection systems. Include frequency of inspection, how records are to be maintained and OCD notification in the event of leak detection.

B. If ground water monitoring is used to detect leakage on failure of the surface impoundments, leach fields, or other approved disposal systems provide:

1. The frequency of sampling, and constituents to be analyzed.

2. The proposed periodic reporting of the results of the monitoring and sampling.

3. The proposed actions and procedures (including OCD notification) to be undertaken by the discharger in the event of detecting leaks or failure of the discharge system.

C. Discuss general procedures for containment of precipitation and runoff such that water in contact with process areas does not leave the facility, or is released only after testing for hazardous constituents. Include information on curbing, drainage, disposition, notification, etc.

11. Spill/Leak Prevention and Reporting Procedures (Contingency Plans)

It is necessary to include in the discharge plan submittal a contingency plan that anticipates where any leaks or spills might occur. It must describe how the discharger proposes to guard against such accidents and detect them when they have occurred. The contingency plan also must describe the steps proposed to contain and remove the spilled substance or mitigate the damage caused by the discharge such that ground water is protected, or movement into surface waters is prevented. The discharger will be required to notify the OCD Director of significant leaks and spills, and this commitment and proposed notification threshold levels must be included in the contingency plan. In any case the local OCD District field office should be notified by telephone within 24 hours of a significant spill or release as defined in OCD Rule 116 and WQCC Section 1203.

NOTE: USE NMOCD RULE 116 AND WQCC Section 1203 for spill reporting

A. Describe proposed procedures addressing containment, cleanup and reporting in case of major and minor spills at the facility. Include information as to whether areas are curbed, paved and drained to sumps; final disposition of spill material; proposed schedule for OCD notification of spills; etc.

B. Describe methods used to detect leaks and ensure integrity of above and below round tanks, and piping. Discuss frequency of inspection and procedures to be undertaken if significant leaks are detected.

C. If an injection well is used for on-site effluent disposal, describe the procedures to be followed to prevent unauthorized discharges to the surface or subsurface in the event the disposal well or disposal line is shut-in for work over or repairs (e.g. extra storage tanks, emergency pond, shipment offsite, etc.). Address actions to

be taken in the event of disposal pipeline failure, extended disposal well downtime, etc.

12. Site Characteristics

A. The following hydrologic/geologic information is required to be submitted with all discharge plan applications. Some information already may be on file with OCD and can be provided to the applicant on request.

1. Provide the name, description, and location of any bodies of water, streams (indicate perennial or intermittent), or other watercourses (arroyos, canals, drains, etc.); and ground water discharges sites (seeps, springs, marshes, swamps) within one mile of the outside perimeter of the facility. For water wells, locate wells within one-quarter mile of the outside perimeter of the facility and specify use of water (e.g. public supply, domestic, stock, etc.).

2. Provide the depth to and total dissolved solids (TDS) concentration (in mg/l) of the ground water most likely to be affected by any discharge (planned or unplanned). Include the source of the information and how it was determined. Provide a recent water quality analysis of the ground water, if available, including name of analyzing laboratory and sample date.

3. Provide the following information and attach or reference source information as available (e.g. driller's logs):

   a. Soil type(s) (sand, clay, loam, caliche);

   b. Name of aquifer(s);

   c. Composition of aquifer material (e.g. alluvium, sandstone, basalt, etc.); and

   d. Depth to rock at base of alluvium (if available).

4. Provide information on:

   a. The flooding potential at the discharge site with respect to major precipitation and/or run-off events; and

   b. Flood protection measures (berms, channels, etc.), if applicable.

B. Additional Information

Provide any additional information necessary to demonstrate that approval of the discharge plan will not result in concentrations in excess of the standards of WQCC Section 3103 or the presence of any toxic pollutant (Section 1101.TT.) at any place of withdrawal of water for present or reasonably foreseeable future use. Depending on the method and location of discharge, detailed technical information on site hydrologic and geologic conditions may be required to be submitted for discharge plan evaluation. This material is most likely to be required for unlined surface impoundments and pits, and leach fields. Check with OCD before providing this information. However, if required it could include but not be limited to:

1. Stratigraphic information including formation and member names, thickness, lithologies, lateral extent, etc.

2. Generalized maps and cross-sections;

3. Potentiometric maps for aquifers potentially affected;

4. Porosity, hydraulic conductivity, storativity and other hydrologic parameters of the aquifer;

5. Specific information on the water quality of the receiving aquifer; and

6. Information on expected alteration of contaminants due to sorption, precipitation or chemical reaction in the unsaturated zone, and expected reactions and/or dilution in the aquifer.

