GW - 22

PERMITS, RENEWALS, & MODS

New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

John H. Bemis
Cabinet Secretary

Brett F. Woods, Ph.D.
Deputy Cabinet Secretary

Jami Bailey
Division Director
Oil Conservation Division

MARCH 7, 2012

Mr. David Harris
Frontier Field Services, LLC.
P.O. Box 70
Artesia, NM 88211

Dear Mr. Harris:

Based on your responses given in the "Oil & Gas Facilities Questionnaire for Determination of a WQCC Discharge Permit" and a file review, the Oil Conservation Division (OCD) has determined that one of your facilities with an expired or soon to be expired permit is not required to operate under a Water Quality Control Commission (WQCC) Discharge Permit. This means that the WQCC Discharge Permit for **GW-022 (EMPIRE ABO GP)** is hereby rescinded and you are not required to proceed with the renewal of this expired WQCC Discharge Permit. OCD will close this discharge permit in its database.

Previously, Frontier has conducted abatement of ground water contamination at this facility under the authority of its WQCC Discharge Permits, pursuant to 20.6.2.4000 NMAC (PREVENTION AND ABATEMENT OF WATER POLLUTION). OCD has determined that Frontier does not intentionally discharge at this facility; therefore, no WQCC Discharge Permit is required. However, because of existing ground water contamination at this facility, OCD is requiring Frontier to continue to abate pollution of ground water pursuant to 19.15.30 NMAC (REMEDIATION). The new Abatement Plan case number for the former GW-022 site is **AP-112**. Please use this Abatement Plan case number in all future correspondence. Please contact Glenn von Gonten at 505-476-3488 to discuss how Frontier may complete its abatement of the remaining ground water contamination at this facility.

Because this WQCC Discharge Permit will now longer be in effect, you may be required to obtain separate OCD permit(s) for other processes at your facility, such as: pits, ponds, impoundments, below-grade tanks; waste treatment, storage and disposal operations; and landfarms and landfills. OCD will determine if any of these existing processes may require a separate permit under OCD's Oil, Gas, and Geothermal regulations. If OCD determines that a separate permit(s) is required, then a letter will be sent to you indicating what type of permit is required.

Please keep in mind, if your facility has any discharges that would require a WQCC Discharge Permit now or in the future, then you will be required to renew or obtain a WQCC Discharge Permit.

If you have any questions regarding this matter, please contact Glenn von Gonten at 505-476-3488.

Thank you for your cooperation.

Jami Bailey
Director

JB/gvg

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of check No. _____ dated 9/24/09

or cash received on _____ in the amount of $ 100 00

from Larson & Associates Inc

for GW-22

Submitted by: Lawrence Romero Date: 9/28/09

Submitted to ASD by: Yolanda Romero Date: 9/28/09

Received in ASD by: _____ Date: _____

Filing Fee ✓ New Facility _____ Renewal _____

Modification _____ Other _____

Organization Code 521.07 Applicable FY 2004

To be deposited in the Water Quality Management Fund.

Full Payment _____ or Annual Increment _____

LARSON & ASSOCIATES, INC.

7523

NEW MEXICO WATER QUALITY MANAGEMENT FUND 9/24/2009

Date	Type	Reference	Original Amt.	Balance Due	Discount	Payment
9/24/2009	Bill	GW-022	100.00	100.00		100.00
					Check Amount	100.00

WF BK - Checking GW-022 100.00

RECEIVED

FEB 12 2007

Oil Conservation Division
Environmental Bureau

MAJOR MODIFICATION
DISCHARGE PERMIT GW-022
EMPIRE ABO GAS PLANT
EDDY COUNTY, NEW MEXICO

Prepared for:

Frontier Field Services, LLC
257 Empire Road
Artesia, New Mexico

Prepared by:

Larson and Associates, Inc.
507 N. Marienfeld Street
Suite 202
Midland, Texas

February 8, 2007

Mark J. Larson, P.G., C.P.G., C.G.W.P.
Senior Project Manager

Larson & Associates, Inc.
Environmental Consultants

RECEIVED
FEB 12 2007
Oil Conservation Division
Environmental Bureau

February 8, 2007

VIA: FEDERAL EXPRESS (TRACKING NO. 8527 9150 1893)

Mr. Wayne Price
Environmental Bureau Chief
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Major Modification Discharge Permit GW-022, Frontier Field Services, LLC, Empire Abo Gas Plant, Eddy County, New Mexico, February 8, 2007

Dear Mr. Price:

Please find enclosed two (2) copies of the major modification for discharge permit GW-022, which is submitted to the State of New Mexico Oil Conservation Division (NMOCD) on behalf of Frontier Field Services, LLC (Frontier) by Larson and Associates, Inc. (LA), its consultant. This major modification addresses the deficiencies identified by the NMOCD during its review of the renewal application dated August 16, 2004. Frontier will publish the public notice (Appendix C) once the NMOCD has determined the document to be technically complete. Please call Mr. Mike Hicks with Frontier at (918) 388-8417 or email: **mhicks@frontierfieldservices.com**. I may be reached with questions at (432) 687-0901 or email: **mark@laenvironmental.com**. A copy of this major modification has been sent to Mr. Tim Gum, District Supervisor, NMOCD District 2 located in Artesia, New Mexico.

Sincerely,
Larson and Associates, Inc.

Mark J. Larson, P.G., C.P.G., C.G.W.P.
Senior Project Manager/President

Encl.

cc:
Mike Hicks/Frontier
Jeff Stephens/SUGF
Randy McCollum/Frontier
David Harris/Frontier
Tim Gum/NMOCD District 2

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Eddy County, New Mexico
February 8, 2007

1.0 INTRODUCTION

Frontier Field Services, LLC ("Frontier") has been requested by the New Mexico Oil Conservation Division ("NMOCD") to submit a major modification for its discharge permit (GW-022) for the Empire Abo Gas Plant ("Facility") located in unit I (NE/4, SE/4), Section 3, Township 18 South, Range 27 East in Eddy County, New Mexico. This major modification has been prepared in accordance with New Mexico Water Quality Control Commission ("WQCC") rules at the request of Frontier and is submitted to the NMOCD by its consultant, Larson and Associates, Inc. ("LA"). The latitude and longitude for the Facility is approximately north 32° 46' 37.4" and west 104° 15' 32.7", respectively. Figure 1 presents a Facility location and topographic map. Contact information for Frontier is as follows:

Name:	Mr. David Harris
Title:	Plant Manager
Physical Address:	257 Empire Road
	Artesia, New Mexico
Mailing Address:	Drawer 70
	Artesia, New Mexico 88211-0070
Telephone (direct):	(505) 677-5177
Fax:	(505) 677-5152
Cell:	(505) 703-0891
Email:	dharris@frontierfieldservices.com

1.1 Background

On December 12, 2006, Frontier received a letter from the NMOCD that notified Frontier that it had completed the technical review of a renewal application for its discharge permit that had been submitted to the NMOCD on August 16, 2004. The renewal application had been prepared by R.T. Hicks Consultants, LTD. ("Hicks") on behalf of the former owner, BP America Production Company ("BP"). The NMOCD found the discharge permit renewal application to be technically deficient and required Frontier to submit a major modification that includes the following:

- Detailed information on site geologic and hydrologic conditions pursuant to WQCC 20.6.2.3106C(7) NMAC (*Application for Discharge Permits Renewals*);
- Ground water investigation and abatement program and public notification of this major modification of its discharge permit;
- Ground water monitoring plan pursuant to WQCC 20.6.2.3107 NMAC (*Monitoring, Reporting, and Other Requirements*);

- Impermeable secondary containment per NMOCD best management practices ("BMP") for storing products or waste, except for fresh water and certain products that are gaseous at atmospheric conditions;

- Separate major modification of the discharge permit, public notice, financial assurance, and a public hearing for a proposed National Discharge Elimination System ("NPDES") permit to discharge wastewater stream on-site directly on the ground;

- Closure and post-closure financial assurance pursuant to WQCC 20.6.2.3107A (11) NMAC (*Monitoring, Reporting, and Other Requirements*);

- Update spill prevention, control and countermeasure ("SPCC") plan that names Frontier as the Facility owner and identifies names and telephone numbers for personnel responsible in case of an accidental spill; and

- Provide public notice pursuant to WQCC 10.6.2.3108 NMAC (*Public Notice*).

Appendix A presents NMOCD correspondence.

2.0 MAJOR MODIFICATION REQUIREMENTS

2.1 Geologic and Hydrologic Information

2.1.1 Topography

The Facility is located about ten (10) miles southeast of Artesia, New Mexico, at an elevation of approximately 3,550 feet above mean sea level ("MSL"). The topography is characterized by gullies that have been incised due to erosion from intermittent streams that flow to the Pecos River, located approximately 3.5-miles west of the Facility. Scoggin Draw is the nearest drainage and is located about 1,600 feet south-southeast of the Facility. Scoggin Draw is a tributary of Chalk Bluff Draw and discharges to the Pecos River near the southwest quarter (SW/4) of Section 18, Township 18 South and Range 27 East or about 4.5-miles southwest of the Facility.

2.1.2 Soil

The Facility is underlain by soils of the Reeves - Gypsum land – Cottonwood association. This association consists of gently rolling soil on plains, low hills and on Gypsum land. The association is comprised of approximately 40% Reeves soil, 30% Gypsum land and the remainder consists of Cottonwood, Kaaro, Russler, Reagan, Largo and Ector soils. The Reeves soil generally occurs in swales and drainages. The Gypsum land soil occurs on the highest part of the landscape ands on breaks near drainages where there is little to no soil. The Cottonwood soil occurs in slight depressions. Soils of the Reeves - Gypsum land – Cottonwood association is generally used for livestock grazing and irrigated crops, including cotton, alfalfa and small grains.

2.1.3 Geology

The Facility is located on the northwest shelf of the Permian Basin, an asymmetric structural basin and major oil and gas producing area. Rocks beneath the Facility dip to the east and southeast toward the San Simon Channel, a major linear feature associated with the Permian Basin. No major structural features (i.e., faults, folds, etc.) have been identified in the vicinity of the Facility, but the attitude of geological strata exposed in minor drainages east and west of the Facility suggests that a small-scale flexure (anticline) is located beneath the Facility. The flexure trends from north to south and early geologic fieldwork by Hendrickson and Jones (1952) identified such structural irregularities as collapse features from dissolution of salt and gypsum beds and collapse of the overlying rocks.

The fieldwork by Hendrickson and Jones (1952) identified the uppermost geological unit beneath the Facility as the Three Twins member of the Chalk Bluff formation (Permian). Hendrickson and Jones also identified two (2) lower members of the Chalk Bluff formation as the Seven Rivers gypsiferous and Queen sandstone members, in descending order. Hendrickson and Jones concluded that the Three Twins member was equivalent to the Tansil and Yates formations, in descending order, of the Whitehorse Group north of Carlsbad, New Mexico.

Current literature (Dane and Bachman, 1958 and 1965 and Scholle, 2003) recognizes the upper geologic unit as the Tansil formation (Permian) of the Artesia group. The Tansil formation is underlain by the Yates and Seven Rivers formations, in descending order and also of the Artesia group. The Queen and Grayburg formations, in descending order and of the Artesia group, underlie the Tansil, Yates and Seven Rivers formations. The Tansil, Yates and Seven Rivers formations consist of dolomite, limestone and gypsum interbedded with sandstone and gypsum. Quaternary-age alluvium may occur over the Tansil formation where the formation is not exposed from erosion. The alluvium consists of unconsolidated deposits of clay, sand, silt and gravel.

Approximately 40 monitoring wells and piezometers have been at the Facility from depths ranging from approximately 24 feet (MW-02-06) to 112 feet (MW-03-04) below ground surface ("bgs"). Geological logs from the wells and piezometers have described subsurface material that is consistent with the description for the alluvium and Tansil formation, including sand, clay, limestone, siltstone and anhydrite. An accurate geological cross section is not possible since a licensed professional land surveyor has not surveyed the wells and piezometers for location and elevation. Figure 2 presents a Facility drawing that shows the approximate locations for the wells and piezometers.

2.1.4 Ground Water

The Facility is located about 3.5-miles east of the Pecos River and the Roswell Basin. The Roswell Basin contains major alluvial and carbonate rock aquifers that underlie the Pecos River and area between Roswell and Carlsbad, New Mexico

(Robinson and Banta, 1995). The Tansil, Yates and Seven Rivers formations laterally abut and are exposed above the alluvium east of the Pecos River. Ground water in the Tansil, Yates and Seven Rivers formations near the Pecos River likely discharges to the alluvium, however, the regional ground water flow direction is to the east and southeast, and is consistent with the structural dip of the geology. Robinson and Banta reported that chloride concentrations in ground water from the carbonate rock aquifer (Tansil, Yates and Seven Rivers formations) east of the Pecos River contained chloride concentrations greater than 2,000 milligrams per liter ("mg/L").

On July 11, 2006, depth-to-ground water beneath the Facility ranged in depth from approximately 8.2 (MW-07) to 64.55 feet below ground surface ("bgs'"). The elevation of the ground water surface ranged from approximately 3,536.93 feet above mean sea level ("MSL") at well MW-07 to 3,463.55 feet above MSL at piezometer P-04. The elevations are considered approximate and are based on an interpretation of ground elevation from the U.S.G.S. 7.5- minute topographic map for the Spring Lake Quadrangle (1955, Photorevised in 1975). Figure 3 presents the approximate ground water elevations from monitoring wells and piezometers on July 11, 2006.

Referring to Figure 3, the ground water surface contours suggests that a ground water mound may exist near the north side of the Facility, but the ground water surface contours east and southeast of the Facility indicate that ground water flows to the southeast and has an estimated hydraulic gradient of approximately 0.062 feet per foot.

2.1.5 Ground Water Quality

Ground water samples were collected from the monitoring wells and piezometers by Hicks personnel in December 1999, September 2005, February 2006, May 2006, July 2006 and October 2006. The samples were analyzed for benzene, toluene, ethyl benzene, xylenes (commonly referred to as BTEX), naphthalene, chloride, sulfate and total dissolved solids ("TDS"). Isopleth maps showing the concentrations for benzene (Figure 4), chloride (Figure 5), sulfate (Figure 6) and TDS (Figure 7) were from available data. Table 1 presents a summary of the laboratory analysis of ground waster samples.

Referring to Figure 4, benzene exceeded the WQCC human health standard of 0.01 mg/L in all wells, except MW-02, MW-02-02, MW-02-05, MW-03-01, MW-03-02, MW-08, EB-01, EB-02, EB-04, EB-05, EB-06 and EB-07. Benzene was highest in ground water from well MW-02-11 (49 mg/L) on December 14, 1999, located near the northeast corner of the Facility. The benzene concentrations decrease to the southeast (down gradient). The extent of the benzene was not determined northeast, east and southeast of the Facility, based on available data.

Toluene exceeded the WQCC human health standard of 0.75 mg/L in ground water from wells MW-02-06 (3.6 mg/L), MW-02-11 (2.7 mg/L) and EB-08 (0.78 mg/L). Ethyl benzene exceeded the WQCC human health standard of 0.75 mg/L in ground water

from wells MW-02-06 (1.4 mg/L), MW-02-11 (1.4 mg/L), MW-02-13 (3.6 mg/L), MW-04 (1.6 mg/L), and EB-08 (1.91 mg/L). Xylenes exceeded the WQCC human health standard of 0.62 mg/L in ground water from wells MW-02-06 (2.37 mg/L), MW-02-11 (2.26 mg/L), MW-02-13 (2.11 mg/L), MW-03-03 (0.66 mg/L), MW-04 (0.878 mg/L), MW-09 1.17 mg/L) and EB-08 (3.4 mg/L). Naphthalene exceeded the WQCC human health standard of 0.03 mg/L in ground water samples from wells MW-02-12 (0.054 mg/L), MW-02-13 (0.18 mg/L) and MW-09 (0.11 mg/L).

Referring to Figure 5, chloride exceeded the WQCC domestic water quality standard of 250 mg/L in ground water from all wells, except MW-02 (77.5 mg/L), MW-02-11 (221 mg/L), MW-02-15 (220 mg/L), MW-02-18 (229 mg/L), EB-01 (28.5 mg/L), EB-02 (99.2 mg/L), EB-03 84 mg/L), EB-05 (44 mg/L), EB-06 (150 mg/L) and EB-07 (170 mg/L). Chloride was highest in ground water from wells MW-02-05 (13,800 mg/L) and MW-02-02 (11,200 mg/L) located near the northwest corner of the Facility. The concentration of chloride in ground water at well EB-02, located near the southeast corner of the Facility, was 99.2 mg/L, but the concentration increased to 704 mg/L at well EB-04, which is located about 875 feet southeast of the Facility. The chloride impact was not determined north, northeast and southeast of the Facility, based on available data.

Referring to Figure 6, sulfate exceeded the WQCC domestic water quality standard of 600 mg/L in all samples. Sulfate was highest in ground water from wells MW-02-02 (212,000 mg/L) and MW-02-05 (203,000 mg/L) located near the northwest corner of the Facility. The sulfate may be from dissolution of gypsum in the carbonate rocks. The extent of the sulfate was not determined west, northwest, north, northeast east, southeast and south of the Facility, based on available data.

Referring to Figure 7, TDS exceeded the WQCC domestic water quality standard of 600 mg/L in all samples and may be associated with the dissolution of gypsum in the carbonate rocks. The TDS was highest in ground water from wells MW-02-02 (344,000 mg/L) and MW-02-05 (398,000 mg/L) located near the northwest corner of the Facility and correlates with concentrations of chloride and sulfate that was reported in the wells. The extent of the TDS in ground water was not determined west, northwest, north, northeast east, southeast and south of the Facility, based on available data.

2.1.6 Phase-Separated Hydrocarbons

Phase-separated hydrocarbons ("PSH") were observed in wells MW-02-06, MW-02-10, MW-02-12, MW-02-13, MW-03-03 and piezometer P-03. Depth to ground water measurements suggest that screens in approximately thirty-one (31) wells and piezometers are below the water table, which prevents PSH from entering the wells and does not allow for an accurate assessment of the PSH thickness. Figure 3 presents wells and piezometers where PSH has been observed and ground water elevation were corrected for the PSH using a specific gravity of 0.7. Figure 8 also presents the wells and

piezometers where PSH has been observed and where ground water has been observed above the screens.

2.2 Ground Water Investigation

Frontier proposes to conduct further investigations to determine the extent of impact to ground water and the distribution of PSH on the ground water. The proposed investigations include:

- Survey of existing wells and piezometers for elevation (ground and top of casing) and location;
- Collecting depth-to-groundwater and PSH measurements from the existing monitoring wells and piezometers and preparation of groundwater potentiometric and PSH distribution maps;
- Collection of groundwater samples from existing monitoring wells to assess concentrations of WQCC constituents;
- Conduct electromagnetic ("EM") terrain conductivity surveys to assess the ground water contaminant plume;
- Review aerial photographs to identify potential source areas for the ground water impact;
- Install shallow monitoring wells near wells with submerged screens to assess PSH distribution;
- Install additional monitoring wells off-site to delineate the ground water contaminant plume;
- Conduct horizontal hydraulic conductivity (slug) tests to calculate the average horizontal hydraulic conductivity for the ground water unit;
- Prepare a report that includes additional investigation and/or abatement plans for the ground water contaminant plume and PSH; and
- Conduct remedial pilot testing.

2.2.1 Well and Piezometer Survey

A State of New Mexico licensed professional land surveyor will survey the existing monitoring wells and piezometers for location and elevation (ground and top of casing) referenced to a USGS datum. The survey will used to prepare an accurate base map for plotting ground water elevations, contaminant concentrations and geological cross sections.

2.2.2 Depth to Ground Water and PSH Measurements

Measurements of depth to ground water and PSH will be collected from the existing wells and piezometers and used to prepare accurate ground water potentiometric and PSH distribution maps. The measurements will also be compared to previous measurements and to construction records for the wells to assess screen placement.

2.2.3 Ground Water Sample Collection and Analysis

Ground water samples will be collected from the existing monitoring wells to assess the concentrations of WQCC constituents in ground water. The wells will be samples using low-flow techniques, bailed using dedicated disposable polyethylene bailers or pumped using an electric submersible pump and dedicated tubing. The groundwater samples will be collected directly from the low-flow pump or carefully poured from the dedicated disposable bailers into laboratory prepared sample containers. The sample containers will be labeled, chilled in an ice chest, delivered under chain of custody control to an environmental laboratory and analyzed for WQCC metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver), volatile organic compounds (BTEX, carbon tetrachloride, 1,2-dichloiroethane, 1,1-dichloroethylene, 1,1,2,2-trichloroethylene, methylene chloride, chloroform, 1,1-dichloroethane, ethylene dibromide, 1,1,1-trichloroethane, 1,1,2-trichloroethane, vinyl chloride), polyaromatic hydrocarbons ("PAH"), cations (magnesium, potassium, sodium) anions (alkalinity, chloride, sulfate, nitrate) and TDS. Quality assurance and quality control ("QA/QC") samples will be collected to verify field and laboratory procedures. The metals samples will be filtered using 0.45 micron dedicated disposable filters. The laboratory reports will be reviewed for completeness and the results tabulated and isopleth map prepared to assess distribution of contaminants.

2.2.4 Electromagnetic (EM) Terrain Conductivity Surveys

Frontier will consider conducting electromagnetic (EM) terrain conductivity surveys to assess the ground water plume after receiving and reviewing the laboratory analysis of ground water samples. The EM method measures the electrical properties of soil and rock, as well as the electrical properties of groundwater, which is influenced by TDS of the formation water. The EM method utilizes current flow induced in the subsurface materials by a surface transmitter, which generates an alternating magnetic field that induces current flow through the earth material creating a secondary magnetic field that is sensed by a surface receiver. The primary magnetic field, current frequency, and coil separation can be accounted for, leaving ground conductivity as the only unknown variable to be measured. The EM surveys will be performed using EM-31 and EM-34-3 terrain conductivity meters manufactured by Geonics, Ltd., in Toronto, Ontario, Canada The EM-31 has exploration depths from approximately 9.8 feet bgs (horizontal dipole) to 19.7 feet bgs (vertical dipole). The EM-34-3 has exploration depths from approximately 25 feet to 200 feet depending on coil spacing (i.e., spacing between the transmitting and receiving coils), and coil orientation (i.e., horizontal or vertical dipole). The EM-34-3 has coil spacing of 10 meters (25 or 50-foot depth of exploration), 20

meters (50 or 100- foot depth of exploration), and 40 meters (100 or 200-foot depth of exploration). The EM surveys will be performed with the EM-31 (HD and VD modes) and EM-34-3 using the 10-meter and 20-meter coil separation (HD and VD modes). The measurements will be collected using sample grids measuring approximately 50 x 50 feet and measurements will be recorded on field sheets for inclusion in the investigation report. The conductivity readings will be displayed on contoured drawings for each interval.

2.2.5 Aerial Photographs

Aerial photographs will be reviewed to assess potential sources for ground water contaminants and will include a photograph prior to Facility construction (1962) and for each decade following construction. The aerial photographs will be included in the investigation report.

2.2.6 Monitoring Wells

Shallow monitoring wells will be drilled at number of locations and near wells with submerged screens to assess the distribution of PSH. The shallow wells will be drilled using conventional air rotary or hollow stem auger drilling techniques and will be advanced approximately eight (8) feet into the ground water. Soil samples will be collected at the surface and approximately every five (5) feet thereafter and examined by a professional geologist for geological properties according to the unified soil classification system and standard geological practices. Headspace samples will be collected according to NMOCD guidelines and analyzed using a photoionization detector ("PID") to assess potential for impacts from petroleum hydrocarbons. Soil samples may be analyzed for BTEX and total petroleum hydrocarbons ("TPH"), based on the PID readings and visual observations of the samples. Drill cuttings will be placed on the ground adjacent to the borings until disposal is arranged.

The wells will be constructed using 2-inch schedule 40 PVC casing and screen. Approximately fifteen (15) feet of screw-threaded screen will be placed in each well, with approximately 7 feet of screen above ground water and 8 feet in ground water. Graded silica sand will be placed from the bottom of the borings to approximately 2 feet above the screen. Approximately 2 feet of bentonite chips will be place above the sand and the remainder of the annulus filled to within 1 foot of ground surface with cement-bentonite grout. Each well will be secured with a locking steel above-grade cover anchored in concrete.

Wells will be installed off-site to assess the limits of ground water contamination based on the initial ground water analysis, EM surveys and aerial photographs. Wells may be drilled west, northwest, north, northeast, east, southeast and southwest and developed to remove water and fine-grained sediment disturbed during drilling, as previously described. The development water will be contained in a portable tank and disposed in accordance with NMOCD approved methods. A New Mexico licensed

professional land surveyor will survey the wells for top of casing and ground elevation referenced to a USGS datum. Drill cuttings and samples will be described as previously discussed Figure 8 shows tentative locations for the additional wells.

Ground water samples will be collected from the new wells using method described in Section 2.2.3, and analyzed for parameters based on the initial sample.

2.2.7 Horizontal Hydraulic Conductivity (Slug) Tests

Horizontal hydraulic conductivity (slug) tests will be performed in a select number of wells to calculate an average hydraulic conductivity for the ground water unit and assess ground water flow. The falling head and rising head tests will be performed by lowering (falling head) and raising (rising head) a weighted PVC tube (slug) in the wells or applying air pressure to the wells using a pneumatic pump to induce similar conditions. A pressure transducer will be installed near the bottom of the well to record changes in water level, which will be transmitted to an electronic data logger. The slug test data will be analyzed using the Bouwer and Rice or equivalent method.

2.2.8 PSH Bailout Tests

Bailout tests will be performed in a select number of wells to determine the actual PSH thickness in the ground water unit. Dedicated disposable bailers will be used to remove as much PSH as possible from the well before an interface probe is used to measure the rate of ground water and PSH recovery and to determine an inflection point. The inflection point occurs when the PSH thickness in the well equals the actual PSH thickness in the ground water unit. The calculation of the actual PSH thickness will include a calculation of capillary fringe height.

2.2.9 Report

A report will be prepared and submitted to the NMOCD following completion of the fieldwork and receipt and review of laboratory reports. The report will describe the geology and ground water unit characteristics, including ground water elevation, flow direction, gradient, horizontal hydraulic conductivity, organic and inorganic contaminant distribution and PSH. Recommendations for additional investigation or abatement will be proposed. Exhibits will include location and base maps, geological cross sections, depth to ground water and ground water flow maps and isopleth maps for organic and inorganic contaminants. The laboratory analyses will be summarized in tables and EM field sheets, geologic logs, well completion diagrams, slug test results and laboratory analysis will be included as attachments.

2.2.10 Abatement Plan

An evaluation of treatment technologies will be performed following the completion of investigations to assess the extent of impacts to ground water from organic and inorganic contaminants.

2.3 Ground Water Monitoring

Frontier will implement a quarterly (4 times per year) ground water monitoring program during 2007 to establish a baseline for contaminants in the ground water. Each sampling event will include:

- Measurements of depth-to-ground water and PSH thickness in each well using an electronic oil and water interface probe;
- Sampling wells showing no indications of PSH using procedures previously discussed;
- Collecting ground water samples for analysis of constituents reported above WQCC thresholds in the ground water samples from Section 2.2.3 and Section 2.2.6;
- Preparing an annual report that includes exhibits showing ground water elevation, flow direction, gradient, concentrations of organic and inorganic contaminants and PSH distribution. The report will also include a narrative section of the field and laboratory results and recommendations for modifying the ground water monitoring program and additional investigation and abatement. The field and laboratory analyses will be summarized in tables and the laboratory reports will be included as attachment to the report.

2.4 Impermeable Barrier Installation

Frontier will evaluate process areas at the Facility where products or waste is stored, except fresh water and products that are gaseous at atmospheric conditions, and install impermeable secondary containment according to NMOCD approved BMP. A report will be submitted to the NMOCD once the upgrades are completed.

2.5 NPDES Permit

Frontier has made the decision to not pursue an NPDES permit to discharge wastewater directly on the ground at the Facility, therefore, a separate major modification of the discharge permit, including public notice, financial assurance, and a public hearing is not required. Frontier will discontinue dewatering to artificially lower the ground water surface and will discontinue discharging ground water into the evaporation basin. However, Frontier will continue using the evaporation basin for cooling tower waste stream, which will be disposed at a Class II disposal well.

2.6 Closure and Post-Closure Financial Assurance

Frontier has prepared a preliminary cost estimate for financial assurance purpose for closure and post-closure costs, including soil and ground water remediation, residual asbestos abatement, residual polychlorinated biphenyl (PCB) cleanup and Facility dismantlement. The previous owner, Amoco BP, had conducted extensive asbestos abatement and PCB cleanup, and Frontier's estimate may be amended once the extent of

soil and ground water contamination is known. The estimate for soil and ground water remediation, residual asbestos abatement, PCB clean up and Facility dismantlement are as follows:

- Asbestos $50
- Dismantlement $500
- Remediation $650

Total: $1,200 (thousands of dollars)

2.7 Spill Prevention Control and Countermeasure Plan

Frontier has amended the spill prevention, control and countermeasure ("SPCC") plan for the Facility, which names Frontier as the owner and identifies the names and telephone numbers for personnel responsible for spills. Appendix B presents the amended SPCC plan.

2.8 Public Notice

Frontier will publish a notice of in a newspaper with circulation in Eddy County, New Mexico, pursuant to WQCC 10.6.2.3108 NMAC, within thirty (30) days after approval of technical completeness by the NMOCD for this major permit modification. The notice will be published in the Artesia Daily Press located at 503 West Main Street, Artesia, New Mexico. Appendix C presents the public notice.

2.9 Other Modifications

Between 2005 and early 2007, Frontier performed the following modifications:

- Dismantlement and removal of the fractionation process equipment; and
- Installation of condensate storage operation

3.0 REFERENCES

The following is a list of references cited in this major permit modification.

Dane, C.H. and Bachman, G.O., 1958, Preliminary Geologic Map of Southeastern New Mexico: U. S. Geological Survey Miscellaneous Geologic Investigations Map I-256, Scale 1: 380,160, 1 Sheet

Dane, C.H. and Bachman, G.O., 1965, Geologic Map of New Mexico: U. S. Geological Survey, Scale 1:500,000, 2 Sheets

Hendrickson, G. E and Jones, R. S., 1952, Geology and Ground-Water Resources of Eddy County, New Mexico, New Mexico Bureau of Geology and Mineral Resources Ground-Water Report 3, 169 pp.

Robinson, S.G. and Banta, E.R., 1995, Ground Water Atlas for the United States: U.S. Geological Survey Hydrologic Atlas HA-730-C, 300 pp.

