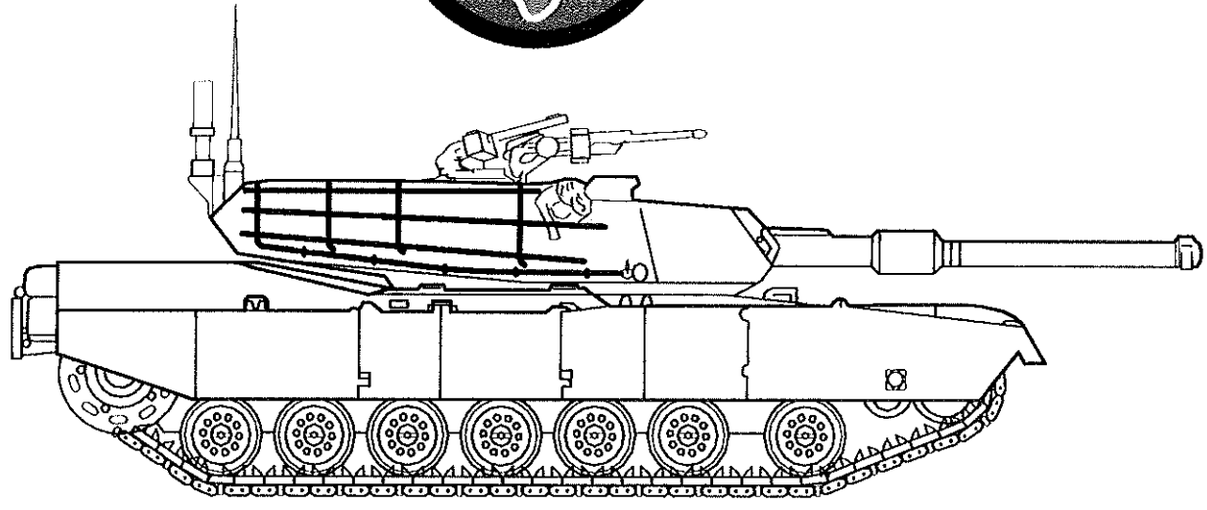
Corrected Final
Phase I RCRA Facility Investigation Report
For 24 Solid Waste Management Units
At Fort Stewart, Georgia

Volume I of III



May 1996

Job No. 87528.000

Prepared For

US Army Corps of Engineers
Savannah District

Prepared By

RUST ENVIRONMENT & INFRASTRUCTURE

DOCUMENT 5

CORRECTED FINAL

PHASE I
RCRA FACILITY INVESTIGATION REPORT
FOR 24 SOLID WASTE MANAGEMENT UNITS
AT FORT STEWART, GEORGIA
VOLUME I OF III

Prepared For

UNITED STATES ARMY CORPS OF ENGINEERS
SAVANNAH DISTRICT

Contract DACA21-93-D-0029
Delivery Order 0005
Rust Project No. 87528.000
May 1996

Prepared By
RUST ENVIRONMENT AND INFRASTRUCTURE
2694 Lake Park Drive
Charleston, South Carolina 29406
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5.17 Motor Pools SWMU27 (Include Wash Racks, Grease Racks, and Steam Racks - FST-027)

5.17.1 Site Description

The 29 Motor Pools SWMU27(FST-027) are located throughout the cantonment area (see Plate 5-156 and Table 5-46A). In that the motor pool names have changed, photographs of the current motor pool signs are shown with the site maps, Figures 5-157 to 5-215. Wash racks, grease racks, and oil/water separators are found at most motor pools. Many of the USTs are also located at the motor pools. The specific operations times are unknown, but assumed to be from the 1950s to the present (G&M, 1993).

5.17.2 Work Completed

An inventory of the motor pools listed in the RFI Work Plan (G&M, 1993) was completed. The master list of motor pools and the full size map of motor pools were updated. Location maps for each motor pool were prepared which identified effluent line discharges, wash racks and grease racks. Maps were also prepared for the three separators not hooked up to the industrial wastewater treatment plant (1st BN 5th AAA, DOL Maintenance, Georgia National Guard Blocks 9900 and 10300, and GANGMATES).

Soil samples were collected from the drainage ditch near building 1070, where wastewater from the broken separator effluent line was discharging. The soil samples were analyzed for pH, VOCs, full TCLP constituents and TPH. A soil sample location map was prepared and is provided as Figure 5-215.

5.17.3 Site Characterization

The motor pool location maps and photographs are provided in Figures 5-157 to 5-214. The soil boring locations for DOL Maintenance are shown in Figure 5-215. The soil boring logs are provided in Appendix Q1. Reported soils underlying the DOL maintenance site are predominantly sands. The analytical results and contaminant distributions are discussed in Section 5.17.5. Fuel odors are reported from soil borings SB-1. FID/PID maximum measurements are 124/144, 21/126, and 32/140 for soil borings SB-1, SB-2, and SB-3.

REPLACE THIS PAGE WITH SCANNED MAP!

TABLE 5-46A
SUMMARY OF MOTOR POOL LOCATION NAMES
SWMU27(FST-027)

G&M	ESE	RUST E&I
1/2 ADA	24th Signal Unit Battalion	24th Signal BN
1/5 ADA	1st/5th Air Defense Artillery Battalion	1st BN 5th AAA
1/41ST ART	1st Battalion of the 41st Division Field Artillery Motor Pool	1st BN 41st FA
1/64 ARMOR	The 1st of the 64th Armor Battalion	1st BN 64th Armor
1ST INF BG 2/7TH INF 3/15TH INF	HHC 1st BDE, 2/7th Battalion Motor Pool, 315th Battalion Motor Pool	No Sign 2nd 7th INF, 3rd 15th INF
3/7TH INF	HHC 37th Infantry Motor Pool	3rd BN 7th INF
2/4 CAV	HHT 24th Cavalry	2nd Squadron 4th Cavalry
3/41ST ART	241st Field Artillery Motor Pool	3rd BN 41st FA
3/69 ARMOR	3rd Battalion 64th Armor Motor Pool	3rd BN 69th ARMOR
4/64 ARMOR	464th Armor Battalion Motor Pool	4th Battalion 64th Armor
24TH ID	HQ Company 24th Infantry Division Motor Pool	HQ & HQ Company 24th Infantry Division
24TH MP 124TH MI	124th Military Intelligence Battalion	24th MP CO/293rd MP CO, Law Enforcement Command, 124th Military Intelligence Battalion

24TH SPT	24th Support Battalion	24th Support Battalion (Forward) Maintenance Facility Bldg. 4577
87TH MAINT	226th and 396th Companies of the 87th Maintenance Battalion	226th SUP & SVC Co., 396th Trans Co., 87th Corps Support Battalion
92ND ENG	92nd Engineer Battalion	92nd Engineer Combat Battalion (Heavy)
224TH SPT BN	224th Support Battalion Motor Pool	224th Support BN
632 MAINT	632 Maintenance Battalion Motor Pool	HHD/632^{D} MAINT, 87th Maintenance Battalion, 94th MAINT
724 SPT	724th Main Support Battalion Motor Pool Alpha & Bravo Company, 724th Support Battalion	724th SPT BN (Main) Direct Support Maintenance Facility Companies C, D, E, 724th Support BN (Main) Organizational Maintenance Facility Alpha Co., Alpha & Bravo Co 724th Support BN MAIN
DEB	3rd and 11th Engineering Battalion Motor Pool	24th Infantry Division (Mechanized) Engineer Brigade
DEH	Wash Rack - SWMU	DEH Equipment Yard
DISCOM	Discom Maintenance Facility	DISCOM Maintenance Facility, HQs & HQs Company, 91st Chemical Company, 24th PER SVC Company, 124th REPL Company
DIVARTY	Alpha Unit - 13th Field Artillery	HHB Divarty, G Tab 333, A/13 MLRS
DOL MAINT	---	No sign

DOL/24TH MP	293rd Military Police Company	No sign
GA National Guard	National Guard Training Center (NGTC) Force Modernization Motor Pool (9100) National Guard Training Center (Building 9496) National Guard Training Center (NGTC) Motor Pool Support School Maintenance (9500) National Guard Training Center (NGTC) Modernization Motor Pool (9898)	Regional Training Site Maintenance National Guard Training Center 9900 10300
GANG MATES	---	Welcome to NGTC & Mates Mates (DS) Georgia Army National Guard

RUST ENVIRONMENT & INFRASTRUCTURE

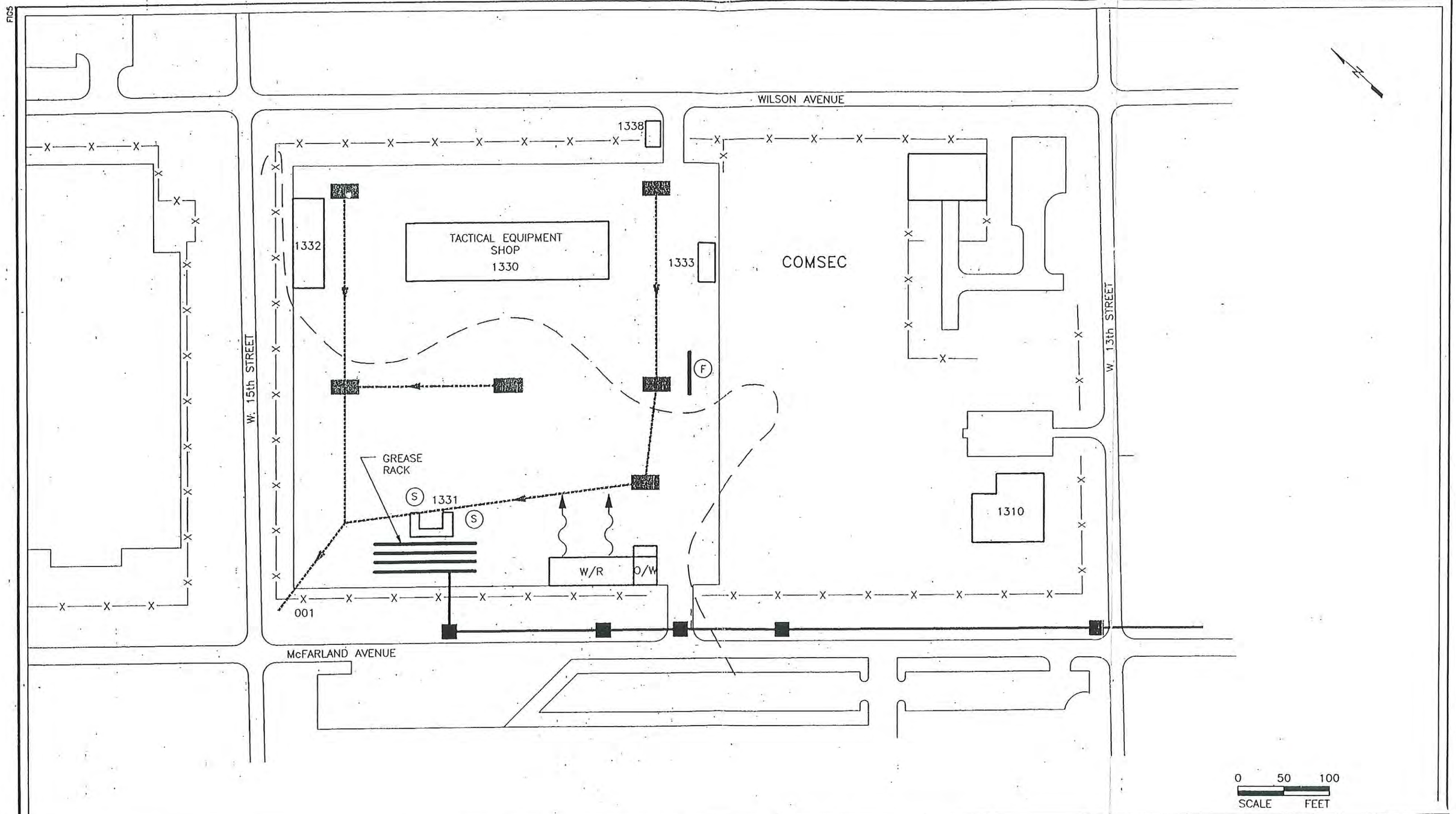
FIGURE 5-157
PHOTOGRAPHS
24TH SIGNAL BN MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

LEGEND

—x——x—	FENCE LINE
▬ ▬ ▬	STORM WATER DRAINAGE DIVIDE
001	STORM WATER OUTFALL LOCATION AND NUMBER
	FLOW DIRECTION – SHEET FLOW
	OPEN STORM WATER DITCH
	SANITARY SEWER MANHOLE
	STORM WATER CURB OR GRATE INLET
	STORM WATER CULVERT
	TRENCH GRATE
	BERM
SP	SPILLS/LEAKS
F	FUEL PUMP
S	STORAGE AREA
S	STORAGE AREA – COVERED
G/R	GREASE RACK/PAD
O/W	OIL/WATER SEPARATOR
W/R	WASH RACK/PAD

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993



SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-158

24TH SIGNAL BN MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-159
PHOTOGRAPHS
1ST BN 5TH AAA MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

LEGEND

FENCE LINE

STORM WATER DRAINAGE DIVIDE

STORM WATER OUTFALL LOCATION AND NUMBER

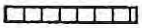

FLOW DIRECTION – SHEET FLOW

OPEN STORM WATER DITCH


SANITARY SEWER MANHOLE


STORM WATER CURB OR GRATE INLET


STORM WATER CULVERT


TRENCH GRATE


BERM

SPILLS/LEAKS

FUEL PUMP

STORAGE AREA

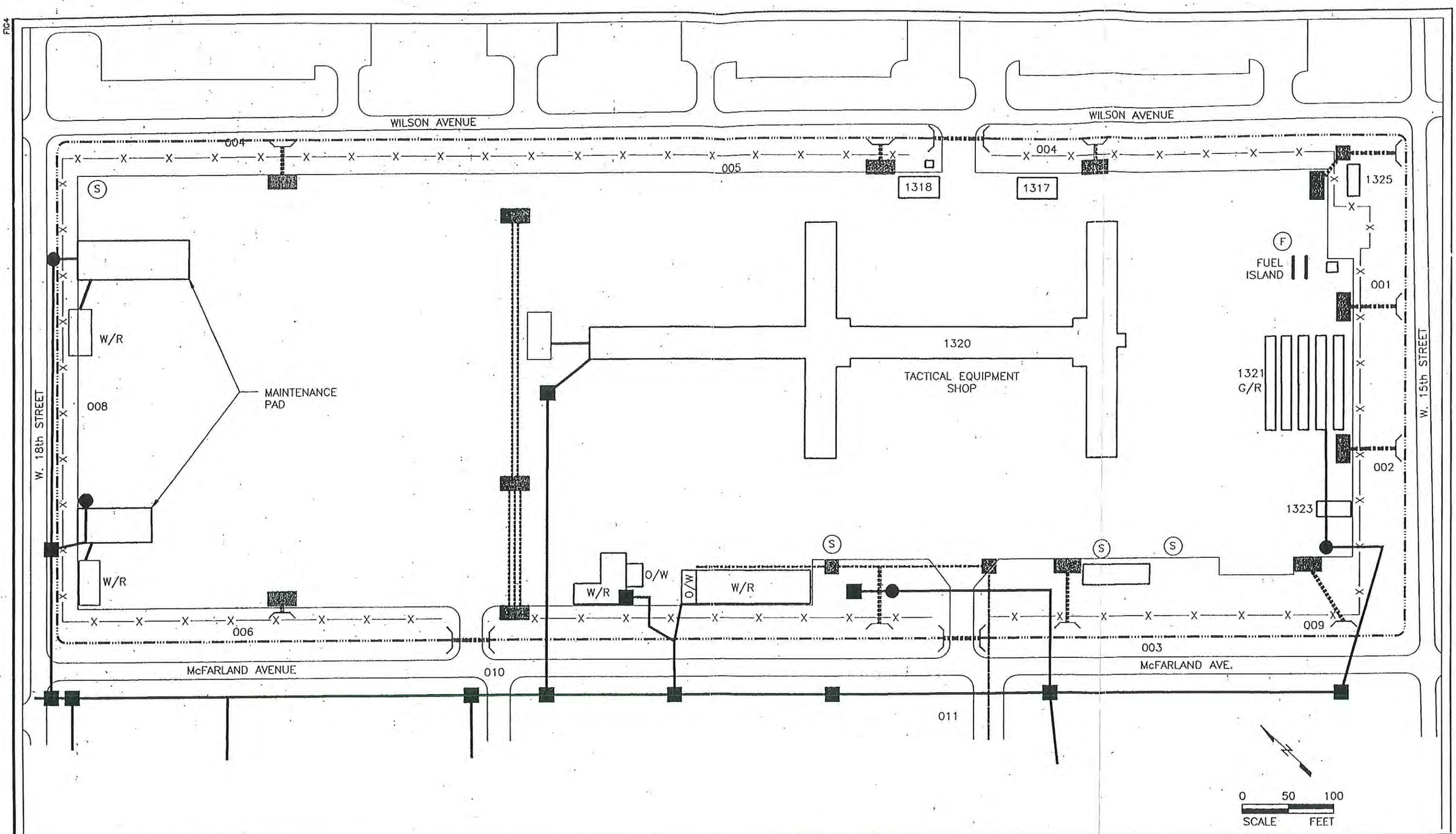
STORAGE AREA – COVERED

G/R GREASE RACK/PAD

O/W OIL/WATER SEPARATOR

W/R WASH RACK/PAD

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993



SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

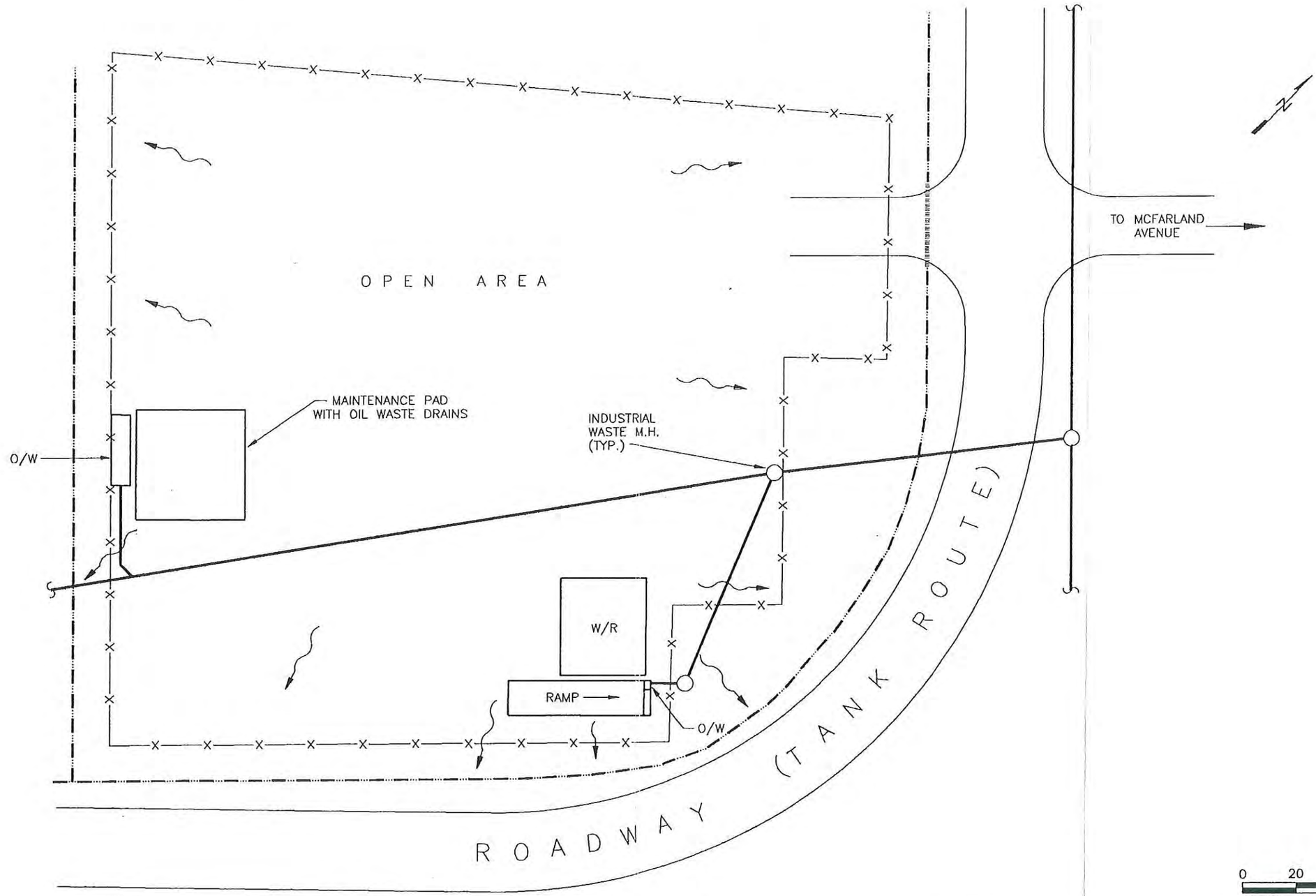
RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-160

1ST BN 5TH AAA MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

DWG: C:\87528\52815ADA.DWG PLOT DATE: 1-13-94 C1409



SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

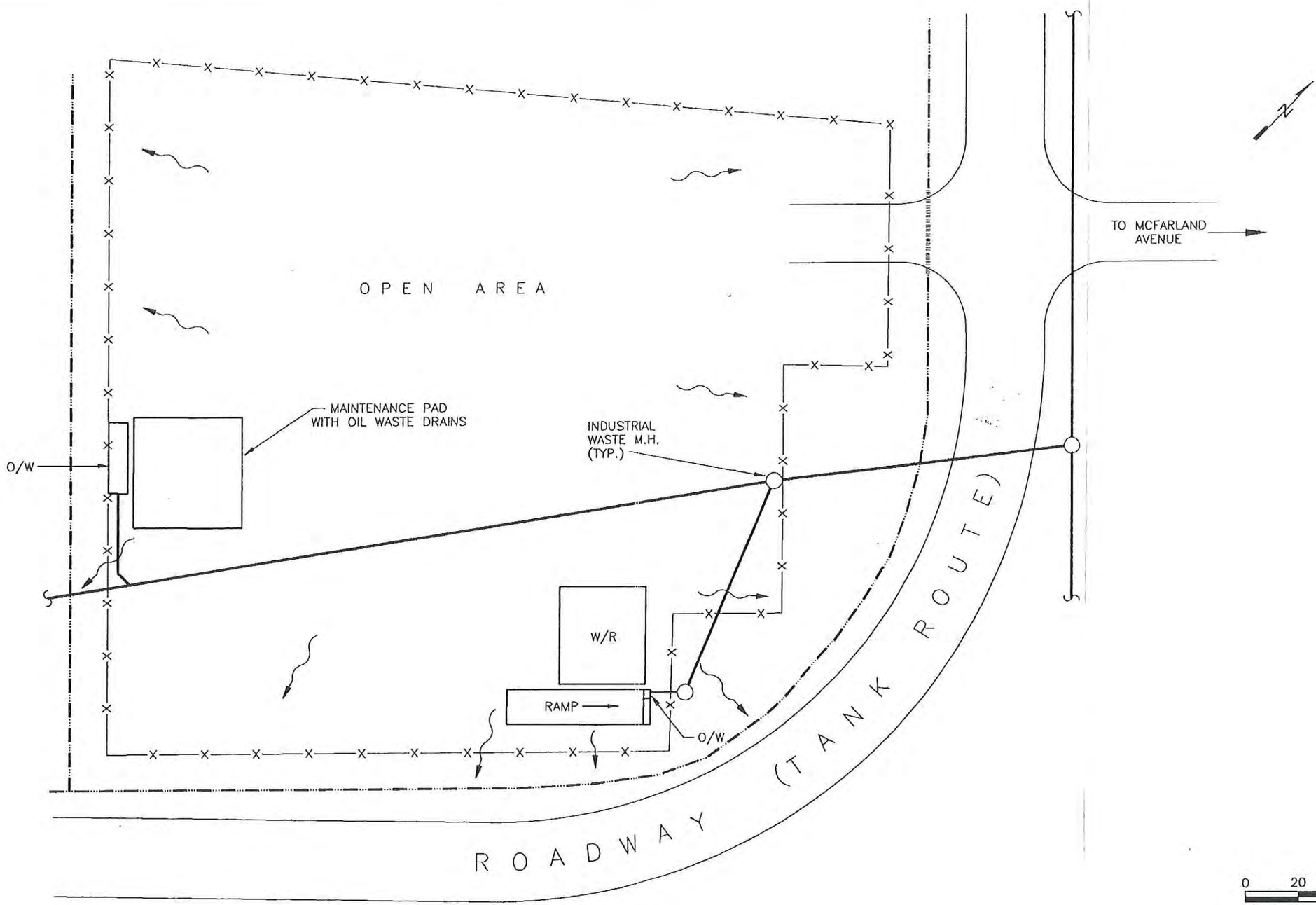
RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-160 (Cont'd)

1ST BN 5TH AAA MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

DWG: C:\87528\S28115ADA.DWG PLOT DATE: 1-13-94 C1409



SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-160 (Cont'd)

1ST BN 5TH AAA MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

RUST ENVIRONMENT & INFRASTRUCTURE

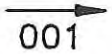
FIGURE 5-161
PHOTOGRAPHS
1ST BN 41ST FA MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

LEGEND

FENCE LINE

STORM WATER DRAINAGE DIVIDE



STORM WATER OUTFALL LOCATION AND NUMBER

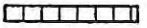

FLOW DIRECTION – SHEET FLOW

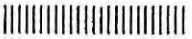

OPEN STORM WATER DITCH


SANITARY SEWER MANHOLE


STORM WATER CURB OR GRATE INLET


STORM WATER CULVERT


TRENCH GRATE


BERM

SPILLS/LEAKS

FUEL PUMP

STORAGE AREA

STORAGE AREA – COVERED

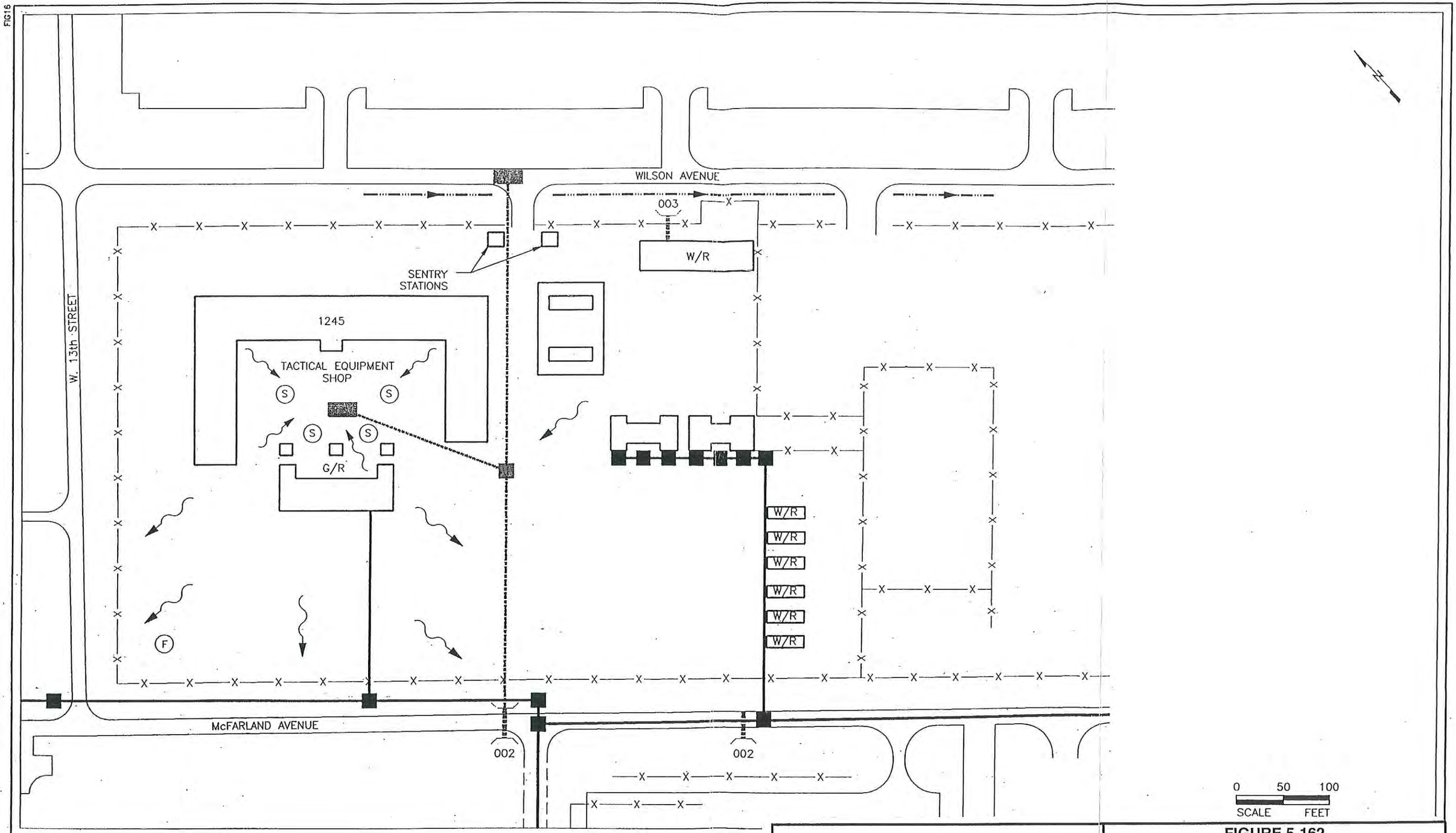
G/R GREASE RACK/PAD

O/W OIL/WATER SEPARATOR

W/R WASH RACK/PAD

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

FIG16



SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

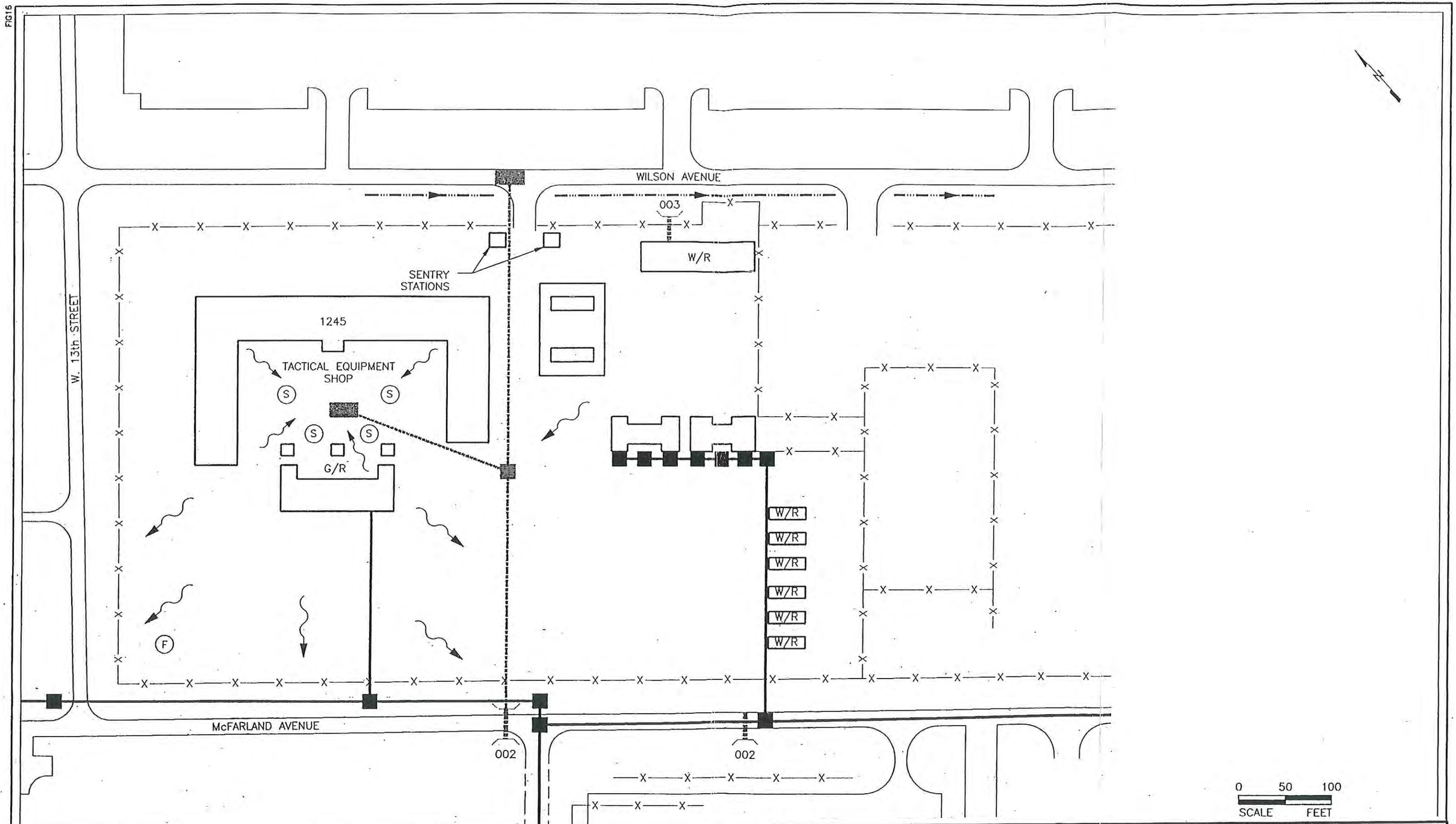
RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-162

