

CAFB 03-001



United States Department of the Interior

U.S. GEOLOGICAL SURVEY
Water Resources Division
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Albuquerque, NM 87109-1311

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July 25, 2001

Mr. Dennis Timmons
Cannon AFB Environmental Department
506 North D.L. Ingram Blvd.
Cannon AFB, NM 88103

Dear Dennis:

Enclosed is a brief Statement of Work between personnel from Cannon AFB Environmental Department and USGS New Mexico District, for the SD-11 (SWMUs 86-90) Site. Included is the sampling results and site maps showing approximate locations of the sample sites.

Attached are the analytical results for four samples collected on June 15, 2000 and five samples on February 1, 2001. These analytical results are reported under Severn Trent Laboratories (STL) lot numbers D0F160287 and D1B020292, respectively. The complete worksheet documenting the results of the analytical data has been reviewed, and attached are copies of the Executive Summary - Detection Highlights.

Please contact me at (505) 830-7978 or gebhardt@USGS.gov if you have questions or need more information about the attached materials.

Sincerely,

Fredrick E. Gebhardt

Statement of Work for SD-11 Site on Cannon Air Force Base, New Mexico

Introduction

June 14, 2000

Fred Gebhardt and R.K. DeWees of the USGS New Mexico District met with John Pike and Sanford Hutsell of Cannon Air Force Base Environmental Department.

Sanford escorted USGS personnel to the SD-11 Site, and gave a brief history and objective of this continuing investigation. Sanford also issued a digging permit for this site: Date prepared June 8, 2000; project # CZQZ989003.

SD-11 Site originally was listed as Solid Waste Management Unit (SWMU) Sites 86-90. These sites consisted of oil/water separators and a French Drain system. The objective of this investigation was to address the delineation of horizontal extent of contamination at the site. The contamination of concern are Total Petroleum Hydrocarbons (TPH).

The initial fieldwork was completed December 1998. However, to complete the requirements of New Mexico Environmental Department (NMED) to close out this site, additional investigation would be needed to determine the western extent of the contamination.

Statement of Work

U.S. Geological Survey, New Mexico District conducted a subsurface investigation of the SD-11 facility at Cannon Air Force Base, Curry County, New Mexico. The purpose of this investigation was to determine the western extent of the contamination on this site.

The subsurface field investigation consisted of the collection of soil samples at this site, which was conducted on June 15, 2000 and February 1, 2001. The soil samples were collected by utilizing the USGS, New Mexico's Direct Push Technology (Geoprobe). The Geoprobe capabilities allowed punching through the surface concrete and then collecting soil samples in brass sleeves at desired depths.

The investigation was performed in accordance with New Mexico Environmental Department's Underground Storage Tank Regulations, Section 1205. The soil samples were analyzed by Severn Trent Laboratories for Gasoline Range Organics (GRO; Methanol Extraction Method, modified 8015B). GRO analysis superseded the previous analysis for TPH.

Results

June 15, 2000, four soil samples were collected, sample depths 3, 15, 20, and 25 feet. Sample hole location approximately 15 feet west of concrete's eastern edge.

Laboratory analysis indicated that samples collected at three feet (SD11-3) and twenty-five feet (SD11-25) had contamination (GRO) readings of 13 mg/kg and 120 mg/kg, respectively. New Mexico Environmental Department Regulations require two consecutive nondetect or below detection limit readings to determine the extent of contamination. Further investigation was required.

**Also, there were below reporting limits readings for 2-Butanone (MEK) and Methylene chloride, these two chemicals were lab contaminants.

February 1, 2001, five soil samples were collected, sample depths 3, 10, 15, 20, and 25 feet. Sample hole location approximately 25 feet due west of the samples collected on June 15, 2000.

Laboratory analysis indicated that all samples collected were either nondetect or below reporting limits. This fulfills New Mexico Environmental Department's Regulations for delineation of contamination in the western horizontal direction for the SD-11 Site.

