A MEMBER OF THE ENVIRONMENTAL RESOURCES MANAGEMENT GROUP

48908

WORK PLAN

SEPTIC TANK, CATCH BASIN, AND DRY WELL CLEAN OUTS

Malta Rocket Fuel Area Site

30 June 1995

ERM-NORTHEAST, INC.
501 New Karner Road
Suite 7
Albany, New York 12205

ERM

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1.0 INTRODUCTION

A Remedial Investigation (RI) to characterize and define environmental conditions at the Malta Rocket Fuel Area (MRFA) Site was recently completed (ERM-Northeast, Inc., 1995). During the course of the RI, septic tanks, dry wells, and catch basins were sampled and several were found to contain elevated concentrations of constituents within the liquid, sludge, sediment, and/or soil. As a result, liquid and sludge from seven septic tanks, sediment from four catch basins, and soil from one dry well will be sampled for waste characterization and then removed, containerized, and transported off-site for disposal (i.e., "clean-outs"). In addition, a formal evaluation of the need to further investigate septic tank leachfields and cesspools will also be made based on the analytical results generated during the RI and the TCLP waste characterization analyses described in Section 3.0 below in comparison to the RI ground water/soil quality data in the vicinity of each septic system.

1.1 OBJECTIVE

This work plan presents the general approach that will be used to perform the septic tank, catch basin, and dry well clean outs at the MRFA Site in a safe and expeditious manner. All removed materials will be shipped off-site for disposal. The septic tanks and catch basins will be returned to service; the single dry well will be closed. The approach for evaluating the need to further investigate the septic tank leachfields and cesspools is also presented.

1.2 INCORPORATION OF RI WORK PLAN AND RI PROJECT OPERATIONS PLAN

In July 1987, the MRFA Site was placed on the National Priorities List, and in September 1989, the USEPA issued an Unilateral Administrative Order (UAO) to Advanced Nuclear Fuels, Inc., Curtiss-Wright Corporation, General Electric Company (GE), Mechanical Technology, Inc. (MTI), New York State Energy Research and Development Authority (NYSERDA), Olin Corporation, Power Technologies, Inc. (PTI), and Wright-Malta Corporation as potentially responsible parties (PRPs). The UAO required that the PRPs conduct a Remedial Investigation (RI) and Feasibility Study (FS) at the MRFA Site. In March 1990, GE, NYSERDA, and the U.S. Department of Defense (DOD) (the Participating Parties) entered into a participation agreement to perform the RI and FS. The Final RI was submitted to the USEPA on 14 February 1995 (ERM-Northeast, 1995a) and a Draft FS was submitted to the USEPA on 5 May 1995 (Rust Environment and Infrastructure, 1995).

The septic tank, catch basin, and dry well clean out action described below will be performed pursuant to Paragraph 87 of the UAO and the protocols set forth in the RI Work Plan (WP) and RI Project Operations Plan (POP) (Geraghty and Miller, Inc., 1991a and b), and as amended with USEPA approval during the RI (ERM-Northeast, Inc., 1995b), will be followed during the proposed clean outs.

In addition, the removal contractors' Health and Safety Plan (HASP) should be consistent with the Project HASP and the Quality Assurance Project Plan (QAPP) included in the POP and as modified previously for the RI.

1.3 SITE DESCRIPTION AND LOCATION

The MRFA Site, also known as the Saratoga Research and Development Center, is located on Plains Road in the Towns of Malta and Stillwater, Saratoga County, New York. The site consists of a 445-acre parcel of land consisting of approximately 165 developed acres, known as the Malta Test

Station, and 280 acres of predominantly undeveloped woodlands. Figure 1 identifies the location and areal extent of the MRFA Site.

The US Government established the Malta Test Station in 1945, and since then it has been used for a wide range of rocket and weapons testing programs as well as for space research. Thirty-three buildings have been constructed at the Test Station during its use as a research and development facility. In addition, numerous quench pits (concrete structures), leach fields/septic tanks, dry wells, storage areas, and disposal areas are also present on site (Figure 2). The Test Station is surrounded by a restrictive one-mile radius circular "easement area" in which human habitation is prohibited. A fence surrounding the 165-acre Test Station, a single access road, and strict security also restrict public access. The central 81 acre portion of the Test Station (property of the Wright-Malta Corporation) is still being used as a weapons and propellant testing facility.

Forty-eight distinct Areas of Concern were investigated at the MRFA Site during the RI, which included inventorying and sampling seven septic tanks (the eighth septic tank cannot be located), five catch basins, and 18 dry wells. The septic tank and drywell/catch basin inventories are provided as Tables 1 and 2, respectively. Based on the findings from the RI, liquid and sludge from seven septic tanks, sediment from four catch basins, and soil from one dry well will be removed and appropriately treated/disposed. The rationale for selecting which dry well/catch basin or septic tank would or would not be cleaned out is provided in Table 3 and 4, respectively.

The septic tanks proposed for clean outs are located at Buildings 13, 14, 17, 20, 25, and the former GE/Exxon Building. The catch basins proposed for clean outs are located at Buildings 5 and 24. The dry well proposed for a clean out is located at Building 3. Figure 2 illustrates their locations on the MRFA Site and Figure 3 provides RI sampling locations and the sample identification numbers for these structures. General descriptions of areas with septic tanks, catch basins, or dry wells proposed for clean outs are provided below. More detailed descriptions are provided in the RI (ERM-Northeast, Inc., 1995a).

1.3.1 Building 3

The Building 3 test structure is located in the center of the Test Station, south of Building 4, northeast of Building 2, southeast of Building 28 (Area A), and northeast of Muggett's Pond Drainage Ditch (Figures 2 and 4). This building was used to test large rocket engines (up to 40,000 pound thrust) and complete missile systems in the 1950s and 1960s. Building 3 was also used to test overspeed engines and rocket nose cones during the early and mid 1960s, respectively. There is no indication of any testing at Building 3 after the 1960s. This building is no longer used for any on-site testing.

Large quantities of rocket fuels (unsymetrical di-methyl hydrazine, nitrogen/hydrogen fuels, ethyl alcohol, and liquid oxygen) were used during rocket engine testing. Triethyl aluminum was also used as a pyrophor to ignite the engines. Large quantities of solvents (trichloroethene and carbon tetrachloride) were reportedly used to flush the rocket engine lines and injectors prior to testing.

There were two dry wells and no septic tanks associated with Building 3. The dry wells were reportedly used for emergency drainage of the rocket fuel tanks and for draining the contents of the quench pits. These two dry wells were at the ends of concrete troughs that originated below the rocket fuel tanks at Building 3 and led away from the building on opposite sides of the quench pit. The results of a dry well inventory indicated that one of these dry wells (DW-3-1) is located approximately 100 feet south of the Building 3 quench pit at the end of a four foot deep by three foot wide concrete drainage trough. The concrete trough ended at a ten foot square, four foot deep concrete block dry well overgrown with grass, weeds, and leaf litter. The second dry well (DW-3-2) is located approximately 50 feet northeast of the Building 3 quench pit and is also at the end of a four feet deep by three foot wide concrete drainage trough. This second dry well is of identical construction and contents as discussed above.

Soil from both dry wells was sampled during the RI for the USEPA's Target Compound List/Target Analyte List (TCL/TAL) plus boron. The analytical results (Table 5) from the southeastern dry well (DW-3-1) indicate that arsenic and polychlorinated biphenyls (PCBs) were detected at elevated concentrations.

1.3.2 Building 5

The Building 5 test structure is located in a topographically low area in the east-central portion of the Test Station west of Area D-4, southwest of Area D-2, and southeast of Building 6 and Muggett's Pond (Figures 2 and 5). Much of the area surrounding Building 5 is covered by asphalt and concrete pads. Building 5 was used for fuel feed testing as well as for laboratory space in the 1950s and 1960s. Building 5 was also used as a turbine pump testing facility (Building 5P) and may have been used for gun testing in 1972. Building 5 is currently used for preparing charges for munition and gun tests.

There were no septic tanks but there were two dry wells associated with the Building 5 area. These two dry wells are catch basins located on opposite sides of the front of the Building 5 area. Both of these catch basins will be cleaned out.

One of the Building 5 catch basins is on the northeastern corner of Building 5P (DW-5-1) and the other is on the northwest corner of Building 5A (DW-5-2).

Each catch basin was in good condition and was constructed of cast concrete with a 2.65 foot square metal grate manway. Catch basin DW-5-2 has two four-inch cast iron inflow pipes, which appear to originate southeast of the catch basin beneath or behind Building 5P. The origin of these inflow pipes could not be located. This catch basin also has one outflow pipe, which discharges to the other catch basin (DW-5-1). Catch basin DW-5-1 has one inflow pipe from catch basin DW-5-2 and also receives stormwater collected by a one foot deep, one foot wide, 20 foot long concrete trench with a metal grate that traverses the driveway to the Building 5 area. Catch basin DW-5-1 also has one outflow pipe which reportedly directs effluent from this catch basin to Muggett's Pond, although the discharge location for this pipe was not located. Both catch basins are approximately three feet by three feet by three feet and both contain sediment.

During the RI, one sediment sample was collected and analyzed from each catch basin for TCL/TAL plus boron analysis to evaluate the catch basin sediment quality. The validated analytical results for these two samples are presented in Table 5 and the sampling locations are shown on Figure 3. Semi-Volatile Organic Compounds (SVOCs), pesticides, PCBs, and inorganic metal analytes were detected in both catch basin sediment samples. In addition, Volatile Organic Compounds (VOCs) were also detected in sample DW-5-2 only. Of the parameters detected, pesticides, PCBs, and several inorganic analyte concentrations from both samples, and tetrachloroethene in DW-5-2, were detected at elevated concentrations.

1.3.3 Building 13

Building 13 is located in the western portion of the Test Station north of Building 15, east of Building 14, and south of Building 23 (Figures 2 and 6). Building 13 has paved roads along the front of the building (northwest side) and along one side between Building 13 and Building 15 (southwest side). The area behind Building 13 is grass and tree covered and slopes down hill toward Buildings 1 and 2. Building 13 was used as the machine shop where engines were disassembled as well as a cafeteria. During the early 1950s, 55-gallon drums of carbon tetrachloride were stored at this building. Methyl ethyl ketone (paint thinner) may have also been stored here. In the early 1970's, most of the regenerative chambers and pistons used in the 25-mm Regenerative Liquid Propellant Gun Program, which used ammonium nitrate as a propellant, were fabricated in Building 13. Building 13 is actively being used as a machine shop and for office space.

There were no dry wells associated with Building 13, however, there was one septic tank. This septic tank was located approximately 125 feet southeast of Building 13. This septic system consists of piping that leads southeast from the building to the septic tank and to a distribution box. The distribution box directs flow to two cesspools located approximately 20 feet northeast and southwest of the distribution box. The septic tank is cast concrete with a three foot by three foot concrete block manway. The depth to liquid is approximately four and a half feet, the total depth to the bottom of the tank is approximately nine and a half feet, and there is approximately one to two feet of sludge on the bottom of the tank. The distribution box consists of a two and a half foot by two and a half foot concrete block manway down to the top of the distribution box, which has a one and a half foot by one and a half foot opening. Piping from the distribution box leads to two cylindrical cesspools constructed of cinder blocks, approximately eight feet in diameter and 13 feet deep. The bottom of both cesspools is natural sand. All of the components of the Building 13 septic system appear to be in good condition. During the RI, a liquid sample (SL1301) was collected from the Building 13 septic tank for TCL/TAL plus boron analysis.

The validated analytical results for the Building 13 septic tank liquid are provided in Table 6. These results showed that VOCs, SVOCs, PCBs, and several inorganic metal analytes were at elevated concentrations.

1.3.4 *Building 14*

Building 14 is located in the western portion of the Test Station, north of Buildings 13 and 15 and southwest of Building 23 (Figures 2 and 7). Building 14 was an office, a chemical laboratory which may have been used for fuel testing, an electrical laboratory, and a calibration laboratory for manufacturing thermal couplers from the late 1940s to the 1960s. A photo laboratory was also located in Building 14. In the late 1980s, work involving the development and manufacture of truck transmissions and turret drives, as well as performing confidential liquid propellant research and development, was conducted in Building 14. Carbon tetrachloride was used in Building 14 and any spent material or waste was emptied into drums. This building is currently used as both a research and development laboratory and for reception and office space purposes.

There are no dry wells associated with Building 14, however, there is one septic system. This septic system is located at the base of an embankment approximately 50 feet behind (northwest of) the building. This septic system consists of piping that leads northwest from the building to the septic tank and distribution box. The distribution box directs flow to four cesspools located between 30 and 60 feet west and north of the distribution box. Piping from Building 23 also leads to the Building 14 septic system. The septic tank is cast concrete with a two foot by two foot concrete block manway to the tank. The depth to the top of the septic tank is approximately five and a half feet, the depth to the top of sludge is approximately six and a quarter feet, and the total depth is approximately 13.5 feet. The distribution box is approximately 15 feet northwest of the septic tank and is constructed of cast concrete approximately eight feet long by two feet wide by four feet deep. The covers for the septic tank and distribution box are loose plastic covers. The septic tank and distribution box appear to be in good condition although some sand and organic detritus (leaves, pine needles, wood, etc.) had caved into both the septic tank and distribution box.

The Building 14 septic tank primarily contains sludge. A trickle of liquid can be observed flowing in a rivulet across the sludge to the distribution box. During the RI, one sludge sample and a duplicate (SL1401 and SLDUPB) were collected from the Building 14 septic tank for TCL/TAL plus boron analysis. The validated analytical results for the Building 14 septic sludge are provided in Table 6. These analytical results showed VOC, SVOC, pesticide, PCB, and inorganic metal analyte at elevated concentrations.

1.3.5 Building 17

Building 17 is an office building located just outside of the west corner of the Test Station fenceline near the Wright-Malta employee parking lot (Figures 2 and 8). Historically, the building was used as an office building by NYSERDA and served as the field office during the RI. It is currently vacant.

One septic system is associated with Building 17. The septic system consists of one septic tank and one cesspool, with the septic tank located approximately 35 feet north of the northwest corner of Building 17. The septic tank consists of a three foot by three foot square concrete manway extending down to the top of a concrete tank, approximately three feet below grade. The bottom of the tank is approximately nine feet below grade. The length and diameter of the tank are unknown. Six-inch clay piping can be observed connecting the cesspool to the tank; the cesspool is located twenty feet to the north-northwest of the tank.

Approximately five feet of liquid was observed in the septic tank at the time of inspection.

On 16 February 1989, NYSERDA had the liquid from the Building 17 septic tank sampled and analyzed for VOCs. The analytical results from this and other NYSERDA septic tank sampling and analyses are provided in Table 7. Toluene was the only VOC detected in the Building 17 septic tank liquid at a concentration of 37 ug/l.

During the RI, one liquid sample (SL1701) was collected from the septic tank for TCL/TAL plus boron analysis. Validated analytical results for this sample are provided in Table 6. One inorganic analyte (sodium) and two organic compounds (acetone and total phenols) were detected in sample SL1701 at elevated concentrations.

1.3.6 Building 20

Building 20 is located in the northwest portion of the Test Station, between Building 7 and the PTI access road (Figures 2 and 9). Building 20 was a boron hydride chemical plant used to manufacture diborane and pentaborane rocket fuels. In 1955, an explosion occurred at Building 20 while the chemical plant was being shutdown and caused significant damage. Building 20 was re-built and subsequently leased to MTI for the design, manufacture, and testing of high efficiency steam driven turbines and turbo machinery. Freon was used by MTI in a closed loop system to cool the turbines. Building 20 has a small asphalt parking lot, a water cooling tower in the rear, and a shallow-lined lagoon that was unused and dry during the RI. This lagoon was historically used to provide cooling water for MTI turbine experiments.

Two septic systems are present at Building 20, both of which were located during the RI. The newer septic tank, which is in use, was installed in 1980. This tank is located approximately 24 feet northeast of the east corner of Building 20. This tank is cast concrete and the lateral dimensions are unknown. There is also at least one baffle in the center portion of the tank. The bottom of the tank is approximately seven and one half feet below grade, and domestic waste was observed below approximately 3.3 feet. One six-inch metal pipe enters the tank from the northwest with an invert of approximately 2.9 feet. A two foot wide concrete opening leads into the tank covered by a 3.3 foot wide concrete lid flush with the ground surface. One liquid sample (SL20-N-01) was collected from the newer tank for TCL/TAL plus boron analysis.

The second, older septic system, which is not in use, is located approximately 60 feet east of the northernmost corner of Building 20, southeast of the northern end of the lagoon. This septic system consists of a concrete tank of unknown dimensions which is connected to an eight foot wide cesspool located approximately 12 feet to the northwest of the tank. The top of the septic tank is approximately 5.2 feet below grade and the bottom of the tank is approximately 11.25 feet below grade. A sludge layer and approximately four feet of standing liquid were noted in the septic tank. One 12-inch metal pipe with an invert of approximately six feet below grade was observed entering the cesspool from the direction of the septic tank. The same pipe could not be visually confirmed within the septic tank. One liquid sample (SL-20-O-01) was collected from this older septic tank for TCL/TAL plus boron analysis.

In 1987, NYSERDA had the liquid and sludge from the new Building 20 septic tank sampled and analyzed for VOCs. The liquid sample was collected on October 1987 while the sludge sample was collected on 11 December 1987. The analytical results for the NYSERDA septic tank sampling are provided on Table 7. The only VOC detected was toluene at 457 ug/l in the liquid and 120 ug/kg in the sludge. This septic tank was subsequently pumped out in May 1988.

Validated analytical results for the two RI septic tank samples (SL-20-N-01 and SL-20-O-01) are provided in Table 6. Two inorganic analytes (iron and manganese) and two organic compounds (toluene and total phenols) were detected in sample SL-20-N-01 at elevated concentrations. Four inorganic analytes (aluminum, iron, sodium, and manganese) were detected in sample SL-20-O-01 at elevated concentrations.

1.3.7 Building 24

Building 24 is located near the southern corner of the Test Station, north of Building 18, west of the Isolde Project Area and the Building 27 Magazine Area, east of the Building 1 complex, and southwest of Area D-1 (Figures 2 and 10). Building 24 was originally used as a small rocket test stand for fuel testing and nose cone re-entry condition testing. The building was renovated in the mid-1980s and is currently used for the test firing of large artillery guns.

One septic tank is reportedly in use at Building 24; however, this septic tank was buried by new construction and could not be located or sampled.

Two catch basins were located and sampled at Building 24. The two catch basins (DW-24-1 and DW-24-2) are identical in structure consisting of cast concrete walls and bottom, approximately two feet square. Four three-inch diameter PVC pipes enter each catch basin, one near each corner of the two catch basins. The origin of the PVC pipes is unknown. Total depth to the concrete bottom of DW-24-1 is approximately three feet. During the RI, approximately one foot of sediment and one-half foot of standing water on top of the sediment was measured on the bottom in DW-24-1. Total depth to the concrete bottom in DW-24-2 was measured at four feet. Two feet of sediment and one-half foot of standing water was measured in the bottom of DW-24-2.

One sediment sample was collected from the bottom of each of the catch basins and submitted for TCL/TAL plus boron analysis. Validated analytical results, provided in Table 5, show several inorganic analytes, VOCs, SVOCs, PCBs, and pesticides were detected at elevated concentrations. In particular, 1,1,2-trichloro-1,2,2-trifluoroethane (Freon 113) was detected in DW-24-2 sediment at an estimated 3,000,000 ug/kg.

1.3.8 Building 25

The Building 25 complex (Buildings 25, 25A, 25G, 25H, and 25S) is located in the northeastern portion of the Test Station, midway along the northeast fenceline, northwest of Area S-7, southeast of Area S-8, and east of Area S-9 (Figures 2 and 11). Building 25 is a rocket test gantry, which partially covers the quench pit. Building 25A was a control room, observation area, and storage area for the tests performed at Building 25. Buildings 25G and 25H are buried quonset hut storage areas on opposite sides of Buildings 25 and 25A. Building 25S was used as a storage warehouse and for office space. This complex was used for testing large rocket engines (up to 150,000 pounds thrust) and complete missile systems in the 1950s and 1960s. Borane fuels (pentaborane, diborane, and boron hydride) were tested in the engines and were stored in quantities of 100 pounds or less in the fuel bunkers at this area (Buildings 25G and 25H). Rocket fuels such as JP-4 and hydrogen peroxide were also used to flush the oxygen, fuel, and pressure lines in the test stand (Building 25) and allowed to run into the quench pit, which was at times reportedly pumped out onto the ground.

In the mid 1960s through the 1980s, this complex was used for experimental work on the distribution of electrical power. In the early 1970s, experiments were performed on high-voltage power lines in an attempt to find a remedy for ice on the power lines. Weights were hung from the wires with Primacord fuses which were detonated to drop the weights and simulate the sway and weight of ice. Currently, the Building 25 complex is inactive and is only used for storage of the RI investigative derived waste (IDW).

