



February 4, 2014

U.S. Army Corps of Engineers
Savannah District
CESAS-PM-H (Ana Vergara)
100 West Oglethorpe Avenue
Savannah, Georgia 31401-3604

Subject: **Contract No. W912HN-10-D-0001, Delivery Order No. 0027**
*Revised Final Completion Report for Monitor Well Abandonment at Former
Underground Storage Tanks 208 and 209 Facility ID #9-089036 Building 275, AEDB-R
Number: FST-25A3, Fort Stewart, Georgia*

Dear Ms. Vergara:

SpecPro Environmental Services LLC (SES) was contracted by the U.S. Army Corps of Engineers (USACE) to abandon nine monitor wells at the former Underground Storage Tanks (USTs) 208 and 209 site (Facility ID #9-089036), in accordance with the No Further Action Required letter from the Georgia Department of Natural Resources Environmental Protection Division, dated November 20, 2013. The site location map (Figure 1) and a map showing the former locations of the wells (Figure 2) are available in Attachment 1.

SES obtained clearances for underground utilities prior to well abandonment procedures. SES drilling subcontractor, Major Drilling Environmental, abandoned the nine monitor wells (42-05, 42-06, 42-07R, 42-08, 42-10, 42-11, 42-12, 42-13R, and 42-14) in accordance with State of Georgia Regulations Official Code of Georgia (OCGA) 12-5-134(6)(J). The regulation states, "Abandoned engineering boreholes, geologic boreholes, dewatering wells, monitoring wells, and seismic shot holes shall be filled, sealed and plugged under the direction of a registered professional geologist or registered professional engineer."

In Accordance with Circular 13 "Grouting and Plugging of Domestic Water Wells in the State of Georgia" (Georgia Department of Natural Resources, 1988), SES used the tremie pipe grouting method to force cement-bentonite slurry into the well from the bottom to completely fill the well. The slurry was comprised of water, Portland cement, and bentonite powder. After the grout was cured, SES over-drilled the top 5 feet of each boring to completely remove all well materials. The over-drilled portion of the well was filled with the grout mixture. The backfilled wells were surrounded by concrete at the surface; therefore, the top portion was filled with concrete to the same depth as the surrounding area. Well abandonment logs are in Attachment 2, and photographs are in Attachment 3.



If you have any questions regarding this letter report, please contact me at (865) 481-7837, extension 266.

Sincerely,
SES LLC

A handwritten signature in blue ink that reads "Jeff Williams".

For Jim Madaj, PG
Senior Program Manager

Attachments:

1. Figures
2. Well Abandonment Logs
3. Photographs

Enclosures (compact discs)

cc: Algeana Stevenson (four hard copies and four compact discs)
Project files
Reader file

Completion Report

Submittal Date: February 4, 2014

Facility Name: USTs 208 and 209, Bldg. 275
Facility ID: 9-089036*1
County: Liberty
Latitude: 31° 51' 55"

Street Address: Bultman Ave & E. 4th St.
City: Fort Stewart
Zip Code: 31314
Longitude: 81° 35' 56"

Submitted by UST Owner/ Operator:
Name: Thomas C. Fry/Environmental
Branch

Prepared by Consultant/ Contractor
Name: Jeffrey C. Williams, PE

Company: U.S. Army/HQ 3rd, Inf. Div
Mechanized and Department
of Public Works

Company: SpecPro Environmental
Services LLC

Address: 1557 Veterans Parkway Bldg.
1137

Address: 1006 Floyd Culler Court

City: Ft. Stewart State: Georgia
Zip Code: 31314
Telephone: (912) 767-2010

City: Oak Ridge State: Tennessee
Zip Code: 37830
Telephone: (865) 481-7837

CERTIFICATE OF COMPLETION

I hereby certify that the Corrective Action for Building 275, USTs 208 and 209 Site, Bultman Avenue and East of E 4th Street Fort Stewart, Liberty County, Georgia Facility ID: 9089036*1, including any and all certified amendments thereto, has been implemented in accordance with the schedules, specifications, sampling programs, and conditions contained therein, and that the plan's stated objectives have been met.

Signature

Date

REGISTERED PROFESSIONAL ENGINEER OR PROFESSIONAL GEOLOGIST CERTIFICATION

I hereby certify that I have directed and supervised the field work and preparation of this report, 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: Jeffrey C. Williams, PE