1ST BN 41ST FA MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

FIG16



SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-162

1ST BN 41ST FA MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-163
PHOTOGRAPHS
1ST BN 64TH ARMOR MOTOR POOL

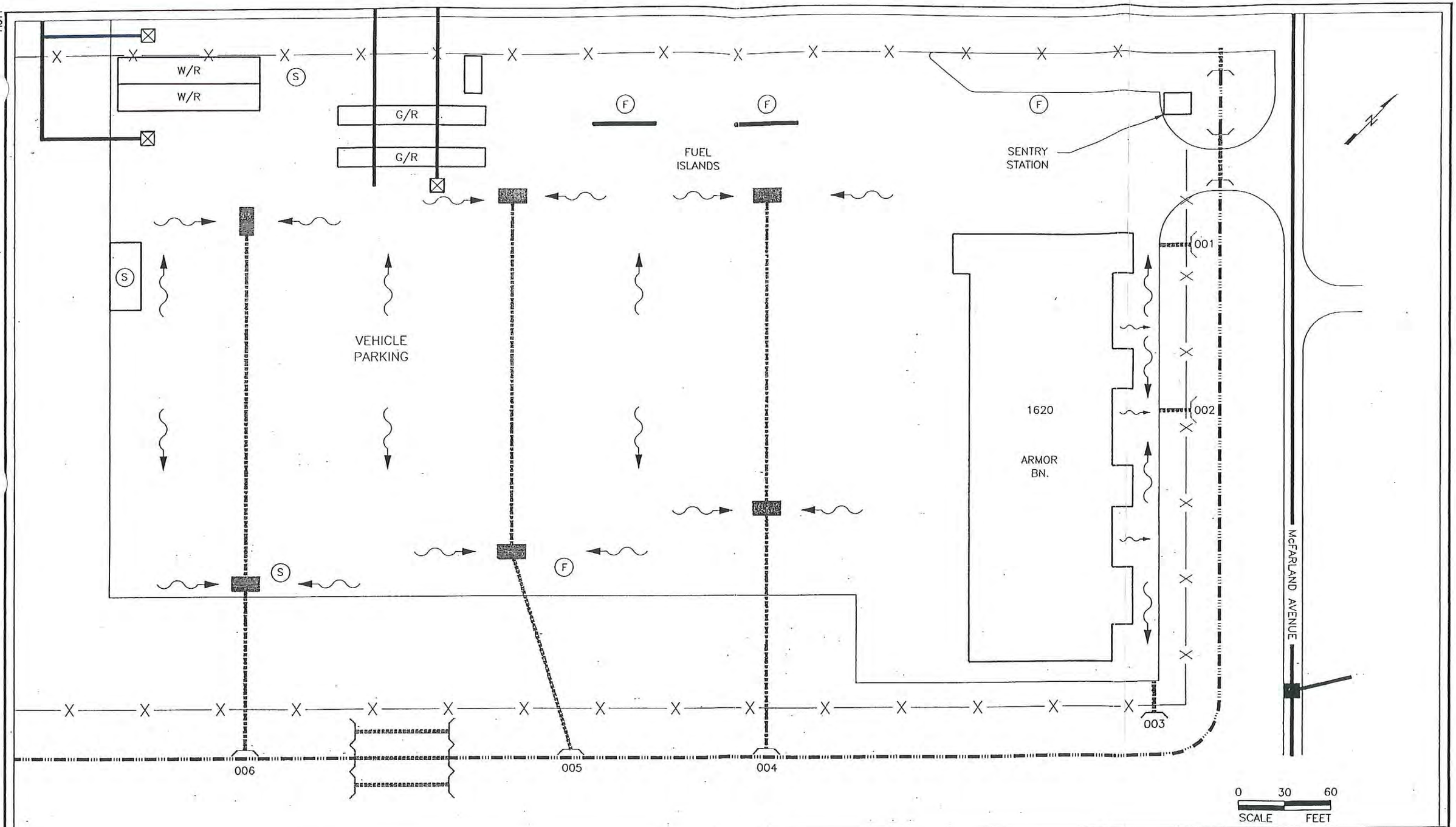
SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

LEGEND

—x——x—	FENCE LINE
	STORM WATER DRAINAGE DIVIDE
001	STORM WATER OUTFALL LOCATION AND NUMBER
	FLOW DIRECTION – SHEET FLOW
	OPEN STORM WATER DITCH
	SANITARY SEWER MANHOLE
	STORM WATER CURB OR GRATE INLET
	STORM WATER CULVERT
	TRENCH GRATE
	BERM
SP	SPILLS/LEAKS
F	FUEL PUMP
S	STORAGE AREA
S	STORAGE AREA – COVERED
G/R	GREASE RACK/PAD
O/W	OIL/WATER SEPARATOR
W/R	WASH RACK/PAD

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

FIG11



RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-164

1ST BN 64TH ARMOR MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

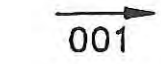
RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-165
PHOTOGRAPHS
2ND 7TH INF MOTOR POOL
3RD 15TH INF MOTOR POOL
SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

LEGEND

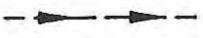

FENCE LINE

STORM WATER DRAINAGE DIVIDE



STORM WATER OUTFALL LOCATION AND NUMBER

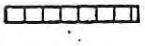

FLOW DIRECTION – SHEET FLOW

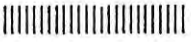

OPEN STORM WATER DITCH


SANITARY SEWER MANHOLE


STORM WATER CURB OR GRATE INLET


STORM WATER CULVERT


TRENCH GRATE


BERM

SPILLS/LEAKS

FUEL PUMP

STORAGE AREA

STORAGE AREA – COVERED

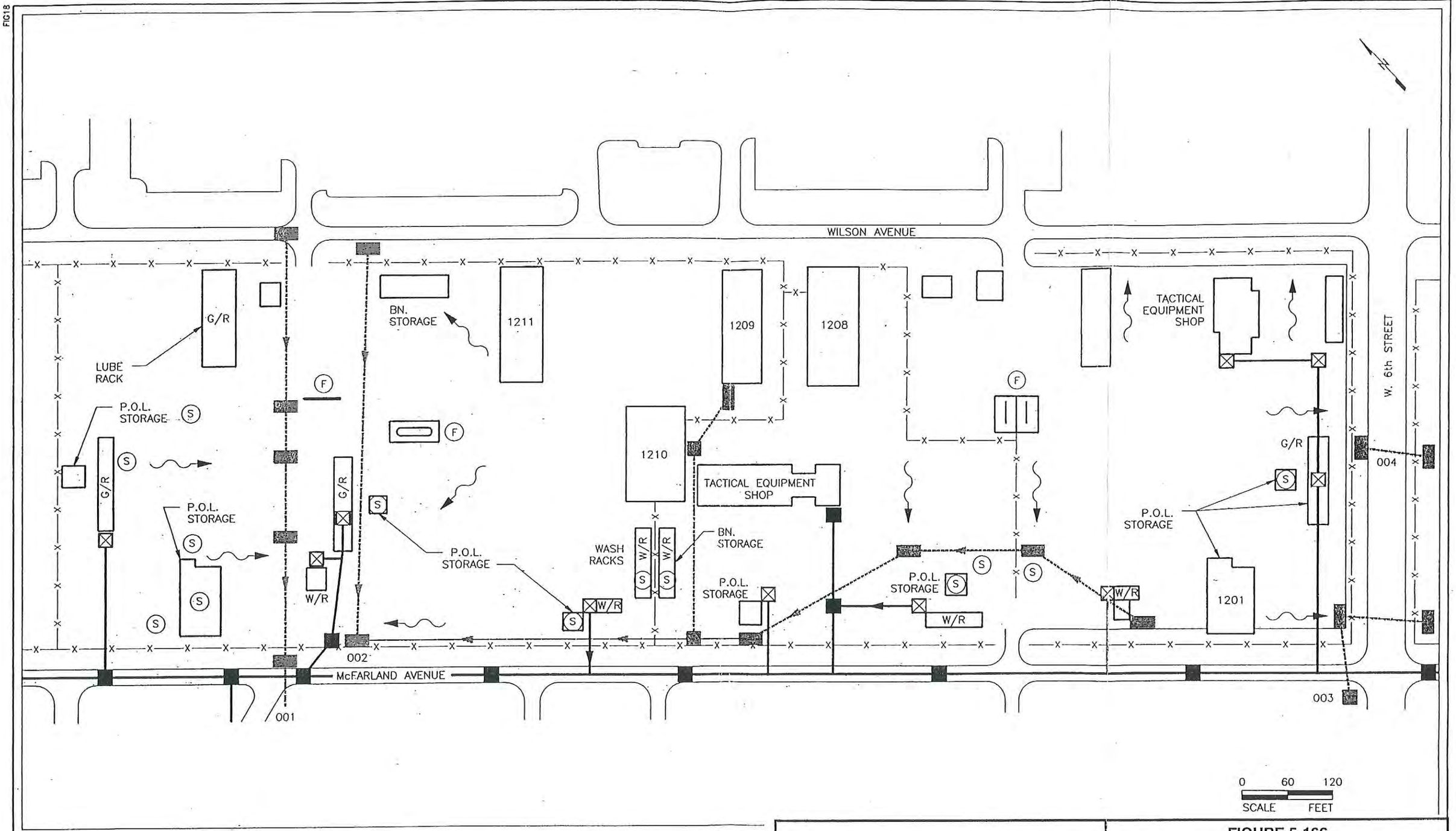
G/R GREASE RACK/PAD

O/W OIL/WATER SEPARATOR

W/R WASH RACK/PAD

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

FIG18



RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-166

1ST INF BG, 2ND 7TH INF, 3RD 15TH INF MOTOR POOLS

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-167
PHOTOGRAPH
3RD BN 7TH INF MOTOR POOL

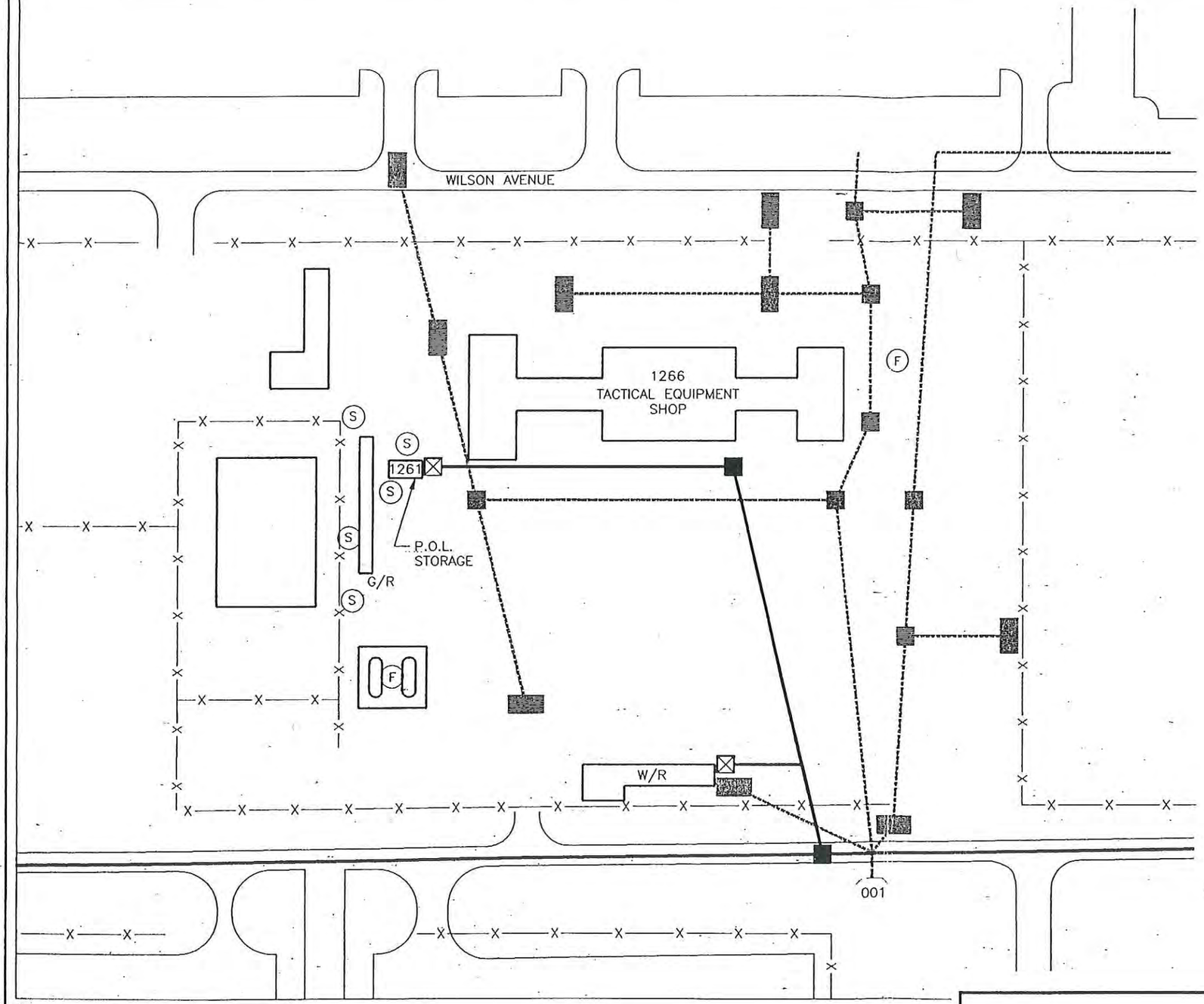
SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

LEGEND

—x——x—	FENCE LINE
▬ ▬ ▬	STORM WATER DRAINAGE DIVIDE
001	STORM WATER OUTFALL LOCATION AND NUMBER
	FLOW DIRECTION – SHEET FLOW
	OPEN STORM WATER DITCH
	SANITARY SEWER MANHOLE
	STORM WATER CURB OR GRATE INLET
	STORM WATER CULVERT
	TRENCH GRATE
	BERM
SP	SPILLS/LEAKS
F	FUEL PUMP
S	STORAGE AREA
S	STORAGE AREA – COVERED
G/R	GREASE RACK/PAD
O/W	OIL/WATER SEPARATOR
W/R	WASH RACK/PAD

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

FIG17



SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-168

3RD BN 7TH INF MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-169
PHOTOGRAPHS
2ND SQUADRON, 4TH CAVALRY MOTOR POOL

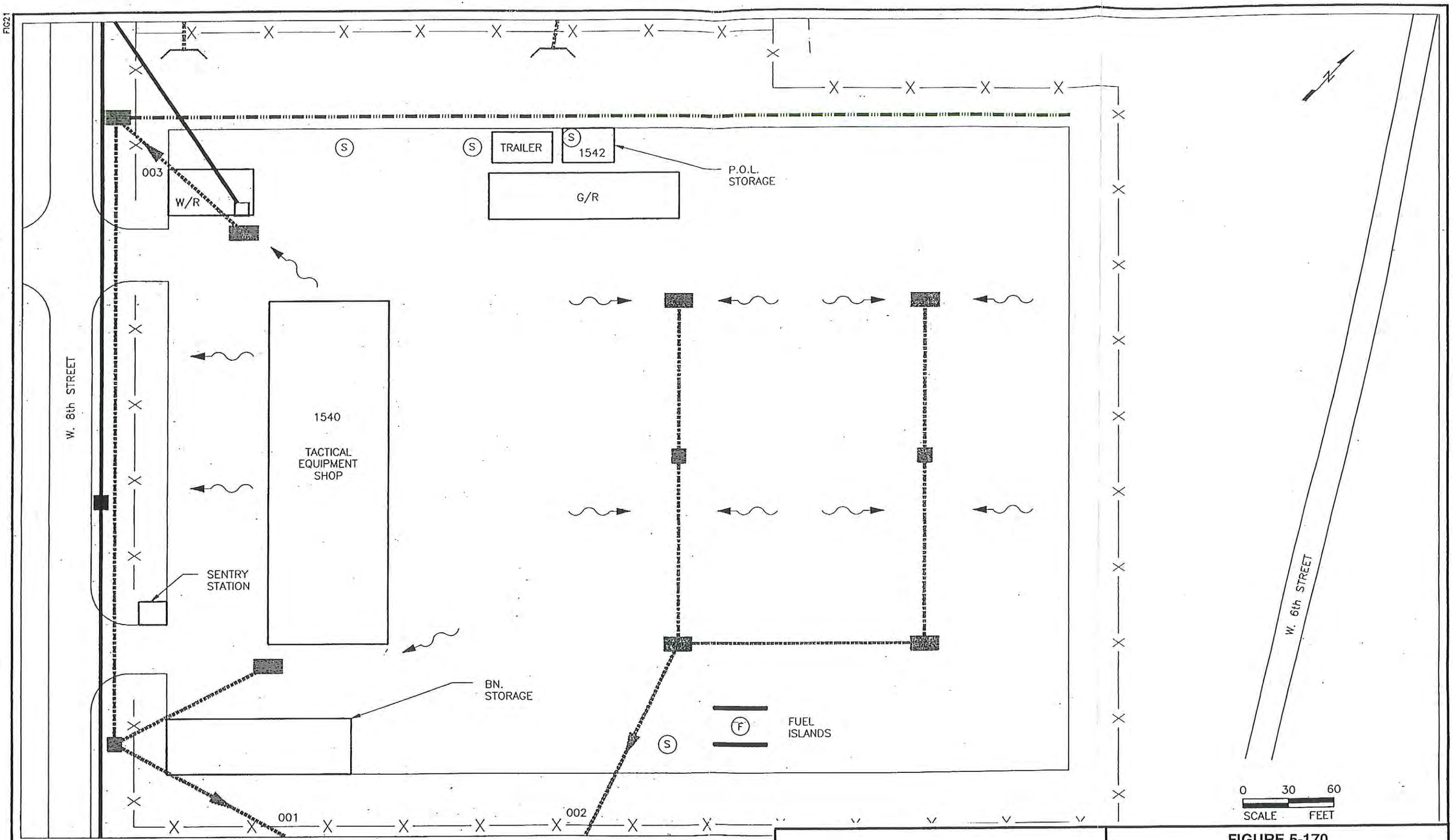
SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

LEGEND

—x——x—	FENCE LINE
▬ ▬ ▬	STORM WATER DRAINAGE DIVIDE
001	STORM WATER OUTFALL LOCATION AND NUMBER
	FLOW DIRECTION – SHEET FLOW
	OPEN STORM WATER DITCH
	SANITARY SEWER MANHOLE
	STORM WATER CURB OR GRATE INLET
	STORM WATER CULVERT
	TRENCH GRATE
	BERM
SP	SPILLS/LEAKS
F	FUEL PUMP
S	STORAGE AREA
S	STORAGE AREA – COVERED
G/R	GREASE RACK/PAD
O/W	OIL/WATER SEPARATOR
W/R	WASH RACK/PAD

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

FIG21



SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-170

2ND SQUADRON,4TH CAVALRY MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

RUST ENVIRONMENT & INFRASTRUCTURE

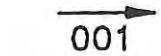
FIGURE 5-171
PHOTOGRAPHS
3RD BN 41ST FA MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

LEGEND


FENCE LINE

STORM WATER DRAINAGE DIVIDE



STORM WATER OUTFALL LOCATION AND NUMBER

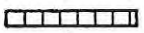

FLOW DIRECTION – SHEET FLOW

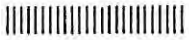

OPEN STORM WATER DITCH


SANITARY SEWER MANHOLE


STORM WATER CURB OR GRATE INLET


STORM WATER CULVERT


TRENCH GRATE


BERM

SPILLS/LEAKS

FUEL PUMP

STORAGE AREA

STORAGE AREA – COVERED

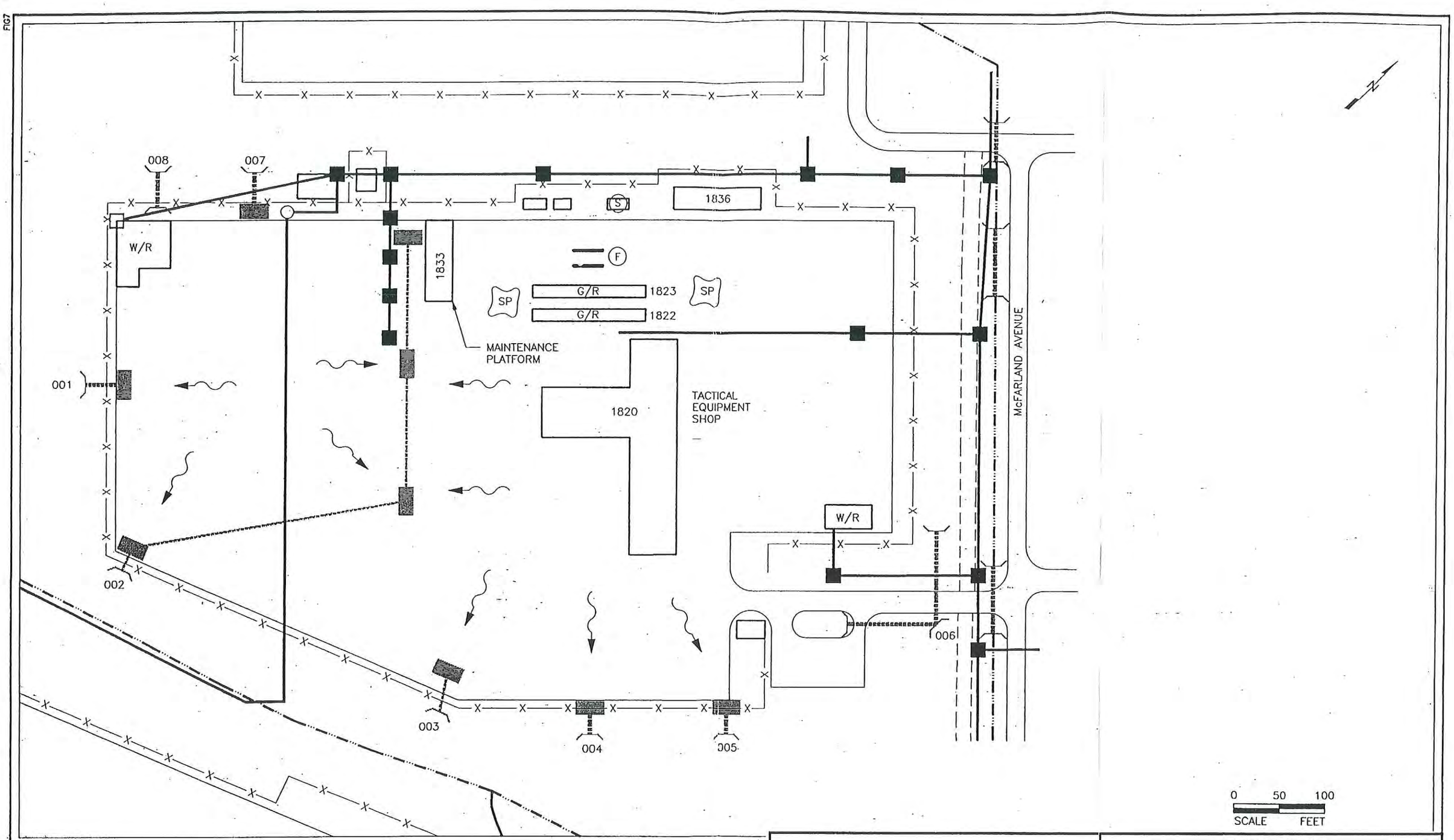
G/R GREASE RACK/PAD

O/W OIL/WATER SEPARATOR

W/R WASH RACK/PAD

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

FIG7



SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-172

3RD BN 41ST I FA MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-173
PHOTOGRAPHS
3RD BN 69TH ARMOR MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

LEGEND

FENCE LINE

STORM WATER DRAINAGE DIVIDE

STORM WATER OUTFALL LOCATION AND NUMBER


FLOW DIRECTION – SHEET FLOW

OPEN STORM WATER DITCH


SANITARY SEWER MANHOLE


STORM WATER CURB OR GRATE INLET


STORM WATER CULVERT

TRENCH GRATE


BERM

SPILLS/LEAKS

FUEL PUMP

STORAGE AREA

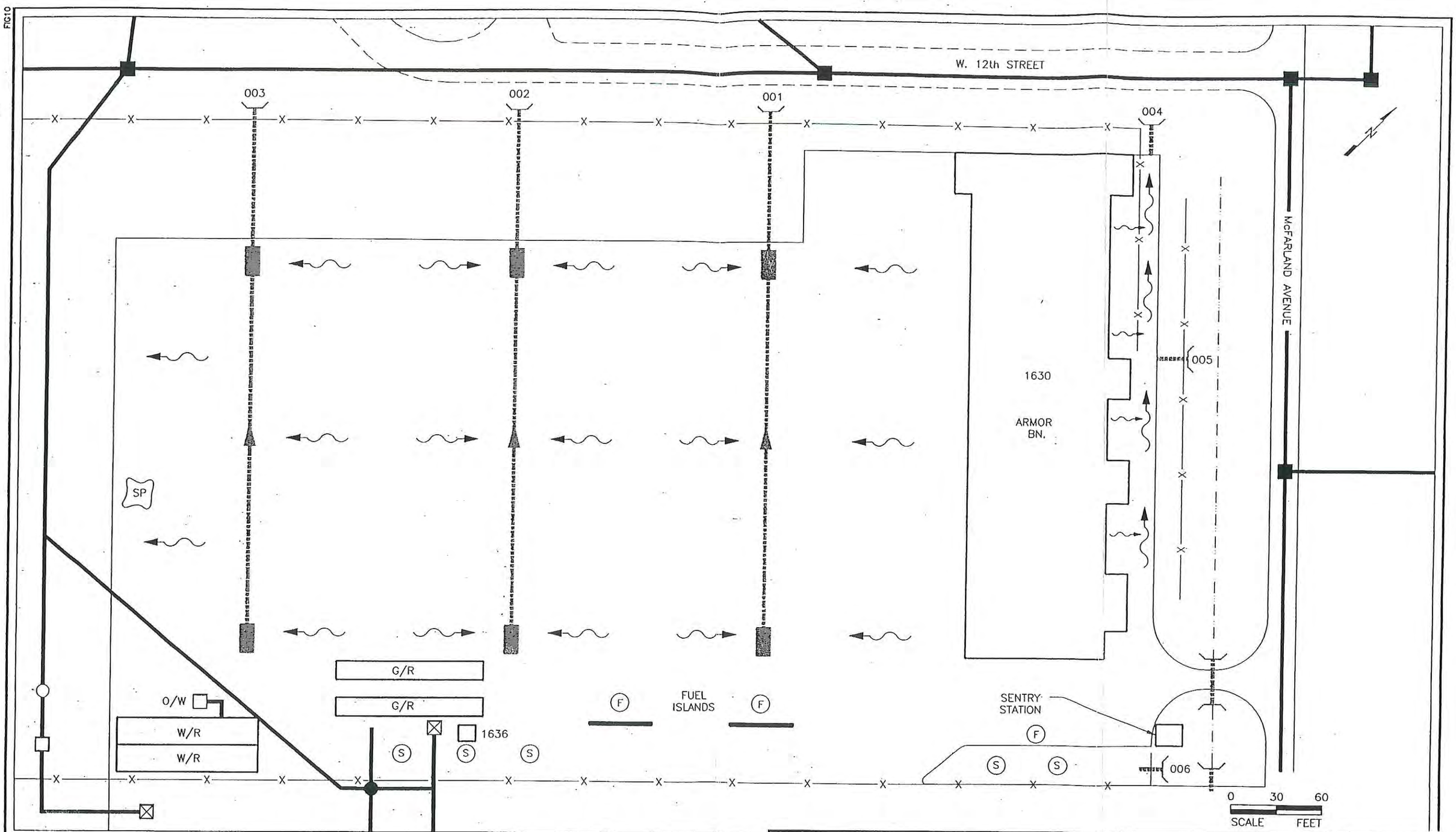
STORAGE AREA – COVERED

G/R GREASE RACK/PAD

O/W OIL/WATER SEPARATOR

W/R WASH RACK/PAD

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993



SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-174

3RD BN 69TH ARMOR MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-175
PHOTOGRAPHS
4TH BATTALION 64TH ARMOR MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

LEGEND

FENCE LINE

STORM WATER DRAINAGE DIVIDE

STORM WATER OUTFALL LOCATION AND NUMBER


FLOW DIRECTION – SHEET FLOW


OPEN STORM WATER DITCH


SANITARY SEWER MANHOLE


STORM WATER CURB OR GRATE INLET


STORM WATER CULVERT


TRENCH GRATE


BERM

SPILLS/LEAKS

FUEL PUMP

STORAGE AREA

STORAGE AREA – COVERED

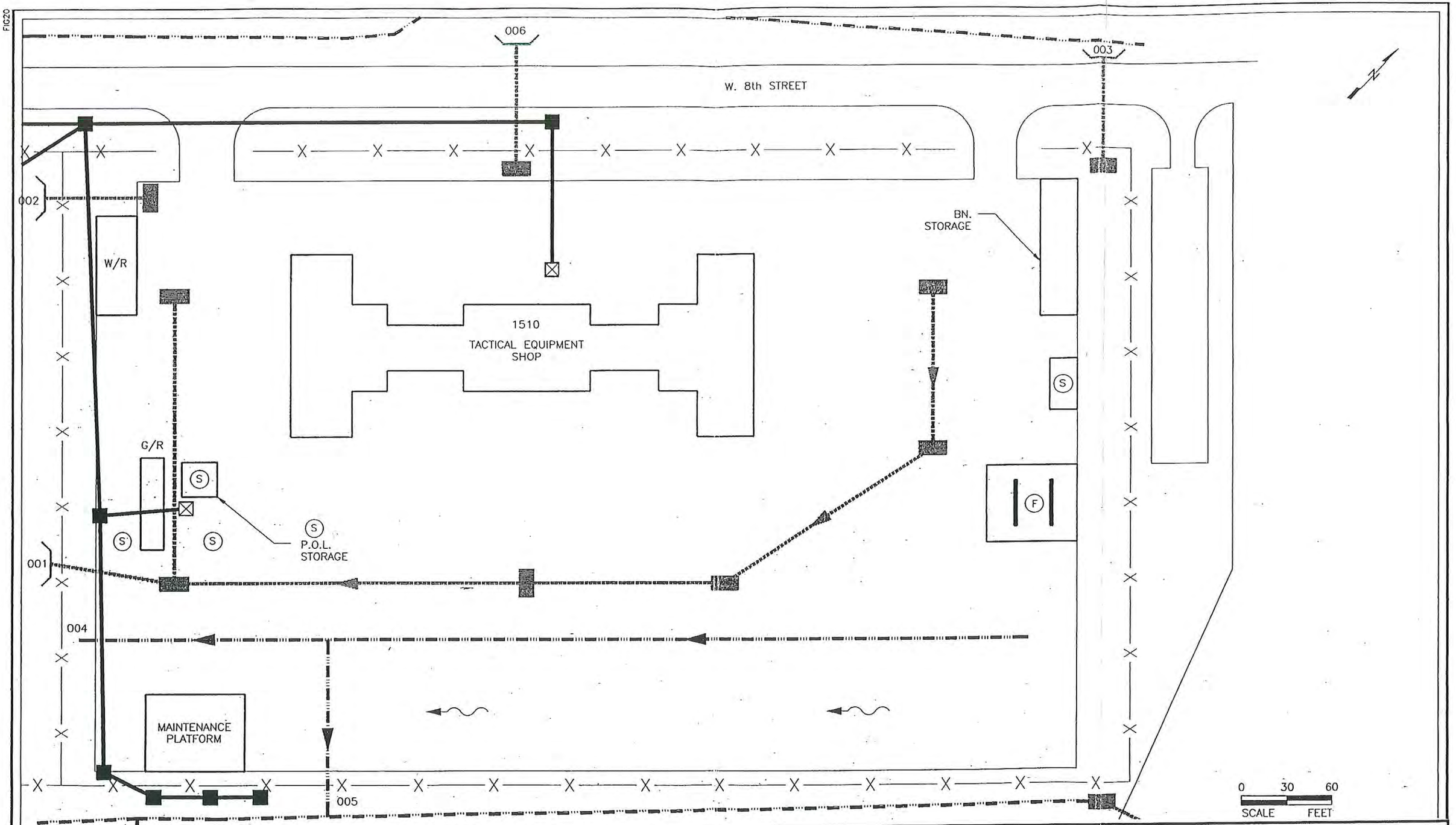
G/R GREASE RACK/PAD

O/W OIL/WATER SEPARATOR

W/R WASH RACK/PAD

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

FIG20

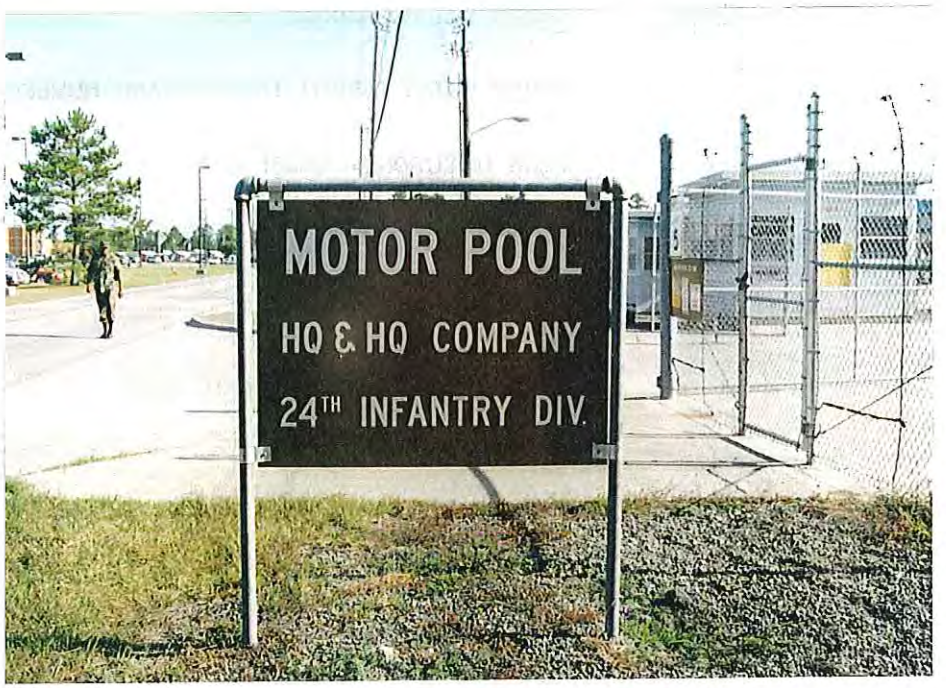


RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-176

4TH BATTALION 64TH ARMOR MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000