There is one, currently inactive septic tank associated with the building 25 complex. This septic tank was located approximately 100 feet northwest of Building 25S. This septic system consists of piping that leads northwest from the building to the septic tank and to a distribution box. The distribution box directs flow to four cesspools that are located north toward Area S-8 and west along the access road. The septic tank is cast concrete with a two foot by two foot concrete manway to the top of the tank. The tank appears to be approximately five feet wide but the length could not be determined. The depth to liquid in the tank was five and a half feet and the total depth was nine feet. The cast concrete distribution box was located approximately 20 feet northeast of the septic tank and was approximately two and a quarter feet wide by five and half feet long by five feet deep. The distribution box cover was missing and some leaf litter had accumulated on the bottom. There was no liquid in the distribution box. There was one six-inch inflow pipe and four four-inch outflow pipes to the cesspools. Although the concrete manway of the septic tank was deteriorating, the septic tank and distribution box appeared to be in good condition.

In 1987, NYSERDA had liquid and sludge from the Building 25 septic tank sampled and analyzed for VOCs and, in 1989, NYSERDA again had the Building 25 septic liquid sampled and analyzed for VOCs. A total of four samples (three liquids and one sludge) were collected from the Building 25 septic system under NYSERDA's direction. The analytical results for the NYSERDA septic tank sampling are provided in Table 7. Several VOCs were detected in the liquid and sludge samples (i.e., dichloroethenes, toluene, and a few others). Higher concentrations were observed in the sludge sample relative to the liquid samples. This septic tank was pumped out in May 1988.

During the RI, one liquid sample and one duplicate (SL-25-01 and SL-DUPA) were collected from the Building 25 septic system for TCL/TAL plus boron analysis. The validated analytical results for SL-25-01 are provided in Table 6. These results showed that VOCs, SVOCs, PCBs, and inorganic metal analytes were detected in this septic tank liquid sample at elevated concentrations.

1.3.9 Former GE/Exxon Building (Now Optimum Air Corporation)

The former GE/Exxon Building, located near the entrance to the Saratoga Research and Development Center (Figures 2 and 12), was used for a radioactive sterilization program and a uranium enrichment research project during the 1970s with activities ending in 1979. From 1989 through 1994, Advanced Liquid Polymer Silicones (ALPS, also known as Silicone Park, Inc.) occupied the building, producing silicone products for medical use. In 1995, Optimum Air Corporation began leasing the former GE/Exxon Building from NYSERDA.

There is one septic system associated with the former GE/Exxon Building (now Optimum Air Corporation). The septic system is in good condition and consists of two concrete septic tanks in series located approximately 60 feet northeast of the front of the building entrance. Four-inch diameter PVC piping leads from the building northeast to the first septic tank, which contains a concrete baffle that separates liquid and solid waste. Four-inch diameter PVC piping leads from the first septic tank to the second septic tank. Approximately five feet separates the two tanks. A six-inch diameter PVC pipe leads from the second septic tank northeast to the leachfield. The exact location of the leachfield is unknown. The first tank contains approximately 3.6 feet of sludge at the concrete baffle. Both tanks contain approximately four to five feet of liquid waste. The first tank is approximately 8.5 feet deep, ten feet long, and four feet wide. The second tank is approximately 9.4 feet deep, six feet long, and four feet wide.

In 1987, NYSERDA had liquid and sludge from the former GE/Exxon Building sampled and analyzed for VOCs and, in 1989, NYSERDA again had the former GE/Exxon Building septic tank liquid sampled and analyzed for VOCs. One liquid sample was collected on 12 January 1987, one sludge sample was collected on 11 December 1987, and one liquid sample was collected on 16 February 1989. The analytical results for the NYSERDA septic tank sampling are provided on Table 7. Toluene was the only VOC detected in the former GE/Exxon Building samples collected under NYSERDA's direction, and the sludge concentrations were higher than the liquid. This septic tank was pumped out in May 1988.

During the RI, liquid from the first tank in the series (SL-GEX-01) was sampled and analyzed for TCL/TAL plus boron. The validated analytical results are provided in Table 6. Sodium, acetone, toluene, xylenes, and total phenols were detected at elevated concentrations.

2.0 *APPROACH FOR SEPTIC TANK, CATCH BASIN, AND DRY WELL CLEAN OUTS*

The following tasks are associated with the clean outs:

1) Composite sampling (Non-Hazardous) of septic liquid/sludge for waste profiling from septic tanks at Buildings 13, 17, 20, 25, and the former GE/Exxon Building;
2) Grab sampling (hazardous) of septic sludge for waste profiling from the septic tank associated with Building 14;
3) Composite sampling (two separate composite samples) of sediment from catch basins at Buildings 5 and 24 for waste profiling;
4) Composite sampling of soil from one dry well at Building 3 for waste profiling;
5) Removal of septic liquid/sludge from septic tanks at Buildings 13, 17, 20, 25 and the former GE/Exxon Building followed by transportation to and disposal at the Saratoga County Sewer District No. 1 (SCSD);
6) Removal of septic sludge from the septic tank associated with Building 14 followed by transportation and disposal at an approved treatment, storage, or disposal facility (TSDF);
7) Removal of catch basin sediment followed by transportation and disposal at an approved TSDF;
8) Removal of dry well soil followed by transportation and disposal at an approved TSDF;
9) A comparison of the septic tank analytical results generated during the RI with soil and groundwater quality data also generated during the RI will be made to assess the need to further investigate the septic tank leachfields and cesspools; and
10) Report preparation describing the work performed to complete all tasks associated with sampling, removal, transportation, and disposal of septic

liquid and sludge, catch basin sediment, and dry well soil from the MRFA Site.

2.1 SITE CONTROL

As described in Section 1.3, seven septic tanks, four catch basins, and one dry well located on the Test Station portion of the MRFA site will be cleaned out. The Test Station is completely fenced and access is restricted. Only authorized personnel will be permitted on the Test Station. Permission from Wright-Malta Corporation is required prior to entering the Test Station and a log of all personnel entering and exiting the Test Station is maintained daily.

While working on the Test Station, the areas immediately surrounding the septic tanks, catch basins, and the dry well being cleaned will be cleared of all vegetation, obstructions, and other materials. Work zones will be established (i.e., exclusion zone, decontamination zone, and support zone) as described in the POP (Geraghty and Miller, 1991b). The exclusion zones will be sufficiently sized to stage all excavated material. The decontamination zones will be sized to accommodate vehicles, equipment, and personnel. All necessary equipment and supplies for the work will be staged in the support areas.

2.2 HEALTH AND SAFETY CONSIDERATIONS

To ensure safe conditions are maintained for workers and to protect the environment, real-time air monitoring of the work zone will be conducted. Photoionization (PID) readings of five parts per million (ppm) above ambient, background concentrations will be utilized as an indicator of possible contamination. Lower Explosive Limit (LEL) and oxygen content readings within each structure will also be monitored. Such readings will be monitored by the Project Health and Safety Officer, who will specify personnel protection levels as required in the HASP.

PID readings five ppm above background will also be an indication to the contractor to temporarily cease operations, as described in the POP, and then proceed in a more cautious manner if levels have subsided based on continued air monitoring. If levels do not subside then the Project Health and Safety Officer will either upgrade the level of personnel protection or cease operations pursuant to the requirements of the HASP.

To properly remove all the material from the septic tanks, catch basins, and dry wells entry by personnel into the structures may be required. The septic tanks are considered a Permit-Required Confined Space according to the Occupational Safety and Health Administration (OSHA) Standard 29 CFR 1910.146. A confined space entry permit will be required prior to personnel entering the tank. A confined space entry permit is good for one day only and will remain at the job site until the entry is completed. The entry permit will include the date and time of entry, purpose of the entry, hazard identification, specialized equipment/procedures, oxygen content, LEL, toxic levels if any, personnel requirements, and names of all persons entering the space. The permit will be verified and signed by the entry supervisor prior to any entry. In addition, an attendant will be stationed outside the tank to observe the personnel performing tasks within the tank. Provisions for emergency rescue must also be arranged prior to entry.

3.0 *WASTE CHARACTERIZATION*

Seven septic tanks, four catch basins, and one dry well at the MRFA Site will be cleaned out. A review of the RI analytical results provides insight regarding the nature and potential waste classification of the material in these features. The RI sampling locations for the septic tanks, the dry well, and the catch basins being cleaned out are presented on Figure 3.

The liquid and sludge from seven septic tanks on the MRFA Site were sampled on March 24, 1992 during the RI and the results indicate that the liquid/sludge associated with the Building 3, 17, 20, 25, and the former GE/Exxon Building is likely non-hazardous, while the sludge associated with the septic tank at Building 14 (which contains no liquid) is likely hazardous due to concentrations of cadmium, chromium, lead, and mercury. A summary of the analytical results for the septic tanks is provided on Table 6.

Sediment from the catch basins and soil from the dry well were sampled on May 11 and 12, 1992 during the RI. These analytical results indicate the catch basins and dry well materials could potentially be classified as hazardous due to metals, VOCs, pesticides, and/or PCBs. A summary of the dry well and catch basin analytical results is presented on Table 5.

Despite the RI analytical results, the potentially transient nature of influent to the septic tank, catch basin, and dry well structures dictates additional sampling and waste characterization prior to disposal. This work plan assumes that results of sampling and analyses to be performed during this project will verify the data obtained from the RI sampling and analyses. If laboratory data indicates results contradictory to the RI analytical data, this work plan will be revised accordingly.

3.1 *NON-HAZARDOUS SEPTIC TANK LIQUID/SLUDGE*

The six septic tanks containing liquid that are proposed for clean outs are located as follows:

- One tank southeast of Building 13;
- One tank north of Building 17;
- Two tanks associated with Building 20, one on the east corner and one on the north corner of the building;
- One tank associated with Building 25 between Building 25a and Area S-8; and
- One tank north of the entrance to the former GE/Exxon Building.

The locations of these six septic tanks are presented on Figure 2. Approximately 10,000 gallons of non-hazardous liquid/sludge are anticipated to be removed from the six septic tanks described above and disposed at a local publicly-owned treatment works (POTW).

The local POTW is the Saratoga County Sewer District No. 1 (SCSD). The SCSD indicated that the RI laboratory data obtained in 1992 were not acceptable for use by the SCSD in determining acceptance of the septic liquid/sludge because the data are more than two years old and the influent environmental quality can change through time. In order for material to be accepted, a composite sample of the six tanks will be obtained and analyzed for the VOCs, SVOCs, pesticides/herbicides, and metals listed on Table 8 according to the Toxicity Characteristic Leaching Procedure (TCLP). In addition, the composite sample will be analyzed for total PCBs.

The composite sample will be obtained from an equal mixture of liquid/sludge from all six of the MRFA Site septic tanks. This composite will be collected by obtaining two-gallons of liquid/sludge from each tank and placing it in a thirty-five gallon drum or equivalent. After all six tanks are sampled, the composite liquid/sludge material will be thoroughly mixed and a representative sample will be placed in bottles or containers supplied by an approved laboratory for each of the specified parameters. The sampled liquid/sludge material will then be placed in an appropriate shipping container with ice or other appropriate means of refrigeration, which will keep the samples at 4 degrees centigrade until received by the laboratory. Samples will be delivered or shipped for receipt by the laboratory within 24 hours of sampling. Laboratory test results will be available in ten working days (standard turnaround).

In the event that the composite septic liquid/sludge sample is classified as hazardous, then each septic tank will be resampled separately and re-analyzed for waste characterization separately.

3.2 *BUILDING 14 SEPTIC SLUDGE*

Approximately 4,000 gallons of sludge (no liquid is present) is associated with the septic tank at Building 14. The sludge is assumed to be hazardous based on the concentrations of cadmium, chromium, lead, and mercury, detected during the RI sampling.

The Building 14 septic sludge will be sampled for the waste characterization parameters described in Section 3.1. In addition, a grab sample of the sludge in the Building 14 septic tank will be obtained for bacterial analysis. The grab sample will be prepared for delivery to the laboratory as previously described in Section 3.1. Standard turnaround of the sample results will be in ten working days.

3.3 CATCH BASIN SEDIMENT

Two catch basins at Building 5 (DW-5-1 and DW-5-2) and two catch basins at Building 24 (DW-24-1 and DW-24-2) will be cleaned out (Figure 2). The catch basin sediment is assumed to be hazardous based on concentrations of metals and VOCs detected during the RI sampling.

One sediment sample from each of the two catch basins at Building 5 will be composited into one sample, and one sample from each of the two catch basins at Building 24 will be combined into a separate composite sample. The two catch basin sediment samples will be submitted for waste classification, as described previously for the septic tank liquid/sludge (Section 3.1).

3.4 DRY WELL SOIL

The southeastern Building 3 dry well (DW-3-1) will be a cleaned out (Figure 2). Prior to soil removal, four soil samples from the dry well will be composited into one sample for waste characterization analyses, as described previously for the septic tank liquid/sludge (Section 3.1).

4.0 *WASTE REMOVAL*

The waste materials found in the septic tanks, catch basins, and dry well differ, therefore different removal techniques may be required. As described previously, six of the septic tanks contain primarily liquid with a high moisture content sludge layer (Buildings 13, 17, 20, 25, and the former GE/Exxon Building), while one septic tank (Building 14) contains mainly sludge with very little liquid, if any. The catch basins at Buildings 5 and 24 contain sediment, while the Building 3 dry well contains soil. The general approach for removing these waste materials per waste type is described below.

4.1 *NON HAZARDOUS SEPTIC LIQUID/SLUDGE*

As previously stated, this work plan has assumed that the laboratory test results will indicate the liquid/sludge material from the six septic tanks will be non-hazardous and will be below the regulatory levels accepted by SCSD (Table 8). The laboratory test results will be submitted to the SCSD for approval to dispose the septic liquid/sludge at the SCSD facility. Approval time by the SCSD facility is expected to be a minimum of five working days.

Upon receipt of acceptance of the septic liquid/sludge at the SCSD facility, a sanitary disposal firm will be contracted to remove the liquid/sludge from the six septic tanks. It is anticipated that a standard vacuum tank truck will be used to remove the liquid/sludge along with high pressure rinsing of the interior of the septic tanks and associated piping to the extent possible.

4.2 *BUILDING 14 SEPTIC SLUDGE*

The content of the Building 14 septic tank is primarily sludge, which, as mentioned previously, is likely a hazardous waste based on the RI analytical data (Table 6). As a result, the Building 14 septic sludge will be handled separately from the liquid/sludge from the other septic tanks.

In order to dispose of this sludge, biological activity must be eliminated which triggers the requirement for biological analysis, as described in Section 3.2. In the event that the biological sample indicates continued biological activity, a chlorine or sodium hypochlorate disinfectant bench test will have to be performed. The bench test will be performed at the direction of the laboratory with the appropriate amount of chlorine or sodium hypochlorate disinfectant added to the sludge and mixed to destroy biological activity. An additional sample will then be obtained to confirm that biological activity has ceased.

The pretreatment of the sludge will occur within the septic tank by remotely injecting the chlorine or sodium hypochlorate disinfectant into the sludge layer under pressure. Thus, the disinfectant permeates the sludge layer.

When biological activity has ceased, sludge from the septic tank will be pumped (if possible) using a vacuum truck or excavated without destroying the integrity of the septic tank. Removal of sludge may necessitate the entry of personnel into the tank. Appropriate air monitoring with a PID, a combustible gas meter, and an oxygen meter will be performed prior to entry into the tank. Appropriate confined space entry procedures will be followed and respiratory protection provided prior to entry into the septic tank, as discussed in Section 2.2.

4.3 CATCH BASIN SEDIMENT

The catch basin sediments will be removed by vacuum truck and/or hand excavation and containerized. It is estimated that less than a cubic yard of sediment will be removed from the four catch basins, in total. The catch basin interior will be high pressure rinsed and the rinse liquids will be collected with the vacuum truck and absorbent pads.

4.4 *DRY WELL SOIL*

The Building 3 dry well soil will be excavated using a backhoe and by hand digging. It is assumed that approximately five cubic yards of soil will be removed from the Building 3 dry well. The soil excavated from the dry well will be containerized.

301760

5.0 TRANSPORT AND DISPOSAL

5.1 NON-HAZARDOUS SEPTIC LIQUID/SLUDGE

A sanitary disposal firm will provide vehicles approved by the NYSDOT to transport septic liquid/sludge over New York State highways to the SCSD. The firm will also have a contract with the facility to dispose of the septage at the SCSD facility. Appropriate bills-of-laden will be provided by each truckload of septage delivered to the SCSD facility.

5.2 HAZARDOUS SEPTIC SLUDGE

An approved TSDF will provide transportation with a NYSDOT and federally-approved tanker truck to transport sludge from the MRFA Site to the approved TSDF. Properly completed manifest documentation will accompany each load to the approved facility.

5.3 CATCH BASIN SEDIMENT AND DRY WELL SOIL

An approved TSDF will transport the appropriately containerized sediment and soil with NYSDOT and federally-approved trucks to the approved TSDF. Properly completed manifest documentation will accompany this shipment to the approved TSDF. A determination will be made based on the analytical results and the TSDF requirements as to whether these waste streams could or could not be combined.

301761

6.0 *EVALUATION OF SEPTIC TANKS, SEPTIC LEACHFIELDS, AND SEPTIC CESSPOOLS AS POTENTIAL SOURCES OF CONTAMINANTS TO GROUNDWATER*

The analytical results from the RI septic tank samplings and the TCLP analytical results for waste characterization described in Section 3.0 will be compared to the RI ground water quality data and soil quality data from borings previously placed in the vicinity of the septic tank leachfields or cesspools. Although intermedia comparisons were previously addressed in the RI (ERM-Northeast, Inc., 1995a), a more formalized comparison will be performed for this evaluation. This intermedia comparison of analytical results will be made to assess the need to further investigate the septic tank leachfields and cesspools. If the constituents detected in a septic tank were also detected in groundwater/soil at elevated concentrations, then the septic system may have been a source and sampling of the cesspools will be performed. If there is no correlation, then sampling of the cesspools will not be performed because the environmental quality data will have demonstrated that the septic systems have not been a source of contamination to ground water.

7.0 DOCUMENTATION

All activities associated with the septic tank, catch basin, and dry well clean outs will be documented and compiled in a summary report. Copies of the analytical results, volume of material removed, manifest documentation, and disposal facility approvals will be included with the report.

8.0 SCHEDULE

This project will be scheduled to be completed in a safe and expeditious manner. The contractor will begin to mobilize to the site to start sampling operations within thirty working days of the signing of the contract for performance of the work detailed in this work plan.

9.0 REFERENCES

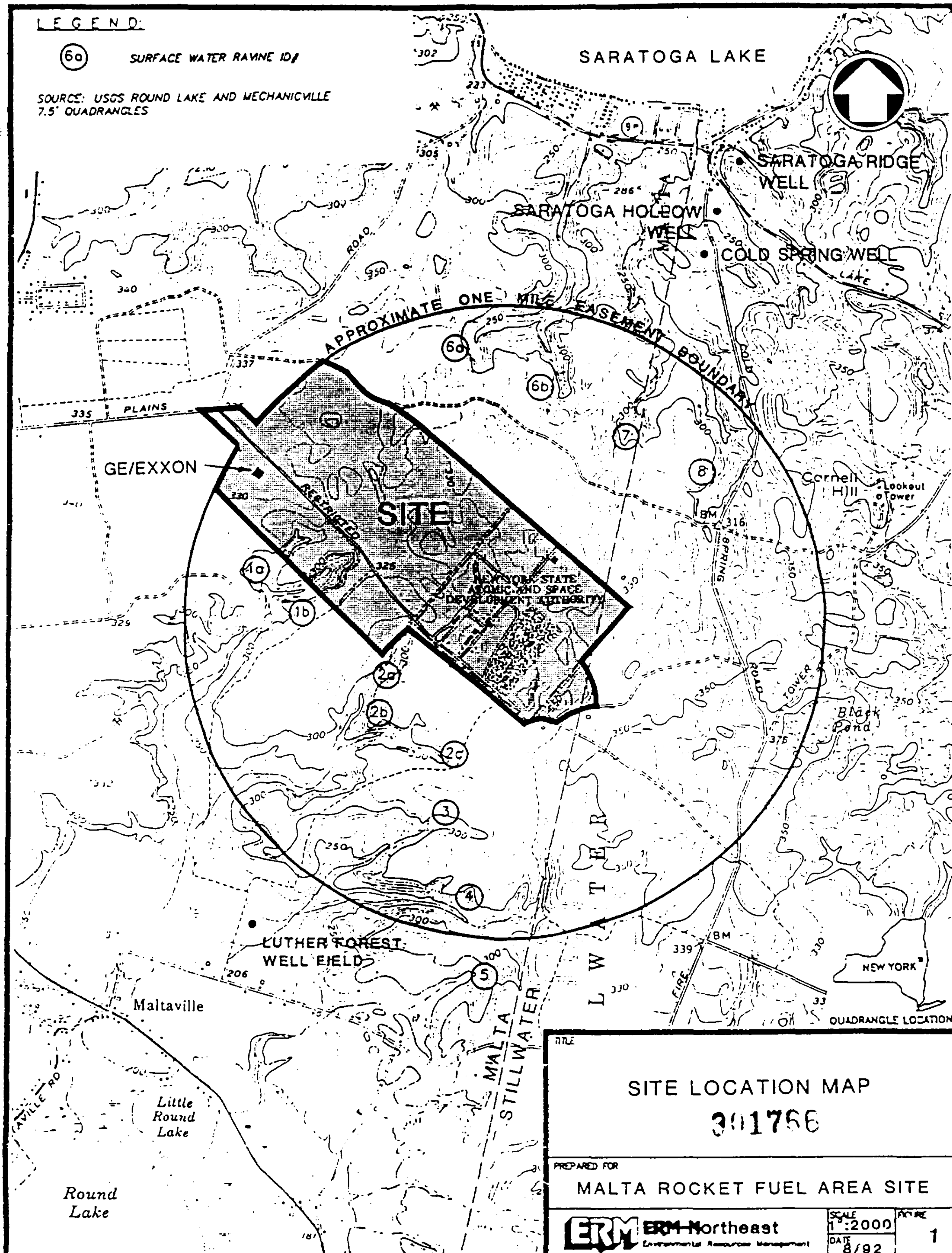
ERM-Northeast, Inc., 1995a, Final Remedial Investigation Report, Malta Rocket Fuel Area Site, Towns of Malta and Stillwater, Saratoga County, New York, February 1995.