Signature: _____

Date: _____

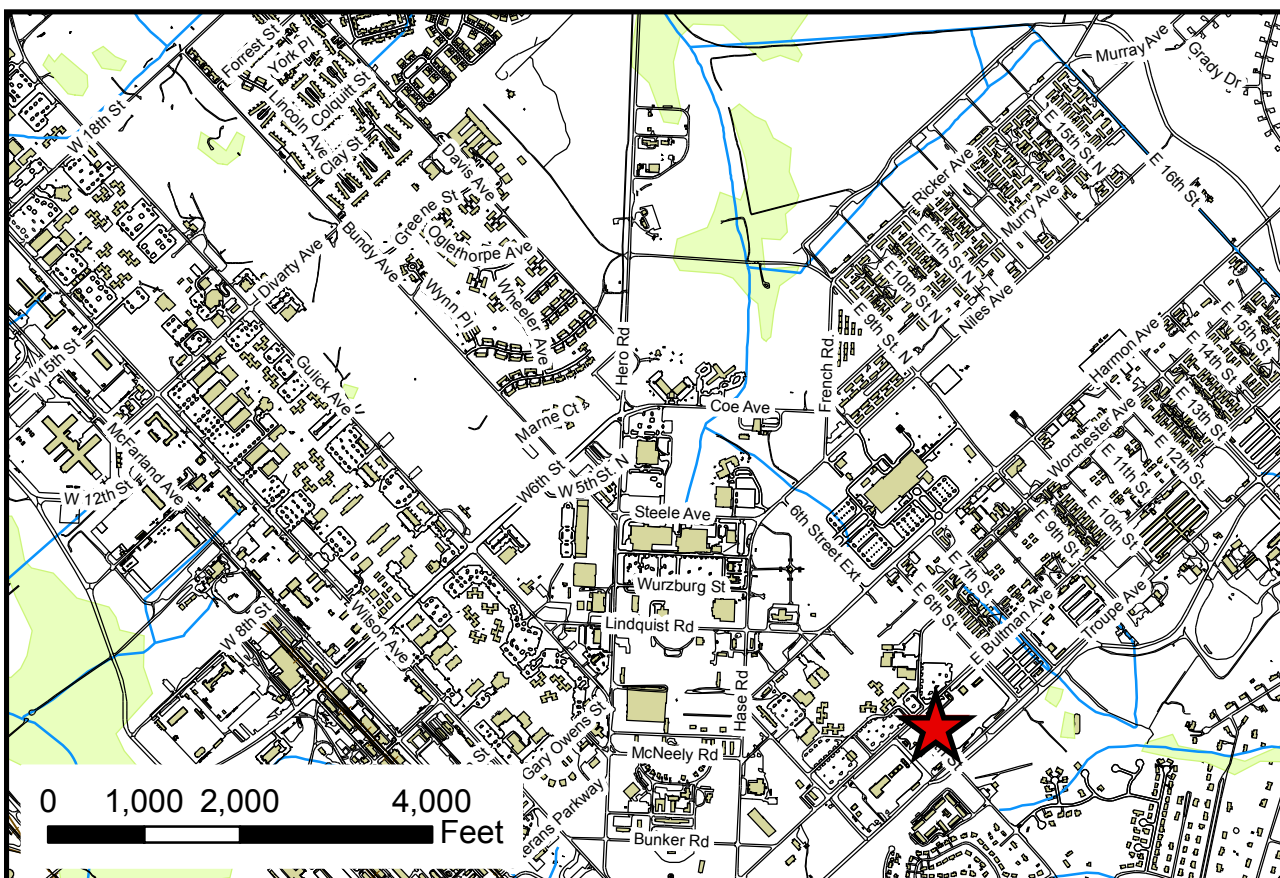
Jeffrey Williams
2/4/14



Georgia Stamp or Seal

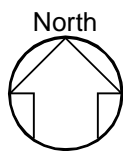
Attachment 1

Maps



Job Title: Former Underground Storage
Tanks 208 and 209
Facility ID #9-089036 Building 275
Fort Stewart, Georgia
Data Source: Ft. Stewart GIS

Figure 1 Site Location Map - Former USTs 208 & 209



E. Bultman Ave.

Parking

42-08

42-05

42-12

Former Pump Island

Excavation 2012

Former USTs
208 & 209
Tank Pit

42-07R

42-13R

42-10

42-11

42-14

Former Pump Island

Excavation 2008

42-06

E. 4th Street

Motor Pool

50' 0 50'
SCALE: 1" = 50'