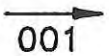
RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-177
PHOTOGRAPHS
HQ & HQ COMPANY 24TH INFANTRY
DIVISION MOTOR POOL
SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

LEGEND

FENCE LINE

STORM WATER DRAINAGE DIVIDE



STORM WATER OUTFALL LOCATION AND NUMBER

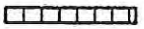

FLOW DIRECTION – SHEET FLOW

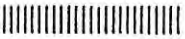
OPEN STORM WATER DITCH


SANITARY SEWER MANHOLE


STORM WATER CURB OR GRATE INLET


STORM WATER CULVERT


TRENCH GRATE


BERM

SPILLS/LEAKS

FUEL PUMP

STORAGE AREA

STORAGE AREA – COVERED

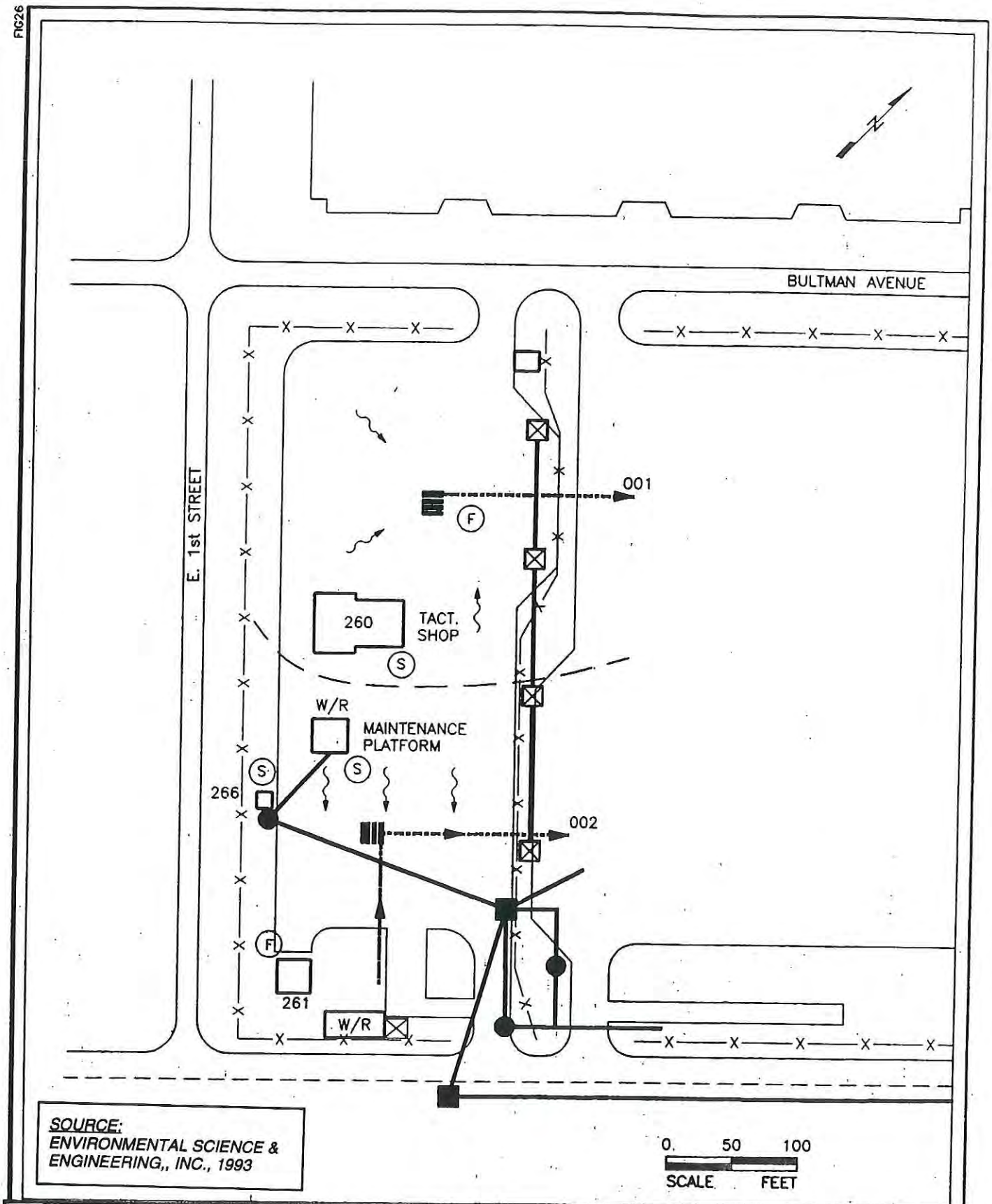
G/R GREASE RACK/PAD

O/W OIL/WATER SEPARATOR

W/R WASH RACK/PAD

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

FIG26

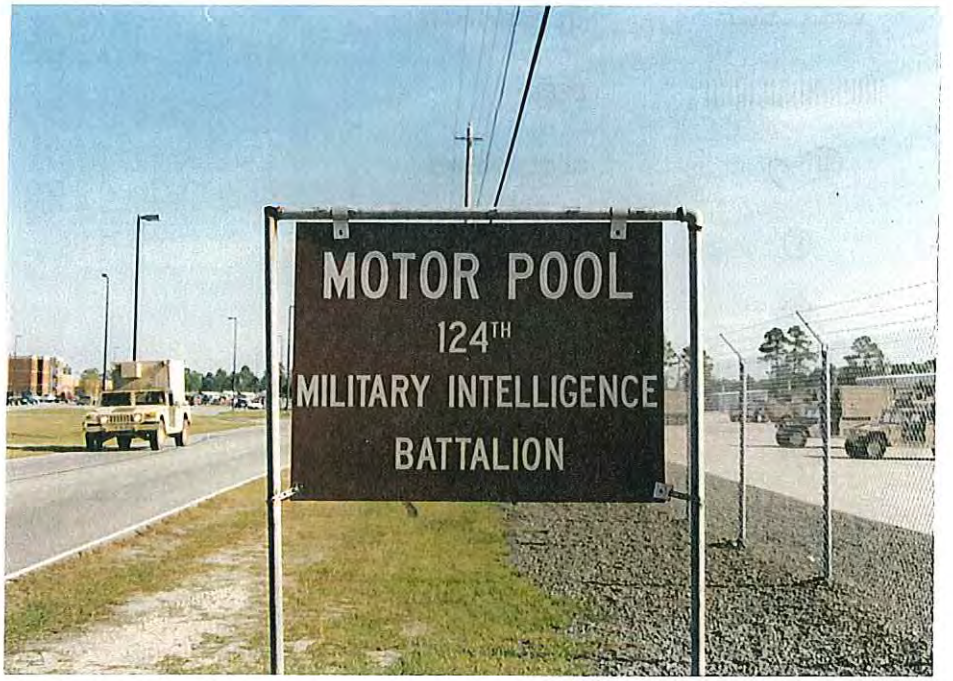


SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-178
HQ & HQ COMPANY 24TH INFANTRY DIVISION MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000



RUST ENVIRONMENT & INFRASTRUCTURE

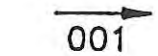
FIGURE 5-179

PHOTOGRAPHS
24TH MP CO/293RD MP CO, LAW ENFORCEMENT COMMAND, 124TH M. I. BATTALION MOTOR POOL
SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

LEGEND

FENCE LINE

STORM WATER DRAINAGE DIVIDE



STORM WATER OUTFALL LOCATION AND NUMBER

FLOW DIRECTION – SHEET FLOW

OPEN STORM WATER DITCH

SANITARY SEWER MANHOLE

STORM WATER CURB OR GRATE INLET

STORM WATER CULVERT

TRENCH GRATE

BERM

SPILLS/LEAKS

FUEL PUMP

STORAGE AREA

STORAGE AREA – COVERED

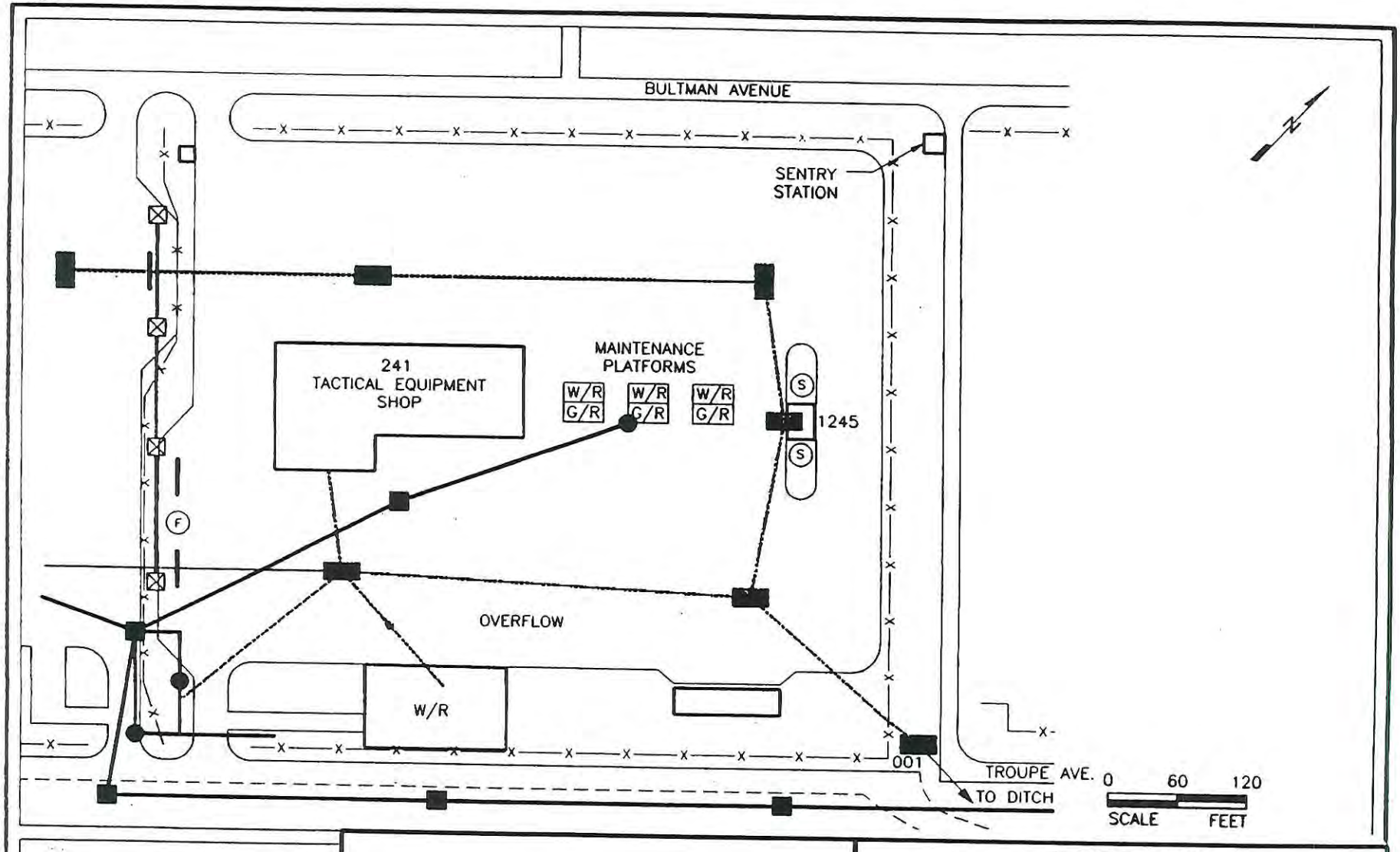
G/R — GREASE RACK/PAD

O/W — OIL/WATER SEPARATOR

W/R — WASH RACK/PAD

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

FIG27



SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-180

24TH MP CO/293RD MP CO, LAW ENFORCEMENT COMMAND, 124TH M.I. BATTALION MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

RUST ENVIRONMENT & INFRASTRUCTURE

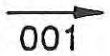
FIGURE 5-181

PHOTOGRAPHS
24TH SUPPORT BATTALION (FORWARD)
MAINT. FACILITY BUILDING 4577 MOTOR POOL
SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

LEGEND

FENCE LINE

STORM WATER DRAINAGE DIVIDE



STORM WATER OUTFALL LOCATION AND NUMBER

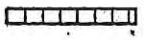
FLOW DIRECTION – SHEET FLOW

OPEN STORM WATER DITCH

SANITARY SEWER MANHOLE

STORM WATER CURB OR GRATE INLET

STORM WATER CULVERT



TRENCH GRATE

BERM

SPILLS/LEAKS

FUEL PUMP

STORAGE AREA

STORAGE AREA – COVERED

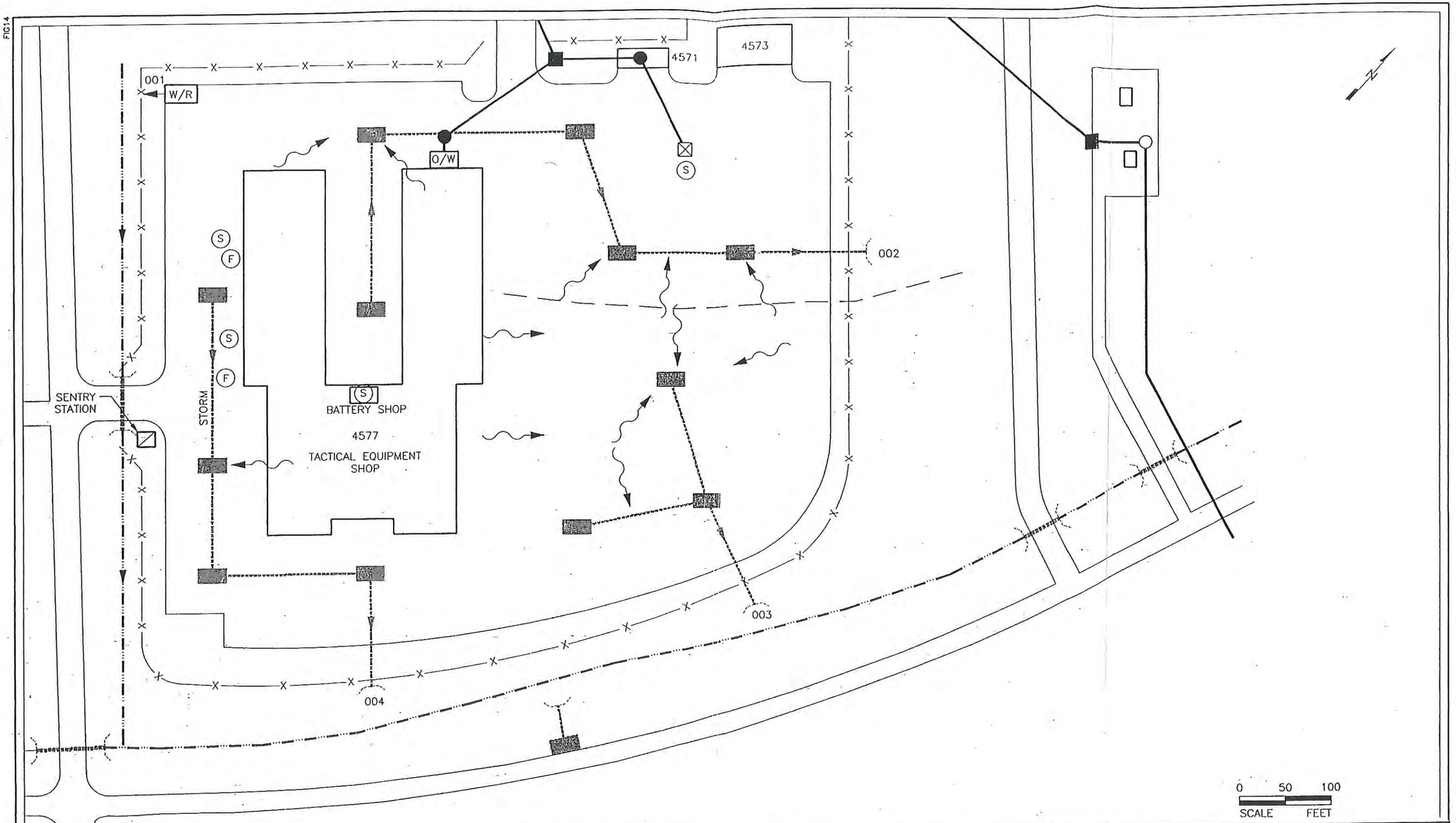
G/R GREASE RACK/PAD

O/W OIL/WATER SEPARATOR

W/R WASH RACK/PAD

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

FIG14

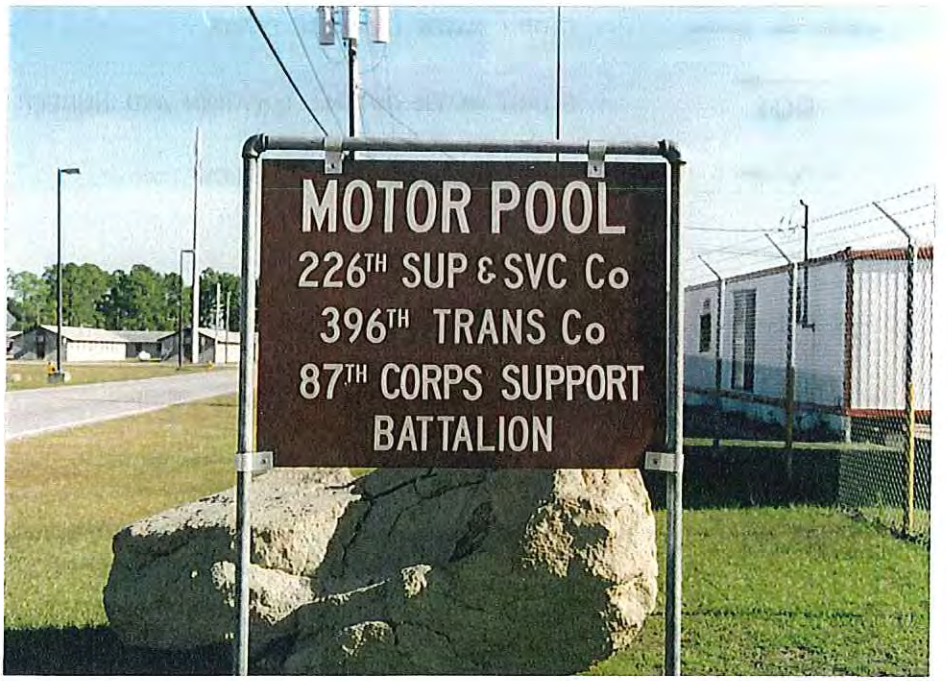


SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-182
24TH SUPPORT BATTALION (FORWARD)
MAINT. FACILITY BUILDING 4577 MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000



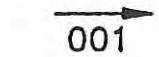
RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-183
PHOTOGRAPHS
226TH SUP & SVC CO., 396TH TRANS CO.,
87TH CORPS SUPPORT BATTALION MOTOR POOL
SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

LEGEND

FENCE LINE

STORM WATER DRAINAGE DIVIDE



STORM WATER OUTFALL LOCATION AND NUMBER

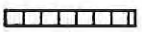
FLOW DIRECTION – SHEET FLOW

OPEN STORM WATER DITCH

SANITARY SEWER MANHOLE

STORM WATER CURB OR GRATE INLET

STORM WATER CULVERT



TRENCH GRATE

BERM

SPILLS/LEAKS

FUEL PUMP

STORAGE AREA

STORAGE AREA – COVERED

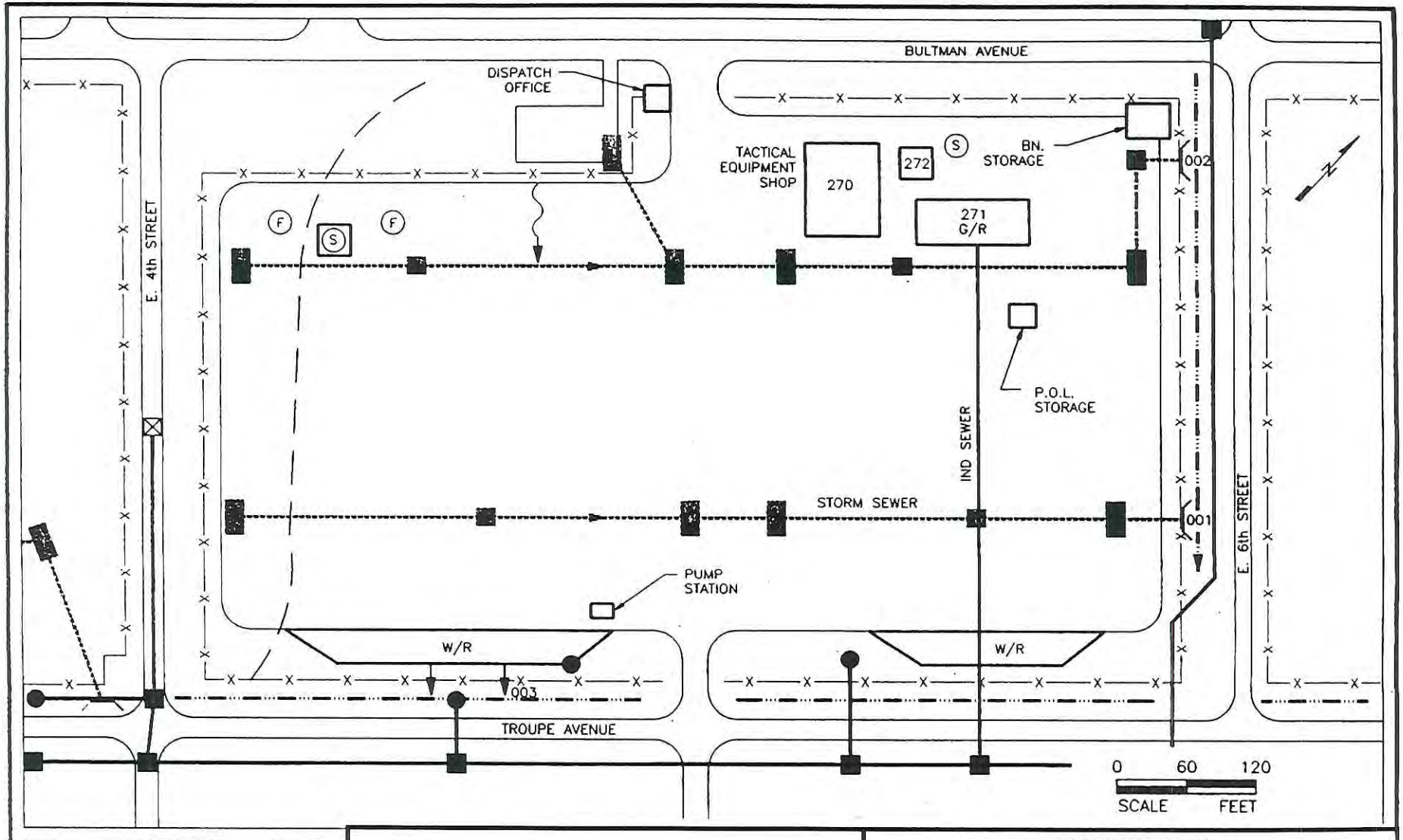
G/R — GREASE RACK/PAD

O/W — OIL/WATER SEPARATOR

W/R — WASH RACK/PAD

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

FIG29



SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-184
226 TH SUP & SVC CO., 396TH TRANS CO., 87TH CORPS SUPPORT BATTALION MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

RUST ENVIRONMENT & INFRASTRUCTURE

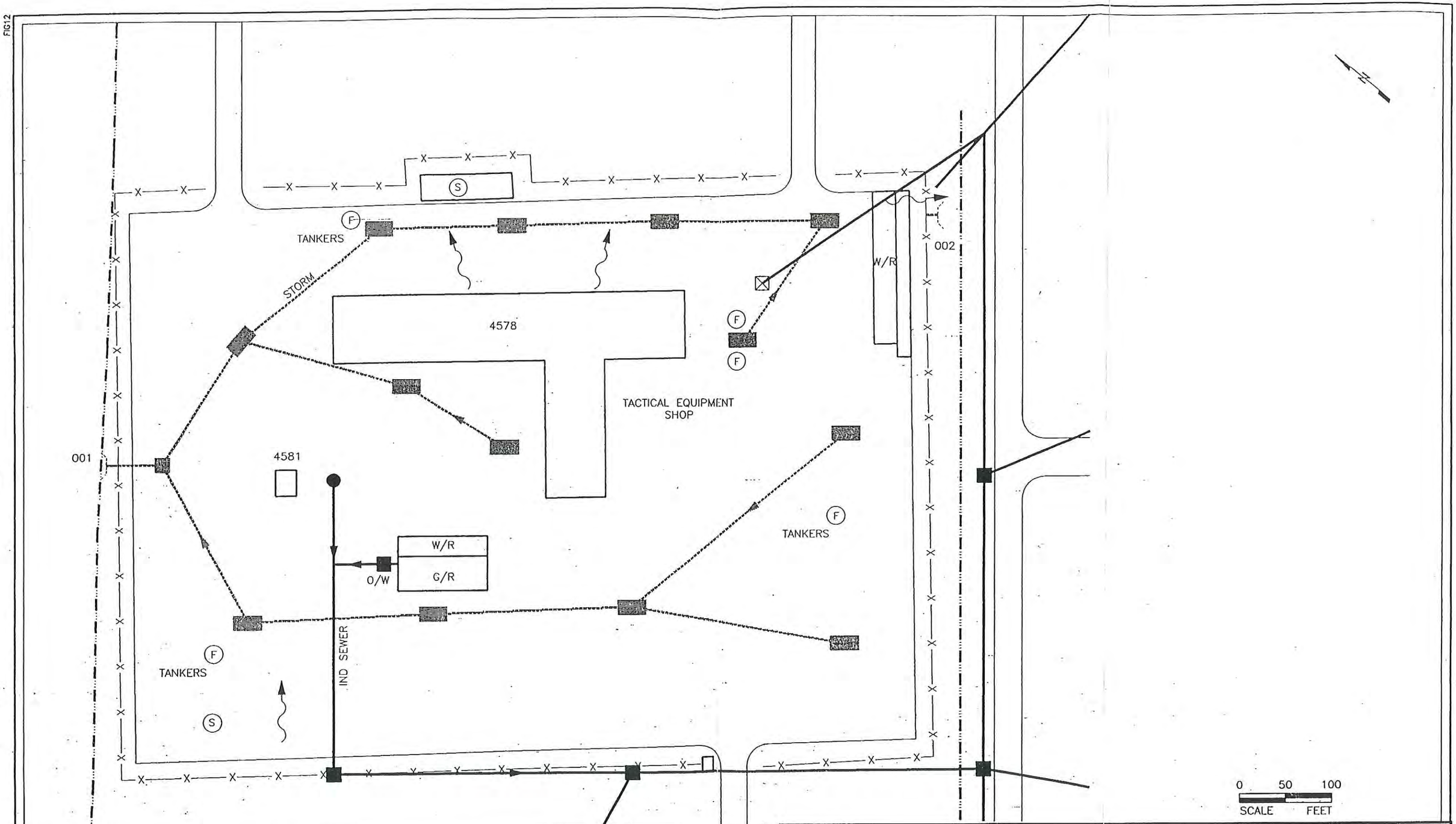
FIGURE 5-185
PHOTOGRAPHS
92ND ENGINEER COMBAT BATTALION (HEAVY)
MOTOR POOL
SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

LEGEND

—x——x—	FENCE LINE
▬ ▬ ▬	STORM WATER DRAINAGE DIVIDE
001	STORM WATER OUTFALL LOCATION AND NUMBER
	FLOW DIRECTION – SHEET FLOW
	OPEN STORM WATER DITCH
	SANITARY SEWER MANHOLE
	STORM WATER CURB OR GRATE INLET
	STORM WATER CULVERT
	TRENCH GRATE
	BERM
SP	SPILLS/LEAKS
F	FUEL PUMP
S	STORAGE AREA
S	STORAGE AREA – COVERED
G/R	GREASE RACK/PAD
O/W	OIL/WATER SEPARATOR
W/R	WASH RACK/PAD

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

FIG12



SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-186
92ND ENGINEER COMBAT BATTALION (HEAVY) MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

RUST ENVIRONMENT & INFRASTRUCTURE

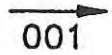
FIGURE 5-187
PHOTOGRAPHS
224TH SUPPORT BN MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

LEGEND

FENCE LINE

STORM WATER DRAINAGE DIVIDE



STORM WATER OUTFALL LOCATION AND NUMBER

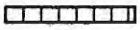
FLOW DIRECTION – SHEET FLOW

OPEN STORM WATER DITCH

SANITARY SEWER MANHOLE

STORM WATER CURB OR GRATE INLET

STORM WATER CULVERT



TRENCH GRATE

BERM

SPILLS/LEAKS

FUEL PUMP

STORAGE AREA

STORAGE AREA – COVERED

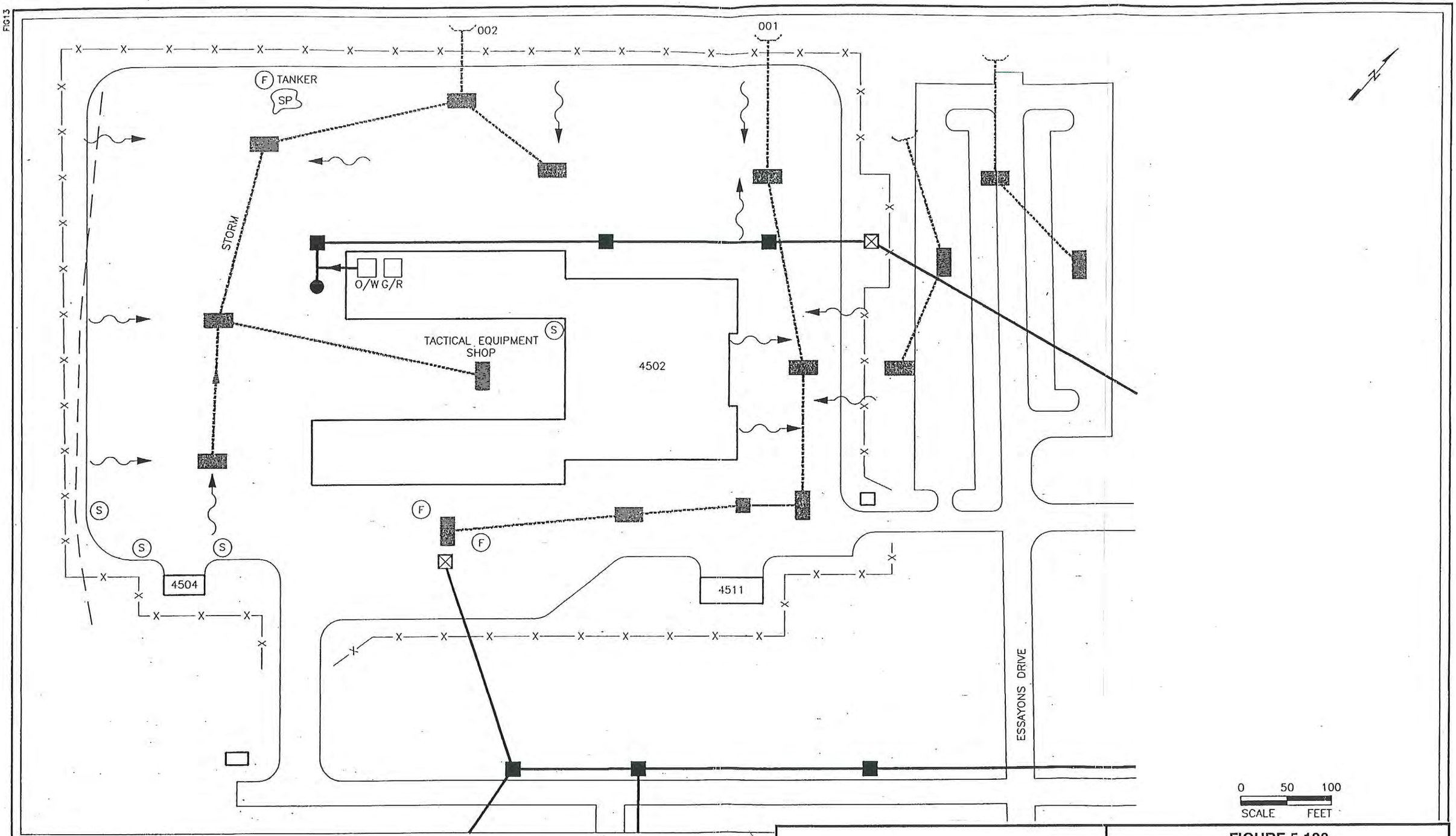
G/R — GREASE RACK/PAD

O/W — OIL/WATER SEPARATOR

W/R — WASH RACK/PAD

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

FIG13



SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-188

224TH SUPORT BN MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-189

PHOTOGRAPHS
HHD/632 MAINTENANCE, 87TH MAINTENANCE BATTALION, 94TH MAINTENANCE MOTOR POOL
SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

