

BROWARD ENVIRONMENTAL REMEDIATION TIMES NEWSLETTER



SPRING 2020

UNPRECEDENTED TIMES

We're living in uncertain and difficult times, and we wanted to remind you that we're all in this together. Despite the new restrictions, our team has been working hard and are happy to bring you this issue.

COUNTY COVID-19 UPDATES

Broward County is Slowly Reopening

As our communities begin to open up and transition to a "new normal", Broward County has resources and updates including information on business assistance, rental assistance, and all online services provided. To view these and more resources, please visit Broward County's Coronavirus [webpage](#).

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Brought to you by the Environmental Engineering and Permitting Division

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REMEDICATION TRAILER SAFETY DURING WINDSTORMS

Inclement weather from hurricanes impact the State of Florida yearly, and highlighting the need to be prepared for these events as part of our normal course in the cleanup industry is

crucial. Devastating impacts from hurricanes, such as from Hurricane Andrew in 1992 have led to changes to the 1974 Florida Building Code. The Florida Department of Environmental Protection's [Petroleum Restoration Program](#) has made a shift in recent years to make greater use of remediation

trailers in lieu of fixed base treatment systems...

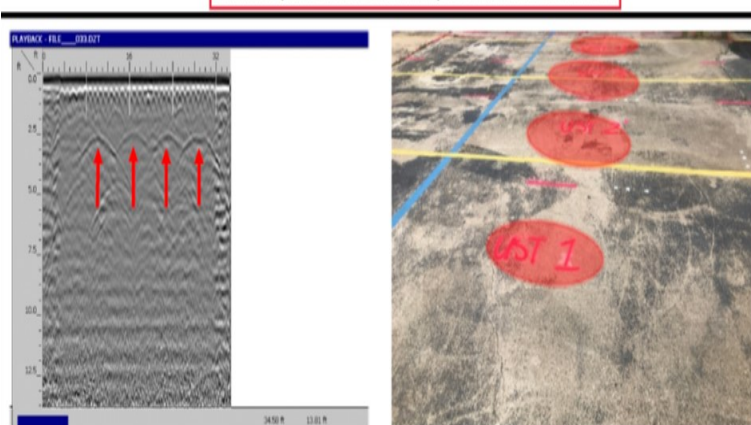


GROUND PENETRATING RADAR

Technology helps us accomplish all sorts of tasks in our lives, for instance, deploying Ground Penetrating Radar (GPR) helps identify where to begin a site assessment when important information is absent, such as:

- Site plans
- Storage tank system locations
- Storage tank status as in an abandoned or removed location
- Discharge location

Site with sketchy historical records and contradictory UST abandoned / removed information



GPR data screenshot of Location #1. The depth scale is on the left and the distance of the scan is across the top, forming a cross section view of the subsurface. The red arrows indicate the reactions formed from the USTs.

Photo of Location #1. This photo corresponds with the data shot to the left. The red ovals signify the UST's.

GPR can be used to:

- Locate abandoned USTs to enable the assessment to focus on the most likely source area (above photo).
- Prevent undesirable outcomes when extensive property changes increase the damage of subsurface utilities (below photo and right hand photos).



Site #1 GPR



Site #2 GPR



GPR is not necessary for a standard assessment where historical records are relatively complete and it's important to note that deploying GPR has some drawbacks.

Those drawbacks include:

- Subject to interpretation
- Interference from rebar and dense infrastructure
- Inability to detect fiberglass, polyvinyl or similar materials used underground for various purposes, hence there is no substitute for careful hand clearing whenever performing intrusive work underground.

Questions about this article? Contact John Moore at jmoore@broward.org or (954) 519-0307.

Helpful Resources:

[Video explaining GPR](#)

FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION UPDATES



Advanced Cleanup (AC) Program Updates for Spring 2020 Application Period Currently Open!

The Department of Environmental Protection will have an [Advanced Cleanup \(AC\) Application](#) period from May 1, 2020 to June 30, 2020. Applications for individual or bundled sites will be accepted.