ERM-Northeast, Inc., 1995b, Correspondence Documenting Changes in Scope or Field Protocol, Remedial Investigation Report, Malta Rocket Fuel Area Site, Towns of Malta and Stillwater, Saratoga County, New York, February 1995.

Geraghty and Miller, 1991a, Revised Remedial Investigation Work Plan for the Malta Rocket Fuel Area Site, Towns of Malta and Stillwater, Saratoga County, New York, February, 1991.

Geraghty and Miller, 1991b, Project Operations Plan for the Malta Rocket Fuel Area Site, Towns of Malta and Stillwater, Saratoga County, New York, August 1991.

Rust Environment and Infrastructure, Inc., 1995, Draft Feasibility Study, Malta Rocket Fuel Area Site, Saratoga County, New York, May 1995.



SITE LOCATION MAP

301766

PREPARED FOR

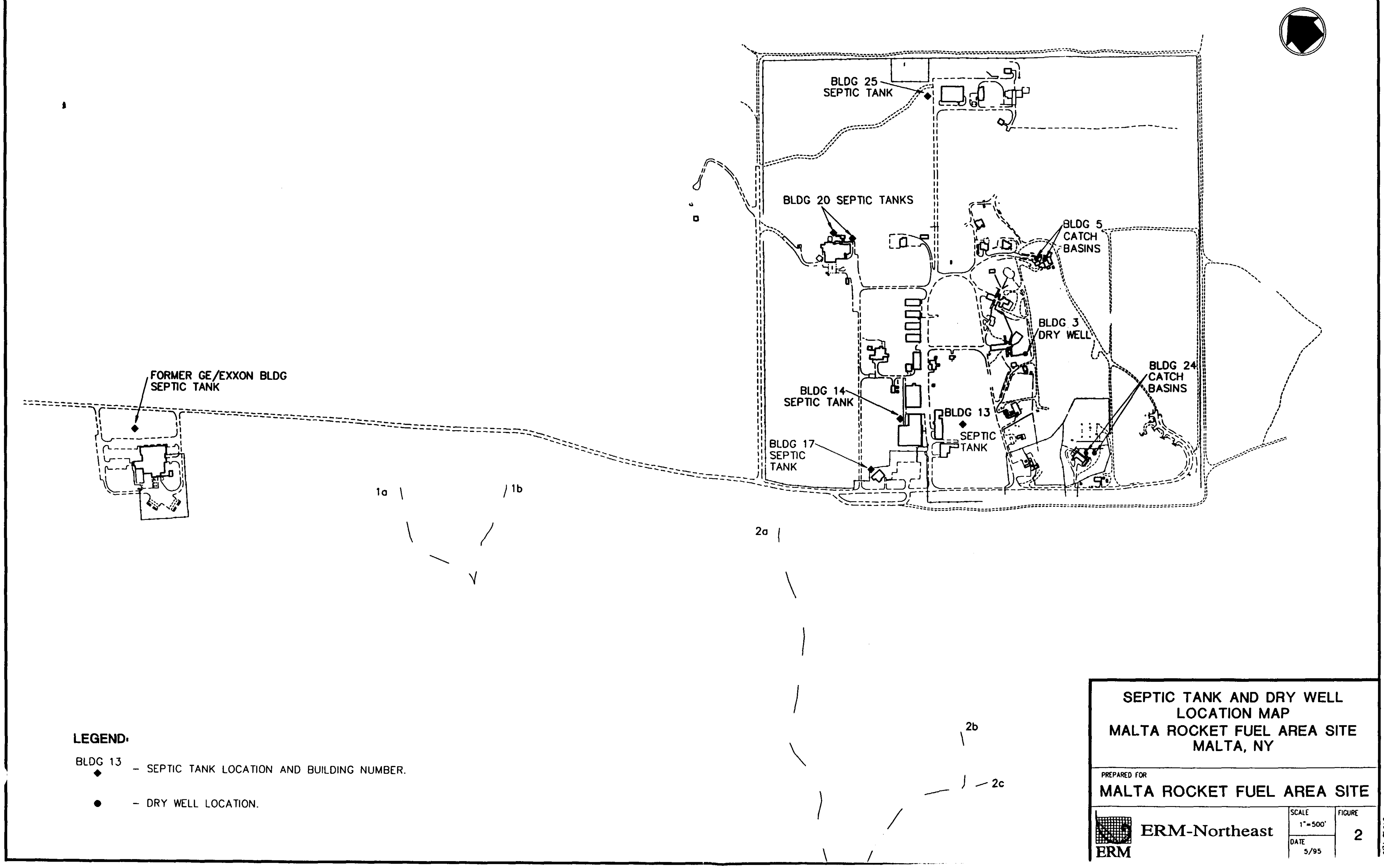
MALTA ROCKET FUEL AREA SITE

ERM Northeast
Environmental Resources Management

SCALE 1":2000

DATE 8/92

FIGURE 1



LEGEND:

BLDG 13 ◆ – SEPTIC TANK LOCATION AND BUILDING NUMBER.

● – DRY WELL LOCATION.

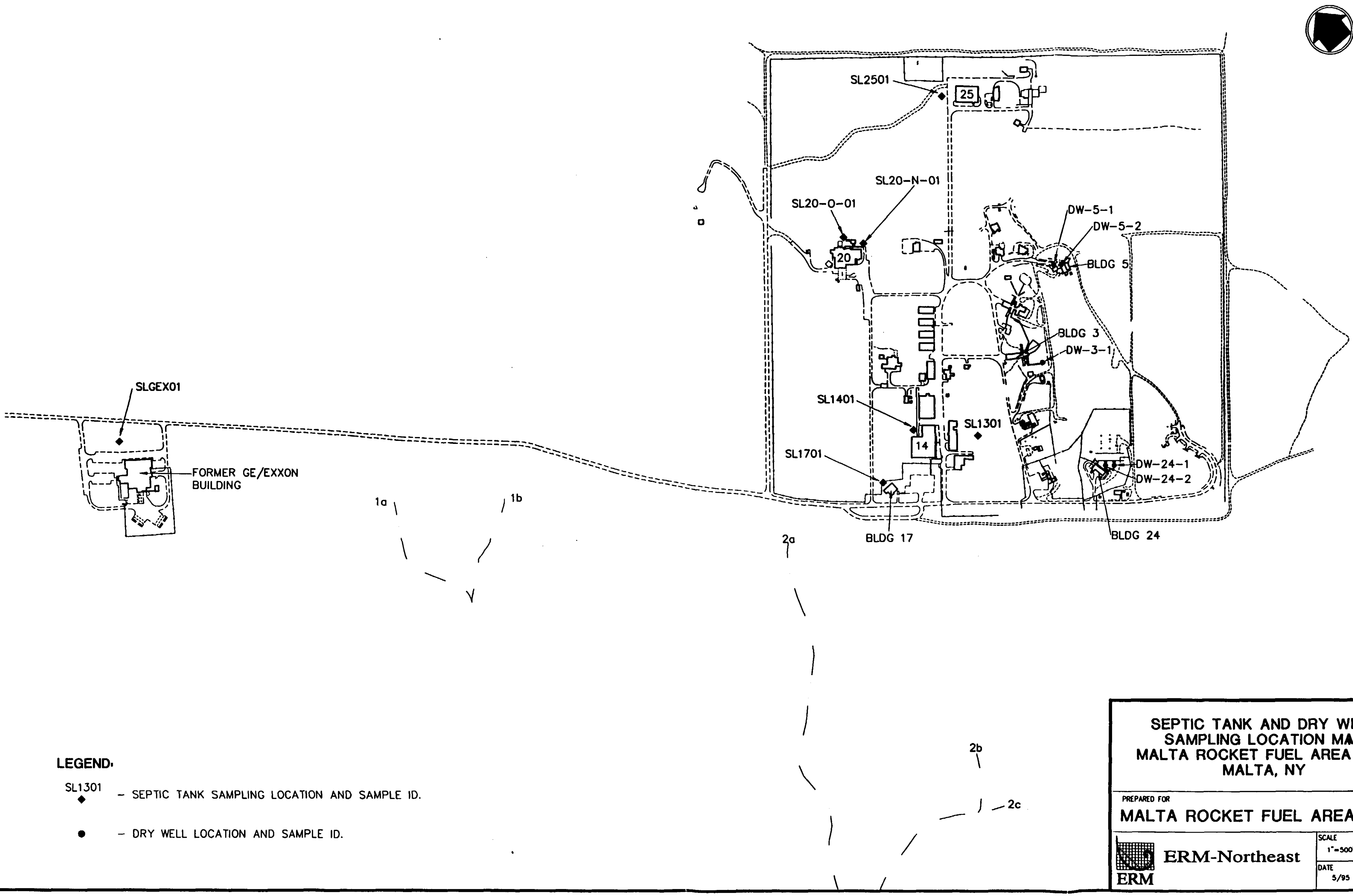
SEPTIC TANK AND DRY WELL LOCATION MAP
MALTA ROCKET FUEL AREA SITE
MALTA, NY

PREPARED FOR
MALTA ROCKET FUEL AREA SITE

ERM-Northeast

SCALE	FIGURE
1"=500'	2
DATE 5/95	

301757



LEGEND:

SL1301 ◆ – SEPTIC TANK SAMPLING LOCATION AND SAMPLE ID.

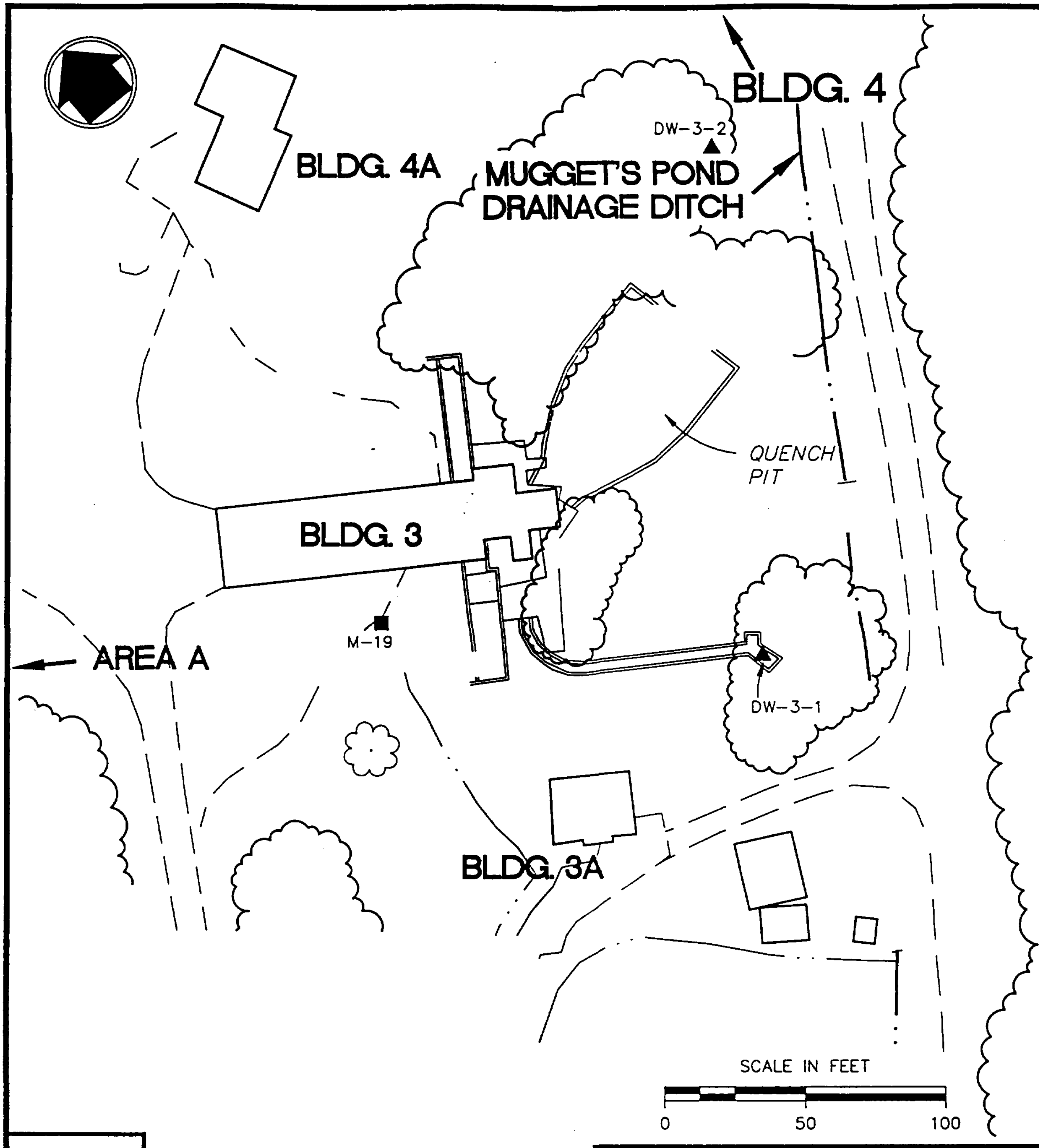
● – DRY WELL LOCATION AND SAMPLE ID.

