Contamination Training

District 2

July 20, 2017

The environmental review, consultation, and other actions required by applicable federal environmental laws described in this training are carried out by FDOT pursuant to 23 U.S.C. §327 and a Memorandum of Understanding dated December 14, 2016 and executed by FHWA and FDOT.

Why are you here today?

Learn how to address contamination issues in the project development process

Contamination Program Updates

Credit: npr.org

Victor Muchuruza

State Environmental Development Engineer

…What's Happening Now?

- NEPA Assignment
- Standard Scope of Services for PD&E Studies
- PD&E Manual
- Contamination Guidance
- Contamination Related Specifications

Developing Contamination Related Guidance

- FDEP/FDOT MOU for Petroleum Cleanup
- Design/Build RFP Guidance
- Rail to Trail Construction Support
- Level II Assessment for Design/Build Projects
- Construction Dewatering Support
- UST Removal and Closures
- Treated Timbers on Railroad and Bridge Projects
- Pond Clearances During Design
- Asbestos Containing Materials (ACM) Surveys and Report requirements
- Standard Scope of Services for CAR contracts

Contamination Chapter

PART 2, CHAPTER 20

CONTAMINATION

NEW CHAPTER NUMBER

TABLE OF CONTENTS

What Changed in the Contamination Chapter?

Complete Chapter Re-organization

- Contamination in the Project Development Process
  - ETDM Screening and PD&E Scope Development
  - PD&E Study
  - Design
  - Construction
- Level I Investigation/ Contamination Screening Evaluation
- Level II
- Level III
- Additional Considerations

FDOT

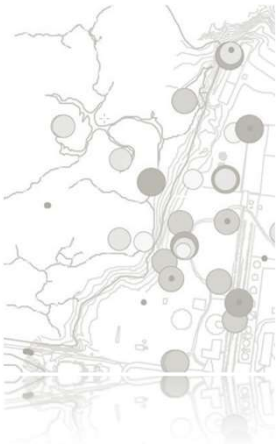
7

OEM Office of Environmental Management

What Changed in the Contamination Chapter?

Level 1 Investigation/Contamination Screening Evaluation

- Desktop Review
- Site Reconnaissance/Field Review
- Interviews
- Risk Rating
- Report—CSER
- Environmental Document



FDOT

8

OEM Office of Environmental Management

What Changed in the Contamination Chapter?

Emphasizes Role of the District Contamination Impacts Coordinator

- Review the status of known or identified contaminated sites undergoing regulatory review or remedial action for baseline information.
- Coordinate Level II assessments, if warranted for the project, and coordinate with the assigned ROW agent and design PM, as appropriate.
- Review design plans and determine if contamination issues were addressed.
- Review inclusion of plume identification and dewatering plan in the design plans, when appropriate, or preparation of specifications related to contamination.
- Coordinate with FDEP for projects that require use of the 2014 FDEP/FDOT MOU.
- Manage the CAR Contractor, including Letter of Authorization (LOA) scoping/budgets, field inspections, and report reviews.

FDOT

9

OEM Office of Environmental Management

What Changed in the Contamination Chapter?

Clarifies the Role of the District Contamination Impacts Coordinator during Right of Way Acquisition

- ROW acquisition may involve properties (or parcels) with contamination issues. This may involve dealing with buildings that have ACM, MBC, or stored hazardous materials
- The DCIC provides contamination-related information to support appraisal of the parcels
- If remediation of the parcel is needed, the DCIC, ROW, and Construction offices should advance parcel acquisition as early as possible to allow sufficient time for remediation

FDOT

10

OEM Office of Environmental Management

What Changed in the Contamination Chapter?

Clarifies the Scope of Contamination Review During PD&E phase

- ETDM Screening activities
- Scope of Services development and Staff hour negotiations
- Review of Level 1 Report and Contamination Screening Evaluation Reports
- Review of concept plans and provide comments
- Evaluation of Pond Sites and Floodplain Compensation sites
- Development of specifications
- Contamination commitments vs project evaluation process.

