



IMA

COMPLETION REPORT

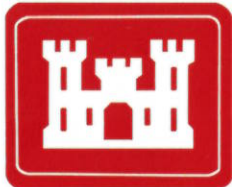
FINAL



3d Inf Div (Mech)

**Underground Storage Tank 100A
Facility ID #9-089080
Building 1349
Fort Stewart, Georgia**

Prepared for



**U.S. ARMY CORPS OF ENGINEERS
SAVANNAH DISTRICT**

**Contract No. DACA21-02-D-0004
Delivery Order 64**

May 2010

SAIC[®]
From Science to Solutions

FINAL

**COMPLETION REPORT
FOR
UNDERGROUND STORAGE TANK 100A
FACILITY ID #9-089080
BUILDING 1349
FORT STEWART, GEORGIA**

Prepared for

**U. S. Army Corps of Engineers, Savannah District
and
Fort Stewart Directorate of Public Works
Under Contract Number DACA21-02-D-0004
Delivery Order 64**

Prepared by

**Science Applications International Corporation
151 Lafayette Drive
Oak Ridge, TN 37830**

May 2010

COMPLETION REPORT

Facility Name: USTs 100A, Building 1349 Street Address: Off Georgia Highway 144
(Taylors Creek)
Facility ID: 9-089080 City: Fort Stewart County: Liberty Zip Code: 31314
Latitude: 31° 52' 46" Longitude: 81° 37' 50"

Submitted by UST Owner/Operator:

Name: Thomas C. Fry/ Environmental Branch
Company: U. S. Army/HQ 3d, Inf. Div. (Mech)
Address: Directorate of Public Works, Bldg. 1137
1550 Frank Cochran Drive
City: Fort Stewart State: GA
Zip Code: 31314-4927
Telephone: (912) 767-2010

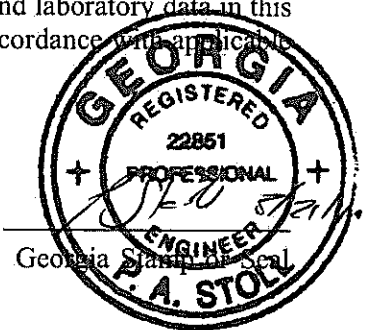
Prepared by Consultant/Contractor:

Name: Patricia A. Stoll
Company: SAIC
Address: P.O. Box 2501
City: Oak Ridge State: TN
Zip Code: 37831
Telephone: (865) 481-8792

I. REGISTERED PROFESSIONAL ENGINEER OR PROFESSIONAL GEOLOGIST CERTIFICATION

I hereby certify that I have directed and supervised the fieldwork and preparation of this plan in accordance with State Rules and Regulations. As a registered professional geologist and/or professional engineer, I certify that I am a qualified groundwater professional, as defined by the Georgia State Board of Professional Geologists. All of the information and laboratory data in this plan and in all of the attachments are true, accurate, complete, and in accordance with applicable State Rules and Regulations.

Name: Patricia A. Stoll
Signature: *Patricia A. Stoll*
Date: 5/21/10



The Underground Storage Tank (UST) 100A site was formerly regulated under the Resource Conservation and Recovery Act (RCRA) and identified as Solid Waste Management Unit (SWMU) 27F, northwest of Building 1340. The site was officially transferred to the Georgia Environmental Protection Division (GA EPD) Underground Storage Tank Management Program on September 23, 2008, as per the correspondence from the GA EPD Hazardous Waste Management Branch. Previous investigations and corrective actions at the site were conducted under RCRA. Monitored natural attenuation was selected under RCRA to reduce the contaminant concentrations in groundwater to concentrations below maximum contaminant levels. The *Corrective Action Plan–Part B Report for Underground Storage Tank 100A, Facility ID #9-089080, Building 1349, Fort Stewart, Georgia* (SAIC 2010) issued in January 2010 concluded that contaminant concentrations were below alternate concentration limits established for UST 100A and no further action was recommended. The Corrective Action Plan (CAP)–Part B Report was approved by GA EPD in correspondence dated February 9, 2010 (Logan 2010).

Eighteen monitoring wells located around the Former UST 100A site were abandoned on April 12 and 13, 2010. The wells abandoned in April 2010 include monitoring wells MW-1 through MW-18. The well abandonment logs are provided in Appendix A and photographs of the abandoned well locations are provided in Appendix B.

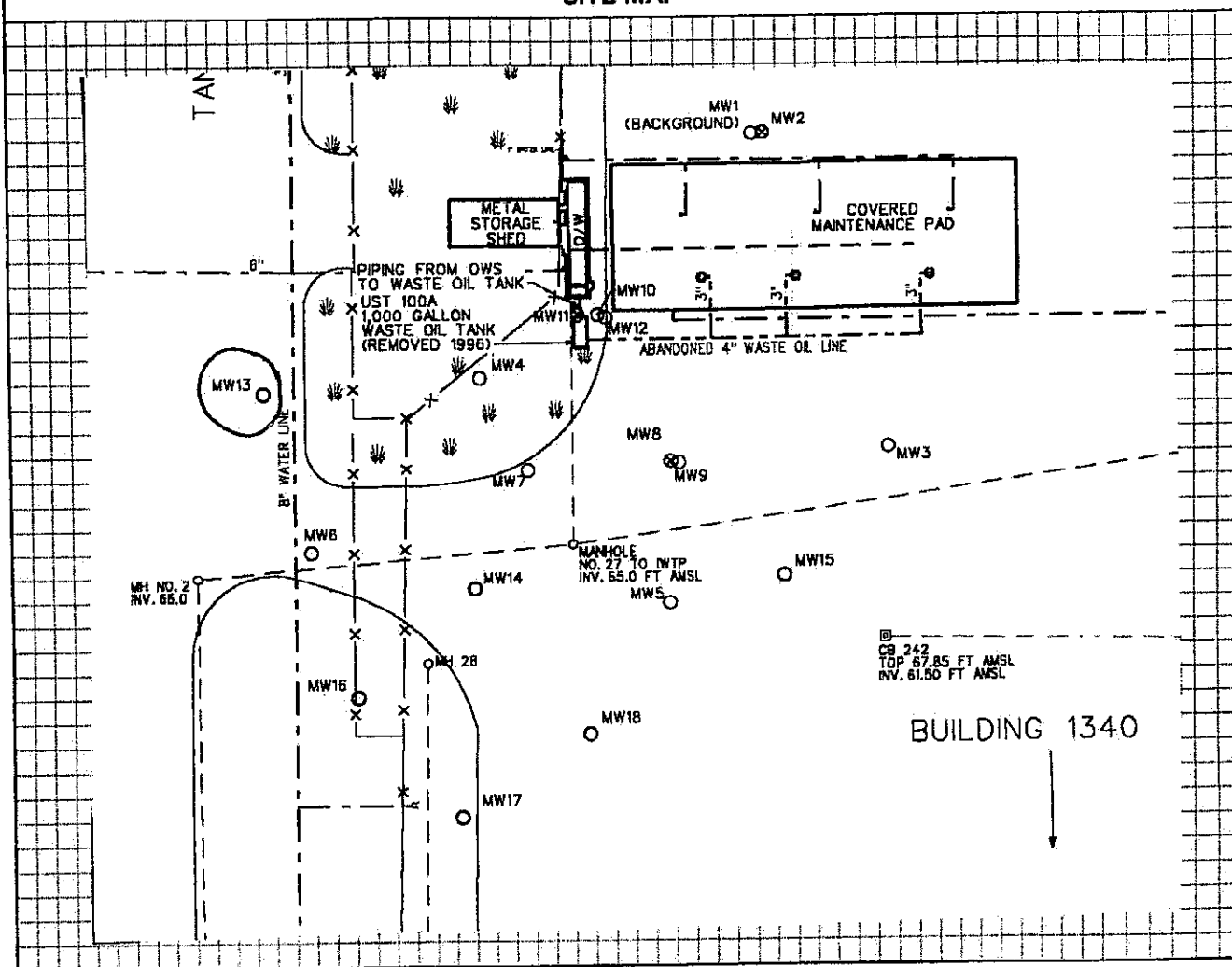
References:

Logan, William E. 2010. Letter to Thomas C. Fry (Fort Stewart Directorate of Public Works, Environmental Branch), "Corrective Action Plan (CAP)–Part B, No Further Action Required," February 9.

SAIC (Science Applications International Corporation) 2010. *Corrective Action Plan–Part B Report for Underground Storage Tank 100A, Facility ID #9-089080, Building 1349, Fort Stewart, Georgia*, January.

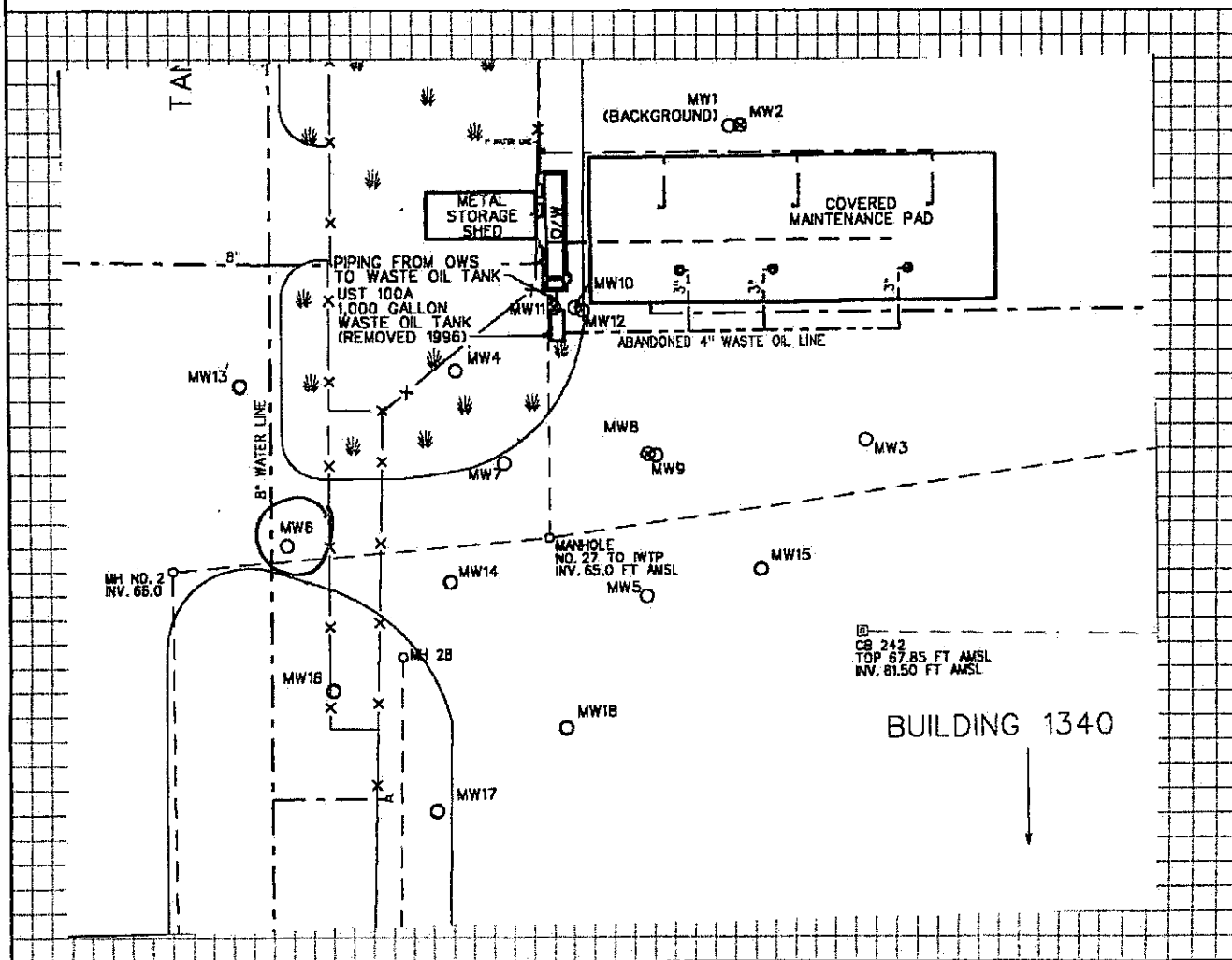
APPENDIX A
MONITORING WELL ABANDONMENT LOGS