13. Other Compliance Information

Attach such other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders. Examples include previous Division orders or letters authorizing operation of the facility or any surface impoundments at the location.

1. Also include a brief statement committing to NMOCD Rule 116 and WQCC Section 1203 spill/leak reporting.

2. A closure plan as described in WQCC Section 3107.A.11 " Monitoring, Reporting, and other Requirements." The "Closure Plan" shall include all of the information described in WQCC Section 3107.A.11 and can use OCD guidelines for accepted remmediation techniques and unlined surface impoundment closure guidelines.

DISCHARGE PLAN GW-055
APPROVAL LETTER DATED
5-13-90 FROM NMOCD.

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

May 13, 1991

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

CERTIFIED MAIL
RETURN RECEIPT NO. P-918-402-110

Mr. F. L. Stark, Vice President
Thriftway Marking Corporation
710 East 20th Street
Farmington, New Mexico 87401

RE: Discharge Plan GW-55
Thriftway Bloomfield Refinery
San Juan County, New Mexico

Dear Mr. Stark:

The groundwater discharge plan (GW-55) for the Thriftway Marketing Corporation Bloomfield Refinery located in the SE/4, Section 32, and SW/2 SW/4, Section 33, Township 29 North, Range 11 West, and the NE/4 NE/4, Section 9, Township 28 North, Range 1 West, NMPM, San Juan County, New Mexico is hereby approved with the following conditions:

1. The Investigation Proposal to investigate the full extent of contamination at the refinery, dated October 30, 1990 and contained in the February 12, 1991 revisions, will commence within thirty (30) days of approval of this discharge plan.

2. All other timetables committed to in your correspondence remain in effect.

The discharge plan consists of the discharge plan application dated July 30, 1990, and materials dated September 17, 1990, October 30, 1990, October 31, 1990, November 20, 1990, February 12, 1990, March 18, 1991, and May 3, 1991, submitted as supplements to the application.

The discharge plan was submitted pursuant to Section 3-106 of the New Mexico Water Quality Control Commission Regulations. It is renewed pursuant to Section 3-109.A.; please note Section 3-109.F., which provides for possible future amendments of the plan. Please be advised that the approval of this plan does not relieve you of liability should your operation result in actual pollution of surface or ground waters or the environment which may be actionable under other laws and/or regulations.

Please be advised that all exposed pits, including lined pits and open top tanks (tanks exceeding 16 feet in diameter), shall be screened, netted, or otherwise rendered nonhazardous to wildlife including migratory birds.

Please note that Section 3-104 of the regulations requires that "When a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3-107.C. you are required to notify the Director of any facility expansion, production increase, or process modification that would result in any change in the discharge of water quality or volume.

Pursuant to Section 3-109.G.4., this plan approval is for a period of five (5) years. This approval will expire May 9, 1996 and you should submit an application for renewal in ample time before that date. It should be noted that all gas processing plants and oil refineries in excess of twenty-five years of age will be required to submit plans for, or the results of an underground drainage testing program as a requirement for discharge plan renewal.

On behalf of the staff of the Oil Conservation Division, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,

William J. LeMay
Director

WJL/RCA/sl

cc: OCD Hobbs Office

SENDER: Complete items 1 and 2 when additional services are desired, and complete items 3 and 4.
Put your address in the "RETURN TO" Space on the reverse side. Failure to do this will prevent this card from being returned to you. The return receipt fee will provide you the name of the person delivered to and the date of delivery. For additional fees the following services are available. Consult postmaster for fees and check box(es) for additional service(s) requested.
1. ☐ Show to whom delivered, date, and addressee's address. *(Extra charge)* 2. ☐ Restricted Delivery *(Extra charge)*

3. Article Addressed to:
(2)
J. L. Stark
Driftway Marketing Co.
710 East 20th St.
Farmington, NM 87401

4. Article Number
P327278110

Type of Service:
☐ Registered ☐ Insured
☑ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

Always obtain signature of addressee or agent and DATE DELIVERED.