What Changed in the Contamination Chapter?

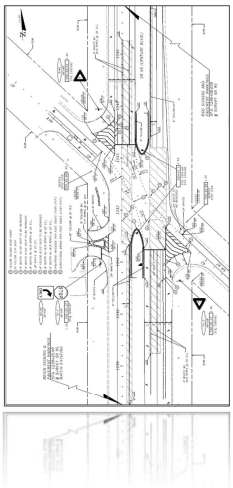
Other Considerations

- 2014 MOU between FDEP and MOU
- CERCLA/ Superfund Sites
- Asbestos Containing Materials and Metal Based Coating Surveys
- Use of Bridge Debris as an Artificial Reef
- Dewatering During Construction

What Changed in the Contamination Chapter?

Identifying KNOWN Contamination in the Contract Plans

- Show and label locations in the plan
- Refrain from using "Contamination General Notes"
- Use Standard Specifications
- Develop Modified Special Provisions

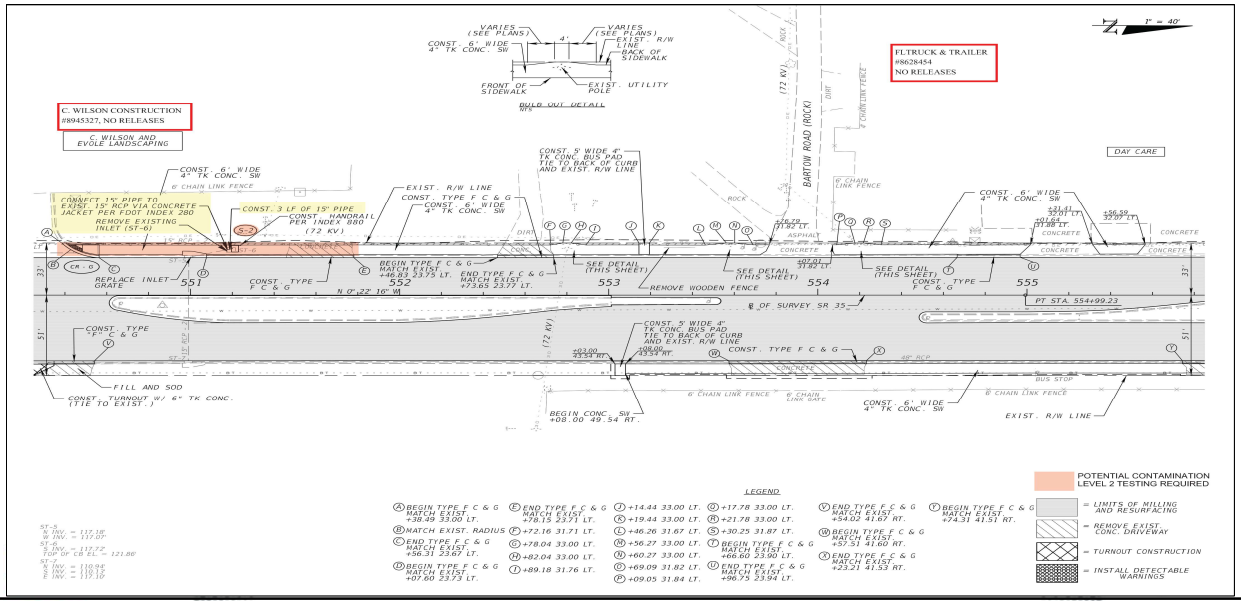


FDOT

13

OEM Office of Environmental Management

An Example of Markings on Plans



What Changed in the Contamination Chapter?

CSER Outline

- Introduction
- Project Description
- Project Alternatives
- Evaluation Methodology
- Land Uses
- Hydrologic Features
- Interviews
- Project Impacts
- Conclusions and Recommendations

What Changed in the Contamination Chapter?

