



CAF B 00
DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 27th FIGHTER WING (ACC)
CANNON AIR FORCE BASE NEW MEXICO



NOV 01 2000

Colonel Jeffrey A. Remington
Commander
100 S DL Ingram Blvd Suite 100
Cannon AFB NM 88103-5214

Ms. Phyllis A. Bustamante
Ground Water Pollution Prevention Section
New Mexico Environment Department
PO Box 26110
1190 St Francis Drive
Santa Fe NM 87502

Dear Ms. Bustamante

The purpose of this letter is twofold. First, it provides written notification of two unauthorized discharges which were brought to the attention of the 27th Civil Engineer Squadron Environmental Flight at approximately 8:30 AM on 24 Oct 00. Second, it provides a written report of the corrective actions Cannon Air Force Base (AFB) intends to take in response to these discharges. In accordance with 40 Code of Federal Regulations (CFR) Part 117 and 40 CFR Part 302, at approximately 10:35 AM on 24 Oct 00 Cannon AFB notified the National Response Center regarding these discharges (Report No. 546118).

At approximately 10:50 AM on 24 Oct 00, John Rebman of my Environmental Flight contacted you by telephone to report these discharges as required by the New Mexico Water Quality Control Commission (WQCC) Regulation, Title 20, Chapter 6, Part 2, Subpart I, Section 1203., *Notification of Discharge--Removal*. At that time, you indicated that the New Mexico Environment Department (NMED) would waive the requirement that written notification be submitted within one week of Cannon AFB learning of the discharge. You told Mr. Rebman that written notification could be provided with the corrective action report, which must be submitted within fifteen (15) days after learning of the discharge. Written notification of these discharges is at Attachment 1. The corrective action report is at Attachment 2. I appreciate the guidance you provided for preparing this report.

As you suggested, Mr. Rebman reported these discharges to Mr. Glenn von Gonten of the NMED Hazardous Waste Bureau and Mr. Tim Hensley of the Surface Water Quality Bureau. A copy of this letter is being provided to these individuals.

If you have any questions regarding these discharges, please contact Mr. Rebman at (505) 784-1099.

Sincerely



JEFFREY A. REMINGTON, Colonel, USAF

Attachments:

1. Written Notification of Discharges
2. Corrective Action Plan

cc:

NMED, Clovis Field Office (C. Romero)
NMED, Hazardous Waste Bureau (G. von Gonten)
NMED, Surface Water Quality Bureau (T. Hensley)

**ATTACHMENT 1
NOTIFICATION OF UNAUTHORIZED DISCHARGES
AT THE GOLF COURSE POND**

1. The name, address, and telephone number of the person or persons in charge of the facility, as well as of the owner and/or operator of the facility. The person in charge of the facility (Cannon AFB) and owner of the facility is Colonel Jeffrey A. Remington, 27th Fighter Wing Commander. Colonel Remington's address and telephone number are:

Colonel Jeffrey A. Remington
Commander, 27th Fighter Wing
100 S DL Ingram Blvd Ste 100
Cannon AFB NM 88103-5214

Telephone Number: (505) 784-2727

The operator of infrastructure systems on Cannon AFB is Lieutenant Colonel (Lt Col) Nicholas L. Desport, 27th Civil Engineer Squadron Commander. Lt Col Desport's address and telephone number are:

Lt Col Nicholas L. Desport
Commander, 27th Civil Engineer Squadron
506 N DL Ingram Blvd
Cannon AFB NM 88103-5003

Telephone Number: (505) 784-2008

2. The name and address of the facility. The golf course, Whispering Winds Golf Course, is located at 105 Forest Drive, Cannon AFB, NM 88103-5322.

3. The date, time, location, and duration of the discharge. It is unclear when the discharges began, however, these incidences were the result of heavy rainfall that occurred on 23 Oct 00. Cannon AFB received 2.59 inches of rain on this day. The discharge was to the golf course pond. The Construction and Operations Division Regulatory Branch of the US Army Corps of Engineers, Albuquerque District, delineated this pond as a "waters of the US" in July 1996. The duration of the discharges is not known.