Scholle, P.A., 2003, Geologic Map of New Mexico, New Mexico Bureau of Mining and Technology, Scale 1: 500,000, 2 Sheets

TABLES

Table 1
Summary of Historical Analytical Data from Ground Water Samples
Frontier Field Services, LLC., Empire Abo Gas Plant, Unit I (NE/4, SE/4), Section 3, Township 18 South, Range 27 East
Eddy County, New Mexico

Sample	Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Naphthalene mg/L	Chloride mg/L	Sulfate mg/L	TDS mg/L
WQCC Standard:		**0.01**	**0.75**	**0.75**	**0.62**	**0.03**	**250**	**600**	**1,000**
P-01	2/28/2006	<0.001	<0.001	<0.001	<0.001	<0.002	130	1,400	2,700
	5/2/2006	<0.001	<0.001	<0.001	<0.003	<0.002	130	1,400	2,700
	7/10/2006	<0.001	<0.001	<0.001	<0.003	<0.002	93	1,500	2,500
	10/24/2006	< 0.01	< 0.01	< 0.01	< 0.03	<0.02	46	1,400	2,400
P-02	2/28/2006	<0.001	<0.001	<0.001	<0.001	<0.002	69	1,900	3,300
	10/24/2006	<0.001	<0.001	<0.001	< 0.003	<0.002	67	2,000	3,300
P-03	2/28/2006	0.013	<0.001	<0.001	<0.001	<0.002	200	1,900	3,800
	2/28/2006	0.013	<0.001	<0.001	<0.001	<0.002	200	1,900	3,800
	5/3/2006	0.011	<0.001	<0.001	< 0.003	<0.002	190	2,000	3,800
	7/12/2006	0.0038	<0.001	<0.001	< 0.003	<0.002	220	2,100	3,800
	10/24/2006	0.017	<0.001	<0.001	< 0.003	<0.002	250	2,000	3,700
P-04	2/28/2006	0.002	<0.001	<0.001	<0.001	<0.002	480	1,700	4,100
	5/3/2006	0.0015	<0.001	<0.001	< 0.003	<0.002	460	1,800	4,000
	7/10/2006	<0.001	<0.001	<0.001	< 0.003	<0.002	480	1,800	3,900
	10/24/2006	<0.001	<0.001	<0.001	< 0.003	<0.002	510	1,800	3,900
P-05	2/28/2006	<0.001	<0.001	<0.001	<0.001	<0.002	200	1,600	3,100
	5/3/2006	<0.001	<0.001	<0.001	< 0.003	<0.002	170	1,600	3,000
	7/10/2006	<0.001	<0.001	<0.001	< 0.003	<0.002	150	1,600	2,900
	10/24/2006	<0.001	<0.001	<0.001	< 0.003	<0.002	120	1,600	2,800
MW-02	9/29/2005	<0.001	<0.001	<0.001	<0.002	<0.005	77.5	--	2,430
MW-02-02	12/13/1999	<0.001	<0.001	<0.001	<0.001	<0.001	11,200	212,000	344,000
MW-02-03	12/14/1999	0.063	0.0082	0.0081	0.0252	<0.001	655	2,430	2,800
MW-02-04	12/14/1999	0.1	0.045	0.068	0.0429	<0.001	--	1	2,910
MW-02-05	12/13/1999	<0.001	<0.001	<0.001	<0.001	<0.001	13,800	203,000	398,000

Table 1
Summary of Historical Analytical Data from Ground Water Samples
Frontier Field Services, LLC., Empire Abo Gas Plant, Unit I (NE/4, SE/4), Section 3, Township 18 South, Range 27 East
Eddy County, New Mexico

Sample	Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Naphthalene mg/L	Chloride mg/L	Sulfate mg/L	TDS mg/L
WQCC Standard:		**0.01**	**0.75**	**0.75**	**0.62**	**0.03**	**250**	**600**	**1,000**
MW-02-06	12/14/1999	35	3.6	1.4	2.37	<0.001	--	--	--
MW-02-07	12/14/1999	4	0.54	0.11	0.111	<0.001	374	1,910	3,570
MW-02-11	12/14/1999	49	2.7	1.4	2.26	<0.001	221	1,730	3,860
MW-02-12	12/14/1999	3.1	0.63	0.62	0.898	0.054	--	--	--
MW-02-13	12/14/1999	3.6	0.14	3.6	2.11	0.18	318	1,770	2,660
MW-02-14	9/29/2005	0.14	<0.001	0.053	0.038	<0.005	340	--	3,180
MW-02-15	9/29/2005	0.34	0.015	0.01	0.025	<0.005	220	--	3,170
MW-02-16	12/14/1999	0.014	0.0039	0.012	0.0201	<0.001	703	2,570	3,280
MW-02-18	12/14/1999	25	0.025	0.51	0.14	<0.001	229	1,330	2,940
MW-03	12/14/1999	3.7	0.024	0.24	0.469	<0.001	--	--	--
MW-03-01	9/29/2005	<0.001	<0.001	<0.001	<0.002	<0.005	382	--	3,210
MW-03-01 OUTFALL	1/17/2006	0.92	<0.01	0.53	0.42	0.064	--	--	--
MW-03-02	9/28/2005	0.001	<0.001	<0.001	<0.002	<0.005	253	--	3,470
MW-03-03	9/29/2005	2.7	<0.001	0.72	0.66	<0.005	392	--	2,760
MW-03-04	12/13/1999	0.11	0.013	0.069	0.1	<0.001	633	2,590	3,200
MW-04	12/14/1999	2.7	<0.001	1.6	0.878	<0.001	346	1,440	3,590
MW-05	12/14/1999	0.16	0.056	0.092	0.0573	<0.001	--	2	3,140
MW-07	12/14/1999	3.8	0.12	0.4	0.2573	<0.001	556	2,430	2,850
MW-08	9/29/2005	<0.001	<0.001	<0.001	<0.002	<0.005	281	--	3,060
MW-09	12/14/1999	1.2	0.18	0.16	1.17	0.11	--	--	--
Additional Samples									
EB-01	9/28/2005	<0.001	0.001	<0.001	<0.002	<0.005	28.5	--	2,690
EB-02	9/28/2005	<0.001	<0.001	<0.001	<0.002	<0.005	99.2	--	3,690
	10/24/2006	<0.001	<0.001	<0.001	<0.003	<0.002	100	2,000	3,500

Table 1
Summary of Historical Analytical Data from Ground Water Samples
Frontier Field Services, LLC., Empire Abo Gas Plant, Unit I (NE/4, SE/4), Section 3, Township 18 South, Range 27 East
Eddy County, New Mexico

Sample	Date	Benzene mg/L	Toluene mg/L	Ethylbenzene mg/L	Xylenes mg/L	Naphthalene mg/L	Chloride mg/L	Sulfate mg/L	TDS mg/L
WQCC Standard:		**0.01**	**0.75**	**0.75**	**0.62**	**0.03**	**250**	**600**	**1,000**
	10/24/2006	<0.001	<0.001	<0.001	<0.003	<0.002	100	2,000	3,500
EB-03	10/24/2006	0.056	<0.01	0.21	0.12	<0.02	84	1,500	2,700
EB-04	9/28/2005	<0.001	<0.001	<0.001	<0.002	<0.005	704	--	3,760
EB-05	5/2/2006	<0.001	<0.001	<0.001	<0.003	<0.002	110	1,400	2,600
	7/10/2006	<0.001	<0.001	<0.001	<0.003	<0.002	88	1,600	2,500
	10/24/2006	<0.005	<0.005	<0.005	< 0.015	<0.01	44	1,400	2,400
EB-06	5/2/2006	<0.001	<0.001	<0.001	<0.003	<0.002	150	1,800	3,100
	7/10/2006	<0.001	<0.001	<0.001	<0.003	<0.002	--	--	--
EB-07	5/3/2006	<0.001	<0.001	<0.001	<0.003	<0.002	150	1,600	3,100
	7/10/2006	<0.001	<0.001	<0.001	<0.003	<0.002	170	1,600	3,100
	10/24/2006	<0.001	<0.001	<0.001	<0.003	<0.002	170	1,600	3,100
EB-08	10/24/2006	6.7	0.78	1.9	3.4	<0.2	520	1,600	4,100

Sample analysis performed by Hall Environmental, Albuquerque, NM for R.T. Hicks Consultants, Inc.

1. --: Not Sampled
2. <: Less than method detection limit

FIGURES

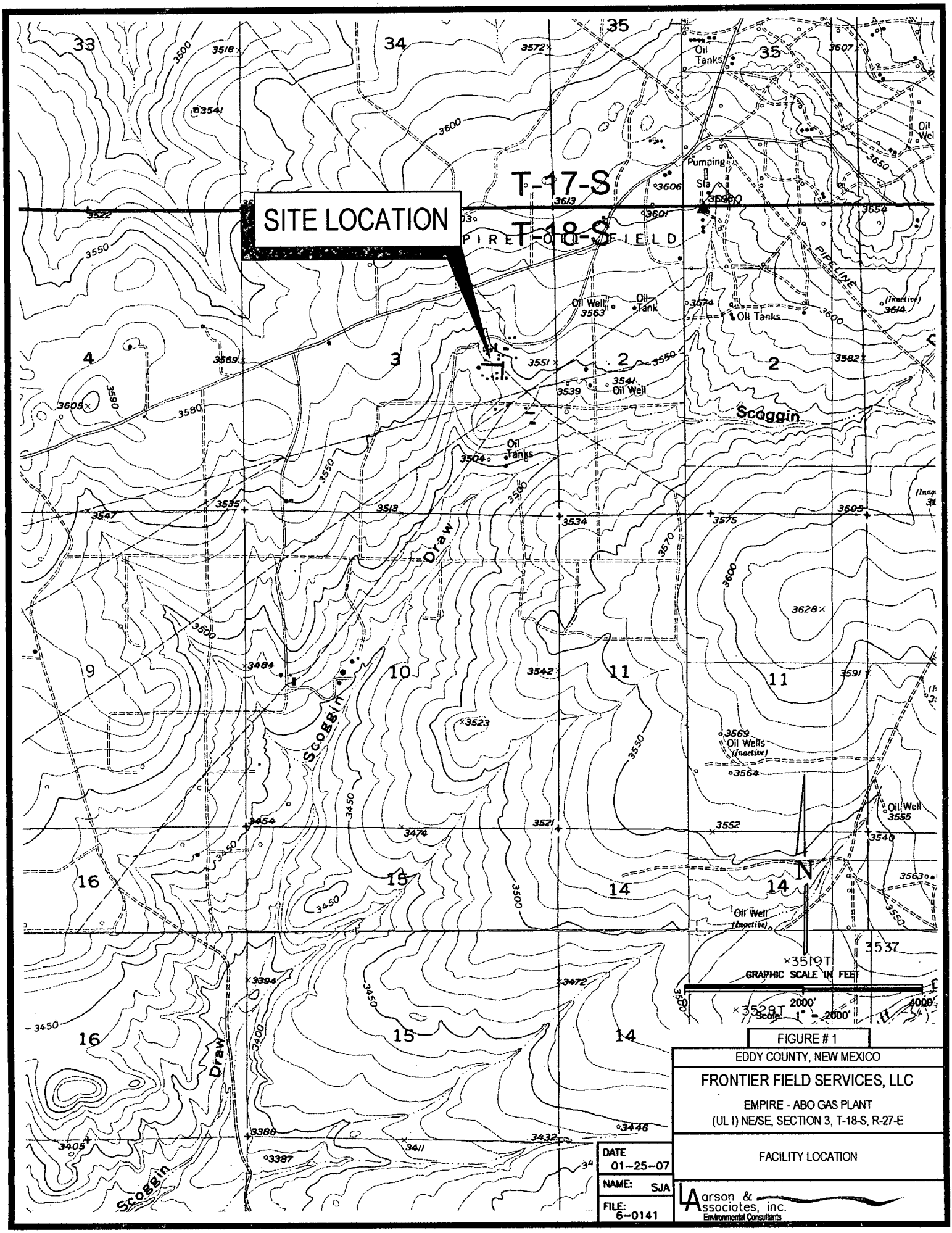


FIGURE # 1

EDDY COUNTY, NEW MEXICO

FRONTIER FIELD SERVICES, LLC

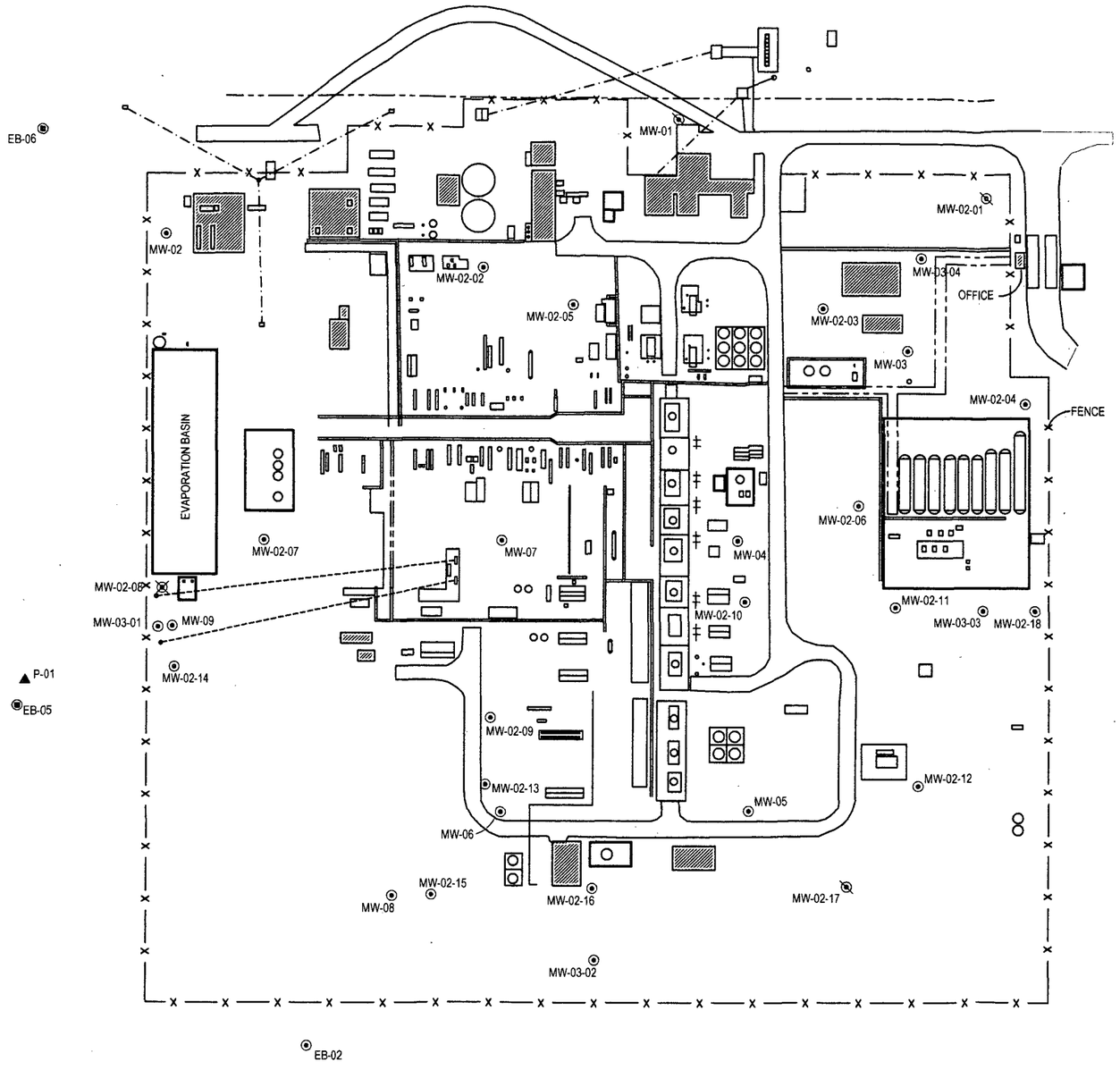
EMPIRE - ABO GAS PLANT

(UL I) NE/SE, SECTION 3, T-18-S, R-27-E

FACILITY LOCATION

DATE	01-25-07
NAME:	SJA
FILE:	6-0141

Larson & Associates, inc.
Environmental Consultants



LEGEND

- MW-02-08 ⊗ - MONITORING WELL NOT DRILLED
- MW-01 ⊗ - PLUGGED MONITORING WELL LOCATION
- MW-07 ⊙ - MONITORING WELL LOCATION
- EB-05 ◉ - MONITORING WELL AND PIEZOMETER NEST LOCATION
- P-01 ▲ - PIEZOMETER (FLUID LEVEL) LOCATION

GRAPHIC SCALE IN FEET

0 150' 300'

Scale: 1" = 150'

FIGURE # 2

EDDY COUNTY, NEW MEXICO

FRONTIER FIELD SERVICES, LLC

EMPIRE - ABO GAS PLANT
(UL I) NE/SE, SECTION 3, T-18-S, R-27-E

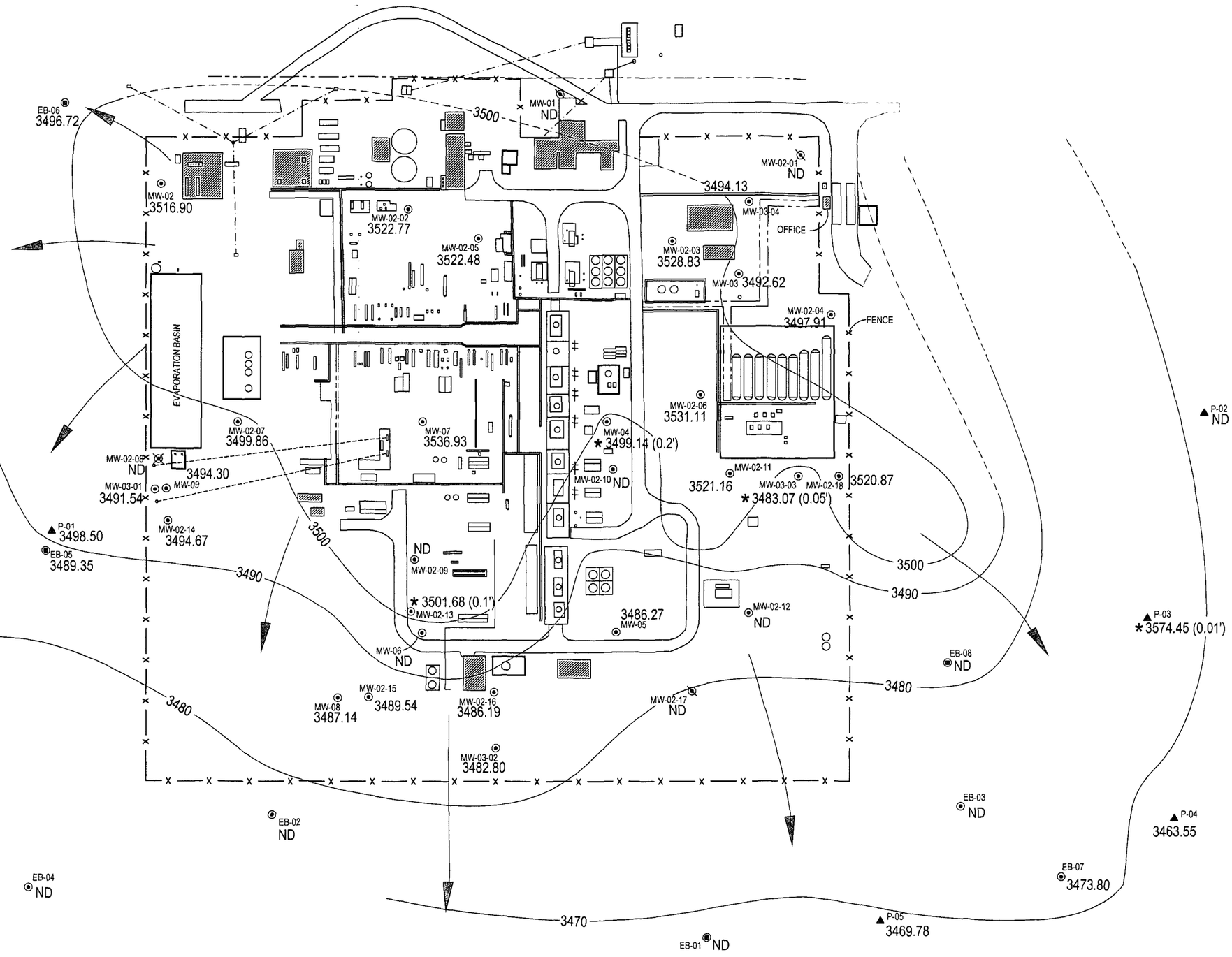
FACILITY DRAWING

DATE 01-30-06

NAME: SJA

FILE: 6-0141

Larson & Associates, inc.
Environmental Consultants



LEGEND

- MW-02-08 ⊗ - MONITORING WELL NOT DRILLED
- MW-01 ⊗ - PLUGGED MONITORING WELL LOCATION
- MW-07 3536.93 ⊙ - MONITORING WELL LOCATION AND GROUND WATER POTENTIOMETRIC SURFACE ELEVATION (APPROXIMATE), (FEET AMSL), JULY 2006
- EB-05 3489.35 ◉ - MONITORING WELL AND PIEZOMETER NEST LOCATION AND GROUND WATER POTENTIOMETRIC SURFACE ELEVATION (APPROXIMATE), (FEET AMSL), JULY 2006
- P-04 3463.55 ▲ - PIEZOMETER (FLUID LEVEL) LOCATION AND GROUND WATER POTENTIOMETRIC SURFACE ELEVATION (APPROXIMATE), (FEET AMSL), JULY 2006
- * - GROUND WATER ELEVATION CORRECTED FOR PSH (THICKNESS SHOWN IN PARENTHESIS)
- → - GROUNDWATER FLOW DIRECTION
- 3500 - CONTOUR OF GROUNDWATER POTENTIOMETRIC SURFACE ELEVATION (APPROXIMATE), (FEET AMSL), JULY 2006
- ND - NO DATA AVAILABLE

GRAPHIC SCALE IN FEET

0 150' 300'

Scale: 1" = 150'

FIGURE # 3

EDDY COUNTY, NEW MEXICO

FRONTIER FIELD SERVICES, LLC

EMPIRE - ABO GAS PLANT
(UL I) NE/SE, SECTION 3, T-18-S, R-27-E

GROUNDWATER POTENTIOMETRIC SURFACE MAP
JULY 2006

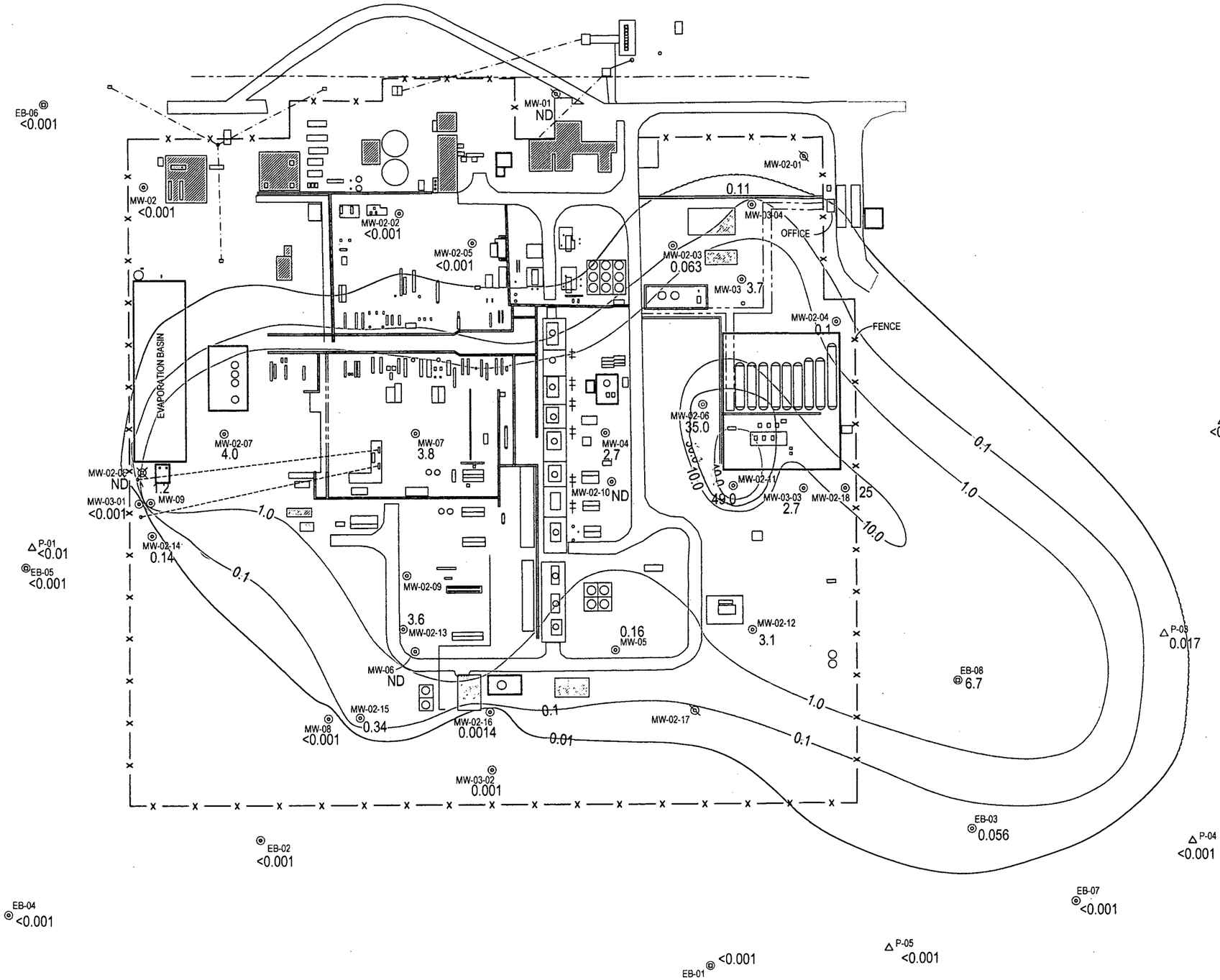
DATE 02-08-07

NAME: SJA

FILE: 6-0141

Larson & Associates, inc.
Environmental Consultants

NOTE: DATA FROM R.T. HICKS CONSULTANTS, LTD, ALBUQUERQUE, NM



LEGEND

- MW-02-08 ⊗ - MONITORING WELL NOT DRILLED
- MW-01 ND ⊗ - PLUGGED MONITORING WELL LOCATION
- MW-07 3.8 ⊙ - MONITORING WELL LOCATION AND BENZENE CONCENTRATION IN GROUND WATER, (MG/L), 1999-2006
- EB-05 <0.001 ◎ - MONITORING WELL AND PIEZOMETER NEST LOCATION AND BENZENE CONCENTRATION IN GROUND WATER, (MG/L), 1999-2006
- P-02 <0.001 △ - PIEZOMETER (FLUID LEVEL) LOCATION AND BENZENE CONCENTRATION IN GROUND WATER, (MG/L), 1999-2006
- < - BELOW TEST METHOD DETECTION LIMIT
- 4 - CONTOUR OF BENZENE CONCENTRATION IN GROUND WATER, (MG/L), 1999-2006
- ND - NO DATA AVAILABLE
- - 0.01 TO 0.1 MG/L
- - 0.1 TO 1.0 MG/L
- - 1.0 TO 10.0 MG/L
- - 10.0 TO 30.0 MG/L
- - 30.0 TO 40.0 MG/L
- - >40.0 MG/L

GRAPHIC SCALE IN FEET

0 150' 300'

Scale: 1" = 150'

NOTE: DATA FROM R.T. HICKS CONSULTANTS, LTD, ALBUQUERQUE, NM

FIGURE # 4

EDDY COUNTY, NEW MEXICO

FRONTIER FIELD SERVICES, LLC

EMPIRE - ABO GAS PLANT

(UL I) NE/SE, SECTION 3, T-18-S, R-27-E

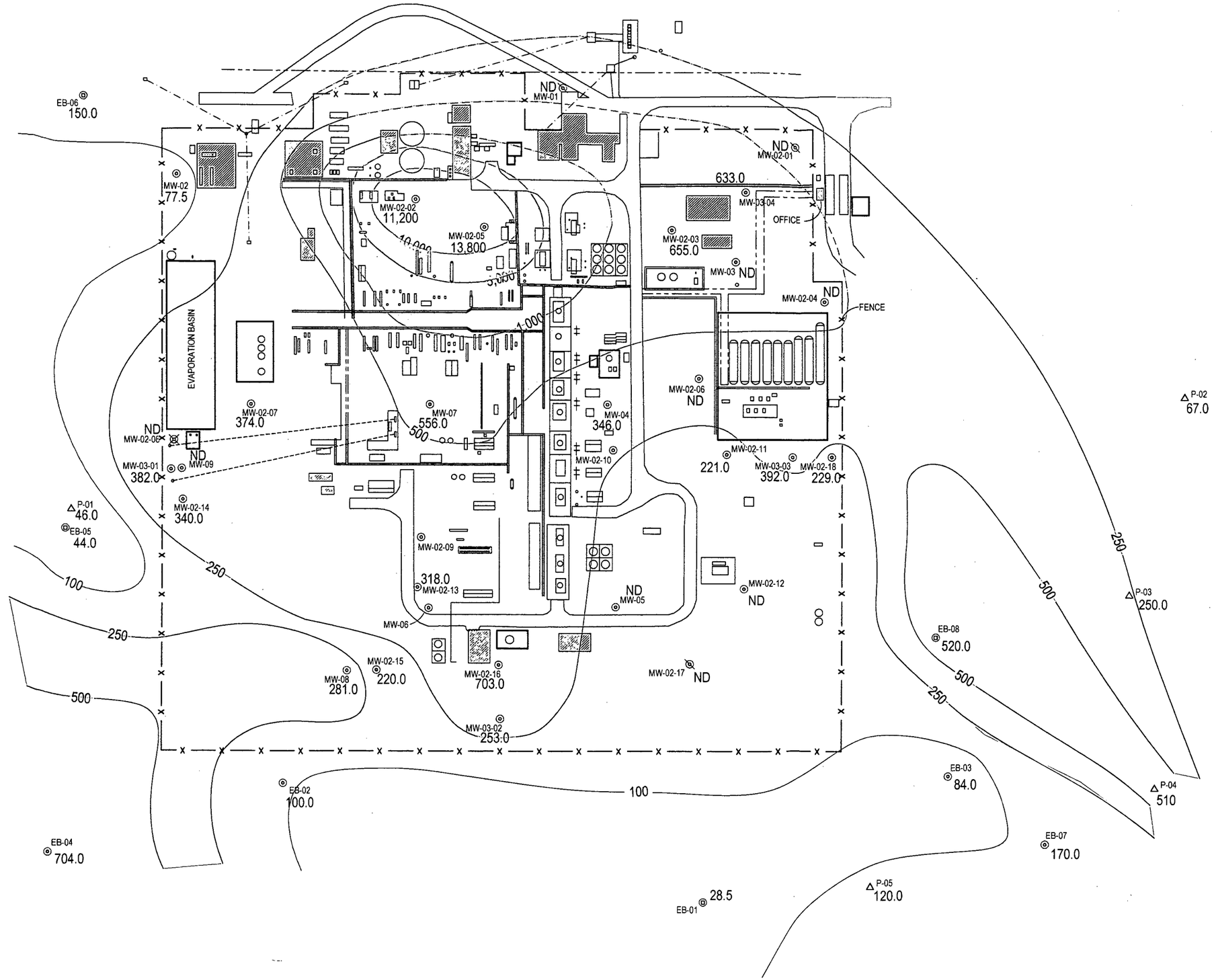
ISOPLETH MAP OF BENZENE CONCENTRATION IN GROUND WATER, 1999-2006

DATE 02-08-07

NAME: SJA

FILE: 6-0141

Larson & Associates, inc. Environmental Consultants



LEGEND

MW-02-08 - MONITORING WELL NOT DRILLED

MW-01 ND - PLUGGED MONITORING WELL LOCATION

MW-07 556 - MONITORING WELL LOCATION AND CHLORIDE CONCENTRATION IN GROUND WATER, (MG/L), 1999-2006

EB-05 44 - MONITORING WELL AND PIEZOMETER NEST LOCATION AND CHLORIDE CONCENTRATION IN GROUND WATER, (MG/L), 1999-2006

P-02 67 - PIEZOMETER (FLUID LEVEL) LOCATION AND CHLORIDE CONCENTRATION IN GROUND WATER, (MG/L), 1999-2006

500 - CONTOUR OF CHLORIDE CONCENTRATION IN GROUND WATER, (MG/L), 1999-2006

ND - NO DATA AVAILABLE

- 250 TO 500 MG/L
- 500 TO 1,000 MG/L
- 1,000 TO 5,000 MG/L
- 5,000 TO 10,000 MG/L
- >10,000 MG/L

GRAPHIC SCALE IN FEET

0 150' 300'