MONITORING WELL ABANDONMENT LOG		WELL NO MW13
OWNER/FACILITY OPERATOR ☒ Fort Stewart ☐ Hunter Army Airfield		ABANDONMENT DATE 4/12/2010
LOCATION ☒ Hinesville, Liberty County, Georgia ☐ Savannah, Chatham County, Georgia		
SITE UST 100A (Swma 27F)		
DEPTH TO WATER (FT BGS):	DEPTH TO BOTTOM OF WELL ~ 15 ft	
WELL CONSTRUCTION MATERIAL 2 inch PVC Sch 40	SURFACE COMPLETION TYPE Flush in grass/gravel 2X2 Pad	
GROUT MIXTURE Bentonite/portland cement/water	QUANTITY OF GROUND USED (GALLONS) ~ 5 gals	
GROUT PLACEMENT METHOD tremie pipe	SURFACE PATCH concrete	

SITE MAP

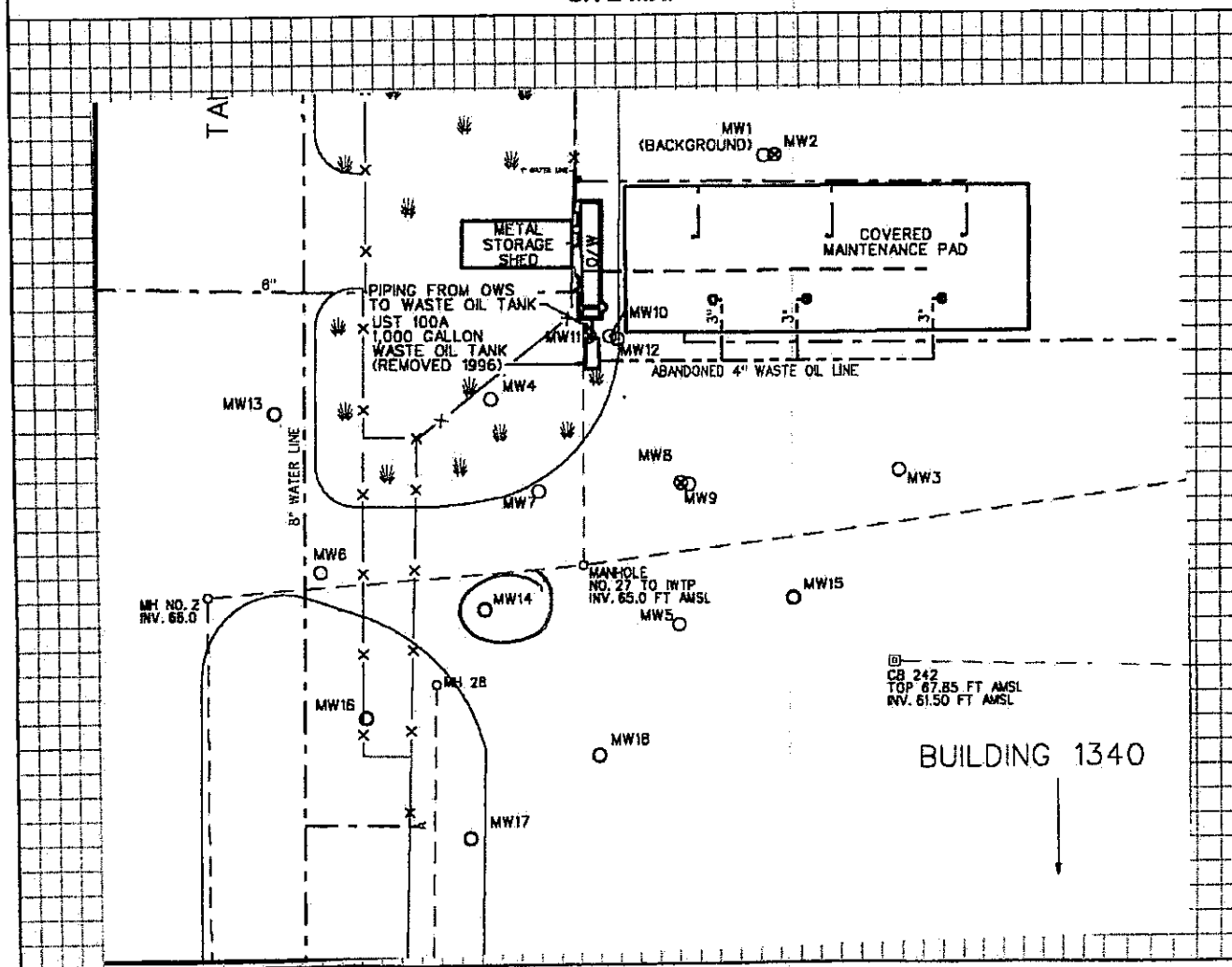
MONITORING WELL ABANDONMENT LOG		WELL NO MW6
OWNER/FACILITY OPERATOR ☒ Fort Stewart ☐ Hunter Army Airfield		ABANDONMENT DATE 4/12/2010
LOCATION ☒ Hinesville, Liberty County, Georgia ☐ Savannah, Chatham County, Georgia		
SITE UST 100A (SWMU 27F)		
DEPTH TO WATER (FT BGS):	DEPTH TO BOTTOM OF WELL 20 ft	
WELL CONSTRUCTION MATERIAL 2 inch PVC 40 sch	SURFACE COMPLETION TYPE Flush in concrete	
GROUT MIXTURE Bentonite / portland cement / water	QUANTITY OF GROUT USED (GALLONS) ~ 5	
GROUT PLACEMENT METHOD tremie Pipe	SURFACE PATCH concrete	

SITE MAP



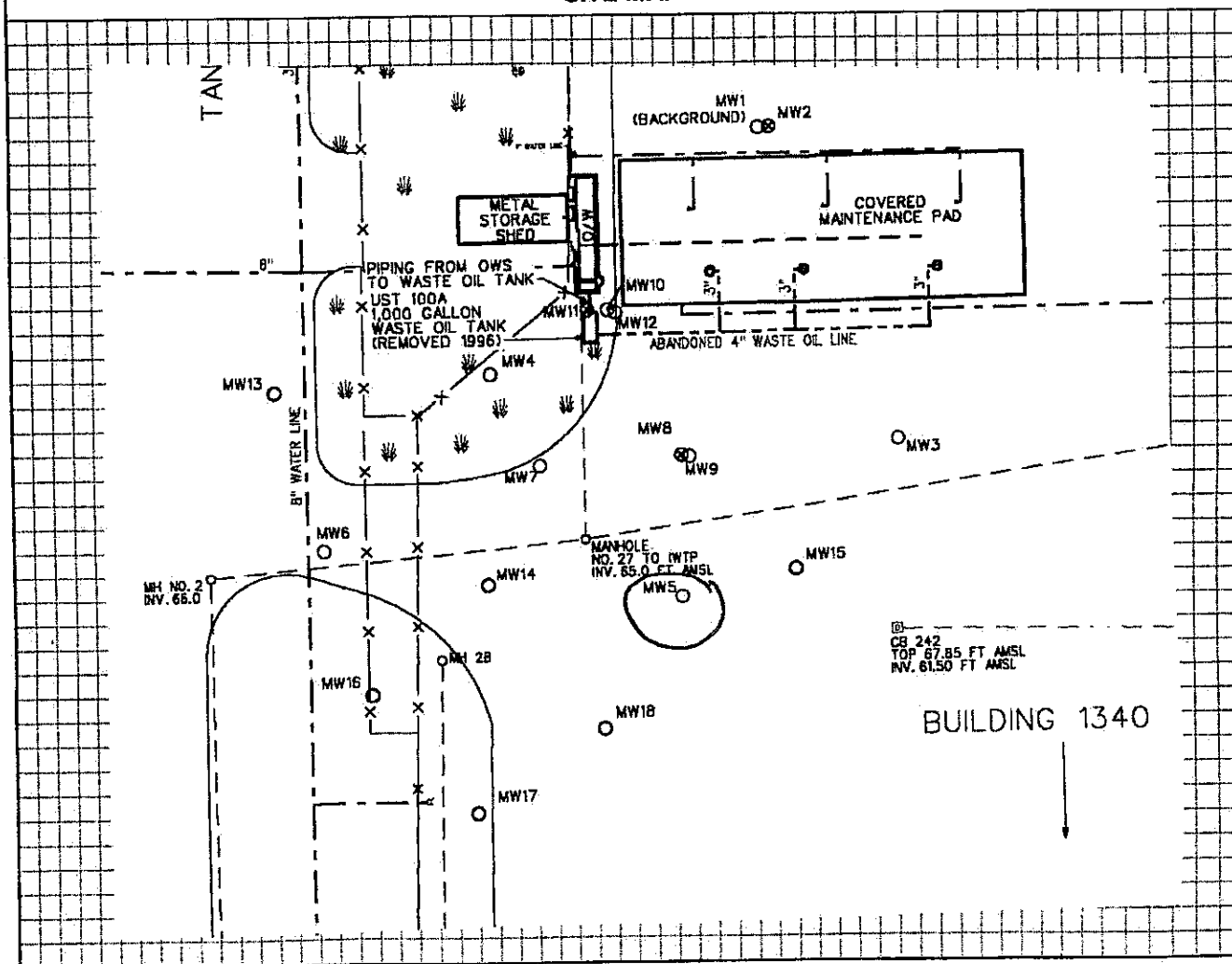
MONITORING WELL ABANDONMENT LOG		WELL NO MW 14
OWNER/FACILITY OPERATOR ☒ Fort Stewart ☐ Hunter Army Airfield		ABANDONMENT DATE 4/12/2010
LOCATION ☒ Hinesville, Liberty County, Georgia ☐ Savannah, Chatham County, Georgia		
SITE UST 100A		
DEPTH TO WATER (FT BGS):	DEPTH TO BOTTOM OF WELL 15 ft	
WELL CONSTRUCTION MATERIAL 2 inch PVC Sch 40	SURFACE COMPLETION TYPE Flush in concrete	
GROUT MIXTURE Bentonite/prepacked cement/water	QUANTITY OF GROUT USED (GALLONS) ~5	
GROUT PLACEMENT METHOD Tremie Pipe	SURFACE PATCH concrete	