4. The source and cause of the discharge. It is theorized that these two incidences are linked to one another, however, for the time being they will be regarded as two separate incidences. In the first incident, precipitation caused the float mechanism that operates a fuel transfer pump located in a generator to fail. This generator provides emergency back-up power for a sewage lift station located on the golf course. Diesel fuel from an aboveground, double-walled 500-gallon tank that supplies the generator's day tank escaped the day tank when the float mechanism failed. We estimate that five gallons of fuel was discharged onto the ground. Heavy rains transported the

fuel approximately 20 feet to a storm drainage ditch; this ditch discharges into the golf course pond (see attached map). The source for the second incident is less obvious. It appears diesel fuel trapped beneath the ground escaped through the soil and was released when the pond level rose to the point it encroached onto the soil. The diesel fuel seemed to be concentrated near a partially vegetated mound along the 15th fairway (see attached map). It is unclear whether a past spill from mowing equipment or debris within the mound contributed to this discharge. Although under extreme and rare flooding conditions the pond has risen to the levels seen on 24 Oct 00, globules of what appears to be diesel fuel have never been observed. We suspect that released fuel from the sewage lift station may have washed up against the mound and floodwaters covering the area released fuel from this area.

5. A description of the discharge, including its chemical composition. The discharge from the lift station generator was diesel fuel. Several very small "rainbow" colored sheens were evident in the drainage ditch a short distance from the generator. As the floodwaters receded in and around the ditch, stained vegetation was evident. However, due to the relatively small quantity of fuel released (confirmed through fuel inventory control procedures), we are confident the fuel did not soak into the soil. Similar sheens were observed in numerous areas along the edges of the floodwaters in the pond. Globules of what appeared to be diesel fuel rose from underneath the floodwaters along a 30-foot section of the partially vegetated mound. Although a number of isolated globules surfaced several feet into the pond and from a few to approximately 100 feet away from the mound, the source of the diesel fuel was clearly concentrated within this 30-foot section. An individual from the analytical laboratory used by Cannon AFB for waste characterization was available to take grab samples of the floating petroleum product near the mound as well as the soil near the water line. Results will be provided to Ms. Bustamante.

6. The estimated volume of the discharge. The amount of diesel fuel washed from the lift station generator is believed to be less than five gallons. It is impossible to determine the amount of diesel fuel/petroleum product that was discharged beneath the soil in the vicinity of the mound along the 15th fairway. However, if our initial suspicions are correct (e.g., diesel fuel from the generator washed against the mound), the amount released along the edge of the vegetated mound was substantially less than five gallons.

7. Any actions taken to mitigate immediate damage from the discharge. Due to the relatively small amount of diesel fuel associated with the lift station generator and the weather conditions (sunshine and calm winds), it was decided that the two sheens within the drainage ditch and the stained vegetation in and around the ditch would be allowed to attenuate naturally. On 25 Oct 00 the diesel generator was thoroughly cleaned to remove all diesel residues and other petroleum product. On 25 and 26 Oct 00, all pumps, valves, and other components of the diesel generator were checked and replaced as necessary. Calm wind conditions on 24 Oct 00 together with the numerous small sheens created along the vegetated mound postponed attempts to remove the petroleum. On 25 Oct 00, brisk winds pushed accumulated petroleum into two isolated and confined areas of the pond. Absorbent booms and pads were used on 25 and 26 Oct 00 to capture free-floating product. Debris (grass clippings, soil, and other organic material) along the shoreline near one of these boomed areas was placed in drums for eventual disposal. Actions to investigate the source and extent of this discharge have been initiated.

ATTACHMENT 2
CORRECTIVE ACTION REPORT FOR UNAUTHORIZED DISCHARGES
AT THE GOLF COURSE POND

A. BACKGROUND

At approximately 8:30 AM on 24 Oct 00, Cannon Air Force Base (AFB) golf course personnel notified Mr. John Rebman, Environmental Flight, of a strong petroleum odor and sheens on the golf course pond. Upon arrival, Mr. Rebman noticed the odor and saw several "rainbow" colored sheens. Two individuals from the Environmental Flight, including the flight chief, surveyed the entire pond.