Scale: 1" = 150'

NOTE: DATA FROM R.T. HICKS CONSULTANTS, LTD, ALBUQUERQUE, NM

FIGURE # 5

EDDY COUNTY, NEW MEXICO

FRONTIER FIELD SERVICES, LLC

EMPIRE - ABO GAS PLANT
(UL I) NE/SE, SECTION 3, T-18-S, R-27-E

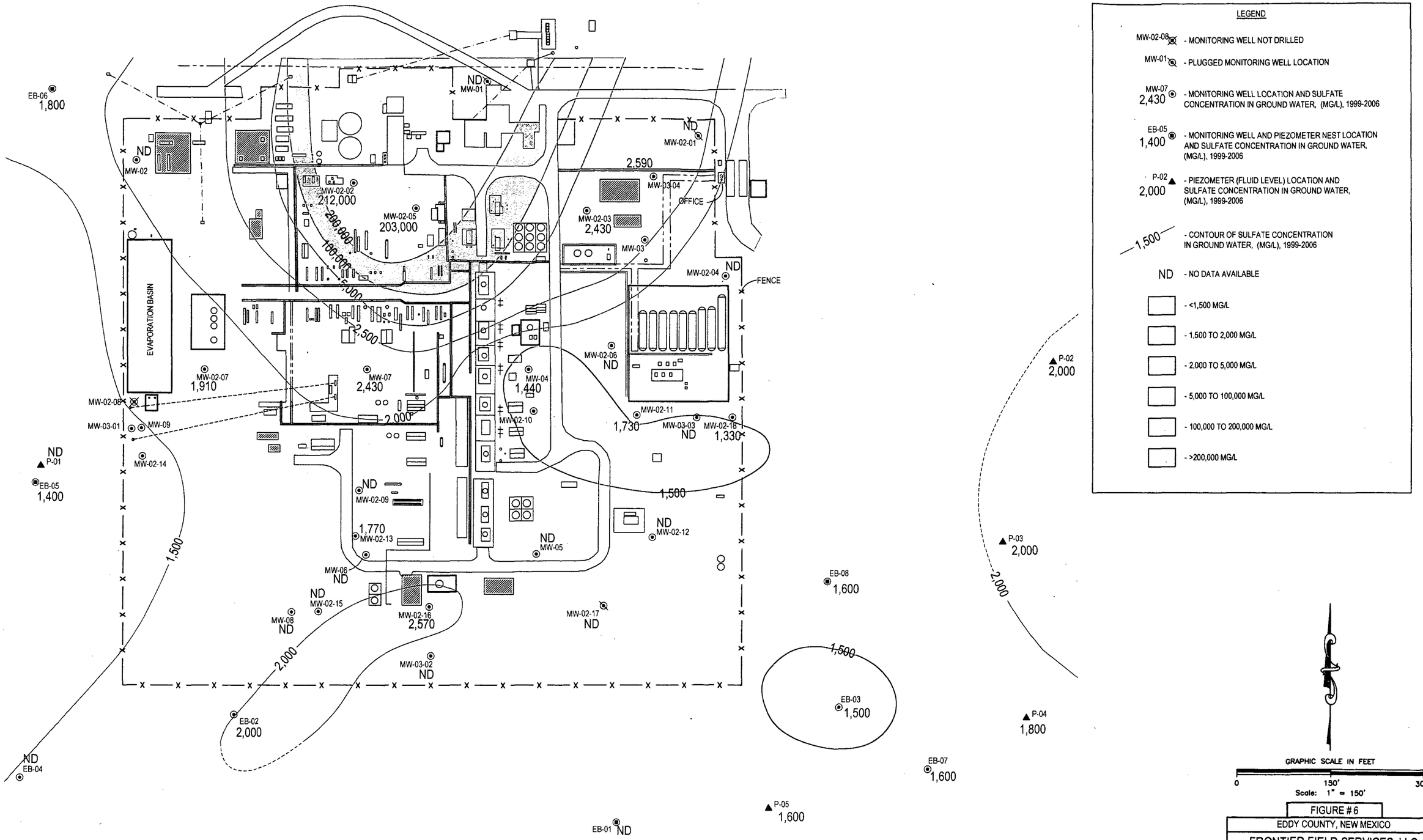
ISOPLETH MAP OF CHLORIDE CONCENTRATION IN GROUND WATER, 1999-2006

DATE 02-08-06

NAME: SJA

FILE: 6-0141

Larson & Associates, inc.
Environmental Consultants



NOTE: DATA FROM R.T. HICKS CONSULTANTS, LTD, ALBUQUERQUE, NM

FIGURE # 6

EDDY COUNTY, NEW MEXICO

FRONTIER FIELD SERVICES, LLC

EMPIRE - ABO GAS PLANT

(UL I) NE/SE, SECTION 3, T-18-S, R-27-E

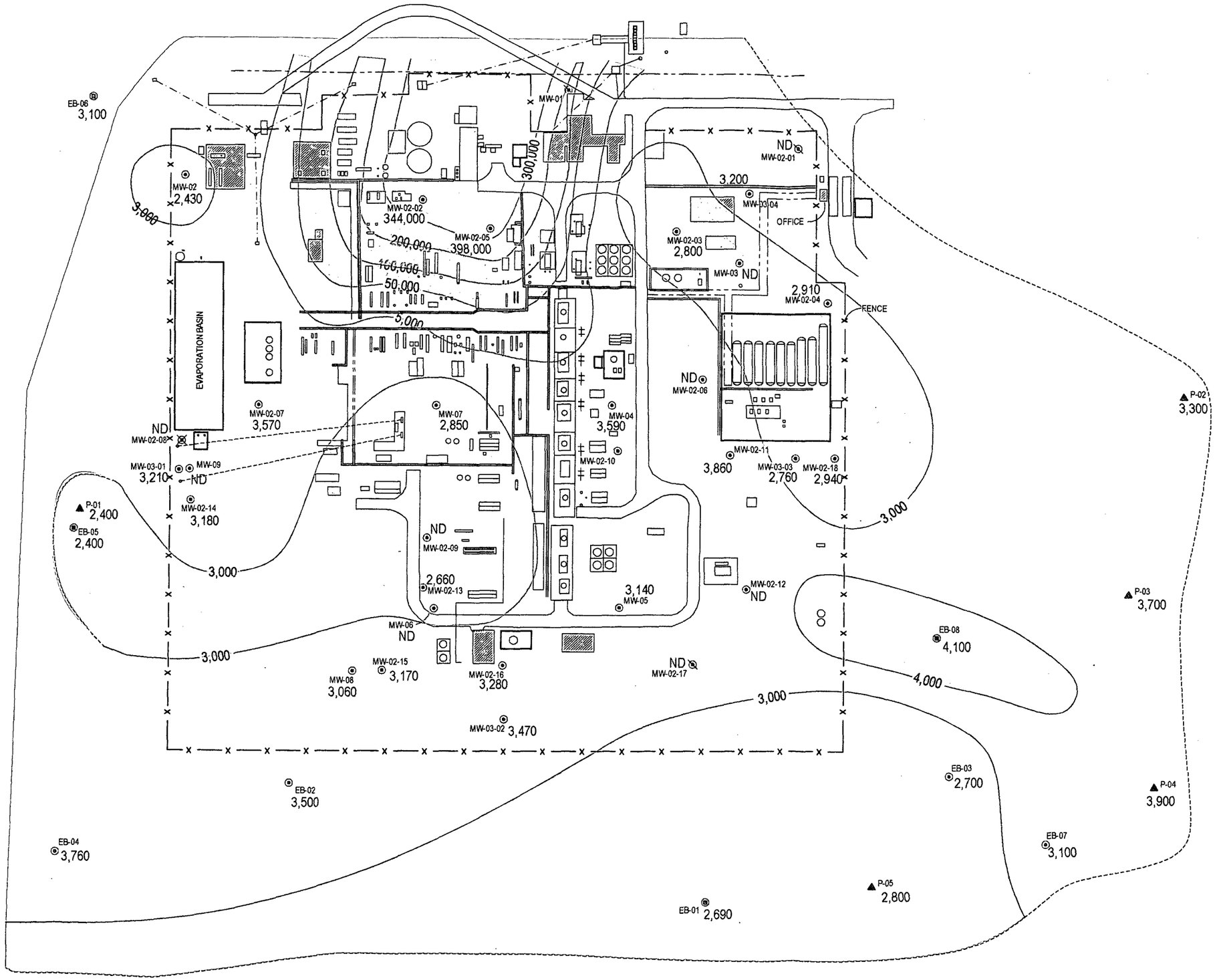
ISOPLETH MAP OF SULFATE CONCENTRATION IN GROUND WATER, 1999-2006

DATE 02-08-06

NAME: SJA

FILE: 6-0141

Larson & Associates, inc. Environmental Consultants



LEGEND

- MW-02-08 ⊗ - MONITORING WELL NOT DRILLED
- MW-01 ⊗ - PLUGGED MONITORING WELL LOCATION
- MW-07 2,870 ⊙ - MONITORING WELL LOCATION AND TDS CONCENTRATION IN GROUND WATER, (MG/L), 1999-2006
- EB-05 2,400 ⊙ - MONITORING WELL AND PIEZOMETER NEST LOCATION AND TDS CONCENTRATION IN GROUND WATER, (MG/L), 1999-2006
- P-02 3,100 △ - PIEZOMETER (FLUID LEVEL) LOCATION AND TDS CONCENTRATION IN GROUND WATER, (MG/L), 1999-2006
- 3,000 - CONTOUR OF TDS CONCENTRATION IN GROUND WATER, (MG/L), 1999-2006
- ND - NO DATA AVAILABLE
- - <3,000 MG/L
- - 3,000 TO 5,000 MG/L
- - 5,000 TO 50,000 MG/L
- - 5,000 TO 100,000 MG/L
- - 100,000 TO 200,000 MG/L
- - >200,000 MG/L

NOTE: DATA FROM R.T. HICKS CONSULTANTS, LTD, ALBUQUERQUE, NM

GRAPHIC SCALE IN FEET

0 150' 300'

Scale: 1" = 150'

FIGURE # 7

EDDY COUNTY, NEW MEXICO

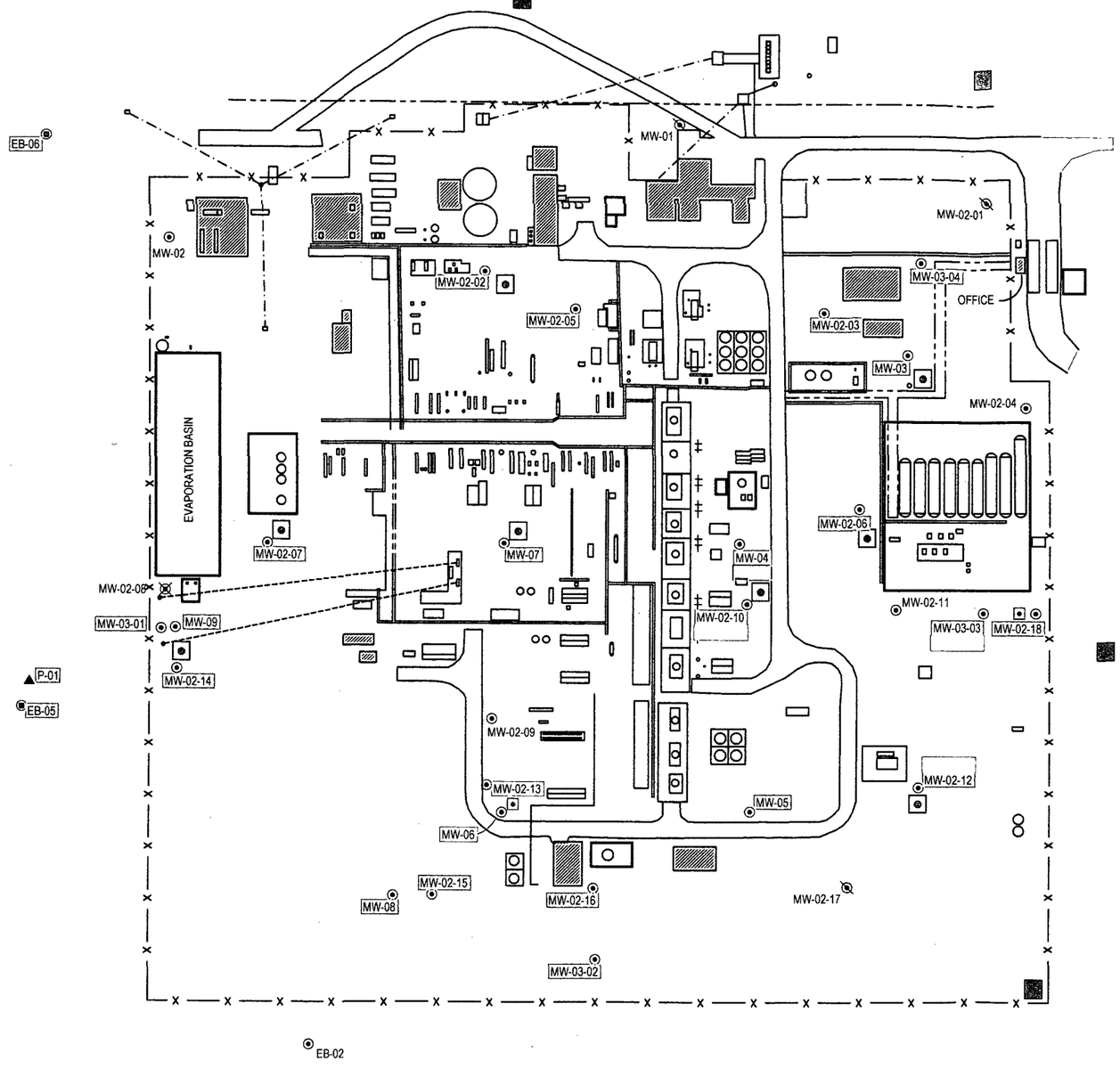
FRONTIER FIELD SERVICES, LLC

EMPIRE - ABO GAS PLANT
(UL I) NE/SE, SECTION 3, T-18-S, R-27-E

ISOPLETH MAP OF TDS CONCENTRATION IN GROUND WATER, 1999-2006

DATE 02-08-07
NAME: SJA
FILE: 6-0141

Larson & Associates, inc.
Environmental Consultants



LEGEND

- MW-02-08 - MONITORING WELL NOT DRILLED
- MW-01 - PLUGGED MONITORING WELL LOCATION
- MW-07 - MONITORING WELL LOCATION
- EB-05 - MONITORING WELL AND PIEZOMETER NEST LOCATION
- P-01 - PIEZOMETER (FLUID LEVEL) LOCATION
- - WATER LEVEL IN WELL ABOVE SCREEN
- - PHASE-SEPARATED HYDROCARBON IN WELL
- - TENTATIVE SHALLOW MONITORING WELL LOCATION
- - TENTATIVE DELINEATION MONITORING WELL LOCATION

GRAPHIC SCALE IN FEET

0 150' 300'

Scale: 1" = 150'

FIGURE # 8

EDDY COUNTY, NEW MEXICO

FRONTIER FIELD SERVICES, LLC

EMPIRE - ABO GAS PLANT
(UL I) NE/SE, SECTION 3, T-18-S, R-27-E

TENTATIVE MONITORING
WELL LOCATIONS

DATE 01-30-07

NAME: SJA

FILE: 6-0141

Larson & Associates, inc.
Environmental Consultants

APPENDICES

APPENDIX A

NMOCD Correspondence

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

CERTIFIED MAIL
RETURN RECEIPT NO: 3929 4012

DECEMBER 8, 2006

Mr. Randy McCollum
Manager of Compliance
Frontier Field Services, LLC
1001 Conoco Road
Maljamar, NM 88264

RE: REQUIREMENT TO SUBMIT MAJOR MODIFICATION TO DISCHARGE PLAN GW022
FRONTIER FIELD SERVICES, LLC - EMPIRE ABO GAS PLANT
SECTION 3, TOWNSHIP 18 SOUTH, RANGE 37 EAST
EDDY COUNTY, NEW MEXICO

Dear Mr. McCollum:

The New Mexico Oil Conservation Division (OCD) has determined that Frontier Field Services, LLC (Frontier) must submit a major modification to its existing permit (GW022) for the Empire Abo Gas Plant located in NE/4/SE/4 of Section 3, Township 18 South, Range 27 East, NMPM, Eddy County, New Mexico, pursuant to Water Quality Control Commission Regulations (WQCC) 20.6.2.3109E(1) NMAC. OCD determined during a review of the administrative record for this facility that Frontier's permit renewal application dated August 16, 2004, was deficient in the following areas:

1. Frontier's application did not include a ground water monitoring plan pursuant to WQCC 20.6.2.3107 NMAC (*Monitoring, Reporting, And Other Requirements*).

2. Frontier's did not provide adequate public notice, pursuant to WQCC 10.6.2.3108 (*Public Notice*). The notice failed to address the issue of ground water contamination and future abatement.

3. Frontier's application did not provide the required "detailed information on site geologic and hydrologic conditions," pursuant to WQCC 20.6.2.3106C(7) NMAC (*Application For Discharge Permits And Renewals*).

4. Because of known ground water contamination, Frontier's discharge plan must provide for closure and post-closure care. Therefore, Frontier must provide for Financial Assurance, pursuant to WQCC 20.6.2.3107A(11) NMAC, to ensure that the state of New Mexico will be capable of removing all of the plant's equipment including buried piping, restoring the site to its natural condition, and the completion of the abatement of ground water contamination. Frontier must submit a third-party cost estimate to determine these costs and document that it has adequate financial assurance for that amount.

5. Frontier's application indicated that a Stage 1 and 2 Abatement Plan would be submitted in the future to address the ground water contamination. Facilities operating under a WQCC discharge permit, such as Frontier's Empire Abo Gas Plant, are exempted by OCD Rule 19D from the requirement to submit an Abatement Plan. Frontier's permit must be modified to include a ground water investigation and abatement program. Frontier is required to provide public notice of this major modification of its Discharge Permit.

6. Frontier's discharge plan specifies that certain products and waste will be stored in a manner that does not meet OCD's current best management practices (BMPs) for storing products and waste. For example, Table 1 (Attachment 6) of the permit renewal application indicates that Frontier will use earthen berms. Frontier's discharge plan must be modified to include impermeable secondary containment for such products and waste, except for fresh water and certain products that are gaseous at atmospheric conditions.

7. Attachment IX of the discharge plan proposed that Frontier would discharge a wastewater stream on-site directly to the ground rather than continue to dispose of it at an off-site UIC Class II disposal well. This approach would also include Frontier concurrently obtaining a NPDES permit from EPA Region 6. At the request of Frontier's consultant R.T. Hicks, Consultants, OCD attended a technical meeting concerning this issue. After review, OCD has determined that discharges of this type will require a separate additional major modification of the permit, public notice, financial assurance, and a public hearing.

8. The current SPCC plan is out of date and includes names and telephone numbers of personnel with BP Amoco, rather than those of Frontier.

As a result of these discharge permit application deficiencies, OCD hereby orders Frontier Field Services to submit a major modification to its Discharge Permit (GW022), pursuant to WQCC 20.6.2.3109 NMAC, within 60 days of receipt of this certified letter. The permit modification must include a complete, stand alone discharge permit application and a $100.00 filing fee made out to the New Mexico Water Quality Management Fund.

If you have any questions, please contact Glenn von Gonten of my staff at (505) 476-3488.

Sincerely,

Wayne Price
Environmental Bureau Chief
Oil Conservation Division

WP/gvg

cc: Tim Gum, OCD Artesia District Supervisor
Andrew Parker, R. T. Hicks, Consultants

APPENDIX B

Amended SPCC Plan

SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN

EMPIRE ABO GAS PLANT

Eddy County, New Mexico
257 Empire Road, Artesia, NM 88211 -0070

Operated by:
Frontier Field Services, LLC

Owned by:
Frontier Field Services, LLC
4200 Skelly Drive, Suite 700
Tulsa, Oklahoma 74135

Updated by:

Flatrock Engineering and Environmental, Ltd
2000 S.E. 15th Street, Bldg 150-D
Edmond, OK 73013

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APPENDICES

LOG OF PLAN REVIEW AND AMENDMENTS

NON TECHNICAL AMENDMENTS

- Non-technical amendments are not certified by a Professional Engineer.
- Examples of changes include, but are not limited to, phone numbers, name changes, or any non-technical text change(s).

TECHNICAL AMENDMENTS

- Technical amendments are certified by a Professional Engineer (§112.5(c)).
- Examples of changes include, but are not limited to, commissioning or decommissioning containers; replacement, reconstruction, or movement of containers; reconstruction, replacements, or installation of piping systems; construction or demolition that might alter secondary containment structures; changes of product or service; or addition/deletion of standard operation or maintenance procedures related to discharge prevention measures. It is the responsibility of the facility to determine, and confirm with the regulatory authority as necessary, what constitutes a technical amendment. The preamble of the rule states that an amendment is required only "when there is a change that materially affects the facility's potential to discharge oil" (67 FR 47091).
- An amendment made under this section will be prepared within six (6) months of the change and implemented as soon as possible but not later than six (6) months following preparation of the amendment.
- Technical Amendments affecting various pages within the plan can be P.E. certified on those pages, certifying those amendments only, and will be documented on the log form below.

MANAGEMENT REVIEW

- Management will review this SPCC Plan at least each five (5) years and document the review on the form below (§112.5(b)).

Review/ Amend Date	Signature* (Specify)	Amend Plan (will/will not)	Description of Review Amendment	Affected Page(s)	P.E. Certification (Y/N)

* Typically signed by Manager, Professional Engineer or plan reviewer.

ONSHORE FACILITY REGULATORY CROSS REFERENCE		
Citation	**Description**	**Section**
§112.3(d)(1)	Professional Engineer Certification	1.2
§112.5(b)	Management of Five Year Review	Foreword
§112.7	General requirements for SPCC Plans for all facilities and all oil types	-----
§112.7(a)	General requirements: discussion of facility's conformance with rule requirements; deviations from Plan requirements; facility characteristics that must be described in the Plan; spill reporting information in the Plan; emergency procedures	1, 2, App. A-D
§112.7(b)	Fault analysis	2A.1
§112.7(c)	Secondary containment	2A.1, 2A.3.1
§112.7(d)	Contingency planning	App. D
§112.7(e)	Inspections, tests, and records	2A.5.3, 2A.7, App. B
§112.7(f)	Employee training and discharge prevention procedures	1.6, App. A, App. B
§112.7(g)	Security (excluding oil production facilities)	2A.4.2, 2A.6
§112.7(h)	Loading/unloading (excluding offshore facilities)	2A.5
§112.7(i)	Brittle fracture evaluation requirements	2A.7
§112.7(j)	Conformance with State requirements	1.11
§112.8	Requirements for onshore facilities (excluding production facilities)	-----
§112.8(a)	General and specific requirements	2A.1 - 2A.4, 2A.7
§112.8(b)	Facility drainage	2A.3
§112.8(c)	Bulk storage containers	2A.1, 2A.2, 2A.7
§112.8(d)	Facility transfer operations, pumping, and facility process	2A.4, 2.A.7
§112.9	Requirements for onshore production facilities	N/A
§112.9(a)	General and specific requirements	N/A
§112.9(b)	Oil production facility drainage	N/A
§112.9(c)	Oil production facility bulk storage containers	N/A
§112.9(d)	Facility transfer operations, oil production facility	N/A
§112.10)	Requirements for onshore oil drilling and workover facilities	N/A
§112.10(a)	General and specific requirements	N/A
§112.10(b)	Mobile facilities	N/A
§112.10(c)	Secondary containment - catchment basins or diversion structures	N/A
§112.10(d)	Blowout prevention (BOP)	N/A
§112.11	Requirements for offshore oil drilling, production, or workover facilities	N/A
§112.11(a)	General and specific procedures	N/A
§112.11(b)	Facility drainage	N/A
§112.11(c)	Sump systems	N/A
§112.11(d)	Discharge prevention systems for separators and treaters	N/A
§112.11(e)	Atmospheric storage or surge containers; alarms	N/A
§112.11(f)	Pressure containers; alarm systems	N/A
§112.11(g)	Corrosion protection	N/A
§112.11(h)	Pollution prevention system procedures	N/A
§112.11(i)	Pollution prevention systems; testing and inspection.	N/A
§112.1(j)	Surface and subsurface well shut-in valves and devices	N/A
§112.11(k)	Blowout prevention	N/A
§112.11(l)	Manifolds	N/A
§112.11(m)	Flowlines, pressure sensing devices	N/A
§112.11(n)	Piping; corrosion protection	N/A
§112.11(o)	Sub-marine piping; environmental stresses	N/A
§112.11(p)	Inspections of sub-marine piping	N/A

SECTION ONE

General Information

1.0 General Information

1.1 Management Approval and Review

Management Approval

- Operator responsible for Facility: Frontier Field Services, LLC

Facility Name and Location: Empire Abo Gasoline Plant
257 Empire Road, Artesia NM 88211

- Owner of the Facility: Frontier Field Services, LLC

Address: 4200 Skelly Drive, Suite 700., Tulsa, OK 74135

- This SPCC Plan will be implemented as herein described.

Signature: [signature]

Designated person accountable for oil spill prevention at the facility:

Name: Chad Cagle
Date: 1/24/07
Title: Director of Operations

Name: David Harris
Title: Plant Manager

- This SPCC Plan will be implemented as herein described.

Signature: _____

Designated person accountable for oil spill prevention at the facility:

Name: _____
Date: _____
Title: _____

Name: _____
Title: _____

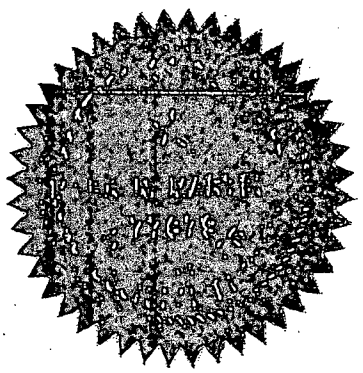
1.2 Professional Engineer Certification

Professional Engineer Certification

By means of this Professional Engineer Certification, I hereby attest to the following:

- I am familiar with the requirements of 40 CFR Part 112 and have verified that this Plan has been prepared in accordance with the requirements of this Part.
- I or my agent have visited and examined the facility(s).
- I have verified that this Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards.
- I have verified that the required inspection and testing procedures have been established as described in Section 2.
- I have verified that the Plan is adequate for the facility.

(Seal)



Mark Martelli

Printed Name of Registered Professional Engineer

Mark Martelli

Signature of Registered Professional Engineer

Date: 1-17-2007

Registration No.: _77679_ State: _Texas_

1.3 Substantial Harm Certification (excerpt from 40 CFR Part 112 - Attachment CII)

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

FACILITY NAME: Empire Abo Gasoline Plant
FACILITY ADDRESS: 257 Empire Road
Artesia NM 88211

1. Does the facility transfer oil over water to or from vessels ***and*** does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?

   ☐ YES ☒ NO

2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?

   ☐ YES ☒ NO

3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula[1]) such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (59 FR 14713, March 29, 1994) and the applicable Area Contingency Plan.

   ☐ YES ☒ NO

4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula [1]) such that a discharge from the facility would shut down a public drinking water intake[2]?

   ☐ YES ☒ NO

5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons ***and*** has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?

   ☐ YES ☒ NO

CERTIFICATION
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

Signature — Director of Operations (Title)

Chad Cagle (Name (please type or print)) — Date 1/24/07

[1] If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

[2] For the purposes of 40 CFR part 112, public drinking water intakes are analogous to public water systems as described at 40 CFR 143.2(c).

1.4 Contact List and Phone Numbers

The contact list and phone number reference for the facility is provided in Appendix A. Also, please refer to the "Emergency Action Plan" kept at the plant, for any updated telephone numbers.

1.5 Notification Data Sheet

A Notification Data Sheet is provided in Appendix A.

1.6 Personnel, Training, and Discharge Prevention Procedures

Training

- The Facility provides the following minimum training to oil-handling personnel prior to assignment of job responsibilities:

  - Operation and maintenance of equipment to prevent oil discharges;
  - Oil Spill Contingency Plan;
  - Applicable oil spill prevention (State & Federal) laws, rules, and regulations;
  - General facility operations; and,
  - The contents of the facility SPCC Plan and applicable pollution control laws, rules, and regulations.

Briefings

The facility conducts prevention briefings for oil-handling personnel at least once a year to assure adequate understanding of the SPCC Plan for the facility. These briefings include discussion of potential discharges or component failures and precautionary measures. Also included are any known discharges, failures, malfunctioning components and any new precautionary measures.

Documentation

Documentation of these Personnel, Training, and Discharge Prevention Briefing programs is maintained for a minimum period of three (3) years. The training company issues wallet cards to each employee undergoing the training so that each employee can document that he/she has been trained/ briefed on an annual basis. Additionally, the plant clerk in the main office keeps annual training/ briefing logs.

1.7 Facility Layout and Diagram

1.7.1 Facility Layout

Diagrams of the facility are located in Appendix C. More detailed drawings can be found in the plant office. The first set of diagrams shows the general layout and placement of tanks and other equipment. The second diagram shows the locations of fences, dikes and other items relevant to this plant.

The physical layout of the facility is described as follows:

The facility is laid out in a north-south and east- west grid pattern. At the northern top side of the plant is the main office and control room. Important areas for the storage of hydrocarbons and potential sources of spills would include:

1. The LPG and NGL storage facility located south easterly of the office. This area contains nine different horizontal "bullet" tanks ranging in size from 1000 Bbl to 1285 Bbl. Only refrigeration grade propane is stored in this area at this time.

2. Lubricating oils and solvents are stored in an area between the office and the LPG and NGL storage facility. The storage area has two 322 Bbl lubricating oil tanks, one 1000 gallon vehicle gasoline storage tank and one 500 gallon vehicle gasoline storage tank.

3. Used lubricating oils and process water are stored in the slop oil storage area located near the south border of the facility. Three 400 Bbl tanks and one 400 Bbl gunbarrel are used to store a mixture of water, produced oils and used lubricating oil.

4. Materials from the process drain system are stored in two tanks located in the process drain storage area. The process drain storage area is located in a southwesterly direction from the main office just east of the evaporation pond. The diked area contains four tanks. The 500 BBl. tank is used by for holding materials from the process drain system. A second 210 BBl. tank may be used if required. The tanks receive wastewater, hydrocarbons and amine from the process drain system.

5. The loading and unloading racks are located just to the northeast of the LPG and NGL storage facility. Several truck racks are located in this area to load gasoline, butane, propane or a mixture of petroleum liquids. LPG and NGL are no longer loaded into trucks. Only refrigeration grade propane is unloaded.

- Further details are provided in Section 2 - Container and Potential Spills Table and also in Appendix "E" which shows the storage tanks and containment areas.

1.7.2 Facility and Containment diagrams are attached (Appendix C and E) with the following detail and location information (as applicable):

- Process equipment, operating equipment, electrical equipment.
- Loading/Unloading racks.
- Fixed aboveground storage tanks.
- Transfer Stations and connecting lines.
- Drum and portable container storage areas.
- The contents of all containers.

1.8 Prevention, Response and Cleanup

Prevention

- The facility discharge prevention measures, including procedures for routine handling of products (loading, unloading, facility transfers, etc.), are described as follows:

The facility has developed operating procedures to assure the safe operation of the plant and also to prevent spills. Procedures include truck loading and unloading, bleeding of vessels, pumping of liquids and other items.

The facility has also been designed to collect any drainage from areas having lines containing gasoline or other liquid hydrocarbons. Storm water levees are located on the south and west sides of the plant. These levees are in place to act as containment for storm water and as tertiary containment for oil, other hydrocarbon liquids, or chemicals. Oil will be collected if accumulations occur in this area as described above for diked containment areas.