5. Signature — Addressee
X

6. Signature — Agent
X M. Stark

7. Date of Delivery
5-14-91

8. Addressee's Address *(ONLY if requested and fee paid)*

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PS Form 3811, Apr. 1989 *U.S.G.P.O. 1989-238-815 DOMESTIC RETURN RECEIPT

INSPECTION REPORT
FROM NMOCD TO
Thriftway Dated 2-13-90

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

February 13, 1990

CERTIFIED MAIL
RETURN RECEIPT NO. P-918-402-210

Mr. F. L. Stark, Vice President
Thriftway Marketing Corporation
710 East 20th Street
Farmington, New Mexico 87401

RE: Discharge Plan GW-55
Bloomfield Refinery
San Juan County, New Mexico

Dear Mr. Stark:

On January 30, 1990 and January 31, 1990, the Oil Conservation Division (OCD) conducted an onsite inspection of the above referenced facility in conjunction with the discharge plan review process. Those present during the inspection were Roger Anderson, Environmental Engineer, OCD; Bill Olson, Water Resource Specialist, Environmental Improvement Division (EID); Mr. F. L. Stark, Vice President, Thriftway Marketing Corporation; Mr. Morris Young, President, Envirotech Inc; and Mr. Rex Farinsworth, Envirotech, Inc.

This letter will serve as official written notification of deficiencies noted during the inspection. Those deficiencies that pose an imminent threat to ground water, the environment, health or safety have corrective action time limits (Numbers 11 and 29) and are to be corrected immediately with OCD approved actions. For the remainder of the deficiencies, proposed actions with a reasonable timetable will be a part of the discharge plan application. The proposed actions should include methods to preclude future repetition of the deficiencies.

The following is a listing of the deficiencies observed during the inspection:

1. The crude unloading facility south of the tank farm had oil ponding on the ground. There were no pads or curbs to contain spills and leaks or prevent migration to the water table. Buried drums, used for storing hose ends, were not equipped with leak detection and had no method to prevent or contain any spillage or overflow.

2. The diesel storage tank at the truck fueling area is not bermed. There are no pads or spill containment devices in the area where the trucks are fueled.

3. Tank #1 (Condensate storage): The tank is equipped with a water draw valve that emptied to the ground and the fluid flowed to a underground concrete sump. There is no impermeable conduit from the valve to the sump. The sump is not equipped with leak detection. A sampling valve on the tank is allowed to leak or drip on the ground. Both inspection hatches were leaking. The valves on the south side of the tank were leaking and did not have any containment for the fluids.

4. Tank #12 (Condensate storage): The pumps on the west side of the tank were leaking. There is no containment for the pumps and runoff of the leaked fluids went to a small earthen pit. A sampling valve on the tank leaks or drips to the ground. The water draw drained through a pipe to an underground concrete sump. The sump is not equipped with leak detection. There is evidence the sump has had uncontained overflows to the ground surface.

5. Tank #14 (Gasoline Storage): The water draw drained directly to the ground. There was no collection sump. The sample valve had no containment for spills or leaks.

6. Tank #13 (Gasoline Storage): The water draw drained to trucks or the ground. There is no containment for leaks or spills and no method for preventing discharge directly to the ground.

7. Tank Farm Transfer Manifold: Valves were leaking with no containment under the valves.

8. Tank #19 (Gasoline Storage): The water draw drained directly to the ground with no containment.

9. Tank #18: The valves off this tank had minor leaks with no containment for the fluid leaking.

10. Diesel Bottom Loading Rack: Oil stained soil encompassed the area. There are no pads or drains to contain any spillage or leaks in the loading area.