Documenting Contamination in the Environmental Document

- Discuss any known or potentially contaminated sites within or near the project area.
- Describe any contamination the project is likely to encounter, and how will the project impact known contamination areas.
- Identify any additional investigations (Level II, Level III) that would be needed.

CSER supplements contamination information summarized in the Environmental Document

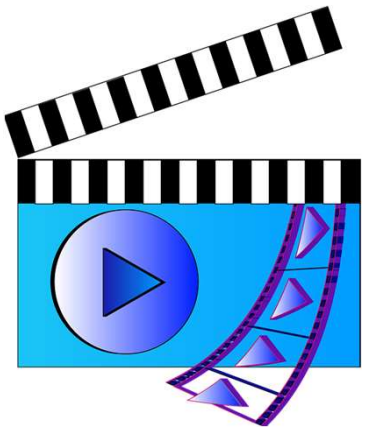
What has NOT changed in the Contamination Chapter

Standard operating procedure for dealing with contamination

1. Avoidance
2. Minimization of worker exposure
3. Remediation prior to construction

Levels and scopes for investigation/assessment

The Road to Project Success is Sometimes Contaminated…



Contamination Identification Training- Part 1

Instructor: Michael Gonsalves, P.G.

July, 2017

The environmental review, consultation, and other actions required by applicable federal environmental laws described in this training are carried out by FDOT pursuant to 23 U.S.C. §327 and a Memorandum of Understanding dated December 14, 2016 executed by FHWA and FDOT.

Training Outline

I. Introduction
II. Level I Assessment
III. Web Review
IV. CSER/Level I Report
V. Field Review
VI. Level II Assessment

I. Introduction

I. Introduction

Why do we even do all this?

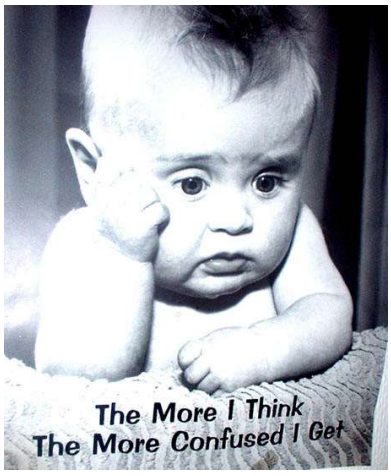


Photo Credit: http://www.createdebate.com/ CC BY

I. Introduction

Department Concerns:

- Prevent Worker Exposure
- Do not "exacerbate" contamination
  - But what does that even mean?

I. Introduction

Merriam-Webster Definition:

Exacerbate : to make (a bad situation, a problem, etc.) worse

Yeah, thanks for the definition…

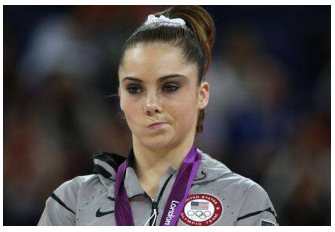


Photo Credit: http://www.planetaasperger.com/delusione.html / CC BY

…but why is that even important?

Contamination Training – Part 1

I. Introduction

Chapter 337.27 Florida Statutes (F.S.)

- *(4) When the department acquires property for a transportation facility or in a transportation corridor through the exercise of eminent domain authority, or by purchase or donation, **it is not subject to any liability imposed by chapter 376 or chapter 403 for preexisting soil or groundwater contamination due solely to its ownership**. This section does not affect the rights or liabilities of any past or future owners of the acquired property nor does it affect the liability of any governmental entity **for the results of its actions which create or exacerbate a pollution source**.*

I. Introduction

What we are concerned about depends on where you are in the design process…

During PD&E –

- Will potential contamination impacts affect the alternatives?
- Will contamination affect the pond locations that work/ are available?

During Design -

- Will soil or groundwater contamination impact the planned drainage systems?