Update to Groundwater Sampling for Closure Requirements

The Florida Department of Environmental Protection [Memorandum](#): Clarification to Petroleum Restoration Program Closure Sampling Guidelines for Groundwater is a major game changer. Most specifically, that site monitoring wells with documented contamination **must** have two consecutive clean sampling events separated by a minimum of 3 months for the site to meet SRCO criteria. Therefore, any well that had contaminants at concentrations above

the current Chapter 62-777, F.A.C. Table 1 Groundwater Cleanup Target Levels (CTL), from the time the discharge was first reported to present day, **must** have two quarters of below CTL data before a No Further Action (NFA) proposal can be prepared and submitted. To address the memo requirements, ATCs need to re-review the historical groundwater analytical tables to ensure historical wells and chemicals of concern either meet the updated criteria or identify the actions necessary to obtain confirmatory analytical data.

Many wells from the late 1980's-present have disappeared for a variety of reasons and may need replacement wells installed for confirmation sampling to satisfy the updated closure requirements. When sites transitioned from assessment to active remediation it was often the case for consultants to truncate the list of chemicals in the analytical tables.

Taking the time to QA the historical data as early in the assessment/remediation process as possible will pay dividends when the time comes to prepare the tables and figures needed to support an NFA Proposal for closure.

Some things to look out for:

- Make sure the NFA Proposal tables capture all chemicals of concern from beginning to end.
- Do not rely on the previous consultant's table entries.

- Cross check the reported data against the laboratory analytical reports.
- Beware of the lab versus table units of measure. Labs often reported Lead and TRPH in milligrams per liter (mg/L) but the concentration were entered into the tables without conversion to micrograms per liter (ug/L).
 - For instance, a lab reported lead concentration of 0.05 mg/L, and should have been converted to 50 ug/L and identified as being greater than the Lead 15 ug/L CTL. Similarly, if TRPH was reported as 55 mg/L but entered in the table as 55 ug/L instead of 55,000 ug/L, there is more work to be done.
- Another area of concern is the Method Detection Limits. Analytical results were reported as BDL (Below Detection Limit) or ND (Not Detected) without specifying the detection limit. If the samples were diluted the detection limits could have been increased above the CTL. If this is the case the reported BDL and ND results fail to meet the updated memo requirements.

Questions about this article?

Contact John Moore at jmoore@broward.org
or (954) 519-0307.

REMEDIAATION SAFETY DURING WINDSTORMS CONT'D

Due to Florida's susceptibility of windstorms, proper preparation, design, and implementation are both prudent and required to ensure that a reasonable effort is made to keep the remediation trailers in place.

The [Amended and Restated Agency Term Contract](#) of the Petroleum Restoration Program has specified that hurricane straps and anchors must be properly designed and implemented. See Attachment A (V2.0) Scope of Services Part III Sections B & C, and Attachment A Section 16.B.



- Broward County has been included in the High-Velocity Hurricane Zone established in the Florida Building Code and therefore has more stringent requirements in determining requirements for the Building and Structure risk categories. Information regarding the risk category can be found [here](#).
- Installation Standards for Anchors and Tie-downs can be found [here](#).

All design standards submitted as part of the Petroleum Restoration Program must conform to all appropriate state and local building code regulations as local governments may amend requirements to be more restrictive than the Florida Building Code. As with other design documents, plans showing a tie-down or anchoring design must be signed and sealed by a Professional Engineer registered in the state of Florida. See the Trailer Tie-Down Construction Specs on page 5.