SITE MAP

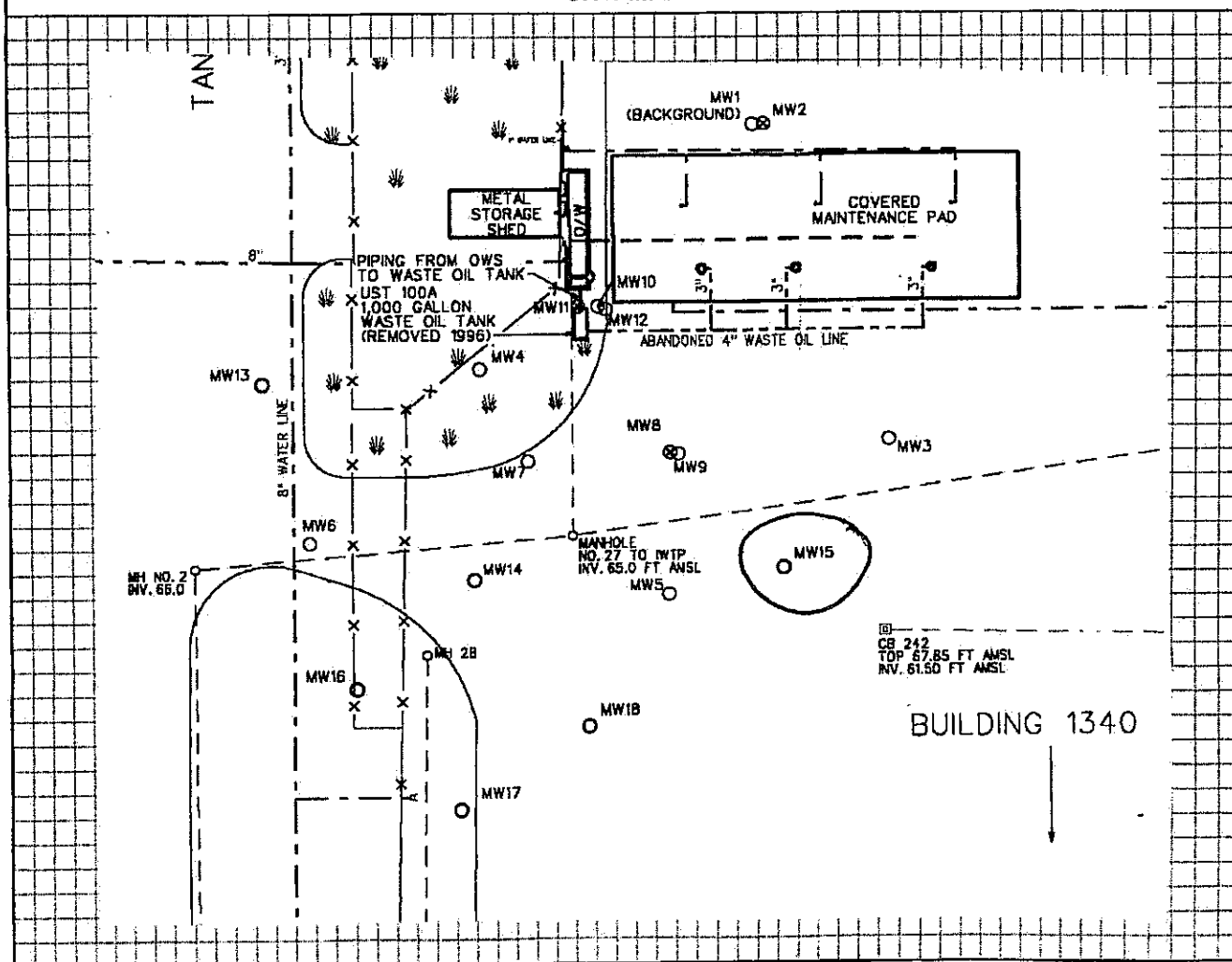


MONITORING WELL ABANDONMENT LOG		WELL NO MW5
OWNER/FACILITY OPERATOR ☒ Fort Stewart ☐ Hunter Army Airfield		ABANDONMENT DATE 4/12/2010
LOCATION ☒ Hinesville, Liberty County, Georgia ☐ Savannah, Chatham County, Georgia		
SITE UST 100 A (summu 27F)		
DEPTH TO WATER (FT BGS):	DEPTH TO BOTTOM OF WELL 20 ft	
WELL CONSTRUCTION MATERIAL 2 inch PVC Sch 40	SURFACE COMPLETION TYPE Flush w/ concrete	
GROUT MIXTURE Bentonite/portland cement/water	QUANTITY OF GROUND USED (GALLONS) ~5	
GROUT PLACEMENT METHOD Tremie Pipe	SURFACE PATCH concrete	

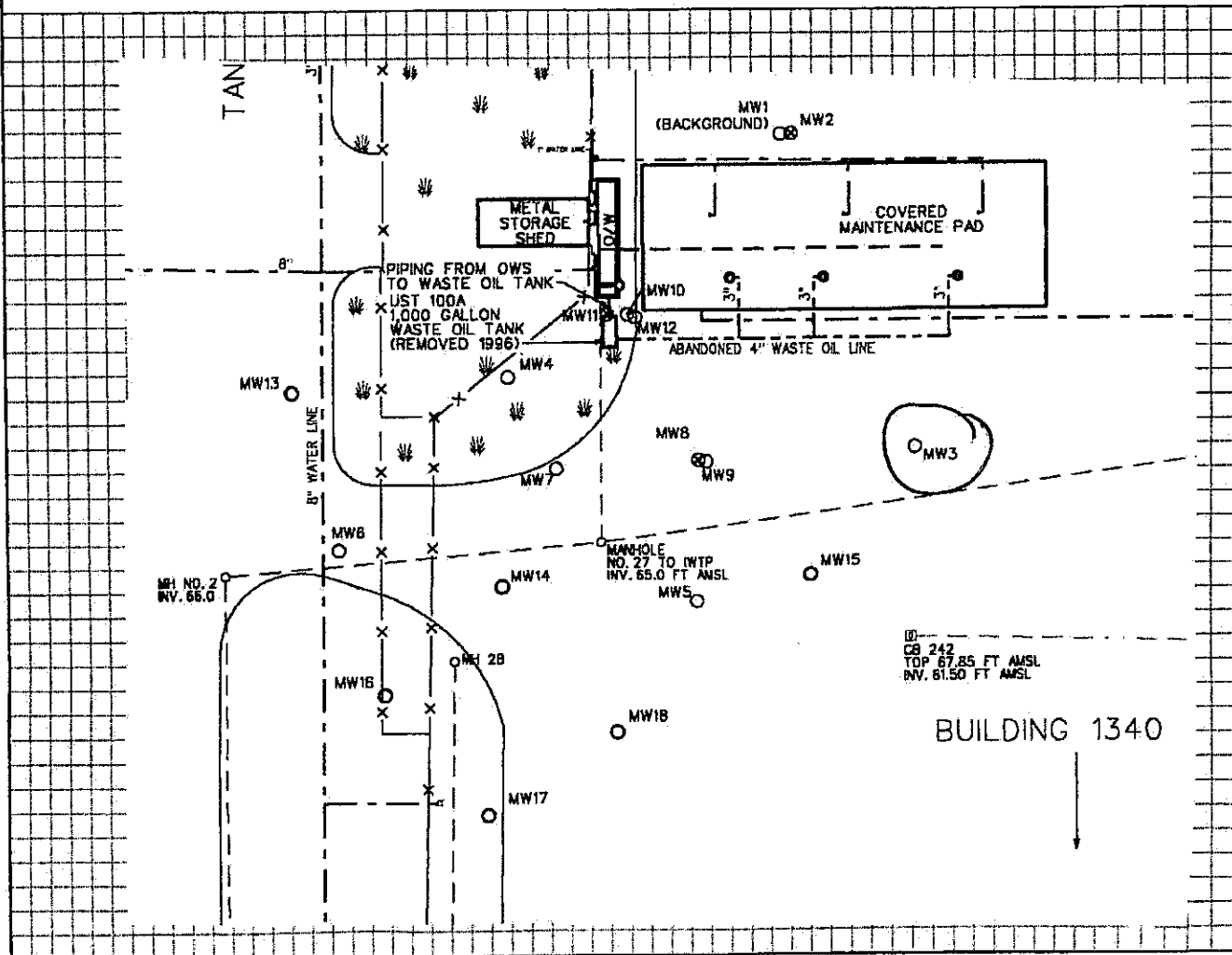
SITE MAP



MONITORING WELL ABANDONMENT LOG		WELL NO MW15
OWNER/FACILITY OPERATOR ☒ Fort Stewart ☐ Hunter Army Airfield		ABANDONMENT DATE 4/12/2010
LOCATION ☒ Hinesville, Liberty County, Georgia ☐ Savannah, Chatham County, Georgia		
SITE U57A ^{MR} UST100A (SWMU 27F)		
DEPTH TO WATER (FT BGS):	DEPTH TO BOTTOM OF WELL 15 ft	
WELL CONSTRUCTION MATERIAL 2 inch PVC Sch 40	SURFACE COMPLETION TYPE Flush w concrete	
GROUT MIXTURE Bentonite/Portland cement/water	QUANTITY OF GROUT USED (GALLONS) ~ 5	
GROUT PLACEMENT METHOD Tremie Pipe	SURFACE PATCH concrete	

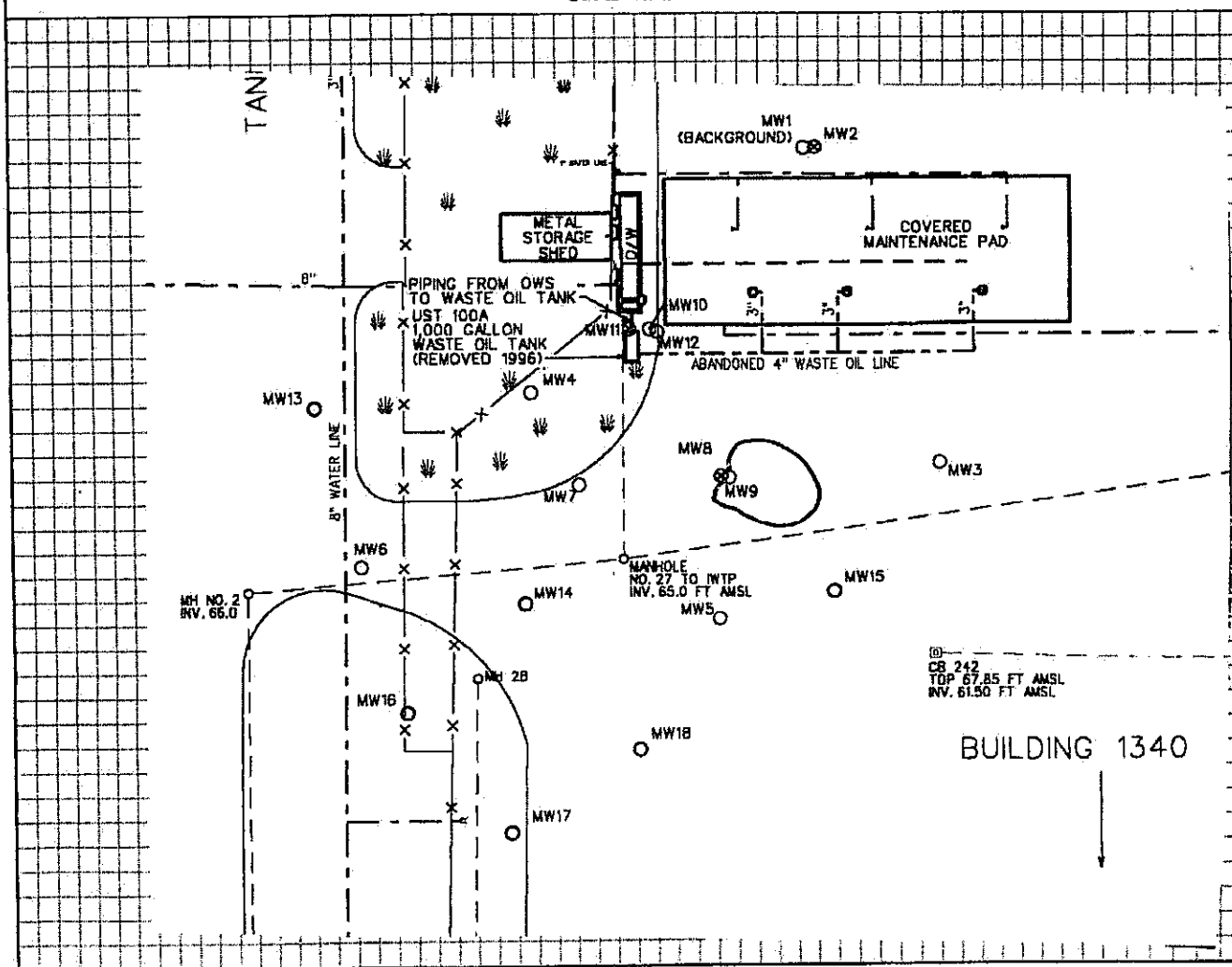
SITE MAP

MONITORING WELL ABANDONMENT LOG		WELL NO MW3
OWNER/FACILITY OPERATOR ☒ Fort Stewart ☐ Hunter Army Airfield		ABANDONMENT DATE 4/12/2010
LOCATION ☒ Hinesville, Liberty County, Georgia ☐ Savannah, Chatham County, Georgia		
SITE UST 100A (swmu 27F)		
DEPTH TO WATER (FT BGS):	DEPTH TO BOTTOM OF WELL 25 FT	
WELL CONSTRUCTION MATERIAL 2 inch PVC Sch 40	SURFACE COMPLETION TYPE Flush w/ concrete	
GROUT MIXTURE Bentonite/Portland cement/water	QUANTITY OF GROUT USED (GALLONS) ~6	
GROUT PLACEMENT METHOD Tremie pipe	SURFACE PATCH concrete	