I. Introduction

During Construction –

- Will contamination impacts delay the prime contractor?
- Will the prime contractor be exposed to contamination issues?
- When will the contamination issue be dealt with?
- When will the CAR Contractor be out of here?

II. Level I Assessment

II. Level I Assessment

What is a Level I Contamination Screening Assessment ?

II. Level I Assessment

Basic Components of a Level I Assessment:

II-A Records review/ Desktop Review

II-B Field Review / Site reconnaissance

II-C Photographic documentation of findings

II-D Rate potential contamination risk for each site

- Impacts are per site and per alignment
- Rating is in terms of "No", "Low", "Medium" or "High"
- Scoping for projects.

II-A. Records Review/ Desktop Review

- Review of available regulatory records
  - Includes online and in-person file reviews
- Documentation of current & historic uses
  - Electronic environmental data reports
  - Permit information
  - Regulatory database files
  - Historical address information
  - Historical aerial photos
  - Sanborn Maps
    - A *what* map?

II-A. Records Review/ Desktop Review- Sanborn Maps

Sanborn maps came into being as early as 1866 and Sanborn issued their last major updates around 1977.

The primary purpose of these maps was to identify improvements on properties for fire insurance purposes.

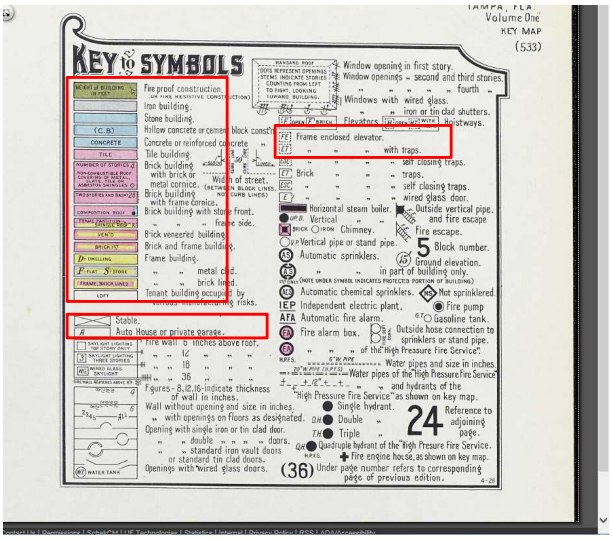
At one point, prior to the 1950s, these maps were almost the sole source of information insurances agents had about a property.

These maps can still be found online, at libraries or public offices that maintain records and are very important for historical research on a property

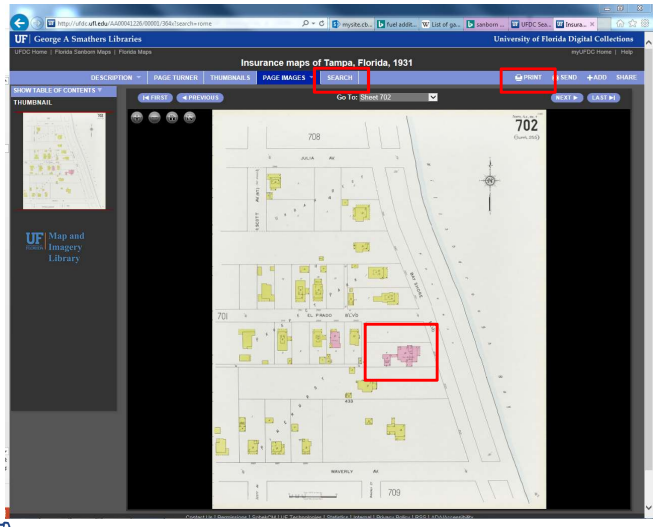
UF George A Smathers Libraries has a great collection:

http://ufdc.ufl.edu/AA00041226/00001/362x?search=tampa+%3dflorida

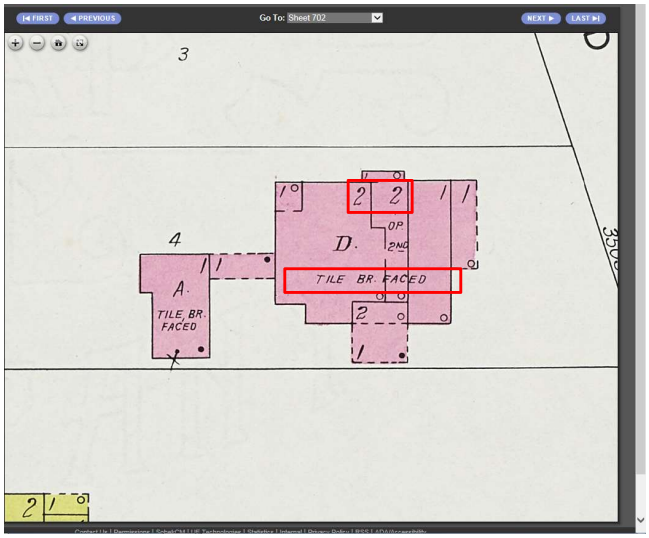
II-A. Records Review/ Desktop Review- Sanborn Maps



II-A. Records Review/ Desktop Review- Sanborn Maps



II-A. Records Review/ Desktop Review- Sanborn Maps



II-B. Field Review/ Site Reconnaissance

- Look at FDEP and EPA comments
- Changes in topography such as depressions or mounds indicative of subsurface concerns
- Visual indications of surface spills, surface staining, areas of suspect liquids
- Tanks
- Suspicious odors
- Apparent sink holes
- Distressed vegetation
- Ventilation pipes
- Drums, or chemical storage containers

II-C. Photographic Documentation

Review of historic photos:

- Aerial (Evidence of landfilling, etc.)
- Ground-level photos
- Recent photos

Questions

1. Why is preventing exacerbation important?
2. True or false: Drainage doesn't need to be considered when determining contamination impacts.
3. What are some indicators for possible contamination?

II-D. Risk Ratings

- Should be established for each suspected contamination site within or adjacent to proposed ROW limits
- Should be completed for each design alternative.
- Reflect the relative degree of concern that contamination may have on the project's design, construction, or schedule
- Results of the Level I should be included in the Environmental Documents for the project, including a summary of the CSER

II-D. Risk Ratings

"No" Rating:

- No potential for contamination to impact the project
- No regulatory agency records of violations, spills or releases
- No interview comments indicate concern
- No historical information about past uses indicating contamination (Sanborn maps, historical photos, other records)

II-D. Risk Ratings

"Low" Rating:

- Former or current activities on the property have an ongoing contamination concern
  - Hazardous waste generator identification (ID) number
  - Handles hazardous materials in some capacity
- Based on all available information and current design, contamination is not likely to impact the project.
- Rating should be based on the current design or the alternative design being studied
  - Sites may be ranked low based on scope of work in the construction area

II-D. Risk Ratings

So what does a low ranked site look like?

It depends on what you design, but this is a good example

II-D. Risk Ratings

Photo Credit: CB&I

II-D. Risk Ratings

"Medium" Rating:

- Site has known or suspected soil or groundwater contamination, is currently being remediated or is currently in monitoring only phase.
- Always designated for:
  - Current petroleum operating facilities
  - Non-evaluated former petroleum operating facilities
  - Abandoned UST sites
- Medium sites should be recommended for further assessment in the Level II, assuming there is construction planned in that location.