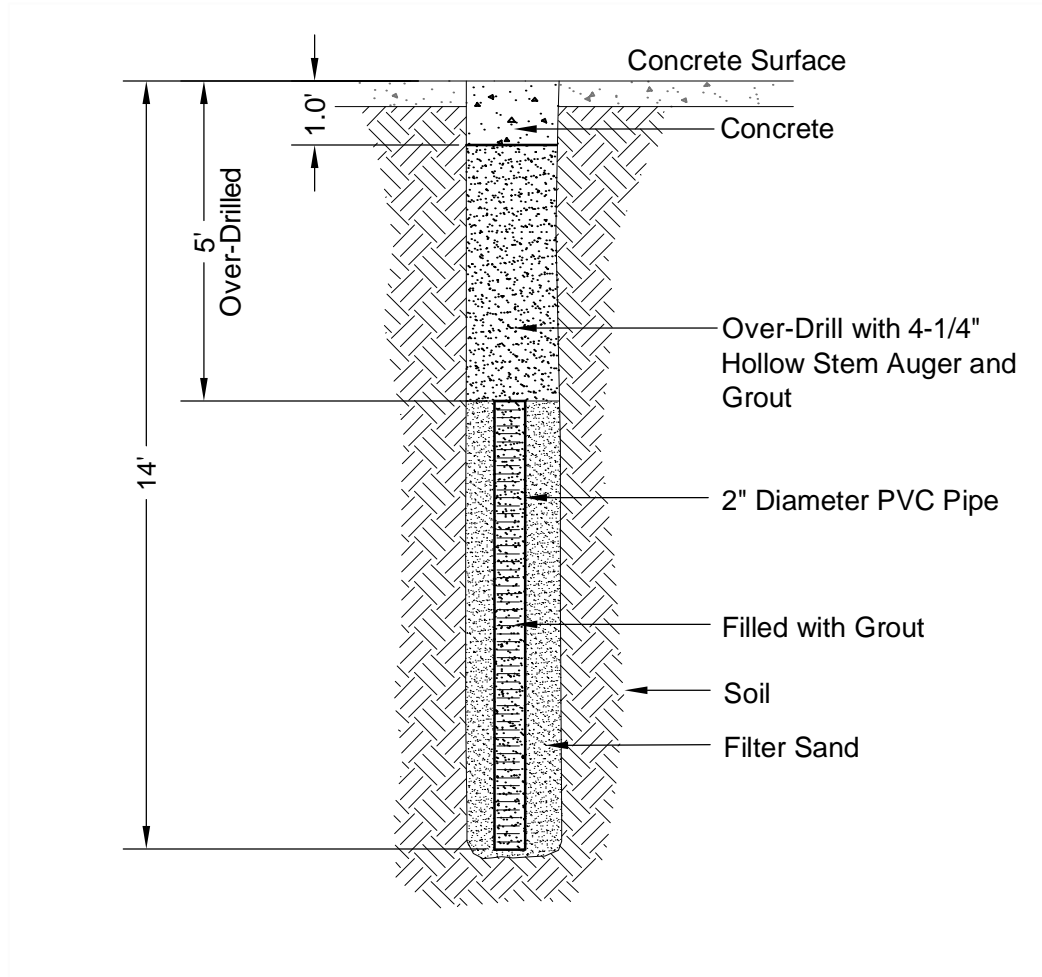
Legend

- Fence
- Road
- ⊕ 42-06 Abandoned Monitor Well

Job Title: Former Underground Storage
Tanks 208 & 209
Facility ID #9-089036 Building 275
Fort Stewart, Georgia
Source: Fort Stewart GIS, Chatham
Surveying Services

Figure 2 Monitor Well Abandonment Location Map

Attachment 2
Well Abandonment Logs



Not to Scale

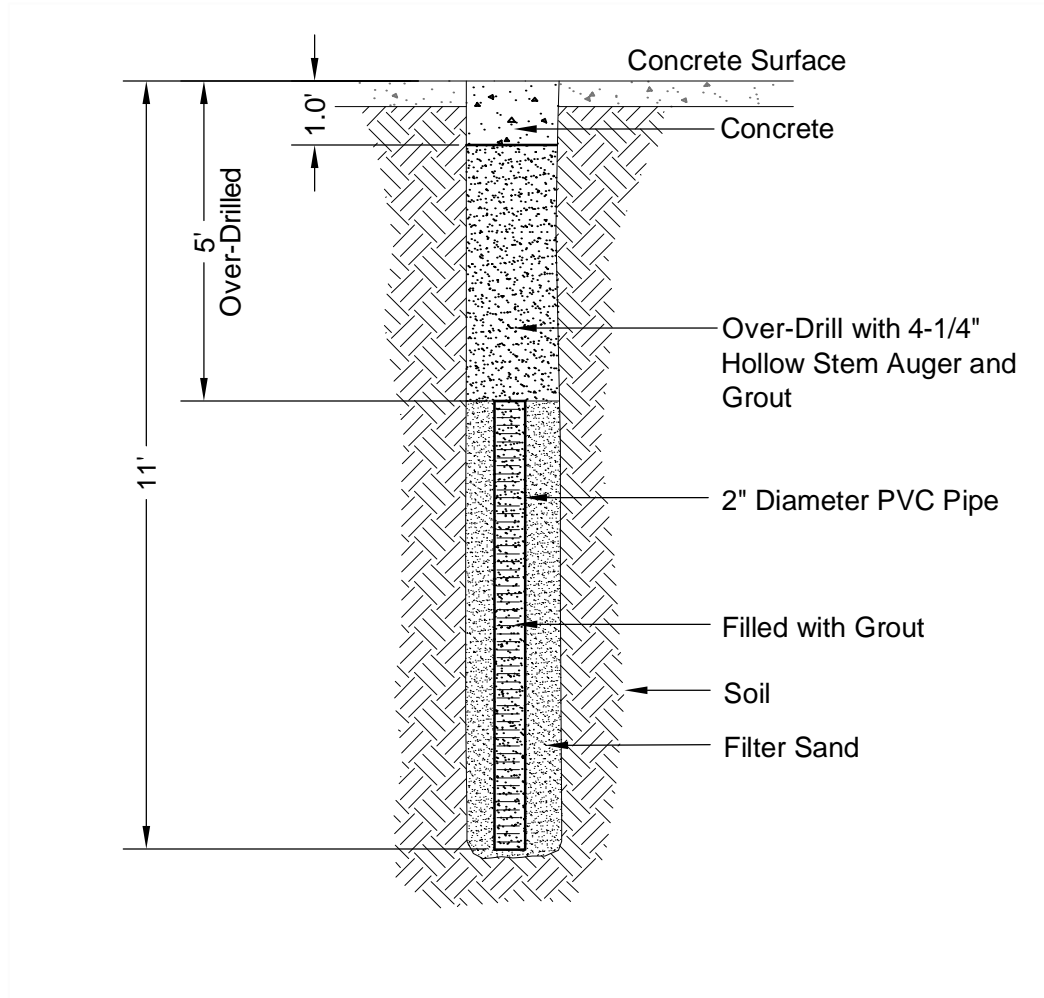
Abandonment conducted by Major Drilling Env.