11. Tank #20 (Diesel Storage): This tank is a 1933 vintage riveted tank that has had problems with leakage in the past. At the time of the inspection, diesel was leaking from plate seams. There is extensive hydrocarbon staining around the tank. The pumps and valves on this tank were leaking. There is no collection system to contain any of these leaks. The water drain discharges directly to the ground. This tank poses a safety as well as a major environmental problem. If this tank is still being used it must be removed from service and emptied within forty eight (48) hours of receipt of this letter.

12. "Run-down" tanks: There was an ethanol/gasoline mixture in a pool on the ground on the west side of these tanks. The mixture was from overflowing one of the tanks the previous night. There is no system of containment for any spills from the tanks.

13. Ethanol Load Manifold: This manifold can also be used to truck load gasoline. There is no containment for any spills or leaks.

14. Tank #17 (Gasoline Storage): Water draw drained directly to the ground.

15. Tank #22 (Mixer Tank): Valves were leaking with no containment. The water draw drained directly to the ground.

16. Tank #23 (Blend Tank): Valves were leaking with no containment. The water draw drained directly to the ground.

17. Tank #25 (Bolted Tank): This tank has evidence of leaks between the bolted plates.

18. Area between Tank #25 and #26: This area was heavily oil stained. The pump has been leaking on a concrete pad and the oil has flowed off the pad onto the ground. There are no curbs on the pad for containment.

19. Drum area at the MTT Building: There is evidence of drum spillage or leakage with no containment.

20. Tank #27 (Ethanol): The water draw drained directly to the ground.

21. Tank #29: The valves and manifold on the south side of the tank were leaking with no containment. The water draw drained directly to the ground.

22. Tank #21 (Gasoline): The water draw drained directly to the ground.

23. Tank #30 and #31 (Residual Oil): Free oil was observed on the ground inside the berm. The pump on the berm between Tank #30 and #31 had just been replaced. Free oil was seen on both berm sides. The tanks are interconnected, therefore the bermed area for each must be large enough to hold 50% more than the contents of each tank. The bermed areas did not appear to be large enough.

24. The area of the refinery property inside the fence in the north east corner appears to have been used as a soil and/or sludge dump. Additional investigation in this area will be required to determine the impact on ground water. Specific authorization must be obtained if this activity is to continue.

25. In the north center of the facility at the fence line, an open culvert is present that drains runoff from the facility into Kutz Canyon. This culvert must be valved or closed so that all fluids being released into the canyon can be tested prior to release. Pursuant to Section 402(l)(2) of the Federal Waster Pollution Control Act (33 USC 1342), if you wish to continue discharging storm water runoff from the refinery property, a National Pollutant Discharge Elimination System (NPDES) permit must be obtained. This permit is issued by the USEPA with certification from the New Mexico Environmental Improvement Division.

26. Heavy oil loading rack: It was stated this area is inactive, however there is evidence the sump has recently overflowed. The sump is apparently connected to an active portion of the refinery. This sump is not equipped with leak detection.

27. Reflex pump: The pump is mounted on a pad with no curbing for containment. The pump was leaking and fluid was flowing off the pad onto the ground

28. Preflash unit: The pump and valves on the valve manifold were leaking. The unit did not have a pad or containment.

29. Oil Collection Sump: This sump showed a history of overflows. It is not equipped with leak detection. There were cracks in the above ground portion of the concrete which likely extend below grade. A portion of a corner of the sump was damaged and missing. If this sump is still being used it must be taken out of service and emptied within forty eight (48) hours of receipt of this letter.

In addition to the areas identified during the inspection, you and/or your consultant should conduct a survey of the refinery property and determine any additional areas that will require attention. In addition to requirements outlined in the guidelines previously provided to you, the OCD is requiring the following.

1. Berming of tanks: Above grade tanks that contain materials with constituents that can be harmful to fresh water and the environment, if a sudden and catastrophic spill were to occur, must be contained at the site of the spill and mitigated immediately. Containment in a small area at the tank site allows for maximum recovery of fluids and small volumes of contaminants available for infiltration. Without berming, the rupture of a tank will spread its contents over a large area minimizing the amount that can be recovered and increasing the surface area of contaminated soil available to leach contaminants. All tanks that contain these types of materials must be bermed to prevent migration of the fluids and decrease the potential for infiltration. Therefore a commitment and completion schedule is required to be included in the discharge plan application for the berming of vessels that contain fluids other than fresh water. The bermed areas shall be large enough to hold one-third more than the volume of the largest vessel or one-third more than the total volume of all interconnected vessels contained within the berm.