The removal of oil fluid from the diked containment areas will be through the use of vacuum trucks and/or portable pumps with disposal at approved facilities or the fluid may be placed in the production stream for reconditioning.

Vacuum trucks may be used, if necessary, during large storm events to remove rainwater from diked areas. The rainwater is disposed of in an approved manner. The water may be disposed of in an approved disposal well in accordance with the Discharge Plan. Clean rainwater may also be discharged immediately outside of the diked area if the water has no visible sheen and the discharge is logged on the Tank Drainage Form found on page B-4 of this plan.

Countermeasures

- The facility discharge discovery, response and cleanup capabilities are described as follows:

On the operator's routine rounds, the operator will look for signs of oil. Operators will look for signs of leaking equipment (tanks, flanges, piping etc.), oil sheens in water, and stained soil near known underground pipelines.

The Oil Spill Contingency Plan found in Appendix D is used if an oil spill is observed. If oil is observed, the Plant Manager will be notified. Liquid spilled product will be recovered by pumps and/or vacuum trucks and handled in approved methods (disposal or recycled). Any contaminated soil or clean-up debris will be collected and either remediated or disposed of in an approved manner.

The plant has personnel, hand tools and other equipment available for cleaning up any minor oil spill on a 24-hour basis. Outside contractors will be brought in to assist in the event that the spill is too large to be cleaned up by plant personnel.

- The resources available to the facility for discharge cleanup are provided in the "Emergency Action Plan" that may be found in the Safety office. This plan is kept up to date and can be used to address many other emergencies, besides oil cleanup activities.

1.8 Prevention, Response and Cleanup (Cont'd)

Disposal

The facility has established the following methods of disposal for recovered materials in accordance with applicable legal requirements:

If the substance spilled is a hazardous chemical, prior to taking any action, refer to the chemical's Material Safety Data Sheet (MSDS).

1. Removal:

Once the release is contained, an attempt shall be made to remove the spilled material in a manner, which minimizes damage to the environment. The Frontier Plant Manager for the facility should be contacted for site-specific guidelines. Possible removal methods may include:

A. Natural biodegradation/enhanced bioremediation

B. Soil removal

C. Application of sorbent materials

D. Evaporation and/or in situ burning (requires regulatory approvals)

E. Skimmers

F. Chemical treatment (e.g. Dispersants, which require regulatory approvals).

2. Disposal:

Contaminated soil, sorbent materials, and all other forms of oil or hazardous wastes resulting from spill and cleanup efforts will be disposed in accordance with applicable regulations. Consideration should be given to all onsite options before shipping offsite.

Those materials that cannot be disposed of onsite must go to an approved offsite waste disposal or recycling location. The Frontier Plant Manager maintains a list of approved waste disposal. If needed, contact the Frontier Plant Manager for assistance in selecting the appropriate disposal option.

3. Restoration:

Restoration will be performed as necessary to minimize ecological damages. The Frontier Plant Manager should be consulted for guidance specific to each spill location. All temporary containment devices such as dikes, trenches, etc., will be removed. The topography should resemble the appearance present prior to the spill. If any soil was removed, it shall be replaced with compatible material. If vegetation is destroyed, it may be necessary to replant and revitalize the landscape.

In any event, the Frontier Plant Manager should be consulted, for assistance in developing site-specific plans for spill cleanup and remediation.

1.9 Impracticability (as applicable)

The containment and/or diversionary structures or equipment to prevent a discharge ☒ **are** ☐ **are not** practicable.

If not, the following provides a description of the impracticability. _____

Refer to the Container and Potential Spills Table in Section 2 for additional details.

- **If not** practicable, ☐ an oil spill contingency plan is attached (provided in Appendix D) or ☐ is addressed by the Facility Response Plan.
- A written commitment of manpower, equipment and materials required to expeditiously control and remove any quantity of oil discharged is provided in ☐ Appendix D or in the ☐ Facility Response Plan.
- If containment and/or diversionary structures are impracticable for bulk storage containers, then periodic integrity testing of the container(s) and integrity and leak testing of the valves and piping is required.
- *Reference supporting documentation maintained separately, as appropriate:* _____

[*Additional pages may be attached as necessary.*]

1.10 Deviations to Rule

☒ The facility has no deviations to the rule.

☐ The facility has identified various deviations from the rule and the equivalent environmental protection to support the deviations. The deviations, and the reasons for the deviations, are summarized ☐ below or ☐ in the appropriate sections of this plan.

1.11 Improvements

The facility may from time-to-time install additional measures or implement new procedures to improve spill prevention, control or countermeasures. The following area allows the SPCC plan user to list any additional improvements after the plan was enacted.

1.12 Conformance with other Requirements

Describe conformance with other applicable requirements and effective discharge prevention and containment procedures in-place at the facility. Include a description of compliance with more stringent State rules, regulations, and guidelines, if any:

The facility is in conformance with the New Mexico Oil Conservation Division (OCD) "Discharge Plan" requirements. Pertinent requirements quoted from the "Discharge Plan" include:

Attachment 10: Inspection, Maintenance and Reporting

Inspection and maintenance of the facility occurs on a daily basis (See SPCCP, Appendix E). Below ground and non-pressurized process and wastewater lines are tested every 5 years (See Drain Line Testing Report, Appendix D).

Groundwater Monitoring
All wastewater is stored in tanks with secondary containment or the lined evaporation pond. All wastewater is transported from the point of generation to the storage units via pipelines with documented mechanical integrity. Therefore, ground water monitoring is not necessary. Ground water monitoring is addressed separately in the Stage I/II Abatement Plan.

Precipitation Runoff Control
The plant has levees around its southern, and western sides to contain storm water runoff. These act as a tertiary containment for other spills at the plant. Any oil liquid that accumulates in this area is recovered with vacuum trucks and portable pumps. This is disposed at an approved offsite facility or added to the production stream.

SECTION 2A

Onshore Facility Information

2A.1 Container and Potential Spills Table

- The potential spills sources at the facility are summarized in the following table:

Oil Source	Associated Substance (Contents) *(Oil)*	Source Capacity *(Bbls)*	Potential Failure	Rate of Flow *(Bbls/hr)*	Direction of Flow	Containment System(s)*
Aboveground Fixed Containers						
NGL Storage Area	Ref grade propane only	4285	Leak	4285	South	Yes – Bermed area
Process Drain Storage Area	Water, Oil, Amine	500, 210	Leak	500	South	Yes – Bermed area
Amine Tank	Water, amine	280	Leak	280	South	Yes – Bermed area
Amine Tank	Water, Amine	195	Leak	195	South	Yes – Bermed area
Amine Day Tank	Amine	26	Leak	26	South	Yes – Bermed area
Methanol Tank	Methanol	24	Leak	24	South	Yes – Bermed area
Lube Oil Storage Area	2 lube oil storage tanks	322, 322	Leak	322	South	Yes – Bermed area
Lube Oil Storage Area	Gasoline storage tank	12	Leak	12	South	Yes – Bermed area
Lube Oil Storage Area	Gasoline storage tank	24	Leak	24	South	Yes – Bermed area
Solvent Storage Area	Solvent Storage Tank	12	Leak	12	South	Yes – Fiberglas containment
Lube Oil Storage Area **– Not used**	Propane Fuel Storage tank	24	Leak	24	South	Yes – Bermed area
Diesel Tank	Diesel Tank	12.5	Leak	12.5	South	Yes – Bermed area
1 Ethyl Mercaptan tank **– to be removed**	Ethyl Mercaptan	15	Leak	15	South	Yes – Bermed area
Slop Oil Storage	Water, Oil	387, 380, 380, 380	Leak	387	South	Yes – Bermed area
Completely or Partially Buried Tanks						
Mobile and Portable Containers						
Oil Drum	Lube Oil	1.3	Leak	1.3	South	Yes – Bermed Area

Oil Source	Associated Substance (Contents) *(Oil)*	Source Capacity *(Bbls)*	Potential Failure	Rate of Flow *(Bbls/hr)*	Direction of Flow	Containment System(s)*
Operational Equipment (Transformers, Manufacturing Equipment, Process Vessels, etc.)						
Truck or Rail Loading/Unloading Rack						
LPG Loading Rack – **Not used**	Propane, Butane	1000 Bbl	Rupture	100	Evaporates	No
NGL Loading Rack	Ref grade propane unloading only	1000 Bbl	Rupture	100	South	Yes – Bermed area (proposed)
Other Potential Spill Sources (Piping, Surface Impoundments, etc.)						
Gasoline Piping – **Not used**	Gasoline	100 Bbl	Rupture	100	South	Yes – Flows into southern bermed area

- The material and construction of bulk storage containers are compatible with the material stored and conditions of storage such as pressure and temperature.
- All bulk storage container installations are constructed so that a means of secondary containment is provided for the entire capacity of the largest single container and sufficient freeboard to contain precipitation.
- Diked areas are sufficiently impervious to contain discharged oil. (See Appendix E)
- Visible discharges, which result in a loss of product from containers, will be promptly corrected and any accumulations of oil in the diked area(s) will be promptly removed.

* See Sec. 2A.3.1 for further details.

2A.2 Bulk Storage Containers

2A.2.1 Completely and Partially Buried Tanks

- The facility has several buried tanks. Each of the tanks has secondary containment or a leak detection system installed. A list of the tanks is as follows:
  - Process Drain Tank (Metal tank inside of a concrete enclosure with inspection ports.)
  - Molten Sulfur Tank (Metal tank built to provide for leak detection through inspection ports.)
  - Amine Drain Tank (Metal tank inside of a concrete enclosure with inspection ports.)
  - Flare Sump (Metal tank inside of a concrete enclosure with inspection ports.)

- Protective coatings provide corrosion protection and the tanks are placed inside of concrete cellars that are kept dry.

2A.2.2 Mobile or Portable Oil Storage Containers

- Mobile or portable oil storage containers are located at the facility. Drums are used for lubricating oils and miscellaneous chemicals.
- Secondary containment is **provided** which is adequately sized to contain the largest container plus sufficient freeboard for precipitation. See Sec. 2A.3.1 for details. Secondary containment includes:
  - A concrete containment area is provided under the barrel storage area. See Appendix E for details.
  - Drum "coffins" being of either fiberglass or metal are used whenever chemicals are used in the plant.

2A.2.3 Internal Heating Coils

- The facility does utilize internal heating coils in the sulfur storage tank. Internal heating coil leakage is controlled by monitoring the vents off of the molten sulfur storage tank. The steam return line is in a closed system and does not discharge into an open water course.

2A.2.4 Fail Safe Precautions

The plant is manned 24 hours a day to assure that alarms are properly responded to.

- The following precautions are used to assure that tanks are not overfilled:
  - Slop Oil Tanks: Has a Level Safety High (LSH) sensor and alarm to alert the operators if a high level condition exists. A light is turned on at the tank by the sensor (local alarm).
  - South Process Drain Tank: Has a Level Safety High (LSH) sensor and alarm to alert the operators if a high level condition exists. A light is turned on at the tank by the sensor (local alarm).

2A.3 Facility Containment, Drainage and Water Treatment

2A.3.1 Secondary Containment Systems

Containment ID	Drainage Method	Type of Containment and Material of Construction
Lube Oil Storage Tanks	Vacuum Truck	Dike – Earthen
Gas – Motor Fuel Tank	Vacuum Truck	Tank – Fiberglass
MR Solvent	Vacuum Truck	Tank – Fiberglass
Slop Oil Tanks	Vacuum Truck	Dike – Earthen
Barrel Storage Area	Vacuum Truck	Dike – Concrete
Process Drain Tanks	Vacuum Truck	Dike – Earthen
Elevated Lube Oil (SAC)	Vacuum Truck	Tank – Steel
Diesel Storage Tank	Vacuum Truck	Tank – Fiberglass
Amolite Oil Tank	Vacuum Truck	Dike – Concrete
Gasoline Loading Rack-not used	Vacuum Truck	Dike – Earthen

2A.3.2 Facility Drainage to Surface Waters without Facility Treatment System

- Water is removed only by vacuum truck from the inside of secondary containment areas. The water is disposed of in an approved manner in accordance with the water discharge plan.
- Storm water flows in a southerly direction where it is contained by dikes. The water evaporates or percolates into the ground.

2A.3.3 Water Treatment System

- A water treatment system for discharges is not applicable at this facility. Water discharges are made in accordance with the water discharge plan obtained from the State of New Mexico.

2A.3.4 Effluent Treatment Facilities

The facility does not treat water prior to discharge off site.

2A.3.5 Facility Undiked Drainage to Surface Waters

- The facility may have the potential to discharge into undiked areas.

  The facility un-diked areas flow to diked catchment basins located at the western and southern sides of the plant.

2A.4 Facility Transfer Operations, Pumping and Facility Process

2A.4.1 Facility Piping

- The facility does have buried piping. Corrosion protection for all new and replaced buried piping is provided as follows
  - Wrapping and Coating
- When a pipe section is exposed, it is examined and corrective action taken as necessary.
- Cathodic protection is not used, as the plant is located in an arid region where historical records show that use of cathodic corrosion devices have not increased protection.
- Describe the facility piping systems (aboveground and buried): Most all of the piping is above ground at the plant. The pipe is generally installed on elevated or ground level pipe racks. Leaks are very evident to the operators and maintenance personnel. The drain system piping is buried. The drain system piping is leak tested every five years in accordance with the water discharge plan.

2A.4.2 Out of Service Piping

Out of service piping terminal connections are capped or blank-flanged and marked when the piping is not in service or in standby service for extended periods.

2A.4.3 Pipe Supports

Pipe supports are designed to minimize abrasion and corrosion and allow for expansion and contraction.

2A.4.4 Vehicle Warnings

Vehicles are warned orally, by signs, fencing and with bumper guards, to be sure that no vehicle will endanger aboveground piping or other oil transfer operations. The entire plant is fenced with only maintenance vehicles allowed inside of the fenced areas. Inside the plant, there are numerous guards placed to prevent maintenance vehicles from hitting the piping. The loading racks have guards in place to assure that vehicles do not endanger any of the loading connections.

2A.5. Facility Tank Truck Loading/Unloading Rack

- Tank truck unloading of refrigerant grade propane does occur at the facility.
- Tank car (rail) loading/unloading does not occur at the facility.

2A.5.1 Tank Truck Containment Systems for Loading/Unloading Rack

- Loading/unloading area drainage has modifications to allow spills to flow into a catchment basin designed to handle discharges. Unloading of refrigerant grade propane only occurs at the loading/unloading rack.

  The containment system holds the maximum capacity of any single compartment of a tank truck loaded or unloaded at the facility.

  The containment system consists of concrete walls to direct the flow of any spilled materials into a catchment pond.

- Refer to the Container and Potential Spills Table in Section 2A.1 for additional details.

2A.5.2 Prevention of Premature Vehicular Departure

- The methods, procedures, and/or equipment used to prevent premature vehicular departure include:

☐ *Interlocked warning lights,*	☒ *Physical barrier systems,*
☒ *Warning signs,*	☒ *Wheel chocks,*
☐ *Vehicle brake interlock systems,*	☐ *Company personnel supervising loading operation – refrigeration grade propane only*

- Describe these and other premature vehicular departure prevention measures: Warning signs have been posted to alert the drivers about premature vehicular departure. Trucks are required to have wheel chocks in place to assure that the truck does not move during loading operations. A physical barrier (warning cone) is placed in front of the vehicle during loading operations. It is noted that a fixed non-moveable barrier is in place at the rear of the truck, as the truck must back into the loading area.

2A.5.3 Drain And Outlet Inspection

Drains and outlets on tank trucks are checked for leakage before unloading or departure and, if necessary, are tightened, adjusted or replaced by the drivers. Concrete pads are installed under the truck loading areas to assist the drivers in identifying any leaks or drips that may have occurred during loading operations.

2A.6 Security

Visitors and contractors must first sign in at the front office of the facility. Each individual must view the orientation program where plant safety systems and spills are discussed. Each individual must pass a written test to work in the plant.

The facility is fully fenced except for the truck loading area. A six-foot high chain link fence is installed around the northern perimeter, and next to the truck loading area on the west side of the plant. Barbwire fencing is used in the remote areas on the southern and western side of the plant.

The main entrance gate is locked and under the control admin/operations department located on the north side of the plant near the main office complex. The facility is attended twenty-four hours a day. Other gates are locked and may be opened by the operations staff.

Any valves, which permit direct outflow of a container's contents, have adequate security measures so that they remain closed when in non-operating or standby status. All valves are located within the plant boundaries.

Starter controls on all oil pumps in non-operating or standby status are locked in the off position in accordance with the energy isolation (lock out tag out) program. All pump switches and switchgear is located inside of the fenced plant boundaries and accessible only to authorized personnel.

Facility lighting is commensurate with the operation and the type and location of the facility to assist in the discovery of discharges and to prevent discharges occurring through acts of vandalism.

2A.7 Inspections, Tests and Records

Container Testing and Inspections

- Below is the facility aboveground bulk storage container integrity testing and inspection program including inspection frequency, records of inspections and any equivalent environmental protection:
  - Visual exterior inspections are made once a month and are documented
  - The plant follows API 653 for tank inspections. API 653 includes Calculations of Minimum Thickness for Existing Tank Shell, Maximum Period of Operation, Minimum Thickness for Tank Bottom Plate, Maximum Fill Height (Hydrostatic Testing), and Corrosion Rates and Inspection Intervals; Reinforcement of Openings, Nondestructive Testing and Welding Requirements, as well as Cathodic Protection.

- For pressurized vessels, the plant follows API 510. This includes Calculations of Heads, Reinforcement, Impact Testing, Cylindrical Components under Internal and External Pressure, and Pressure Testing Requirements; Nondestructive Testing and Welding Requirements; as well as Repairs and Alterations.
- The Plant Manager makes an annual review of the plant, which is documented.
- Daily checks (undocumented) are made by plant personnel.

- In the event that a field-constructed aboveground container undergoes a repair, alteration, reconstruction, or a change in service, the container will be evaluated for the risk of discharge or failure due to brittle fracture or other catastrophe.

- The facility leak testing program for completely buried tanks includes weekly inspections of the concrete cellars around the steel tanks, or visual inspections through inspection ports to determine if a leak has been initiated.

- Liquid level sensing devices are checked on an annual basis

Buried Piping Integrity and Leak Testing

- Buried piping is present.

- Integrity and leak testing of buried piping is performed at the time of ☒ installation, ☒ modification, ☒ construction, ☒relocation, or ☒ replacement.

Aboveground Piping Examination

- All aboveground valves and piping (including flange joints, valve glands and bodies, catch pans, pipe supports, locking of valves, and metal surfaces) are regularly examined.
- The facility also uses API 570 for the inspection of above ground piping. API 570 includes Calculations of Corrosion Rate and Remaining Life Determination, Maximum Allowable Working Pressure, Minimum Required Thickness, Evaluation of Locally Thinned Areas, and Pressure Testing Requirements; Nondestructive Testing and Welding Requirements, Repairs and Alterations as well as Recommended Inspection Practices.

Dike Integrity and Drainage Inspections

- Dikes are inspected for integrity weekly in accordance with preventive maintenance procedures (PM). All PM inspections are recorded. Undocumented inspections are made on a daily basis and particularly after major storms. A work order is generated if equipment or dikes are found to be in need of repair.

- The diked area is inspected on the basis of daily observations and weekly PM and particularly after major storms for any oil stains on soil, sheen on standing water or drip from equipment. A work order is generated if equipment needs to be repaired.

- Drainage of rainwater from secondary containment into a storm drain or an open watercourse is not allowed. (However, rainwater may be drained onto the ground as stated in Section 1.8.) All rainwater is usually removed from diked areas by a vacuum truck and disposed of in accordance with the discharge plan.

Other Applicable Inspections

- A test is conducted every five years in accordance with the discharge plan to test all buried drain piping.

Documentation:

- Inspection and test records are provided in Appendix B.

- Other documentation concerning inspections, and repairs may be found in the operator's logbook, in the environmental files (located in the main office) or in the automated work order system.

APPENDIX A

NOTIFICATION

- Contact List and Phone Numbers
- Notification Data Sheet
- Procedures for Reporting Spills and Upsets
- BLM "Report of Undesirable Event" (Form NM 3162-1)
- Oil Conservation Division Form "Release Notification and Corrective Action" Form (C-141)
- Frontier Field Services, Growth Fund Policy Spill Reporting Form
- Submittal of Information to Regional Administrator for Qualified Discharge(s)

Contact List and Phone Numbers

The following is a contact list and phone number reference for the Facility:

REFERENCE THE "EMERGENCY ACTION PLAN" FOR ADDITIONAL AND THE MOST UPDATED NUMBERS

Contact	Primary	Alternate
Designated Person Accountable For Oil Spill Prevention and/or Facility Response Coordinator		
Name/Title: David Harris/ Plant Manager _____	505-677-5117	505-703-0891
Name/Title: Glen Parrish/ Maintenance Supt.	505-677-5102	505-513-0408
National Response Center	800-424-8802	202-267-2675
Bureau of Land Management	505-887-6544	
State Agency for Oil Spill Response New Mexico Oil Conservation Division (24 hr)	505-748-1283	
Cleanup Contractors (as necessary):		
Vacuum Trucks – I&W Trucking, Loco Hills	505-677-2111	
Vacuum Trucks – Rowland Trucking, Hobbs	505-393-4994	
Contract Labor – Stevenson Roach, Artesia	505-746-3222	
Contract Labor – E.D. Walton	800-616-3633	
Earth Moving Equipment – Sweatt Construction, Artesia	505-748-1238	
Earth Moving Equipment – E.D. Walton	800-616-3633	
HazMat Response – _____		
HazMat Response – Safety & Env Solutions, Hobbs	505-397-0510	
Other Federal, State and local agencies (as necessary):		

Notification Data Sheet

The Facility will utilize the following form to relate information in the event of a discharge:

Date: _____ *Time:* _____

INCIDENT DESCRIPTION

Reporter's Full Name: _____ *Position:* _____
Day Phone Number: _____ *Evening Phone Number:* _____
Company: _____ *Organization Type:* _____
Facility Address: _____ *Owner's Address:* _____
_____ _____
_____ _____
_____

Facility Latitude: _____ *Facility Longitude:* _____
Spill Location: _____
(if not at Facility) _____
Responsible Party's Name: _____ *Phone Number:* _____
Responsible Party's Address: _____
Source and/or cause of discharge: _____
_____
_____
Nearest City: _____
County: _____ *State:* _____ *Zip code:* _____
Section: _____ *Township:* _____ *Range:* _____ *County:* _____
Distance from City: _____ *Direction from City:* _____
Container Type: _____ *Container Storage Capacity:* _____
Facility Oil Storage Capacity: _____
Material:

Total Quantity Released	Water Impact (*YES or NO*)	Quantity into Water

RESPONSE ACTION(S)

Action(s) taken to Correct, Control, or Mitigate Incident: _____
_____
_____
Number of Injuries: _____ *Number of Deaths:* _____
Evacuation(s): _____ *Number Evacuated:* _____
Damage Estimate: _____
More information about impacted medium: _____
_____

CALLER NOTIFICATIONS

National Response Center (NRC): 1-800-424-8802
Additional Notifications (Circle all applicable): *State* *Other*

ADDITIONAL INFORMATION

Any information about the incident not recorded elsewhere in this report: _____
_____
_____

NOTE: DO NOT DELAY NOTIFICATION PENDING COLLECTION OF ALL INFORMATION.

Procedures for Reporting Spills and Upsets

1. PROCEDURES FOR REPORTING SPILLS AND UPSETS
Empire Abo Gasoline Plant

This is to be used to know what type of spills or upsets are "reportable" and the reporting procedures to follow, as required by Frontier Field Services and the agencies of jurisdiction for the gas plant. These reporting procedures are consistent with and should be used in conjunction with any facility comprehensive spill contingency plans. Both the New Mexico Oil Conservation Division and the Bureau of Land Management combine the volume of produced water and oil to determine reportable volume.

For spills that do not create a sheen on water or allow oil into a dry draw, the following procedures should be followed.

2. REPORTABLE SPILLS

Releases to be reported by the Plant Manager or delegated person:

a. OIL AND PRODUCED WATER

Spill Conditions		Required Reports					
Location	Amount (bbl)	NMOCD		BLM		NRC[1]	BP*
		Phone[2]	Write[3]	Phone	Write	Phone	Phone
Federal	<5	No	No	No	No	No	Yes
Federal	>5,<10	No	Yes	No	No	No	Yes
Federal	>10,<25	No	Yes	No	Yes	No	Yes
Federal	>25, <100	Yes	Yes	No	Yes	No	Yes
Federal	>100	Yes	Yes	Yes	Yes	No	Yes
Fee, State	<5	No	No	No	No	No	Yes
Fee, State	>5,<25	No	Yes	No	No	No	Yes
Fee, State	>25	Yes	Yes	No	No	No	Yes
In Water - BLM[4]	Any	Yes	Yes	Yes	Yes	Yes	Yes
In Water - State[4]	Any	Yes	Yes	Yes	Yes	Yes	Yes

*All oil spills greater than 1 barrel must be reported to the Plant Manager.

Notes:
1 National Response Center (1-800-424-8802) for any spills in water
2 Phone - telephone call made within 24 hours of the spill
3 Write - written report as described below, within 10 days
4 See "Oil Spill Contingency Plan" located in Appendix D.

Report to
- Frontier Plant Manager
- Chad Cagle - Tulsa
- New Mexico Oil Conservation Division
- If on BLM land, the BLM District Office
- If spill enters water or water course - National Response Center (1-800-424-8802).

Reporting Method:
- As required, phone in report within 24 hours
  See note on telephone reporting
- For all spills, written report within 10 days

- Use Release Notification and Corrective Action Form (C-141) to report to OCD
- Use BLM form NM 3162-1 to report to the BLM
- Use Frontier Field Services, Growth Fund Policy Spill Reporting Form (see attached).

b. CHEMICAL SPILLS

Reportable Spill: Spills of caustics, acids, or chemicals endangering persons, wildlife, or property

Methanol	5000 lbs. or 16 bbls.	CERCLA

For other chemicals, contact the Frontier Plant Manager.

Reporting Method:

- First, report immediately any chemical spill to the Frontier Plant Manager before reporting further, unless people or wildlife are immediately endangered.
- Spills that could potentially harm the public or cause significant damage to the environment should be reported to the New Mexico Oil Conservation Division and the Bureau of Land Management (if applicable) district office.
- If communications with Frontier Plant Manager confirm the existence of a "reportable quantity" spill, additional reports must be made to the National Response Center, the SERC, LEPC, and OCD.

MSDS sheets and other available resources should be used in obtaining data on chemicals used in your facility.

c. GASEOUS RELEASE

Reportable Release:

- On BLM land, any event releasing 500 MCF or more of gas (use BLM form NM 3162-1)
- Any event that releases more than 500 MCF requires immediate notification of the NMOCD district office
- Any event that releases more than 5000 MCF requires written notification of the NMOCD district office
- Any event that places life or property in danger requires NMOCD verbal and written report

Reporting Method:

- First, report immediately any gaseous release to the Frontier Plant Manager, unless people or wildlife are immediately endangered.
- Releases that could potentially harm the public or cause significant damage to the environment should be reported to the New Mexico Oil Conservation Division and the Bureau of Land Management district office.

3. NOTES ON REPORTING

a. TELEPHONE REPORTS

- Reports should be made as soon as possible, at least within 24 hours. It is recommended to discuss spill with Randy McCollum, Manager of Compliance, before reporting to other entities.
- For telephone reports, use the Frontier Field Services, Growth Fund Policy Form as a guide to indicate what information needs to be given. A copy of this form is attached to the plan.
- Document in facility records, all attempts to telephone reports to agencies successfully or unsuccessfully.
- Document spills of less than reportable amounts in facility files.

b. WRITTEN REPORTS

- Use the Frontier Field Services, Growth Fund Policy Spill Report Forms for reporting all spills and releases.
- Use Release Notification and Corrective Action Form (C-141) to report to OCD.
- Use BLM form NM 3162-1 to report to the BLM
- Reports should be submitted within 10 days of spill.

c. ADDRESSES AND PHONE NUMBERS

- **Empire Abo Plant**

Production:	David Harris	(505) 677-5177 (W)	(505) 703-0891 (Cell)
Environmental:	Randy McCollum	(505) 676-3505 (W)	(505) 361-0128 (Cell)

- **For the State of New Mexico**

New Mexico Oil Conservation Division
District II
811 S. First Street
Artesia, NM 88210
(505) 748-1283

New Mexico Environment Department
Ground Water Quality Bureau
P.O. Box 1778
Santa Fe, NM 87502
(505) 827-2918

- **Bureau of Land Management**

BLM - Carlsbad Resource Area
P.O. Box 1778
Carlsbad, NM 87820
(505) 887-6544

BLM - New Mexico State Office
P.O. Box 1449
Santa Fe, NM 87504
(505) 438-7400

- **National Response Center:** 1-800-424-8802

- **For SARA and CERCLA reportable spills (chemical spills):**

a.) **SERC:**
Max Johnson, ERC Coordinator
Department of Public Safety
Title III Bureau
P.O. Box 1628
Santa Fe, NM 87504-1628
(505) 827-9224

b.) **Local Emergency Planning Committee**
Eddy County LEPC
Attn: Mr. Joel Arnwine
101 West Greene St.
Carlsbad, NM 88220
(505) 887-9511

c.) **Fire Department**

Artesia Fire Department
309 N. 7th
Artesia, NM 88210
(505) 746-2701

Loco Hills Volunteer Fire Department
P.O. Box 9
Loco Hills, NM 88255
(505) 677-3266

Form NM 3162-1
(July 1991)

UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management
New Mexico State Office

REPORT OF UNDESIRABLE EVENT

DATE OF OCCURRENCE/DISCOVERY: _____ TIME OF OCCURRENCE: _____

DATE REPORTED TO BLM: _____ TIME REPORTED: _____

BLM OFFICE REPORTED TO: (RESOURCE AREA/DISTRICT/OTHER): _____

LOCATION: (¼ ¼)___ SECTION ___ T. _____ R. _____ MERIDIAN _____

COUNTY: _____ STATE: _____ WELL NAME: _____

OPERATOR: COMPANY NAME _____ PHONE NO. _____
CONTACT PERSON'S NAME _____

SURFACE OWNER: _____ MINERAL OWNER: _____
(FEDERAL/INDIAN/FEE/STATE)

LEASE NO.: _____ RIGHT-OF-WAY NO.: _____

UNIT NAME / COMMUNITIZATION AGREEMENT No.: _____

TYPE OF EVENT, CIRCLE APPROPRIATE ITEM(S):

BLOWOUT, FIRE, FATALITY, INJURY, PROPERTY DAMAGE, OIL SPILL, SALTWATER SPILL, OIL AND SALTWATER SPILL, TOXIC FLUID SPILL, HAZARDOUS MATERIAL SPILL, UNCONTROLLED FLOW OF WELLBORE FLUIDS, OTHER (SPECIFY):

_____

CAUSE OF EVENT: _____
_____

HazMat Notified: (for spills) _____

Law Enforcement Notified: (for thefts) _____

CAUSE AND EXTENT OF PERSONAL INJURIES/CAUSE OF DEATH(S):
_____

Safety Officer Notified: _____

EFFECTS OF EVENT: _____
_____

ACTION TAKEN TO CONTROL EVENT: _____
_____

LENGTH OF TIME TO CONTROL BLOWOUT OR FIRE: _____

VOLUMES DISCHARGED: OIL _____ WATER _____ GAS _____

OTHER AGENCIES NOTIFIED: _____

ACTION TAKEN OR TO BE TAKEN TO PREVENT RECURRENCE: _____

FINAL INVESTIGATION:

TEAM NAME(S) _____

FIELD INSPECTION DATE _____

SUMMARY OF RESULTS OF INSPECTION _____

RESOURCE LOSS WAS (CIRCLE ITEM): AVOIDABLE UNAVOIDABLE

DATE OF MEMO NOTIFYING MINERALS MANAGEMENT SERVICE THAT LOSS WAS AVOIDABLE: _____

DATE/TIME/PERSON NOTIFIED:

DISTRICT OFFICE _____

STATE OFFICE _____

WASHINGTON OFFICE _____

SUMMARY OF RESULTS OF RECLAMATION/CORRECTIVE ACTION: _____

REMARKS: _____

SIGNATURE OF AUTHORIZED OFFICER: _____

DATE: _____ TITLE: _____

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☐ Final Report

Name of Company	Contact
Address	Telephone No.
Facility Name	Facility Type

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County

Latitude_____ Longitude_____

NATURE OF RELEASE

Type of Release	Volume of Release	Volume Recovered
Source of Release	Date and Hour of Occurrence	Date and Hour of Discovery
Was Immediate Notice Given? ☐ Yes ☐ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☐ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Describe Area Affected and Cleanup Action Taken.*

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION	
Printed Name:	Approved by District Supervisor:	
Title:	Approval Date:	Expiration Date:
E-mail Address:	Conditions of Approval:	Attached ☐
Date: Phone:		

* Attach Additional Sheets If Necessary

Southern Ute Growth Fund Spill/Release Report

Forward to the Growth Fund Safety & Environmental Compliance Management Group at Fax 970-247-5178

Report Date_____ Time:_____am/pm or (military time)

Spill Date_____ Spill Time:_____am/pm or (military time)

Company Name:_____ Phone Number:_____

Reported By:_____ Title:_____

Facility Name:_____

Location: 1/4_____ Section:_____ Township:_____ Range:_____

Type of Spill (*Circle One*): Produced Water, Oil, Gas, Other_____

Estimate spilled:_____*barrels* Estimate recovered: _____ Hazardous: *Y / N*

Is the Spill Contained: *Y / N* If No, is it within the property "footprint": *Y / N*

Extent of spill (area)_____ft2 Surrounding Land Use_____

Damages/Injuries? _____ Evacuation Needed?: *Y / N*

Ground Water Impacted: Y___ N___ Surface Water Impacted: Y___ N___

IF LESS THAN A MILE, report distance IN FEET to the nearest.....