Date of abandonment 12/19/2013

Abandonment supervised by Jeffrey C. Williams, PE

Total depth 14'

Job Title: Former Underground Storage
Tanks 208 & 209
Facility ID #9-089036 Building 275
Fort Stewart, Georgia
Source: Fort Stewart GIS, Chatham
Surveying Services



Not to Scale

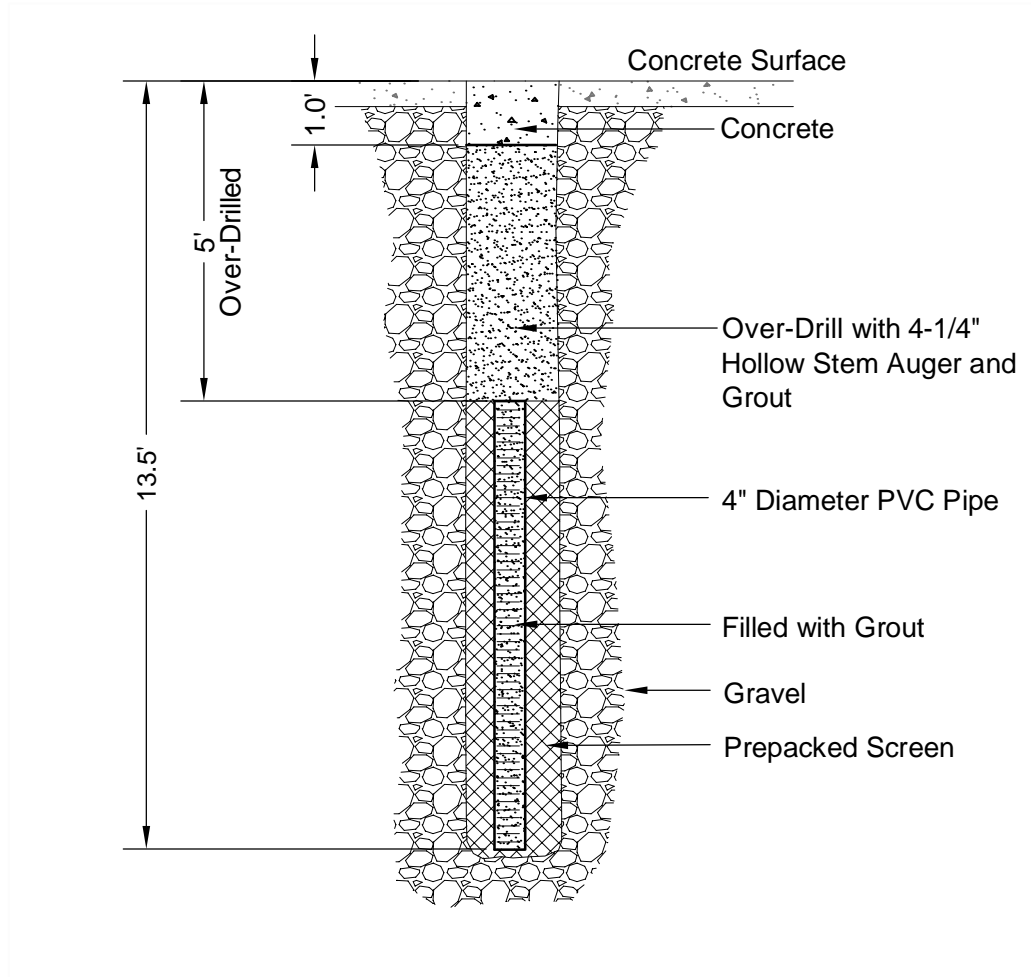
Abandonment conducted by Major Drilling Env.

Date of abandonment 12/19/2013

Abandonment supervised by Jeffrey C. Williams, PE

Total depth 11'

Job Title: Former Underground Storage
Tanks 208 & 209
Facility ID #9-089036 Building 275
Fort Stewart, Georgia
Source: Fort Stewart GIS, Chatham
Surveying Services



Not to Scale

Abandonment conducted by Major Drilling Env.