SEPTIC TANK AND DRY WELL SAMPLING LOCATION MAP
MALTA ROCKET FUEL AREA SITE
MALTA, NY

PREPARED FOR

MALTA ROCKET FUEL AREA SITE

ERM-Northeast	SCALE 1"=500'	FIGURE 3
ERM	DATE 5/95	



LEGEND

DW-3-1 ▲ *DRY WELL SAMPLING LOCATION & ID#*

M-19 ■ *MONITORING WELL LOCATION & ID#*

BUILDING 3

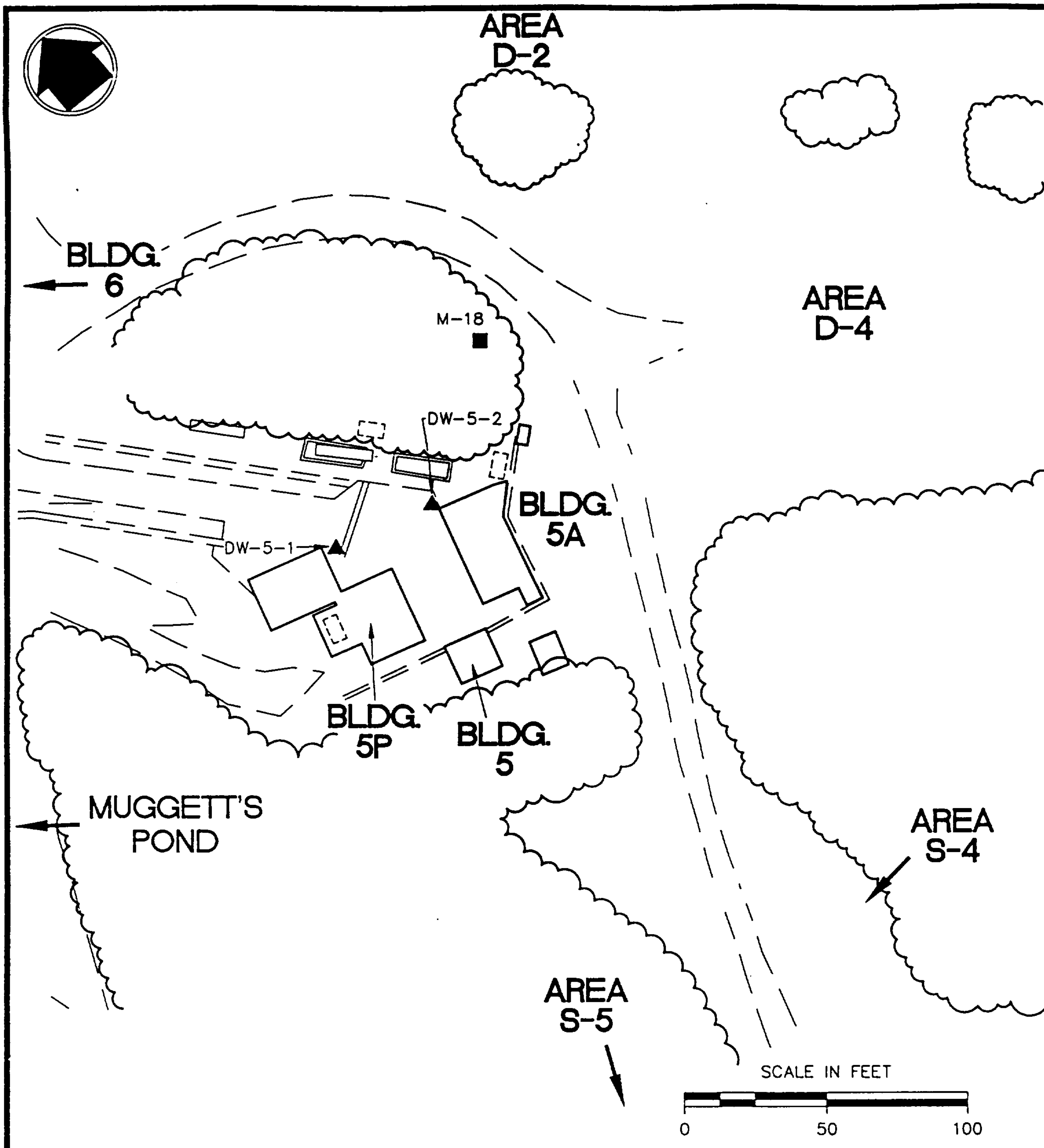
301769

PREPARED FOR

MALTA ROCKET FUEL AREA SITE

ERM-Northeast
Environmental Resources Management

SCALE	FIGURE
1"=50'	4
DATE 03/94	



LEGEND

DW-5-1 ▲	*DRY WELL SAMPLING LOCATION AND ID#*
M-18 ■	*MONITORING WELL LOCATION & ID#*

BUILDING 5

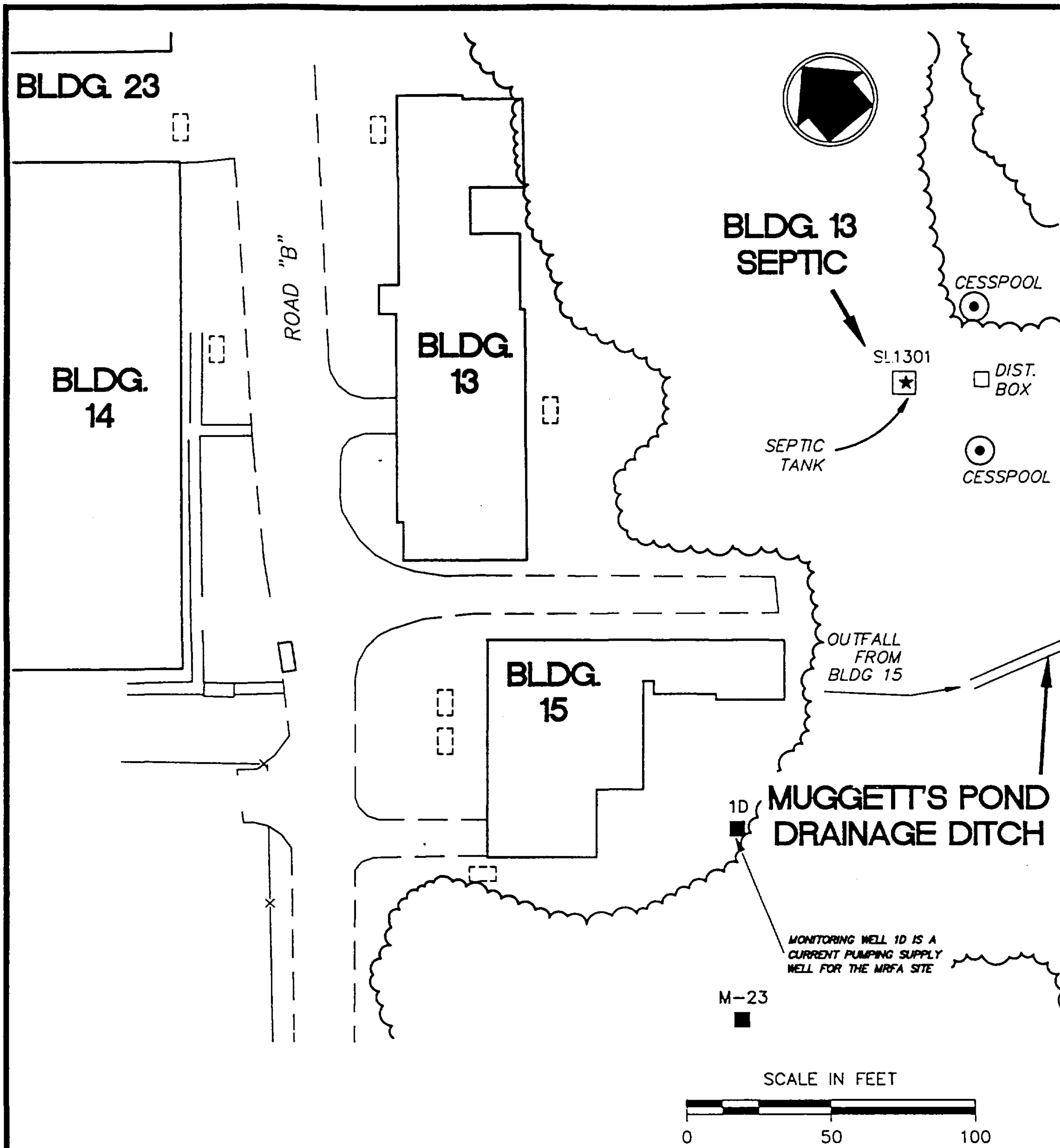
301770

PREPARED FOR

MALTA ROCKET FUEL AREA SITE

ERM-Northeast
Environmental Resources Management

SCALE: 1"=50'
DATE: 05/94
FIGURE: 5



LEGEND

⊙	CESSPOOL
SL1301 ★	SEPTIC TANK SAMPLING LOCATION & ID#
1D ■	MONITORING WELL PAIR LOCATION & ID#

BUILDINGS 13 AND 15

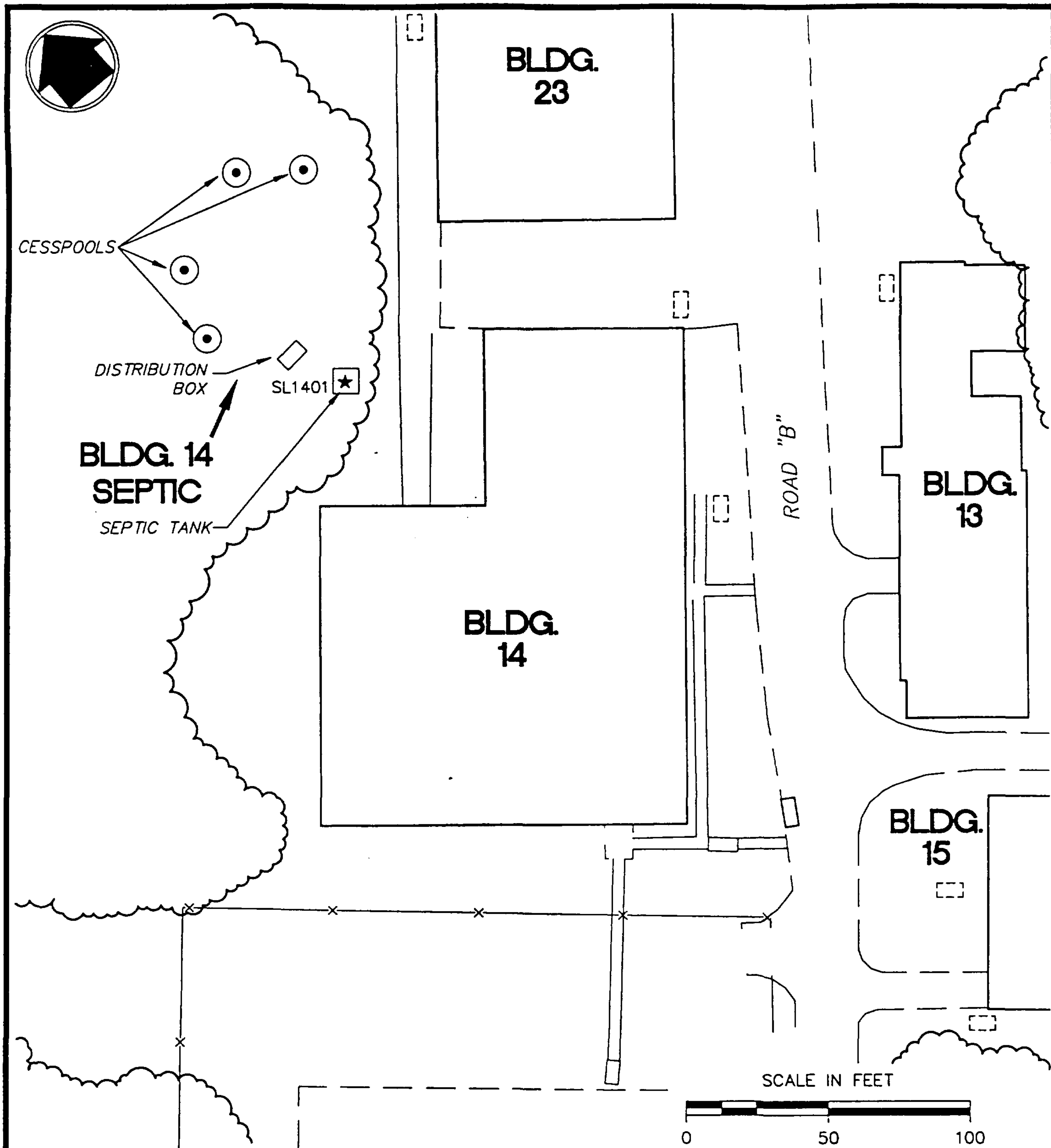
301771

PREPARED FOR

MALTA ROCKET FUEL AREA SITE

ERM-Northeast
Environmental Resources Management

SCALE 1"=50'
DATE 06/94
FIGURE 6



BUILDING 14

301772

LEGEND

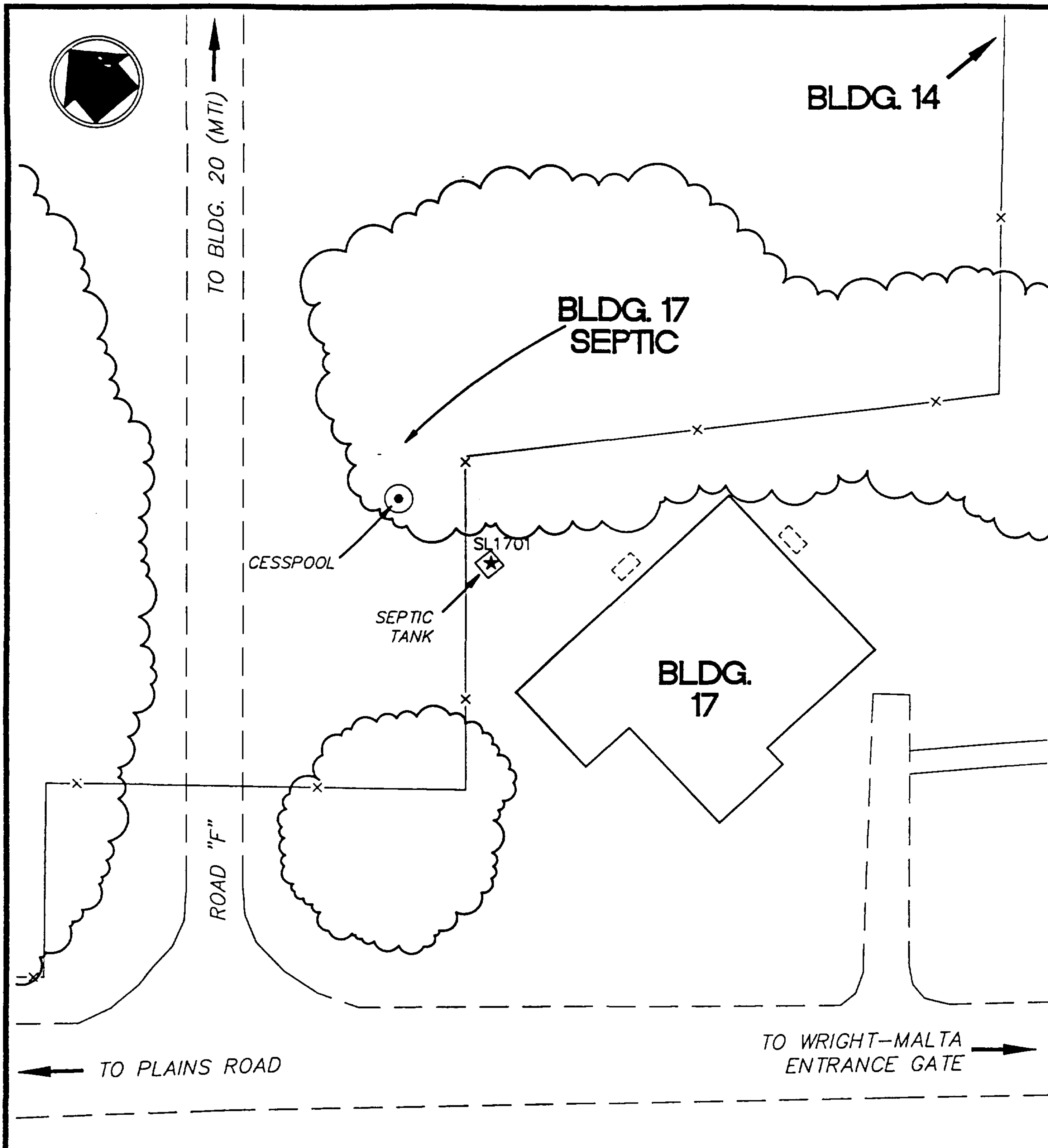
⊙	*CESSPOOL*
SL1401 ★	*SEPTIC TANK SAMPLING LOCATION AND ID#*

PREPARED FOR

MALTA ROCKET FUEL AREA SITE

ERM-Northeast
Environmental Resources Management

SCALE	FIGURE
1"=50'	7
DATE 4/94	



LEGEND

SCALE IN FEET

0 30 60

CESSPOOL

SL1701 ★ SEPTIC TANK SAMPLING LOCATION AND ID#

BUILDING 17

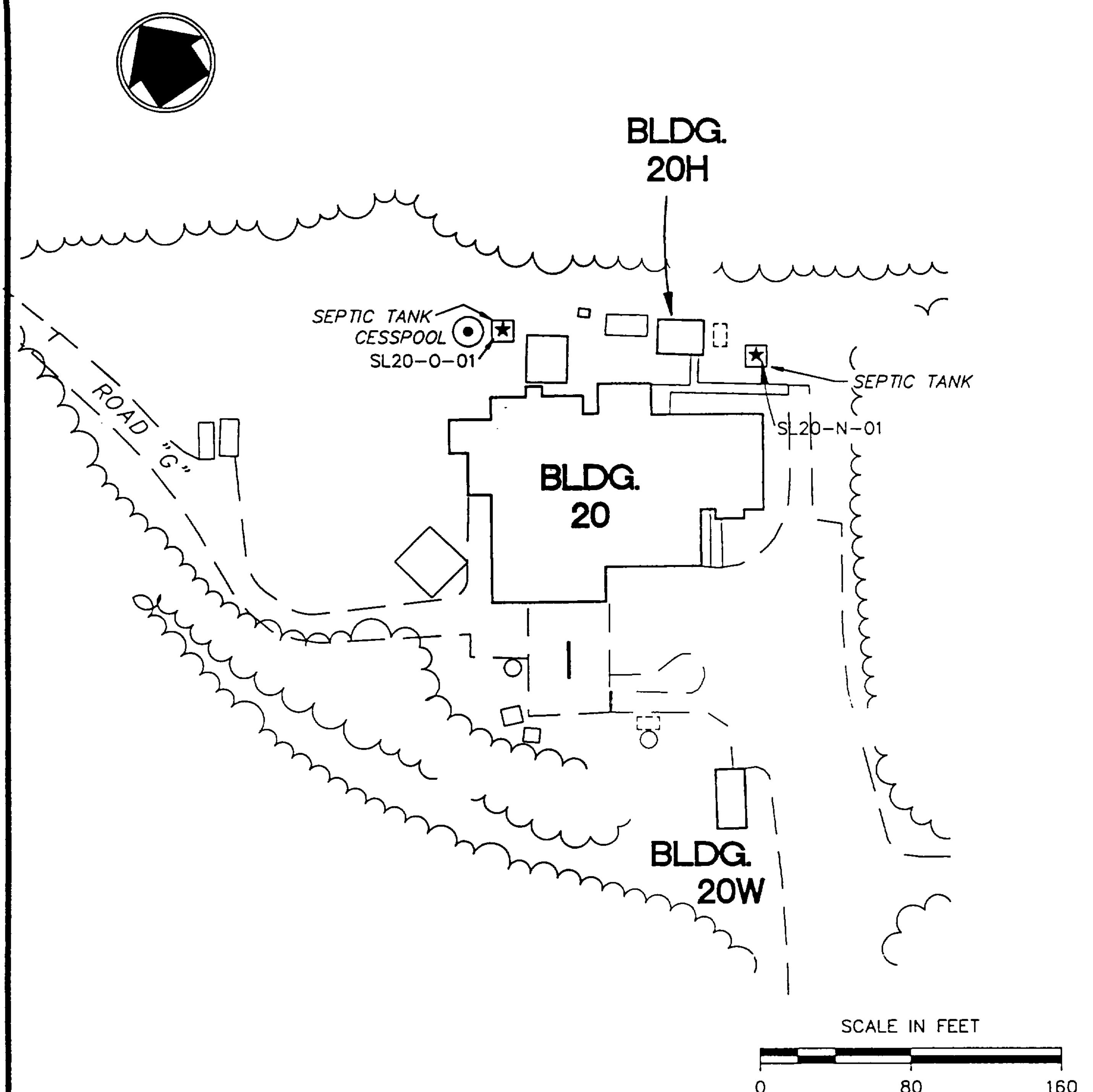
301773

PREPARED FOR

MALTA ROCKET FUEL AREA SITE

ERM-Northeast
Environmental Resources Management

SCALE	FIGURE
1"=30'	8
DATE 05/94	



LEGEND

⊙	*CESSPOOL*
SL20-N-01 ★	*SURFACE WATER SAMPLE LOCATION & ID#*

BUILDING 20

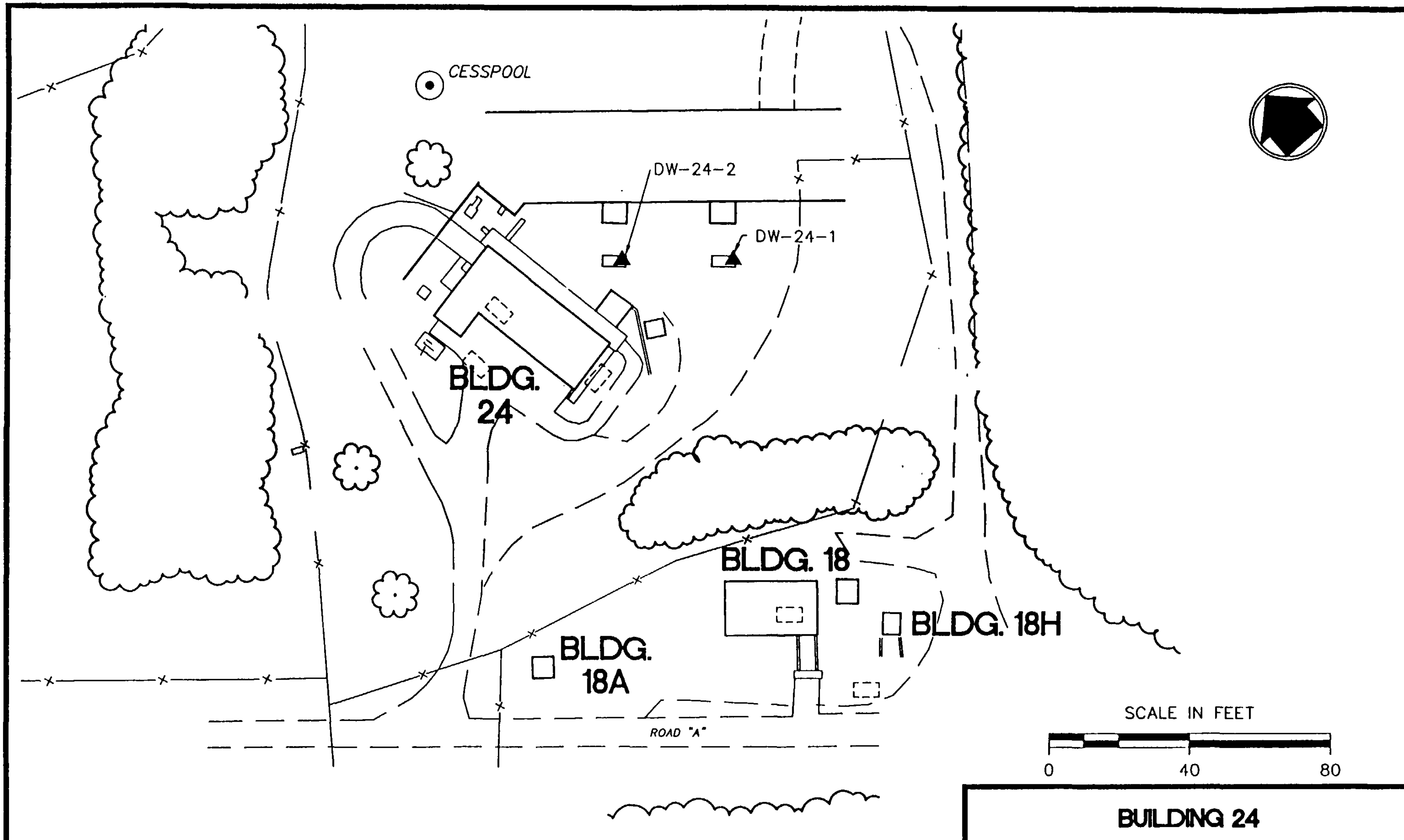
301774

PREPARED FOR

MALTA ROCKET FUEL AREA SITE

ERM-Northeast
Environmental Resources Management

SCALE	FIGURE
1"=80'	9
DATE 06/95	



LEGEND

⊙	CESSPOOL
▲ DW-24-1	DRY WELL SAMPLING LOCATION & ID#

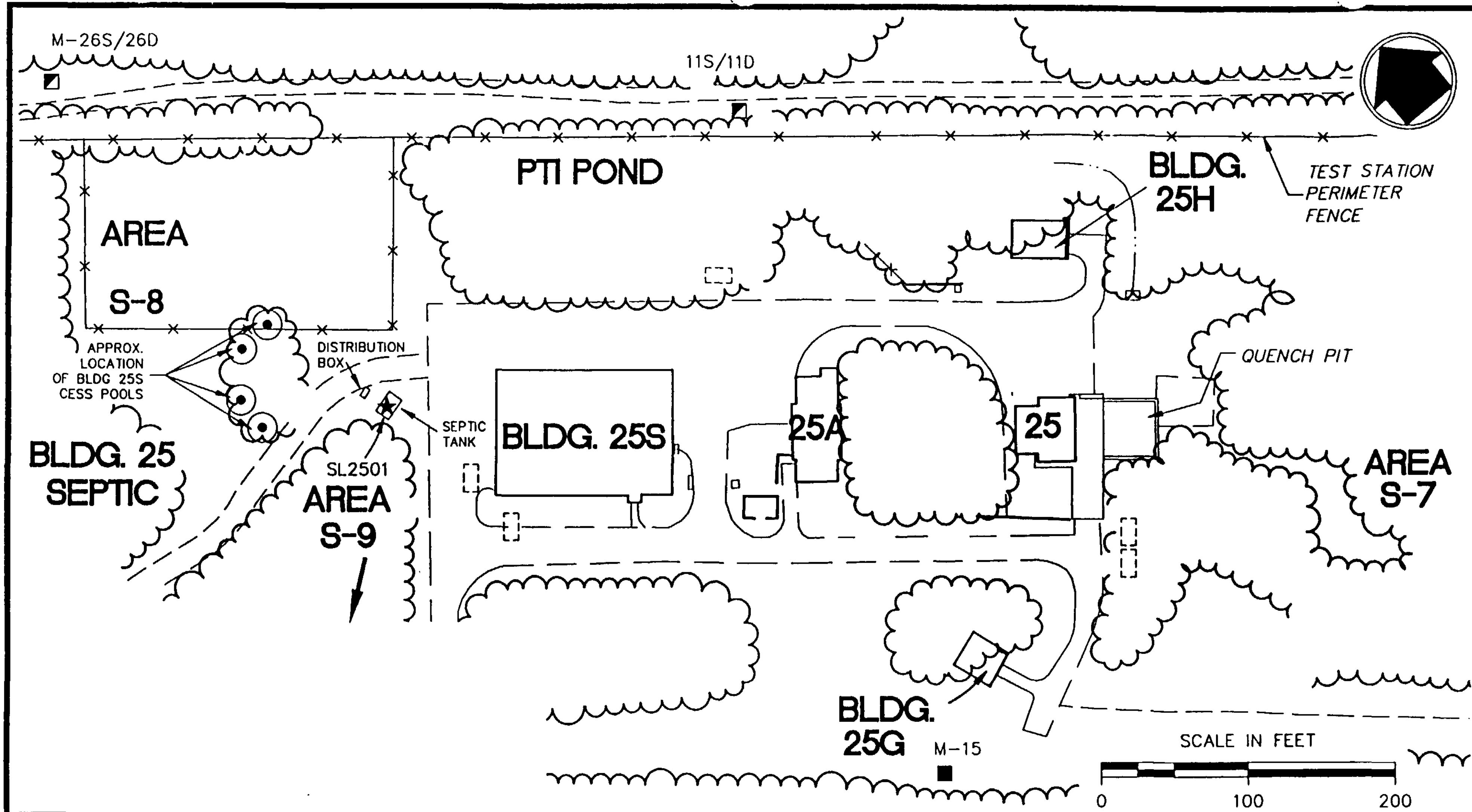
BUILDING 24

PREPARED FOR

MALTA ROCKET FUEL AREA SITE

ERM-Northeast
Environmental Resources Management

SCALE 1"=60'
DATE 06/94
FIGURE 10



LEGEND

301776

⊙	*CESSPOOL*
★ SL2501	*SEPTIC TANK SAMPLE LOCATION & ID#*
◩ 11S/11D	*MONITORING WELL PAIR LOCATION & ID#*
■ M-15	*MONITORING WELL LOCATION & ID#*