Water within the pond is replenished from two primary sources, not including surface water run-on. These sources are groundwater and treated effluent from the Cannon AFB wastewater treatment plant. In the event floodwaters breach the banks of the pond, the NMED-issued Discharge Permit authorizes that excess water be pumped into the storm drainage system.

B. OBSERVATIONS

1. Diesel Generator. Precipitation caused the float mechanism that operates a fuel transfer pump located in a generator to fail. This generator provides emergency back-up power for a sewage lift station located on the golf course. Diesel fuel from an aboveground, double-walled 500-gallon tank that supplies the generator's day tank escaped the day tank when the float mechanism failed. We estimate that five gallons of fuel was discharged onto the ground. Heavy rains transported the fuel approximately 20 feet to a storm drainage ditch; this ditch discharges into the golf course pond (see attached map).

2. Petroleum Migration. It appeared diesel fuel trapped beneath the ground escaped through the soil and was released when the pond level rose to the point it encroached onto the soil. The diesel fuel seemed to be concentrated near a partially vegetated mound along the 15th fairway (see attached map). It is unclear whether a past spill from mowing equipment or debris within the mound contributed to this discharge. Although under extreme and rare flooding conditions the pond has risen to the levels seen on 24 Oct 00, globules of what appears to be diesel fuel have never been observed. We suspect that released fuel from the sewage lift station may have washed up against the mound and floodwaters covering the area released fuel from this area. Cannon AFB received 2.59 inches of rain during the previous day.

C. UNAUTHORIZED DISCHARGE REPORTING

1. National Response Center (NRC). In accordance with 40 Code of Federal Regulations (CFR) Part 117 and 40 CFR Part 302, at approximately 10:35 AM on 24 Oct 00 Mr. Rebman notified the NRC regarding these discharges (Report No. 546118).

2. New Mexico Environment Department (NMED). At approximately 10:50 AM on 24 Oct 00, Mr. Rebman contacted Ms. Bustamante to orally report these discharges as required by the New Mexico Water Quality Control Commission (WQCC) Regulation, Title 20, Chapter 6, Part 2, Subpart I, Section 1203., *Notification of Discharge--Removal*. At Ms. Bustamante's request, the Hazardous Waste Bureau (Mr. Glenn von Gonten) and the Surface Water Quality Bureau (Mr. Tim Hensley) were contacted. Mr. von Gonten was contacted at approximately 11:25 AM on 24 Oct 00 as he manages the RCRA Corrective Action program for Cannon AFB. In his telephone conversation with Ms. Bustamante, Mr. Rebman indicated that the Environmental Flight's restoration program would investigate the nature and extent of the apparent underground diesel source. Mr. Hensley was contacted at 8:45 AM on 25 Oct 00.

D. PRELIMINARY ACTIONS

1. Diesel Generator. On 25 Oct 00 the diesel generator was thoroughly cleaned to remove all diesel residues and other petroleum product. On 25 and 26 Oct 00, all pumps, valves, and other components of the diesel generator were checked and repaired as necessary.

2. Petroleum Migration. Globules of what appeared to be diesel fuel rose from underneath the floodwaters along a 30-foot section of the partially vegetated mound. Although a number of isolated globules surfaced several feet into the pond and from a few to approximately 100 feet away from the mound, the source of the diesel fuel was clearly concentrated within this 30-foot section. An individual from the analytical laboratory, contracted by Cannon AFB for waste characterization, was available to take grab samples of the floating petroleum product near the mound as well as the soil near the water line. Results for the following parameters will be provided to Ms. Bustamante.

Soil Analysis

Parameter	40 CFR 136 Method
Chloride (water extractable)	EPA Method 300.0
Nitrate-Nitrogen	EPA Method 300.0
Sulfate (water extractable)	EPA Method 300.0
TPH Diesel Range Organics	EPA Method 8015B
Total Arsenic	EPA Method 200.8
Total Barium	EPA Method 200.8
Total Cadmium	EPA Method 200.8
Total Chromium	EPA Method 200.8
Total Lead	EPA Method 200.8
Total Mercury	EPA Method 245.1
Total Selenium	EPA Method 200.8
Total Silver	EPA Method 200.8
Semi-Volatile Hydrocarbons	EPA Method 625
Volatile Hydrocarbons by GC/MS	EPA Method 624