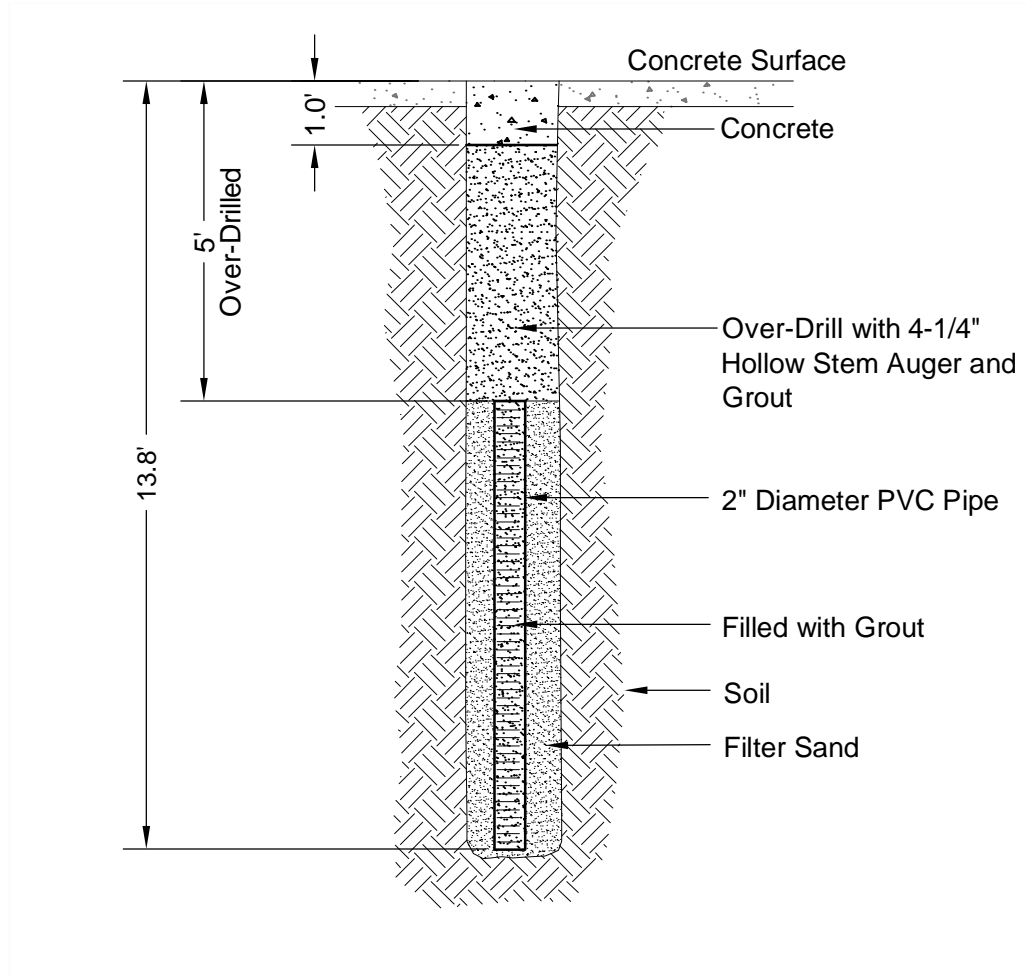
Date of abandonment 12/19/2013

Abandonment supervised by Jeffrey C. Williams, PE

Total depth 13.5'

Job Title: Former Underground Storage
Tanks 208 & 209
Facility ID #9-089036 Building 275
Fort Stewart, Georgia
Source: Fort Stewart GIS, Chatham
Surveying Services

Attachment 2 42-07R Well Abandonment Log



Not to Scale

Abandonment conducted by Major Drilling Env.

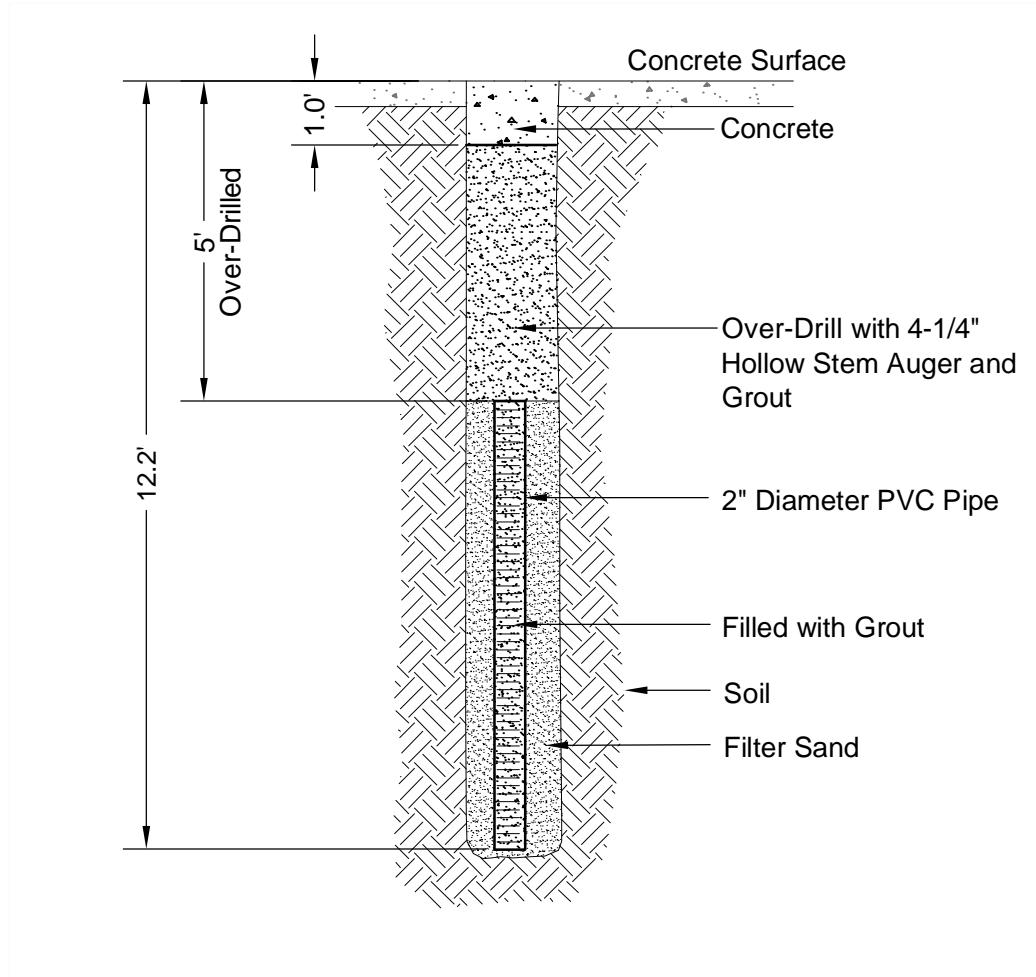
Date of abandonment 12/19/2013

Abandonment supervised by Jeffrey C. Williams, PE

Total depth 13.8'

Job Title: Former Underground Storage
Tanks 208 & 209
Facility ID #9-089036 Building 275
Fort Stewart, Georgia
Source: Fort Stewart GIS, Chatham
Surveying Services

Attachment 2 42-08 Well Abandonment Log



Not to Scale

Abandonment conducted by Major Drilling Env.