LEGEND

FENCE LINE

STORM WATER DRAINAGE DIVIDE

STORM WATER OUTFALL LOCATION AND NUMBER

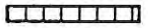

FLOW DIRECTION – SHEET FLOW

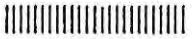

OPEN STORM WATER DITCH


SANITARY SEWER MANHOLE


STORM WATER CURB OR GRATE INLET


STORM WATER CULVERT


TRENCH GRATE


BERM

SPILLS/LEAKS

FUEL PUMP

STORAGE AREA

STORAGE AREA – COVERED

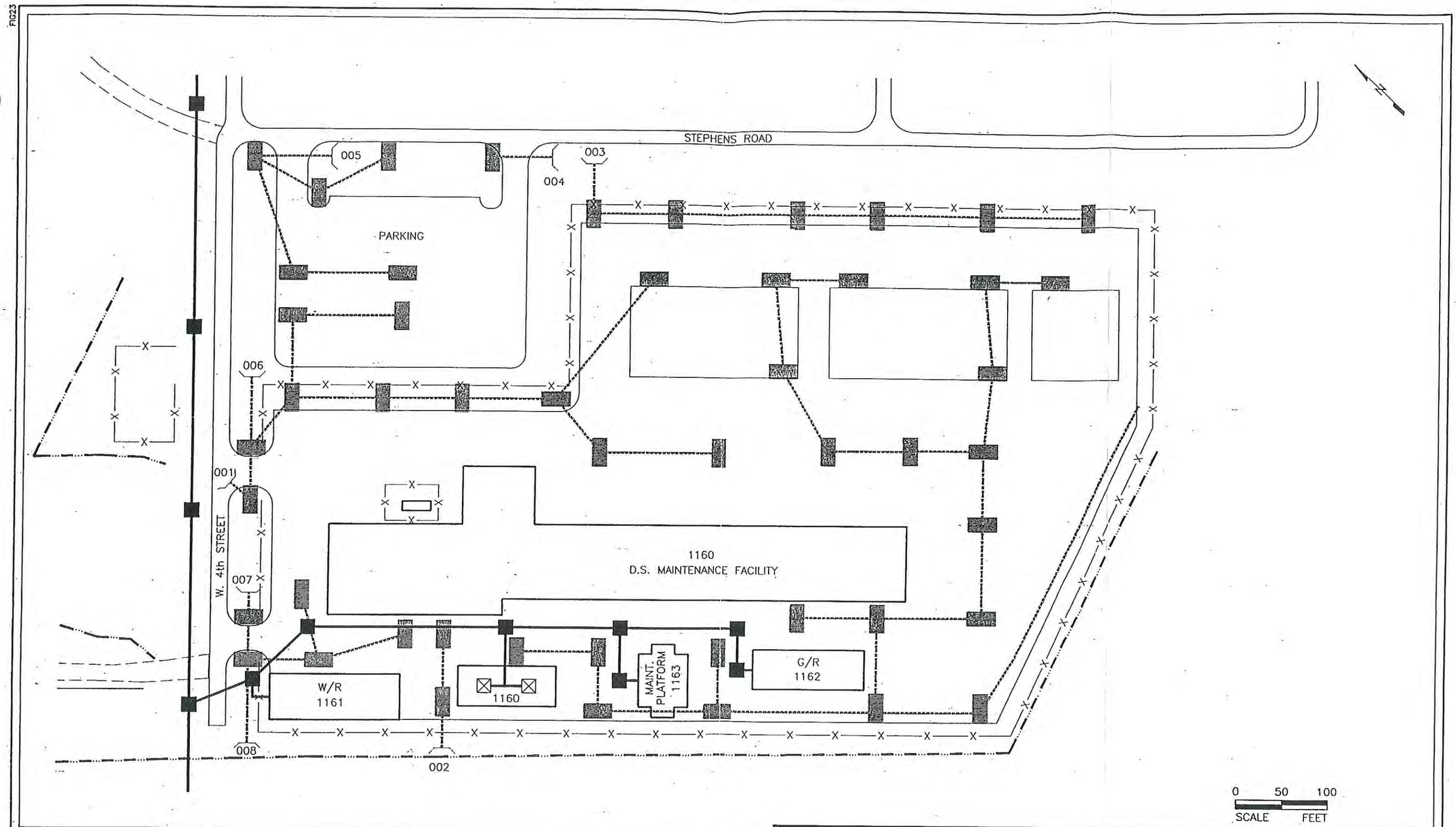
G/R GREASE RACK/PAD

O/W OIL/WATER SEPARATOR

W/R WASH RACK/PAD

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

FIG23



SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-190

HHD/632 MAINTENANCE , 87TH MAINTENANCE BATTALION, 94TH MAINTENANCE MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-191

PHOTOGRAPHS
724TH SPT BN (MAIN) DIRECT SUPPORT MAINT. FAC.
COMPANIES A, B, C, D, E MOTOR POOL
SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

LEGEND


FENCE LINE

STORM WATER DRAINAGE DIVIDE

STORM WATER OUTFALL LOCATION AND NUMBER

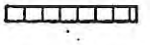

FLOW DIRECTION – SHEET FLOW


OPEN STORM WATER DITCH


SANITARY SEWER MANHOLE


STORM WATER CURB OR GRATE INLET


STORM WATER CULVERT


TRENCH GRATE


BERM

SPILLS/LEAKS

FUEL PUMP

STORAGE AREA

STORAGE AREA – COVERED

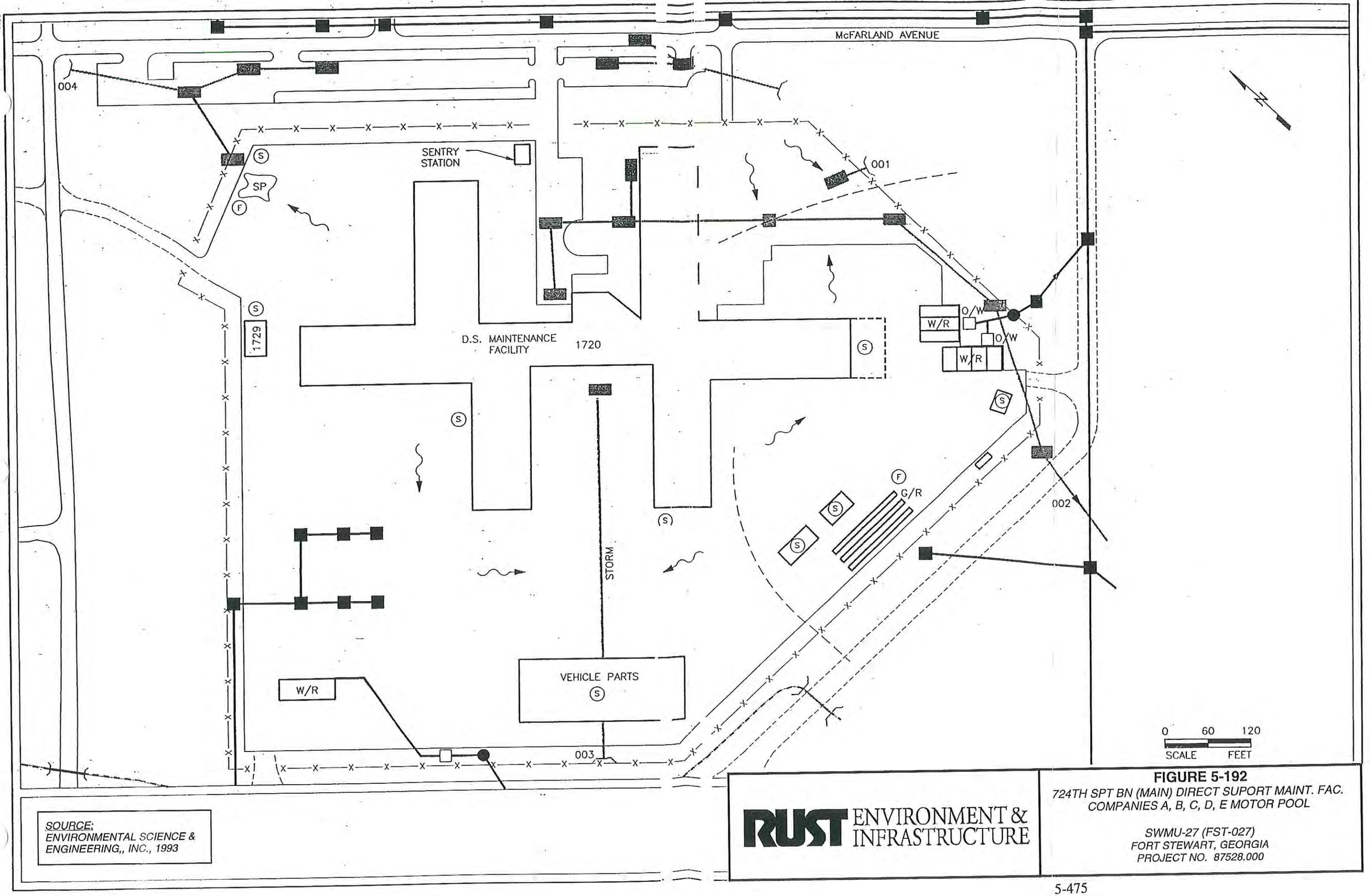
G/R GREASE RACK/PAD

O/W OIL/WATER SEPARATOR

W/R WASH RACK/PAD

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

FIG9



SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-192
724TH SPT BN (MAIN) DIRECT SUPORT MAINT. FAC.
COMPANIES A, B, C, D, E MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

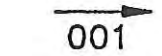
RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-193
PHOTOGRAPHS
724TH SPT BN (MAIN) ORGANIZATIONAL MAINT. FAC.
COMPANIES A, B MOTOR POOL
SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

LEGEND

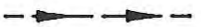
FENCE LINE

STORM WATER DRAINAGE DIVIDE



STORM WATER OUTFALL LOCATION AND NUMBER

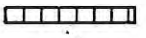

FLOW DIRECTION – SHEET FLOW


OPEN STORM WATER DITCH


SANITARY SEWER MANHOLE


STORM WATER CURB OR GRATE INLET


STORM WATER CULVERT


TRENCH GRATE


BERM

SPILLS/LEAKS

FUEL PUMP

STORAGE AREA

STORAGE AREA – COVERED

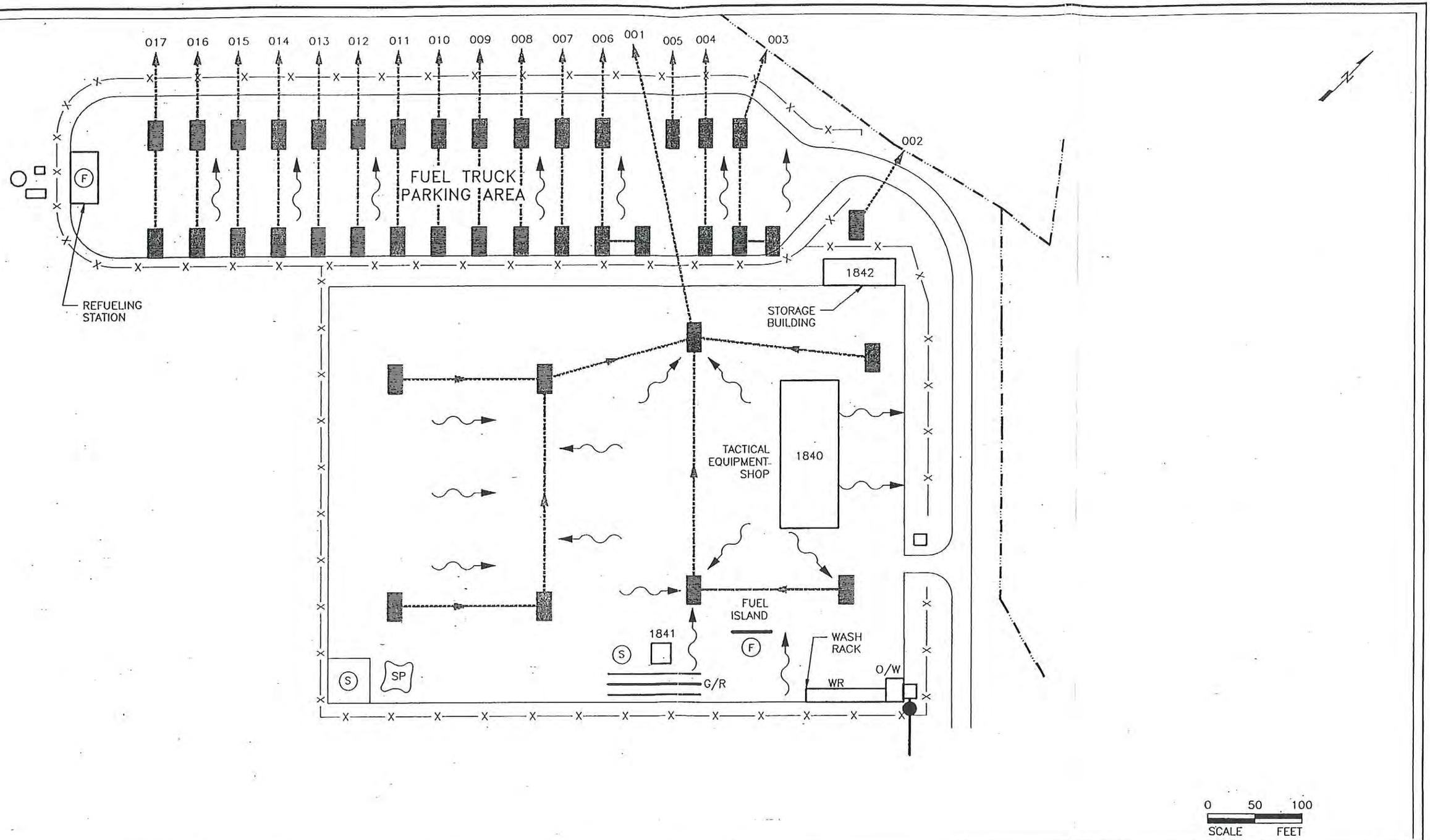
G/R GREASE RACK/PAD

O/W OIL/WATER SEPARATOR

W/R WASH RACK/PAD

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

FIG6



SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-194

724TH SPT BN (MAIN) ORGANIZATIONAL MAINT. FAC.
COMPANIES A, B MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

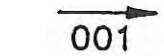
RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-195
PHOTOGRAPHS
24TH INFANTRY DIVISION (MECHANIZED) ENGINEER BRIGADE MOTOR POOL
SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

LEGEND

FENCE LINE

STORM WATER DRAINAGE DIVIDE



STORM WATER OUTFALL LOCATION AND NUMBER

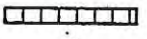
FLOW DIRECTION – SHEET FLOW

OPEN STORM WATER DITCH

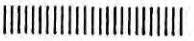
SANITARY SEWER MANHOLE

STORM WATER CURB OR GRATE INLET

STORM WATER CULVERT



TRENCH GRATE



BERM

SPILLS/LEAKS

FUEL PUMP

STORAGE AREA

STORAGE AREA – COVERED

G/R — GREASE RACK/PAD

O/W — OIL/WATER SEPARATOR

W/R — WASH RACK/PAD

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

WILSON AVENUE

W. 18th STREET

BN. STORAGE

W/R
S
SP
G/R

1000 GAL. WASTE OIL TANK (UG)

MAINTENANCE PAD

IND WASTE

G/R
SP
W/R

002

001

P.O.L. STORAGE
S 1343

1340

1346
F

G/R
G/R
G/R

TAC. EQUIPMENT SHOP

W/R
1347

O/W

0 50 100
SCALE FEET

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-196
24TH INFANTRY DIVISION (MECHANIZED) ENGINEER BRIGADE MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

RUST ENVIRONMENT & INFRASTRUCTURE

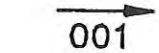
FIGURE 5-197
PHOTOGRAPHS
DEH EQUIPMENT YARD MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

LEGEND


FENCE LINE

STORM WATER DRAINAGE DIVIDE



STORM WATER OUTFALL LOCATION AND NUMBER


FLOW DIRECTION – SHEET FLOW

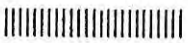
OPEN STORM WATER DITCH

SANITARY SEWER MANHOLE


STORM WATER CURB OR GRATE INLET


STORM WATER CULVERT

TRENCH GRATE


BERM

SPILLS/LEAKS

FUEL PUMP

STORAGE AREA

STORAGE AREA – COVERED

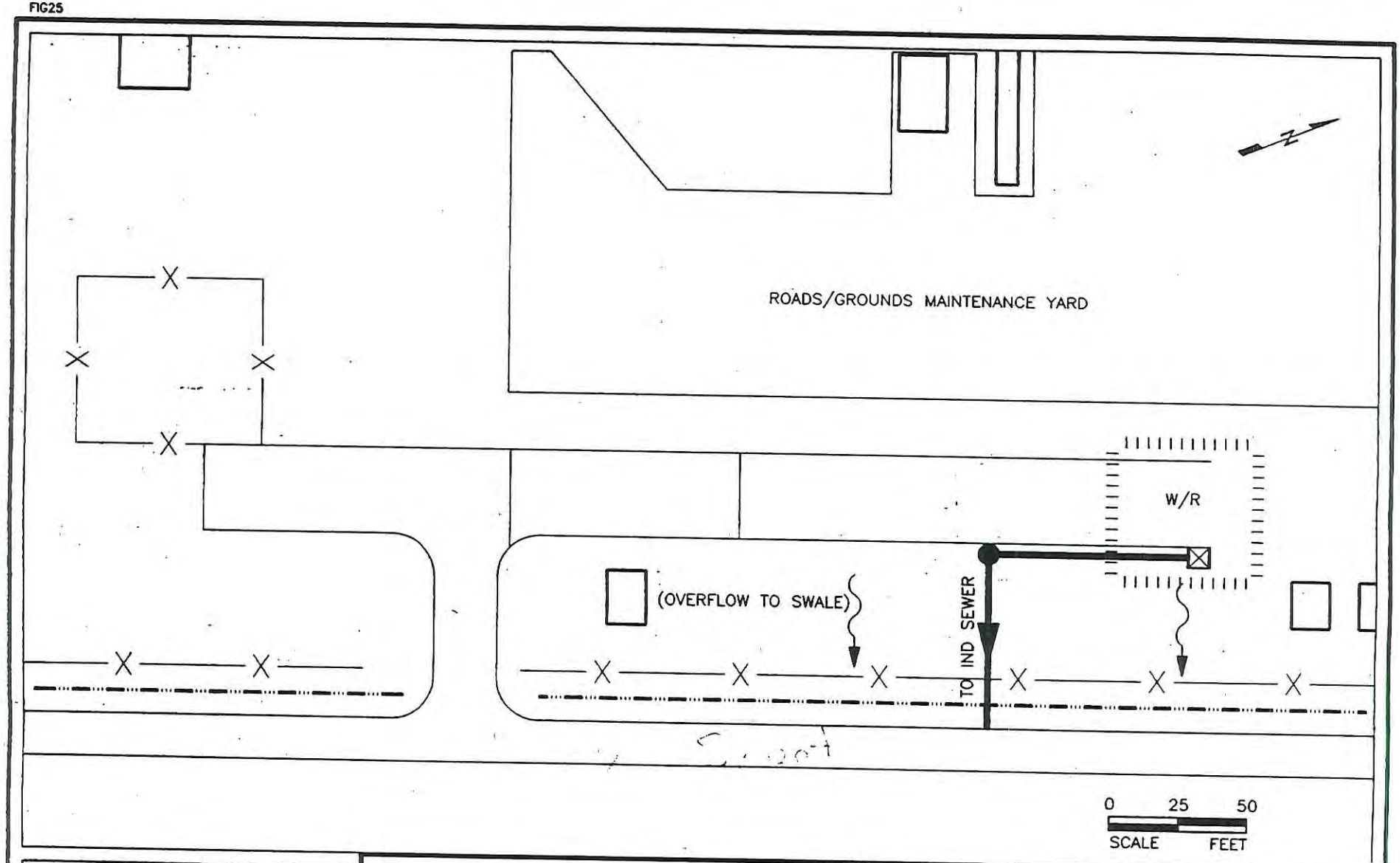
G/R GREASE RACK/PAD

O/W OIL/WATER SEPARATOR

W/R WASH RACK/PAD

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

FIG25



SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-198

DEH EQUIPMENT YARD MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-199

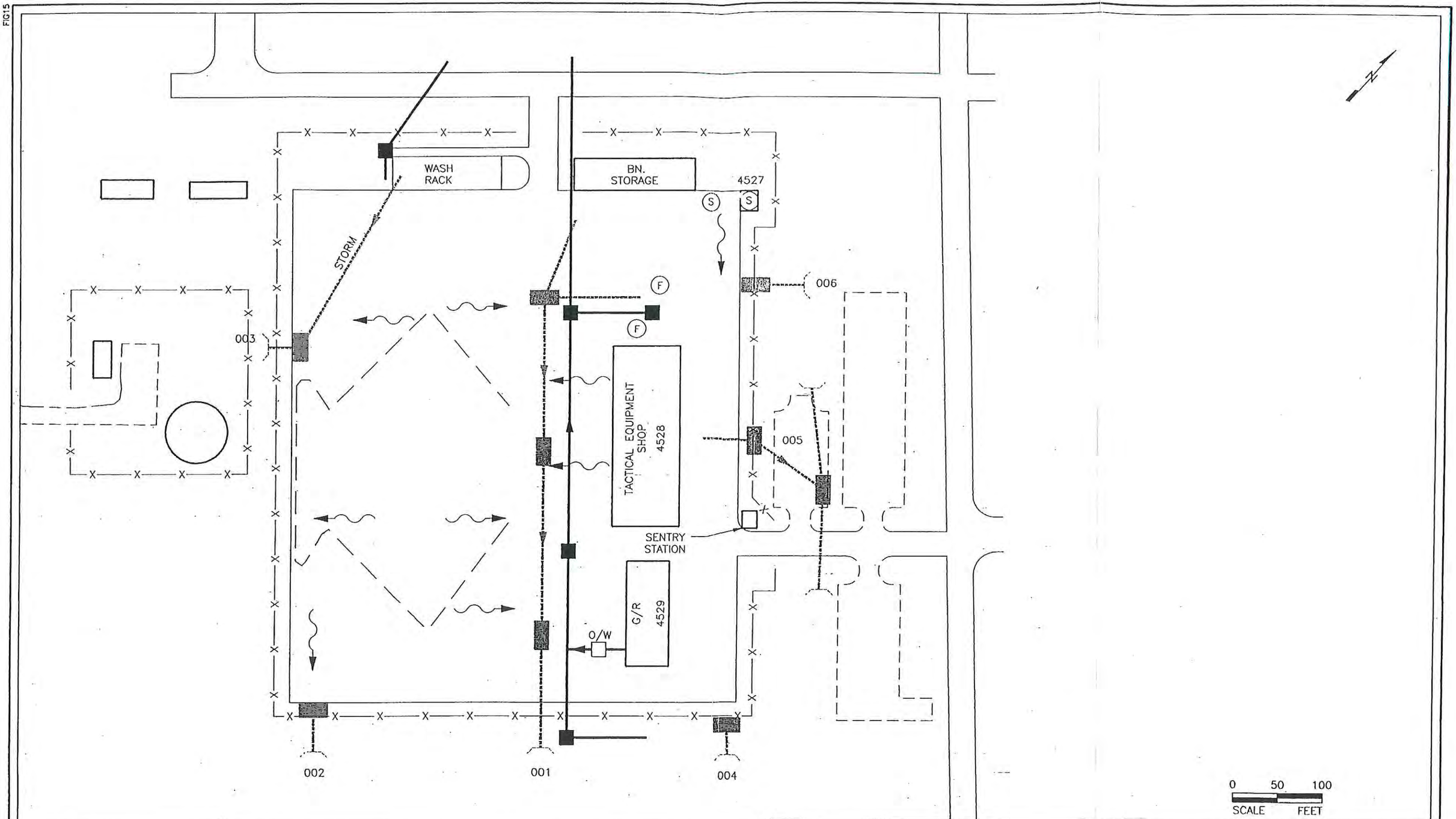
PHOTOGRAPHS
DISCOM MAINT. FAC., HQS & HQS CO, 91ST CHEM CO, 24TH PER SVC CO, 124TH REPL CO MOTOR POOL
SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

LEGEND

—x——x—	FENCE LINE
	STORM WATER DRAINAGE DIVIDE
001	STORM WATER OUTFALL LOCATION AND NUMBER
	FLOW DIRECTION – SHEET FLOW
	OPEN STORM WATER DITCH
	SANITARY SEWER MANHOLE
	STORM WATER CURB OR GRATE INLET
	STORM WATER CULVERT
	TRENCH GRATE
	BERM
SP	SPILLS/LEAKS
F	FUEL PUMP
S	STORAGE AREA
S	STORAGE AREA – COVERED
G/R	GREASE RACK/PAD
O/W	OIL/WATER SEPARATOR
W/R	WASH RACK/PAD

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

FIG15



SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-200
DISCOM MAINT. FAC., HQS & HQS CO, 91ST CHEM CO, 24TH PER SVC CO, 124TH REPL CO MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-201
PHOTOGRAPHS
HHB DIVARTY, G TAB 333, A/13 MLRS MOTOR POOL

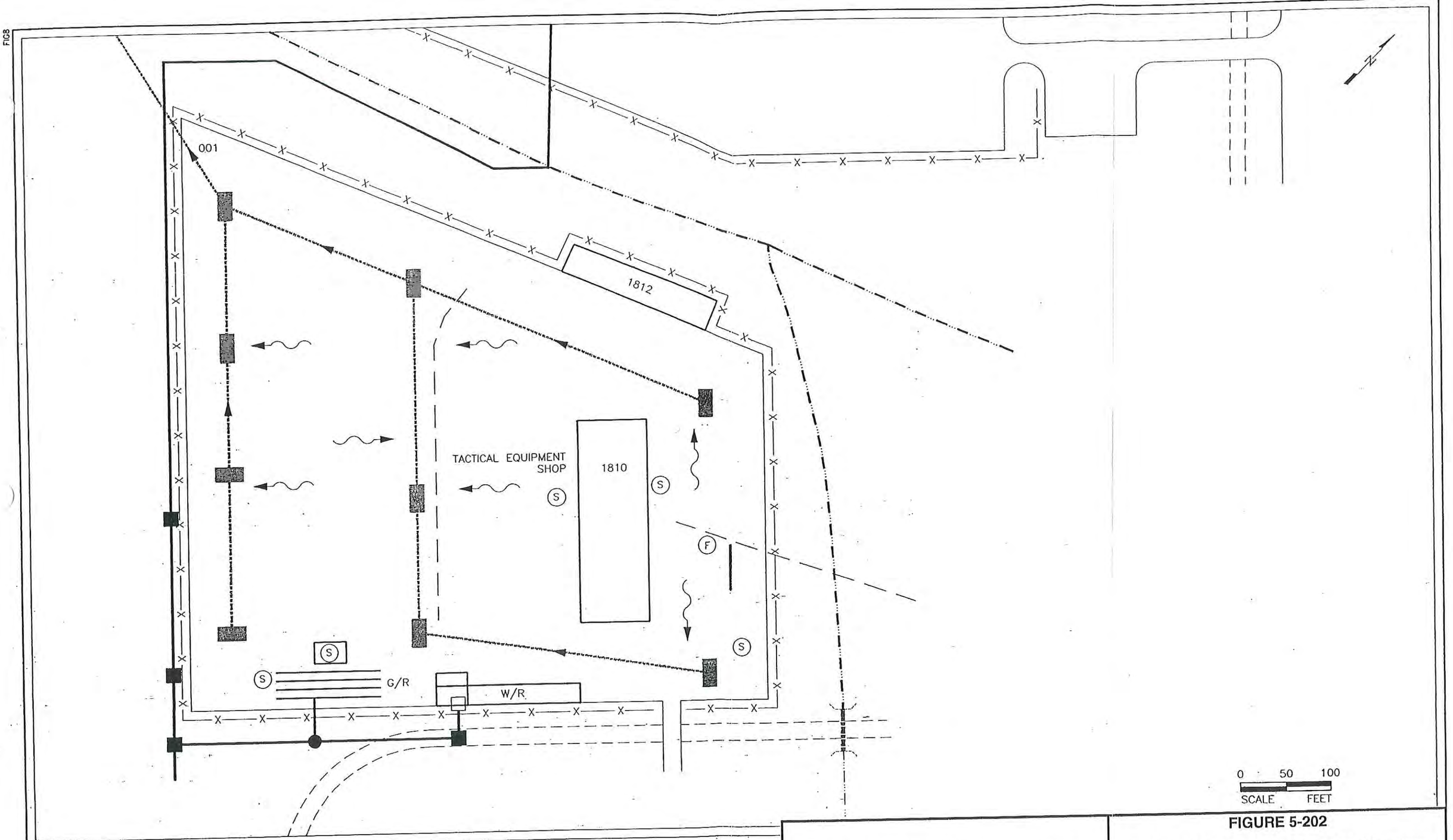
SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

LEGEND

—x——x—	FENCE LINE
▬ ▬ ▬	STORM WATER DRAINAGE DIVIDE
001	STORM WATER OUTFALL LOCATION AND NUMBER
	FLOW DIRECTION – SHEET FLOW
	OPEN STORM WATER DITCH
	SANITARY SEWER MANHOLE
	STORM WATER CURB OR GRATE INLET
	STORM WATER CULVERT
	TRENCH GRATE
	BERM
SP	SPILLS/LEAKS
F	FUEL PUMP
S	STORAGE AREA
S	STORAGE AREA – COVERED
G/R	GREASE RACK/PAD
O/W	OIL/WATER SEPARATOR
W/R	WASH RACK/PAD

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

FIG8



SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

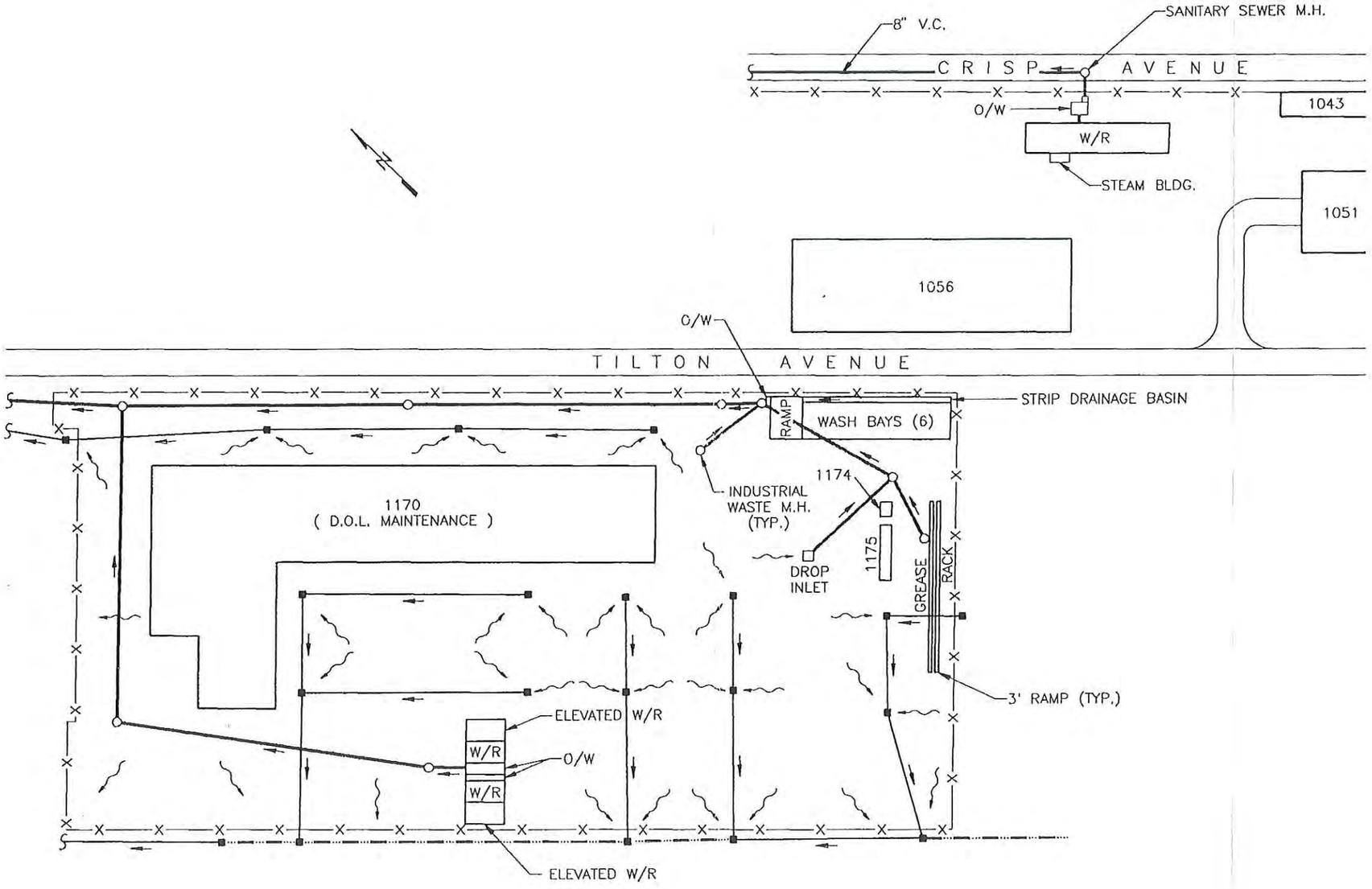
RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-202