Surface water:_____ Wetlands:_____ Water wells:_____ Dry arroyo:_____ Residence:_____

Cause Of Spill:_____

Describe immediate response:_____

Does this facility require an SPCC plan: *Yes / No* If yes, is there one in place: *Yes / No*

Is there a remediation plan in place for clean up: *Yes / No*

Follow-up Report Being Sent: *Yes / No* Due By the Following Date: _____, 20____

Closure Report Being Sent: *Yes / No* Due By the Following Date: _____, 20____

OTHER NOTIFICATIONS

Date	Agency	Contact Person	Type of notification	Comments:
			Written / Verbal / Both	
			Written / Verbal / Both	
			Written / Verbal / Both	
			Written / Verbal / Both	

For Office Use Only if initial report was by verbal:

Report Completed By:_____ Title:_____

Note: This form is only used if the facility has spills (see below), which require submission of the plan to the EPA.

Sample - Submittal of Information to Regional Administrator for Qualified Discharge(s)

In the event of a qualified discharge or discharges, this page can be utilized to provide official notification to the Regional Administrator. If the Facility has had a discharge or discharges, which meet one of the following two criteria, then this report must be submitted to the Regional Administrator within 60 days. (Check as appropriate)

☐ This Facility has experienced a reportable spill as referenced in 40 CFR Part 112.1(b) of 1,000 gallons or more.

☐ This Facility has experienced two (2) reportable spills (as referenced in 40 CFR Part 112.1(b) of greater than 42 gallons each within a 12-month period.

Facility Name and Location: _____

Facility Contact Person (Name, address/phone number): _____

Facility maximum storage or handling capacity: _____

Facility normal daily throughput: _____

Describe the corrective action and countermeasures taken (include description of equipment repairs and replacements): _____

Describe the Facility (maps, flow diagrams and topographical maps attached as necessary): _____

Describe the cause of discharge (as referenced in 40 CFR Part 112.1(b)) including failure analysis of the system is: _____

Describe the preventative measures taken or contemplated to be taken to minimize the possibility of recurrence: _____

Other pertinent information: _____

- A copy of this report is also to be sent to the appropriate state agency in charge of oil pollution control activities.

APPENDIX B

LOGS

- SPCC Inspection Checklist
- Onshore Facility Bulk Storage Tank Drainage System

SPCC INSPECTION CHECKLIST

At least once **annually**, the **Plant Manager** in charge of the facility will visually inspect the facility for leaks and potential problems. This visual examination will review the condition of foundation and supports of tanks, possible corrosion of tanks, overflow equalizing lines, thief hatches (vacuum protection), back pressure vent valves, drain valves and lines, fill and shipping lines, oil transfer facilities, alarm systems, and overall condition of complete installation and secondary containment. Additionally, the Plant Manager will inspect and document the conditions of diked areas.

Production Facility: _____ Reviewer: _____
Review Date: _____

Berms around Storage Tanks:
___ Can they hold the capacity of storage tanks?
___ Are they in good shape (No low spots in berm)?
___ Do they have proper drainage?
___ Is there any contaminated soil inside or outside berms?
___ Is rainwater inspected prior to drainage?
___ Are drains properly closed and sealed after water drainage?
___ Are adequate records kept after water drainage?
___ Are accumulations of oil in traps, drips, sumps, etc. properly removed?
Comments: _____
_____
_____

Storage Tanks:
___ Are tanks leaking anywhere (pinholes, manways, etc.)?
___ Are tanks free of rust?
___ Are they visually examined on a routine basis?
___ Are they fail-safe engineered to prevent spills?
___ Adequate capacity ___ Over flow equalizing lines
___ Vacuum protection ___ High level shut down
Comments: _____
_____
_____

Truck Loading Racks:
___ Are truck drivers receiving their annual training on proper loading of trucks?
___ Are premature departure methods in place (chocks, signs, physical barriers [cones])?
___ Are trucks checked for leaking valves and fittings prior to departure?
___ Is the containment area in good condition and able to contain the full volume of one truck?
Comments: _____
_____
_____

Facility Inspection Procedures:

___ Are weekly PM checks on berms documented?
___ Are API 510 recommended practices for inspecting pressurized vessels being used?
___ Are API 570 recommended practices for above ground piping inspections being used?
___ Are API 653 recommended practices for inspecting tanks being used?

Comments: _____

_____

_____

General Comments: _____

_____

_____

_____

ONSHORE FACILITY BULK STORAGE TANKS DRAINAGE SYSTEM

Record of drainage, bypassing, inspection and oil removal from secondary containment:

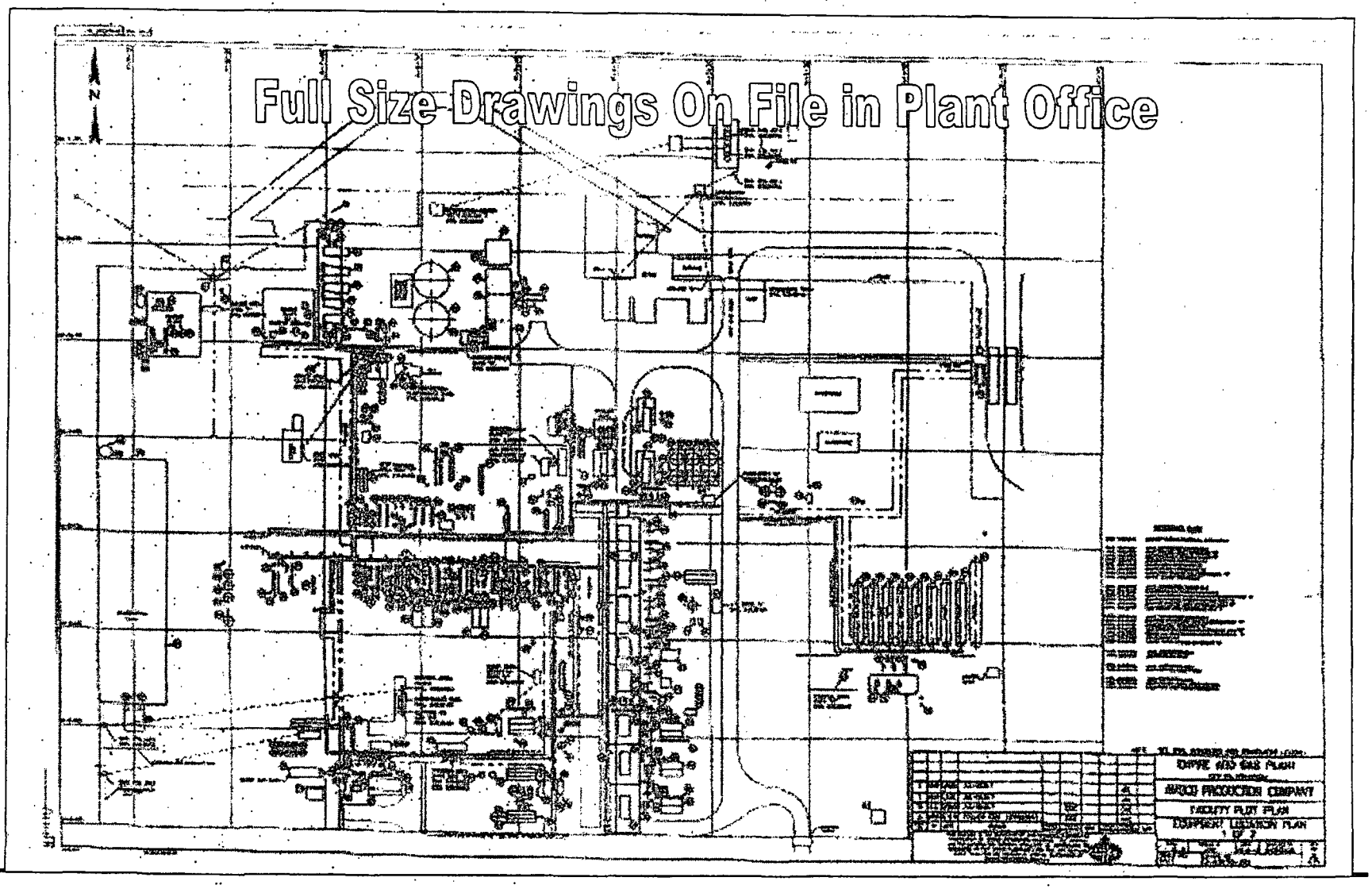
Date of Drainage	Date of Bypassing		Date of Inspection	Oil Removal	Supervisor's or Inspector's Signature
	Open	Closed			

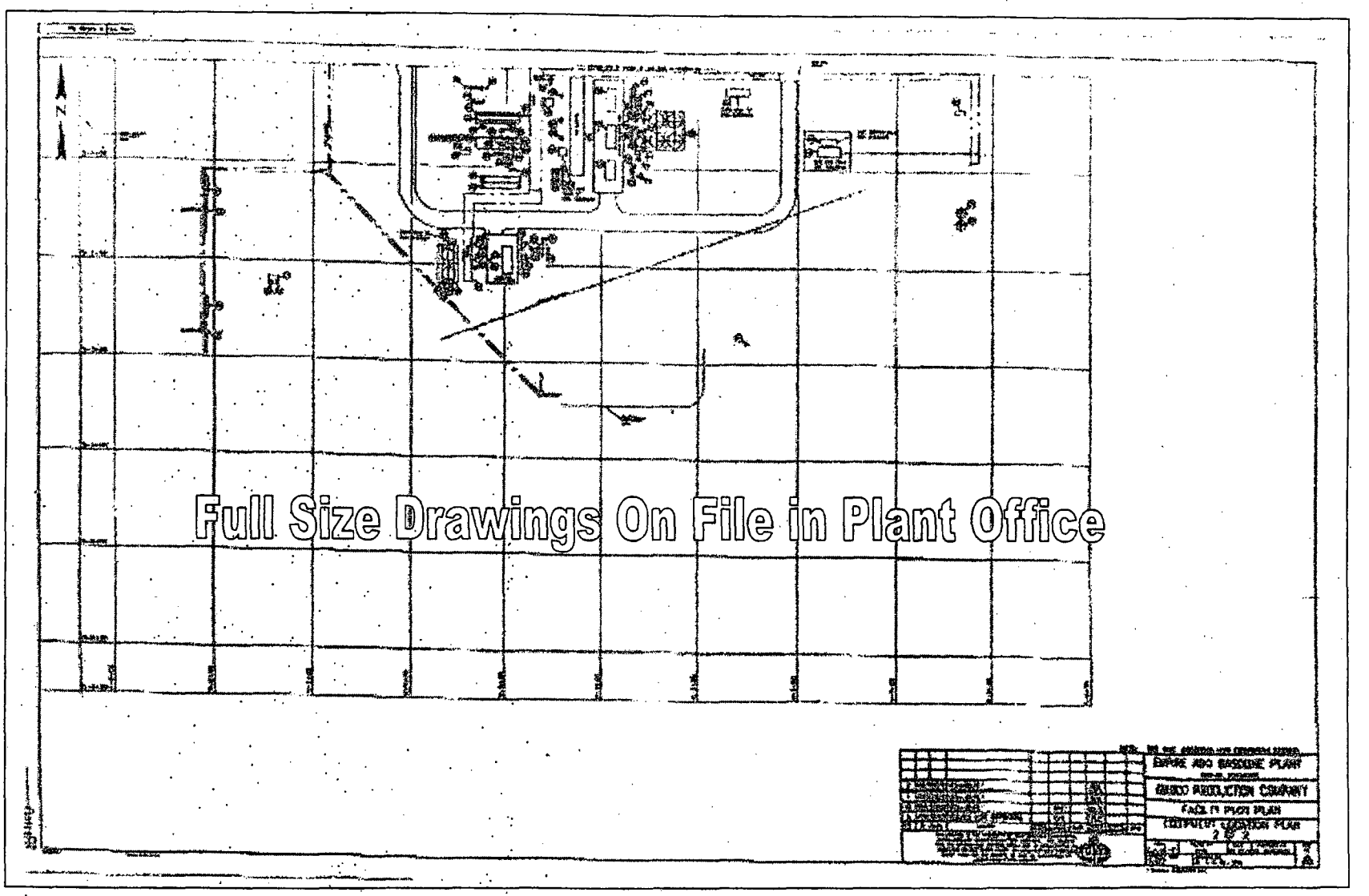
APPENDIX C

Facility Diagrams

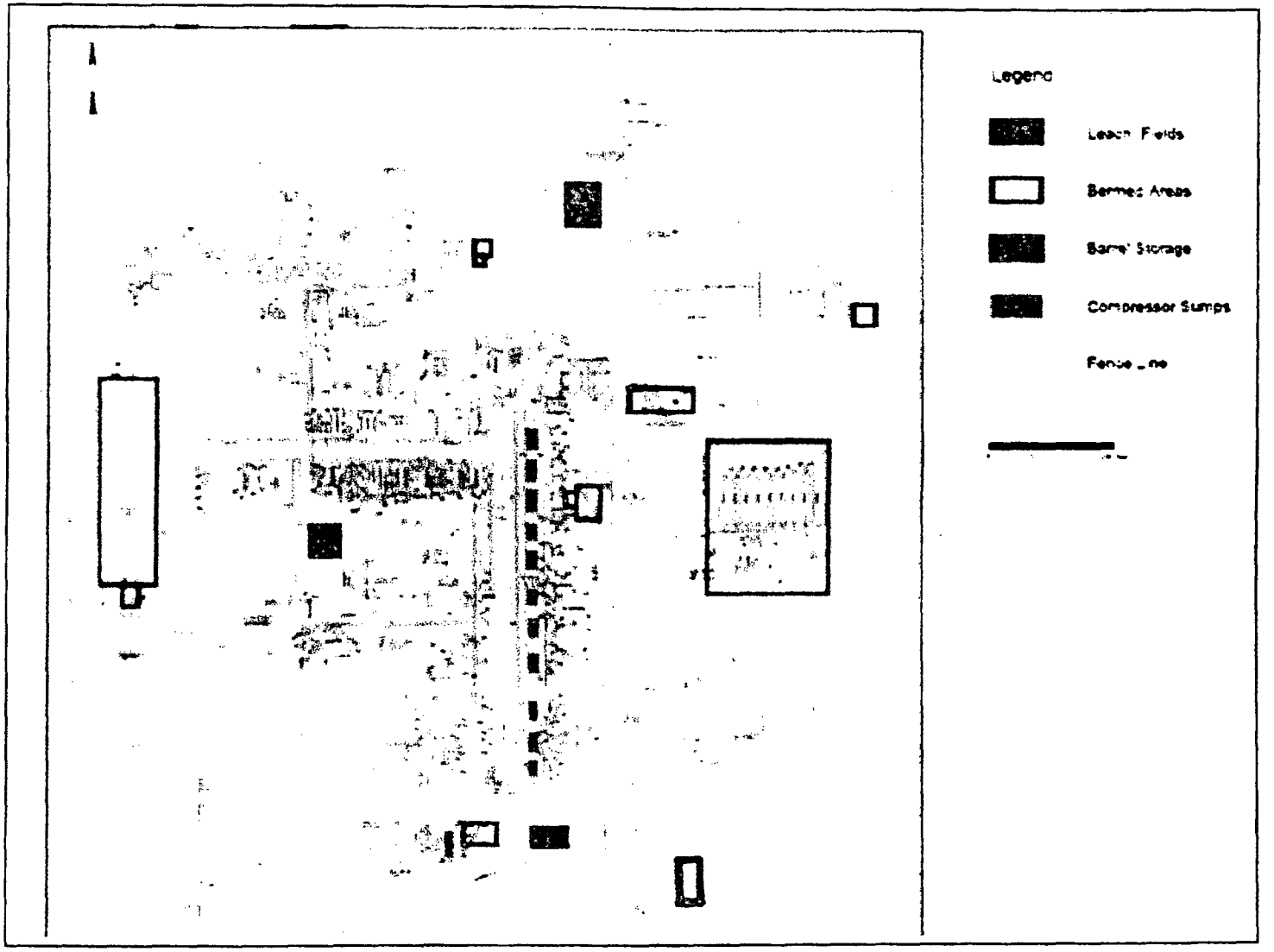
- Equipment Layout (Page 1 and Page 2)
- Tanks and containment structures
- Topographical Map (1975)
- Aerial Photograph (October 1997)

Site Map

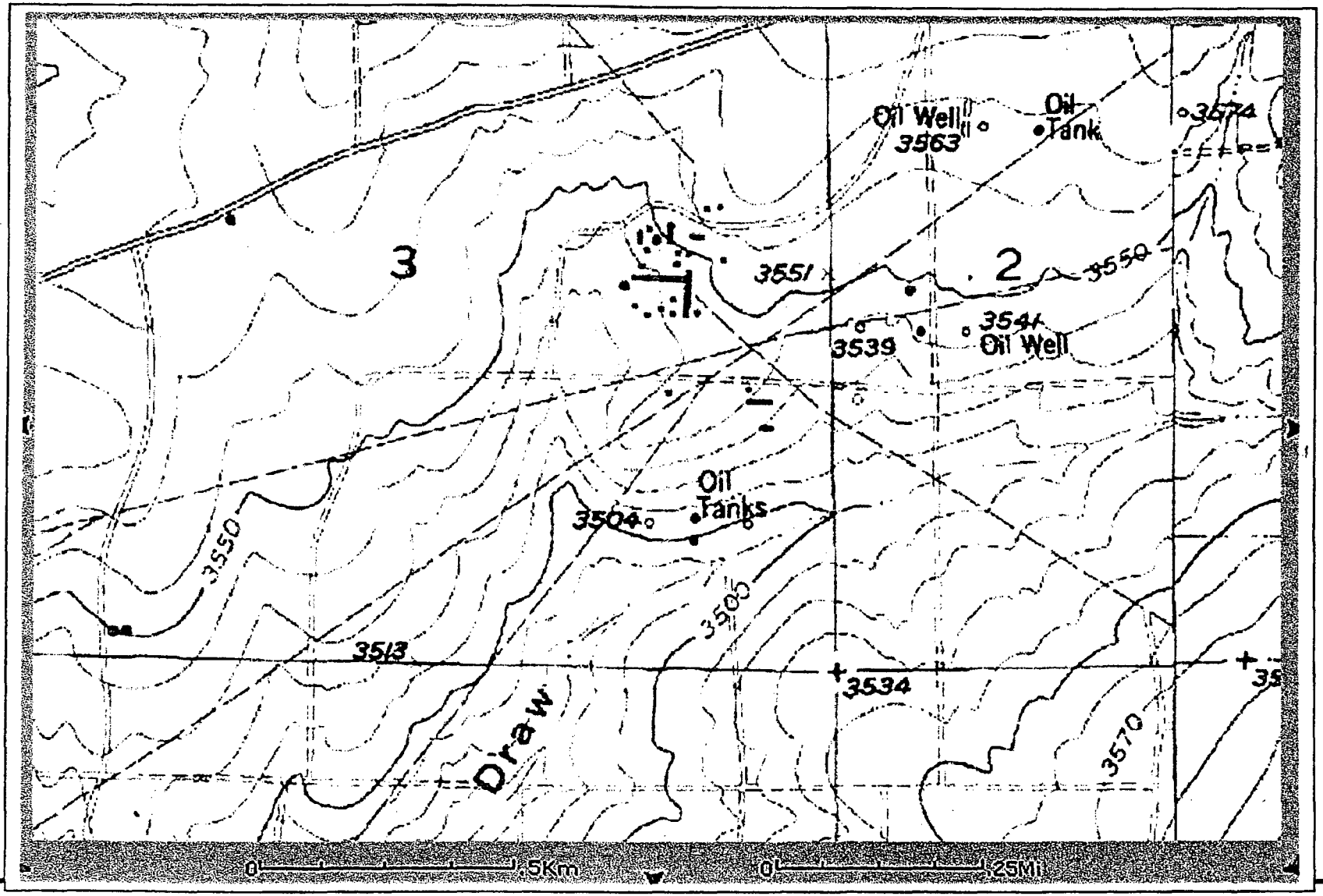



N
Full Size Drawings On File in Plant Office

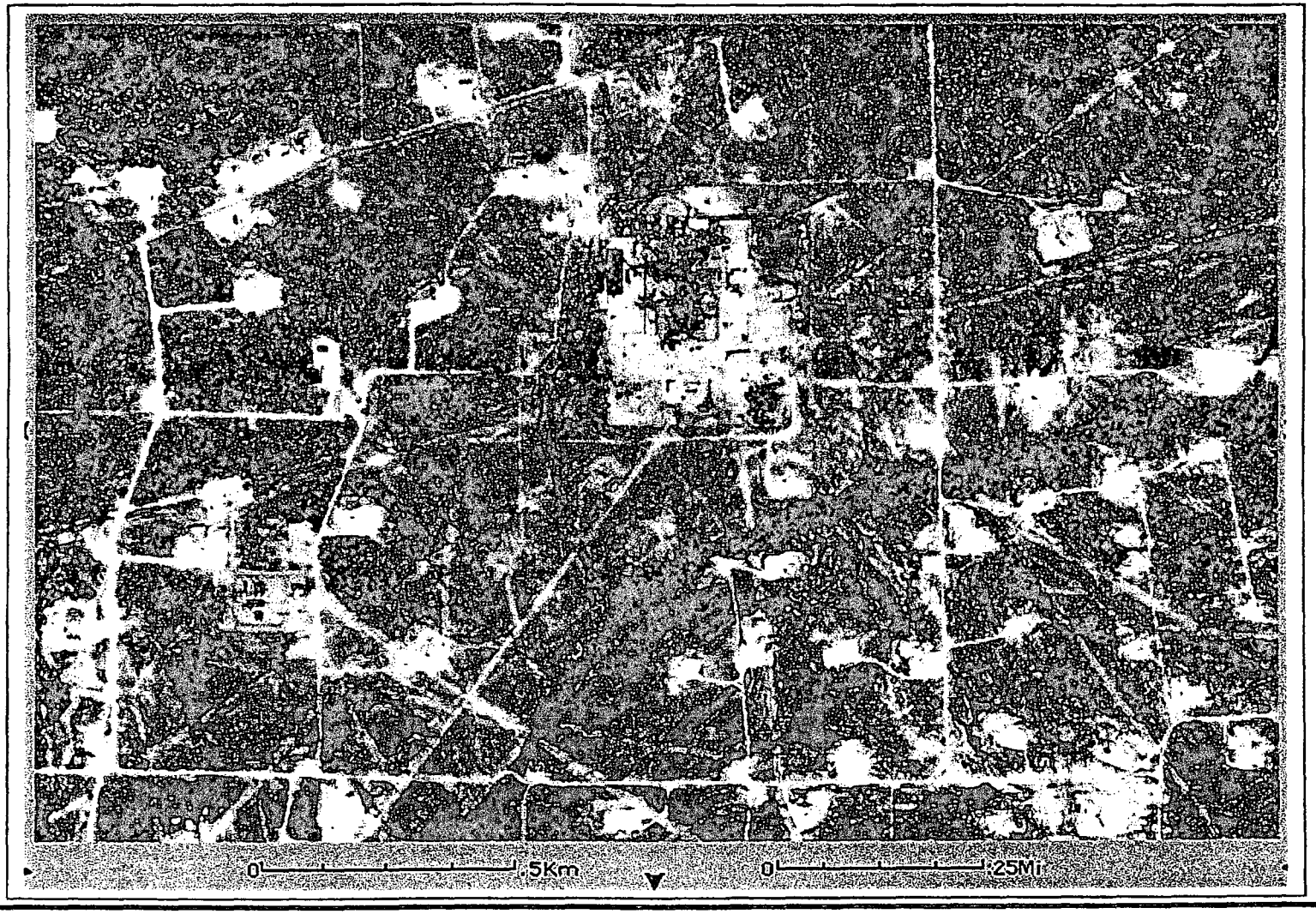
Tanks and Containment Structures



Topographical Map (1975)



Aerial Photograph (October 1997)



APPENDIX D

Oil Spill Contingency Plan

A. INITIAL ACTION AT THE SITE OF A SPILL

The responsible Frontier Field Services, LLC employee at the scene of the operation who first learns about an oil spill or pollution shall take the following action:

1. Notify Appropriate Supervisor - Immediately contact supervisor, giving an assessment of the situation. The Supervisor on duty shall notify the Plant Manager or his designate. (David Harris: Home (505) 736-1846, Cell (505) 703-0891)

2. Alleviate danger - If any human life or property is in danger, take prompt action to alleviate such danger.

3. Contain spill - If the spill can be stopped or brought under control, take prompt action to do so. If possible, contain the spread of the spill using equipment available on-site.

4. Determine if spill reached "navigable water." "Navigable water" includes a variety of different sources, including lakes, creeks, and dry draws. A spill into navigable water is reportable if it is enough to create a sheen. Even if the draw is dry at the time of the spill, if oil gets into it, the spill is reportable to the National Response Center (NRC). If the spill did not get into "navigable water" respond according to the "Procedures for Reporting Spills and Upsets" found in Appendix A. If the spill did get into "navigable water", the Plant Manager or his designee will call the NRC and one of the following, beginning with the Plant Engineer:

1)	David Harris		(505) 677-5117
	Plant Engineer	Cell	(505) 703-0891
2)	Randy McCollum		(505) 676-3505
	Manager of Compliance	Cell	(505) 361-0128
3)	Chad Cagle		(918) 388-8442
	Director of Operations	Cell	(918) 808-4863

Your supervisor will contact the Plant Manager and one of Frontier personnel and apprise them of the situation.

B. ACTIVATION OF SPCC PLAN:

After being notified, the Plant Manager or other responsible official shall promptly accomplish three actions:

1. **Notify Management** - He shall apprise Frontier of the situation as appropriate.

2. **Notify Agencies** - If the spill reaches navigable water, verify that the National Response Center, the New Mexico Oil Conservation Division (OCD), the Bureau of Land Management (as necessary), and the Frontier Plant Manager have been notified. To notify Federal and State agencies, call the following numbers:

Federal Agencies:	National Response Center (USCG)	(800) 424-8802
	Bureau of Land Management	(505) 877-6544
State Agencies	NM Oil Conservation Commission	(505) 748-1283

When a spill is outside the responsibility of the SPCC plan (i.e. it still does not reach navigable water) it may still need to be reported to a federal or local agency depending on area, amount, and type of spill. The "Procedure for Reporting Spills and Upsets" found in Appendix A contains reporting procedures.

3. **Initiate Cleanup** - The Plant Manager is responsible for determining the degree and speed of containment and cleanup measures required as outlined in the Oil Spill Clean Up Plan in C below. Decisions as to how to clean up the spill are based on

- Substance spilled
- Size of spill
- Sensitivity of location to people and environment
- If spill entered water
- Type of watercourse entered
- Requirements of agency

Do not talk to media - During an oil or condensate spill situation, the following matters should not be discussed with anyone other than Frontier Field Services, LLC personnel unless prior clearances have been obtained:

a. Cause, liability, legal consequences of the spill
b. Estimates of damage to property or ecology
c. Length and scope of cleanup operations
d. Opinions concerning county, state, federal or other government agencies' response to the spill

C. OIL SPILL CLEAN UP PLAN

1. The Plant Manager shall:

   a. Ensure the spill is contained or stabilized to the extent conditions allow.
   b. Ensure that the spill has been reported to the proper agencies.
   c. Initiate cleanup operations.
   d. Supervise and direct the cleanup operation subject to the approval of BP Management.
   e. Determine the needs of equipment and personnel involved in the cleanup operations.
   f. Keep the Frontier Plant Manager informed of progress.

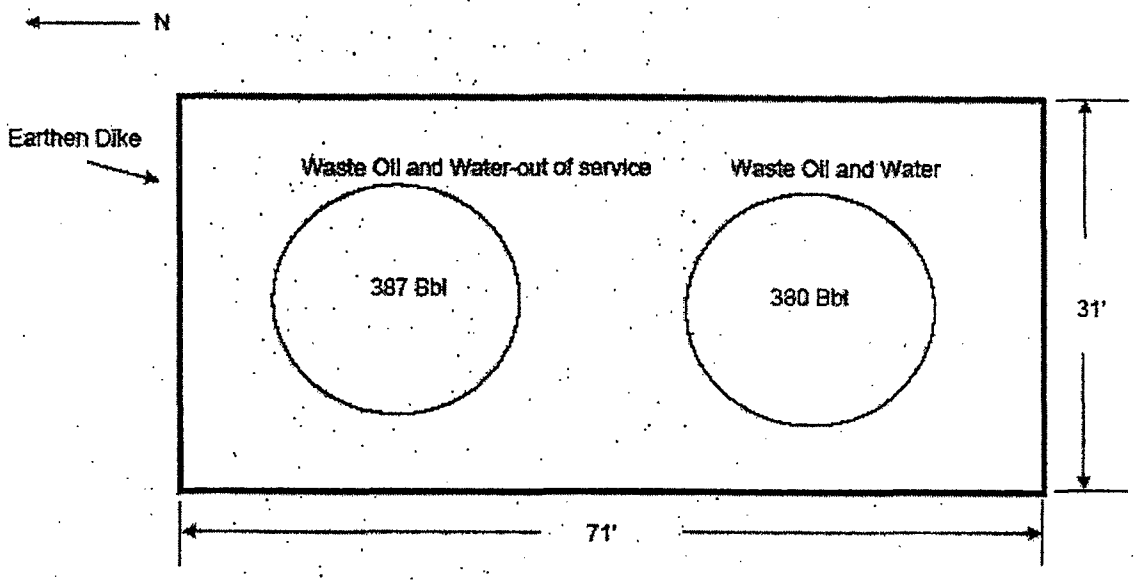
2. The facility's Plant Manager shall clean up the spill as follows:

   a. Establish a plan of action for cleanup. This plan should be discussed with the Frontier Plant Manager and the responsible agency before implementing.
   b. Procure bulldozers and/or backhoe to build additional containment such as dikes, dams, etc., to better contain the oil spill.
   c. Procure vacuum trucks to reclaim the effluents spilled.
   d. Restore the area of the spill, as nearly as possible, to the same condition as before the spill.
   e. The Frontier Plant Manager will advise on appropriate action if the spill reaches waters of the United States.
   f. Record any reportable SPCC spill and maintain records in local files.
   g. If the spill enters the waters of the U.S. and is greater than 1000 gallons, or if two reportable spills occur within 12 consecutive months, a report must be submitted to the EPA within 60 days. This report will contain the entire SPCC plan along with details of the spill event(s).