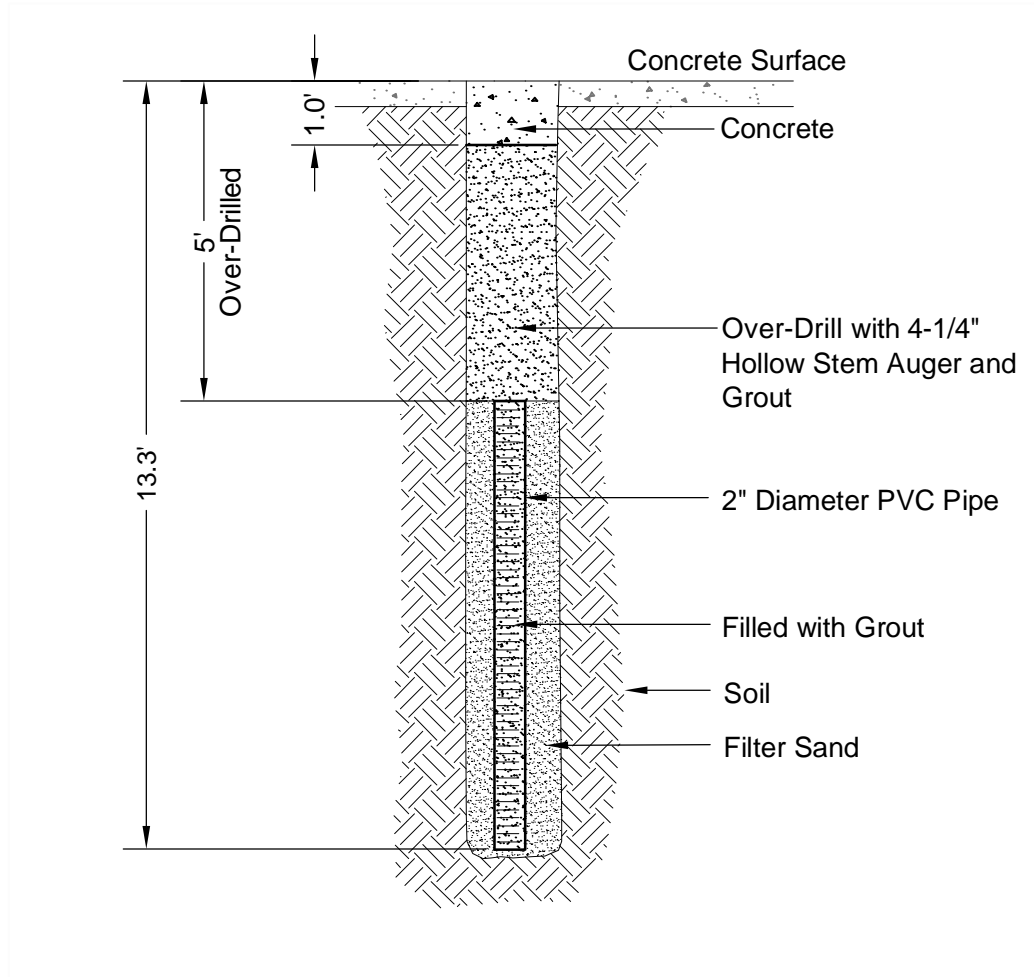
Date of abandonment 12/19/2013

Abandonment supervised by Jeffrey C. Williams, PE

Total depth 12.2'

Job Title: Former Underground Storage
Tanks 208 & 209
Facility ID #9-089036 Building 275
Fort Stewart, Georgia
Source: Fort Stewart GIS, Chatham
Surveying Services

Attachment 2 42-10 Well Abandonment Log



Not to Scale

Abandonment conducted by Major Drilling Env.