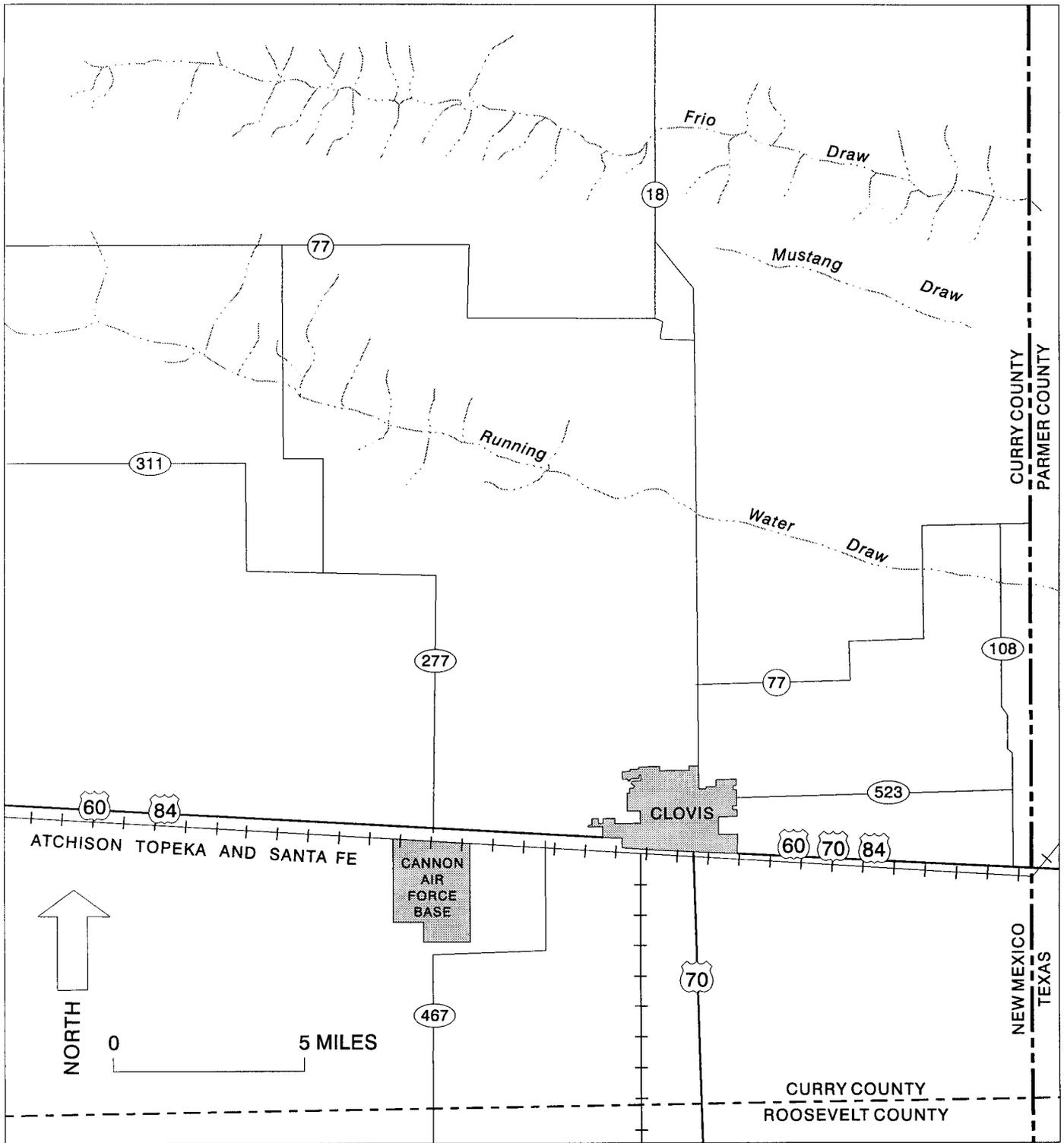


Figure 1. Location of Cannon Air Force Base, New Mexico.