2. Tank Testing: All of the storage tanks at the facility are constructed directly on the ground or an gravel pads. This method of construction does not provide for visual detection of floor leaks from the tanks or the interception of fluids before they reach the water table. Because of this, the shallow water table, and increased potential for corrosion, the OCD requires that tanks containing materials other than fresh water that are twenty five (25) years of age or older be tested every five (5) years and tanks less than twenty five (25) years of age be tested every ten (10) years. Further, because of the shallow depth to ground water (less than 10 feet) and sandy soil material, the OCD will require that the internal slope of the berms and the area surrounded by berms be paved or equipped with an impermeable barrier between the tanks and ground water.

3. Curbing and Paving: The purpose of curbing and paving process areas is to prevent migration and infiltration of any spilled or leaked materials from the process units. Include in the discharge plan application plans and a completion schedule for paving and berming those portions of the process and storage areas where leaks or spills can occur. The total process area does not need to be curbed and paved. Small containment facilities should be placed under and around valves and pumps. Vessels that have overflowed or leaked or have the potential to overflow or leak should also have containment. All drum storage must be paved and curbed.

4. Below Grade Tanks: All newly constructed below grade tanks or sumps will be equipped with leak detection. If a tank or sump is to be removed for repair or replacement, leak detection will be incorporated in the design. For all below grade tanks or sumps presently in service where it is impractical to install leak detection, yearly visual inspection and/or pressure testing will be instituted.

Please be aware that requirements stated in the OCD Director's letter, dated January 18, 1990, prohibit Thriftway from draining any fluids through tank water draws onto the ground. If it becomes necessary to drain water from a tank, the fluid must be drained directly to a vessel.

If there are any questions, please do not hesitate to call me at (505) 827-5884.