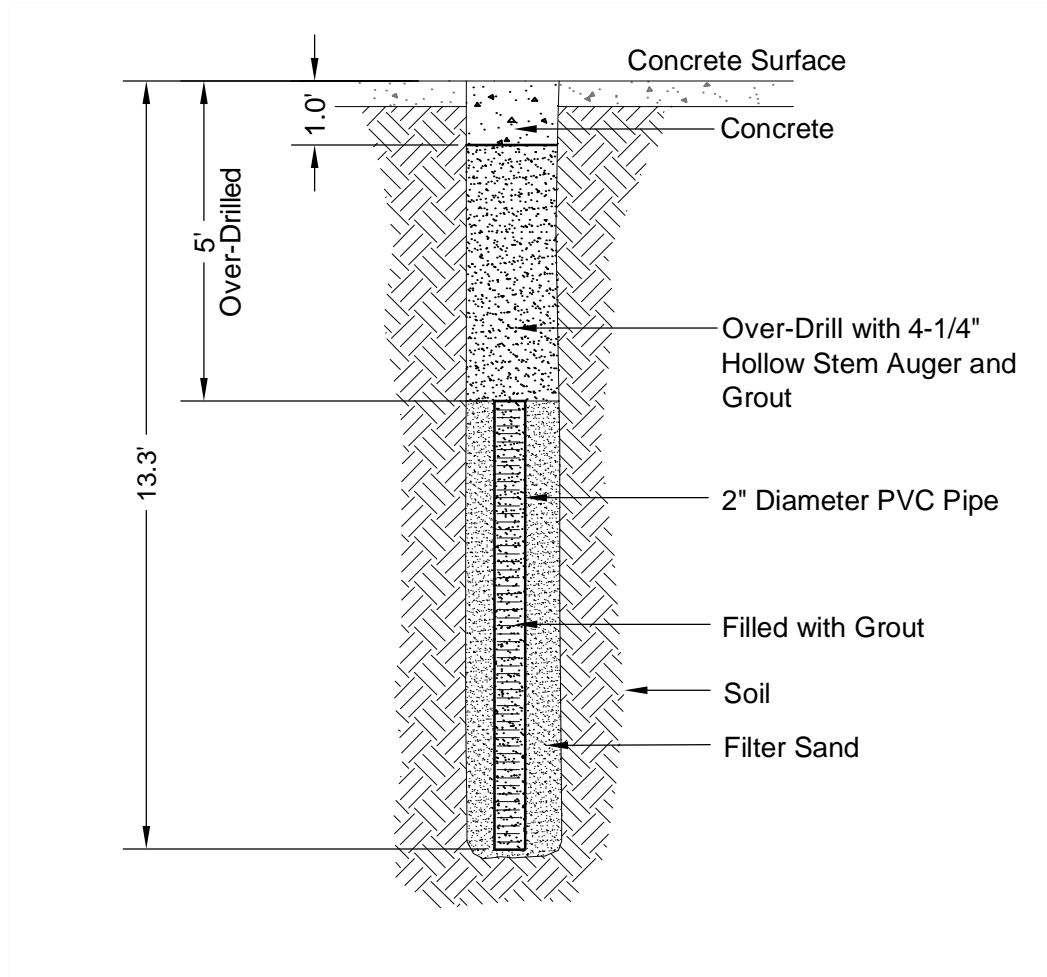
Date of abandonment 12/19/2013

Abandonment supervised by Jeffrey C. Williams, PE

Total depth 13.3'

Job Title: Former Underground Storage
Tanks 208 & 209
Facility ID #9-089036 Building 275
Fort Stewart, Georgia
Source: Fort Stewart GIS, Chatham
Surveying Services

Attachment 2 42-11 Well Abandonment Log



Not to Scale

Abandonment conducted by Major Drilling Env.

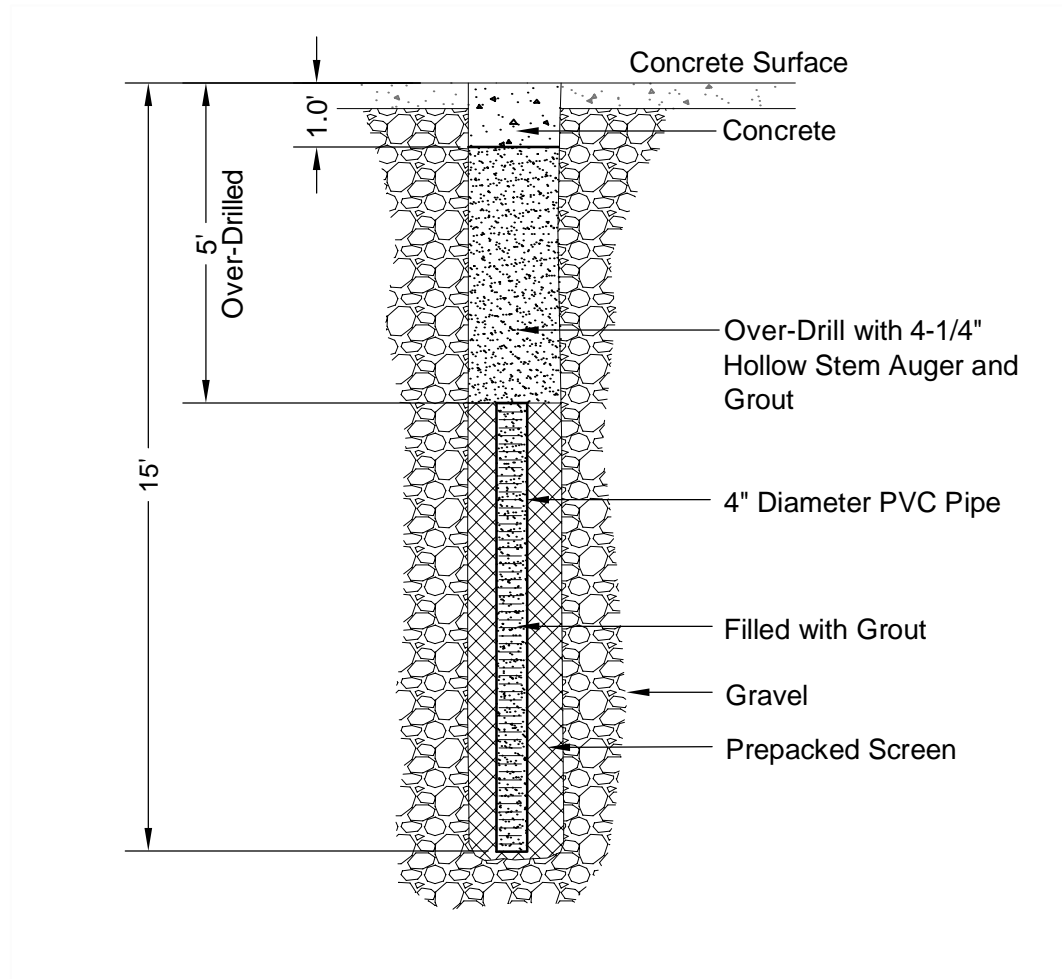
Date of abandonment 12/19/2013

Abandonment supervised by Jeffrey C. Williams, PE

Total depth 13.3'

Job Title: Former Underground Storage
Tanks 208 & 209
Facility ID #9-089036 Building 275
Fort Stewart, Georgia
Source: Fort Stewart GIS, Chatham
Surveying Services

Attachment 2 42-12 Well Abandonment Log



Not to Scale

Abandonment conducted by Major Drilling Env.