APPENDIX E

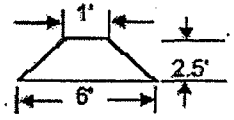
CONTAINMENT DRAWINGS

EMPIRE ABO GAS PLANT
OLD SLOP OIL AREA



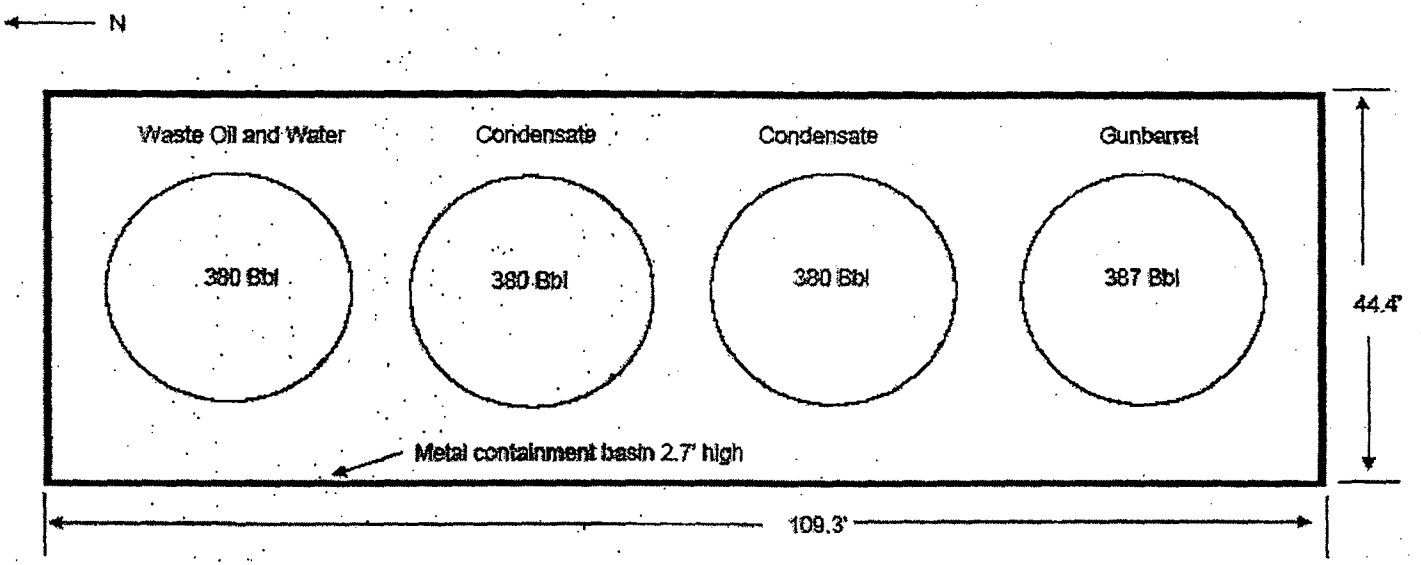
Containment Capacity Calculations			
1. Capacity of Diked Area:	980	4. Largest Tank Volume:	387
2. Applicable Tank Disp.:	40	5. Excess Capacity:	504
3. Precipitation Allowance*:	49	*All units in Barrels*	

**Precipitation allowance of 2"*



Note: Not Drawn to Scale 8/31/2004

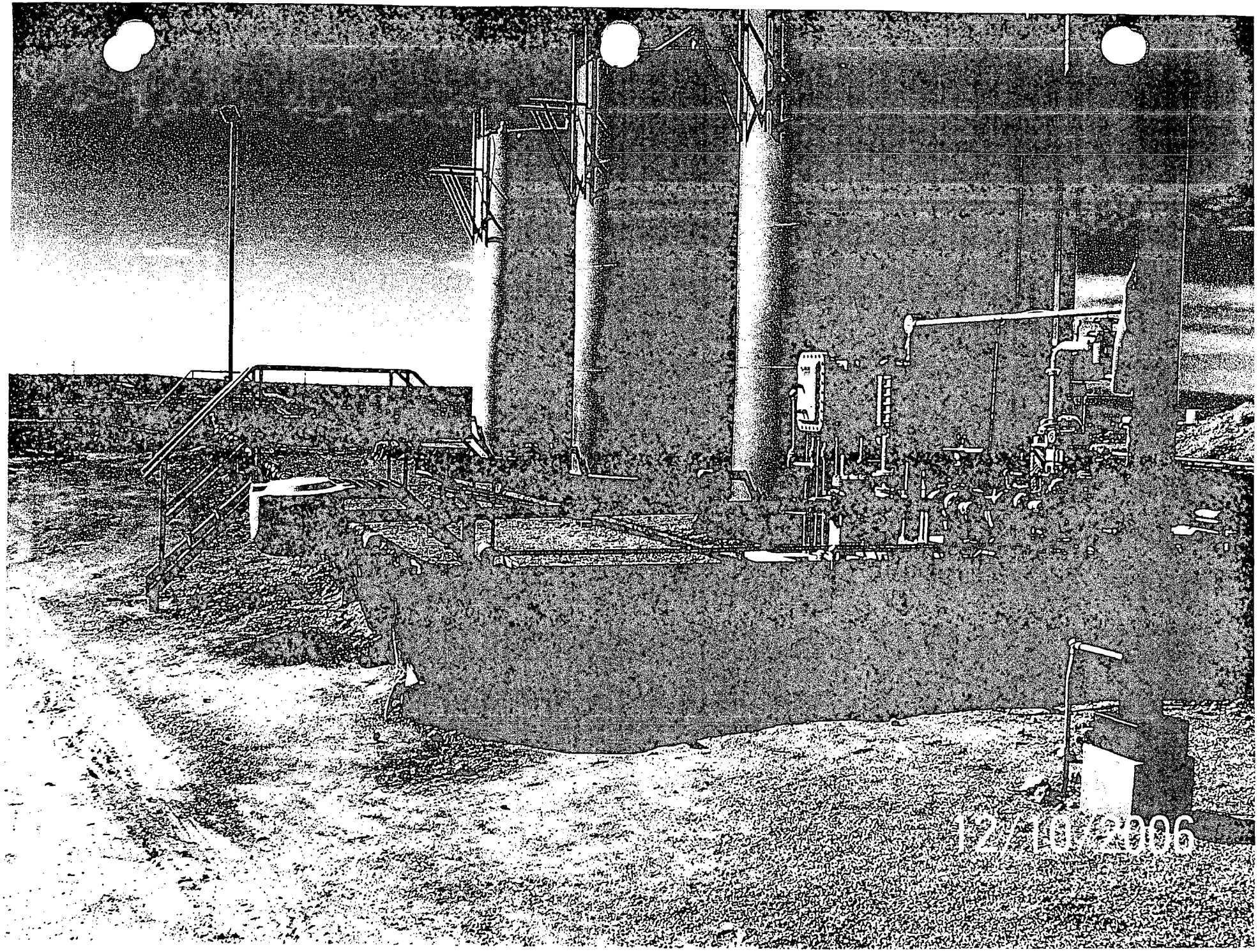
EMPIRE ABO GAS PLANT
SLOP OIL TANKS



Containment Capacity Calculations			
1. Capacity of Diked Area:	1729	4. Largest Tank Volume:	387
2. Applicable Tank Disp.:	81	5. Excess Capacity:	1117
3. Precipitation Allowance*:	144	*All units in Barrels*	

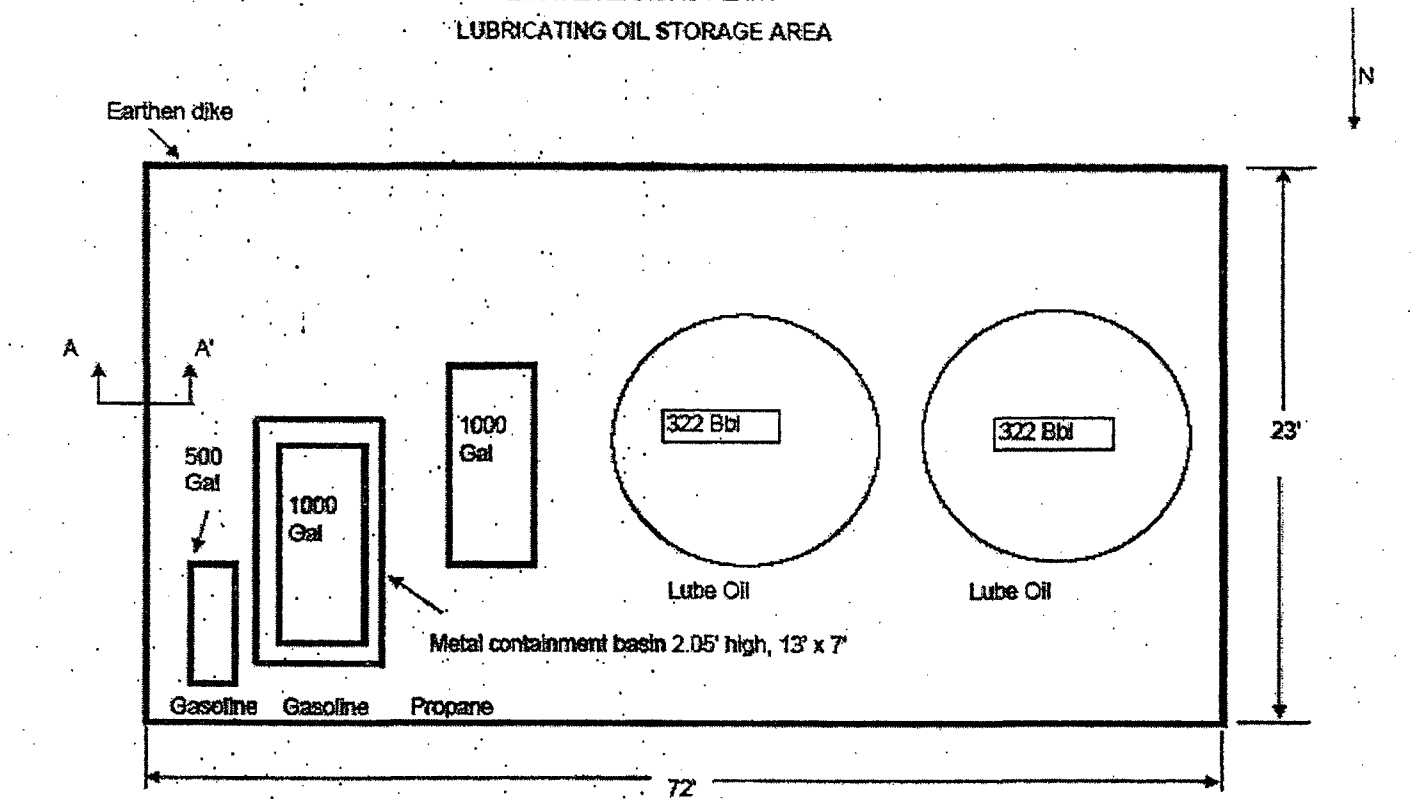
*Precipitation allowance of 2"

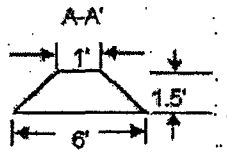
Note: Not Drawn to Scale 11/10/2006



EMPIRE ABO GAS PLANT

LUBRICATING OIL STORAGE AREA

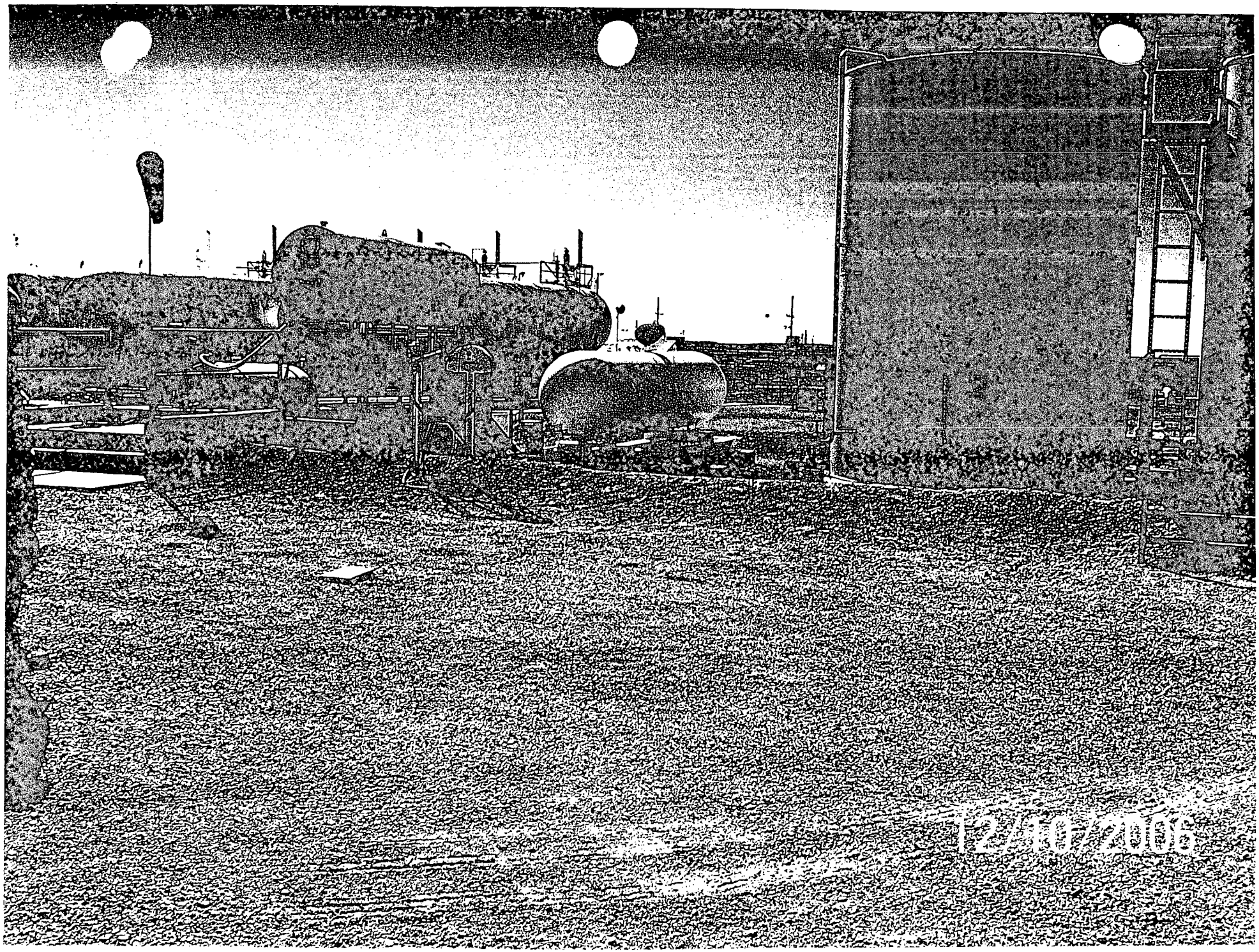


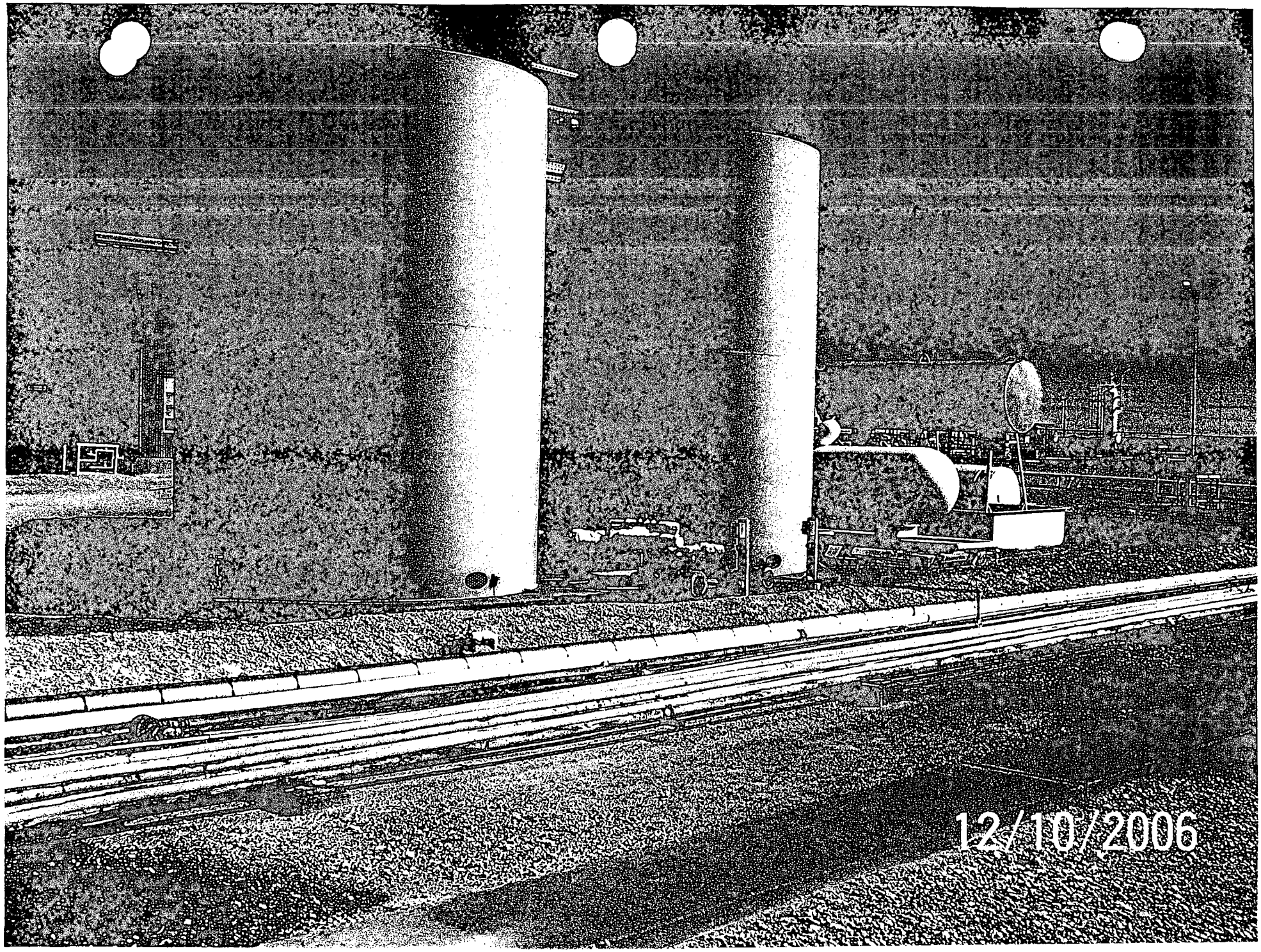


Containment Capacity Calculations			
1. Capacity of Diked Area:	442	4. Largest Tank Volume	322
2. Applicable Tank Disp.:	67	5. Excess Capacity:	5
3. Precipitation Allowance:	49	*All units in Barrels*	

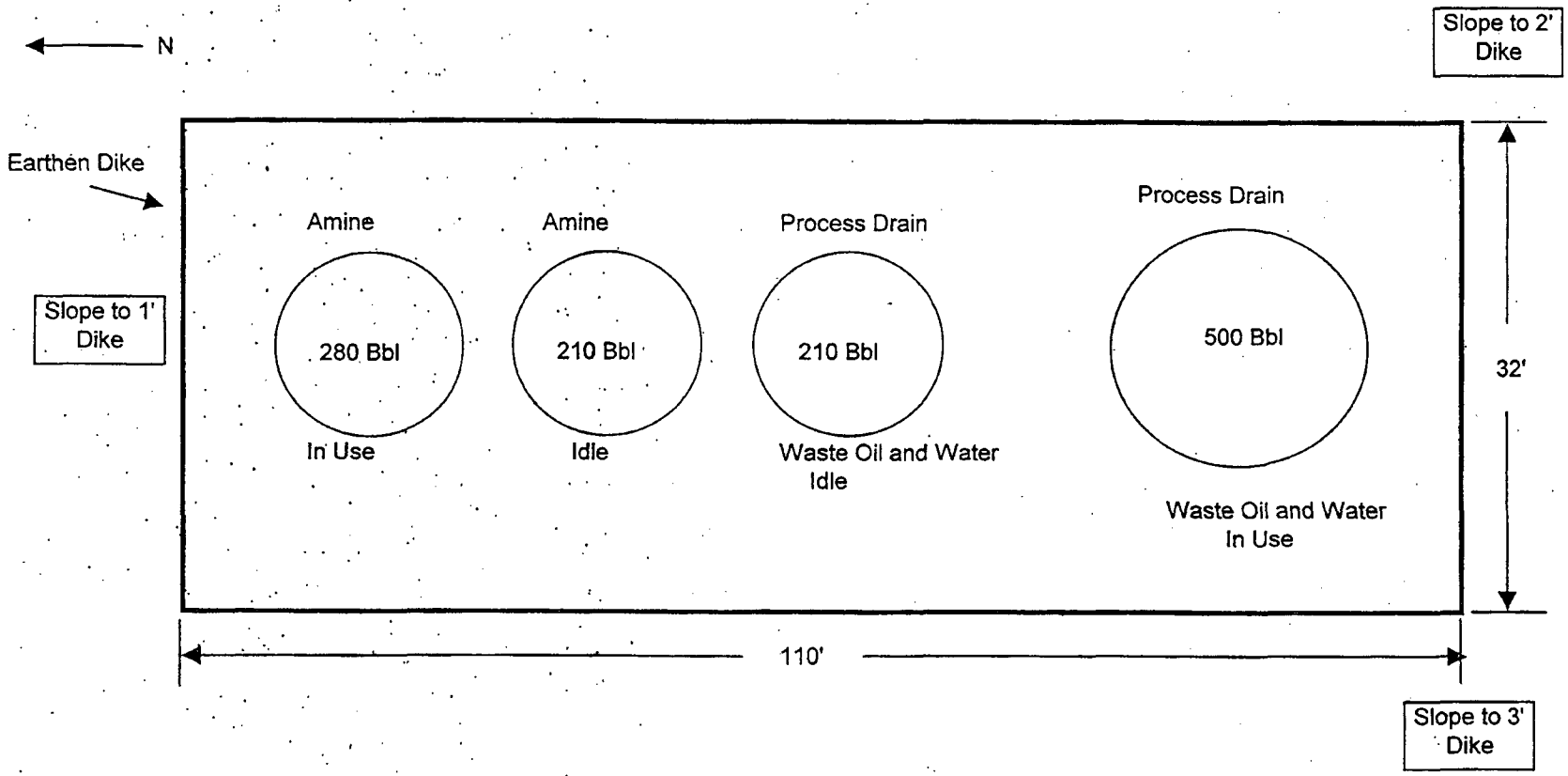
8/31/2004

Note: Not Drawn to Scale

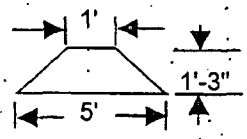



12/10/2006

EMPIRE ABO GAS PLANT
PROCESS DRAIN TANK AREA



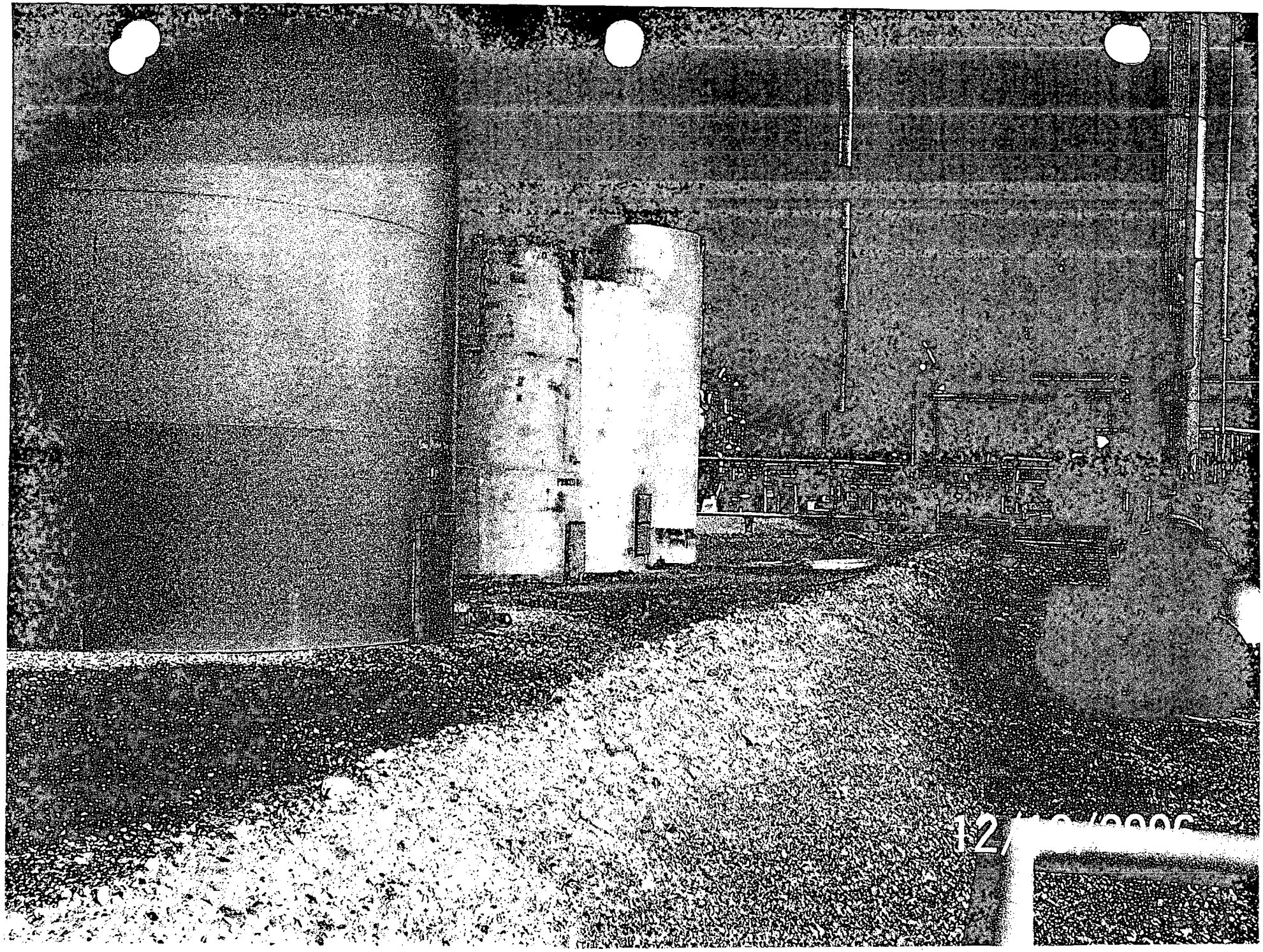
Minimum Dike Dimensions

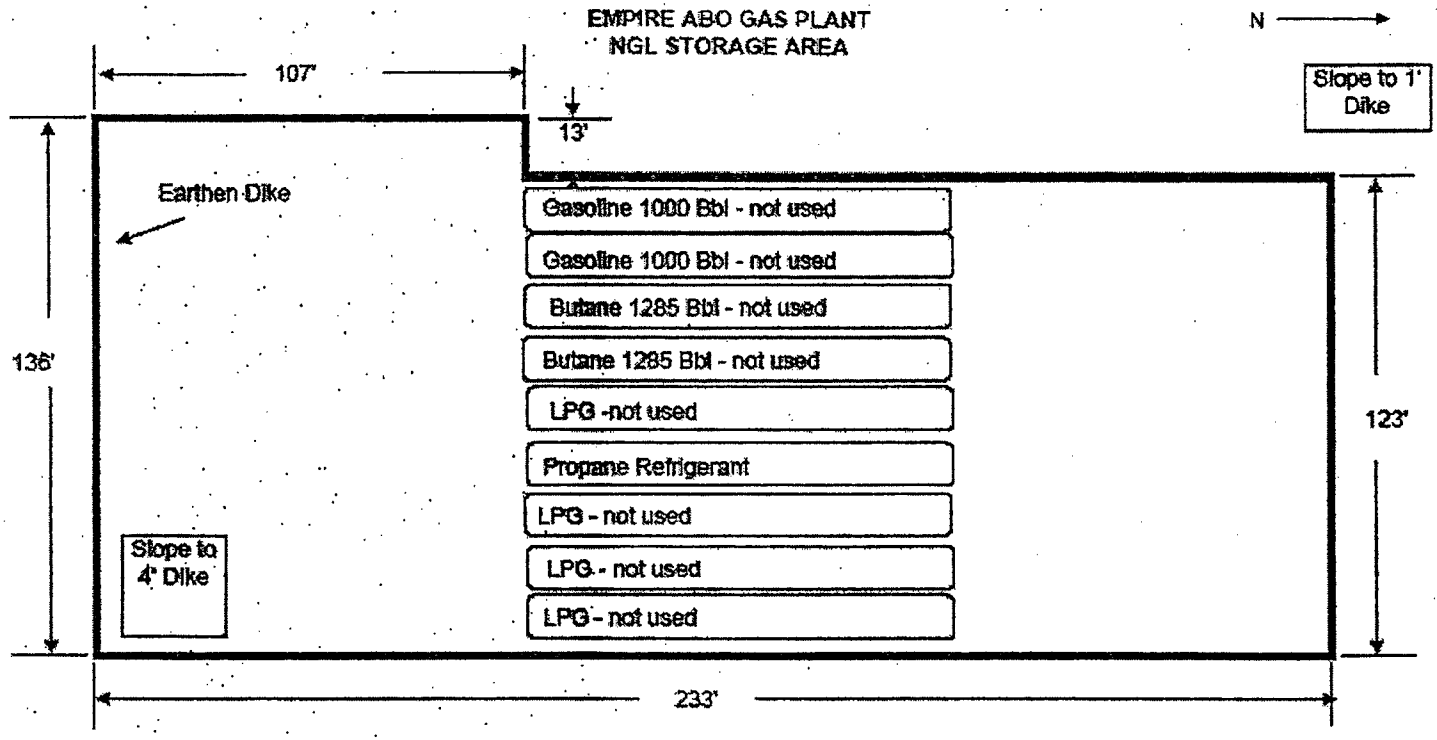


Containment Capacity Calculations			
1. Capacity of Diked Area:	784	4. Largest Tank Volume:	500
2. Applicable Tank Disp.:	120	5. Excess Capacity:	114
3. Precipitation Allowance*:	49	*All units in Barrels*	