SITE MAP

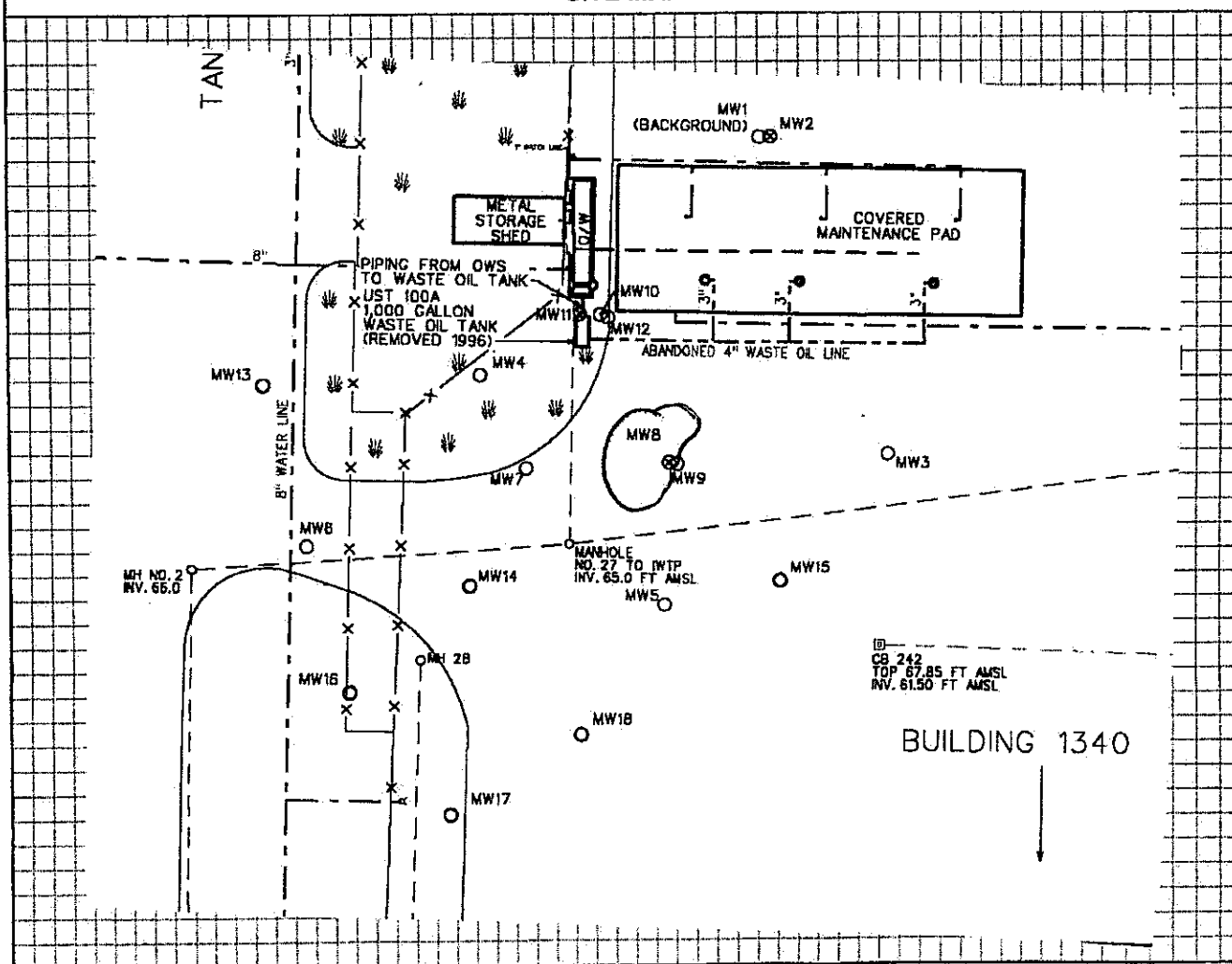
MONITORING WELL ABANDONMENT LOG		WELL NO MW9
OWNER/FACILITY OPERATOR ☒ Fort Stewart ☐ Hunter Army Airfield		ABANDONMENT DATE 4/12/2010
LOCATION ☒ Hinesville, Liberty County, Georgia ☐ Savannah, Chatham County, Georgia		
SITE UST 100A (SUMU 21F)		
DEPTH TO WATER (FT BGS):	DEPTH TO BOTTOM OF WELL 22 ft	
WELL CONSTRUCTION MATERIAL 2 inch PVC Sch 40	SURFACE COMPLETION TYPE Flush w concrete	
GROUT MIXTURE Bentonite/Portland cement/water	QUANTITY OF GROUT USED (GALLONS) ~ 5	
GROUT PLACEMENT METHOD Tremie pipe	SURFACE PATCH concrete	

SITE MAP



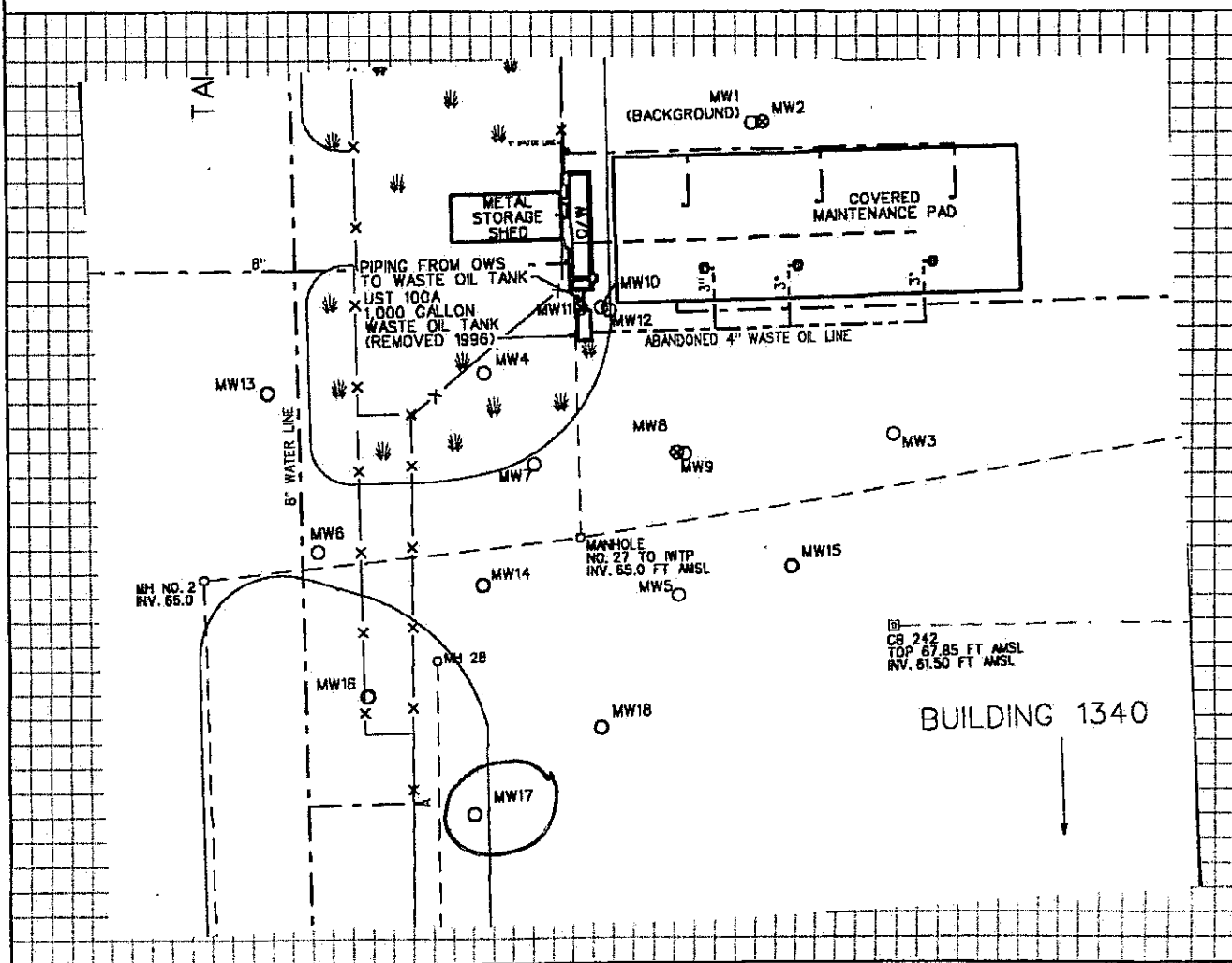
MONITORING WELL ABANDONMENT LOG		WELL NO MW-8
OWNER/FACILITY OPERATOR ☒ Fort Stewart ☐ Hunter Army Airfield		ABANDONMENT DATE 4/12/2010
LOCATION ☒ Hinesville, Liberty County, Georgia ☐ Savannah, Chatham County, Georgia		
SITE UST 100A (SWMU 27F)		
DEPTH TO WATER (FT BGS):	DEPTH TO BOTTOM OF WELL 43 ft	
WELL CONSTRUCTION MATERIAL 2 inch PVC Sch 40	SURFACE COMPLETION TYPE Flush in concrete	
GROUT MIXTURE Bentonite/Portland cement/Water	QUANTITY OF GROUND USED (GALLONS) ~10	
GROUT PLACEMENT METHOD Tremie Pipe	SURFACE PATCH concrete	