HHB DIVARTY, G TAB 333, A/13 MLRS MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

DWG: C:\87528\52800DOL.DWG PLOT DATE: 1-17-94 C1409



SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

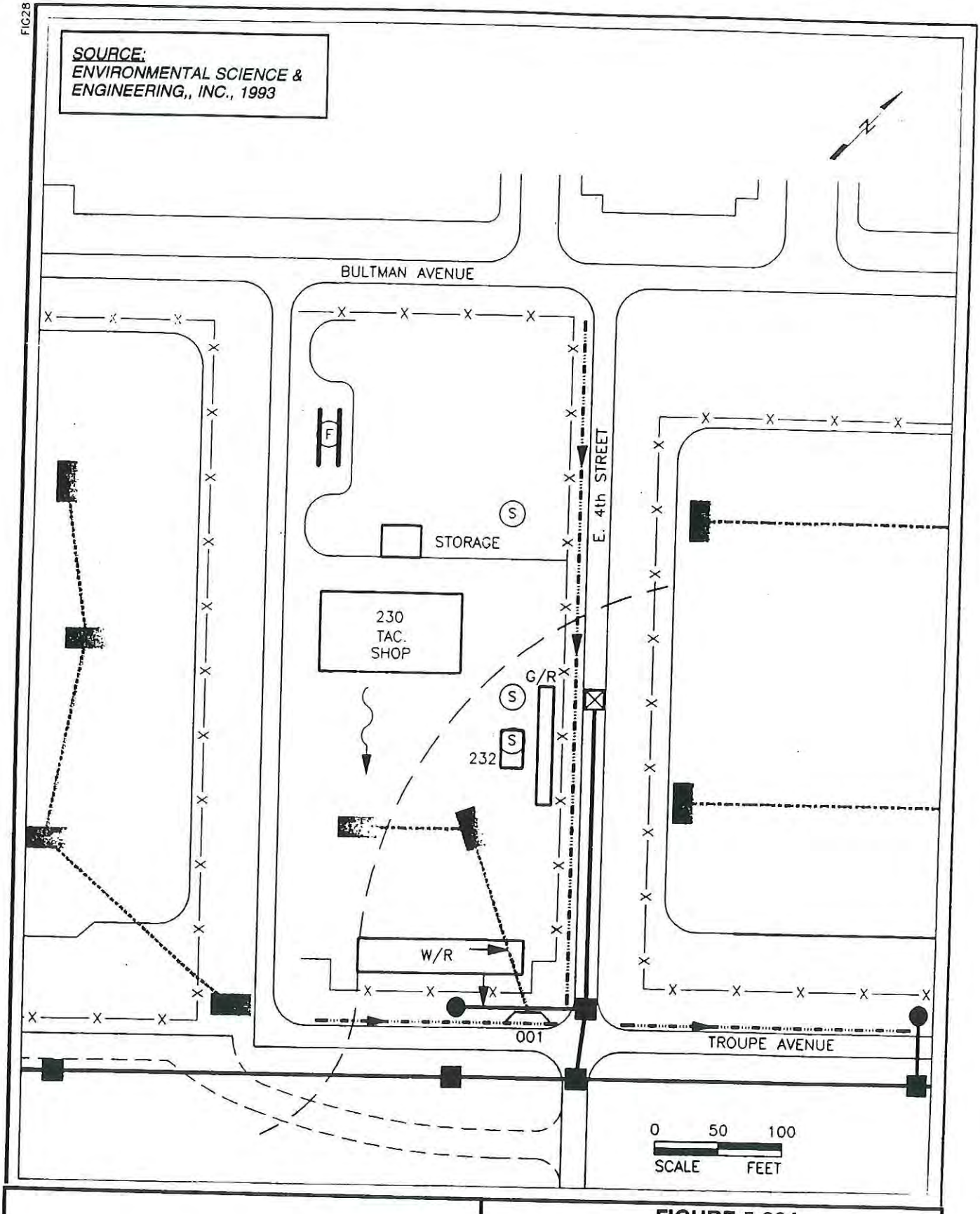
RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-203

DOL MAINTENANCE MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

FIG28



RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-204

DOL / 24TH MP MOTOR POOL

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

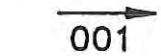
RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-205
PHOTOGRAPHS
REGIONAL TRAINING SITE MAINTENANCE
NATIONAL GUARD TRAINING CENTER
SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

LEGEND

FENCE LINE

STORM WATER DRAINAGE DIVIDE



STORM WATER OUTFALL LOCATION AND NUMBER

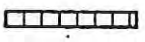

FLOW DIRECTION – SHEET FLOW


OPEN STORM WATER DITCH


SANITARY SEWER MANHOLE


STORM WATER CURB OR GRATE INLET


STORM WATER CULVERT


TRENCH GRATE


BERM

SPILLS/LEAKS

FUEL PUMP

STORAGE AREA

STORAGE AREA – COVERED

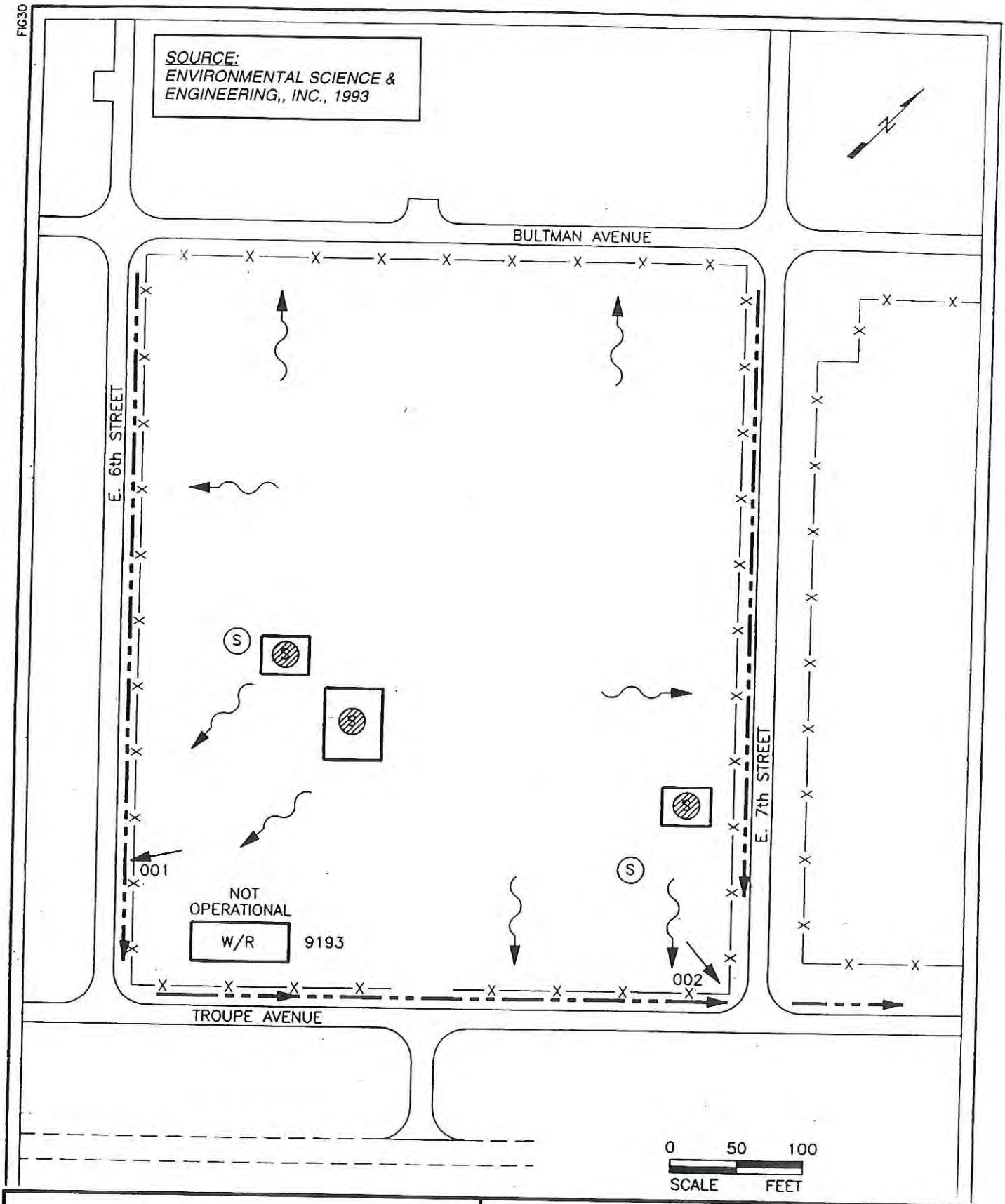
G/R GREASE RACK/PAD

O/W OIL/WATER SEPARATOR

W/R WASH RACK/PAD

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

FIG30

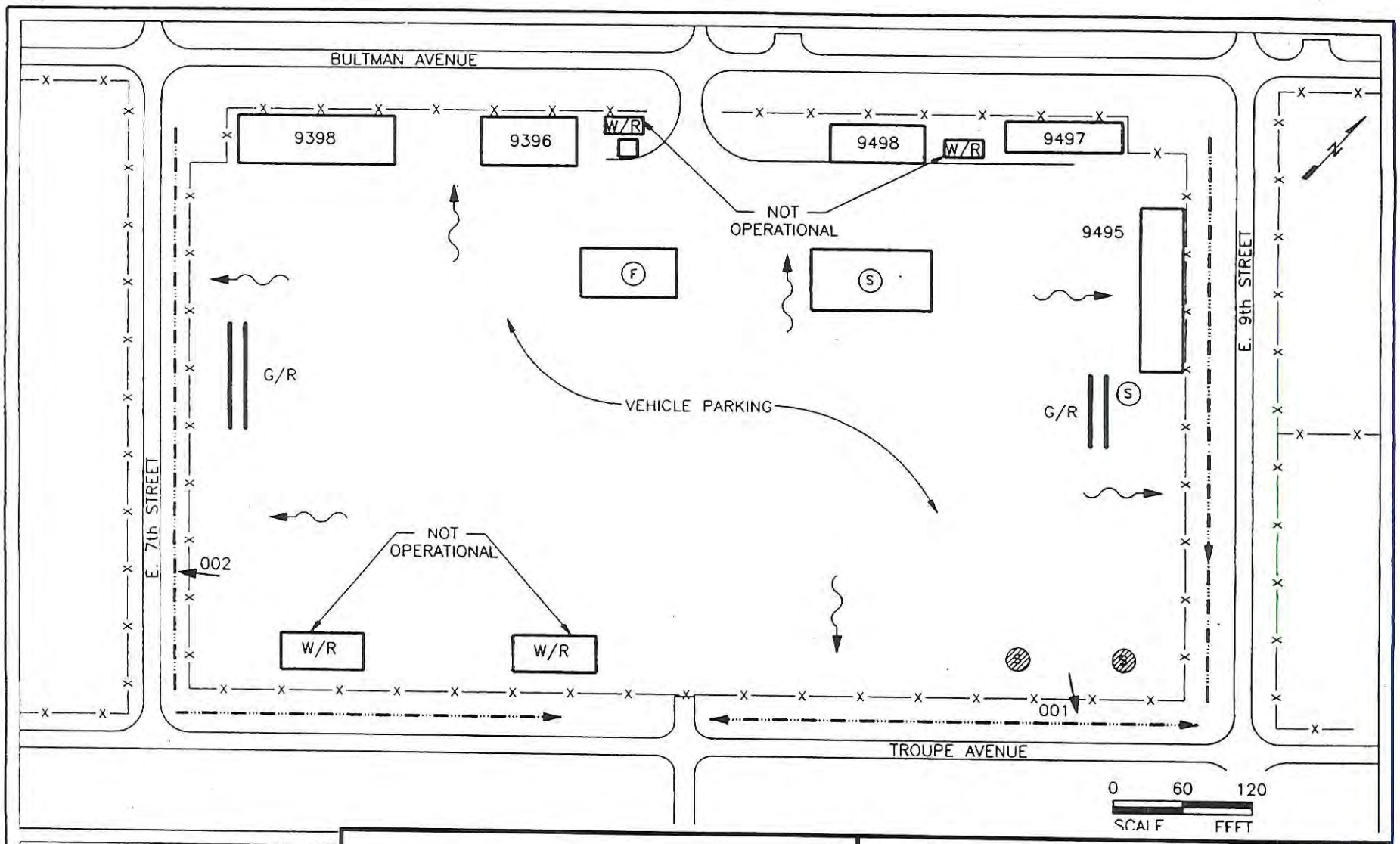


RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-206

REGIONAL TRAINING SITE MAINTENANCE
NATIONAL GUARD TRAINING CENTER
BLOCK 9100
SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

FIG31

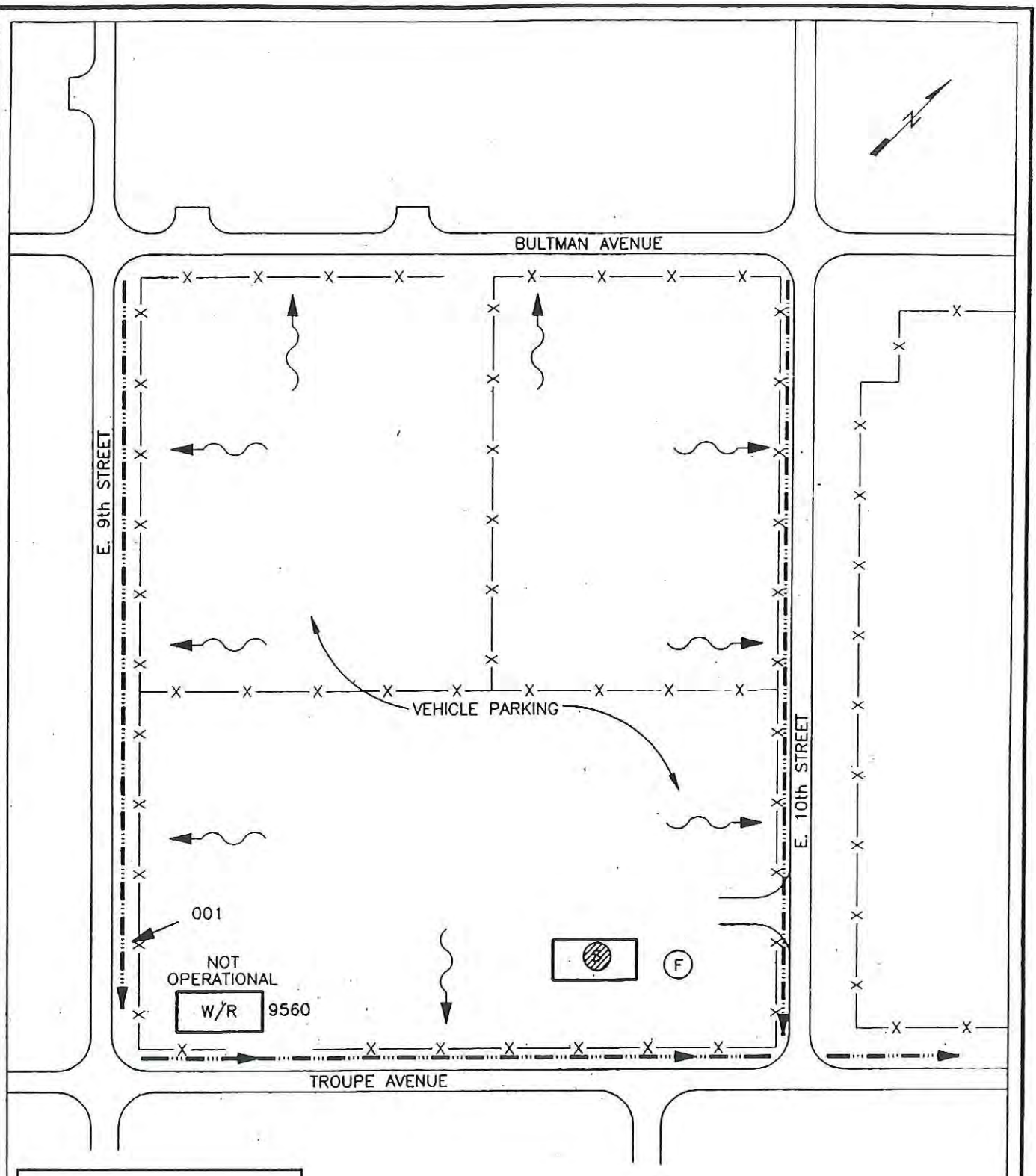


SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-207
REGIONAL TRAINING SITE MAINTENANCE
NATIONAL GUARD TRAINING CENTER
BLOCK 9300/9400
SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

FIG32



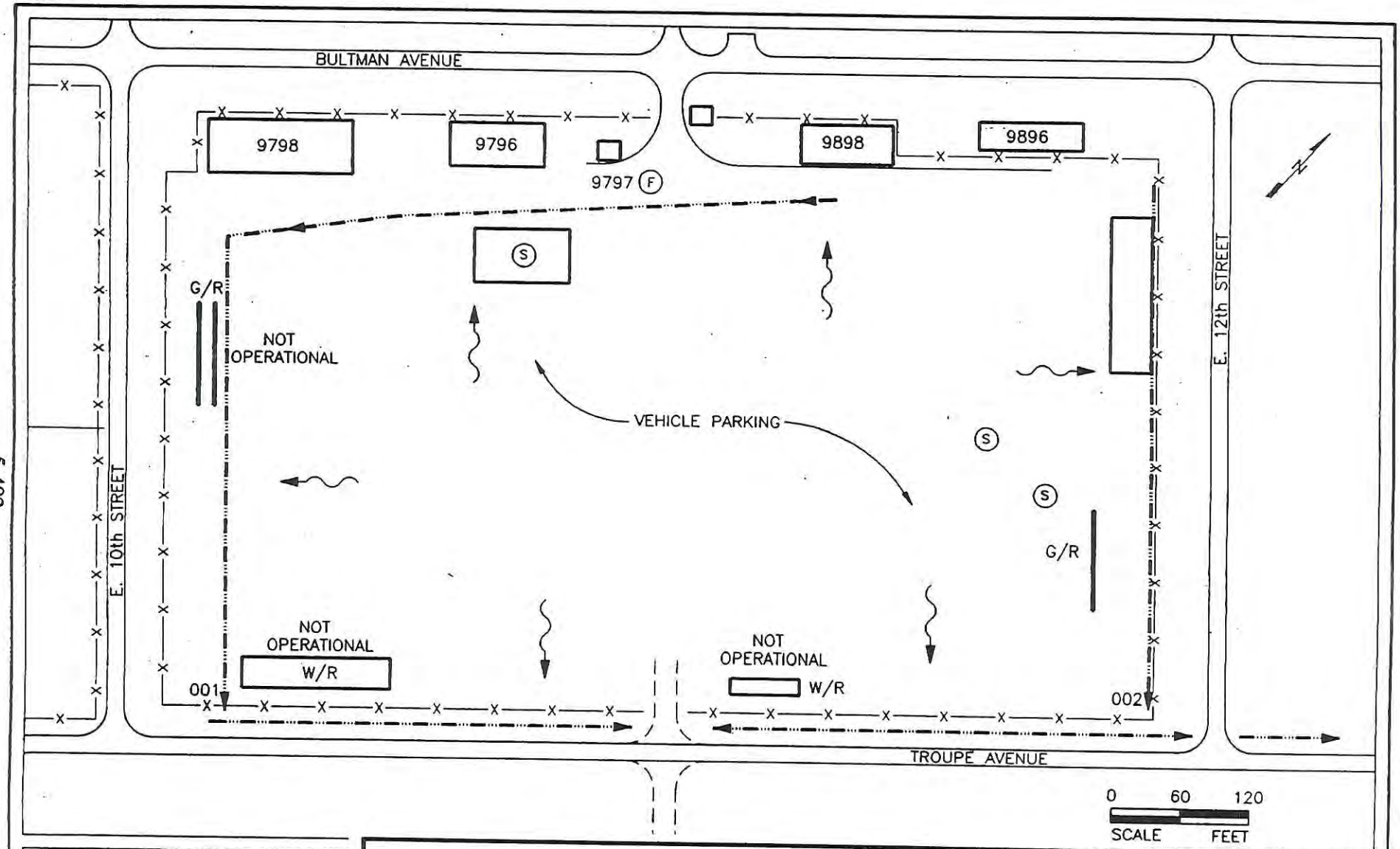
SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-208

REGIONAL TRAINING SITE MAINTENANCE
NATIONAL GUARD TRAINING CENTER
BLOCK 9500
SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

FIG33

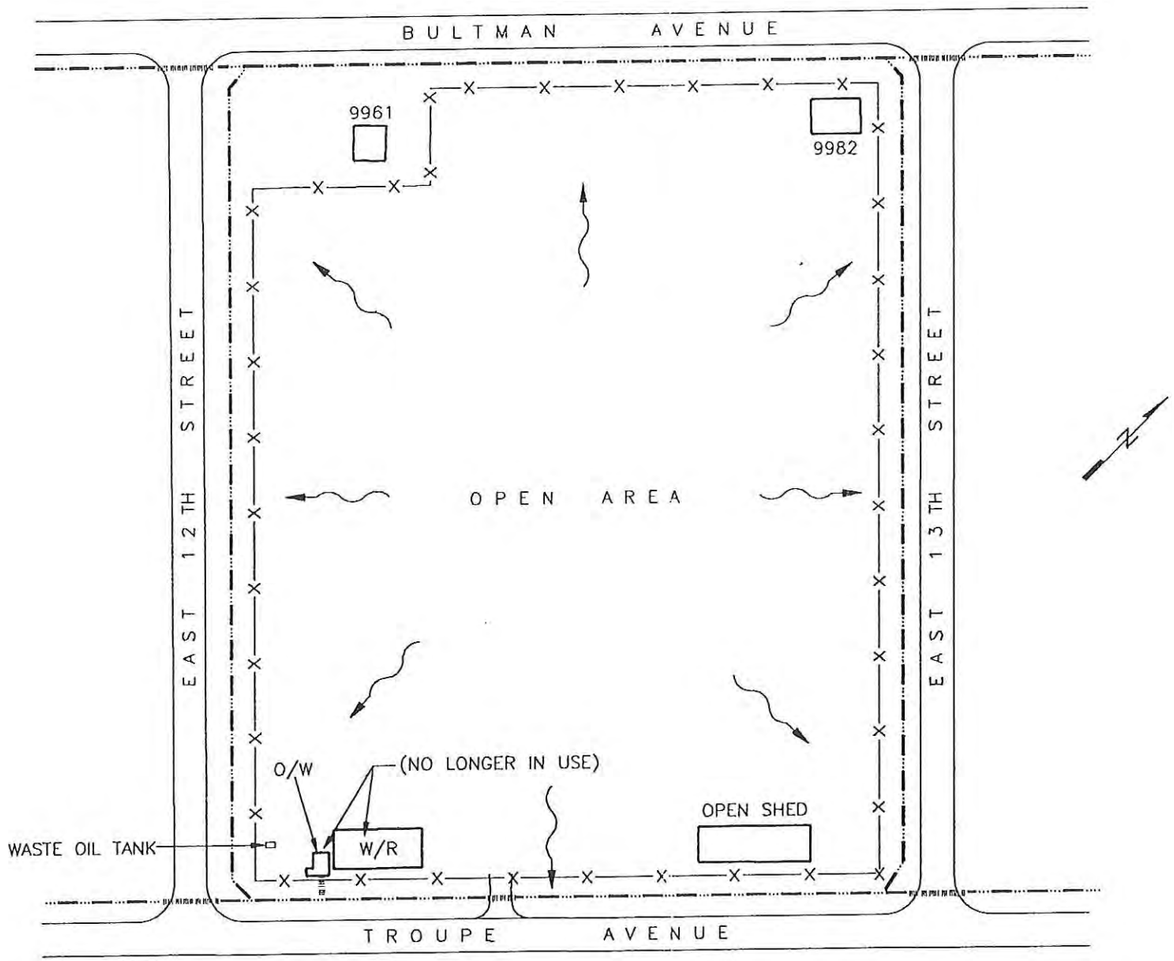


SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-209
REGIONAL TRAINING SITE MAINTENANCE
NATIONAL GUARD TRAINING CENTER
BLOCK 9700/9800
SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

DWG: C:\87528\52809900.DWG PLOT DATE: 1-13-94 C1409



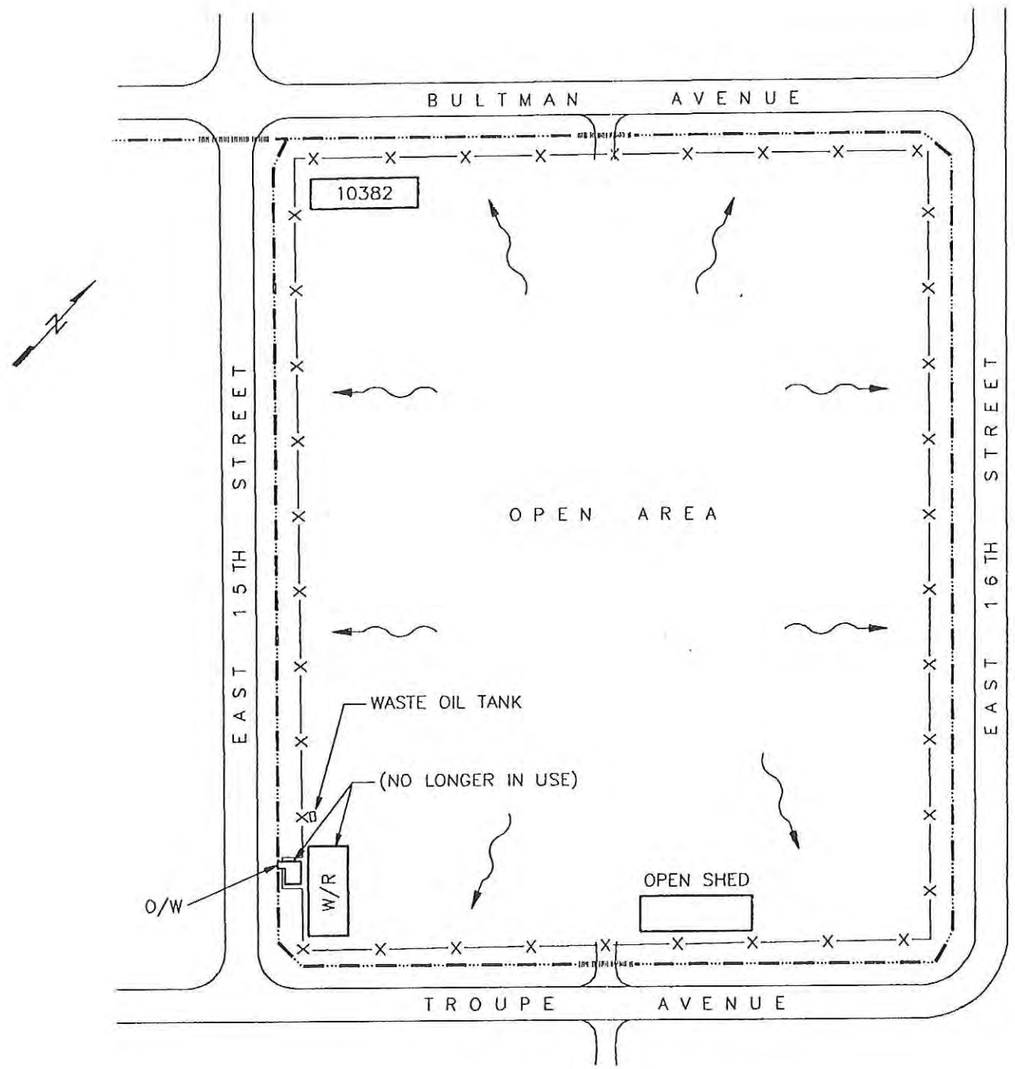
0 50 100
SCALE FEET

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-210
REGIONAL TRAINING SITE MAINTENANCE
NATIONAL GUARD TRAINING CENTER
BLOCK 9900
SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

DWG: C:\87528\528103OO.DWG PLOT DATE: 1-13-94 C1409

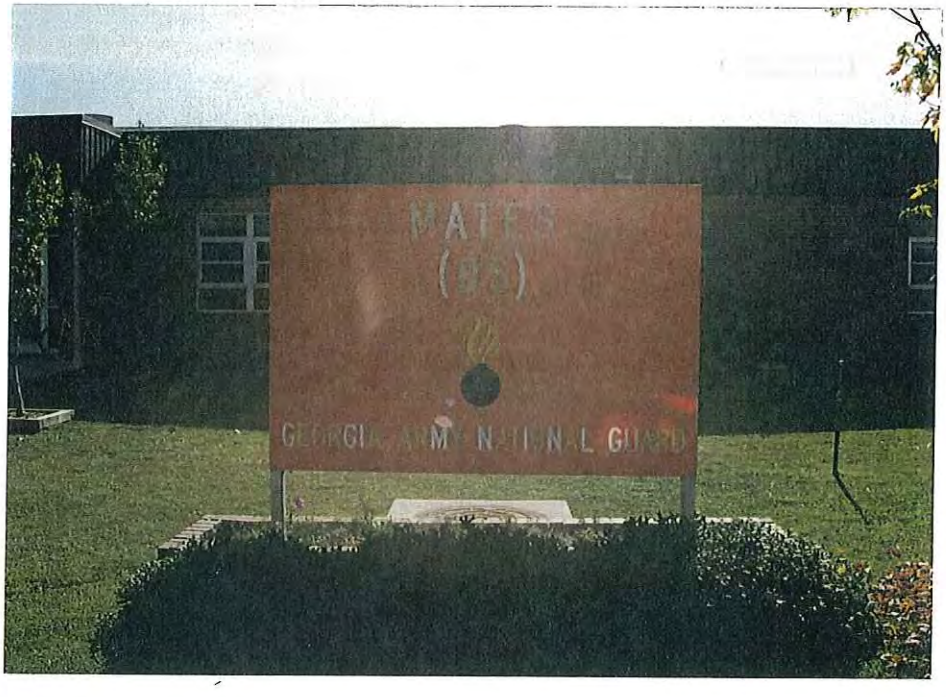


0 50 100
SCALE FEET

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-211
REGIONAL TRAINING SITE MAINTENANCE
NATIONAL GUARD TRAINING CENTER
BLOCK 10300
SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000



RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-212
PHOTOGRAPHS
NGTC & MATES