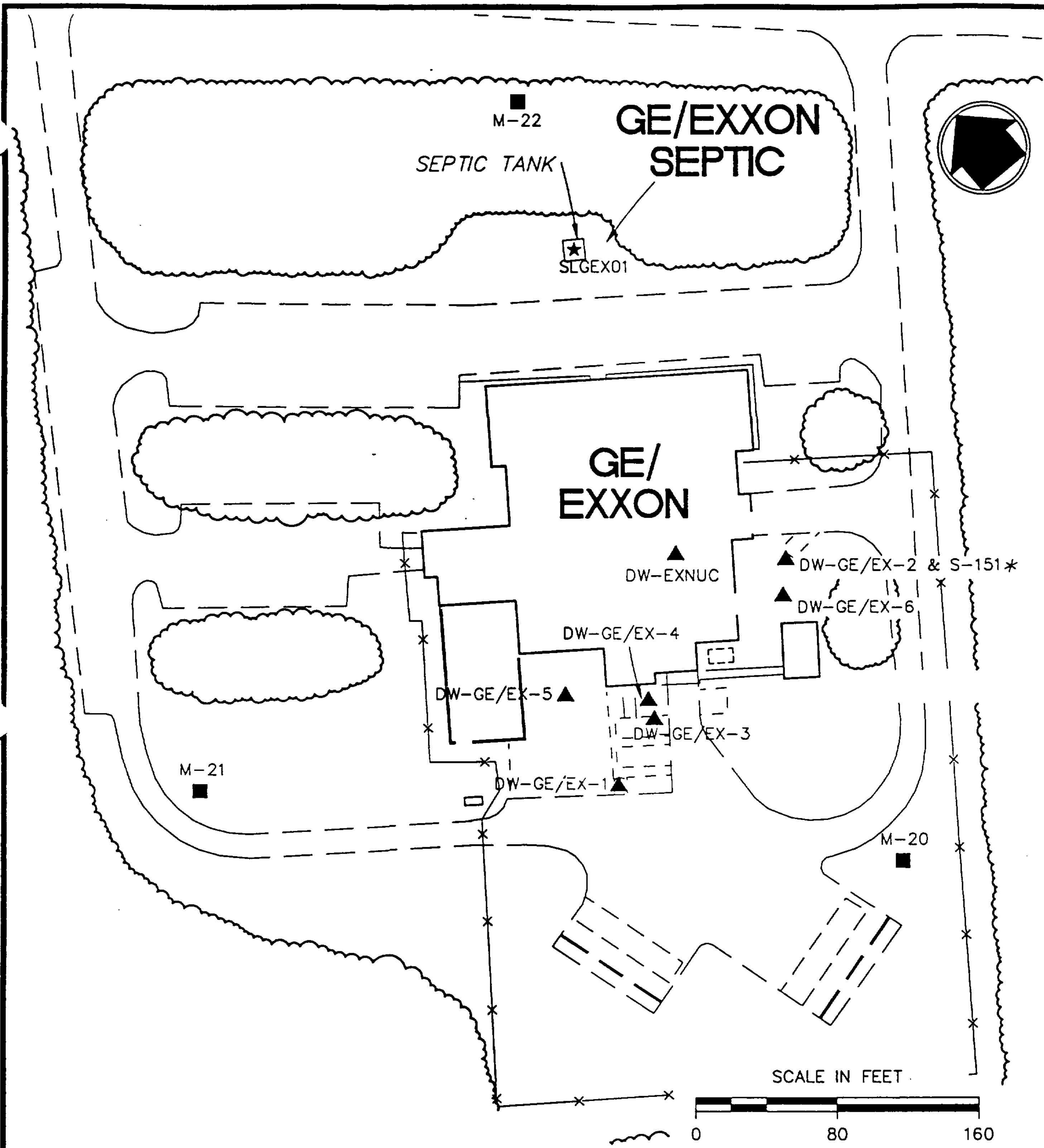
BUILDING 25

PREPARED FOR

MALTA ROCKET FUEL AREA SITE

ERM-Northeast
Environmental Resources Management

SCALE 1"=100'
DATE 05/94
FIGURE 11



LEGEND

DW-EXNUC ▲	*DRY WELL SAMPLING LOCATION & ID#*
SLGEX01 ★	*SEPTIC TANK SAMPLING LOCATION & ID#*
M-21 ■	*MONITORING WELL LOCATION & ID#*

FORMER GE/EXXON BUILDING

301777

PREPARED FOR

MALTA ROCKET FUEL AREA SITE

ERM-Northeast
Environmental Resources Management

SCALE	FIGURE
1"=80'	12
DATE 03/94	

TABLE 1
MALTA ROCKET FUEL AREA SITE
SEPTIC TANK INVENTORY

Building No.	No. of Septic Systems	Location Description	Tank Dimensions	Construction Materials	Condition	Contents	No. of Cesspools	Dimensions	Construction Materials	Condition	Contents
1	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1A	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
1B	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
2	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
3A	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
4A	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5A	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
5P	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
6A	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
7B	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
8	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
9	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
10	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11A	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11B	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11C	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
11D	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
12	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
13	1	walkway SE of bldg	3' x 3 'x 9.5' deep	concrete	good	liquid, sludge	2	8'diam x 12.9'deep	cinder blocks	good	sand(natural) bottom
14	1	N of bldg in low area	5.5' x 5.5' x 13' deep	concrete	fair	liquid, sludge	4	8'diam x 12'deep	cinder blocks	fair	sand(natural) bottom
15	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
16(Guard Hse)	1 (NF)	under parking area	Unknown	Unknown	Unknown	Unknown	NF	Unknown	Unknown	Unknown	Unknown

Notes:
NF - Not found during inventory.
NA - Not applicable.

301778

SEPT2.XLS 5/18/95

TABLE 1 (Cont'd)
MALTA ROCKET FUEL AREA SITE
SEPTIC TANK INVENTORY

Building No.	No. of Septic Systems	Location Description	Tank Dimensions	Construction Materials	Condition	Contents	No. of Cesspools	Dimensions	Construction Materials	Condition	Contents
17	1	north of bldg.along fence	3' x 3' x 9' deep	concrete	good	liquid, sludge	1	8'diam x 11.75'deep	cinder blocks	fair	roots, soil/sand and silt
18	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
18A	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
18H	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
20	2	new system east corner of bldg 20	opening-3.3' x 7.5'deep	concrete	good	liquid, sludge	0 (leach field)	NA	NA	NA	NA
		old system north corner of bldg 20	3' x 3' x 11.25'deep	concrete block	good	liquid	1	8'diam x 14.8'deep	cinder blocks	good	soil(natural) bottom
20W	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
21	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
22	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
23	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
23P	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
24	1 (NF)	N of bldg	Unknown	Unknown	Unknown	Unknown	1	8'diam x 8.2'deep	cinder blocks	good	soil(natural) bottom
25	1	between bldg 25S and Area S-8	5' x 5' x 9'deep	concrete	good	liquid, sludge	4 (NF)	Unknown	Unknown	buried	Unknown
25A	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
25G	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
25H	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
25S	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
26	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
27A	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
27B	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
27C	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
27D	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
28	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
29	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
30	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Former GE/Exxon	1	north of bldg entrance	10' x 4' x 8.5' deep 6' x 4' x 9.4' deep	concrete concrete	good good	liquid, sludge liquid, sludge	 0 (leach field)	NA NA	NA NA	NA NA	NA NA

Notes:
NF - Not found during inventory.
NA - Not applicable.

TABLE 2
DRY WELL/CATCH BASIN INVENTORY
MALTA ROCKET FUEL AREA SITE

Building No.	No. of Dry Wells	Type of Dry Well	Location Description	Dimensions	Construction Materials	Condition	Contents	Discharge Destination
1	6	1 floor drain w/o piping	base of west covered stairwell outside of door	round drain, 1'diam x 1.8'deep in concrete pad/floor	metal in concrete with metal basket	good	none	subsurface below drain
		1 floor drain with piping	base of center covered stairwell outside of door	round drain, 1'diam x 1.8'deep in concrete pad/floor	metal in concrete with metal basket	good	paint chips/sediment	to buried dry well according to architectural drawings
		1 floor drain with piping	base of east covered stairwell outside of door	round drain, 1'diam x 1.8'deep in concrete pad/floor	metal in concrete with metal basket	fair	rust/sediment	to buried dry well according to architectural drawings
		1 buried dry well (NF)	NE of building 1	Unknown	Unknown	Unknown	Unknown	subsurface if dry well is present
		1 buried dry well (NF)	SE of building 1	Unknown	Unknown	Unknown	Unknown	subsurface if dry well is present
		1 open sump	base of rear staircase	2.1'diam. x 2.1'deep	stainless steel	good	covered*	sump-no effluent
1A	0	NA	NA	NA	NA	NA	NA	NA
1B	1	1 buried dry well	NF	Unknown	Unknown	Unknown	Unknown	subsurface if dry well is present
2	5	1 floor drain without piping	base of west covered stairwell outside of door	round drain, 1'diam x 1.8'deep in concrete pad/floor	metal in concrete with metal basket	good	rust/sand	subsurface below drain
		1 floor drain with piping	base of center covered stairwell outside of door	1' x 1' x 0.2'deep in concrete pad/floor	metal grate set in concrete	good	crushed stone beneath	to buried dry well according to architectural drawings
		1 floor drain with piping	base of east covered stairwell outside of door	round drain, 1'diam x 1.8'deep in concrete pad/floor	metal in concrete with metal basket	good	none	to buried dry well according to architectural drawings
		1 buried dry well	N of bldg 2 surrounded by metal poles to prevent vehicle access	top of structure encountered 2' below grade during dry well drilling	Unknown	buried	Unknown	subsurface
		1 buried dry well	location based off architectural drawings and EM-31 measurements	Unknown	Unknown	buried	Unknown	subsurface if dry well is present
3	2	1 open dry well	west-quench pit	both 10'x10'x4'deep w/4'deepx3'wide	both concrete	fair	soil, grass, weeds, leaves	Muggetts Pond
		1 open dry well	east-quench pit	drainage trough leading to each	block	fair	soil, grass, weeds, leaves	Drainage Ditch
3A	0	NA	NA	NA	NA	NA	NA	NA
4	2	1 buried dry well	east-quench pit	4'deep x 3'wide drainage trough	concrete block	good	soil, grass, weeds, leaves	subsurface
		1 open swale	west-quench pit	u-shaped swale	grass	fair	soil, grass, weeds, leaves	Muggetts Pond
4A	0	NA	NA	NA	NA	NA	NA	NA
5	0	NA	NA	NA	NA	NA	NA	NA
5P	1	1 catch basin	northeast corner bldg 5P	2.65'x2.65'x3.2' deep	cast concrete	good	sediment/sand	underground pipe
5A	1	1 catch basin	northwest corner bldg 5A	2.65'x2.65'x2.85' deep	cast concrete	good	sediment/sand	to Muggetts Pond
6	0	NA	NA	NA	NA	NA	NA	NA
6A	1	1 floor drain in pit with piping	inside bldg 6A	4'x3'x6.5' deep interior concrete pit with metal grate at bottom	poured concrete	good	none	unknown-speculated to discharge to Muggetts Pond
7	0	NA	NA	NA	NA	NA	NA	NA
7B	0	NA	NA	NA	NA	NA	NA	NA
8	2	1 buried dry well (NF)	Unknown	Unknown	Unknown	Unknown	Unknown	subsurface if dry well is present
		1 buried dry well (NF)	Unknown	Unknown	Unknown	Unknown	Unknown	subsurface if dry well is present
9	2	1 buried dry well (NF)	Unknown	Unknown	Unknown	Unknown	Unknown	subsurface if dry well is present
		1 buried dry well (NF)	Unknown	Unknown	Unknown	Unknown	Unknown	subsurface if dry well is present
10	0	NA	NA	NA	NA	NA	NA	NA
11	0	NA	NA	NA	NA	NA	NA	NA
11A	0	NA	NA	NA	NA	NA	NA	NA
11B	0	NA	NA	NA	NA	NA	NA	NA
11C	0	NA	NA	NA	NA	NA	NA	NA
11D	0	NA	NA	NA	NA	NA	NA	NA

TABLE 2
DRY WELL/CATCH BASIN INVENTORY
MALTA ROCKET FUEL AREA SITE

Building No.	No. of Dry Wells	Type of Dry Well	Location Description	Dimensions	Construction Materials	Condition	Contents	Discharge Destination
12	0	NA	NA	NA	NA	NA	NA	NA
13	0	NA	NA	NA	NA	NA	NA	NA
14	0	NA	NA	NA	NA	NA	NA	NA
15	1	1 floor drain with piping	inside building between water tanks	round drain in concrete floor 1'diam. x 1.8'deep	metal in concrete with metal basket	fair	rust	underground pipe to drainage ditch
16(Guard Hse)	0	NA	NA	NA	NA	NA	NA	NA
17	0	NA	NA	NA	NA	NA	NA	NA
18	2	1 floor drain with piping	base of covered entry outside door	round drain in concrete floor 1'diam. x 1.8'deep	metal in concrete with metal basket	good	none	to bldg 18 drainage pit
		concrete pit in bldg 18 below 2 empty tanks formerly used for the storage of hydrogen peroxide	out flow pipe on bottom of western wall of concrete pit	8" pipe	poured concrete	good	none	to south end drainage ditch
18A	0	NA	NA	NA	NA	NA	NA	NA
18H	0	NA	NA	NA	NA	NA	NA	NA
20	3	1 dry well with manhole	NW corner bldg 20	8'diam x 10.1'deep	cinder blocks	good	sand and gravel bottom	subsurface
		1 dry well with manhole	NW corner, edge concrete pad	~4'wide x ~4'deep	cast concrete	good	water and sediment	unknown
		1 dry well with manhole	NW corner bldg 20W	8'diam x 10.1'deep	cinder blocks	good	sand bottom	subsurface
20H	1	1 catch basin	NW corner bldg 20H	2.75' x 2.75' x 5.2' deep	concrete blocks	good	sand/leaves/pine needles	NW direction
20W	0	NA	NA	NA	NA	NA	NA	NA
21	0	NA	NA	NA	NA	NA	NA	NA
22	0	NA	NA	NA	NA	NA	NA	NA
23	0	NA	NA	NA	NA	NA	NA	NA
23P	0	NA	NA	NA	NA	NA	NA	NA
24	2	1 catch basin	NE of bldg 24-to the left	2.1'x2.1'x4'deep	cast concrete	good	water, sediment	Muggett's Pond
		1 catch basin	NE of bldg 24 -to the right	2.1'x2.1'x2'deep	cast concrete	good	water, sediment	Drainage Ditch
25	0	NA	NA	NA	NA	NA	NA	NA
25A	0	NA	NA	NA	NA	NA	NA	NA
25G	0	NA	NA	NA	NA	NA	NA	NA
25H	0	NA	NA	NA	NA	NA	NA	NA
25S	0	NA	NA	NA	NA	NA	NA	NA
26	0	NA	NA	NA	NA	NA	NA	NA
27A	0	NA	NA	NA	NA	NA	NA	NA
27B	0	NA	NA	NA	NA	NA	NA	NA
27C	0	NA	NA	NA	NA	NA	NA	NA
27D	0	NA	NA	NA	NA	NA	NA	NA
28	0	NA	NA	NA	NA	NA	NA	NA
29	0	NA	NA	NA	NA	NA	NA	NA
30	0	NA	NA	NA	NA	NA	NA	NA
GE/Exxon	7	1 floor drain	along SE interior wall	round drain in concrete floor 0.55'diam x 0.9'deep	metal in concrete	good	none	subsurface
		1 dry well with manhole	manhole SE of building along edge of concrete pad	round 7.7'diam x 6'deep	cast concrete	good	water/sediment(natural soil)	subsurface
		1 dry well with manhole	adjacent to loading dock	round 3.6'diam x 4.5'deep	cast concrete	good	sand(natural)	subsurface
		1 dry well with manhole	23 feet SW of dry well adjacent to loading dock	round 8'diam x 14'deep	cinder block	good	sand(natural)	subsurface
		1 dry well with manhole	next to former radiation vault 13' from bldg	round 4'diam x 3.7'deep	cast concrete	good	gravel-sand bottom	subsurface
		1 dry well with manhole	next to former radiation vault 6' from bldg	round 4'diam x 3.6'deep	cast concrete	good	gravel-sand bottom	subsurface
		1 dry well with manhole marked "electric"	NW corner bldg on concrete pad	8'diam x 12.2'deep	cinder block	good	water/sediment(natural soil)	subsurface

Notes:
NF - Not Found during inventory. NA - Not Applicable.
* - Sump cleaned and sampled on 10/14/92. Freon-containing sludge and water removed and manifested.

TABLE 3
RATIONALE FOR DRY WELL/CATCH BASIN CLEANOUTS
MALTA ROCKET FUEL AREA SITE

Building No.	No. of Dry Wells/ Catch Basins	Type of Dry Well/Catch Basin	Location Description	RI Sample ID	Cleanout Proposed	Rationale
1	6	1 floor drain without piping	base of west covered stairwell outside of door	DW-1A-1 and S-126/4.5-6.5	No	The structural integrity of building could be compromised if excavation were required at that location, and "extent of" (deeper) sampling showed elevated levels of mercury, SVOCs, and PCBs to be limited
		1 floor drain with piping	base of center covered stairwell outside of door	NA	No	Piping leads to dry well and no material accumulated in or around piping
		1 floor drain with piping	base of east covered stairwell outside of door	NA	No	Piping leads to dry well and no material accumulated in or around piping
		1 buried dry well	NF (NE of building 1)	NA	No	Dry well could not be located
		1 buried dry well	NF (SE of building 1)	NA	No	Dry well could not be located
		1 open sump	base of rear staircase	DW-1A-2	No	Subsequent to the collection of DW-1A-2, this sump was cleaned out on 10/14/92 and soil samples collected below the sump during the cleanout were below the MRFA Comparative Criteria
1A	0	NA	NA	NA	NA	NA
1B	1	1 buried dry well	NF	NA	No	Dry well could not be located
2	5	1 floor drain without piping	base of west covered stairwell outside of door	DW-2-3	No	The structural integrity of building could be compromised if excavation were required at that location, and "extent of" (deeper) sampling showed elevated levels of metals, SVOCs, and pesticides to be limited
		1 floor drain with piping	base of center covered stairwell outside of door	NA	No	Piping leads to dry well and no material accumulated in or around piping
		1 floor drain with piping	base of east covered stairwell outside of door	NA	No	Piping leads to dry well and no material accumulated in or around piping
		1 buried dry well	N of bldg 2 surrounded by metal poles to prevent vehicle access	DW-2-2	No	Concentrations below MRFA Comparative Criteria
		1 buried dry well	location based off architectural dwgs. and EM-31 measurements	DW-2-1	No	Concentrations below MRFA Comparative Criteria
3	2	1 open dry well	west-quench pit	DW-3-1 and SS-B3DW	Yes	PCBs and arsenic in soil above MRFA Comparative Criteria
		1 open dry well	east-quench pit	DW-3-2	No	Concentrations below MRFA Comparative Criteria
3A	0	NA	NA	NA	NA	NA

Notes:

1. NF - Not Found during RI. NA - Not Applicable.
2. The "extent of" sampling program was performed to define the vertical and horizontal extent of constituents in areas of the MRFA Site that were identified during the RI as warranting further characterization. The analytical results from the "extent of" sampling are reported in Appendix D of the RI.
3. MRFA Comparative Criteria are defined as levels of environmental quality above which further characterization may be warranted and that any potential risks associated with the observed environmental quality should also be evaluated.