SITE MAP

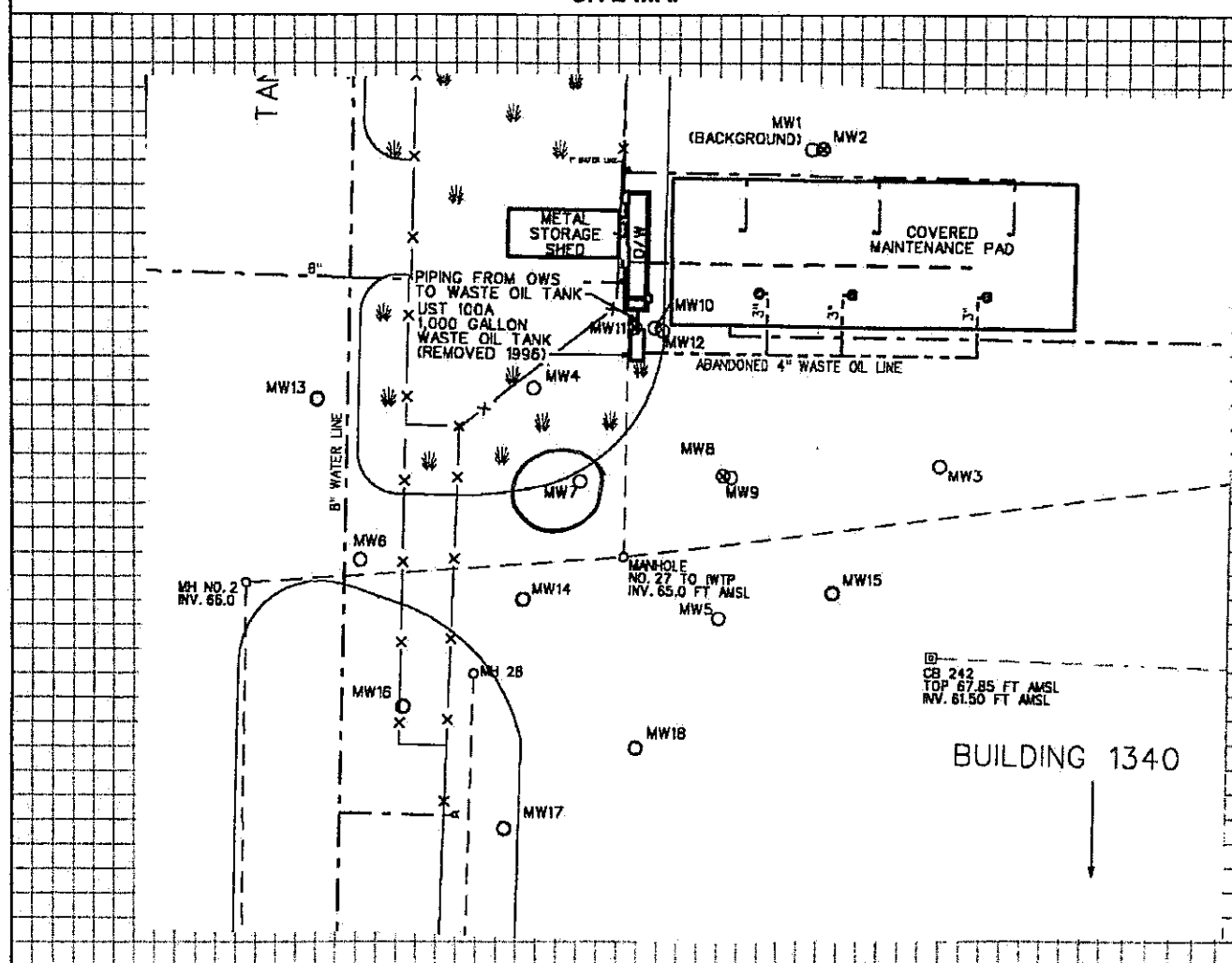


MONITORING WELL ABANDONMENT LOG		WELL NO MW17
OWNER/FACILITY OPERATOR ☒ Fort Stewart ☐ Hunter Army Airfield		ABANDONMENT DATE 4/2/2010
LOCATION ☒ Hinesville, Liberty County, Georgia ☐ Savannah, Chatham County, Georgia		
SITE UST 100A (SWMU 27F)		
DEPTH TO WATER (FT BGS):	DEPTH TO BOTTOM OF WELL 15.5 ft	
WELL CONSTRUCTION MATERIAL 2 inch PVC sch. 40	SURFACE COMPLETION TYPE Flush in grass 2X2 pad	
GROUT MIXTURE Bentonite/Portland cement/water	QUANTITY OF GROUT USED (GALLONS) ~ 4	
GROUT PLACEMENT METHOD Tremie pipe	SURFACE PATCH concrete	

SITE MAP



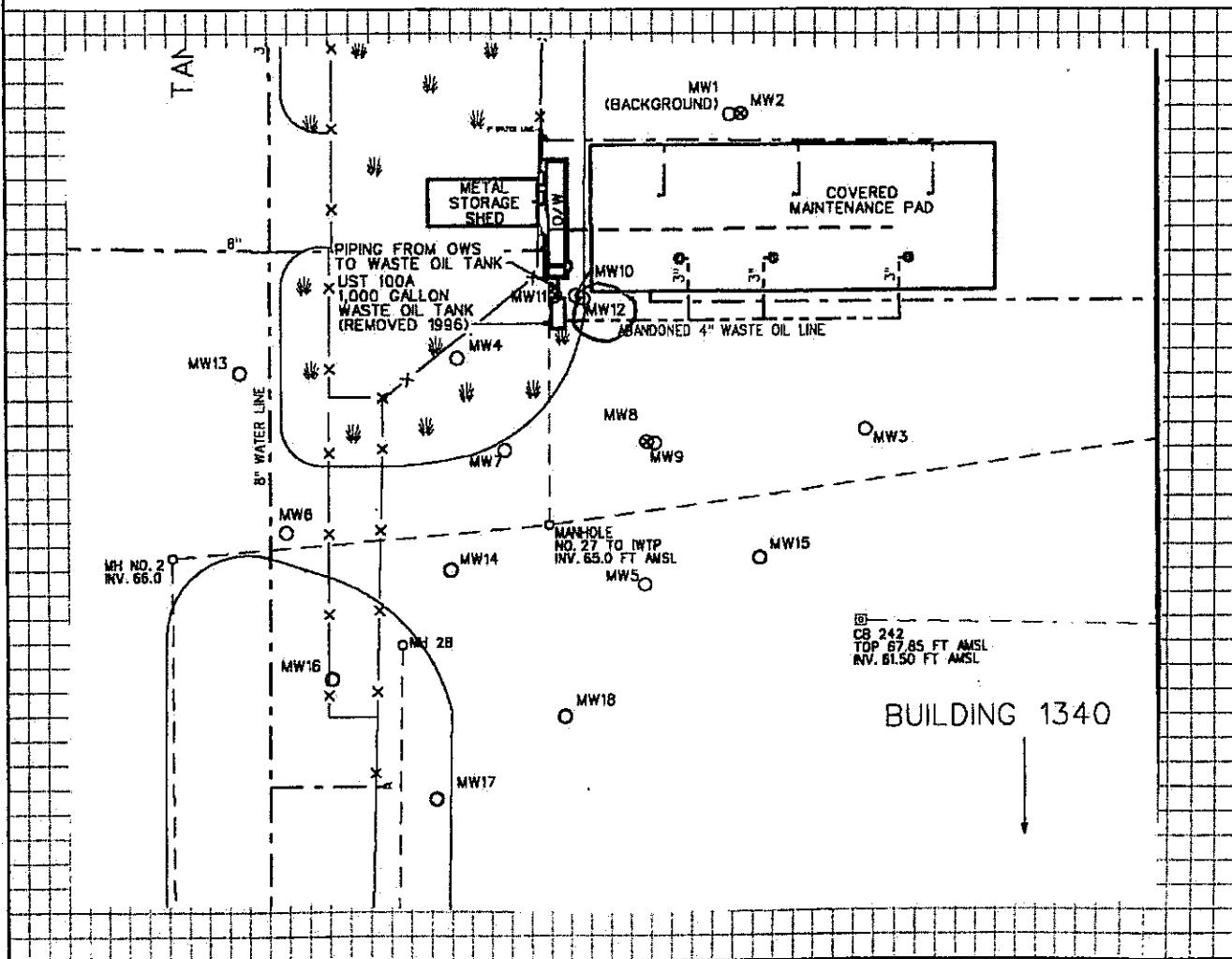
MONITORING WELL ABANDONMENT LOG		WELL NO MW7
OWNER/FACILITY OPERATOR ☒ Fort Stewart ☐ Hunter Army Airfield		ABANDONMENT DATE 4/12/2010
LOCATION ☒ Hinesville, Liberty County, Georgia ☐ Savannah, Chatham County, Georgia		
SITE UST 100 A (SWMU 27F)		
DEPTH TO WATER (FT BGS):	DEPTH TO BOTTOM OF WELL 21ft	
WELL CONSTRUCTION MATERIAL 2 inch PVC Schedule 40	SURFACE COMPLETION TYPE flush in concrete	
GROUT MIXTURE Bentonite Port And cement/water	QUANTITY OF GROUT USED (GALLONS) ~ 5	
GROUT PLACEMENT METHOD Tremie pipe	SURFACE PATCH concrete	

SITE MAP

MONITORING WELL ABANDONMENT LOG		WELL NO MW4
OWNER/FACILITY OPERATOR ☒ Fort Stewart ☐ Hunter Army Airfield		ABANDONMENT DATE 4/12/2010
LOCATION ☒ Hinesville, Liberty County, Georgia ☐ Savannah, Chatham County, Georgia		
SITE UST 100A (SWMU 27F)		
DEPTH TO WATER (FT BGS):	DEPTH TO BOTTOM OF WELL 18 ft	
WELL CONSTRUCTION MATERIAL 2 inch PVC sch. 40	SURFACE COMPLETION TYPE Flush INGRASS / 2X2 concrete pad	
GROUT MIXTURE Bentonite/Portland cement/water	QUANTITY OF GROUT USED (GALLONS) ~ 4	
GROUT PLACEMENT METHOD Tremie pipe	SURFACE PATCH concrete	
SITE MAP		
The site map is a detailed diagram of the monitoring area. It features a grid background. Key elements include: Monitoring Wells: Labeled MW1 through MW18. MW1 and MW2 are in the background. MW3, MW4, MW5, MW6, MW7, MW8, MW9, MW10, MW11, MW12, MW13, MW14, MW15, MW16, MW17, and MW18 are distributed across the site. UST 100A: A large circular area labeled 'UST 100A 1,000 GALLON WASTE OIL TANK (REMOVED 1996)'. Metal Storage Shed: A rectangular structure labeled 'METAL STORAGE SHED'. Covered Maintenance Pad: A rectangular area labeled 'COVERED MAINTENANCE PAD'. Building 1340: A large rectangular structure labeled 'BUILDING 1340'. Infrastructure: Includes 'PIPING FROM OWS TO WASTE OIL TANK', '8" WATER LINE', 'ABANDONED 4" WASTE OIL LINE', and 'MANHOLE NO. 27 TO IWTP INV. 65.0 FT AMSL'. Other Labels: 'TAN', 'D/W', 'CB 242 TOP 67.85 FT AMSL INV. 61.50 FT AMSL', and 'MH NO. 2 INV. 66.0'.		