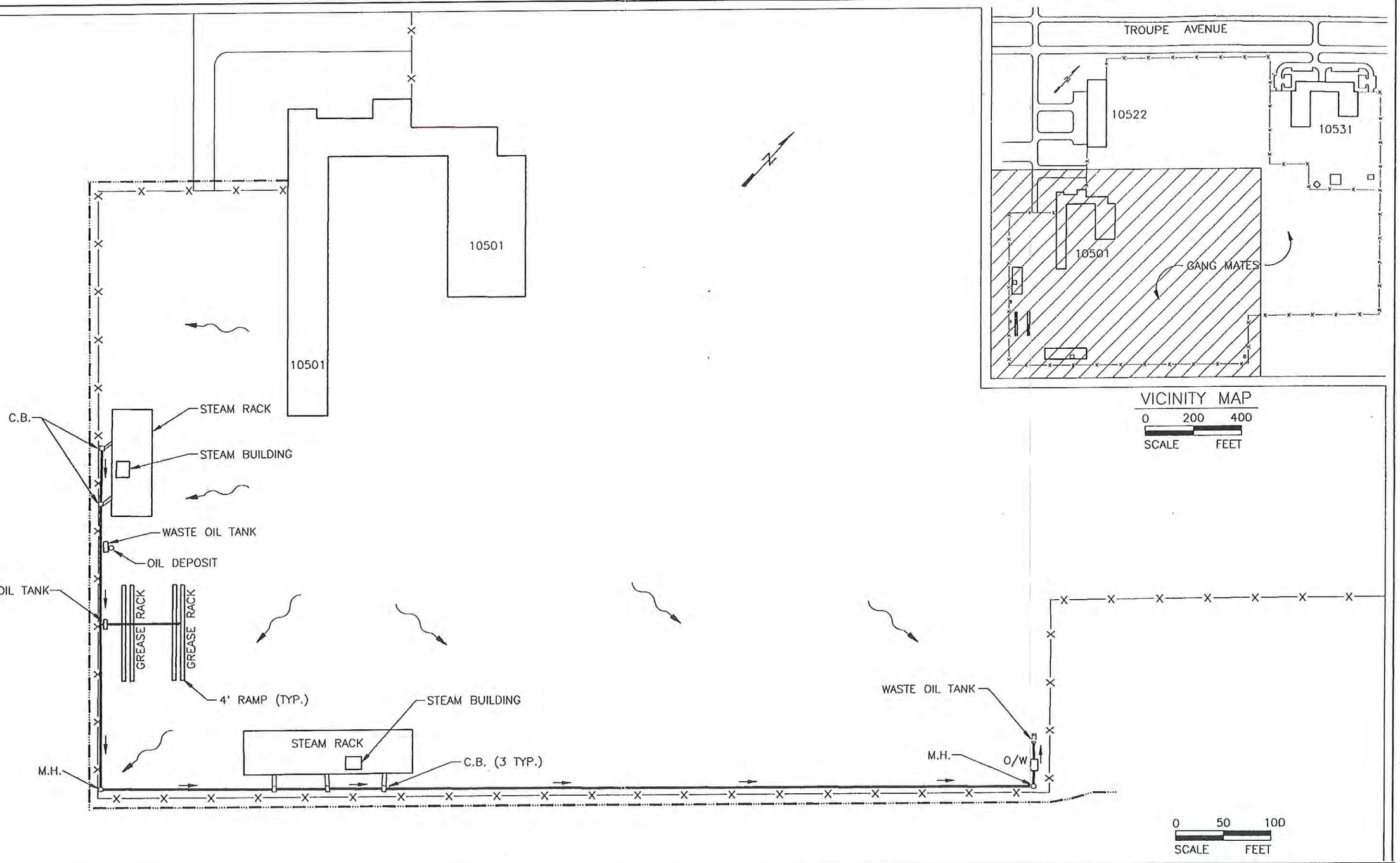
SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

LEGEND

—x——x—	FENCE LINE
▬ ▬ ▬	STORM WATER DRAINAGE DIVIDE
001	STORM WATER OUTFALL LOCATION AND NUMBER
	FLOW DIRECTION – SHEET FLOW
	OPEN STORM WATER DITCH
	SANITARY SEWER MANHOLE
	STORM WATER CURB OR GRATE INLET
	STORM WATER CULVERT
	TRENCH GRATE
	BERM
SP	SPILLS/LEAKS
Ⓕ	FUEL PUMP
Ⓢ	STORAGE AREA
Ⓢ	STORAGE AREA – COVERED
G/R	GREASE RACK/PAD
O/W	OIL/WATER SEPARATOR
W/R	WASH RACK/PAD

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

DWG: C:\87528\528MATE1.DWG PLOT DATE: 1-14-94 C1409



VICINITY MAP

0 200 400

SCALE FEET

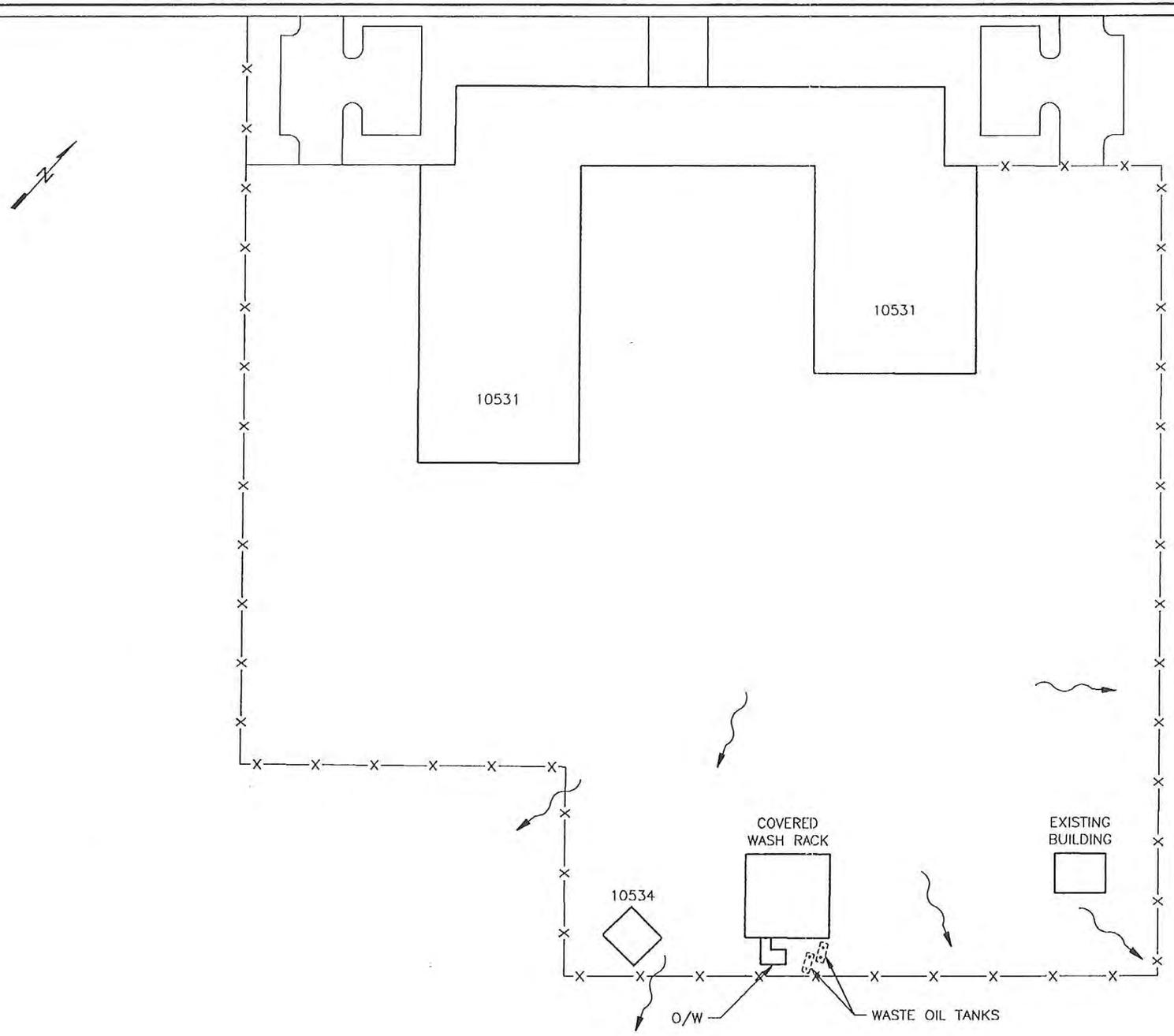
SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

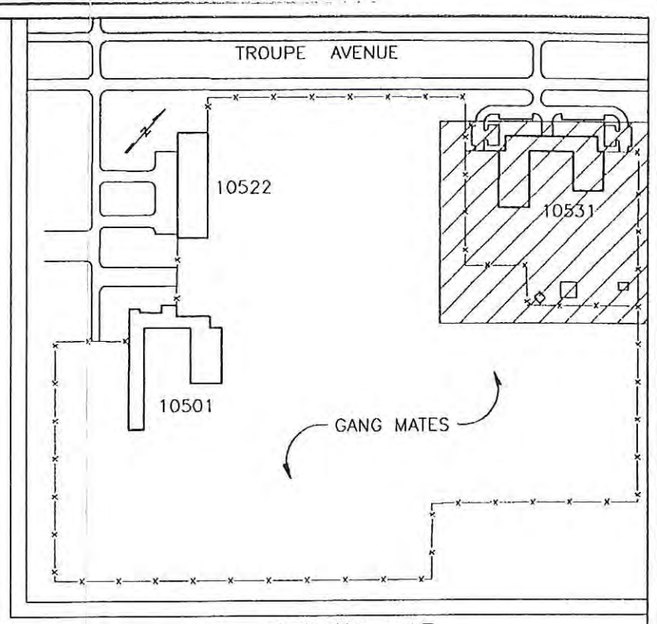
RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-213
NGTC & MATES
BLDG. 10501

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000

DWG: C:\87528\528MATE2.DWG PLOT DATE: 1-13-94 C1409





VICINITY MAP

0 200 400

SCALE FEET

0 30 60

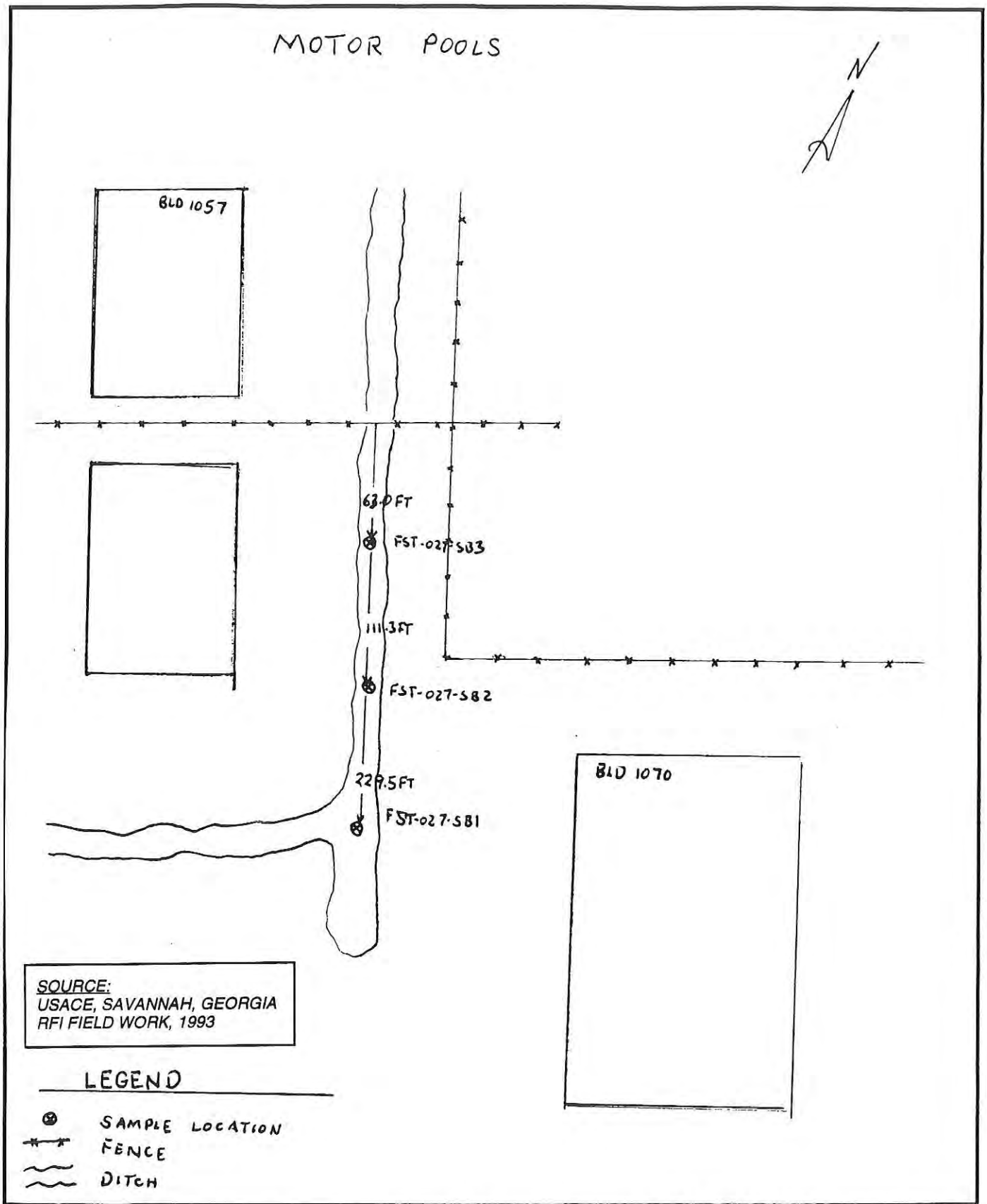
SCALE FEET

SOURCE:
ENVIRONMENTAL SCIENCE & ENGINEERING,, INC., 1993

RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-214
NGTC & MATES
BLDG. 10531

SWMU-27 (FST-027)
FORT STEWART, GEORGIA
PROJECT NO. 87528.000



RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-215

SOIL BORING LOCATIONS
SWMU-27 (FST-027)

DOL MAINT. MOTOR POOL, FORT STEWART, GEORGIA
PROJECT NO. 87528.000

5.17.4 Waste Characterization

Material characterization for the motor pools (FST-027) includes waste oil, anti-freeze, petroleum products and possibly solvents (G&M, 1993).

5.17.5 Analytical Results

The following section provides a brief summary of the analytical results for soil samples collected at the DOL Maintenance Motor Pool. Soil samples were collected from three (3) boring locations and are shown in Figure 5-215. The soil samples were collected by the USACE on September 16, 1993 and analyzed for VOCs, full TCLP parameters, TPH and pH.

5.17.5.1 Action Levels and Clean-Up Standards

Table 5-46 summarizes the analytical results for the soil samples collected at the DOL Maintenance Motor Pool. The table highlights (in bold) the parameters detected above the TC regulatory levels, the GAEPD guidelines or the site-specific background concentrations (for unregulated parameters) in each soil sample. The complete analytical results are included in the USACE QCSR (February, 1994) and Appendix U of this report.

5.17.5.2 Soil

Volatile Organic Compounds

VOCs were not reported above the detection limit in soil samples at the site.

TCLP

TCLP parameter concentrations were not reported above the detection limit in soil samples at the site.

Total Petroleum Hydrocarbons

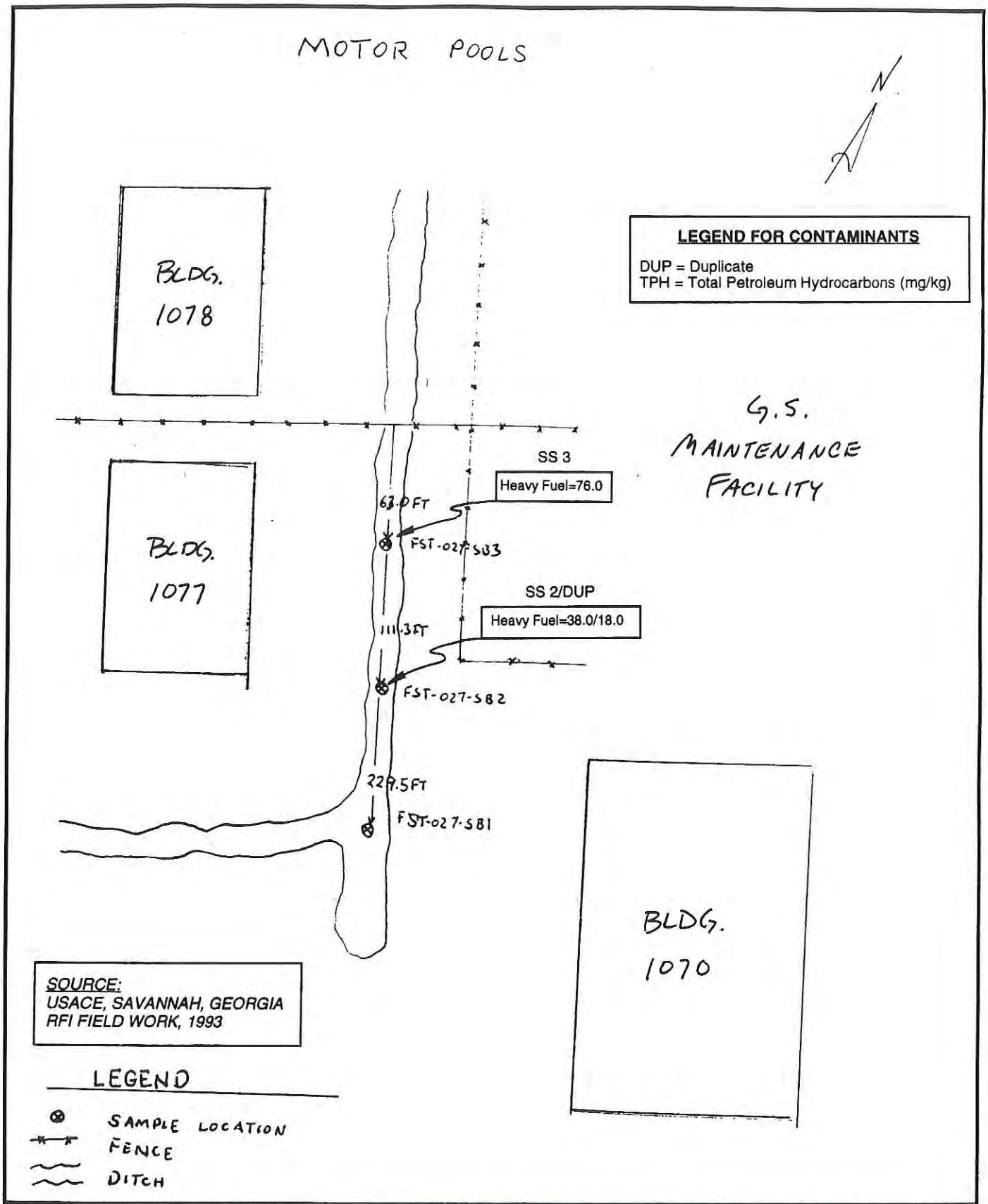
Heavy fuel concentrations of 38.0 mg/kg and 76.0 mg/kg were reported in soil samples SB2 and SB3, respectively, but were below the GAEPD guideline of 100 mg/kg for TPH. Figure 5-216 shows the TPH contaminant distribution in soils at the site.

TABLE 5-46
SUMMARY OF SOIL ANALYTICAL RESULTS
SWMU27(FST-027) - DOL. MAINTENANCE MOTOR POOL
SEPTEMBER 16, 1993

ID	Volatile Organic Compounds (mg/kg)	TCLP (ppm)	TPH (mg/kg)	pH
SB1	BDL	BDL	BDL	6.37
SB2/SB2 DUP	BDL/BDL	BDL/BDL	Heavy Fuel = 38.0/18.0	6.91
SB3	BDL	BDL	Heavy Fuel = 76.0	6.43
GAEPD GUIDELINES	NA	NA	100	NA

NOTES:

BDL = Below Detection Level
Dup = Duplicate
ND = No Data
TPH = Total Petroleum Hydrocarbons
NA = Not Applicable



RUST ENVIRONMENT & INFRASTRUCTURE

FIGURE 5-216

TPH CONTAMINANT DISTRIBUTION IN SOILS
SWMU-27 (FST-027)

DOL MAINT. MOTOR POOL, FORT STEWART, GEORGIA
PROJECT NO. 87528.000

pH

The pH of the soil samples ranged from 6.37 to 6.91.

5.17.5.3 Data Evaluation

The USACE QCSR (February, 1994) states that both the data quality objectives and completeness criteria were met in SWMU27, and that the data met the project objectives.

5.17.6 Evidence of Release from the Site

The analytical results indicate heavy fuels were reported in soil samples, but were below the GAEPD guideline for TPH in soils at the DOL Maintenance Motor Pool SWMU27, which may indicate that a release has not occurred at this site. In addition, the following motor pools did not have oil water separators identified:

- 1st BN 41st FA
- 1st BN 64th Armor
- 2nd 7th INF and 3rd 15th INF
- 3rd BN 7th INF
- 2nd Squadron 4th Cavalry
- 3rd BN 41st FA
- 4th Battalion 64th Armor
- HQ and HQ Company 24th Infantry Division
- 24th MP CO/293rd MP CO, Law Enforcement Command, 124th Military Intelligence Battalion
- 226th SUP and SVC CO, 396th Trans Co., 87th Corps Support Battalion
- HHD/632D MAINT, 87th Maintenance Battalion, 94th MAINT
- HHB Divarty, G Tab 333, A/13 MLRS
- NGTC Block 9100, 9300/9400, 9500, 9700/9800

However, the other motor pool sites with oil/water separators should be sampled to confirm if any releases have occurred at those sites. The following motor pools did have oil water separators identified:

- 24th Signal BN
- 1st BN 5th AAA
- 3rd BN 69th Armor
- 24th Support Battalion (forward) Maintenance Facility Bldg. 4577
- 92nd Engineer Combat Battalion (Heavy)

- 224th Support BN
- 724th SPT BN (Main) Direct Support Maintenance Facility Companies C, D, E, 724th Support BN (Main) Organizational Maintenance Facility Alpha Co., Alpha & Bravo Co 724th Support BN MAIN
- 24th Infantry Division (Mechanized) Engineer Brigade
- DISCOM Maintenance Facility,
  HQs & HQs Company,
  91st Chemical Company,
  24th PER SVC Company,
  124th REPL Company
- DOL MAINT
- NGTC Block 9900, 10300
- GANG MATES Bldg. 10501, Bldg. 10531

5.17.7 Health and Environmental Assessment

The objective of the Health and Environmental Assessment (HEA) is to provide information necessary to evaluate the need for appropriate interim corrective measures or for a Corrective Measures Study (CMS). The following sections describe transport pathways and potential exposure routes for the receiving media of concern, human health and environmental toxicity criteria, and the preliminary risk evaluation for constituents and media of potential concern. Following the identification of exposure routes, constituent concentrations detected in each medium were compared to exposure-limit criteria developed for selected exposure pathways. Human and ecological exposure criteria were developed using procedures described in Chapter 8 of the *Interim Final RCRA Facility Investigation (RFI) Guidance - Development of an RFI Work Plan and General Considerations for RCRA Facility Investigations* (USEPA, 1989a).

5.17.7.1 Human Health Assessment

Transport Mechanisms and Exposure Pathways

Following release from a source, contaminants may migrate in environmental media by any of several transport mechanisms, including:

- Resuspension and airborne dispersal of contaminated soil particulates,
- Volatilization of organics from soil, surface water, or ground-water,

- Uptake of contaminants by biota,
- Stormwater runoff to surface water and sediments,
- Infiltration/percolation of soil contaminants to ground-water, and
- Discharge of ground-water to surface water and sediments.

For the purposes of this assessment, all potentially contaminated media were considered, however, only those media considered to present the most significant exposure potential were quantitatively evaluated. At SWMU27, samples were collected only from soil at three locations in an area of possible contamination at the Maintenance Motor Pool. Therefore, soil was the only medium quantitatively evaluated at this unit.

A complete exposure pathway includes a contaminant source, a transport mechanism, an exposure point where contact by a receptor with the contaminated medium may occur, and a route of intake of the contaminated medium at the exposure point. Potential human exposure pathways at SWMU27 include ingestion of and dermal contact with soil, and inhalation of vapor and contaminated soil particulates.. All pathways considered to be complete were addressed and those that represented the greatest potential for risk were quantitatively evaluated. The potential exposure pathway that was quantitatively evaluated for human receptors was ingestion of soil.

Toxicity Criteria

The primary element of the human health assessment is the set of criteria (risk-based constituent concentrations) used to evaluate constituent concentrations associated with SWMU27. Human health criteria were based on EPA-established chronic exposure limits. Only heavy fuel was detected at SWMU27 and was evaluated using the available (noncarcinogenic) toxicity data for the surrogate n-hexane.

The human health-based criteria for noncarcinogens, calculated from the Reference Dose (RfD), are estimates of the daily exposure that an individual (including sensitive individuals) can experience without appreciable risk of adverse health effects during a lifetime exposure.

The noncarcinogen criteria, shown in Appendix T, were calculated using the following equation:

$$C_i = (RfD) \times (W/I) \qquad \text{(Equation 2)}$$

where:

C_i = criterion concentration for the constituent of concern,

RfD = reference dose in mg/kg-day,

W = assumed weight of the exposed individual (receptor), and

I = intake amount for a given time period.

The most current RfDs were obtained, in order of priority, from EPA's IRIS, HEAST, or SHRTSC-ECAO. For soil ingestion, the assumed intake rate (I) of 0.2 g/day was based on a 5-year exposure period for a 16-kg child (W). For a given constituent of potential concern associated with systemic health effects, the noncarcinogen criteria for soil (ingestion) was used.

Preliminary Risk Evaluation

Following the calculation of exposure-limit criteria ("action levels"), comparisons were made between the action levels and the constituent concentrations present at the SWMU. Maximum detected concentrations were used for the comparison. Concentrations that exceeded human health exposure action levels are shown in Table 5-46B. The only constituent detected was the heavy fuel component of total petroleum hydrocarbons (TPH); it was detected at two of the three sample locations. A component of heavy fuel is n-hexane. The criterion value for n-hexane was used as a proxy to represent heavy fuel for comparison to the maximum heavy fuel concentration detected . Based on this comparison,

no potential risk to human health from soil ingestion was posed by the heavy fuel concentration in soil at the unit.

5.17.7.2 Environmental Assessment

Transport Mechanisms and Exposure Pathways

Potential transport mechanisms and complete exposure pathways for ecological receptors are the same as those described in Section 5.17.7.1for human receptors, except for direct exposure to ground-water. All potentially complete exposure pathways were considered. Those that represented the greatest potential for risk were quantitatively evaluated unless the human health assessment had already indicated that further SWMU assessment for that pathway would be required.

TABLE 5-46B
COMPARISON OF INDIVIDUAL CONSTITUENT CONCENTRATIONS
WITH HUMAN HEALTH CRITERIA
SWMU27(FST-027) - DOL. MAINTENANCE MOTOR POOL

Exposure Medium	Units	Constituent Released	Release Concentration	Criterion Type Used	Criterion Value	Release Concentrations Exceed Criterion?
SOIL	mg/kg	TPH - Heavy Fuel	7.60E+01	NC	4.80E+03 a	No

* Release concentration represents the maximum detected concentration for each constituent.

a Criterion value used is the value for the constituent n-hexane.

NC - Noncarcinogen

TABLE 5-46C
COMPARISON OF INDIVIDUAL CONSTITUENT CONCENTRATIONS
WITH ECOLOGICAL CRITERIA
SWMU27(FST-027) - DOL. MAINTENANCE MOTOR POOL

Exposure Medium	Units	Constituent Released	Release Concentration	Criterion Type Used	Criterion Value*	Release Concentrations Exceed Criterion?
SOIL	mg/kg	TPH - Heavy Fuel	7.60E+01	LD50	7.90E+04	No

* An LD50 value of 15,800 mg/kg for a rat (HSDB) was converted to a soil concentration and divided by an uncertainty factor of 10, as discussed in the text. The calculated value was used as the criterion.

Preliminary Risk Evaluation

The human health assessment showed that no further evaluation was indicated for the soil exposure pathway. Therefore, this pathway also was quantitatively evaluated for potential ecological risk based on ingestion of soil by terrestrial organisms.

Toxicity Criteria

The ecological criteria used in evaluating potential exposure of terrestrial ecological receptors to soil at SWMU27 were toxicity data for terrestrial animal species. The lowest available toxicity values for commonly studied species of laboratory mammals or birds were used as criteria. Toxicity data for terrestrial animals commonly are expressed as a dose in the form of an LD_{50} (median lethal dose per unit body weight). Because the available toxicity value was in the form of an LD_{50} for a rat, the dose was converted to a concentration for use as a criterion by employing conservative assumptions regarding the percentage of soil in an animal's diet (10 percent) and the weight of food eaten as a percentage of body weight (20 percent). This concentration then was divided by an uncertainty factor of 10 to allow for possible longer-term environmental exposures, interspecies differences in susceptibility, and sub-lethal effects. The resulting concentration was used as the criterion for comparison to the release concentration.

Preliminary Risk Evaluation

Toxicity to ecological receptors was evaluated by comparison of ecological exposure criteria (derived as described above) to maximum detected release concentrations.

Because soil at SWMU27 was found not to be of concern based on comparison to human toxicity criteria, the soil contaminant, TPH, also was evaluated for ecological toxicity. The results of this evaluation are shown in Table 5-46C. The environmental concentration of TPH was three orders of magnitude less than the criterion value based on toxicity data for the rat, a reasonable proxy species for potential terrestrial receptors at the unit. Therefore, soil contamination is unlikely to pose a significant ecological risk at SWMU27.

5.17.8 Potential for Phase II Investigation

In that the analytical results indicated concentrations below GAEPD guidelines in soils at the DOL Maintenance Motor Pool SWMU27, no further action is recommended at this site.

In addition, no further action is recommended at the motor pools listed in Section 5.17.6 that do not have oil water separators in the motor pools.

The motor pool sites listed in Section 5.17.6 that do have oil water separators should be sampled as part of a Phase II investigation in order to confirm if any releases have occurred. The same soil sampling methodologies would apply at these motor pools as were applied to the DOL Maintenance Motor Pool. Soil sample analyses would include VOCs, RCRA metals, TCLP and TPH. It is also recommended that an HEA of the sites be completed.

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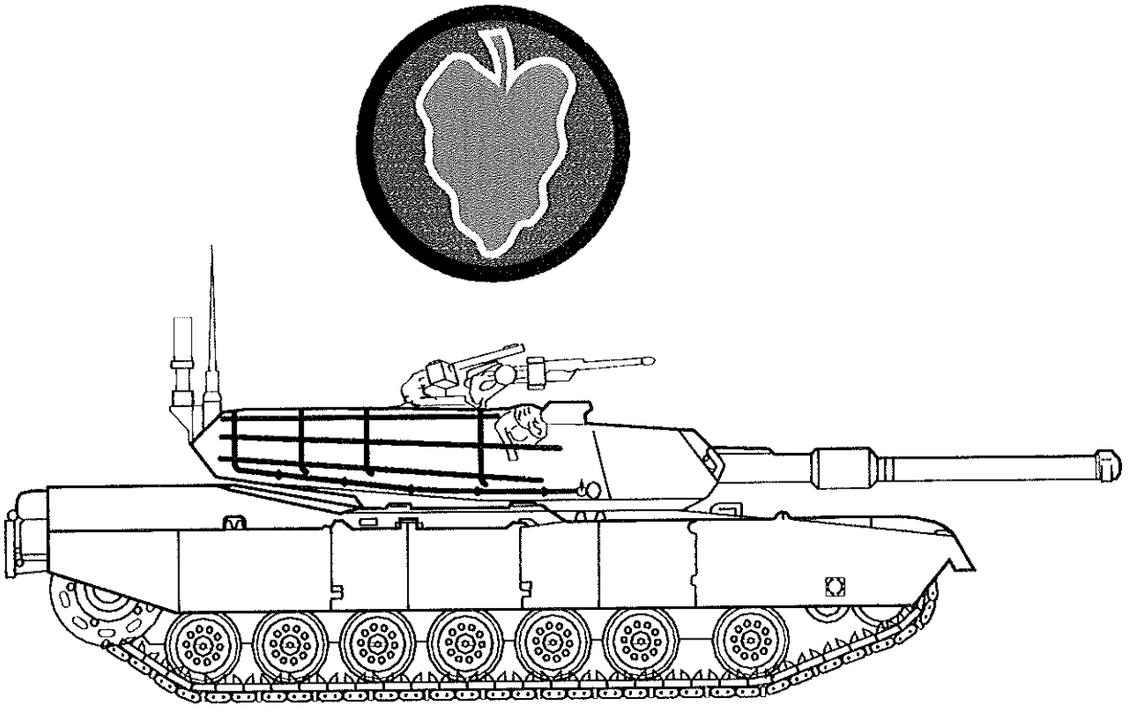

May 1996

Job No. 87528.000

Prepared For

US Army Corps of Engineers
Savannah District

Prepared By

RUST ENVIRONMENT & INFRASTRUCTURE

CORRECTED FINAL

PHASE I
RCRA FACILITY INVESTIGATION REPORT
FOR 24 SOLID WASTE MANAGEMENT UNITS
AT FORT STEWART, GEORGIA
VOLUME II OF III

Prepared For

UNITED STATES ARMY CORPS OF ENGINEERS
SAVANNAH DISTRICT

Contract DACA21-93-D-0029
Delivery Order 0005
Rust Project No. 87528.000
May 1996

Prepared By
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Appendix Q

SWMU27(FST-027) Motor Pools

Appendix Q1

Soil Boring Logs

Hole No. FST-027-SB1

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: FORT STEWART, GA.	SHEET 1 OF 1 SHEETS

1. PROJECT: PHASE 1 RCRA FACILITY INVESTIGATION		10. SIZE AND TYPE OF BIT: 4" AUGER	
2. LOCATION (Coordinates or Station): SWMU-027 25 MOTOR POOLS, DITCH AT BLD. 1070		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): N/A	
3. DRILLING AGENCY: SAVANNAH DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: CME 550	
4. HOLE NO. (As shown on drawing title and file number): FST-027-SB1		13. TOTAL NO. OF SOIL SAMPLES TAKEN: DISTURBED 1	UNDISTURBED 0
5. NAME OF DRILLER: HORACE FULCHER		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: ☒ VERTICAL ☐ INCLINED _____ DEG. FROM VERT.		15. GROUND WATER ELEVATION: 2.0	
7. THICKNESS OF OVERBURDEN: 2.0'		16. DATE HOLE: STARTED 16 SEPT 93	COMPLETED 16 SEPT 93
8. DEPTH DRILLED INTO ROCK: 0.0'		17. ELEVATION TOP OF HOLE: N/A	
9. TOTAL DEPTH OF HOLE: 2.0'		18. TOTAL CORE RECOVERY FOR BORING: N/A %	
		19. SIGNATURE OF INSPECTOR: JUDSON D. SMITH	

ELEVATION (FT) a	DEPTH (FT) b	SYMBOLS c	CLASSIFICATION OF MATERIALS (Description) d	FID/PID e	JAR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0–1		(SM) Gray silty SAND.	30/125		Moist, no odor.
	1–2		Tan.	22/118		Moist, light fuel odor.
				124/144	1	Lab sample taken 16 Sept. 93.
				78/136		Wet, light fuel odor.
	2		BOTTOM OF BORING: 2.0', GROUNDWATER			

NOTE: SOILS VISUALLY FIELD CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASS-IFICATION SYSTEM.