TABLE 3
RATIONALE FOR DRY WELL/CATCH BASIN CLEANOUTS
MALTA ROCKET FUEL AREA SITE

Building No.	No. of Dry Wells/ Catch Basins	Type of Dry Well/Catch Basin	Location Description	RI Sample ID	Cleanout Proposed	Rationale
4	2	1 buried dry well	east-quench pit	DW-4-2/8-10	No	Some individual petroleum-related SVOC TICs and the total concentration of VOC TICs (both also petroleum-related) slightly exceeded MRFA Comparative Criteria. "Extent of" sampling (S-142/12-14, S-143/10-12, S-144/10-12, and S-145/10-12) around the 8 to 10 feet dry well subsurface soil sample (DW-3-2) exhibited concentrations below MRFA Comparative Criteria. Thus, the "extent of" affected soil is limited. Since the affected soil is subsurface soil of limited extent and given that petroleum-related compounds are highly susceptible to natural biodegradation, no action is proposed for this dry well.
		1 open swale	west-quench pit	DW-4-1	No	Concentrations below MRFA Comparative Criteria
4A	0	NA	NA	NA	NA	NA
5	0	NA	NA	NA	NA	NA
5P	1	1 catch basin	northeast corner bldg 5P	DW-5-1	Yes	PCE, metals, and pesticides in sediment above MRFA Comparative Criteria
5A	1	1 catch basin	northwest corner bldg 5A	DW-5-2	Yes	PCE, metals, and pesticides in sediment above MRFA Comparative Criteria
6	0	NA	NA	NA	NA	NA
6A	1	1 floor drain in pit with piping	inside bldg 6A	NA	No	No material accumulated in pit
7	0	NA	NA	NA	NA	NA
7B	0	NA	NA	NA	NA	NA
8	2	1 buried dry well	NF	NA	No	Dry well could not be located
		1 buried dry well	NF	NA	No	Dry well could not be located
9	2	1 buried dry well	NF	NA	No	Dry well could not be located
		1 buried dry well	NF	NA	No	Dry well could not be located
10	0	NA	NA	NA	NA	NA
11	0	NA	NA	NA	NA	NA
11A	0	NA	NA	NA	NA	NA
11B	0	NA	NA	NA	NA	NA
11C	0	NA	NA	NA	NA	NA
11D	0	NA	NA	NA	NA	NA
12	0	NA	NA	NA	NA	NA

Notes:

1. NF - Not Found during RI. NA - Not Applicable.
2. The "extent of" sampling program was performed to define the vertical and horizontal extent of constituents in areas of the MRFA Site that were identified during the RI as warranting further characterization. The analytical results from the "extent of" sampling are reported in Appendix D of the RI.
3. MRFA Comparative Criteria are defined as levels of environmental quality above which further characterization may be warranted and that any potential risks associated with the observed environmental quality should also be evaluated.

TABLE 3
RATIONALE FOR DRY WELL/CATCH BASIN CLEANOUTS
MALTA ROCKET FUEL AREA SITE

Building No.	No. of Dry Wells/ Catch Basins	Type of Dry Well/Catch Basin	Location Description	RI Sample ID	Cleanout Proposed	Rationale
13	0	NA	NA	NA	NA	NA
14	0	NA	NA	NA	NA	NA
15	1	1 floor drain with piping	inside building between water tanks	DW-15	No	Soil material accumulated on concrete floor around floor drain in Building 15 contained metals (arsenic, iron, lead, and mercury) above MRFA Comparative Criteria. "Extent of" soil samples (S-132/0-2, S-133/4-6, and S-134/4-6) adjacent to floor drain outfall exhibited no concentrations above MRFA Comparative Criteria. The floor drain outfalls to the Muggett's Pond Drainage Ditch spur and remediation of Muggett's Pond Drainage Ditch Intersection (just downgradient of the floor drain outfall) has been proposed in FS.
16 (Grd Hse)	0	NA	NA	NA	NA	NA
17	0	NA	NA	NA	NA	NA
18	2	1 floor drain with piping	base of covered entry outside door; discharges to concrete pit inside building	NA	No	See SS-18
		concrete pit in bldg 18 below 2 empty tanks formerly used for the storage of hydrogen peroxide	out flow pipe on bottom of western wall of concrete pit	SS-18	No	SS-18 was collected at outfall location south of Building 1 and concentrations in this surface soil sample were below MRFA Comparative Criteria
18A	0	NA	NA	NA	NA	NA
18H	0	NA	NA	NA	NA	NA

Notes:

1. NF - Not Found during RI. NA - Not Applicable.
2. The "extent of" sampling program was performed to define the vertical and horizontal extent of constituents in areas of the MRFA Site that were identified during early phases of the RI as warranting further characterization.
3. MRFA Comparative Criteria are defined as levels of environmental quality above which further characterization may be warranted and that any potential risks associated with the observed environmental quality should also be evaluated.

TABLE 3
RATIONALE FOR DRY WELL/CATCH BASIN CLEANOUTS
MALTA ROCKET FUEL AREA SITE

Building No.	No. of Dry Wells/ Catch Basins	Type of Dry Well/Catch Basin	Location Description	RI Sample ID	Cleanout Proposed	Rationale
20	3	1 dry well with manhole	NW corner bldg 20	NA	No	This dry well was reported to collect roof and parking lot storm water drainage only.
		1 dry well with manhole	NW corner, edge concrete pad	NA	No	This dry well was reported to collect roof and parking lot storm water drainage only.
		1 dry well with manhole	NW corner bldg 20W	NA	No	This dry well was reported to collect roof and parking lot storm water drainage only.
20H	1	1 catch basin	NW corner bldg 20H	DW-20H	No	Lead and mercury and some target SVOCs slightly exceeded MRFA Comparative Criteria in Building 20H catch basin sediment. "Extent of" soil samples (S-167/6-8, and 8-10) collected adjacent to the catch basin exhibited no concentrations above MRFA Comparative Criteria. Since the catch basin sediment concentrations only slightly exceeded the Criteria and the sediment is confined to the catch basin, cleanout of this catch basin is not proposed.
20W	0	NA	NA	NA	NA	NA
21	0	NA	NA	NA	NA	NA
22	0	NA	NA	NA	NA	NA
23	0	NA	NA	NA	NA	NA
23P	0	NA	NA	NA	NA	NA
24	2	1 catch basin	NE of bldg 24 - to the left	DW-24-2	Yes	Freon, PCBs, SVOCs, and metals above MRFA Comparative Criteria
		1 catch basin	NE of bldg 24 - to the right	DW-24-1	Yes	PCBs, SVOCs, and metals above MRFA Comparative Criteria
25	0	NA	NA	NA	NA	NA
25A	0	NA	NA	NA	NA	NA
25G	0	NA	NA	NA	NA	NA
25H	0	NA	NA	NA	NA	NA
25S	0	NA	NA	NA	NA	NA
26	0	NA	NA	NA	NA	NA
27A	0	NA	NA	NA	NA	NA
27B	0	NA	NA	NA	NA	NA
27C	0	NA	NA	NA	NA	NA
27D	0	NA	NA	NA	NA	NA
28	0	NA	NA	NA	NA	NA
29	0	NA	NA	NA	NA	NA
30	0	NA	NA	NA	NA	NA

Notes:
1. NF - Not Found during RI. NA - Not Applicable.
2. The "extent of" sampling program was performed to define the vertical and horizontal extent of constituents in areas of the MRFA Site that were identified during the RI as warranting further characterization. The analytical results from the "extent of" sampling are reported in Appendix D of the RI.
3. MRFA Comparative Criteria are defined as levels of environmental quality above which further characterization may be warranted and that any potential risks associated with the observed environmental quality should also be evaluated.

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TABLE 3
RATIONALE FOR DRY WELL/CATCH BASIN CLEANOUTS
MALTA ROCKET FUEL AREA SITE

Building No.	No. of Dry Wells/ Catch Basins	Type of Dry Well/Catch Basin	Location Description	RI Sample ID	Cleanout Proposed	Rationale
former GE/Exxon	7	1 floor drain	along SE interior wall	DW-EXNUC	No	Concentrations below MRFA Comparative Criteria
		1 dry well with manhole	manhole SE of building along edge of concrete pad	DW-GE/EX-1	No	Concentrations below MRFA Comparative Criteria
		1 dry well with manhole	adjacent to loading dock	DW-GE/EX-2 and S-151/6-8	No	Four SVOCs exceeded the MRFA Comparative Criteria for subsurface soil. "Extent of" soil samples (S-151/6-8, S-156/10-12, S-157/6-8, and S-158/6-8) did not exhibit any SVOCs above the Criteria. Due to the limited "extent of" SVOCs and the confined space nature of this dry well, cleanout for this dry well is not proposed.
		1 dry well with manhole	23 feet SW of dry well adjacent to loading dock	DW-GE/EX-6	No	Concentrations below MRFA Comparative Criteria
		1 dry well with manhole	next to former radiation vault 13' from bldg	DW-GE/EX-3	No	Concentrations below MRFA Comparative Criteria
		1 dry well with manhole	next to former radiation vault 6' from bldg	DW-GE/EX-4	No	Concentrations below MRFA Comparative Criteria
		1 dry well with manhole marked "electric"	NW corner bldg on concrete pad	DW-GE/EX-5	No	Concentrations below MRFA Comparative Criteria

Notes:
1. NF - Not Found during RI. NA - Not Applicable.
2. The "extent of" sampling program was performed to define the vertical and horizontal extent of constituents in areas of the MRFA Site that were identified during the RI as warranting further characterization. The analytical results from the "extent of" sampling are reported in Appendix D of the RI.
3. MRFA Comparative Criteria are defined as levels of environmental quality above which further characterization may be warranted and that any potential risks associated with the observed environmental quality should also be evaluated.

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TABLE 4
RATIONALE FOR SEPTIC TANK CLEANOUTS
MALTA ROCKET FUEL AREA SITE

Building No.	No. of Septic Systems	Type of Septic System	Location Description	RI Sample ID	Cleanout Proposed	Rationale
13	1	septic tank w/cesspools	walkway SE of bldg	SL1301	Yes	VOCs and PCBs above MRFA Comparative Criteria
14	1	septic tank w/cesspools	N of bldg in low area	SL1401	Yes	VOCs, SVOCs, PCBs, and metals detected in sludge at elevated levels (no MRFA Comparative Criteria for sludge)
16 (Grd Hse)	1	septic tank w/cesspools	NF (under parking area)	NA	No	Septic tank could not be located
17	1	septic tank w/cesspools*	north of bldg, along fence	SL1701	Yes	Acetone, total phenols, and sodium above MRFA Comparative Criteria
20	2	septic tank w/leach field*	new system east corner of bldg 20	SL20-N-01	Yes	Total phenols, toluene, iron, and manganese above MRFA Comparative Criteria
		septic tank w/cesspools	old system north corner of bldg 20	SL20-O-01	Yes	Aluminum, iron, manganese, and sodium above MRFA Comparative Criteria
24	1	septic tank w/cesspools	NF (north of bldg)	NA	No	Septic tank could not be located
25	1	septic tank w/cesspools*	between bldg 25S and Area S-8	SL-25-01	Yes	Aluminum, cadmium, iron, manganese, lead, and silver above MRFA Comparative Criteria
former GE/Exxon	1	septic tank w/leach field*	north of bldg entrance	SL-GEX-01	Yes	Acetone, total phenols, toluene, xylene, and sodium above MRFA Comparative Criteria

Notes:

1. NF - Not Found during RI. NA - Not Applicable.
2. MRFA Comparative Criteria are defined as levels of environmental quality above which further characterization may be warranted and that any potential risks associated with the observed environmental quality should also be evaluated.
3. * Septic tank was pumped and rinsed in May 1988 (see Table 7).

TABLE 5
MALTA ROCKET FUEL AREA SITE
DRY WELL ANALYTICAL RESULTS
INORGANIC ANALYTES

	Bldg. 3		Bldg. 5				Bldg. 24			
Analytes	DW-3-1		DW-5-1		DW-5-2		DW-24-1		DW-24-2	
Aluminum	7980		3980		2370		9060	J	9370	J
Antimony	< 7.3	UJ	< 3.7	UJ	6.6	BJ	3.4	BJ	< 3.3	UJ
Arsenic	13.0	J	5.1	J	4.4	J	8.3		9.1	
Barium	66.2		21.2	B	13.4	B	76.1	J	75.9	J
Beryllium	0.47	B	0.22	B	0.22	B	0.50	B	0.53	B
Cadmium	5.0	J	2.2	J	12.6	J	0.69	B	0.97	B
Calcium	5640		10800		117000		68900	J	51600	J
Chromium	56.6	J	24.5	J	7.7	J	17.7	J	18.0	J
Cobalt	5.2	B	4.1	B	2.4	B	12.0		10.1	
Copper	85.3	J	41.0	J	85.2	J	38.7		38.9	
Iron	24300		21900		10300		22800	J	23400	J
Lead	163		56.6	J	85.9	J	44.4		43.2	
Magnesium	3180		5120		62400		28300	J	20800	J
Manganese	268	J	195	J	103	J	554		570	
Mercury	0.42	J	3.0	J	5.2	J	0.11	J	0.11	J
Nickel	35.4		15.4		27.1		21.7		23.1	
Potassium	1390	B	441	B	< 209	U	1110		1270	
Selenium	< 0.47	U	< 0.21	U	< 0.20	U	< 0.22	U	< 0.27	U
Silver	< 1.0	U	0.78	B	< 0.70	U	0.82	B	1.5	B
Sodium	< 28.5	U	24.4	B	105	B	94.5	B	73.4	B
Thallium	< 0.68	U	< 0.30	U	< 0.29	U	< 0.33	UJ	< 0.40	UJ
Vanadium	47.7		10.1		8.2	B	17.8		18.2	
Zinc	474	J	171	J	95.9	J	288		375	
Cyanide	< 0.97	UJ	< 0.56	UJ	< 0.54	UJ	< 0.58	UJ	< 0.89	UJ
Boron	< 29.0	U	< 14.7	U	< 19.9	U	< 19.6	U	< 19.7	U

Notes:
1. All concentrations are in milligrams per kilogram (mg/kg = parts per million (ppm)) except where noted.
2. U = Analyte was not detected.
3. J = Semi-quantitative value due to QA/QC data validation requirements.
4. B = Value is above the Instrument Detection Limit (IDL) but below the Contract Required Detection Limit (CRDL).

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TABLE 5 (cont'd)
MALTA ROCKET FUEL AREA SITE
DRY WELL ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS

Target Volatile Organic Compounds*	Bldg. 3 DW-3-1		Bldg. 5 DW-5-1		Bldg. 5 DW-5-2		Bldg. 24 DW-24-1		Bldg. 24 DW-24-2	
Tetrachloroethene	< 18	U	< 11	U	68000	J	< 13	U	< 100000	UJ
Volatile Organic TICs										
1,3-Butadiene, 1,1,2,3,4,4-	NF		NF		21000	NJ	NF		NF	
Naphthalene, Decahydro-	NF		NF		4100	NJ	NF		NF	
1,1,2-Trichloro-1,2,2-Trifluoroethane	NF		NF		NF		NF		3000000	NJ
Unknown Cycloalkane	NF		NF		3800	J	NF		NF	
Unknown Dimethylcyclooctanes	NF		NF		18100	J	NF		NF	
Unknown Hydrocarbons	NF		NF		8900	J	NF		NF	
Unknown Terpenes	NF		NF		NF		58	J	NF	
Unknown Trimethylcyclohexane	NF		NF		11000	J	NF		NF	
Assorted Unknowns	NF		NF		3500	J	NF		NF	

Notes:
1. All concentrations are in micrograms per kilogram (ug/kg = parts per billion (ppb)) except where noted.
2. * = Only compounds that were detected in one or more samples are listed.
3. U = Analyte was not detected.
4. J = Semi-quantitative value due to QA/QC data validation requirements.
5. B = Compound was detected in associated method blank.
6. N = Compound was identified with a Chemical Abstracts Services (CAS) number.
7. NF = Compound not found on TIC list.

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TABLE 5 (cont'd)
MALTA ROCKET FUEL AREA SITE
DRY WELL ANALYTICAL RESULTS
TARGET SEMI-VOLATILE ORGANIC COMPOUNDS

Target Semi-Volatile Organic Compounds*	Bldg. 3 DW-3-1		Bldg. 5 DW-5-1		Bldg. 5 DW-5-2		Bldg. 24 DW-24-1		Bldg. 24 DW-24-2	
Benzo (a) Anthracene	< 560	U	< 360	U	< 3800	U	79	J	84	J
Benzo (b) Fluoranthene	< 560	U	< 360	U	< 3800	U	97	J	< 520	UJ
Benzo (k) Fluoranthene	< 560	U	< 360	U	< 3800	U	45	J	< 520	UJ
Benzo (g,h,i) Perylene	< 560	U	< 360	U	< 3800	U	50	J	< 520	UJ
Benzo (a) Pyrene	< 560	U	< 360	U	< 3800	U	54	J	< 520	UJ
bis (2-Ethylhexyl) Phthalate	< 560	U	< 360	U	< 3800	U	1300	BJ	4100	BJ
Chrysene	< 560	U	< 360	U	< 3800	U	64	J	80	J
Di-n-Butylphthalate	< 560	U	140	J	< 3800	U	< 440	UJ	< 520	UJ
Fluoranthene	33	J	< 360	U	< 3800	U	110	J	130	J
Hexachlorobutadiene	< 560	U	34	J	14000		< 440	UJ	< 520	UJ
Indeno (1,2,3-cd) Pyrene	< 560	U	< 360	U	< 3800	U	36	J	< 520	UJ
2-Methylnaphthalene	< 560	U	< 360	U	< 3800	U	28	J	< 520	UJ
4-Methylphenol	< 560	U	< 360	U	< 3800	UJ	110	J	550	J
Phenanthrene	< 560	U	< 360	U	< 3800	U	54	J	< 520	UJ
Pyrene	< 560	U	27	J	< 3800	U	92	J	140	J

Notes:
1. All concentrations are in micrograms per kilogram (ug/kg = parts per billion (ppb)).
2. * = Only compounds that were detected in one or more samples are listed.
3. U = Analyte was not detected.
4. J = Semi-quantitative value due to QA/QC data validation requirements.
5. B = Compound was detected in associated method blank.