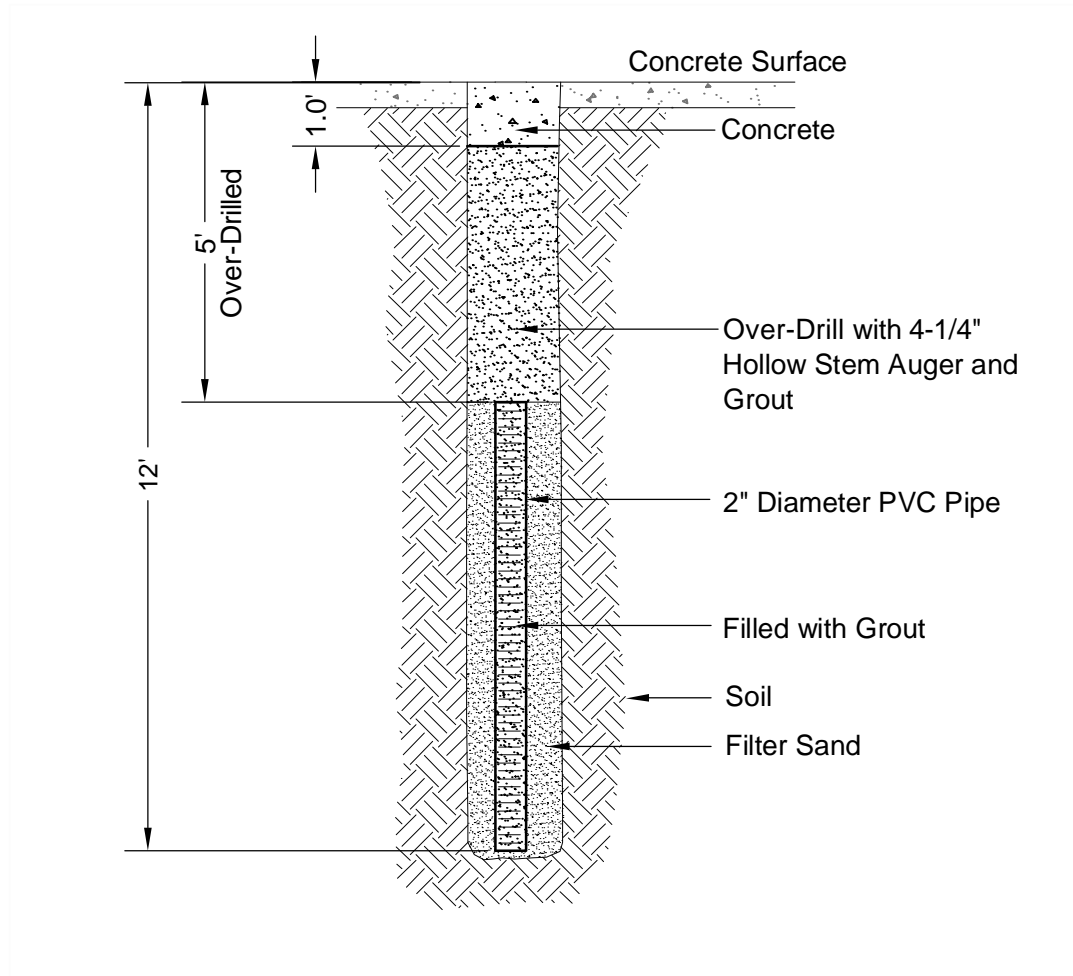
Date of abandonment 12/19/2013

Abandonment supervised by Jeffrey C. Williams, PE

Total depth 15'

Job Title: Former Underground Storage
Tanks 208 & 209
Facility ID #9-089036 Building 275
Fort Stewart, Georgia
Source: Fort Stewart GIS, Chatham
Surveying Services

Attachment 2 42-13R Well Abandonment Log



Not to Scale

Abandonment conducted by Major Drilling Env.

Date of abandonment 12/19/2013

Abandonment supervised by Jeffrey C. Williams, PE

Total depth 12'

Job Title: Former Underground Storage
Tanks 208 & 209
Facility ID #9-089036 Building 275
Fort Stewart, Georgia
Source: Fort Stewart GIS, Chatham
Surveying Services

Attachment 2 42-14 Well Abandonment Log

Attachment 3

Photographs

USTs 208 & 209 Well Abandonment Fort Stewart, Georgia



Grouting well (typical).



Well after grout has been placed (typical).

USTs 208 & 209 Well Abandonment Fort Stewart, Georgia



Removing monitor well's protective cover (typical).



Augering monitor well materials to remove the top 5 feet (typical).

USTs 208 & 209 Well Abandonment Fort Stewart, Georgia



Decontaminating drilling equipment (typical).



**Abandoned well after drilling and
being topped off with grout (typical).**

USTs 208 & 209 Well Abandonment Fort Stewart, Georgia



Monitor Well 42-05 before abandonment.



Monitor Well 42-05 after abandonment.

USTs 208 & 209 Well Abandonment Fort Stewart, Georgia



Monitor Well 42-06 before abandonment.



Monitor Well 42-06 after abandonment.

USTs 208 & 209 Well Abandonment Fort Stewart, Georgia



Monitor Well 42-07R before abandonment.



Monitor Well 42-07R after abandonment.

USTs 208 & 209 Well Abandonment Fort Stewart, Georgia



Monitor Well 42-08 before abandonment.



Monitor Well 42-08 after abandonment.

USTs 208 & 209 Well Abandonment Fort Stewart, Georgia



Monitor Well 42-10 before abandonment.



Monitor Well 42-10 after abandonment.

USTs 208 & 209 Well Abandonment Fort Stewart, Georgia



Monitor Well 42-11 before abandonment.



Monitor Well 42-11 after abandonment.

USTs 208 & 209 Well Abandonment Fort Stewart, Georgia



Monitor Well 42-12 before abandonment.



Monitor Well 42-12 after abandonment.

USTs 208 & 209 Well Abandonment Fort Stewart, Georgia



Monitor Well 42-13R before abandonment.



Monitor Well 42-13R after abandonment.

USTs 208 & 209 Well Abandonment Fort Stewart, Georgia



Monitor Well 42-14 before abandonment.



Monitor Well 42-14 after abandonment.