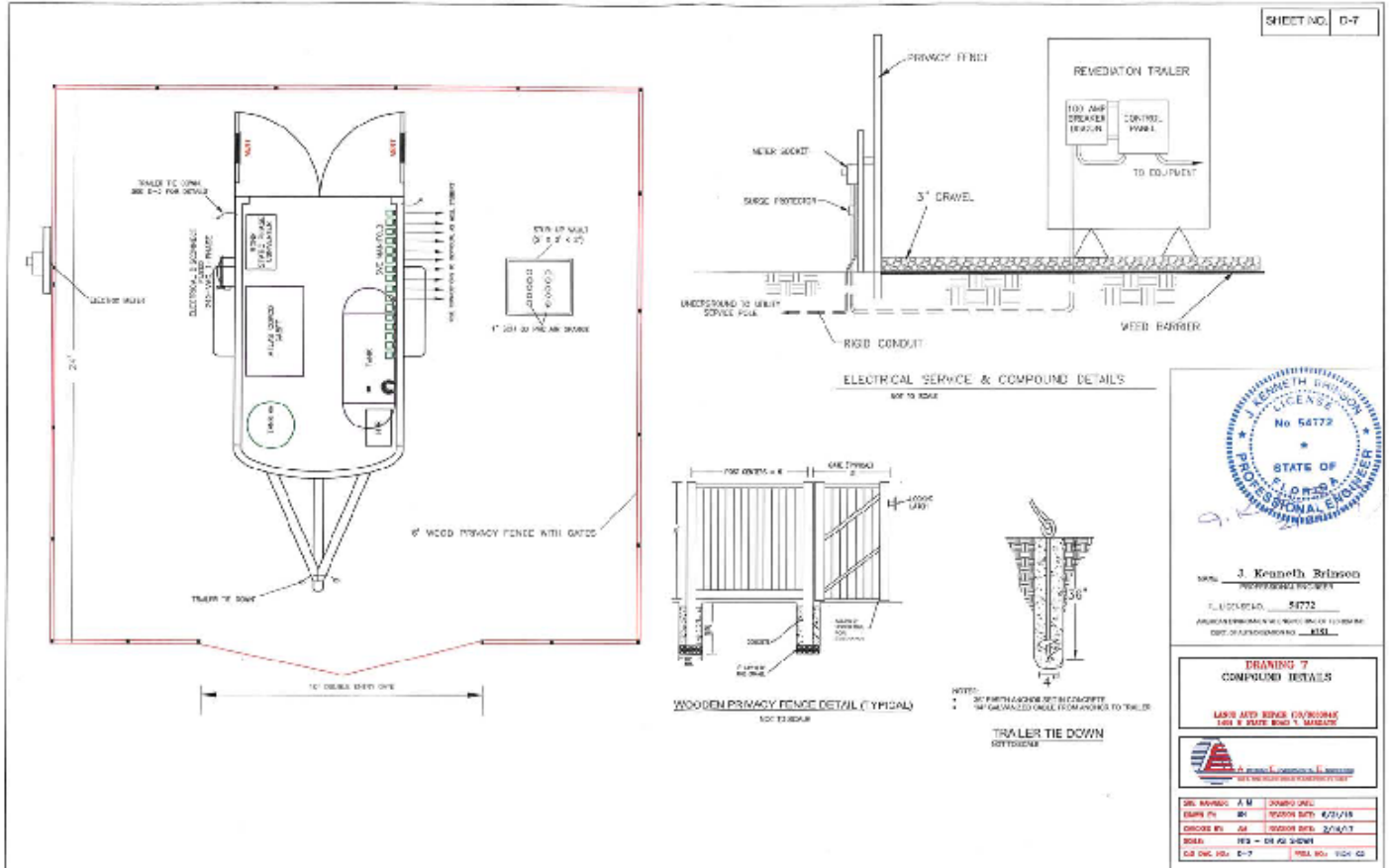
Questions about this article? Contact John J. Gomolka, P.G., at (954) 519-1279 or jgomolka@broward.org.

Helpful Resources:

- [Florida Building Code](#)
- [FDEP Announcements and News](#)

REMEDATION SAFETY DURING WINDSTORMS CONT'D

Trailer Tie-Down Construction Specs



ANNOUNCEMENTS

ANNUAL BROWARD BROWNFIELD REPORT

The release of the Annual Broward Brownfield Report will be announced in the summer issue of the Remediation Times Newsletter.

THE ROAD AHEAD

To better serve you, we've changed the look of our newsletter and we'll be providing information regarding waste regulation, job opportunities, and webinars.