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TABLE 5 (cont'd)
MALTA ROCKET FUEL AREA SITE
DRY WELL ANALYTICAL RESULTS
TENTATIVELY IDENTIFIED SEMI-VOLATILE ORGANIC COMPOUNDS (TICs)

Semi-Volatile Organic TICs	Bldg. 3 DW-3-1		Bldg. 5 DW-5-1		Bldg. 5 DW-5-2		Bldg. 24 DW-24-1		Bldg. 24 DW-24-2	
2H-1-Benzopyran-2-One	NF		270	NJ	NF		NF		NF	
1,3-Butadiene, Pentachloro-	NF		NF		7600	NJ	NF		NF	
Butane, Trichloroheptafluoro	NF		190	NJ	NF		NF		NF	
Cyclohexane, 2-Butyl-1,1,3-	NF		NF		14000	NJ	NF		NF	
Docosane	NF		NF		NF		470	NJ	1200	NJ
Eicosane	NF		NF		NF		NF		890	NJ
Heneicosane	NF		NF		NF		NF		1300	NJ
Heptacosane	1700	NJ	330	NJ	NF		950	NJ	1600	NJ
Heptadecane	NF		NF		NF		520	NJ	NF	
Hexacosane	NF		NF		NF		NF		1700	NJ
Hexadecane, 2,6,10,14-Tetramethyl	NF		NF		NF		540	NJ	NF	
Naphthalene, Decahydro-	NF		NF		7500	NJ	NF		NF	
Naphthalene, Decahydro-2-Methyl	NF		NF		10000	NJ	NF		NF	
Nonacosane	2100	NJ	710	NJ	NF		1300	NJ	2100	NJ
Octacosane	NF		NF		NF		NF		1700	NJ
Octadecane	NF		NF		NF		NF		1400	NJ
Pentacosane	880	NJ	170	NJ	NF		730	NJ	1600	NJ
Pentadecane	NF		NF		7700	NJ	NF		NF	
Pentadecane, 2,6,10,14-Tetramethyl	NF		NF		NF		400	NJ	NF	
Stigmast-4-En-3-One	900	NJ	NF		NF		NF		NF	
Triacontane	NF		NF		NF		NF		1800	NJ
Tricosane	410	NJ	93	NJ	NF		NF		NF	
Unknown Aliphatic Alcohol	NF		NF		22000	J	NF		NF	
Unknown Aliphatic Aldehydes	6460	J	440	J	NF		NF		NF	
Unknown Aliphatic Hydrocarbon	NF		NF		NF		390	J	NF	
Unknown Aliphatic Ketones	210	J	NF		NF		NF		NF	
Unknown Alkanes	NF		NF		NF		4260	J	3200	J
Unknown Alkoxyoxirane	330	J	NF		NF		NF		NF	
Unknown C11-Alkanes	NF		NF		13100	J	NF		NF	
Unknown C12-Alkanes	NF		NF		13000	J	NF		NF	
Unknown C13-Alkanes	NF		220	J	38000	J	NF		NF	
Unknown C13H26-Aliphatic Hydrocarbon	NF		NF		7900	J	NF		NF	
Unknown C14-Alkanes	NF		410	J	43700	J	NF		NF	
Unknown C14H28-Aliphatic Hydrocarbons	NF		100	J	15000	J	NF		NF	
Unknown C15-Alkanes	NF		380	J	31000	J	NF		NF	
Unknown C16-Alkane	NF		240	J	20000	J	NF		NF	
Unknown C31-Alkane	1800	J	540	J	NF		800	J	NF	
Unknown C33-Alkane	570	J	110	J	NF		NF		NF	
Unknown C5-Alkylcyclohexane	NF		NF		7100	J	NF		NF	
Unknown Chlorofluorocarbons	NF		280	J	NF		NF		NF	
Unknown Cholestane Derivative	NF		NF		NF		330	J	NF	
Unknown Heptachlorobiphenyl	280	J	NF		NF		NF		NF	
Unknown Hexachlorohydrocarbon	NF		NF		10000	J	NF		NF	
Unknown Methyldecahydronaphthalene	NF		NF		14000	J	NF		NF	
Unknown Nonachlorobiphenyl	280	J	NF		NF		NF		NF	
Unknown Octachlorobiphenyls	580	J	NF		NF		NF		NF	
Unknown Phthalate	NF		NF		NF		260	J	NF	
Unknown Polycyclic Hydrocarbons	NF		NF		NF		3260	J	12200	J
Unknown Polyterpene Derivative	NF		NF		NF		NF		840	J
Unknown Sitosterol	230	J	NF		NF		NF		NF	
Assorted Unknowns	NF		NF		NF		450	J	NF	

Notes:
1. All concentrations are in micrograms per kilogram (ug/kg = parts per billion (ppb)).
2. J = Semi-quantitative value due to QA/QC data validation requirements.
3. N = Compound was identified with a Chemical Abstracts Services (CAS) number.
4. NF = Compound not found on TIC list.

TABLE 5 (cont'd)
MALTA ROCKET FUEL AREA SITE
DRY WELL ANALYTICAL RESULTS
PESTICIDE/PCB COMPOUNDS

Pesticide/PCB Compounds*	Bldg. 3						Bldg. 5				Bldg. 24			
	DW-3-1		SS-B3DW		SS-DUPE13**		DW-5-1		DW-5-2		DW-24-1		DW-24-2	
4,4'-DDE	< 17	U	NA		NA		7.1		23	J	< 4.4	U	< 5.1	U
Endosulfan II	< 17	U	NA		NA		< 3.6	U	71	J	< 4.4	U	< 5.1	U
4,4'-DDT	< 17	U	NA		NA		7.5		70	J	< 4.4	U	< 5.1	U
alpha-Chlordane	< 8.5	U	NA		NA		< 1.8	U	< 9.9	UJ	4.3	BJ	< 2.6	U
Aroclor-1254	< 170	U	< 610	U	< 600	U	110		< 190	UJ	< 44	U	< 51	U
Aroclor-1260	15000	JNDC	< 610	U	< 600	U	170	NJ	210	NJ	110		160	
Aroclor-1262	NA		9200	J	2000	J	NA		NA		NA		NA	
Aroclor-1268	NA		9300	J	2300	J	NA		NA		NA		NA	

Notes:

1. All concentrations are in micrograms per kilogram (ug/kg = parts per billion (ppb)).
2. * = Only compounds that were detected in one or more samples are listed.
3. U = Analyte was not detected.
4. J = Semi-quantitative value due to QA/QC data validation requirements.
5. N = >50% difference for detected concentrations between the two GC columns. The lower value is reported.
6. B = Compound was detected in associated method blank.
7. C = Compound identification was confirmed by GC/MS.
8. D = Analysis performed at a higher dilution factor.
9. NA = Not analyzed for.
10. ** = SS-DUPE13 is a duplicate of SS-B3DW.

TABLE 6
MALTA ROCKET FUEL AREA SITE
SEPTIC TANK AND ASSOCIATED FIELD BLANK ANALYTICAL RESULTS
INORGANIC ANALYTES

Analytes	Bldg. 13		Bldg. 14				Bldg. 17		Bldg. 20			
	SL1301		SL1401*		SLDUPB*		SL1701		SL20-N-01		SL20-O-01	
Aluminum	6010		8510	J	3180	J	145	B	661		2130	
Antimony	< 24.9	U	< 35.5	UJ	< 37.1	UJ	< 25.0	U	< 25.0	U	< 25.0	U
Arsenic	20.4	J	6.2	BJ	7.0	BJ	3.9	BJ	3.5	J	< 3.5	UJ
Barium	225	J	1530	J	361	J	22.1	BJ	60.6	BJ	127	BJ
Beryllium	< 0.30	U	< 0.42	UJ	< 0.44	UJ	< 0.30	U	< 0.30	U	< 0.30	U
Cadmium	60.1		51.8	J	30.0	J	< 1.2	UJ	2.9	BJ	7.9	J
Calcium	77100		23600	J	11500	J	59700		50200		148000	
Chromium	174		361	J	191	J	< 2.4	U	3.8	B	7.2	B
Cobalt	34.1	B	3.7	BJ	5.3	BJ	< 2.2	U	< 2.2	U	< 2.2	U
Copper	2250		2230	J	862	J	113		70.6		83	
Iron	36400		17200	J	8890	J	498		1250		4460	
Lead	327	J	398	J	187	J	7.5	J	10.4	J	29.0	J
Magnesium	13800		2380	BJ	1460	BJ	11800		10300		19600	
Manganese	242		150	J	77.8	J	52.3		41.4		131	
Mercury	5.9		12.5	J	17.3	J	0.9		0.44		1.6	
Nickel	257		77.7	J	70.8	J	20.2	B	42.2		16.9	B
Potassium	27900		< 1490	UJ	1970	BJ	63200		7370		114000	
Selenium	3.4	BJ	3.2	BJ	1.7	BJ	< 1.5	U	< 1.5	U	< 1.5	UJ
Silver	25		54.5	J	7.6	BJ	< 3.5	U	< 3.5	U	< 3.5	U
Sodium	37000		158	BJ	157	BJ	81200		15300		76300	
Thallium	< 2.2	U	< 2.9	UJ	< 2.4	UJ	< 2.2	U	< 2.2	U	< 2.2	UJ
Vanadium	29.0	B	15.0	BJ	9.0	BJ	< 2.7	U	< 2.7	U	5.1	B
Zinc	7330		2610	J	1860	J	306		476		568	
Cyanide	11.9	J	< 4.2	UJ	< 4.6	UJ	< 10.0	UJ	< 10.0	UJ	< 10.0	UJ
Boron	1060		< 141	UJ	< 148	UJ	116		< 99.6	U	< 99.6	U

Notes:
1. All concentrations are in micrograms per liter (ug/l = parts per billion (ppb)) except where noted.
2. U = Analyte was not detected.
3. * = These concentrations are in milligrams per kilogram (mg/kg = parts per million (ppm)). SLDUPB is a duplicate of SL1401.
4. J = Semi-quantitative value due to QA/QC data validation requirements.
5. B = Value is above the Instrument Detection Limit (IDL) but below the Contract Required Detection Limit (CRDL).

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TABLE 6 (cont'd)
MALTA ROCKET FUEL AREA SITE
SEPTIC TANK AND ASSOCIATED FIELD BLANK ANALYTICAL RESULTS
INORGANIC ANALYTES

Analytes	Bldg. 25 SL2501		SLDUPA*		Former GE/Exxon SLGEX01		FB1032492		FB2032492	
Aluminum	1350		2610	J	85.3B	B	< 68.9	U	< 68.8	U
Antimony	< 24.9	U	< 24.9	U	< 25.0	U	< 25.0	U	< 25.0	U
Arsenic	4.2	BJ	6.9	BJ	< 3.5	UJ	< 3.5	UJ	< 3.5	UJ
Barium	62.6	BJ	115	BJ	29.8	BJ	< 1.1	UJ	< 1.1	UJ
Beryllium	< 0.30	U	< 0.30	U	< 0.30	U	< 0.30	U	< 0.30	U
Cadmium	20.4		45.7	J	< 1.2	UJ	< 1.2	UJ	< 1.2	UJ
Calcium	118000		127000		52200		< 47.5	U	< 47.5	U
Chromium	25.7		65.4	J	< 2.4	U	< 2.4	U	< 2.4	U
Cobalt	< 2.2	U	2.7	B	< 2.2	U	< 2.2	U	< 2.2	U
Copper	268		567	J	64.9		< 2.4	U	< 2.4	U
Iron	9380		27200	J	555		8.4	B	8.6	B
Lead	146	J	257	J	17.5	J	1.0	BJ	< 0.90	UJ
Magnesium	8830		9500		12000		< 71.4	U	< 71.3	U
Manganese	112		145		20.2		< 0.90	U	< 0.90	U
Mercury	1.0		0.95		0.26		< 0.06	U	< 0.06	U
Nickel	18.2	B	44.9		6.0	B	< 3.2	U	< 3.2	U
Potassium	18600		18300		46900		< 1040	U	1540	B
Selenium	< 1.5	U	2.8	BJ	< 1.5	U	< 1.5	U	< 1.5	U
Silver	110		212	J	< 3.5	U	< 3.5	U	< 3.5	U
Sodium	22200		22700		53300		< 97.7	U	< 97.7	U
Thallium	< 2.2	U	< 2.2	U	< 2.2	U	< 2.2	U	< 2.2	U
Vanadium	4.5	B	7.2	B	< 2.7	U	< 2.7	U	< 2.7	U
Zinc	1140		2190	J	96.8		< 2.1	U	< 2.1	U
Cyanide	< 10.0	UJ	< 10.0	UJ	< 10.0	UJ	< 10.0	UJ	< 10.0	UJ
Boron	< 99.3	U	< 99.2	U	< 99.5	U	< 99.5	U	< 99.5	U

Notes:

1. All concentrations are in micrograms per liter (ug/l = parts per billion (ppb)) except where noted.
2. U = Analyte was not detected.
3. J = Semi-quantitative value due to QA/QC data validation requirements.
4. B = Value is above the Instrument Detection Limit (IDL) but below the Contract Required Detection Limit (CRDL).
5. * = SLDUPA is a duplicate of SL2501.

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TABLE 6 (cont'd)
MALTA ROCKET FUEL AREA SITE
SEPTIC TANK AND ASSOCIATED FIELD BLANK ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS

Target Volatile Organic Compounds*	Bldg. 13	Bldg. 14		Bldg. 17	Bldg. 20	
	SL1301	SL1401**	SLDUPB**	SL1701	SL20-N-01	SL20-O-01
Vinyl Chloride	1 J	< 9200	< 130 UJ	< 10 U	< 10 U	< 10 U
Methylene Chloride	< 10 U	< 9200	45 BJ	< 10 U	< 10 U	< 10 U
Acetone	90	< 9200	350 BJ	89	6 J	< 10 U
1,2-Dichloroethene (total)	160	< 9200	< 130 UJ	< 10 U	< 10 U	< 10 U
Chloroform	< 10 U	< 9200	< 130 UJ	< 10 U	< 10 U	< 10 U
2-Butanone	< 10 U	< 9200	61 J	6 J	< 10 U	< 10 U
Toluene	5 J	< 9200	< 130 UJ	4 J	37	< 10 U
Ethylbenzene	< 10 U	1500 J	78 J	< 10 U	< 10 U	< 10 U
Xylene (total)	< 10 U	< 9200	130 J	< 10 U	< 10 U	< 10 U

Volatile Organic TICs

Volatile Organic TICs	SL1301	SL1401**	SLDUPB**	SL1701	SL20-N-01	SL20-O-01
2-Propanol	NF	NF	NF	NF	NF	NF
Decane	NF	NF	NF	9 NJ	NF	NF
Dimethyldisulfide	6 NJ	NF	NF	30 NJ	NF	NF
Hexane	5 NJ	NF	NF	NF	NF	NF
Methanethiol	NF	NF	NF	6 NJ	NF	NF
Thiobismethane	46 NJ	NF	NF	400 NJ	NF	NF
Tricyclo [3.3.1.13,7] Decane	NF	NF	1400 NJ	NF	NF	NF
Tricyclo [3.3.1.13,7] Decane, 1	NF	26000 NJ	2800 NJ	NF	NF	NF
Trisulfide, Dimethyl	NF	NF	NF	NF	NF	NF
Unknown C4-Cyclohexane	NF	NF	860 J	NF	NF	NF
Unknown Cyclic Hydrocarbon	NF	NF	780 J	NF	NF	NF
Unknown Dimethylcyclooctane	NF	24000 J	3600 J	NF	NF	NF
Unknown Ethylmethylcyclohexane	NF	5000 J	970 J	NF	NF	NF
Unknown Hydrocarbons	NF	6000 J	1810 J	NF	NF	NF
Unknown Polycyclic Hydrocarbon	NF	NF	510 J	NF	NF	NF
Unknown Trimethylcyclohexane	NF	NF	NF	NF	NF	NF
Assorted Unknowns	NF	15000 J	460 J	NF	NF	NF

Notes:
1. All concentrations are in micrograms per liter (ug/l = parts per billion (ppb)) except where noted.
2. * = Only compounds that were detected in one or more samples are listed.
3. ** = These concentrations are in micrograms per kilogram (ug/kg = parts per billion (ppb)). SLDUPB is a duplicate of SL1401.
4. U = Analyte was not detected.
5. J = Semi-quantitative value due to QA/QC data validation requirements.
6. B = Compound was detected in associated method blank.
7. N = Compound was identified with a Chemical Abstract Services (CAS) number.
8. NF = Compound not found on TIC list.

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TABLE 6 (cont'd)
MALTA ROCKET FUEL AREA SITE
SEPTIC TANK AND ASSOCIATED FIELD BLANK ANALYTICAL RESULTS
VOLATILE ORGANIC COMPOUNDS

Target Volatile Organic Compounds*	Bldg. 25		Former GE/Exxon		
	SL2501	SLDUPA**	SLGEX01	FB1032492	FB2032492
Vinyl Chloride	< 120 U	< 260 U	< 10 U	< 10 U	< 10 U
Methylene Chloride	< 120 U	< 260 U	< 10 U	< 10 U	< 10 U
Acetone	< 120 U	< 260 U	150	< 10 U	< 10 U
1,2-Dichloroethene (total)	2200	4000	< 10 U	< 10 U	< 10 U
Chloroform	< 120 U	< 260 U	< 10 U	18	16
2-Butanone	< 120 U	< 260 U	4 J	< 10 U	< 10 U
Toluene	20 J	41 J	90	< 10 U	< 10 U
Ethylbenzene	< 120 U	< 260 U	4 J	< 10 U	< 10 U
Xylene (total)	< 120 U	< 260 U	36	< 10 U	< 10 U
Volatile Organic TICs					
2-Propanol	NF	NF	14 NJ	NF	NF
Decane	NF	NF	NF	NF	NF
Dimethyldisulfide	NF	NF	170 NJ	NF	NF
Hexane	NF	NF	NF	NF	NF
Methanethiol	NF	NF	23 NJ	NF	NF
Thiobismethane	NF	NF	260 NJ	NF	NF
Tricyclo [3.3.1.13,7] Decane	NF	NF	NF	NF	NF
Tricyclo [3.3.1.13,7] Decane, 1	NF	NF	8 NJ	NF	NF
Trisulfide, Dimethyl	NF	NF	41 NJ	NF	NF
Unknown C4-Cyclohexane	NF	NF	NF	NF	NF
Unknown Cyclichydrocarbon	NF	NF	NF	NF	NF
Unknown Dimethylcyclooctane	NF	NF	NF	NF	NF
Unknown Ethylmethylcyclohexane	NF	NF	NF	NF	NF
Unknown Hydrocarbons	NF	NF	9 J	NF	NF
Unknown Polycyclichydrocarbon	NF	NF	NF	NF	NF
Unknown Trimethylcyclohexane	NF	NF	7 J	NF	NF
Assorted Unknowns	NF	NF	NF	NF	NF

Notes:
1. All concentrations are in micrograms per liter (ug/l = parts per billion (ppb)) except where noted.
2. * = Only compounds that were detected in one or more samples are listed.
3. U = Analyte was not detected.
4. J = Semi-quantitative value due to QA/QC data validation requirements.
5. B = Compound was detected in associated method blank.
6. N = Compound was identified with a Chemical Abstract Services (CAS) number.
7. NF = Compound not found on TIC list.
8. ** = SLDUPA is a duplicate of SL2501.

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TABLE 6 (cont'd)
MALTA ROCKET FUEL AREA SITE
SEPTIC TANK AND ASSOCIATED FIELD BLANK ANALYTICAL RESULTS
TARGET SEMI-VOLATILE ORGANIC COMPOUNDS

Target Semi-Volatile Organic Compounds*	Bldg. 13 SL1301		Bldg. 14 SL1401**		Bldg. 14 SLDUPB**		Bldg. 17 SL1701		Bldg. 20 SL20-N-01		Bldg. 20 SL20-O-01	
Acenapthene	< 10	U	< 47000	UJ	< 54000	U	< 10	U	< 10	U	1	J
bis (2-Ethylhexyl) Phthalate	< 10	U	< 47000	UJ	9100	BJ	< 10	U	< 10	U	< 10	U
Butylbenzylphthalate	6	J	< 47000	UJ	< 54000	U	< 10	U	< 10	U	< 10	UJ
Dibenzofuran	< 10	U	< 47000	UJ	< 54000	U	< 10	U	< 10	U	< 10	U
1,4-Dichlorobenzene	35		8600	J	< 54000	U	< 10	U	2	J	3	J
Diethylphthalate	4	J	< 47000	UJ	< 54000	U	< 10	U	< 10	U	4	J
Fluoranthene	< 10	U	4600	J	8500	BJ	< 10	U	< 10	U	< 10	U
Fluorene	< 10	U	43000	J	< 54000	U	< 10	U	< 10	U	< 10	U
2-Methylnaphthalene	< 10	U	190000	J	27000	J	< 10	U	< 10	U	< 10	U
4-Methylphenol	3	J	< 47000	UJ	< 54000	U	490	D	24		< 10	U
Naphthalene	< 10	U	< 47000	UJ	< 54000	U	< 10	U	< 10	U	< 10	U
Phenanthrene	< 10	U	88000	J	33000	J	< 10	U	< 10	U	< 10	U
Phenol	17		< 47000	UJ	< 54000	U	120	D	6	J	< 10	U
Pyrene	< 10	U	14000	J	39000	J	< 10	U	< 10	U	< 10	U

Notes:
1. All concentrations are in micrograms per liter (ug/l = parts per billion (ppb)) except where noted.
2. * = Only compounds that were detected in one or more samples are listed.
3. ** = These concentrations are in micrograms per kilogram (ug/kg = parts per billion (ppb)). SLDUPB is a duplicate of SL1401.
4. U = Analyte was not detected.
5. J = Semi-quantitative value due to QA/QC data validation requirements.
6. B = Compound was detected in associated method blank.
7. D = Reported values are from secondary dilution analysis.