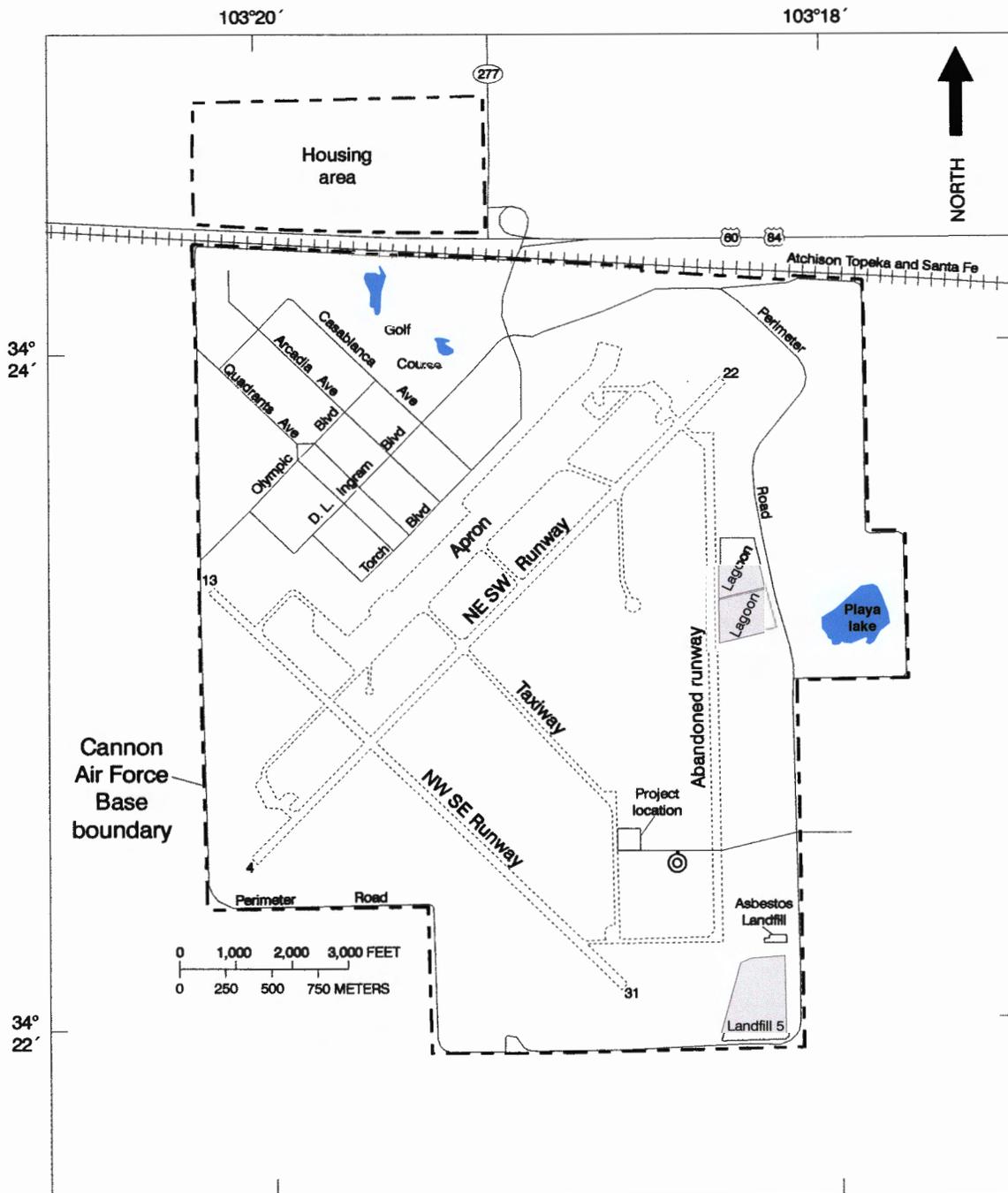
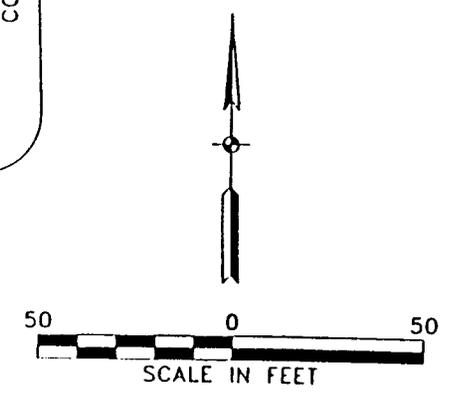