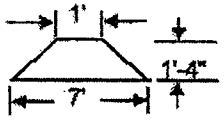
**Precipitation allowance of 2"*

Note: Not Drawn to Scale 8/31/2004





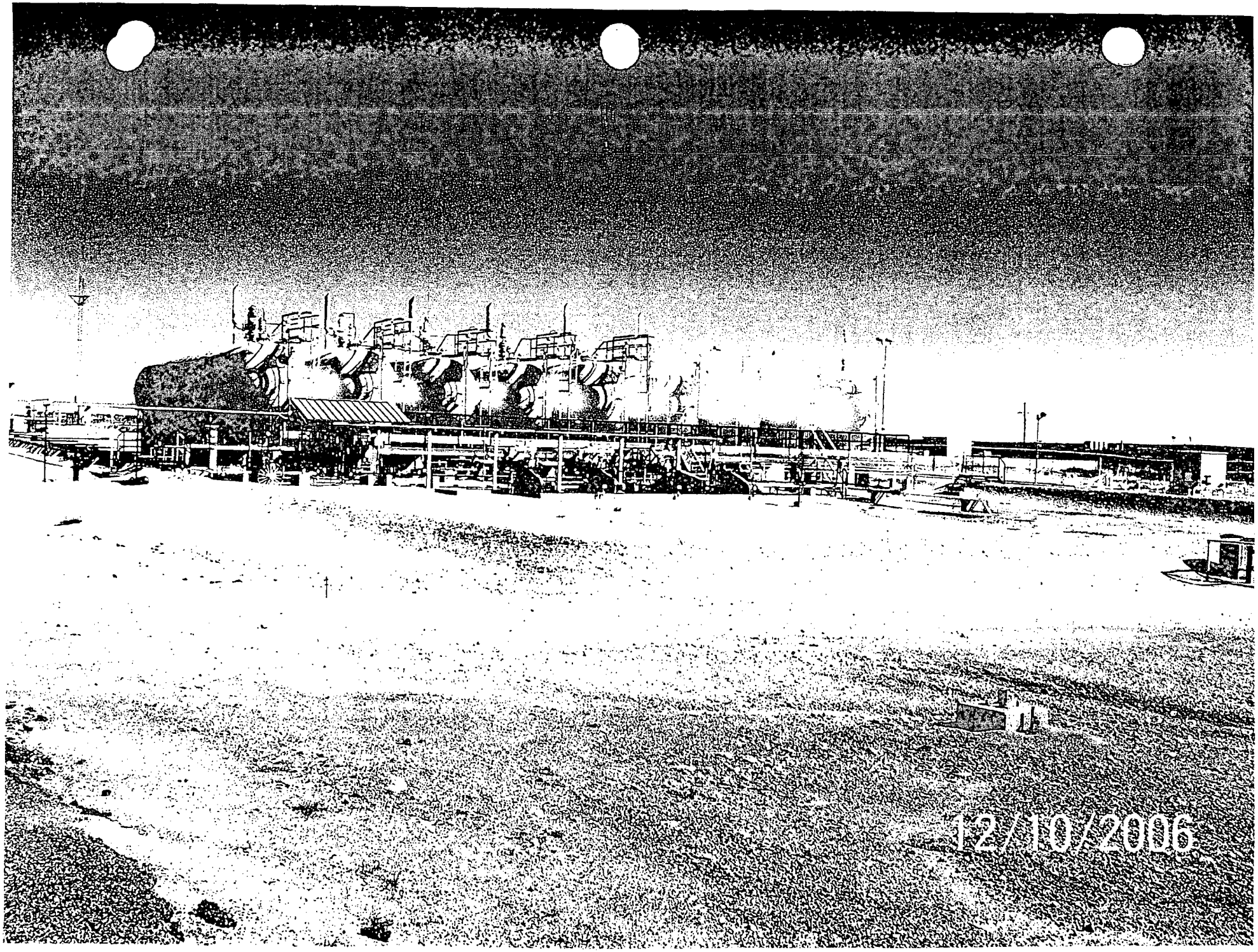
Minimum Dike Dimensions



Containment Capacity Calculations			
1. Capacity of Diked Area:	7118	4. Largest Tank Volume:	1000
2. Applicable Tank Disp.:	Elevated	5. Excess Capacity:	5226
3. Precipitation Allowance*:	892	*All units in Barrels*	

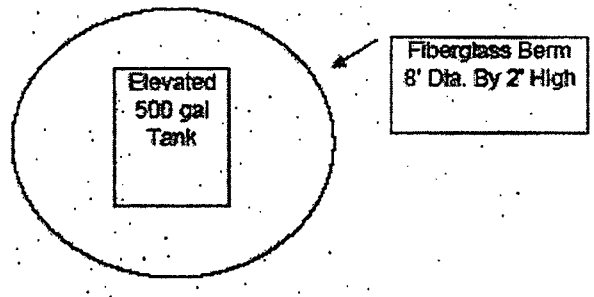
*Precipitation allowance of 2"

Note: Not Drawn to Scale 8/31/2004


12/10/2016

EMPIRE ABO GAS PLANT
MISCELLANEOUS STORAGE SITES

500 Gallon Diesel Storage Tank Near
Chemical Storage Area



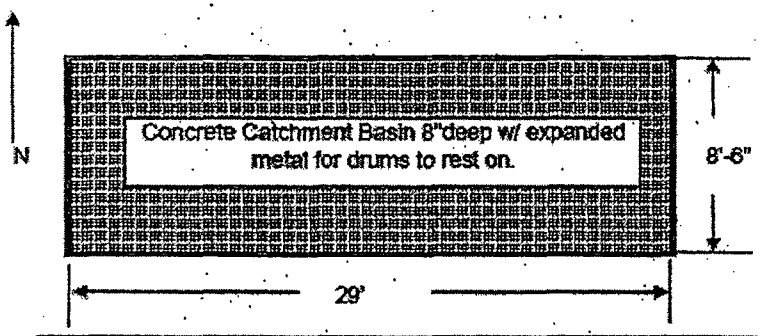
Containment Capacity Calculations			
1. Capacity of Diked Area:	18	4. Largest Tank Volume:	11.9
2. Applicable Tank Disp.:	0	5. Excess Capacity:	4
3. Precipitation Allowance*:	1	*All units in Barrels*	

*Precipitation allowance of 2"

Note: Not Drawn to Scale 8/31/2004

EMPIRE ABO GAS PLANT
MISCELLANEOUS STORAGE SITES

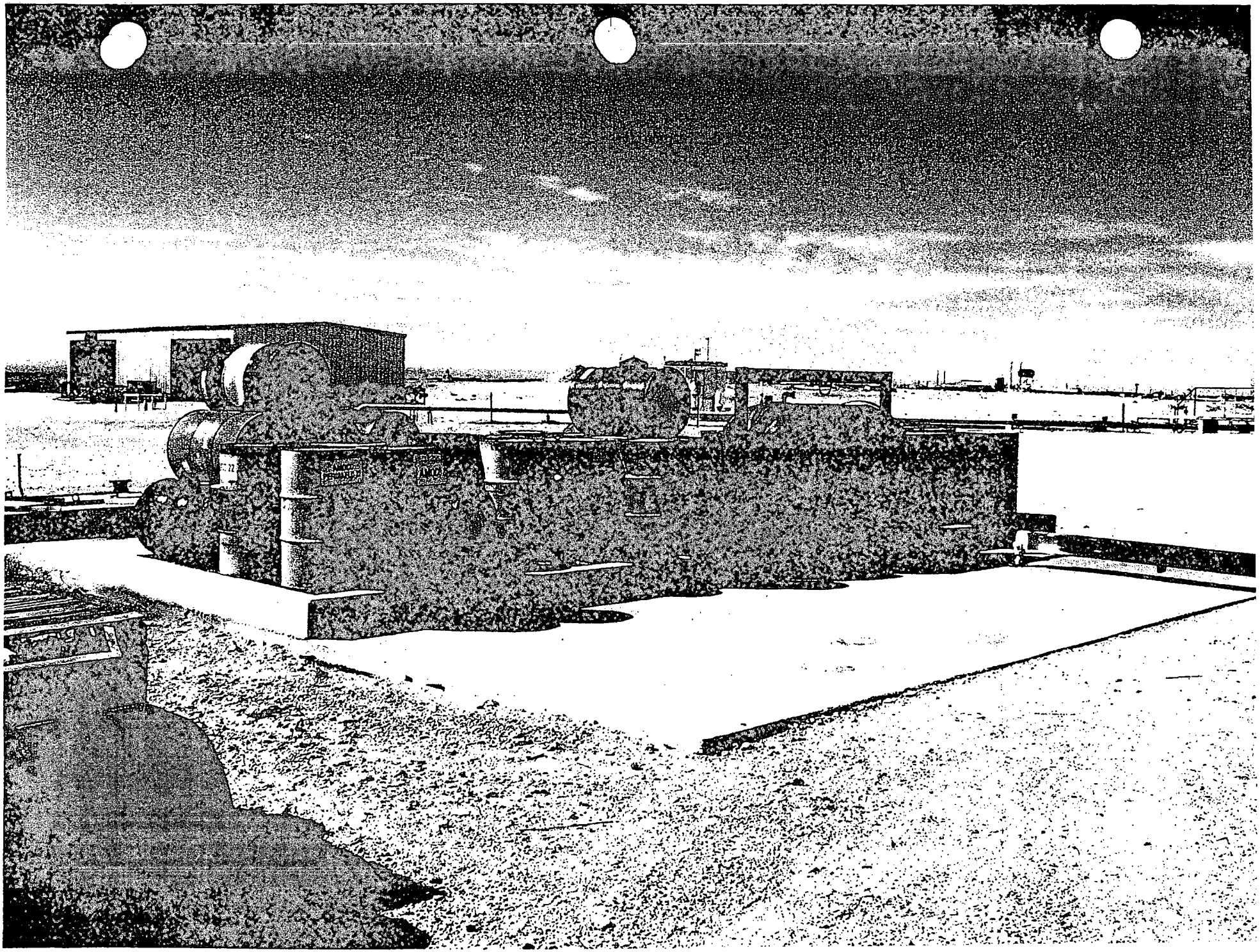
Lube Oil Storage Area



Containment Capacity Calculations			
1. Capacity of Diked Area:	33	4. Largest Tank Volume:	1.31
2. Applicable Tank Disp.:	0	5. Excess Capacity:	24
3. Precipitation Allowance*:	7	*All units in Barrels*	

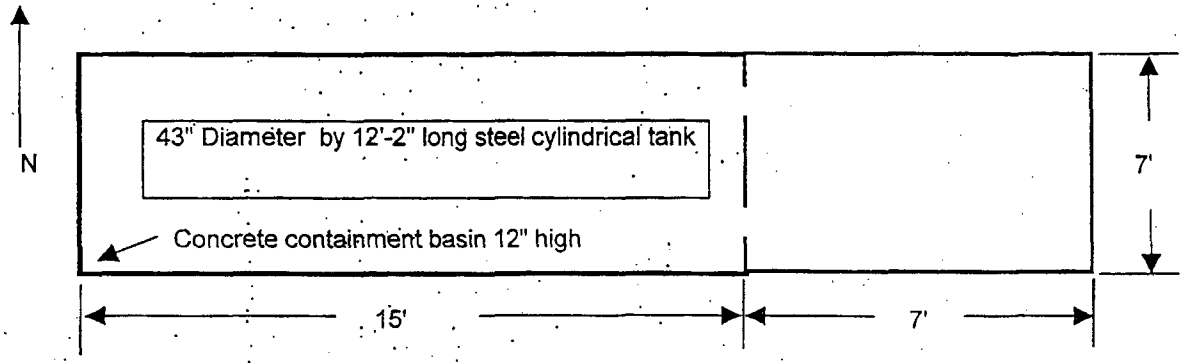
**Precipitation allowance of 2"*

Note: Not Drawn to Scale 8/31/2004



EMPIRE ABO GAS PLANT
MISCELLANEOUS STORAGE SITES

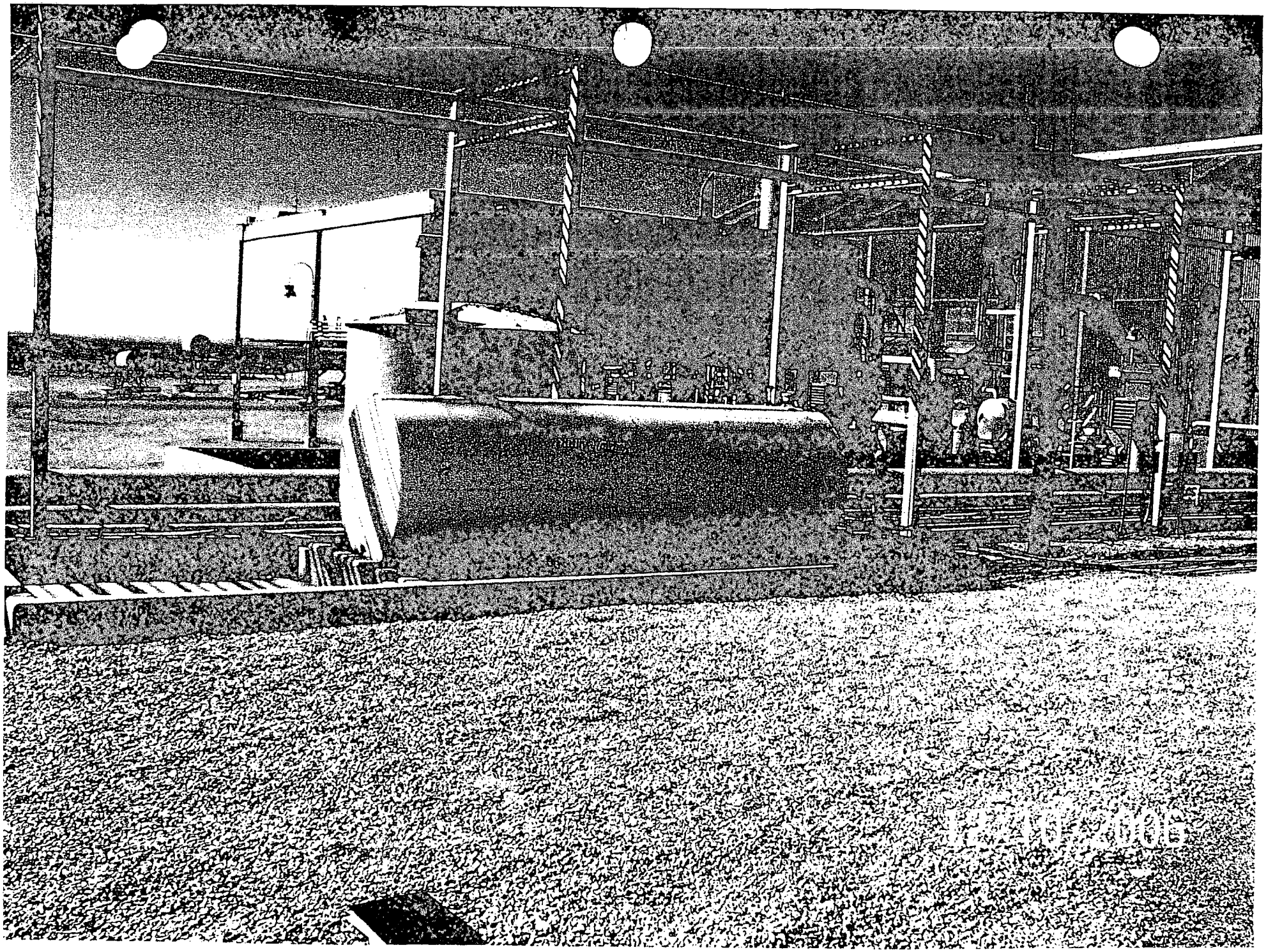
Refrigeration Oil Storage Tank

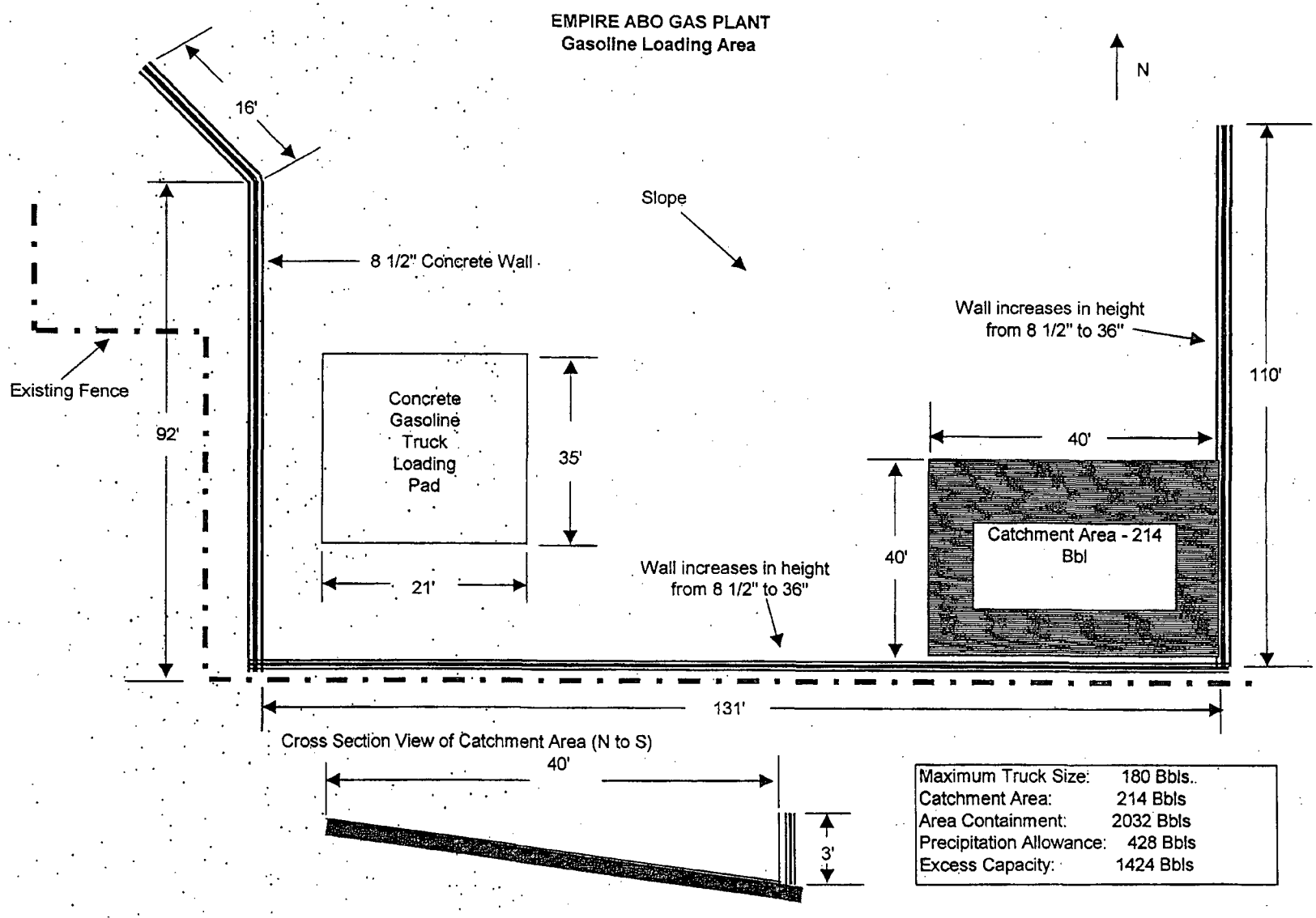


Containment Capacity Calculations			
1. Capacity of Diked Area:	27	4. Largest Tank Volume:	21.8
2. Applicable Tank Disp.:	0	5. Excess Capacity:	1
3. Precipitation Allowance*:	5	*All units in Barrels*	

**Precipitation allowance of 2"*

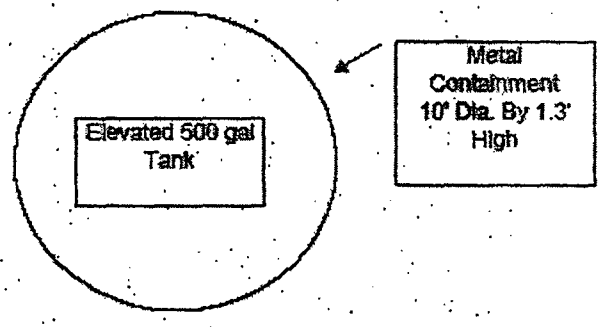
Note: Not Drawn to Scale 12/13/2004




EMPIRE ABO GAS PLANT
Gasoline Loading Area
N
16'
Slope
8 1/2" Concrete Wall
Wall increases in height from 8 1/2" to 36"
110'
Existing Fence
92'
Concrete Gasoline Truck Loading Pad
35'
40'
Catchment Area - 214 Bbl
40'
21'
Wall increases in height from 8 1/2" to 36"
131'
Cross Section View of Catchment Area (N to S)
40'
3'
Maximum Truck Size: 180 Bbls.
Catchment Area: 214 Bbls
Area Containment: 2032 Bbls
Precipitation Allowance: 428 Bbls
Excess Capacity: 1424 Bbls
Note: Not Drawn to Scale
12/13/2004

EMPIRE ABO GAS PLANT
MISCELLANEOUS STORAGE SITES

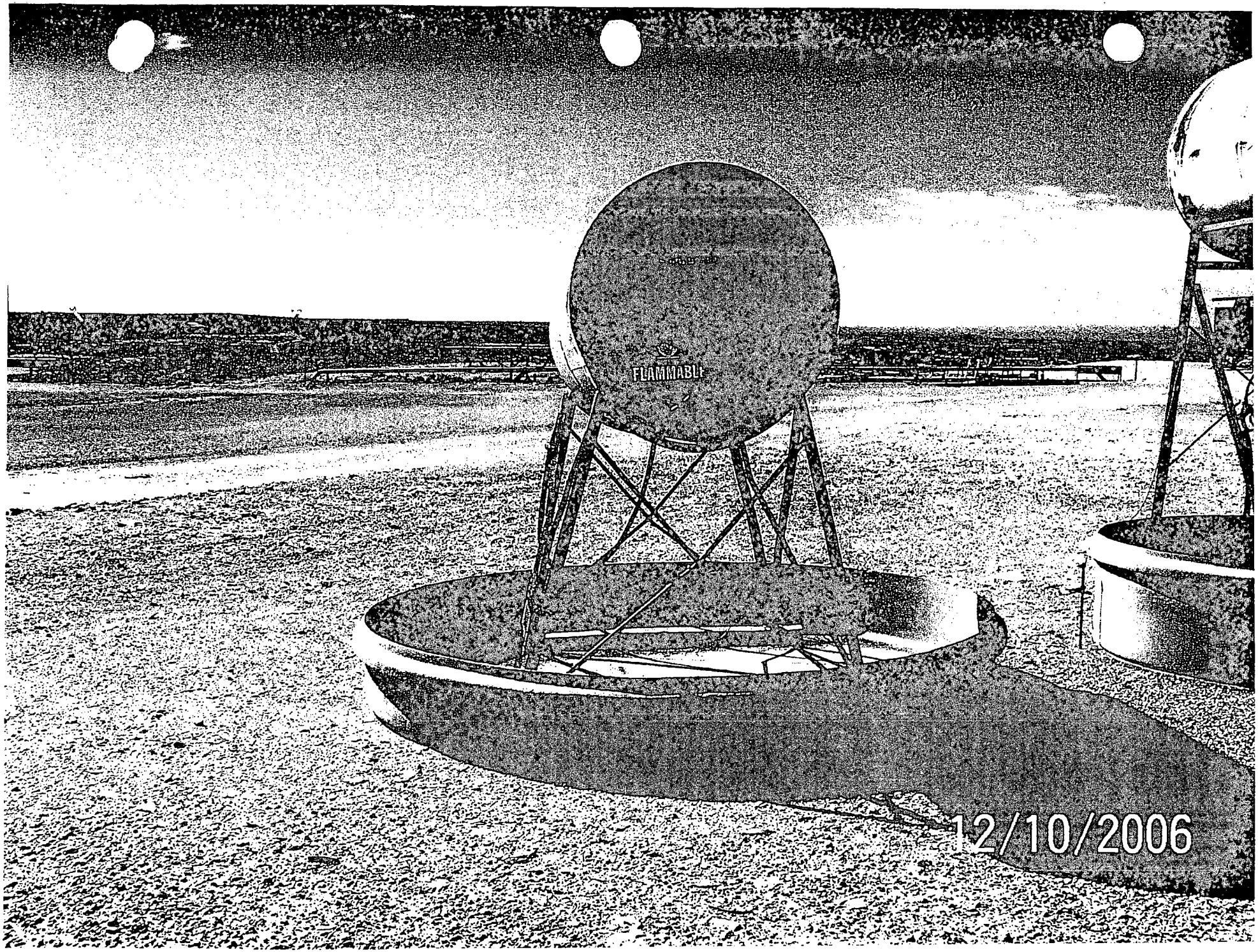
500 Gallon MR Solvent Storage Tank Due
East of Diesel Fuel Area



Containment Capacity Calculations			
1. Capacity of Diked Area:	18	4. Largest Tank Volume:	11.9
2. Applicable Tank Disp.:	0	5. Excess Capacity:	4
3. Precipitation Allowance*:	2	*All units in Barrels*	

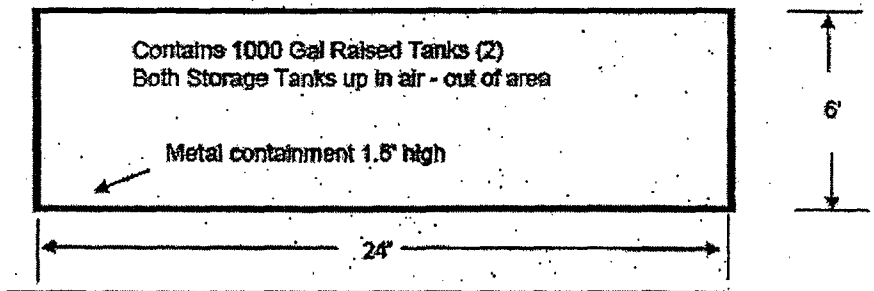
*Precipitation allowance of 2"

Note: Not Drawn to Scale 11/10/2006


FLAMMABLE
12/10/2006

EMPIRE ABO GAS PLANT
MISCELLANEOUS STORAGE SITES

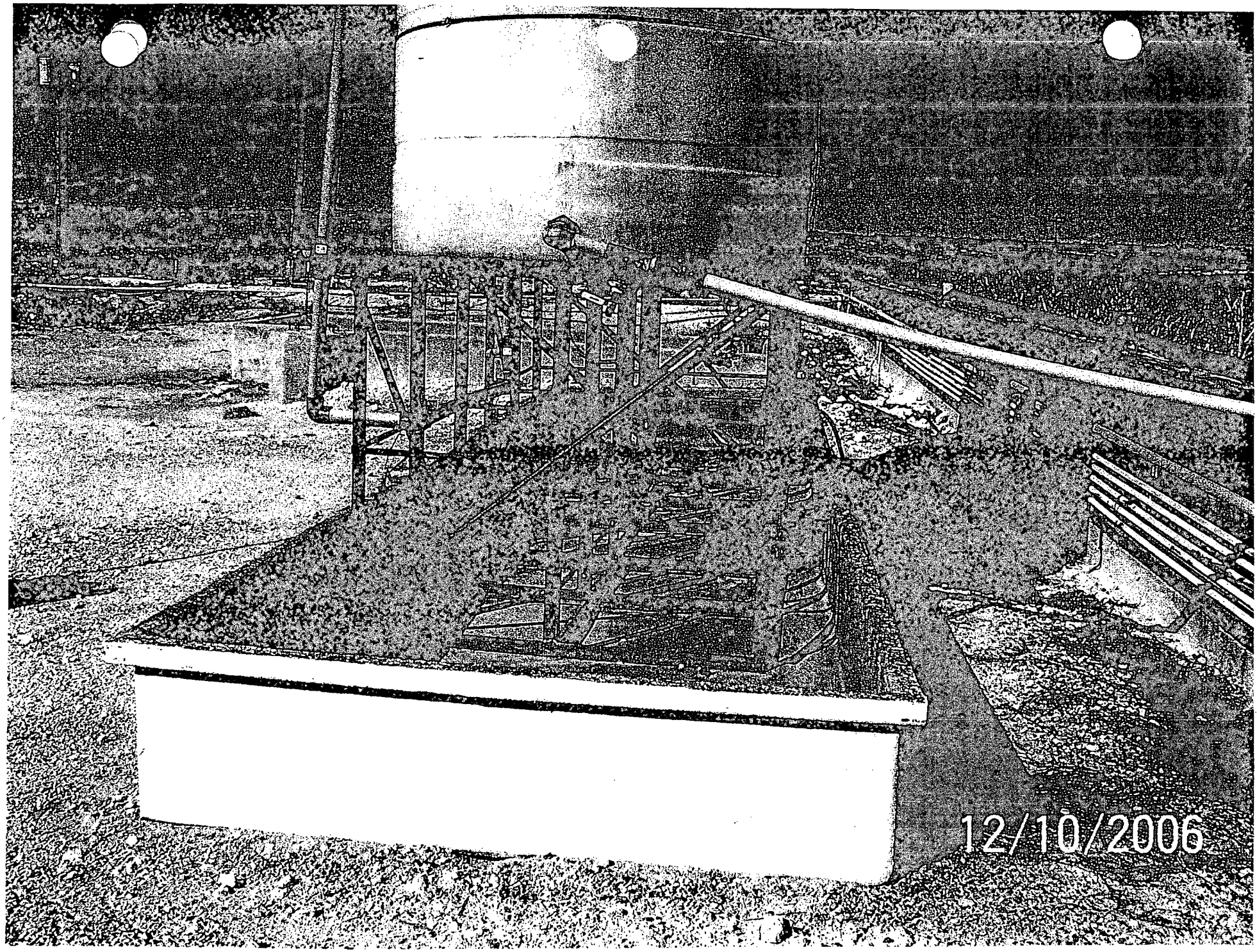
Monitor Well Groundwater - by evaporation pond - Temporary



Containment Capacity Calculations			
1. Capacity of Diked Area:	41	4. Largest Tank Volume:	23.8
2. Applicable Tank Disp.:	0	5. Excess Capacity:	13
3. Precipitation Allowance*:	4	*All units in Barrels*	

**Precipitation allowance of 2"*

Note: Not Drawn to Scale 11/10/2006


12/10/2006

ARTESIA 6 S, NEW MEXICO (290600)

Period of Record Monthly Climate Summary

Period of Record : 1/ 1/1914 to 3/31/2004

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (F)	56.8	62.1	69.1	78.3	86.4	94.0	94.8	93.2	86.9	77.9	65.8	57.9	76.9
Average Min. Temperature (F)	23.4	27.7	34.0	42.6	52.3	61.2	65.1	63.5	55.9	44.0	31.8	23.9	43.8
Average Total Precipitation (in.)	0.40	0.41	0.45	0.57	1.25	1.47	1.59	1.75	1.78	1.20	0.47	0.47	11.83
Average Total SnowFall (in.)	1.7	1.2	0.5	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.8	1.7	6.2
Average Snow Depth (in.)	0	0	0	0	0	0	0	0	0	0	0	0	0

Percent of possible observations for period of record.
Max. Temp.: 64.4% Min. Temp.: 64.4% Precipitation: 98.5% Snowfall: 60% Snow Depth: 58.5%
Check Station Metadata or Metadata graphics for more detail about data completeness.

Western Regional Climate Center, wrcc@dri.edu

Note: 2" of precipitation was used as a maximum storm event based on the above table. The 2" is in excess of the total monthly average for any given month over the past 90 years.