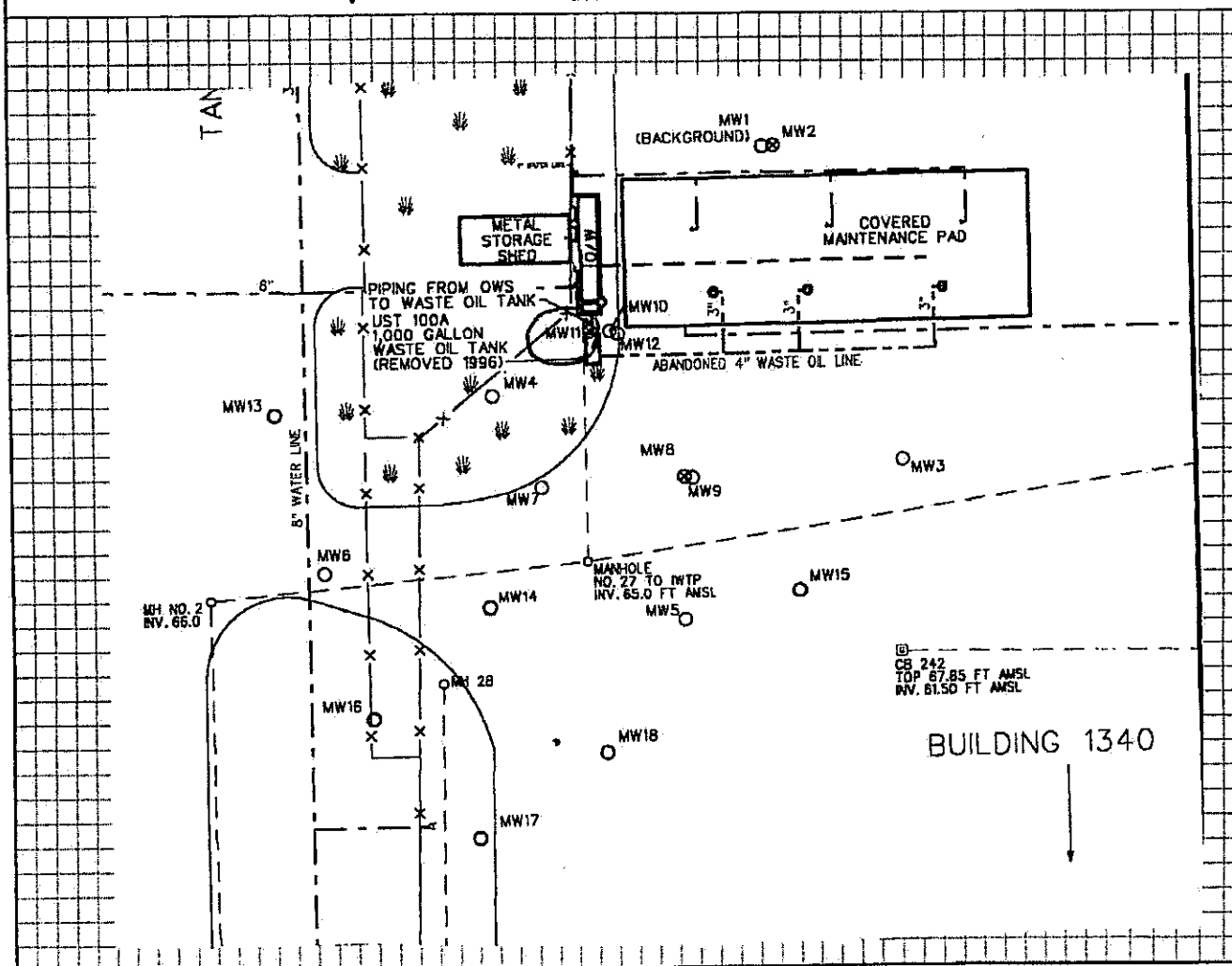
MONITORING WELL ABANDONMENT LOG		WELL NO MW12
OWNER/FACILITY OPERATOR ☒ Fort Stewart ☐ Hunter Army Airfield		ABANDONMENT DATE 4/12/2010
LOCATION ☒ Hinesville, Liberty County, Georgia ☐ Savannah, Chatham County, Georgia		
SITE UST 100A (SWMU 27F)		
DEPTH TO WATER (FT BGS):	DEPTH TO BOTTOM OF WELL 10 ft	
WELL CONSTRUCTION MATERIAL 2 inch PVC Sch 40	SURFACE COMPLETION TYPE flush ingress / 2x2 concrete pad	
GROUT MIXTURE Bentonite/Portland cement/water	QUANTITY OF GROUT USED (GALLONS) ~ 4	
GROUT PLACEMENT METHOD Tremie pipe	SURFACE PATCH concrete	

SITE MAP

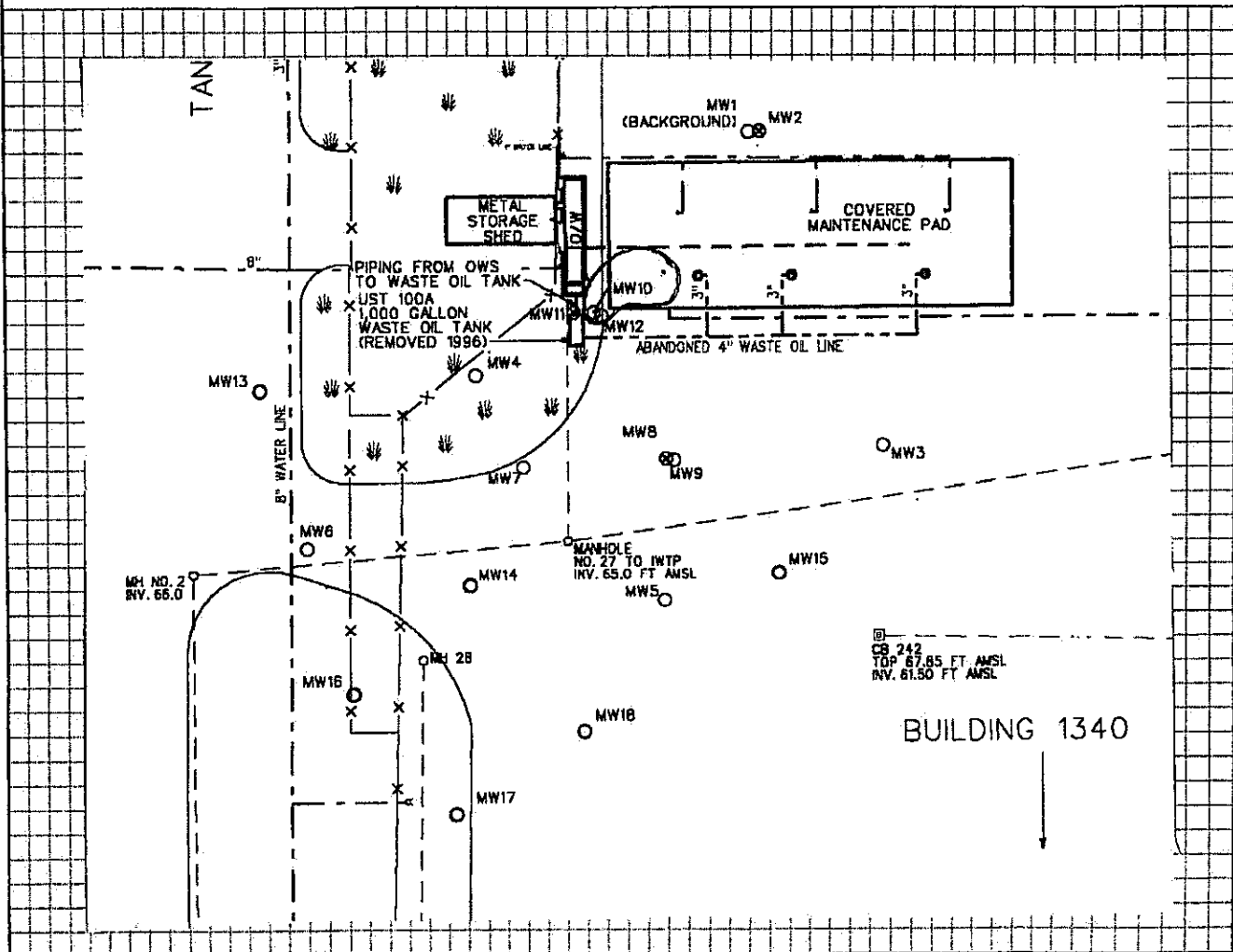


MONITORING WELL ABANDONMENT LOG		WELL NO MW11
OWNER/FACILITY OPERATOR ☒ Fort Stewart ☐ Hunter Army Airfield		ABANDONMENT DATE 4/12/2010
LOCATION ☒ Hinesville, Liberty County, Georgia ☐ Savannah, Chatham County, Georgia		
SITE UST 100A (SWMU 27F)		
DEPTH TO WATER (FT BGS):	DEPTH TO BOTTOM OF WELL 40 ft	
WELL CONSTRUCTION MATERIAL 2 inch PVC Schedule 40	SURFACE COMPLETION TYPE Flush w grass / 2x2 Ft concrete pad	
GROUT MIXTURE Bentonite/Portland cement/water	QUANTITY OF GROUT USED (GALLONS) ~ 10	
GROUT PLACEMENT METHOD Tremie D.D.O	SURFACE PATCH concrete	

SITE MAP

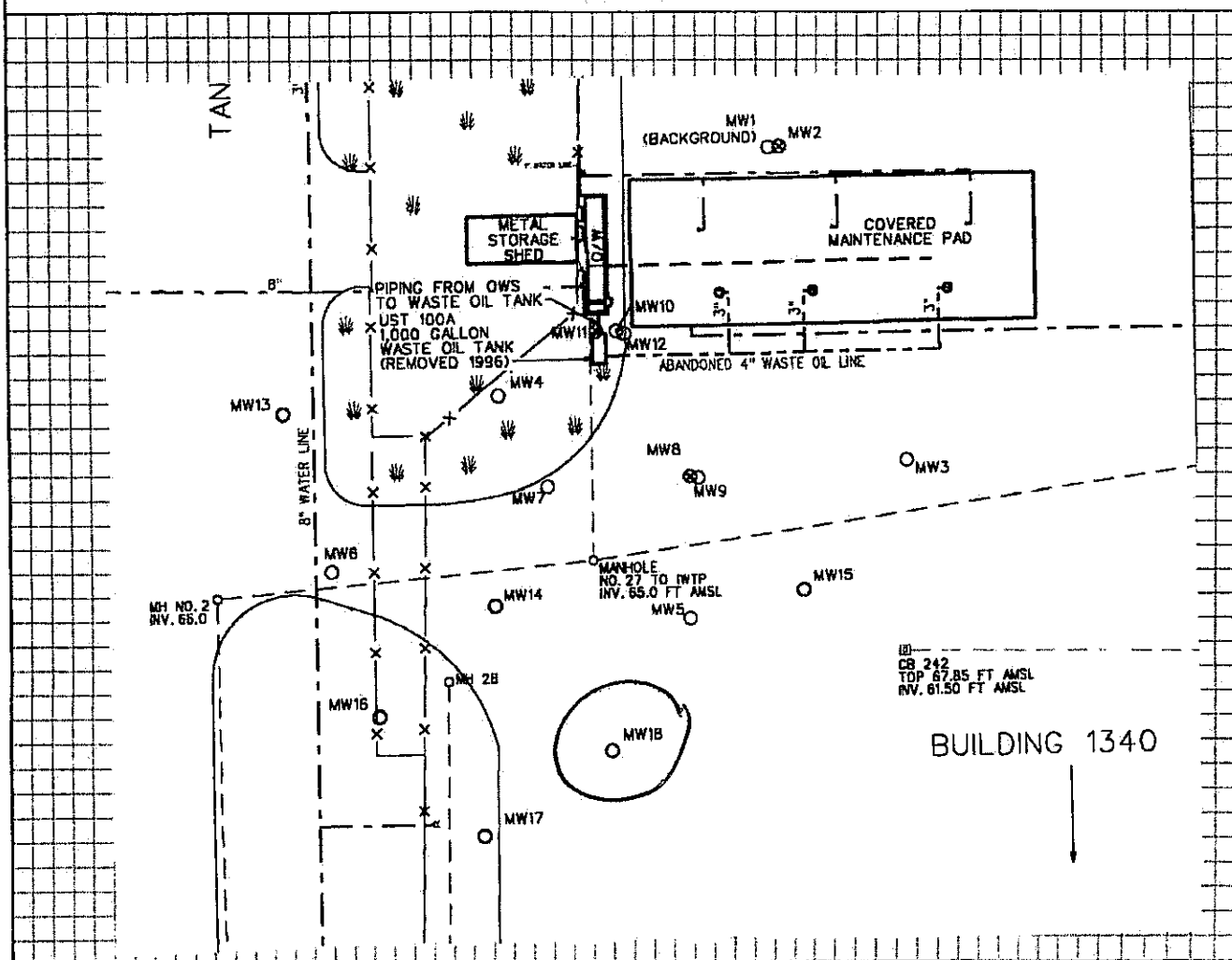


MONITORING WELL ABANDONMENT LOG		WELL NO MW10
OWNER/FACILITY OPERATOR ☒ Fort Stewart ☐ Hunter Army Airfield		ABANDONMENT DATE 4/12/2010
LOCATION ☒ Hinesville, Liberty County, Georgia ☐ Savannah, Chatham County, Georgia		
SITE UST 100A (SWMU 27F)		
DEPTH TO WATER (FT BGS):	DEPTH TO BOTTOM OF WELL 22 ft	
WELL CONSTRUCTION MATERIAL 2 INCH PVC Sch 40	SURFACE COMPLETION TYPE Flush in grass / 2x2 concrete pad	
GROUT MIXTURE Bentolite / Portland cement / water	QUANTITY OF GROUT USED (GALLONS) ~ 5	
GROUT PLACEMENT METHOD Tremie pipe	SURFACE PATCH concrete	