Hole No. FST-027-SB2

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: FORT STEWART, GA.	SHEET 1 OF 1 SHEETS

1. PROJECT: PHASE 1 RCRA FACILITY INVESTIGATION		10. SIZE AND TYPE OF BIT: 4" AUGER	
2. LOCATION (Coordinates or Station): SWMU-027 25 MOTOR POOLS, DITCH AT BLD. 1070		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): N/A	
3. DRILLING AGENCY: SAVANNAH DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: CME 550	
4. HOLE NO. (As shown on drawing title and file number): FST-027-SB2		13. TOTAL NO. OF SOIL SAMPLES TAKEN	DISTURBED: 1 / UNDISTURBED: 0
5. NAME OF DRILLER: HORACE FULCHER		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.		15. GROUND WATER ELEVATION: 1.0	
		16. DATE HOLE	STARTED: 16 SEPT 93 / COMPLETED: 16 SEPT 93
7. THICKNESS OF OVERBURDEN: 1.0'		17. ELEVATION TOP OF HOLE: N/A	
8. DEPTH DRILLED INTO ROCK: 0.0'		18. TOTAL CORE RECOVERY FOR BORING: N/A %	
9. TOTAL DEPTH OF HOLE: 1.0'		19. SIGNATURE OF INSPECTOR: JUDSON D. SMITH	

ELEVATION (FT) a	DEPTH (FT) b	SYMBOLS c	CLASSIFICATION OF MATERIALS (Description) d	FID/PID e	JAR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0–1		(SM) Gray silty SAND, with peebles.	21/126	1	Damp, no odor. Lab sam. taken 16 Sept. 93.
				18/120		Wet, no odor.
	1		BOTTOM OF BORING: 1.0', GROUNDWATER			QA and QC samples taken.

NOTE: SOILS VISUALLY FIELD CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASS-IFICATION SYSTEM.

Hole No. FST-027-SB3

DRILLING LOG	DIVISION: SOUTH ATLANTIC	INSTALLATION: FORT STEWART, GA.	SHEET 1 OF 1 SHEETS

1. PROJECT: PHASE 1 RCRA FACILITY INVESTIGATION		10. SIZE AND TYPE OF BIT: 4" AUGER	
2. LOCATION (Coordinates or Station): SWMU-027, 25 MOTOR POOLS, DITCH AT BLD. 1070		11. DATUM FOR ELEVATION SHOWN (TBM or MSL): N/A	
3. DRILLING AGENCY: SAVANNAH DISTRICT		12. MANUFACTURER'S DESIGNATION OF DRILL: CME 550	
4. HOLE NO. (As shown on drawing title and file number): FST-027-SB3		13. TOTAL NO. OF SOIL SAMPLES TAKEN: DISTURBED 1	UNDISTURBED 0
5. NAME OF DRILLER: HORACE FULCHER		14. TOTAL NUMBER CORE BOXES: 0	
6. DIRECTION OF HOLE: [X] VERTICAL [ ] INCLINED _____ DEG. FROM VERT.		15. GROUND WATER ELEVATION: 1.0	
7. THICKNESS OF OVERBURDEN: 1.0'		16. DATE HOLE: STARTED 16 SEPT 93	COMPLETED 16 SEPT 93
8. DEPTH DRILLED INTO ROCK: 0.0'		17. ELEVATION TOP OF HOLE: N/A	
9. TOTAL DEPTH OF HOLE: 1.0'		18. TOTAL CORE RECOVERY FOR BORING: N/A %	
		19. SIGNATURE OF INSPECTOR: JUDSON D. SMITH	

ELEVATION (FT) a	DEPTH (FT) b	SYMBOLS c	CLASSIFICATION OF MATERIALS (Description) d	FID/PID e	JAR SAMPLE NO. f	REMARKS (Drilling time, water loss, depth of weathering, etc., if significant) g
	0		(SM) Gray silty SAND, with peebles.	32/140	1	Damp, no odor. Lab sam. taken 16 Sept. 93.
				19/71.2		Wet, no odor.
	1		BOTTOM OF BORING: 1.0', GROUNDWATER			
	2					
	3		NOTE: SOILS VISUALLY FIELD CLASSIFIED IN ACCORDANCE WITH THE UNIFIED SOIL CLASS-IFICATION SYSTEM.			
	4					
	5					
	6					
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	9					
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Q-3

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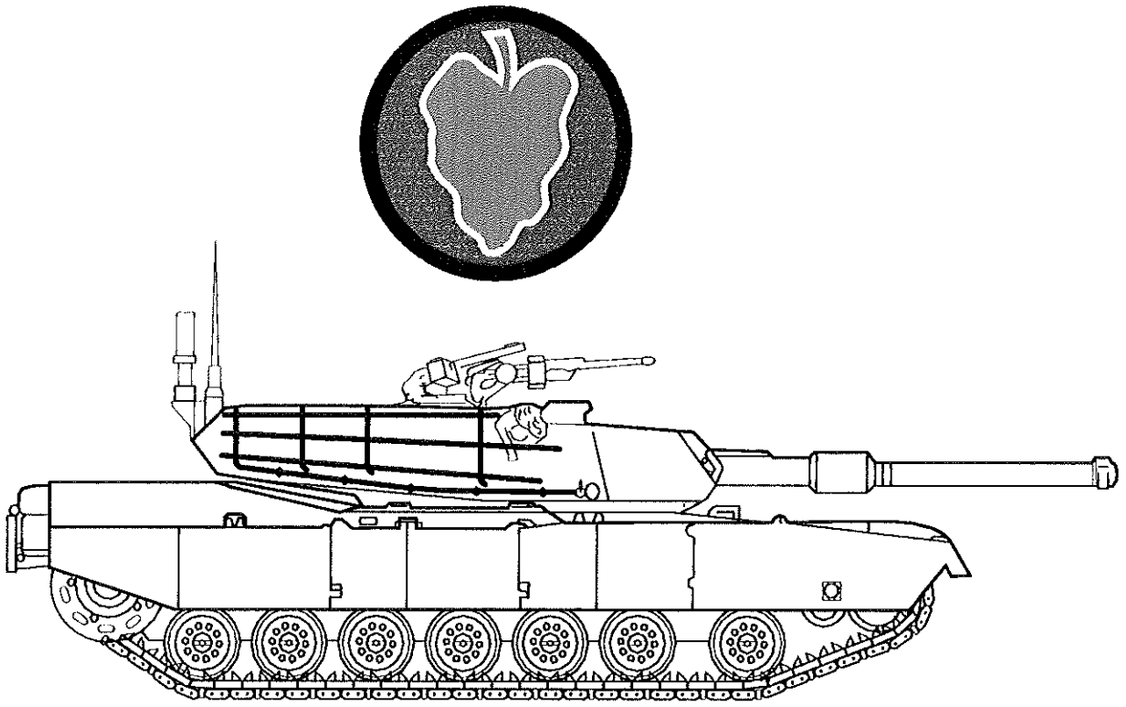

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10/01/93

Ms. Toni Nicholson
US Army Engr. Dist., Sav.
P.O. Box 889
Savannah, GA 31402

Dear Ms. Nicholson:

The following are the results of the parameters you requested we check on your FST-027 samples listed below.

Parameter	Analyst	Analysis Date -- Time		Results	Units	Lowest Detectable Level	Method Number
Sample Date: 09/16/93 In House # 09-6206-93		Source: SB1-9-93		Location:			
Metals Sample Preparation - water	JAG	09/23/93	17:00	0.000		0.00	
TCLP Extraction, excluding Volatile cpds	JDW	09/21/93	18:00	0.000		0.00	
TCLP Extraction, Volatile cpds. only	JDW	09/21/93	18:00	0.000		0.00	
TPH (heavy fuels) sample preparation	SS	09/21/93	09:00	0.000		0.00	
Pesticide extraction - TCLP	MR	09/29/93	09:00	0.000		0.00	
Herbicide extraction - TCLP	SB	09/27/93	10:00	0.000		0.00	
Base Neutrals - TCLP extraction	SB	09/23/93	08:00	0.000		0.00	
Acid - TCLP extraction	SB	09/23/93	08:00	0.000		0.00	
Lab pH	TW	09/20/93	11:10	6.370	pH Units	0.00 pH Units	150.1
Arsenic - TCLP	KAH	09/28/93	22:56	< 0.500	ppm	0.50 ppm	206.2
Selenium - TCLP	KAH	09/29/93	04:09	< 0.100	ppm	0.10 ppm	270.2
Barium - TCLP	CW	09/24/93	16:23	< 10.000	ppm	10.00 ppm	200.7
Cadmium - TCLP	CW	09/24/93	16:23	< 0.100	ppm	0.10 ppm	200.7
Chromium - TCLP	CW	09/24/93	16:23	< 0.500	ppm	0.50 ppm	200.7
Lead - TCLP	KAH	09/29/93	09:22	< 0.500	ppm	0.50 ppm	239.2
Mercury - TCLP	KAH	09/23/93	12:00	< 0.200	ppm	0.05 ppm	245.1
Silver - TCLP	CW	09/24/93	16:23	< 0.500	ppm	0.50 ppm	200.7
Benzene - TCLP	KG	09/28/93	13:27	< 0.500	mg/l	0.50 mg/l	624.
Carbon Tetrachloride - TCLP	KG	09/28/93	13:27	< 0.500	mg/l	0.50 mg/l	624.
Chlorobenzene - TCLP	KG	09/28/93	13:27	< 100.000	mg/l	100.00 mg/l	624.
Chloroform - TCLP	KG	09/28/93	13:27	< 6.000	mg/l	6.00 mg/l	624.
1,4-Dichlorobenzene - TCLP	KG	09/28/93	13:27	< 7.500	mg/l	7.50 mg/l	624.
1,2-Dichloroethane - TCLP	KG	09/28/93	13:27	< 0.500	mg/l	0.50 mg/l	624.
1,1-Dichloroethylene - TCLP	KG	09/28/93	13:27	< 0.700	mg/l	0.70 mg/l	624.
Methyl Ethyl Ketone - TCLP	KG	09/28/93	13:27	< 200.000	mg/l	200.00 mg/l	624.
Tetrachloroethylene - TCLP	KG	09/28/93	13:27	< 0.700	mg/l	0.70 mg/l	624.
Trichloroethylene - TCLP	KG	09/28/93	13:27	< 0.500	mg/l	0.50 mg/l	624.
Vinyl Chloride - TCLP	KG	09/28/93	13:27	< 0.200	mg/l	0.20 mg/l	624.
O-Cresol - TCLP	AT	09/29/93	14:57	< 200.000	mg/l	200.00 mg/l	625.
M-Cresol - TCLP	AT	09/29/93	14:57	< 200.000	mg/l	200.00 mg/l	625.
P-Cresol - TCLP	AT	09/29/93	14:57	< 200.000	mg/l	200.00 mg/l	625.
Pentachlorophenol - TCLP	AT	09/29/93	14:57	< 100.000	mg/l	100.00 mg/l	625.
2,4,5-Trichlorophenol - TCLP	AT	09/29/93	14:57	< 400.000	mg/l	400.00 mg/l	625.
2,4,6-Trichlorophenol - TCLP	AT	09/29/93	14:57	< 2.000	mg/l	2.00 mg/l	625.
2,4-Dinitrotoluene - TCLP	AT	09/29/93	14:57	< 0.130	mg/l	0.13 mg/l	625.
Hexachlorobenzene - TCLP	AT	09/29/93	14:57	< 0.130	mg/l	0.13 mg/l	625.
Hexachlorobutadiene - TCLP	AT	09/29/93	14:57	< 0.500	mg/l	0.50 mg/l	625.
Hexachloroethane - TCLP	AT	09/29/93	14:57	< 3.000	mg/l	3.00 mg/l	625.
Nitrobenzene - TCLP	AT	09/29/93	14:57	< 0.130	mg/l	0.13 mg/l	625.
Pyridine - TCLP	AT	09/29/93	14:57	< 5.000	mg/l	5.00 mg/l	625.
TPH heavy fuel, 3550/8015 - solid	RK	09/23/93	19:48	< 10.000	mg/kg	10.00 mg/kg	8015
Toxaphene TCLP - liquid	RMK	09/29/93	22:24	< 0.500	mg/l	0.50 mg/l	608

Parameter	Analyst	Analysis Date -- Time		Results	Units	Lowest Detectable Level	Method Number
Sample Date: 09/16/93 In House # 09-6206-93		Source: SB1-9-93 - CONTINUED -		Location:			
2,4-D TCLP - liquid	RMK	09/30/93	16:33 <	10.000	mg/l	10.00 mg/l	509.
Silvex TCLP - liquid	RMK	09/30/93	16:33 <	1.000	mg/l	1.00 mg/l	509.
Chlordane TCLP - liquid	RMK	09/29/93	22:24 <	0.030	mg/l	0.03 mg/l	608.
Endrin TCLP - liquid	RMK	09/29/93	22:24 <	0.020	mg/l	0.02 mg/l	608.
Heptachlor TCLP - liquid	RMK	09/29/93	22:24 <	8.000	ug/l	8.00 ug/l	608.
Heptachlor Epoxide TCLP - liquid	RMK	09/29/93	22:24 <	8.000	ug/l	8.00 ug/l	608.
Lindane TCLP - liquid	RMK	09/29/93	22:24 <	0.400	mg/l	0.40 mg/l	608.
Methoxychlor TCLP - liquid	RMK	09/29/93	22:24 <	10.000	mg/l	10.00 mg/l	608.
% Solids	MB	09/23/93	09:00	83.700	%	0.01 %	160.3
Chloroethane - solid	KG	09/29/93	09:35 <	10.000	ug/kg	10.00 ug/kg	8240
Chloromethane - solid	KG	09/29/93	09:35 <	10.000	ug/kg	10.00 ug/kg	8240
Bromomethane - solid	KG	09/29/93	09:35 <	10.000	ug/kg	10.00 ug/kg	8240
Vinyl Chloride - solid	KG	09/29/93	09:35 <	10.000	ug/kg	10.00 ug/kg	8240
Methylene Chloride - solid	KG	09/29/93	09:35 <	5.000	ug/kg	5.00 ug/kg	8240
Trichlorofluoromethane - solid	KG	09/29/93	09:35 <	10.000	ug/kg	10.00 ug/kg	8240
1,1-Dichloroethene - solid	KG	09/29/93	09:35 <	5.000	ug/kg	5.00 ug/kg	8240
1,1-Dichloroethane - solid	KG	09/29/93	09:35 <	5.000	ug/kg	5.00 ug/kg	8240
Trans 1,2-Dichloroethene - solid	KG	09/29/93	09:35 <	5.000	ug/kg	5.00 ug/kg	8240
1,2-Dichloroethane - solid	KG	09/29/93	09:35 <	5.000	ug/kg	5.00 ug/kg	8240
1,1,1-Trichloroethane - solid	KG	09/29/93	09:35 <	5.000	ug/kg	5.00 ug/kg	8240
Bromodichloromethane - solid	KG	09/29/93	09:35 <	5.000	ug/kg	5.00 ug/kg	8240
1,2-Dichloropropane - solid	KG	09/29/93	09:35 <	5.000	ug/kg	5.00 ug/kg	8240
Trans 1,3-Dichloropropene - solid	KG	09/29/93	09:35 <	5.000	ug/kg	5.00 ug/kg	8240
Trichloroethene - solid	KG	09/29/93	09:35 <	5.000	ug/kg	5.00 ug/kg	8240
Dibromochloromethane - solid	KG	09/29/93	09:35 <	5.000	ug/kg	5.00 ug/kg	8240
1,1,2-trichloroethane - solid	KG	09/29/93	09:35 <	5.000	ug/kg	5.00 ug/kg	8240
Cis-1,3-Dichloropropene - solid	KG	09/29/93	09:35 <	5.000	ug/kg	5.00 ug/kg	8240
Benzene - solid	KG	09/29/93	09:35 <	5.000	ug/kg	5.00 ug/kg	8240
2-Chloroethylvinyl ether - solid	KG	09/29/93	09:35 <	10.000	ug/kg	10.00 ug/kg	8240
Bromoform - solid	KG	09/29/93	09:35 <	5.000	ug/kg	5.00 ug/kg	8240
1,1,2,2,-Tetrachloroethane - solid	KG	09/29/93	09:35 <	5.000	ug/kg	5.00 ug/kg	8240
Tetrachloroethene - solid	KG	09/29/93	09:35 <	5.000	ug/kg	5.00 ug/kg	8240
Toluene - solid	KG	09/29/93	09:35 <	5.000	ug/kg	5.00 ug/kg	8240
Chlorobenzene - solid	KG	09/29/93	09:35 <	5.000	ug/kg	5.00 ug/kg	8240
Ethylbenzene - solid	KG	09/29/93	09:35 <	5.000	ug/kg	5.00 ug/kg	8240
Chloroform - solid	KG	09/29/93	09:35 <	5.000	ug/kg	5.00 ug/kg	8240
Acetone - solid	KG	09/29/93	09:35 <	0.200	mg/kg	0.20 mg/kg	8240
Carbon tetrachloride - solid	KG	09/29/93	09:35 <	5.000	ug/kg	5.00 ug/kg	8240
Xylene - solid	KG	09/29/93	09:35 <	10.000	ug/kg	10.00 ug/kg	8240
2-Butanone - solid	KG	09/29/93	09:35 <	10.000	ug/kg	10.00 ug/kg	8240
Vinyl Acetate - solid	KG	09/29/93	09:35 <	10.000	ug/kg	10.00 ug/kg	8240
4-methyl-2 pentanone - solid	KG	09/29/93	09:35 <	10.000	ug/kg	10.00 ug/kg	8240
Styrene - solid	KG	09/29/93	09:35 <	10.000	ug/kg	10.00 ug/kg	8240
Carbon Disulfide - solid	KG	09/29/93	09:35 <	5.000	ug/kg	5.00 ug/kg	8240
2-Hexanone - solid	KG	09/29/93	09:35 <	10.000	ug/kg	10.00 ug/kg	8240

Comments:
TCLP Extracts were prepared and analyzed according to SW846 method 1311.
Analytical results are reported on a wet-weight basis.

The volatile run was initiated at 18:31.

For Volatile Analysis: Due to the nature of the sample, the sample size was reduced from 5g to 1g. Therefore, the detection limits and less than values are actually 5 times those reported. However, the reported levels for the compounds found have already been corrected.

Sample Date: 09/16/93 In House # 09-6207-93 Source: SB2-9-93 Location:

Metals Sample Preparation - water	JAG	09/23/93	17:00	0.000	0.00
TCLP Extraction, excluding Volatile cpds	JDW	09/21/93	18:00	0.000	0.00
TCLP Extraction, Volatile cpds. only	JDW	09/22/93	18:00	0.000	0.00
TPH (heavy fuels) sample preparation	SS	09/21/93	09:00	0.000	0.00
Pesticide extraction - TCLP	MR	09/29/93	09:00	0.000	0.00
Herbicide extraction - TCLP	SB	09/27/93	10:00	0.000	0.00
Base Neutrals - TCLP extraction	SB	09/23/93	08:00	0.000	0.00

Parameter	Analyst	Analysis Date -- Time		Results	Units	Lowest Detectable Level	Method Number
Sample Date: 09/16/93 In House # 09-6207-93		Source: SB2-9-93 - CONTINUED -		Location:			
Acid - TCLP extraction	SB	09/23/93	08:00	0.000		0.00	
Lab pH	TW	09/20/93	11:10	6.910	pH Units	0.00 pH Units	150.1
Arsenic - TCLP	KAH	09/28/93	23:44 <	0.500	ppm	0.50 ppm	206.2
Selenium - TCLP	KAH	09/29/93	04:41 <	0.100	ppm	0.10 ppm	270.2
Barium - TCLP	CW	09/24/93	16:26 <	10.000	ppm	10.00 ppm	200.7
Cadmium - TCLP	CW	09/24/93	16:26 <	0.100	ppm	0.10 ppm	200.7
Chromium - TCLP	CW	09/24/93	16:26 <	0.500	ppm	0.50 ppm	200.7
Lead - TCLP	KAH	09/29/93	09:52 <	0.500	ppm	0.50 ppm	239.2
Mercury - TCLP	KAH	09/23/93	12:00 <	0.200	ppm	0.05 ppm	245.1
Silver - TCLP	CW	09/24/93	16:26 <	0.500	ppm6	0.50 ppm	200.7
Benzene - TCLP	KG	09/29/93	08:12 <	0.500	mg/l	0.50 mg/l	624.
Carbon Tetrachloride - TCLP	KG	09/29/93	08:12 <	0.500	mg/l	0.50 mg/l	624.
Chlorobenzene - TCLP	KG	09/29/93	08:12 <	100.000	mg/l	100.00 mg/l	624.
Chloroform - TCLP	KG	09/29/93	08:12 <	6.000	mg/l	6.00 mg/l	624.
1,4-Dichlorobenzene - TCLP	KG	09/29/93	08:12 <	7.500	mg/l	7.50 mg/l	624.
1,2-Dichloroethane - TCLP	KG	09/29/93	08:12 <	0.500	mg/l	0.50 mg/l	624.
1,1-Dichloroethylene - TCLP	KG	09/29/93	08:12 <	0.700	mg/l	0.70 mg/l	624.
Methyl Ethyl Ketone - TCLP	KG	09/29/93	08:12 <	200.000	mg/l	200.00 mg/l	624.
Tetrachloroethylene - TCLP	KG	09/29/93	08:12 <	0.700	mg/l	0.70 mg/l	624.
Trichloroethylene - TCLP	KG	09/29/93	08:12 <	0.500	mg/l	0.50 mg/l	624.
Vinyl Chloride - TCLP	KG	09/29/93	08:12 <	0.200	mg/l	0.20 mg/l	624.
O-Cresol - TCLP	AT	09/29/93	15:40 <	200.000	mg/l	200.00 mg/l	625.
M-Cresol - TCLP	AT	09/29/93	15:40 <	200.000	mg/l	200.00 mg/l	625.
P-Cresol - TCLP	AT	09/29/93	15:40 <	200.000	mg/l	200.00 mg/l	625.
Pentachlorophenol - TCLP	AT	09/29/93	15:40 <	100.000	mg/l	100.00 mg/l	625.
2,4,5-Trichlorophenol - TCLP	AT	09/29/93	15:40 <	400.000	mg/l	400.00 mg/l	625.
2,4,6-Trichlorophenol - TCLP	AT	09/29/93	15:40 <	2.000	mg/l	2.00 mg/l	625.
2,4-Dinitrotoluene - TCLP	AT	09/29/93	15:40 <	0.130	mg/l	0.13 mg/l	625.
Hexachlorobenzene - TCLP	AT	09/29/93	15:40 <	0.130	mg/l	0.13 mg/l	625.
Hexachlorobutadiene - TCLP	AT	09/29/93	15:40 <	0.500	mg/l	0.50 mg/l	625.
Hexachloroethane - TCLP	AT	09/29/93	15:40 <	3.000	mg/l	3.00 mg/l	625.
Nitrobenzene - TCLP	AT	09/29/93	15:40 <	0.130	mg/l	0.13 mg/l	625.
Pyridine - TCLP	AT	09/29/93	15:40 <	5.000	mg/l	5.00 mg/l	625.
TPH heavy fuel, 3550/8015 - solid	RK	09/23/93	19:19	38.000	mg/kg	10.00 mg/kg	8015
Toxaphene TCLP - liquid	RMK	09/29/93	23:03 <	0.500	mg/l	0.50 mg/l	608
2,4-D TCLP - liquid	RMK	09/30/93	16:59 <	10.000	mg/l	10.00 mg/l	509.
Silvex TCLP - liquid	RMK	09/30/93	16:59 <	1.000	mg/l	1.00 mg/l	509.
Chlordane TCLP - liquid	RMK	09/29/93	23:03 <	0.030	mg/l	0.03 mg/l	608.
Endrin TCLP - liquid	RMK	09/29/93	23:03 <	0.020	mg/l	0.02 mg/l	608.
Heptachlor TCLP - liquid	RMK	09/29/93	23:03 <	8.000	ug/l	8.00 ug/l	608.
Heptachlor Epoxide TCLP - liquid	RMK	09/29/93	23:03 <	8.000	ug/l	8.00 ug/l	608.
Lindane TCLP - liquid	RMK	09/29/93	23:03 <	0.400	mg/l	0.40 mg/l	608.
Methoxychlor TCLP - liquid	RMK	09/29/93	23:03 <	10.000	mg/l	10.00 mg/l	608.
% Solids	MB	09/23/93	09:00	85.700	%	0.01 %	160.3
Chloroethane - solid	KG	09/29/93	09:38 <	10.000	ug/kg	10.00 ug/kg	8240
Chloromethane - solid	KG	09/29/93	09:38 <	10.000	ug/kg	10.00 ug/kg	8240
Bromomethane - solid	KG	09/29/93	09:38 <	10.000	ug/kg	10.00 ug/kg	8240
Vinyl Chloride - solid	KG	09/29/93	09:38 <	10.000	ug/kg	10.00 ug/kg	8240
Methylene Chloride - solid	KG	09/29/93	09:38 <	5.000	ug/kg	5.00 ug/kg	8240
Trichlorofluoromethane - solid	KG	09/29/93	09:38 <	10.000	ug/kg	10.00 ug/kg	8240
1,1-Dichloroethene - solid	KG	09/29/93	09:38 <	5.000	ug/kg	5.00 ug/kg	8240
1,1-Dichloroethane - solid	KG	09/29/93	09:38 <	5.000	ug/kg	5.00 ug/kg	8240
Trans 1,2-Dichloroethene - solid	KG	09/29/93	09:38 <	5.000	ug/kg	5.00 ug/kg	8240
1,2-Dichloroethane - solid	KG	09/29/93	09:38 <	5.000	ug/kg	5.00 ug/kg	8240
1,1,1-Trichloroethane - solid	KG	09/29/93	09:38 <	5.000	ug/kg	5.00 ug/kg	8240
Bromodichloromethane - solid	KG	09/29/93	09:38 <	5.000	ug/kg	5.00 ug/kg	8240
1,2-Dichloropropane - solid	KG	09/29/93	09:38 <	5.000	ug/kg	5.00 ug/kg	8240
Trans 1,3-Dichloropropene - solid	KG	09/29/93	09:38 <	5.000	ug/kg	5.00 ug/kg	8240
Trichloroethene - solid	KG	09/29/93	09:38 <	5.000	ug/kg	5.00 ug/kg	8240
Dibromochloromethane - solid	KG	09/29/93	09:38 <	5.000	ug/kg	5.00 ug/kg	8240
1,1,2-trichloroethane - solid	KG	09/29/93	09:38 <	5.000	ug/kg	5.00 ug/kg	8240
Cis-1,3-Dichloropropene - solid	KG	09/29/93	09:38 <	5.000	ug/kg	5.00 ug/kg	8240
Benzene - solid	KG	09/29/93	09:38 <	5.000	ug/kg	5.00 ug/kg	8240
2-Chloroethylvinyl ether - solid	KG	09/29/93	09:38 <	10.000	ug/kg	10.00 ug/kg	8240
Bromoform - solid	KG	09/29/93	09:38 <	5.000	ug/kg	5.00 ug/kg	8240

Parameter	Analyst	Analysis Date -- Time		Results	Units	Lowest Detectable Level	Method Number
Sample Date: 09/16/93 In House # 09-6207-93		Source: SB2-9-93 - CONTINUED -		Location:			
1,1,2,2,-Tetrachloroethane - solid	KG	09/29/93	09:38 <	5.000	ug/kg	5.00 ug/kg	8240
Tetrachloroethene - solid	KG	09/29/93	09:38 <	5.000	ug/kg	5.00 ug/kg	8240
Toluene - solid	KG	09/29/93	09:38 <	5.000	ug/kg	5.00 ug/kg	8240
Chlorobenzene - solid	KG	09/29/93	09:38 <	5.000	ug/kg	5.00 ug/kg	8240
Ethylbenzene - solid	KG	09/29/93	09:38 <	5.000	ug/kg	5.00 ug/kg	8240
Chloroform - solid	KG	09/29/93	09:38 <	5.000	ug/kg	5.00 ug/kg	8240
Acetone - solid	KG	09/29/93	09:38 <	0.200	mg/kg	0.20 mg/kg	8240
Carbon tetrachloride - solid	KG	09/29/93	09:38 <	5.000	ug/kg	5.00 ug/kg	8240
Xylene - solid	KG	09/29/93	09:38 <	10.000	ug/kg	10.00 ug/kg	8240
2-Butanone - solid	KG	09/29/93	09:38 <	10.000	ug/kg	10.00 ug/kg	8240
Vinyl Acetate - solid	KG	09/29/93	09:38 <	10.000	ug/kg	10.00 ug/kg	8240
4-methyl-2 pentanone - solid	KG	09/29/93	09:38 <	10.000	ug/kg	10.00 ug/kg	8240
Styrene - solid	KG	09/29/93	09:38 <	10.000	ug/kg	10.00 ug/kg	8240
Carbon Disulfide - solid	KG	09/29/93	09:38 <	5.000	ug/kg	5.00 ug/kg	8240
2-Hexanone - solid	KG	09/29/93	09:38 <	10.000	ug/kg	10.00 ug/kg	8240

Comments:
TCLP Extracts were prepared and analyzed according to SW846 method 1311.
Analytical results are reported on a wet-weight basis.

TCLP Volatile run was initiated at 12:35.

The Volatile run was initiated at 19:34.

For Volatile Analysis: Due to the nature of the sample, the sample size was reduced from 5g to 1g. Therefore, the detection limits and less than values are actually 5 times those reported. However, the reported levels for the compounds found have already been corrected.

Sample Date: 09/16/93 In House # 09-6208-93		Source: SB2-DUP		Location:			
Metals Sample Preparation - water	JAG	09/23/93	17:00	0.000		0.00	
TCLP Extraction, excluding Volatile cpds	JDW	09/21/93	18:00	0.000		0.00	
TCLP Extraction, Volatile cpds. only	JDW	09/22/93	18:00	0.000		0.00	
TPH (heavy fuels) sample preparation	SS	09/21/93	09:00	0.000		0.00	
Pesticide extraction - TCLP	MR	09/29/93	09:00	0.000		0.00	
Herbicide extraction - TCLP	SB	09/27/93	10:00	0.000		0.00	
Base Neutrals - TCLP extraction	SB	09/28/93	08:00	0.000		0.00	
Acid - TCLP extraction	SB	09/28/93	08:00	0.000		0.00	
Arsenic - TCLP	KAH	09/29/93	00:12 <	0.500	ppm	0.50 ppm	206.2
Selenium - TCLP	KAH	09/29/93	05:16 <	0.100	ppm	0.10 ppm	270.2
Barium - TCLP	CW	09/24/93	16:46 <	10.000	ppm	10.00 ppm	200.7
Cadmium - TCLP	CW	09/24/93	16:46 <	0.100	ppm	0.10 ppm	200.7
Chromium - TCLP	CW	09/24/93	16:46 <	0.500	ppm	0.50 ppm	200.7
Lead - TCLP	KAH	09/29/93	09:22 <	0.500	ppm	0.50 ppm	239.2
Mercury - TCLP	CMP	09/28/93	14:00 <	0.050	ppm	0.05 ppm	245.1
Silver - TCLP	CW	09/24/93	16:46 <	0.500	ppm	0.50 ppm	200.7
Benzene - TCLP	KG	09/29/93	14:46 <	0.500	mg/l	0.50 mg/l	624.
Carbon Tetrachloride - TCLP	KG	09/29/93	14:46 <	0.500	mg/l	0.50 mg/l	624.
Chlorobenzene - TCLP	KG	09/29/93	14:46 <	100.000	mg/l	100.00 mg/l	624.
Chloroform - TCLP	KG	09/29/93	14:46 <	6.000	mg/l	6.00 mg/l	624.
1,4-Dichlorobenzene - TCLP	KG	09/29/93	14:46 <	7.500	mg/l	7.50 mg/l	624.
1,2-Dichloroethane - TCLP	KG	09/29/93	14:46 <	0.500	mg/l	0.50 mg/l	624.
1,1-Dichloroethylene - TCLP	KG	09/29/93	14:46 <	0.700	mg/l	0.70 mg/l	624.
Methyl Ethyl Ketone - TCLP	KG	09/29/93	14:46 <	200.000	mg/l	200.00 mg/l	624.
Tetrachloroethylene - TCLP	KG	09/29/93	14:46 <	0.700	mg/l	0.70 mg/l	624.
Trichloroethylene - TCLP	KG	09/29/93	14:46 <	0.500	mg/l	0.50 mg/l	624.
Vinyl Chloride - TCLP	KG	09/29/93	14:46 <	0.200	mg/l	0.20 mg/l	624.
O-Cresol - TCLP	AT	09/29/93	19:02 <	200.000	mg/l	200.00 mg/l	625.
M-Cresol - TCLP	AT	09/29/93	19:02 <	200.000	mg/l	200.00 mg/l	625.
P-Cresol - TCLP	AT	09/29/93	19:02 <	200.000	mg/l	200.00 mg/l	625.
Pentachlorophenol - TCLP	AT	09/29/93	19:02 <	100.000	mg/l	100.00 mg/l	625.
2,4,5-Trichlorophenol - TCLP	AT	09/29/93	19:02 <	400.000	mg/l	400.00 mg/l	625.
2,4,6-Trichlorophenol - TCLP	AT	09/29/93	19:02 <	2.000	mg/l	2.00 mg/l	625.
2,4-Dinitrotoluene - TCLP	AT	09/29/93	19:02 <	0.130	mg/l	0.13 mg/l	625.
Hexachlorobenzene - TCLP	AT	09/29/93	19:02 <	0.130	mg/l	0.13 mg/l	625.