APPENDIX C

Public Notice

NOTICE OF PUBLICATION

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

Notice is hereby given that pursuant to New Mexico Water Quality Control Commission Regulations, the following major modification to discharge permit GW-022 has been submitted to the Director of the Oil Conservation Division, 1220 S. Saint Francis Drive, Santa Fe, New Mexico 87505, Telephone (505) 476-3440:

(GW-022) - FRONTIER FIELD SERVICES, LLC, 257 Empire Road, Artesia, New Mexico 88211-0070, has submitted a major modification for their discharge plan for the Empire Abo Gas Plant located in the SE/4 of Section 3, Township 18 South, Range 27 East, NMPM, Eddy County, New Mexico. The major modification includes detailed geologic and hydrologic information, ground water investigation and ground water monitoring plans, best management practices for secondary containment for storing products, closure and post-closure financial assurance and an amended spill prevention, control and countermeasure plan. The major modification is submitted in addition to information that was previously submitted in a permit renewal application on August 16, 2004, which included a waste management plan on how oilfield products and wastes will be properly handled, stored, and disposed of, including how spills, leaks, and other accidental discharges to the surface will be managed in order to protect fresh water. Ground water most likely to be affected by an accidental discharge is at a depth ranging from 8 to 65 feet with a total dissolved solids concentration of about 2,000 mg/L. Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge permit application and draft discharge permit may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. The draft discharge permit may also be viewed at OCD's website http://www.emnrd.state.nm.us/ocd/. Prior to ruling on any proposed discharge permit or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted and a public hearing may be requested by any interested person. Requests for a public hearing shall set forth the reasons why a hearing should be held. A hearing will be held if the Director determines there is significant public interest.

If no public hearing is held, the Director will approve or disapprove the proposed permit based on information available. If a public hearing is held, the director will approve or disapprove the proposed plan based on information in the permit and information submitted at the hearing.

GIVEN under the Seal of New Mexico Oil Conservation Commission at Santa Fe, New Mexico, on this ( ) day of ( ) 2007.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

S E A L

MARK FESMIRE, Director

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

February 21, 2005

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

Mr. Mike F. McKinley
BP America Production Company
P.O. Box 3092
Houston, Texas 77253-3092

RE: Waste Disposal Approval
Empire Abo Gas Plant Waste Disposal
BP America Production Company

Dear Mr. McKinley:

The New Mexico Oil Conservation Division (OCD) received the Waste Disposal Report for the non-hazardous sludge disposal located at the Empire Abo Gas Plant located in UL-I of Section 3, Township 18 South, Range 27 East, NMPM, Eddy County, New Mexico. **Based upon the information provided in the disposal report, dated February 7, 2005, the use of the non-hazardous sludge on site is hereby approved.**

This OCD decision does not relieve BP America Production Company of liability should the spreading of the material result in contamination of surface waters, ground waters or the environment. In addition, OCD approval does not relieve BP America Production Company of responsibility for compliance with any other federal, state or local laws and regulations.

If you have any questions regarding this matter feel free to call me at (505)-476-3489.

Sincerely,

W. Jack Ford, C.P.G.
Environmental Engineer
Environmental Bureau, OCD

cc: OCD Artesia District Office

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

January 18, 2005

Ms. Jeanne M. Johns
BP America Production Company
P.O. Box 3092
Houston, Texas 7725-3092

RE: Discharge Plan Renewal GW-022
BP America Production Company
Empire Abo Gas Plant
Eddy County, New Mexico

Dear Ms. Johns:

The ground water discharge plan renewal application GW-022 for the BP America Production Company Empire Abo Gas Plant located in the NE/4 SE/4 of Section 3, Township 18 South, Range 27 East, NMPM, Eddy County, New Mexico, **is hereby approved** under the conditions contained in the enclosed attachment. Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within 30 days of receipt of this letter.**

The original discharge plan application was submitted on September 14, 1984 and approved December 13, 1984. The discharge plan renewal application, dated August 16, 2004, submitted pursuant to 20 NMAC 5101.B.3. of the New Mexico Water Quality Control Commission (WQCC) Regulations also includes all earlier applications and all conditions later placed on those approvals. The discharge plan is renewed pursuant to 20 NMAC 5101.A. and 20 NMAC 3109.C. Please note 20 NMAC 3109.G., which provides for possible future amendment of the plan. Please be advised that approval of this plan does not relieve BP America Production Company of liability should operations result in pollution of surface water, ground water, or the environment.

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

Please note that 20 NMAC 3104 of the regulations provides: "When a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to 20 NMAC 3107.C., BP America Production Company is 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 3109.G.4., this renewal plan is for a period of five years. This renewal will expire on **December 13, 2009**, and BP America Production Company should submit an application in ample time before this date. Note that under 20 NMAC 3106.F. of the regulations, if a discharger submits a discharge plan renewal application at least 120 days before the discharge plan expires and is in compliance with the approved plan, then the existing discharge plan will not expire until the application for renewal has been approved or disapproved. It should be noted that all discharge plan facilities will be required to submit the results of an underground drainage testing program as a requirement for discharge plan .

The discharge plan renewal application for the BP America Production Company Empire Abo Gas Plant is subject to WQCC Regulation 3114. Every billable facility submitting a discharge plan application will be assessed a fee equal to the filing fee of $100. There is a renewal flat fee assessed for gas plant facilities equal to $4,000.00. The OCD has received the filing fee.

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

Sincerely,

Roger C. Anderson
Chief, Environmental Bureau
Oil Conservation Division

RCA/wjf
Attachment

xc: OCD Artesia District Office

ATTACHMENT TO THE DISCHARGE PLAN RENEWAL GW-022
BP AMERICA PRODUCTION COMPANY
EMPIRE ABO GAS PLANT
DISCHARGE PLAN APPROVAL CONDITIONS
(January 18, 2005)

1. Payment of Discharge Permit Fees: The $100.00 filing fee has been received by the OCD. There is a flat fee assessed for gas plants equal to $4,000.00. The required flat fee may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the permit, with the first payment due upon receipt of this approval.

2. BP America Production Company Commitments: BP America Production Company will abide by all commitments submitted in the discharge permit renewal application dated August 16, 2004 and these conditions for approval.

3. Waste Disposal: All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste determination per 40 CFR Part 261. Any waste stream that is not listed in the discharge permit will be approved by OCD on a case-by-case basis.

4. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums will 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 will also be stored on an impermeable pad and curb type containment.

5. Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.

6. 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 tanks or existing tanks that undergo a major modification, as determined by the Division, must be placed within an impermeable bermed enclosure.

7. 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.

8. Labeling: All tanks, drums and containers will be clearly labeled to identify their contents and other emergency notification information.

9. Below Grade Tanks/Sumps: All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks must demonstrate integrity on an annual basis. Integrity tests include pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing.

10. Underground Process/Wastewater Lines: All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity every 5 years. The permittee may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing.

11. Class V Wells: No Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be closed unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD regulated facilities that inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department.

12. Housekeeping: All systems designed for spill collection/prevention will be inspected by a BP America Production Company's representative on a regular basis and after each storm event to ensure proper operation and to prevent overtopping or system failure. A record of inspections will be retained for a period of five years.

13. Spill Reporting: All spills/releases will be reported pursuant to OCD Rule 116 and WQCC 1203 to the OCD Aztec District Office.

14. Transfer of Discharge Permit: The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge permit. A written commitment to comply with the terms and conditions of the previously approved discharge permit must be submitted by the purchaser and approved by the OCD prior to transfer.

15. Storm Water Permit: BP America Production Company shall maintain storm water runoff controls. As a result of BP America Production Company's operations any water contaminant that exceeds the WQCC standards listed in 20 NMAC 6.2.3101 is discharged in any storm water runoff then BP America Production Company shall notify the OCD within 24 hours, modify the permit within 15 days and submit for OCD approval. BP America Production Company shall also take immediate corrective actions pursuant to Item 12 of these conditions.

16. Closure: The OCD will be notified when operations of the Sims Mesa Compressor Station are discontinued for a period in excess of six months. Prior to closure of the Sims Mesa Compressor Station a closure permit will be submitted for approval by the Director. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.

17. Certification: BP America Production Company, by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. BP America Production Company further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Accepted:

BP AMERICA PRODUCTION COMPANY.

by_____

Title_____

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON
Governor
Joanna Prukop
Cabinet Secretary

Mark E. Fesmire, P.E.
Director
Oil Conservation Division

April 15, 2005

Mr. Mike Hicks, Director of Operations
Frontier Field Services
4200 East Skelly Drive, Suite 700
Tulsa, Oklahoma 74135

RE: FACILITY OWNERSHIP CHANGE
(GW-022) EMPIRE ABO GAS PLANT
EDDY COUNTY, NEW MEXICO

Dear Mr. Hicks:

The New Mexico Oil Conservation Division (OCD) has received your notification of a change in ownership and commitment to abide by the terms and conditions of the discharge permit (GW-022) covering the Empire Abo Gas Plant located in the NE/4 SE/4 of Section 3, Township 18 South, Range 27 East, NMPM, Eddy County, New Mexico. Based upon the information provided your request is **hereby approved**.

If you have any questions, contact me at (505) 476-3489.

Sincerely,

W. Jack Ford, C.P.G.
Environmental Bureau
Oil Conservation Division

cc: OCD Artesia District Office

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of check No. [redacted] dated 8/04/04,

or cash received on _____ in the amount of $ 100.00

from BP

for Empire Abo G.P. GW-022

(Facility Name) (DP No.)

Submitted by: _____ Date: 8/30/04

Submitted to ASD by: _____ Date: _____

Received in ASD by: _____ Date: _____

Filing Fee V New Facility ___ Renewal V

Modification ___ Other _____

(specify)

Organization Code 521.07 Applicable FY 2001

To be deposited in the Water Quality Management Fund.

Full Payment V or Annual Increment ___

bp

BP America Production Company
509 South Boston
Tulsa, OK 74103

62-20
311

CHECK NO. [redacted]

08/04/04

PAY TO THE ORDER OF

NMED WATER QUALITY MGMT
2040 S PACHECO ST
SANTA FE, NM 87505 US

********$100.00

NOT VALID AFTER 6 MONTHS

One hundred and 00/100 Dollars

TRACE NUMBER: 2000210527

CITIBANK DELAWARE. A SUBSIDIARY OF CITICORP
ONE PENN'S WAY, NEW CASTLE, DE 19720

Authorized Signature

[redacted]

BP America Production Company
509 South Boston
Tulsa, OK 74103

08/04/04

600LT

NMED WATER QUALITY MGMT
2040 S PACHECO ST
SANTA FE, NM 87505 US

VENDOR NUMBER: 0080169899 TRACE NUMBER: 2000210527

DOCUMENT NO.	INVOICE DATE	INVOICE NO.	GROSS AMOUNT	DISCOUNT NO.	NET AMOUNT
1900431277	**08/04/04**	**NEWME080404**	**100.00**		**100.00**
UPS; V93 W02; Marcia Peebles; 281-366-7066; Mike McKinley; 501 WestLake Park Blvd., MC 4.514; Houston, Texas; 77079;					
		TOTALS	100.00		100.00

INQUIRIES CONCERNING THIS PAYMENT SHOULD BE DIRECTED TO OUR OFFICE, PLEASE CALL (800) 284-2244

IN ORDER TO AFFECT TIMELY INVOICE PAYMENT PLEASE PLACE YOUR VENDOR NUMBER ON ALL FUTURE INVOICES TO BP.
*** YOUR VENDOR NUMBER IS 0080169899

DETACH AND RETAIN THIS STUB FOR YOUR RECORDS

CHECK NO. 0800762915 ATTACHED BELOW

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

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

December 13, 1999

CERTIFIED MAIL
RETURN RECEIPT NO. Z-274-520-736

Ms. Margaret Lowe
ARCO Permian
P.O. Box 1610
Midland, Texas 79702-1010

RE: Discharge Plan Renewal GW-022
ARCO Permian
Empire Abo Gas Plant
Eddy County, New Mexico

Dear Ms. Lowe:

The ground water discharge plan renewal application GW-022 for the ARCO Permian Empire Abo Gas Plant located in the NE/4 SE/4 of Section 3, Township 18 South, Range 27 East, NMPM, Eddy County, New Mexico, **is hereby approved** under the conditions contained in the enclosed attachment. Enclosed are two copies of the conditions of approval. **Please sign and return one copy to the New Mexico Oil Conservation Division (OCD) Santa Fe Office within 10 working days of receipt of this letter.**

The original discharge plan application was submitted on September 14, 1984 and approved December 13, 1984. The discharge plan renewal application, dated August 17, 1999, submitted pursuant to Sections 5101.B.3. of the New Mexico Water Quality Control Commission (WQCC) Regulations also includes all earlier applications and all conditions later placed on those approvals. The discharge plan is renewed pursuant to Sections 5101.A. and 3109.C. Please note Section 3109.G., which provides for possible future amendment of the plan. Please be advised that approval of this plan does not relieve ARCO Permian of liability should operations result in pollution of surface water, ground water, or the environment.

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

Please note that Section 3104 of the regulations provides: "When a plan has been approved, discharges must be consistent with the terms and conditions of the plan." Pursuant to Section 3107.C., ARCO Permian is 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 3109.G.4., this renewal plan is for a period of five years. This renewal will expire on **December 13, 2004**, and ARCO Permian should submit an application in ample time before this date. Note that under Section 3106.F. of the regulations, if a discharger submits a discharge plan renewal application at least 120 days before the discharge plan expires and is in compliance with the approved plan, then the existing discharge plan will not expire until the application for renewal has been approved or disapproved. It should be noted that all discharge plan facilities will be required to submit the results of an underground drainage testing program as a requirement for discharge plan .

The discharge plan renewal application for the ARCO Permian Empire Abo Gas Plant is subject to WQCC Regulation 3114. Every billable facility submitting a discharge plan application will be assessed a fee equal to the filing fee of $50. There is a renewal flat fee assessed for gas plant facilities equal to one-half of the original flat fee or $1,667.50. The OCD has received the filing fee.

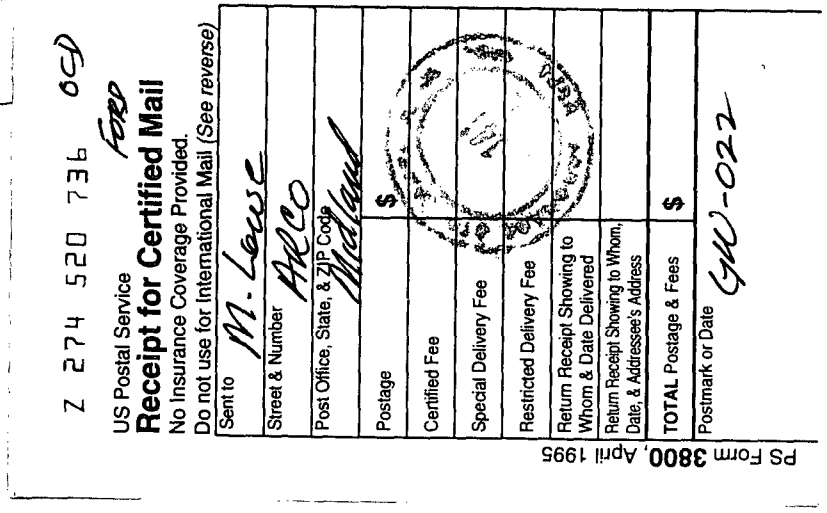
On behalf of the staff of the OCD, I wish to thank you and your staff for your cooperation during this discharge plan review.

Sincerely,

Roger C. Anderson
Chief, Environmental Bureau
Oil Conservation Division

RCA/wjf
Attachment

xc: OCD Artesia Office



ATTACHMENT TO THE DISCHARGE PLAN RENEWAL GW-022
ARCO PERMIAN
EMPIRE ABO GAS PLANT
DISCHARGE PLAN APPROVAL CONDITIONS
(December 13, 1999)

1. Payment of Discharge Plan Fees: The $50.00 filing fee has been received by the OCD. There is a required flat fee equal to one-half of the original flat fee for natural gas plants. The renewal flat fee required for this facility is $1,667.50 which may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the discharge plan, with the first payment due upon receipt of this approval.

2. ARCO Permian Commitments: ARCO Permian will abide by all commitments submitted in the discharge plan renewal application dated August 17, 1999 and these conditions for approval.

3. Waste Disposal: All wastes will be disposed of at an OCD approved facility. Only oilfield exempt wastes shall be disposed of down Class II injection wells. Non-exempt oilfield wastes that are non-hazardous may be disposed of at an OCD approved facility upon proper waste characterization per 40 CFR Part 261.

4. Drum Storage: All drums containing materials other than fresh water must be stored on an impermeable pad with curbing. All empty drums will 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 will also be stored on an impermeable pad and curb type containment.

5. Process Areas: All process and maintenance areas which show evidence that leaks and spills are reaching the ground surface must be either paved and curbed or have some type of spill collection device incorporated into the design.

6. 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 tanks or existing tanks that undergo a major modification, as determined by the Division, must be placed within an impermeable bermed enclosure.

7. 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.

8. Labeling: All tanks, drums and containers will be clearly labeled to identify their contents and other emergency notification information.

9. Below Grade Tanks/Sumps: All below grade tanks, sumps, and pits must be approved by the OCD prior to installation or upon modification and must incorporate secondary containment and leak-detection into the design. All pre-existing sumps and below-grade tanks must demonstrate integrity on an annual basis. Integrity tests include pressure testing to 3 pounds per square inch above normal operating pressure and/or visual inspection of cleaned out tanks and/or sumps, or other OCD approved methods. The OCD will be notified at least 72 hours prior to all testing.

10. Underground Process/Wastewater Lines: All underground process/wastewater pipelines must be tested to demonstrate their mechanical integrity no later than December 31, 1999 and every 5 years, from tested date, thereafter. The permittee may propose various methods for testing such as pressure testing to 3 pounds per square inch above normal operating pressure or other means acceptable to the OCD. The OCD will be notified at least 72 hours prior to all testing.

11. Class V Wells: No Class V wells that inject non-hazardous industrial wastes or a mixture of industrial wastes and domestic wastes will be closed unless it can be demonstrated that groundwater will not be impacted in the reasonably foreseeable future. Leach fields and other wastewater disposal systems at OCD regulated facilities which inject non-hazardous fluid into or above an underground source of drinking water are considered Class V injection wells under the EPA UIC program. Class V wells that inject domestic waste only must be permitted by the New Mexico Environment Department.

12. Housekeeping: All systems designed for spill collection/prevention will be inspected weekly and after each storm event to ensure proper operation and to prevent overtopping or system failure. A record of inspections will be retained on site for a period of five years.

13. Spill Reporting: All spills/releases will be reported pursuant to OCD Rule 116 and WQCC 1203 to the OCD ~~Aztec~~ Artesia District Office.

14. Transfer of Discharge Plan: The OCD will be notified prior to any transfer of ownership, control, or possession of a facility with an approved discharge plan. A written commitment to comply with the terms and conditions of the previously approved discharge plan must be submitted by the purchaser and approved by the OCD prior to transfer.

15. Closure: The OCD will be notified when operations of the Empire Abo Gas Plant are discontinued for a period in excess of six months. Prior to closure of the Empire Abo Gas Plant a closure plan will be submitted for approval by the Director. Closure and waste disposal will be in accordance with the statutes, rules and regulations in effect at the time of closure.

16. Certification: ARCO Permian, by the officer whose signature appears below, accepts this permit and agrees to comply with all terms and conditions contained herein. ARCO Permian further acknowledges that these conditions and requirements of this permit may be changed administratively by the Division for good cause shown as necessary to protect fresh water, human health and the environment.

Accepted:

ARCO PERMIAN

by_____
Title

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of check No. [redacted] dated 5/25/99,

or cash received on _____ in the amount of $ 1,667.50

from ARCO Permian

for Empire Abo Gas Plant (Facility Name) GW-022 (DP No.)

Submitted by: _____ Date: 6-1-99

Submitted to ASD by: _____ Date: 6-1-99

Received in ASD by: _____ Date: _____

Filing Fee ___ New Facility ___ Renewal ___

Modification X Other _____ (specify)

Organization Code 521.07 Applicable FY 99

To be deposited in the Water Quality Management Fund.

Full Payment X or Annual Increment ___

ARCO
ARCO Permian
P.O. Box 1610
Midland, TX 79702

62-20/311 No. [redacted]

05/25/1999

PAY TO THE ORDER OF
NMED WATER QUALITY MANAGEMENT FUND
OIL CONSERVATION DIVISION
2040 SOUTH PACHECO ST
SANTA FE NM 87505-5472

$$$$$$$$$$1,667.50

Void after 90 days

One Thousand Six Hundred Sixty Seven and 50/100 Dollars

ARCO Permian
Payable through Citibank Delaware
1 Penn's Way, New Castle, DE 19720

AUTHORIZED SIGNATURE

[redacted]

ARCO

ARCO Permian
P.O. Box 1610
Midland, TX 79702

0006134 01 AB **AUTO T1 0 7100 87505

NMED WATER QUALITY MANAGEMENT FUND
OIL CONSERVATION DIVISION
2040 SOUTH PACHECO ST
SANTA FE NM 87505-5472

CHECK NO.: [redacted]
CHECK DATE: 05/25/1999
CHECK AMOUNT: $$$$$$$$$$$1,667.50
PAY ENTITY: 0701
VENDOR #: N00008037200

PG 1 OF 1

DATE	INVOICE NUMBER	VOUCHER	SOURCE ID	GROSS	DISC./ADJUSTMENTS	NET
05/19/1999	VR990519	R359C9905	PAK	$1,667.50	$0.00	$1,667.50
		EMPIRE ABO GAS PLANT DISCHARGE PLAN GW-022				
			TOTALS:	$1,667.50	$0.00	$1,667.50

QUESTIONS REGARDING THIS REMITTANCE CAN BE MADE BY CALLING OR WRITING:

(915) 688-5438
Attn: Accounts Payable
P.O. Box 1610
Midland, TX 79702

DETACH AND RETAIN THIS STUB FOR YOUR RECORDS

CHECK # 0706003096 ATTACHED

ACKNOWLEDGEMENT OF RECEIPT
OF CHECK/CASH

I hereby acknowledge receipt of check No [redacted] dated 3/16/98,

or cash received on _____ in the amount of $ 50.00

from Arco

for Empire Abo GP GW022
(Facility Name) (OP No.)

Submitted by: _____ Date: _____

Submitted to ASD by: RC Anderson Date: 3/27/98

Received in ASD by: _____ Date: _____

Filing Fee XX New Facility ____ Renewal ____

Modification ____ Other _____
(specify)

Organization Code 521.07 Applicable FY 98

To be deposited in the Water Quality Management Fund.

Full Payment ____ or Annual Increment ____

ARCO Permian

ARCO Permian Payables
P.O. Box 1610
Midland, TX 79702

73-426
839

Permian Accounts Payable
The First National Bank of Chicago-0710
Chicago, Illinois
Payable Through Republic Bank
Shelbyville, Kentucky

THE FACE OF THIS DOCUMENT HAS A COLORED BACKGROUND AND MICROPRINTING IN BORDER.

Pay [redacted]

FIFTY DOLLARS AND NO CENTS
To the order of:

Date 03-16-98

Amount **********50.00*
Void after 90 days

NMED WATER QUALITY MANAGEMENT FUND
2040 SOUTH PACHECO ST
SANTA FE NM 87505

[redacted]

GeorgeS. Davis
GD014

ARCO Permian

ARCO Permian Payables
P.O. Box 1610
Midland, TX 79702

Check/EFT#: [redacted]

Date: 03/16/98

Pay Entity: 0701

Vendor #: N00008037200

DATE	INVOICE NUMBER	VOUCHER	SOURCE ID	GROSS	DISCOUNT/ADJUSTMENTS	NET
03/16/98	VR980316 EMPIRE ABO GAS PLANT DISCHARGE PLAN	R404C 0398	PAK	50.00		50.00
			TOTAL	50.00		50.00

GW-022

Questions regarding this remittance can be made by calling or writing:

915/688-5438 P.O. Box 1610, Attn. Disbursements, Midland, TX 79702

Detach check before depositing

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

January 4, 1995

CERTIFIED MAIL
RETURN RECEIPT NO. Z-765-962-789

Mr. G.D. Henry
Amoco Production Company
501 Westlake Park Boulevard
P. O. Box 3092
Houston, Texas 77253-3092

RE: Discharge Plan GW-22 Renewal
Empire Abo Gas Plant
Eddy County, New Mexico

Dear Mr. Henry:

The discharge plan renewal GW-22 for the Amoco Production Company Empire Abo Gas Plant located in the NE/4, SE/4 of Section 3, Township 18 South, Range 27 East, NMPM, Eddy County, New Mexico, **is hereby approved** under the conditions contained in the enclosed attachment. The discharge plan consists of the renewal application dated November 11, 1994.

The discharge plan renewal was submitted pursuant to Section 3-106 of the New Mexico Water Quality Control Commission (WQCC) Regulations. It is renewed pursuant to Section 3-109.A. Please note Sections 3-109.E and 3-109.F. which provide for possible future amendments or modifications of the plan. Please be advised the approval of this plan does not relieve you of liability should your operation result in actual pollution of surface water, ground water, 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 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 require "When a facility 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 is for a period of five (5) years. This approval will expire on December 13, 1999, and you should submit an application in ample time before this date. It should be noted that all gas processing plants and oil refineries in excess of twenty-five years old will be required to submit plans for, or the results of, an underground drainage testing program as a requirement for discharge plan renewal.

The discharge plan application for the Amoco Production Company Empire Abo Gas Plant is subject to WQCC Regulation 3-114 discharge plan fee. Every billable facility submitting a discharge plan renewal will be assessed a fee equal to the filing fee of fifty (50) dollars plus one-half of the flat fee, or sixteen-hundred sixty-seven dollars and fifty cents ($1667.50), for gas plants. The New Mexico Oil Conservation Division (OCD) received your fifty (50) dollar filing fee on November 16, 1994. The one thousand six hundred sixty-seven dollars and fifty cents ($1667.50) flat fee has not been received by the OCD. The flat fee for an approved discharge plan may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the plan, with the first payment due upon receipt of this approval.

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

Sincerely,

Michael E. Stogner
Acting Director

MES/mwa
Attachment

xc: OCD Artesia Office
T.E. Krisa, Empire Abo Gas Plant

ATTACHMENT TO THE DISCHARGE PLAN GW-22 APPROVAL
AMOCO PRODUCTION COMPANY
EMPIRE ABO GAS PLANT
DISCHARGE PLAN REQUIREMENTS
(January 4, 1995)

1. Payment of Discharge Plan Fees: The flat fee of sixteen-hundred sixty-seven dollars and fifty cents ($1667.50) may be paid in a single payment due at the time of approval, or in equal annual installments over the duration of the plan, with the first payment due upon receipt of this approval.

2. Drum Storage: All drums will be stored on pad and curb type containment.

3. Sump Inspection: Any new sumps or below-grade tanks will incorporate leak detection in their designs.

4. Berms: All tanks that contain materials other than freshwater will be bermed to contain one and one-third (1-1/3) the capacity of the largest tank within the berm or one and one-third (1-1/3) the total capacity of all interconnected tanks.

5. Above Grade Tanks: All above grade tanks (saddle tanks) will be on impermeable pad and curb type containment.

6. Pressure Testing: All discharge plan facilities are required to pressure test all underground piping at the time of discharge plan renewal. All new underground piping shall be designed and installed to allow for isolation and pressure testing at 3 psi above normal operating pressure.

7. Spills: All spills and/or leaks will be reported to the OCD District office pursuant to WQCC Rule 1-203 and OCD Rule 116.

8. Pads: All compressor pads will have lips or curb type containment installed to prevent contaminants from running onto the ground surface.

Z 765 962 789

Receipt for Certified Mail
No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

UNITED STATES POSTAL SERVICE

Sent to	
Street and No.	
P.O., State and ZIP Code	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date	

PS Form **3800**, March 1993

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of check No [redacted] dated 11-1-94,

or cash received on 11-16-94 in the amount of $ 50.00

from Amoco Production Co

for Empire Abo Gas Plant
(Facility Name)

Submitted by: _____ (DP No.) Date: _____

Submitted to ASD by: CHRIS EUSTICE Date: 11-17-94

Received in ASD by: L Moore Date: 11/17/94

Filing Fee ✓ New Facility ____ Renewal ____

Modification ____ Other _____
(specify)

Organization Code 521.07 Applicable FY 95

To be deposited in the Water Quality Management Fund.

Full Payment ____ or Annual Increment ____

Amoco Production Company

Citibank Delaware
One Penn's Way
New Castle, Delaware 19720-2408
Form 17-350 (10-93)

Check Number [redacted]

63-20
311

Date November 1, 1994

Pay The sum of 50 dollars 00 cts

Amount
$ 50.00

To The Order Of

NMED - WATER QUALITY MANAGEMENT
PO Box 2088
Santa Fe, NM 87504

D L Derth

[redacted]

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 14, 1990

CERTIFIED MAIL
RETURN RECEIPT NO. P-918-402-348

Mr. James F. Trickett
AMOCO PRODUCTION COMPANY
P. O. Box 3092
Houston, Texas 77253

RE: Discharge Plan GW-22
Empire Abo Gasoline Plant
Eddy County, New Mexico

Dear Mr. Trickett:

The ground water discharge plan renewal (GW-22) for the Amoco Production Company Empire Abo Gas Processing Plant located in the SE/4, Section 3, Township 18 South, Range 37 East, NMPM, Eddy County, New Mexico is hereby approved. The renewal application consists of the original discharge plan as approved December 13, 1984, the renewal application dated September 14, 1989, and materials dated September 7, 1990, submitted as supplements to the application.

The discharge plan was submitted pursuant Section 3-106 of the New Mexico Water Quality Control Commission Regulations. It is renewed pursuant to Section 3-109.A., which provides for the 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/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 December 13, 1994 and you should submit an application for renewal in ample time before that date. It should be noted that all gas processing plants 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

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONEY ANAYA
GOVERNOR

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

December 13, 1984

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mr. L. R. Smith,
District Manager
Amoco Production Company
P.O. Box 68
Hobbs, NM 88240

RE: Discharge Plan (GW-22)
for Empire Abo Gasoline
Plant, Eddy County, NM

Dear Mr. Smith:

The groundwater discharge plan (GW-22) for the Empire Abo Gasoline Plant located in the SE/4 of Section 3, Township 18 South, Range 27 East, NMPM, Eddy, County, New Mexico, is hereby approved. The approved discharge plan consists of the plan dated August 22, 1984, and the materials dated October 26, 1984, November 28, 1984, and December 5, 1984, submitted as supplements to the discharge plan.

The discharge plan was submitted pursuant to Section 3-106 of the N.M. Water Quality Control Commission Regulations. It is approved pursuant to Section 3-109. Please note subsections 3-109.E. and 3-109.F., which provide for possible future amendment 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 which may be actionable under other laws and/or regulations.

There will be no routine monitoring or reporting requirements. Reporting of spills or leaks will be as specified in the discharge plan.

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."

Please be aware that in this dicharge plan you have made commitments which are legally enforceable under the New Mexico Water Quality Act. These include constructing all aspects of your installation as designed. You are susceptible to fines should you not fulfill these obligations.

Pursuant to subsection 3-109.G.4., this plan approval is for a period of 5 years. This approval will expire December 13, 1989 and you should submit an application for new approval in ample time before that date.

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

Sincerely,

R. L. STAMETS
Director

RLS/DB/dp

cc: Artesia OCD Field Office
EID Surface Water Section

P 505 905 789

RECEIPT FOR CERTIFIED MAIL

NO INSURANCE COVERAGE PROVIDED—
NOT FOR INTERNATIONAL MAIL

(See Reverse)

Sent to Amoco Prod. Co.	
Street and No. Box 68	
P.O., State and ZIP Code Hobbs, NM 88240	
Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to whom and Date Delivered	
Return Receipt Showing to whom, Date, and Address of Delivery	
TOTAL Postage and Fees	$
Postmark or Date	

PS Form 3800, Feb. 1982