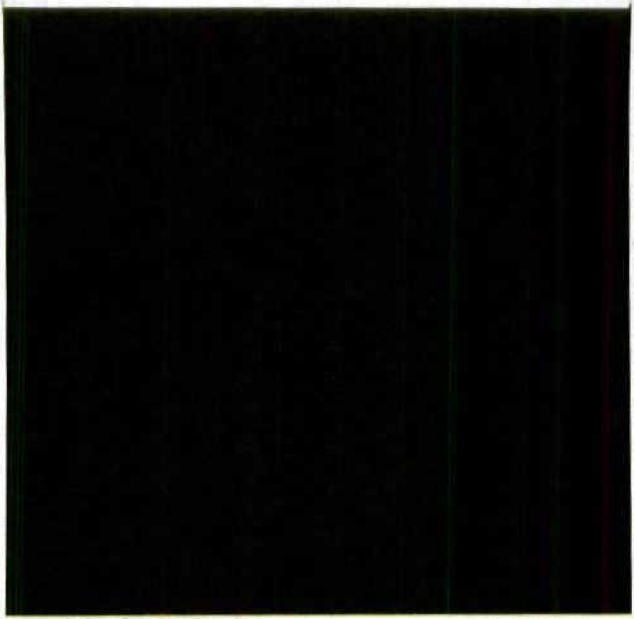
Sincerely,

Roger C. Anderson
Environmental Engineer

RCA/sl

cc: W. J. LeMay
Aztec District Office

PHOTOS TAKEN BY
NMOCD AT GW-055
ON 2-14-96



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North side of thrift way

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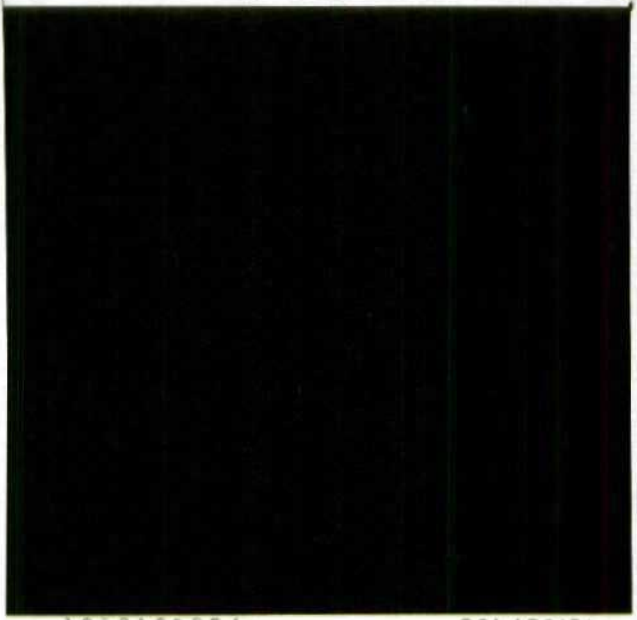

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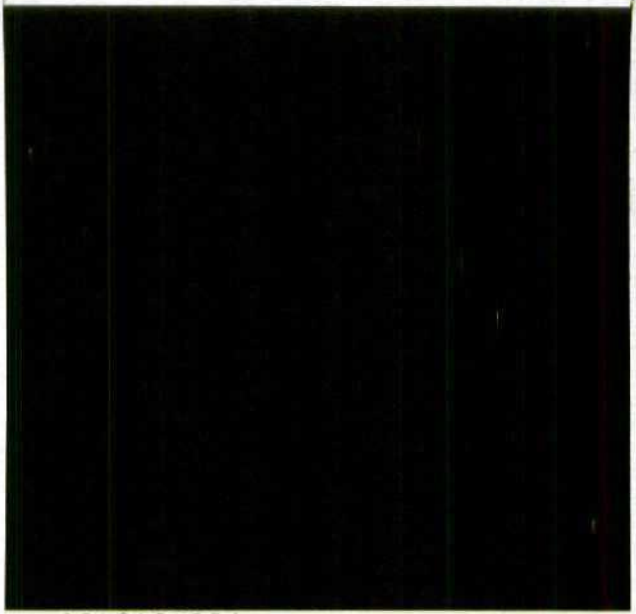
Oil on North side of Thrift way refinery



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North side of Thornet Way refinery

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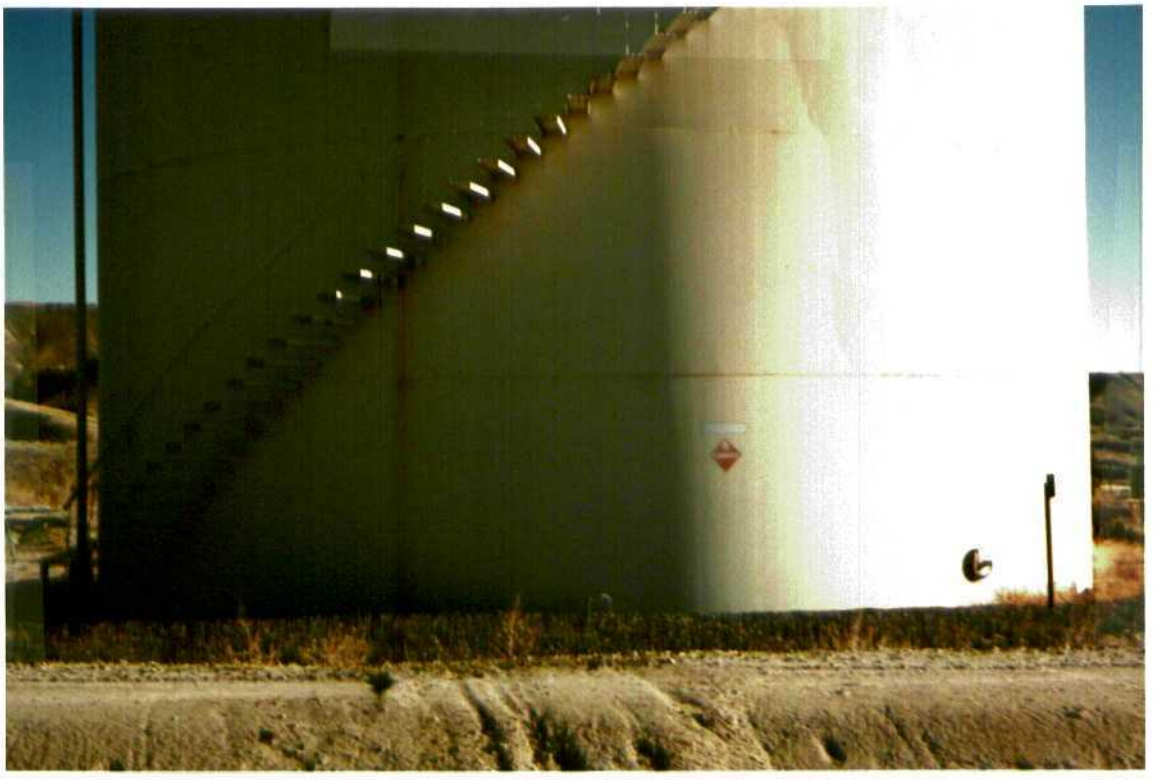
Photo No. 4 GW-055 2-14-96