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TABLE 6 (cont'd)
MALTA ROCKET FUEL AREA SITE
SEPTIC TANK AND ASSOCIATED FIELD BLANK ANALYTICAL RESULTS
TARGET SEMI-VOLATILE ORGANIC COMPOUNDS

Target Semi-Volatile Organic Compounds*	Bldg. 25 SL2501		SLDUPA**		Former GE/Exxon SLGEX01		FB1032492		FB2032492	
Acenapthene	2	J	< 100	U	< 100	U	< 10	U	< 10	U
bis (2-Ethylhexyl) Phthalate	< 10	U	< 100	U	< 100	U	< 10	U	37	B
Butylbenzylphthalate	< 10	UJ	< 100	U	< 100	U	< 10	U	< 10	U
Dibenzofuran	4	J	< 100	U	< 100	U	< 10	U	< 10	U
1,4-Dichlorobenzene	26		44	J	< 100	U	< 10	U	< 10	U
Diethylphthalate	< 10	U	< 100	U	< 100	U	< 10	U	< 10	U
Fluoranthene	3	J	11	J	< 100	U	< 10	U	< 10	U
Fluorene	4	J	11	J	< 100	U	< 10	U	< 10	U
2-Methylnaphthalene	< 10	U	< 100	U	< 100	U	< 10	U	< 10	U
4-Methylphenol	< 10	U	< 100	U	670		< 10	U	< 10	U
Naphthalene	2	J	< 100	U	< 100	U	< 10	U	< 10	U
Phenanthrene	4	J	16	J	< 100	U	< 10	U	< 10	U
Phenol	< 10	U	< 100	U	180		< 10	U	< 10	U
Pyrene	2	J	< 100	U	< 100	U	< 10	U	< 10	U

Notes:
1. All concentrations are in micrograms per liter (ug/l = parts per billion (ppb)) except where noted.
2. * = Only compounds that were detected in one or more samples are listed.
3. U = Analyte was not detected.
4. J = Semi-quantitative value due to QA/QC data validation requirements.
5. B = Compound was detected in associated method blank.
6. ** = SLDUPA is a duplicate of SL2501.

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TABLE 6 (cont'd)
MALTA ROCKET FUEL AREA SITE
SEPTIC TANK AND ASSOCIATED FIELD BLANK ANALYTICAL RESULTS
TENTATIVELY IDENTIFIED SEMI-VOLATILE ORGANIC COMPOUNDS (TICs)

Semi-Volatile Organic TICs	Bldg. 13 SL1301	Bldg. 14 SL1401*	Bldg. 14 SLDUPB*	Bldg. 17 SL1701	Bldg. 20 SL20-N-01	Bldg. 20 SL20-O-01
2,4-Imidazolidinedione Derivative	NF	NF	NF	33 NJ	NF	NF
2H,Indol-2-One-1,3-Dihydro-	NF	NF	NF	31 NJ	NF	NF
Benzeneacetic Acid	NF	NF	NF	NF	NF	NF
Benzenepropanoic Acid	NF	NF	NF	140 NJ	NF	NF
Benzoic Acid	NF	NF	NF	160 NJ	NF	NF
Caffeine	NF	NF	NF	190 NJ	NF	NF
Cholestanol (Van)	650 NJ	NF	NF	NF	NF	NF
Cholesterol	NF	NF	NF	NF	NF	NF
Decane	NF	NF	NF	NF	110 NJ	NF
Decane, 2-Methyl-	NF	NF	450000 NJ	NF	NF	NF
Decane, 3-Methyl-	NF	NF	660000 NJ	NF	NF	NF
Decane, 4-Methyl-	NF	NF	NF	NF	NF	NF
Decanoic Acid	NF	NF	NF	34 NJ	NF	NF
Dodecane	NF	NF	NF	NF	NF	NF
Dodecane, 6-Methyl-	NF	240000 NJ	540000 NJ	NF	NF	NF
Dodecanoic Acid	NF	NF	NF	35 NJ	NF	NF
Eicosane	NF	NF	NF	NF	NF	NF
Ethanol, 2-Butoxy-	NF	NF	NF	NF	NF	NF
Heptadecane	NF	NF	NF	71 NJ	NF	NF
Hexadecane	NF	NF	NF	NF	72 NJ	NF
Hexadecane, 2,6,10,14-Tetramethyl	NF	260000 NJ	650000 NJ	35 NJ	NF	16 NJ
Hexadecanoic Acid	270 NJ	NF	NF	110 NJ	830 NJ	NF
Naphthalene, 1,3-Dimethyl-	NF	500000 NJ	NF	NF	NF	NF
Naphthalene, 1-Methyl-	NF	200000 NJ	NF	NF	NF	NF
Naphthalene, 2,7-Dimethyl-	NF	410000 NJ	NF	NF	NF	NF
Nonacosane	730 NJ	NF	NF	NF	120 NJ	NF
Nonadecane	NF	NF	NF	NF	NF	NF
Nonane, 2,5-Dimethyl-	NF	NF	320000 NJ	NF	NF	NF
Nonane, 2,6-Dimethyl-	NF	NF	750000 NJ	NF	57 NJ	9 NJ
Octadecane	NF	NF	NF	60 NJ	NF	NF
Octadecanoic Acid	490 NJ	NF	NF	94 NJ	940 NJ	NF
Octane, 3,6-Dimethyl-	NF	NF	NF	NF	NF	3 NJ
Octane, 6-Ethyl-2-Methyl-	NF	NF	NF	NF	NF	5 NJ
Octanoic Acid	NF	NF	NF	34 NJ	NF	NF
Pentadecane	NF	NF	NF	NF	NF	NF
Pentadecane, 2,6,10,14-Tetramethyl	NF	530000 NJ	1200000 NJ	NF	NF	6 NJ

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TABLE 6 (cont'd)
MALTA ROCKET FUEL AREA SITE
SEPTIC TANK AND ASSOCIATED FIELD BLANK ANALYTICAL RESULTS
TENTATIVELY IDENTIFIED SEMI-VOLATILE ORGANIC COMPOUNDS (TICs)

Semi-Volatile Organic TICs	Bldg. 13 SL1301	Bldg. 14 SL1401*	Bldg. 14 SLDUPB*	Bldg. 17 SL1701	Bldg. 20 SL20-N-01	Bldg. 20 SL20-O-01
Pentanoic Acid	NF	NF	NF	57 NJ	NF	NF
Propanoic Acid Derivatives	440 NJ	NF	NF	NF	NF	NF
Purine Dione Derivative	NF	NF	NF	34 NJ	NF	NF
Tetradecane	NF	NF	NF	NF	140 NJ	NF
Tetradecanoic Acid	NF	NF	NF	NF	110 NJ	NF
Tridecane	NF	NF	NF	NF	NF	NF
Undecane	NF	NF	NF	NF	140 NJ	NF
Unknown Aliphatic Amine Derivative	NF	NF	NF	NF	47 J	NF
Unknown Alkanes	NF	250000 J	550000 J	NF	NF	28 J
Unknown Alkylcyclohexane	NF	NF	NF	NF	NF	NF
Unknown C15-Alkanes	NF	460000 J	810000 J	NF	NF	NF
Unknown C16-Alkanes	NF	410000 J	800000 J	NF	NF	NF
Unknown C17-Alkane	NF	290000 J	540000 J	NF	NF	NF
Unknown C9-Alkylphenols	NF	NF	NF	NF	NF	6 J
Unknown Cholestane Derivatives	1910 J	3660000 J	1900000 J	NF	1200 J	132 J
Unknown Cholestanol	1600 J	1300000 J	2400000 J	31 J	520 J	49 J
Unknown Dimethylphenanthrene	NF	NF	310000 J	NF	NF	NF
Unknown Ergostane Derivative	240 J	NF	NF	NF	NF	NF
Unknown Octadecenoic Acids	100 J	NF	NF	37 J	700 J	NF
Unknown Polyalkoxyisopropanols	NF	NF	NF	NF	NF	NF
Unknown Polyterpene Derivatives	900 J	NF	1750000 J	44 J	279 J	22 J
Unknown Sesquiterpene	NF	NF	400000 J	NF	NF	NF
Unknown Sesquiterpene Derivative	NF	210000 J	600000 J	NF	NF	NF
Unknown Terpene	NF	NF	NF	NF	50 J	NF
Unknown Tocopherol	110 J	270000 J	NF	NF	92 J	NF
Unknown Trimethylnaphthalenes	NF	750000 J	NF	NF	NF	NF
Unknown Trimethylpentanediol	150 J	NF	NF	NF	NF	NF
Assorted Unknowns	530 J	NF	430000 J	86 J	NF	13 J

Notes:

1. All concentrations are in micrograms per liter (ug/l = parts per billion (ppb)) except where noted.
2. * = These concentrations are in micrograms per kilogram (ug/kg = parts per billion (ppb)). SLDUPB is a duplicate of SL1401.
3. J = Semi-quantitative value due to QA/QC data validation requirements.
4. N = Compound was identified with a Chemical Abstracts Services (CAS) number.
5. NA = Not analyzed.
6. NF = Compound not found in TIC list.

TABLE 6 (cont'd)
MALTA ROCKET FUEL AREA SITE
SEPTIC TANK AND ASSOCIATED FIELD BLANK ANALYTICAL RESULTS
TENTATIVELY IDENTIFIED SEMI-VOLATILE ORGANIC COMPOUNDS (TICs)

	Bldg. 25		Former GE/Exxon		
Semi-Volatile Organic TICs	SL2501	SLDUPA*	SLGEX01	FB1032492	FB2032492
2,4-Imidazolidinedione Derivative	NF	NF	NF	NF	NF
2H,Indol-2-One-1,3-Dihydro-	NF	NF	NF	NF	NF
Benzeneacetic Acid	NF	NF	260 NJ	NF	NF
Benzenepropanoic Acid	NF	NF	NF	NF	NF
Benzoic Acid	NF	NF	230 NJ	NF	NF
Caffeine	NF	NF	140 NJ	NF	NF
Cholestanol (Van)	NF	NF	NF	NF	NF
Cholesterol	NF	NF	180 NJ	NF	NF
Decane	36 NJ	160 NJ	550 NJ	NF	NF
Decane, 2-Methyl-	NF	NF	160 NJ	NF	NF
Decane, 3-Methyl-	NF	NF	130 NJ	NF	NF
Decane, 4-Methyl-	NF	NF	100 NJ	NF	NF
Decanoic Acid	NF	NF	NF	NF	NF
Dodecane	58 NJ	140 NJ	110 NJ	NF	NF
Dodecane, 6-Methyl-	NF	NF	NF	NF	NF
Dodecanoic Acid	NF	NF	180 NJ	NF	NF
Eicosane	66 NJ	250 NJ	NF	NF	NF
Ethanol, 2-Butoxy-	NF	NF	220 NJ	NF	NF
Heptadecane	380 NJ	1600 NJ	NF	NF	NF
Hexadecane	440 NJ	1500 NJ	NF	NF	NF
Hexadecane, 2,6,10,14-Tetramethyl	100 NJ	360 NJ	NF	NF	NF
Hexadecanoic Acid	NF	NF	670 NJ	NF	NF
Naphthalene, 1,3-Dimethyl-	NF	NF	NF	NF	NF
Naphthalene, 1-Methyl-	NF	NF	NF	NF	NF
Naphthalene, 2,7-Dimethyl-	NF	NF	NF	NF	NF
Nonacosane	NF	NF	NF	NF	NF
Nonadecane	160 NJ	540 NJ	NF	NF	NF
Nonane, 2,5-Dimethyl-	NF	NF	120 NJ	NF	NF
Nonane, 2,6-Dimethyl-	NF	NF	100 NJ	NF	NF
Octadecane	260 NJ	1000 NJ	NF	NF	NF
Octadecanoic Acid	NF	NF	770 NJ	NF	NF
Octane, 3,6-Dimethyl-	NF	NF	NF	NF	NF
Octane, 6-Ethyl-2-Methyl-	NF	NF	NF	NF	NF
Octanoic Acid	NF	NF	NF	4 J	NF
Pentadecane	370 NJ	1300 NJ	NF	NF	NF
Pentadecane, 2,6,10,14-Tetramethyl	100 NJ	470 NJ	NF	NF	NF

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TABLE 6 (cont'd)
MALTA ROCKET FUEL AREA SITE
SEPTIC TANK AND ASSOCIATED FIELD BLANK ANALYTICAL RESULTS
TENTATIVELY IDENTIFIED SEMI-VOLATILE ORGANIC COMPOUNDS (TICs)

	Bldg. 25		Former GE/Exxon		
Semi-Volatile Organic TICs	SL2501	SLDUPA*	SLGEX01	FB1032492	FB2032492
Pentanoic Acid	NF	NF	NF	NF	NF
Propanoic Acid Derivatives	NF	NF	NF	6 J	NF
Purine Dione Derivative	NF	NF	NF	NF	NF
Tetradecane	190 NJ	550 NJ	NF	NF	NF
Tetradecanoic Acid	NF	NF	200 NJ	NF	NF
Tridecane	81 NJ	200 NJ	NF	NF	NF
Undecane	64 NJ	230 NJ	790 NJ	NF	NF
Unknown Aliphatic Amine Derivative	NF	NF	NF	NF	NF
Unknown Alkanes	NF	130 J	NF	NF	NF
Unknown Alkylcyclohexane	NF	140 J	NF	NF	NF
Unknown C15-Alkanes	88 J	120 J	NF	NF	NF
Unknown C16-Alkanes	142 J	330 J	NF	NF	NF
Unknown C17-Alkane	83 J	260 J	NF	NF	NF
Unknown C9-Alkylphenols	NF	NF	NF	NF	NF
Unknown Cholestane Derivatives	200 J	730 J	NF	NF	NF
Unknown Cholestanol	100 J	1500 J	280 J	NF	NF
Unknown Dimethylphenanthrene	NF	NF	NF	NF	NF
Unknown Ergostane Derivative	NF	NF	NF	NF	NF
Unknown Octadecenoic Acids	NF	NF	570 J	NF	NF
Unknown Polyalkoxyisopropanols	NF	NF	NF	NF	94 J
Unknown Polyterpene Derivatives	NF	NF	NF	15 J	5 J
Unknown Sesquiterpene	NF	NF	NF	NF	NF
Unknown Sesquiterpene Derivative	NF	NF	NF	NF	NF
Unknown Terpene	NF	NF	NF	NF	NF
Unknown Tocopherol	NF	NF	NF	NF	NF
Unknown Trimethylnaphthalenes	NF	NF	NF	NF	NF
Unknown Trimethylpentanediol	NF	NF	NF	NF	NF
Assorted Unknowns	NF	NF	NF	NF	NF

Notes:
1. All concentrations are in micrograms per liter (ug/l = parts per billion (ppb)) except where noted.
2. J = Semi-quantitative value due to QA/QC data validation requirements.
3. N = Compound was identified with a Chemical Abstracts Services (CAS) number.
4. NA = Not analyzed.
5. NF = Compound not found in TIC list.
6. * = SLDUPA is a duplicate of SL2501.

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TABLE 6 (cont'd)
MALTA ROCKET FUEL AREA SITE
SEPTIC TANK AND ASSOCIATED FIELD BLANK ANALYTICAL RESULTS
PESTICIDE/PCB COMPOUNDS

Pesticide/PCB Compounds*	Bldg. 13 SL1301	Bldg. 14 SL1401**	Bldg. 14 SLDUPB**	Bldg. 17 SL1701	Bldg. 20 SL20-N-01	Bldg. 20 SL20-O-01	Bldg. 25 SL2501	Bldg. 25 SLDUPA***	Former GE/Exxon SLGEX01	FB1032492	FB2032492
4,4'-DDD	< 0.10 U	310 J	170 J	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
4,4'-DDE	< 0.10 U	< 94 UJ	74 J	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U	< 0.10 U
Aroclor-1254	0.70 PJ	5100 J	1300 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	1.1 J	< 1.0 U	< 1.0 U	< 1.0 U
Aroclor-1260	< 1.0 U	7400 J	2700 J	< 1.0 U	< 1.0 U	< 1.0 U	< 1.0 U	0.61 PJ	< 1.0 U	1.0 J	< 1.0 U

Notes:

1. All concentrations are in micrograms per liter (ug/l = parts per billion (ppb)) except where noted.
2. * = Only compounds that were detected in one or more samples are listed.
3. ** = These concentrations are in micrograms per kilogram (ug/kg = parts per billion (ppb)). SLDUPB is a duplicate of SL1401.
4. U = Analyte was not detected.
5. J = Semi-quantitative value due to QA/QC data validation requirements.
6. P = >25% difference for detected concentrations between the two GC columns. The lower value is reported.
7. *** = SLDUPA is a duplicate of SL2501.

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TABLE 7
MALTA ROCKET FUEL AREA SITE
SEPTIC TANK ANALYTICAL RESULTS - 1987-1989

Volatile Organic Compounds	1/12/87 former GE/Exxon Bldg.*	1/12/87 Building 25*	10/16/87 Building 20*	10/16/87 Building 25*
Bromomethane	ND	2.2 ug/l (liquid)	ND	ND
Carbon Tetrachloride	ND	14 ug/l (liquid)	ND	ND
1,1-Dichloroethane	ND	6.8 ug/l (liquid)	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND
Cis-1,2-Dichloroethene	ND	ND	ND	ND
Trans-1,2-Dichloroethene	ND	170 ug/l (liquid)	ND	1500 ug/l (liquid)
Ethylbenzene	ND	ND	ND	70 ug/l (liquid)
Toluene	96 ug/l (liquid)	19 ug/l (liquid)	457 ug/l (liquid)	1300 ug/l (liquid)
1,1,2-Trichloroethane	ND	ND	ND	ND
1,3,5-Trimethylbenzene	ND	ND	ND	ND
1,2,4-Trimethylbenzene	ND	ND	ND	ND
Xylenes	ND	12 ug/l (liquid)	ND	ND
Residual Chlorine	ND	0.08 mg/l	NA	NA

Notes:
1. ND = Not detected.
2. NA = Not analyzed for.
3. * = Septic tank was pumped and rinsed in May, 1988.

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TABLE 7
MALTA ROCKET FUEL AREA SITE
SEPTIC TANK ANALYTICAL RESULTS - 1987-1989

Volatile Organic Compounds	12/11/87 Building 20*	12/11/87 Building 25*	12/11/87 former GE/Exxon Bldg.*	2/16/89 Building 17	2/16/89 Building 25*	2/16/89 former GE/Exxon Bldg.*
Bromomethane	ND	ND	ND	ND	ND	ND
Carbon Tetrachloride	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND
Cis-1,2-Dichloroethene	ND	ND	ND	ND	1140 ug/l (liquid)	ND
Trans-1,2-Dichloroethene	ND	25000 ug/kg (sludge)	ND	ND	ND	ND
Ethylbenzene	ND	ND	ND	ND	ND	ND
Toluene	120 ug/kg (sludge)	3060 ug/kg (sludge)	47000 ug/kg (sludge)	37 ug/l (liquid)	2213 ug/l (liquid)	103 ug/l (liquid)
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	ND	ND	ND	ND	28 ug/l (liquid)	ND
1,2,4-Trimethylbenzene	ND	ND	ND	ND	45 ug/l (liquid)	ND
Xylenes	ND	ND	ND	ND	ND	ND
Residual Chlorine	NA	NA	NA	NA	NA	NA

Notes:
1. ND = Not detected.
2. NA = Not analyzed for.
3. * = Septic tank was pumped and rinsed in May, 1988.

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TABLE 8
SARATOGA COUNTY SANITATION DISTRICT NO. 1
TOXICITY CHARACTERISTIC LEACHING PROCEDURE (TCLP) REGULATORY LEVELS

CONTAMINANT	REGULATORY LEVEL PPM (mg/l)	PPB (ug/l)
Volatiles		
Benzene	0.5	500
Carbon Tetrachloride	0.5	500
Chlorobenzene	100.0	100,000
Chloroform	6.0	6,000
1,2-Dichloroethane	0.5	500
1,1-Dichloroethene	0.7	700
1,4-Dichlorobenzene	7.5	7,500
Methyl Ethyl Ketone	200.0	200,000
Tetrachloroethene	0.7	700
Trichloroethene	0.5	500
Vinyl Chloride	0.2	200

Acids		
o-Cresol	200.0*	200,000
m-Cresol	200.0*	200,000
p-Cresol	200.0*	200,000
Cresol (total)	200.0*	200,000
Pentachlorophenol	100.0	100,000
2,4,5-Trichlorophenol	400.0	400,000
2,4,6-Trichlorophenol	2.0	2,000

Base Neutrals		
2,4-Dinitrotoluene	0.13**	130
Hexachlorobenzene	0.13**	130
Hexachloro-1,3-butadiene	0.5	500
Hexachloroethane	3.0	3,000
Nitrobenzene	2.0	2,000
Pyridine	5.0**	5,000

Pesticides/Herbicides		
Chlordane	0.03	30
Endrin	0.02	20
Heptachlor	0.008	8
Heptachlor Epoxide	0.008	8
Lindane	0.4	400
Methoxychlor	10.0	10,000
Toxaphene	0.5	500
2,4-D	10.0	10,000
2,4,5-TP (Silvex)	1.0	1,000

Metals		
Arsenic	5.0	5,000
Barium	100.0	100,000
Cadmium	1.0	1,000
Chromium	5.0	5,000
Lead	5.0	5,000
Mercury	0.2	200
Selenium	1.0	1,000
Silver	5.0	5,000

* If the o-, m-, and p-Cresol concentration can not be differentiated, the total Cresol concentration is used.

** The quantitation limit (i.e. 5 times the detection limit) is greater than the calculated regulatory level; therefore the quantitation limit becomes the regulatory level.