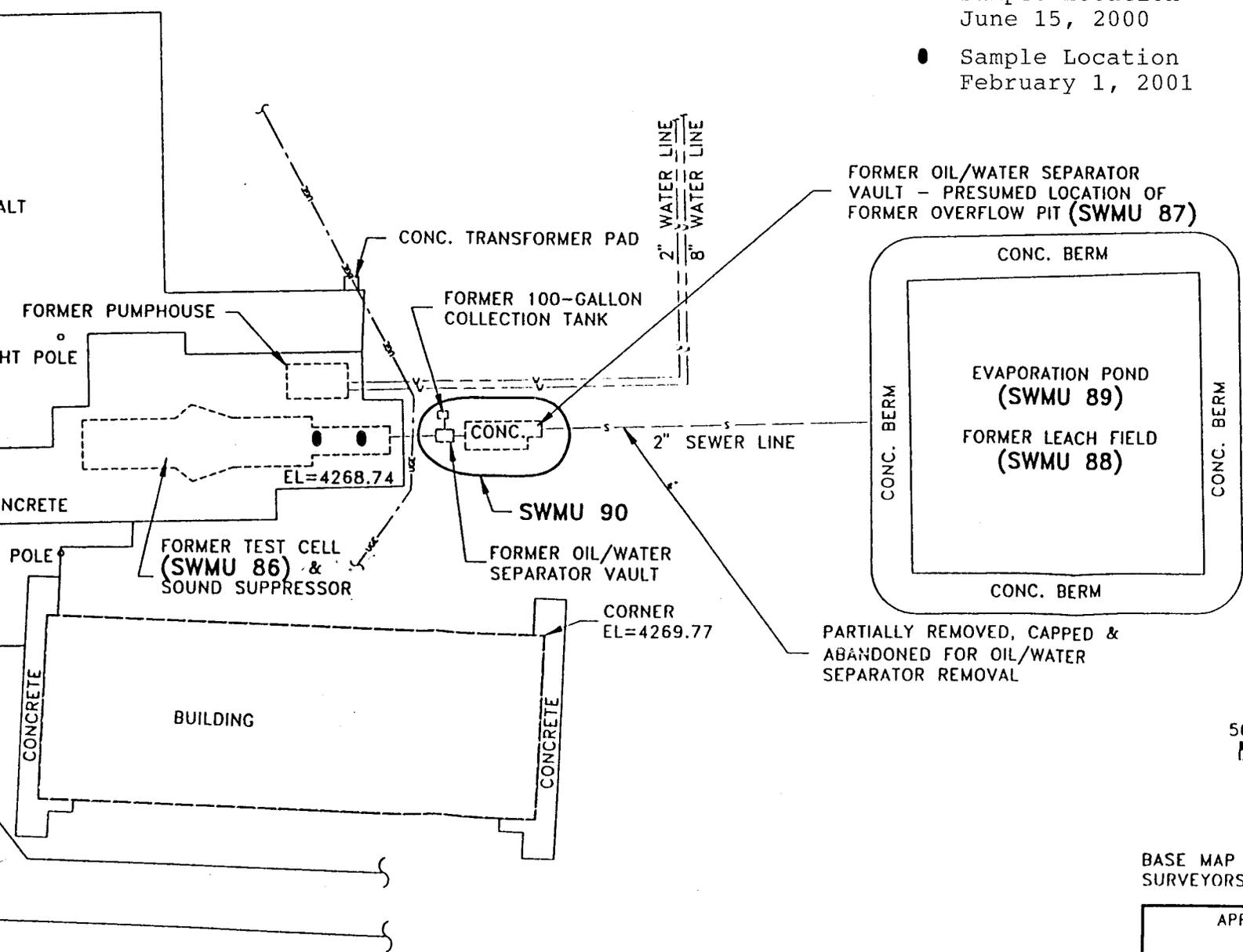