SITE MAP

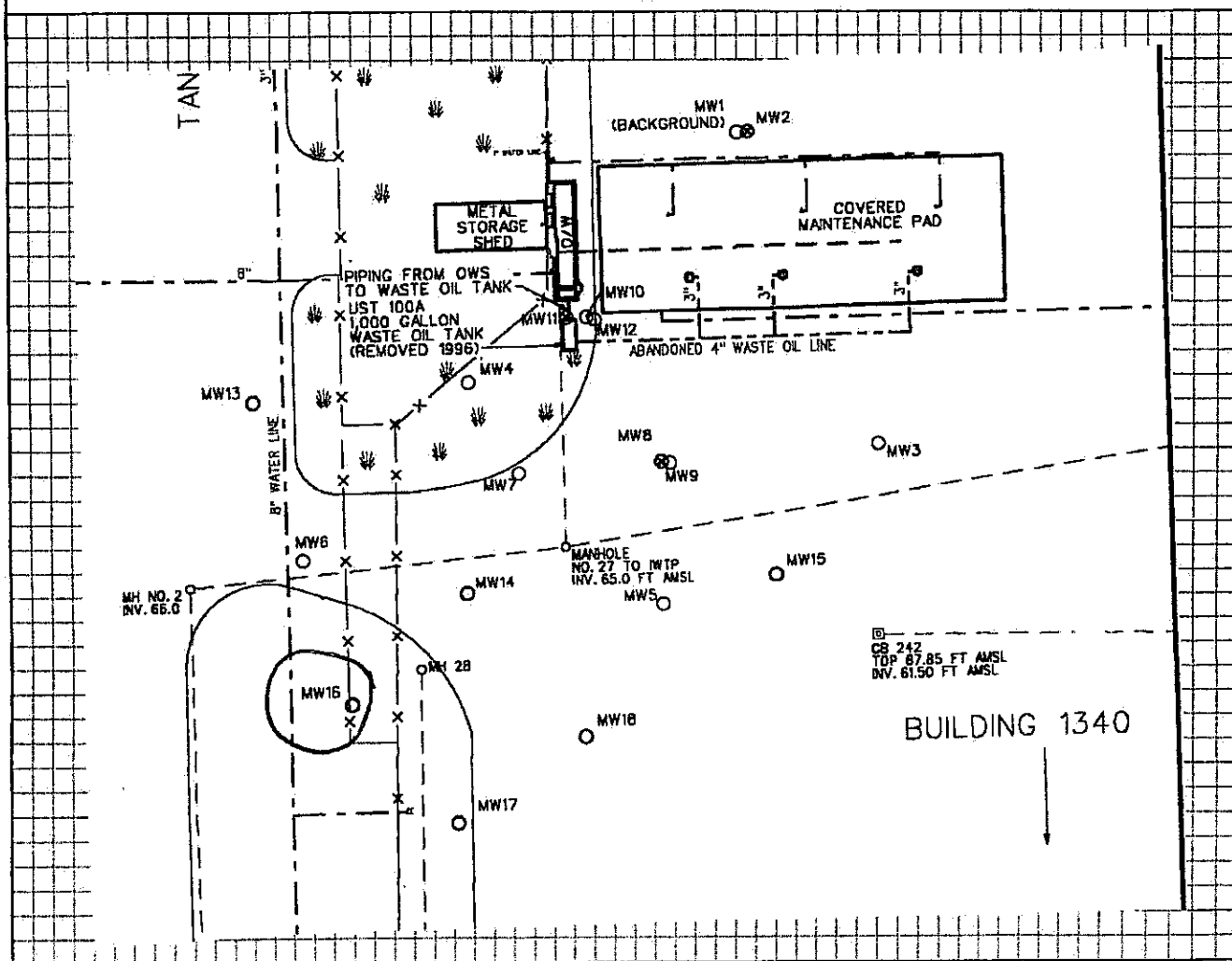
MONITORING WELL ABANDONMENT LOG		WELL NO MW18
OWNER/FACILITY OPERATOR ☒ Fort Stewart ☐ Hunter Army Airfield		ABANDONMENT DATE 4/12/2010
LOCATION ☒ Hinesville, Liberty County, Georgia ☐ Savannah, Chatham County, Georgia		
SITE UST 100A (SWMU 27F)		
DEPTH TO WATER (FT BGS):	DEPTH TO BOTTOM OF WELL 15.5 ft	
WELL CONSTRUCTION MATERIAL 2 inch PVC Schedule 40	SURFACE COMPLETION TYPE flush in concrete	
GROUT MIXTURE Bentonite/Portland cement/water	QUANTITY OF GROUT USED (GALLONS) ~ 5	
GROUT PLACEMENT METHOD Tremie pipe	SURFACE PATCH concrete	

SITE MAP



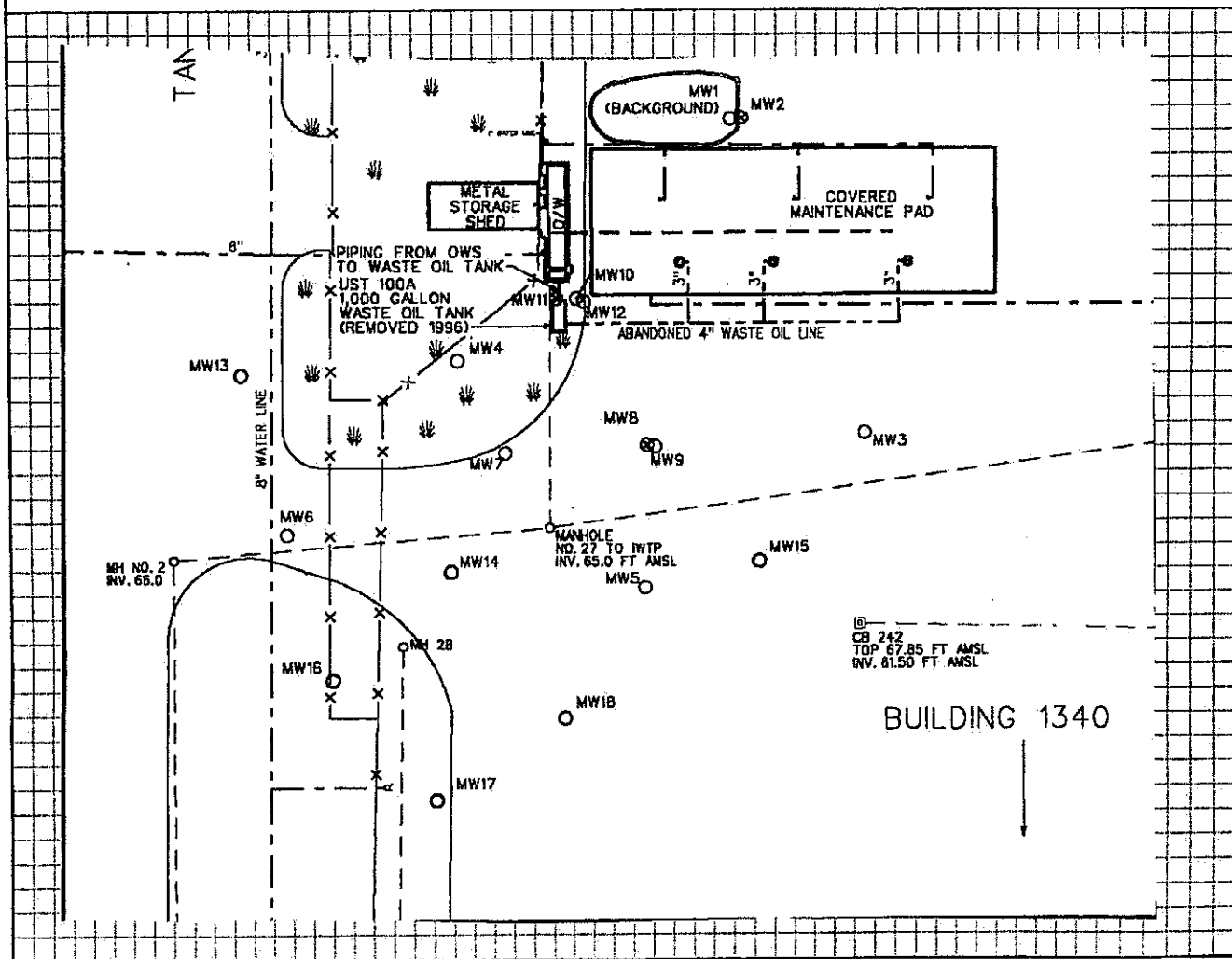
MONITORING WELL ABANDONMENT LOG		WELL NO MW 16
OWNER/FACILITY OPERATOR ☒ Fort Stewart ☐ Hunter Army Airfield		ABANDONMENT DATE 4/12/2010
LOCATION ☒ Hinesville, Liberty County, Georgia ☐ Savannah, Chatham County, Georgia		
SITE UST 100A (SWMU 27F)		
DEPTH TO WATER (FT BGS):		DEPTH TO BOTTOM OF WELL 15 ft
WELL CONSTRUCTION MATERIAL 2 inch PVC Sch 40		SURFACE COMPLETION TYPE flush INGRASS / 2x2' concrete pad
GROUT MIXTURE Bentonite/Portland cement		QUANTITY OF GROUT USED (GALLONS) ~ 4
GROUT PLACEMENT METHOD Tremie		SURFACE PATCH concrete