Water Analysis

Constituent	40 CFR 136 Method
Chemical Oxygen Demand	EPA Method 410.4
Laboratory pH	SM 4500-H+ B
Nitrate-Nitrogen	EPA Method 300.0
Nitrite-Nitrogen	EPA Method 300.0
Sulfate	EPA Method 300.0
TPH Diesel Range Organics	EPA Method 8015B
Total Arsenic	EPA Method 200.8
Total Barium	EPA Method 200.8
Total Cadmium	EPA Method 200.8
Total Chromium	EPA Method 200.8
Total Dissolved Solids	EPA Method 160.1
Total Lead	EPA Method 200.8
Total Mercury	EPA Method 245.1
Total Selenium	EPA Method 200.8
Total Silver	EPA Method 200.8
Semi-Volatile Hydrocarbons	EPA Method 625
Volatile Hydrocarbons by GC/MS	EPA Method 624

E. CORRECTIVE ACTIONS

1. Diesel Generator. The amount of diesel fuel washed from the lift station generator is believed to be less than five gallons. Due to the relatively small amount of diesel fuel associated with the lift station generator and the weather conditions (sunshine and calm winds), it was decided that the two sheens within the drainage ditch and the stained vegetation in and around the ditch would be allowed to attenuate naturally. On 25 Oct 00 the diesel generator was thoroughly cleaned to remove all diesel residues and other petroleum product. On 25 and 26 Oct 00, all pumps, valves, and other components of the diesel generator were checked and replaced as necessary.

2. Petroleum Migration.

a. Remediation Actions. Calm wind conditions on 24 Oct 00 together with the numerous small sheens created along the vegetated mound postponed attempts to remove the petroleum. On 25 Oct 00, brisk winds pushed accumulated petroleum into two isolated and confined areas of the pond. Absorbent booms and pads were used on 25 and 26 Oct 00 to capture free-floating product. Debris (grass clippings, soil, and other organic material) along the shoreline near one of these boomed areas was placed in drums for eventual disposal. Actions to investigate the source and extent of this discharge have been initiated.

b. Sampling and Analysis. In addition to the water and soil samples collected on 24 Oct 00, Cannon AFB will obtain a soil sample within the storm drainage system that receives excess water pumped from the pond during conditions defined in the Discharge Permit. The approximate location for soil sample collection is shown on the attached map. The water samples collected on 24 Oct 00 will be analyzed for the following constituents:

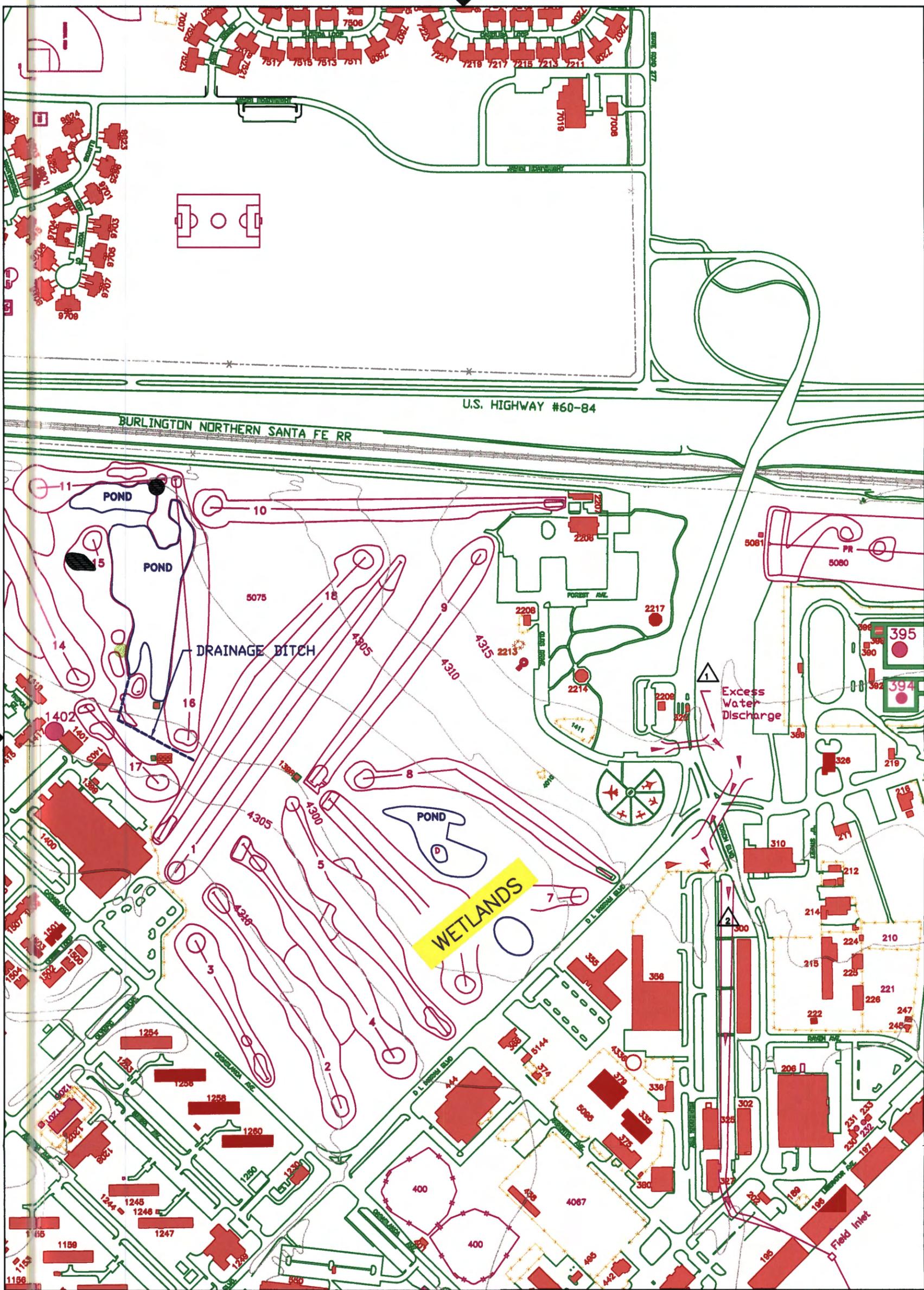
Soil Analysis

Parameter	40 CFR 136 Method
Chloride (water extractable)	EPA Method 300.0
Nitrate-Nitrogen	EPA Method 300.0
Sulfate (water extractable)	EPA Method 300.0
TPH Diesel Range Organics	EPA Method 8015B
Total Arsenic	EPA Method 200.8
Total Barium	EPA Method 200.8
Total Cadmium	EPA Method 200.8
Total Chromium	EPA Method 200.8
Total Lead	EPA Method 200.8
Total Mercury	EPA Method 245.1
Total Selenium	EPA Method 200.8
Total Silver	EPA Method 200.8
Semi-Volatile Hydrocarbons	EPA Method 625
Volatile Hydrocarbons by GC/MS	EPA Method 624

A soil sample remote of the soil sample within the drainage system will be collected to establish "background" concentrations that can be compared to those within the drainage system. See the attached map for the location of this soil sample. This "background" sample will be analyzed for the above parameters.

F. MITIGATION ACTIONS

In the event analyses indicate that the soil sample in the drainage system exceeds standards established by the NMED and levels above "background" concentrations, Cannon AFB will initiate a sampling and analysis scheme to define the physical limits of contaminant migration. Based upon the nature and extent of the contamination, Cannon AFB will propose a mitigation strategy to the NMED. Natural attenuation of hydrocarbon contamination has proven successful for past petroleum releases, particularly from aircraft mishaps, therefore, Cannon AFB will seek concurrence to employ this mitigation procedure should hydrocarbons exceed standards.



-  Vegetated mound; location of soil and water samples
-  Sewage lift station generator
-  Location of background soil sample
-  Location of soil sample in path of excess water
-  Accumulation point of free floating petroleum

CANNON AFB

SIZE B	FSCM NO.	DWG NO.	REV
SCALE: NTS		SHEET: 1 OF 1	