Figure 2. Cannon Air Force Base and location of SD-11 site.



CONC. TRANSFORMER PAD
RISER SHED
ELEC. MANHOLE
NORTH RIM=4269.50

- Sample Location
June 15, 2000
- Sample Location
February 1, 2001



BASE MAP SOURCE: LYDICK ENGINEERS & SURVEYORS, 1993, 1995

APPENDIX 1 SWMUs 86-90 (SITE SD-11)			
SITE PLAN			
CANNON AFB, NEW MEXICO			
DRN. BY:	TSSM	DATE: 03/24/99	PROJECT NO.
			FIG.

NOTE: LOCATION OF UNDERGROUND UTILITY LINES SHOWN ARE APPROXIMATE.

EXECUTIVE SUMMARY - Detection Highlights

DOF160287

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
SD11-15 06/15/00 08:45 001				
2-Butanone (MEK)	500 J	1000	ug/kg	SW846 8260B
Methylene chloride	69 J	250	ug/kg	SW846 8260B
Percent Moisture	6.3	0.10	%	MCAWW 160.3 MOD
SD11-20 06/15/00 09:15 002				
2-Butanone (MEK)	430 J	1000	ug/kg	SW846 8260B
Methylene chloride	57 J	250	ug/kg	SW846 8260B
Percent Moisture	9.8	0.10	%	MCAWW 160.3 MOD
SD11-25 06/15/00 09:40 003				
Gasoline Range Organics	120	30	mg/kg	SW846 8015B
2-Butanone (MEK)	520 J	1000	ug/kg	SW846 8260B
Methylene chloride	66 J	250	ug/kg	SW846 8260B
Percent Moisture	9.4	0.10	%	MCAWW 160.3 MOD
SD11-3 06/15/00 10:15 004				
Gasoline Range Organics	13	1.2	mg/kg	SW846 8015B
2-Butanone (MEK)	530 J	1000	ug/kg	SW846 8260B
Methylene chloride	69 J	250	ug/kg	SW846 8260B
Percent Moisture	9.0	0.10	%	MCAWW 160.3 MOD

EXECUTIVE SUMMARY - Detection Highlights

D1B020292

<u>PARAMETER</u>	<u>RESULT</u>	<u>REPORTING LIMIT</u>	<u>UNITS</u>	<u>ANALYTICAL METHOD</u>
SD11-3 02/01/01 08:45 001				
Gasoline Range Organics	0.85 J	1.2	mg/kg	SW846 8015B
Percent Moisture	10.6	0.10	%	MCAWW 160.3 MOD
SD11-10 02/01/01 08:55 002				
Gasoline Range Organics	0.66 J	1.2	mg/kg	SW846 8015B
Percent Moisture	11.1	0.10	%	MCAWW 160.3 MOD
SD11-15 02/01/01 09:05 003				
Percent Moisture	10.4	0.10	%	MCAWW 160.3 MOD
SD11-20 02/01/01 09:15 004				
Percent Moisture	7.4	0.10	%	MCAWW 160.3 MOD
SD11-25 02/01/01 09:25 005				
Percent Moisture	13.0	0.10	%	MCAWW 160.3 MOD