Photo No. 5 GW-055 2-14-96



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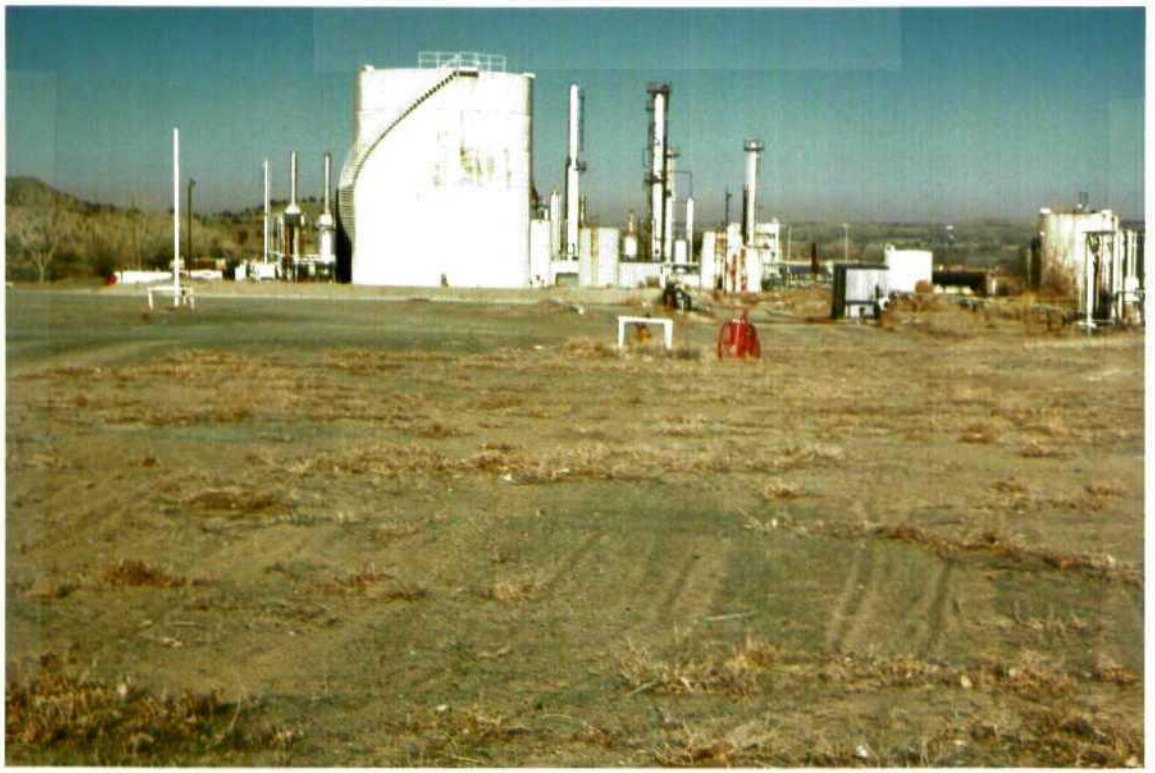

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Photo No. 24 GW-055 2-14-96

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Photo No. 25 GW-055 2-14-96