Parameter	Analyst	Analysis Date -- Time		Results	Units	Lowest Detectable Level	Method Number
Sample Date: 09/16/93 In House # 09-6208-93		Source: SB2-DUP		Location:			
		- CONTINUED -					
Hexachlorobutadiene - TCLP	AT	09/29/93 19:02	<	0.500	mg/l	0.50 mg/l	625.
Hexachloroethane - TCLP	AT	09/29/93 19:02	<	3.000	mg/l	3.00 mg/l	625.
Nitrobenzene - TCLP	AT	09/29/93 19:02	<	0.130	mg/l	0.13 mg/l	625.
Pyridine - TCLP	AT	09/29/93 19:02	<	5.000	mg/l	5.00 mg/l	625.
TPH heavy fuel, 3550/8015 - solid	RK	09/23/93 18:50		18.000	mg/kg	10.00 mg/kg	8015
Toxaphene TCLP - liquid	RMK	09/30/93 00:21	<	0.500	mg/l	0.50 mg/l	608
2,4-D TCLP - liquid	RMK	09/30/93 17:50	<	10.000	mg/l	10.00 mg/l	509.
Silvex TCLP - liquid	RMK	09/30/93 17:50	<	1.000	mg/l	1.00 mg/l	509.
Chlordane TCLP - liquid	RMK	09/30/93 00:21	<	0.030	mg/l	0.03 mg/l	608.
Endrin TCLP - liquid	RMK	09/30/93 00:21	<	0.020	mg/l	0.02 mg/l	608.
Heptachlor TCLP - liquid	RMK	09/30/93 00:21	<	8.000	ug/l	8.00 ug/l	608.
Heptachlor Epoxide TCLP - liquid	RMK	09/30/93 00:21	<	8.000	ug/l	8.00 ug/l	608.
Lindane TCLP - liquid	RMK	09/30/93 00:21	<	0.400	mg/l	0.40 mg/l	608.
Methoxychlor TCLP - liquid	RMK	09/30/93 00:21	<	10.000	mg/l	10.00 mg/l	608.
% Solids	MB	09/23/93 09:00		79.400	%	0.01 %	160.3
Chloroethane - solid	KG	09/29/93 09:40	<	10.000	ug/kg	10.00 ug/kg	8240
Chloromethane - solid	KG	09/29/93 09:40	<	10.000	ug/kg	10.00 ug/kg	8240
Bromomethane - solid	KG	09/29/93 09:40	<	10.000	ug/kg	10.00 ug/kg	8240
Vinyl Chloride - solid	KG	09/29/93 09:40	<	10.000	ug/kg	10.00 ug/kg	8240
Methylene Chloride - solid	KG	09/29/93 09:40	<	5.000	ug/kg	5.00 ug/kg	8240
Trichlorofluoromethane - solid	KG	09/29/93 09:40	<	10.000	ug/kg	10.00 ug/kg	8240
1,1-Dichloroethene - solid	KG	09/29/93 09:40	<	5.000	ug/kg	5.00 ug/kg	8240
1,1-Dichloroethane - solid	KG	09/29/93 09:40	<	5.000	ug/kg	5.00 ug/kg	8240
Trans 1,2-Dichloroethene - solid	KG	09/29/93 09:40	<	5.000	ug/kg	5.00 ug/kg	8240
1,2-Dichloroethane - solid	KG	09/29/93 09:40	<	5.000	ug/kg	5.00 ug/kg	8240
1,1,1-Trichloroethane - solid	KG	09/29/93 09:40	<	5.000	ug/kg	5.00 ug/kg	8240
Bromodichloromethane - solid	KG	09/29/93 09:40	<	5.000	ug/kg	5.00 ug/kg	8240
1,2-Dichloropropane - solid	KG	09/29/93 09:40	<	5.000	ug/kg	5.00 ug/kg	8240
Trans 1,3-Dichloropropene - solid	KG	09/29/93 09:40	<	5.000	ug/kg	5.00 ug/kg	8240
Trichloroethene - solid	KG	09/29/93 09:40	<	5.000	ug/kg	5.00 ug/kg	8240
Dibromochloromethane - solid	KG	09/29/93 09:40	<	5.000	ug/kg	5.00 ug/kg	8240
1,1,2-trichloroethane - solid	KG	09/29/93 09:40	<	5.000	ug/kg	5.00 ug/kg	8240
Cis-1,3-Dichloropropene - solid	KG	09/29/93 09:40	<	5.000	ug/kg	5.00 ug/kg	8240
Benzene - solid	KG	09/29/93 09:40	<	5.000	ug/kg	5.00 ug/kg	8240
2-Chloroethylvinyl ether - solid	KG	09/29/93 09:40	<	10.000	ug/kg	10.00 ug/kg	8240
Bromoform - solid	KG	09/29/93 09:40	<	5.000	ug/kg	5.00 ug/kg	8240
1,1,2,2,-Tetrachloroethane - solid	KG	09/29/93 09:40	<	5.000	ug/kg	5.00 ug/kg	8240
Tetrachloroethene - solid	KG	09/29/93 09:40	<	5.000	ug/kg	5.00 ug/kg	8240
Toluene - solid	KG	09/29/93 09:40	<	5.000	ug/kg	5.00 ug/kg	8240
Chlorobenzene - solid	KG	09/29/93 09:40	<	5.000	ug/kg	5.00 ug/kg	8240
Ethylbenzene - solid	KG	09/29/93 09:40	<	5.000	ug/kg	5.00 ug/kg	8240
Chloroform - solid	KG	09/29/93 09:40	<	5.000	ug/kg	5.00 ug/kg	8240
Acetone - solid	KG	09/29/93 09:40	<	0.200	mg/kg	0.20 mg/kg	8240
Carbon tetrachloride - solid	KG	09/29/93 09:40	<	5.000	ug/kg	5.00 ug/kg	8240
Xylene - solid	KG	09/29/93 09:40	<	10.000	ug/kg	10.00 ug/kg	8240
2-Butanone - solid	KG	09/29/93 09:40	<	10.000	ug/kg	10.00 ug/kg	8240
Vinyl Acetate - solid	KG	09/29/93 09:40	<	10.000	ug/kg	10.00 ug/kg	8240
4-methyl-2 pentanone - solid	KG	09/29/93 09:40	<	10.000	ug/kg	10.00 ug/kg	8240
Styrene - solid	KG	09/29/93 09:40	<	10.000	ug/kg	10.00 ug/kg	8240
Carbon Disulfide - solid	KG	09/29/93 09:40	<	5.000	ug/kg	5.00 ug/kg	8240
2-Hexanone - solid	KG	09/29/93 09:40	<	10.000	ug/kg	10.00 ug/kg	8240

Comments:
TCLP Extracts were prepared and analyzed according to SW846 method 1311.
Analytical results are reported on a wet-weight basis.

The volatile run was initiated at 20:06.

For Volatile Analysis: Due to the nature of the sample, the sample size was reduced from 5g to 1g. Therefore, the detection limits and less than values are actually 5 times those reported. However, the reported levels for the compounds found have already been corrected.

Sample Date: 09/16/93 In House # 09-6209-93		Source: SB3-9-93		Location:		
Metals Sample Preparation - water	JAG	09/23/93 17:00		0.000		0.00

Parameter	Analyst	Analysis Date -- Time		Results	Units	Lowest Detectable Level	Method Number
Sample Date: 09/16/93 In House # 09-6209-93		Source: SB3-9-93 - CONTINUED -		Location:			
TCLP Extraction, excluding Volatile cpds	JDW	09/21/93	18:00	0.000		0.00	
TCLP Extraction, Volatile cpds. only	JDW	09/22/93	18:00	0.000		0.00	
TPH (heavy fuels) sample preparation	SS	09/21/93	09:00	0.000		0.00	
Pesticide extraction - TCLP	MR	09/29/93	09:00	0.000		0.00	
Herbicide extraction - TCLP	SB	09/27/93	10:00	0.000		0.00	
Base Neutrals - TCLP extraction	SB	09/28/93	08:00	0.000		0.00	
Acid - TCLP extraction	SB	09/28/93	08:00	0.000		0.00	
Lab pH	TW	09/20/93	11:10	6.430	pH Units	0.00 pH Units	150.1
Arsenic - TCLP	KAH	09/29/93	00:27	< 0.500	ppm	0.50 ppm	206.2
Selenium - TCLP	KAH	09/29/93	05:39	< 0.100	ppm	0.10 ppm	270.2
Barium - TCLP	CMP	09/24/93	16:33	< 10.000	ppm	10.00 ppm	200.7
Cadmium - TCLP	CMP	09/24/93	16:33	< 0.100	ppm	0.10 ppm	200.7
Chromium - TCLP	CMP	09/24/93	16:33	< 0.500	ppm	0.50 ppm	200.7
Lead - TCLP	KAH	09/29/93	11:00	< 0.500	ppm	0.50 ppm	239.2
Mercury - TCLP	CMP	09/28/93	14:00	< 0.050	ppm	0.05 ppm	245.1
Silver - TCLP	KAH	09/23/93	12:00	< 0.200	ppm	0.50 ppm	200.7
Benzene - TCLP	KG	09/29/93	15:22	< 0.500	mg/l	0.50 mg/l	624.
Carbon Tetrachloride - TCLP	KG	09/29/93	15:22	< 0.500	mg/l	0.50 mg/l	624.
Chlorobenzene - TCLP	KG	09/29/93	15:22	< 100.000	mg/l	100.00 mg/l	624.
Chloroform - TCLP	KG	09/29/93	15:22	< 6.000	mg/l	6.00 mg/l	624.
1,4-Dichlorobenzene - TCLP	KG	09/29/93	15:22	< 7.500	mg/l	7.50 mg/l	624.
1,2-Dichloroethane - TCLP	KG	09/29/93	15:22	< 0.500	mg/l	0.50 mg/l	624.
1,1-Dichloroethylene - TCLP	KG	09/29/93	15:22	< 0.700	mg/l	0.70 mg/l	624.
Methyl Ethyl Ketone - TCLP	KG	09/29/93	15:22	< 200.000	mg/l	200.00 mg/l	624.
Tetrachloroethylene - TCLP	KG	09/29/93	15:22	< 0.700	mg/l	0.70 mg/l	624.
Trichloroethylene - TCLP	KG	09/29/93	15:22	< 0.500	mg/l	0.50 mg/l	624.
Vinyl Chloride - TCLP	KG	09/29/93	15:22	< 0.200	mg/l	0.20 mg/l	624.
O-Cresol - TCLP	AT	09/29/93	19:45	< 200.000	mg/l	200.00 mg/l	625.
M-Cresol - TCLP	AT	09/29/93	19:45	< 200.000	mg/l	200.00 mg/l	625.
P-Cresol - TCLP	AT	09/29/93	19:45	< 200.000	mg/l	200.00 mg/l	625.
Pentachlorophenol - TCLP	AT	09/29/93	19:45	< 100.000	mg/l	100.00 mg/l	625.
2,4,5-Trichlorophenol - TCLP	AT	09/29/93	19:45	< 400.000	mg/l	400.00 mg/l	625.
2,4,6-Trichlorophenol - TCLP	AT	09/29/93	19:45	< 2.000	mg/l	2.00 mg/l	625.
2,4-Dinitrotoluene - TCLP	AT	09/29/93	19:45	< 0.130	mg/l	0.13 mg/l	625.
Hexachlorobenzene - TCLP	AT	09/29/93	19:45	< 0.130	mg/l	0.13 mg/l	625.
Hexachlorobutadiene - TCLP	AT	09/29/93	19:45	< 0.500	mg/l	0.50 mg/l	625.
Hexachloroethane - TCLP	AT	09/29/93	19:45	< 3.000	mg/l	3.00 mg/l	625.
Nitrobenzene - TCLP	AT	09/29/93	19:45	< 0.130	mg/l	0.13 mg/l	625.
Pyridine - TCLP	AT	09/29/93	19:45	< 5.000	mg/l	5.00 mg/l	625.
TPH heavy fuel, 3550/8015 - solid	RK	09/23/93	18:21	76.000	mg/kg	10.00 mg/kg	8015
Toxaphene TCLP - liquid	RMK	09/30/93	01:00	< 0.500	mg/l	0.50 mg/l	608
2,4-D TCLP - liquid	RMK	09/30/93	18:15	< 10.000	mg/l	10.00 mg/l	509.
Silvex TCLP - liquid	RMK	09/30/93	18:15	< 1.000	mg/l	1.00 mg/l	509.
Chlordane TCLP - liquid	RMK	09/30/93	01:00	< 0.030	mg/l	0.03 mg/l	608.
Endrin TCLP - liquid	RMK	09/30/93	01:00	< 0.020	mg/l	0.02 mg/l	608.
Heptachlor TCLP - liquid	RMK	09/30/93	01:00	< 8.000	ug/l	8.00 ug/l	608.
Heptachlor Epoxide TCLP - liquid	RMK	09/30/93	01:00	< 8.000	ug/l	8.00 ug/l	608.
Lindane TCLP - liquid	RMK	09/30/93	01:00	< 0.400	mg/l	0.40 mg/l	608.
Methoxychlor TCLP - liquid	RMK	09/30/93	01:00	< 10.000	mg/l	10.00 mg/l	608.
% Solids	MB	09/23/93	09:00	80.300	%	0.01 %	160.3
Chloroethane - solid	KG	09/29/93	09:41	< 10.000	ug/kg	10.00 ug/kg	8240
Chloromethane - solid	KG	09/29/93	09:41	< 10.000	ug/kg	10.00 ug/kg	8240
Bromomethane - solid	KG	09/29/93	09:41	< 10.000	ug/kg	10.00 ug/kg	8240
Vinyl Chloride - solid	KG	09/29/93	09:41	< 10.000	ug/kg	10.00 ug/kg	8240
Methylene Chloride - solid	KG	09/29/93	09:41	< 5.000	ug/kg	5.00 ug/kg	8240
Trichlorofluoromethane - solid	KG	09/29/93	09:41	< 10.000	ug/kg	10.00 ug/kg	8240
1,1-Dichloroethene - solid	KG	09/29/93	09:41	< 5.000	ug/kg	5.00 ug/kg	8240
1,1-Dichloroethane - solid	KG	09/29/93	09:41	< 5.000	ug/kg	5.00 ug/kg	8240
Trans 1,2-Dichloroethene - solid	KG	09/29/93	09:41	< 5.000	ug/kg	5.00 ug/kg	8240
1,2-Dichloroethane - solid	KG	09/29/93	09:42	< 5.000	ug/kg	5.00 ug/kg	8240
1,1,1-Trichloroethane - solid	KG	09/29/93	09:42	< 5.000	ug/kg	5.00 ug/kg	8240
Bromodichloromethane - solid	KG	09/29/93	09:42	< 5.000	ug/kg	5.00 ug/kg	8240
1,2-Dichloropropane - solid	KG	09/29/93	09:42	< 5.000	ug/kg	5.00 ug/kg	8240
Trans 1,3-Dichloropropene - solid	KG	09/29/93	09:42	< 5.000	ug/kg	5.00 ug/kg	8240
Trichloroethene - solid	KG	09/29/93	09:42	< 5.000	ug/kg	5.00 ug/kg	8240

Parameter	Analyst	Analysis Date -- Time		Results	Units	Lowest Detectable Level	Method Number
Sample Date: 09/16/93 In House # 09-6209-93		Source: SB3-9-93 - CONTINUED -		Location:			
Dibromochloromethane - solid	KG	09/29/93	09:42 <	5.000	ug/kg	5.00 ug/kg	8240
1,1,2-trichloroethane - solid	KG	09/29/93	09:42 <	5.000	ug/kg	5.00 ug/kg	8240
Cis-1,3-Dichloropropene - solid	KG	09/29/93	09:42 <	5.000	ug/kg	5.00 ug/kg	8240
Benzene - solid	KG	09/29/93	09:42 <	5.000	ug/kg	5.00 ug/kg	8240
2-Chloroethylvinyl ether - solid	KG	09/29/93	09:42 <	10.000	ug/kg	10.00 ug/kg	8240
Bromoform - solid	KG	09/29/93	09:42 <	5.000	ug/kg	5.00 ug/kg	8240
1,1,2,2,-Tetrachloroethane - solid	KG	09/29/93	09:42 <	5.000	ug/kg	5.00 ug/kg	8240
Tetrachloroethene - solid	KG	09/29/93	09:42 <	5.000	ug/kg	5.00 ug/kg	8240
Toluene - solid	KG	09/29/93	09:42 <	5.000	ug/kg	5.00 ug/kg	8240
Chlorobenzene - solid	KG	09/29/93	09:42 <	5.000	ug/kg	5.00 ug/kg	8240
Ethylbenzene - solid	KG	09/29/93	09:42 <	5.000	ug/kg	5.00 ug/kg	8240
Chloroform - solid	KG	09/29/93	09:42 <	5.000	ug/kg	5.00 ug/kg	8240
Acetone - solid	KG	09/29/93	09:42 <	0.200	mg/kg	0.20 mg/kg	8240
Carbon tetrachloride - solid	KG	09/29/93	09:42 <	5.000	ug/kg	5.00 ug/kg	8240
Xylene - solid	KG	09/29/93	09:42 <	10.000	ug/kg	10.00 ug/kg	8240
2-Butanone - solid	KG	09/29/93	09:42 <	10.000	ug/kg	10.00 ug/kg	8240
Vinyl Acetate - solid	KG	09/29/93	09:42 <	10.000	ug/kg	10.00 ug/kg	8240
4-methyl-2 pentanone - solid	KG	09/29/93	09:42 <	10.000	ug/kg	10.00 ug/kg	8240
Styrene - solid	KG	09/29/93	09:42 <	10.000	ug/kg	10.00 ug/kg	8240
Carbon Disulfide - solid	KG	09/29/93	09:42 <	5.000	ug/kg	5.00 ug/kg	8240
2-Hexanone - solid	KG	09/29/93	09:42 <	10.000	ug/kg	10.00 ug/kg	8240

Comments:
TCLP Extracts were prepared and analyzed according to SW846 method 1311.
Analytical results are reported on a wet-weight basis.

The volatile run was initiated at 20:37.

For Volatile Analysis: Due to the nature of the sample, the sample size was reduced from 5g to 1g. Therefore, the detection limits and less than values are actually 5 times those reported. However, the reported levels for the compounds found have already been corrected.

Laboratory ID # 40111

Very truly yours,

James H. Carr, Jr.
Chemist

CARR LABORATORIES

CHAIN OF CUSTODY RECORD

Client CESAS — Project No. FST-027

Contact Toni Nicholson — Phone No. 912-652-5675

Address PO Box 889, Savannah, Ga 31402 — Fax No. 912-652-5311

Collected By Judson Smith — Client P.O.# _____

MT (Matrix Type)	AP (Analytical Program)
L=Liquid	W=Wastewater
(S)=Soil	G=Groundwater
O=Oil	D=Drinking Water
X=Other	(S)=Solid/Haz. Waste
	N=Nonregulated

Carr's Lab No.	Sample Source	Location	Date/Time	Well	Grab	Composite	MT	AP	Number of Containers	Preserved Y or N	Analyses Requested
FST-027-SB1-9-93	Ft Stewart	FST-027	9/16/93/ 1320		X		S		4	ICE Y	TPH MOD 3550, VOC 8240, TCLP (Full), pH 09-6206-93
FST-027-SB2-9-93	Ft Stewart	FST-027	9/16/93/ 1410		X		S		4	ICE Y	" " " " 6207
FST-027-SB2-Dup-9-93	Ft Stewart	FST-027	9/16/93/ 1410		X		S		3	ICE Y	TPH MOD 3550, VOC 8240, TCLP(Full) 6208
FST-027-SB3-9-93	Ft Stewart	FST-027	9/16/93/ 1440		X		S		4	ICE Y	TPH MOD 3550, VOC 8240, TCLP(Full), pH 6209
											TEMP. 0.7°C; ice visible

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Relinquished By	Received By	Date	Time
1. [signature]	Henry Baxter	9/17/93	1523
2 Henry Baxter	D. Hutto	9/17/93	1916
3.			
Received In Lab By	D. Hutto	9-17-93	19:16

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FT. STEWART Number Key

JOB NUMBER FST-027

Carr Lab No.	FT STEWART ID
09-6206-93	SB1-9-93
09-6207-93	SB2-9-93
09-6208-93	SB2DUP93
09-6209-93	SB3-9-93

QUALITY CONTROL FOR LEAD ANALYSIS

SAMPLES NUMBERED: 09-6206-93 through 09-6209-93 analyzed 09/29/93

Date	QC Sample Number	Val. 1 (ug/l)	Val. 2 (ug/l)	% RPD	Spike Conc.	True Value	Observed Value	Percent Recovery
09/29/93	WP28-2					30.0	32.9	110
09/29/93	DIG. STD.					50.0	54.5	109
09/29/93	6206	<5.0	<5.0	0	15.0	17.6	17.8	101
09/29/93	6208	6.5	6.3	3.1	15.0	21.6	21.7	101

CY-887

QUALITY CONTROL FOR ARSENIC ANALYSIS

SAMPLES NUMBERED: 09-6206-93 through 09-6209-93 analyzed 09/28/93

Date	QC Sample Number	Val. 1 (ug/l)	Val. 2 (ug/l)	% RPD	Spike Conc.	True Value	Observed Value	Percent Recovery
09/28/93	WP28-2					86.0	85.4	98
09/28/93	6206dig	<5.0	<5.0	0	15.0	15.0	16.3	109
09/28/93	6207dig	5.0	11.0	75	50.0	61.0	63.0	103
09/28/93	6208	<5.0	<5.0	0	15.0	16.0	16.4	102

QUALITY CONTROL FOR SELENIUM ANALYSIS

SAMPLES NUMBERED: 09-6206-93 through 09-6209-93 analyzed 09/29/93

Date	QC Sample Number	Val. 1 (ug/l)	Val. 2 (ug/l)	% RPD	Spike Conc.	True Value	Observed Value	Percent Recovery
09/29/93	WP28-2					11.0	11.3	102
09/29/93	6206	<5.0	<5.0	0	15.0	15.0	14.9	97
09/29/93	6207DIG	<5.0	<5.0	0	50.0	50.0	49.2	98

QUALITY CONTROL FOR ICP ANALYSIS

SAMPLES NUMBERED: 09-6206-93 through 09-6209-93 analyzed 09/24/93.

Date	Element	QC Sample Number	Val. 1 (mg/l)	Val. 2 (mg/l)	% RPD	Spike Conc.	True Value	Obs. Value	% Rec.
09/24/93	Ba	ICP-07					1.00	0.992	99
09/24/93	Cr	ICP-19					1.00	0.950	95
09/24/93	Cd	ICP-19					1.00	1.01	101
09/24/93	Ag	ICP-07					1.00	1.10	110
09/24/93	Cr	6161	0.075	0.078	3.9	0.10	0.175	0.164	86
09/24/93	Cd	6161	<.01	<.01	0	0.10	0.10	0.084	84
09/24/93	Ag	6118	<.05	<.05	0	0.10	0.10	0.112	112
09/24/93	Ba	6161	0.20	0.21	4.9	0.10	0.300	0.292	92

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QUALITY CONTROL FOR MERCURY ANALYSIS

SAMPLES NUMBERED: 09-6206-93 through 09-6209-93 analyzed 09/28/93;

Date	QC Sample Number	Val. 1 (ug/l)	Val. 2 (ug/l)	% RPD	Spike Conc.	True Value	Observed Value	Percent Recovery
09/28/93	WP25-1					0.60	0.58	96
09/28/93	6194	<0.2	<0.2	0	1.0	1.00	0.96	96
09/28/93	6209	<0.2	<0.2	0	1.0	1.00	0.86	86

QUALITY CONTROL FOR PESTICIDES

SAMPLES NUMBERED: 09-6206-93 through 09-6209-93 analyzed 09/29/93;

SPIKE RECOVERY DATA FOR 09/29/93

SPIKE QC SAMPLE NUMBER: SPK092993 DUPLICATE SAMPLE NO: 09620793

Analyte	Val. 1 (ug/l)	Val. 2 (ug/l)	% RPD	Spike Conc.	True Value	Observed Value	Percent Recovery
Alpha-BHC	<.02	<.02	0	0.08	0.08	0.125	156
Gamma-BHC	<.02	<.02	0	0.08	0.08	0.105	131
Beta-BHC	<.02	<.02	0	0.08	0.08	0.093	116
Heptachlor	<.02	<.02	0	0.08	0.08	0.116	145
Delta-BHC	<.02	<.02	0	0.08	0.08	0.068	85
Aldrin	<.02	<.02	0	0.08	0.08	0.108	135
Heptachlor Epox.	<.02	<.02	0	0.08	0.08	0.098	122
Endosulfan I	<.02	<.02	0	0.08	0.08	0.091	114
p,p - DDE	<.02	<.02	0	0.08	0.08	0.095	119
Dieldrin	<.02	<.02	0	0.08	0.08	0.089	111
Endrin	<.02	<.02	0	0.08	0.08	0.079	99
Endosulfan II	<.02	<.02	0	0.08	0.08	0.070	88
Endrin Aldehyde	<.02	<.02	0	0.08	0.08	0.063	79
Endosulfan Sulf.	<.02	<.02	0	0.08	0.08	0.052	65
Methoxychlor	<.02	<.02	0	0.08	0.08	0.104	130
Endrin Ketone	<.02	<.02	0	0.16	0.16	0.189	118

U-889

BLANK DATA FOR PESTICIDES

All analytes less than 0.05 ug/L on all dates.

SURROGATE RECOVERIES FOR PESTICIDES

Sample Date	Sample Number	Theoretical Conc. (ug/l)	Observed Conc.(ug/l)	Percent Recovery
09/29/93	BLANK	1.0	0.40	40
09/29/93	09-6206-93	1.0	0.63	63
09/29/93	09-6207-93	1.0	0.52	52
09/29/93	09-6208-93	1.0	0.27	27
09/29/93	09-6209-93	1.0	0.57	57
09/29/93	09-6207DUP	1.0	0.49	49
09/29/93	092993SPK	1.0	0.64	64

* Surrogate recoveries were low for this run. Data is accepted based on spike and duplicate values. New surrogate has been prepared for future analyses.

U-890

QUALITY CONTROL FOR HERBICIDES

SAMPLES NUMBERED: 09-6206-93 through 09-6209-93 analyzed 09/30/93;

SPIKE QC SAMPLE NUMBER: 092793 DUPLICATE SAMPLE NUMBER 09620793

Analyte	Val. 1 (ug/l)	Val. 2 (ug/l)	% RPD	Spike Conc.	True Value	Observed Value	Percent Recovery
2,4-D	<.05	<.05	0	2.00	2.00	1.77	89
Silvex	<.05	<.05	0	0.20	0.20	0.116	58

SURROGATE RECOVERIES FOR HERBICIDES

Sample Date	Sample Number	Theoretical Conc. (ug/l)	Percent Recovery
09/30/93	BLANK	4.0	120
09/30/93	09-6206-93	4.0	130
09/30/93	09-6207-93	4.0	97
09/30/93	09-6208-93	4.0	115
09/30/93	09-6209-93	4.0	80
09/30/93	09-6207DUP	4.0	116
09/30/93	092393SPK	4.0	87

QUALITY CONTROL FOR VOLATILES

SAMPLES NUMBERED: 09-6206-93 analyzed 09/28/93 for TCLP.
SAMPLES NUMBERED: 09-6207-93 through 09-6209-93 analyzed 09/29/93 TCLP; 09-6306-93 through 09-6209-93 analyzed for total volatiles.

SPIKE RECOVERY DATA FOR 09/28/93

SPIKE QC SAMPLE NUMBER: 09620693 spiked duplicate sample

Analyte	Val. 1 (ug/l)	Val. 2 (ug/l)	% RPD	Spike Conc.	True Value	Observed Value	Percent Recovery
1,1 Dichloroethene	28.9	34.7	18.2	50	50	34.7	69
Trichloroethene	51.3	60.7	16.8	50	50	51.3	103
Benzene	39.5	45.4	13.9	50	50	45.4	91
Toluene	45.4	53.7	16.8	50	50	53.7	107
Chlorobenzene	39.7	46.8	16.4	50	50	46.8	94

SPIKE RECOVERY DATA FOR 09/29/93

SPIKE QC SAMPLE NUMBER: 09620793 spiked duplicate sample.

Analyte	Val. 1 (ug/l)	Val. 2 (ug/l)	% RPD	Spike Conc.	True Value	Observed Value	Percent Recovery
1,1 Dichloroethene	35.9	35.7	.6	50	50	35.9	72
Trichloroethene	57.9	49.7	15.2	50	50	49.7	99
Benzene	44.8	44.3	1.1	50	50	44.8	90
Toluene	49.7	41.6	17.7	50	50	49.7	99
Chlorobenzene	44.5	45.5	2.2	50	50	45.5	91

BLANK DATA FOR VOLATILES

All analytes on all dates <5 ug/L.

U-892

SURROGATE RECOVERIES FOR VOLATILES, PERCENT RECOVERY

Sample Date	Sample Number	1,2 dichloro-ethane d-4	Toluene d-8	Bromofloro benzene
09/28/93	BLANK	84	99	77
09/28/93	09-6206-93	84	106	77
09/28/93	09-6206SPK	84	103	67
09/28/93	09-6206SPKDUP	84	103	68
09/29/93	BLANK	94	109	88
09/29/93	09-6207-93T	86	99	79
09/29/93	09-6208-93T	86	98	82
09/29/93	09-6209-93T	89	106	86
09/29/93	09-6206-93	92	111	78
09/29/93	09-6207-93	82	102	71
09/29/93	09-6208-93	86	100	75
09/29/93	09-6209-93	95	112	82
09/29/93	09-6207SPK	91	108	83
09/29/93	09-6207SPKDUP	70	103	73

ACIDS AND BASE-NEUTRALS QUALITY CONTROL DATA

SAMPLE NUMBERS: 09-6205-93 through 09-6209-93 analyzed 09/29/93;

DATE: 09/29/93
QC SAMPLE: SPK092393 DUPLICATE SAMPLE NO.: 09620393

Analyte	Dup. 1 ug/l	Dup. 2 ug/l	% RPD	Spike (ug/l)	True Value	Observed Value	Percent Recovery
1,4-Dichlorobenzene	<10	<10	0	100	100	50.5	51
2,4 Dinitrotoluene	<10	<10	0	100	100	101	101
Pentachlorophenol	<10	<10	0	100	100	64.0	64

U-894

SURROGATE RECOVERIES FOR BASE-NEUTRALS
PERCENT RECOVERY

Sample Date	Sample Number	Nitrobenzene-d-5	2-Fluoro biphenyl	Terphenyl d-14	Phenol d-5	2-Fluoro phenol	2,4,6 Tribromo phenol
09/29/93	BLANK	39	81	80	19	39	44
09/29/93	09-6205-93	35	60	76	34	52	84
09/29/93	09-6206-93	60	70	85	21	37	45
09/29/93	09-6207-93	61	84	103	37	56	81
09/29/93	09-6208-93	48	52	77	26	54	45
09/29/93	09-6209-93	54	52	67	24	52	42
09/29/93	09-6203DUP	73	67	97	34	58	80
09/29/93	SPK092393	54	71	66	23	40	71

BLANK DATA FOR ACIDS AND BASE NEUTRALS

All Compounds less than the minimum detectable level.

HEAVY TPH RECOVERY DATA

SAMPLES NUMBERED: 09-6205-93 through 09-6209-93 analyzed 09/23/93

SPIKE QC SAMPLE NUMBER: 09609893 SPIKED DUPLICATE

Analyte	Val. 1 (ug/Kg)	Val. 2 (ug/Kg)	% RPD	Spike Conc.	True Value	Observed Value	Percent Recovery
Heavy TPH	1148	946	19.3	800	800	946	111

SURROGATE RECOVERIES FOR HEAVY TPH
PERCENT RECOVERY

Sample Date	Sample Number	Percent Recovery
09/23/93	BLANK	101
09/23/93	09-6206-93	118
09/23/93	09-6207-93	111
09/23/93	09-6208-93	108
09/23/93	09-6209-93	119
09/23/93	09-6098-93	137
09/23/93	09-6098SPK	198*
09/23/93	09-6098SPKDUP	131

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* Spike surrogate value out of range. Data accepted based on all other QC data.