SITE MAP

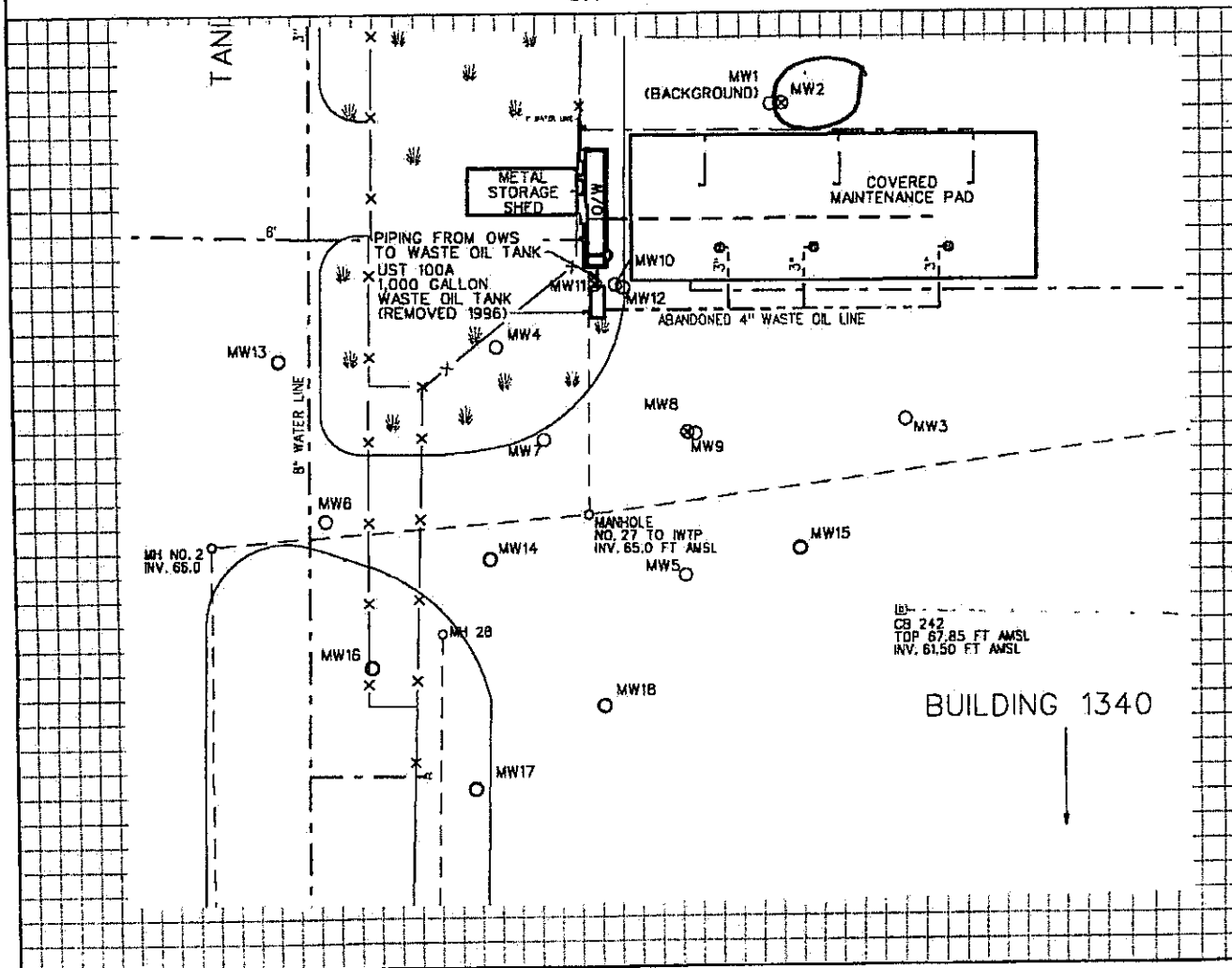


MONITORING WELL ABANDONMENT LOG		WELL NO MW1
OWNER/FACILITY OPERATOR ☒ Fort Stewart ☐ Hunter Army Airfield		ABANDONMENT DATE 4/12/2010
LOCATION ☒ Hinesville, Liberty County, Georgia ☐ Savannah, Chatham County, Georgia		
SITE UST 100A (SWMU 27F)		
DEPTH TO WATER (FT. BGS):	DEPTH TO BOTTOM OF WELL 21ft	
WELL CONSTRUCTION MATERIAL 2 inch PVC Schedule 40	SURFACE COMPLETION TYPE Flush in concrete	
GROUT MIXTURE Bentonite/Portland cement/water	QUANTITY OF GROUT USED (GALLONS) ~5	
GROUT PLACEMENT METHOD Tremie	SURFACE PATCH concrete	

SITE MAP



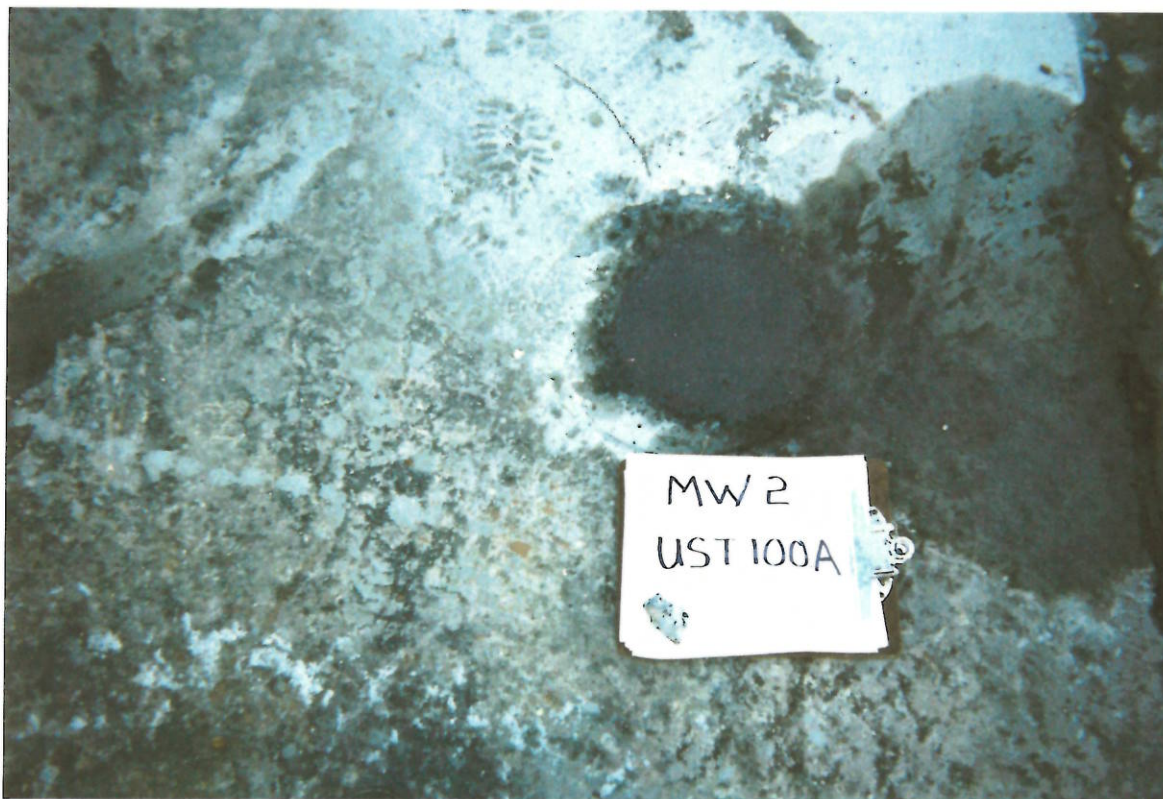
MONITORING WELL ABANDONMENT LOG		WELL NO MW2
OWNER/FACILITY OPERATOR ☒ Fort Stewart ☐ Hunter Army Airfield		ABANDONMENT DATE 4/12/2010
LOCATION ☒ Hinesville, Liberty County, Georgia ☐ Savannah, Chatham County, Georgia		
SITE UST 100 A (SUMMU 27F) ^{28F} (SUMMU 27F)		
DEPTH TO WATER (FT BGS):	DEPTH TO BOTTOM OF WELL 45ft	
WELL CONSTRUCTION MATERIAL 2 inch PVC schedule 40	SURFACE COMPLETION TYPE flush in concrete	
GROUT MIXTURE Bentonite/Portland Cement/water	QUANTITY OF GROUND USED (GALLONS) ~10	
GROUT PLACEMENT METHOD Tremie pipe	SURFACE PATCH concrete	

SITE MAP

APPENDIX B
PHOTOGRAPHS OF ABANDONED WELL LOCATIONS



UST 100A: Well Abandonment – MW1



UST 100A: Well Abandonment – MW2



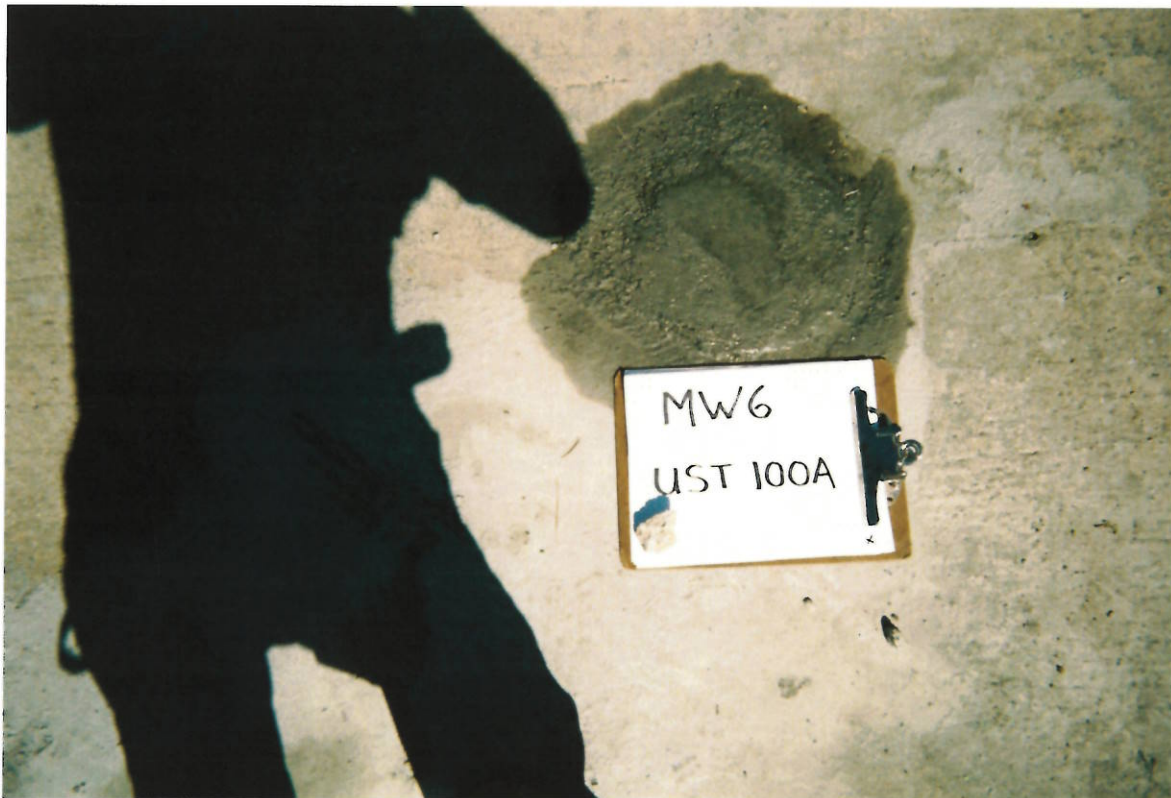
UST 100A: Well Abandonment – MW3



UST 100A: Well Abandonment – MW4



UST 100A: Well Abandonment – MW5



UST 100A: Well Abandonment – MW6



UST 100A: Well Abandonment – MW7



UST 100A: Well Abandonment – MW8



UST 100A: Well Abandonment – MW9



UST 100A: Well Abandonment – MW10



UST 100A: Well Abandonment – MW11



UST 100A: Well Abandonment – MW12



UST 100A: Well Abandonment – MW13



UST 100A: Well Abandonment – MW14



UST 100A: Well Abandonment – MW15



UST 100A: Well Abandonment – MW16



UST 100A: Well Abandonment – MW17



UST 100A: Well Abandonment – MW18