II-D. Risk Ratings

Photo Credit: CB&I

II-D. Risk Ratings

"High" Rating:

- There is a reasonable potential for contamination impacts during construction, based on all available information and current design plans
- Site should be recommended for further assessment in the Level II

II-D. Risk Ratings

Photo Credit: CB&I

II-D. Risk Ratings

Information Sources for Desk Top Review:

Main FDEP website – www.dep.state.fl.us

FDEP Institutional Controls Registry - http://www.dep.state.fl.us/waste/categories/brownfields/pages/ICR.htm

FDEP Contamination Locator Map - https://ca.dep.state.fl.us/mapdirect/?focus=contamlocator

FDEP Map Direct – https://ca.dep.state.fl.us/mapdirect/

FDEP OCULUS Database - http://depedms.dep.state.fl.us/Oculus/servlet/login

FDEP STCM Database (Storage Tank & Compliance Monitoring) - https://fldep.dep.state.fl.us/www_stcm/reports/Public_Code_Tables_Report_P.asp

Database companies
- ERS - http://www.reccheck.com/
- EDR - http://edrnet.com/

II-D. Risk Ratings

Historical aerial photos:

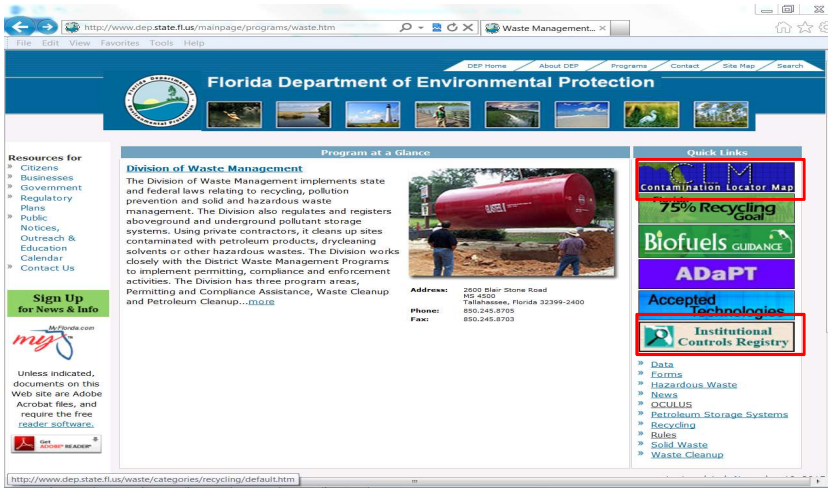
- Historical Aerials - http://edrnet.com/prods/historical-aerial-photos/
- USGS - https://www2.usgs.gov/pubprod/aerial.html
- FDOT- http://www.fdot.gov/geospatial/aerialmain.shtm

- County Specific Property Appraiser Website
- Sanborn maps - http://edrnet.com/prods/sanborn-maps/ , University of Florida http://ufdc.ufl.edu/AA00041226/00001/362x?search=tampa+%3dflorida or other local sources

III. Web Review

III. Web Review

http://www.dep.state.fl.us/mainpage/programs/waste.htm

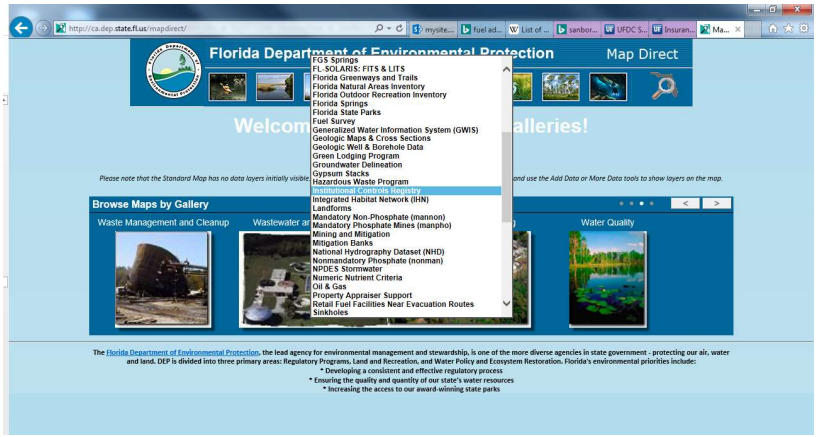


III. Web Review

http://ca.dep.state.fl.us/mapdirect/

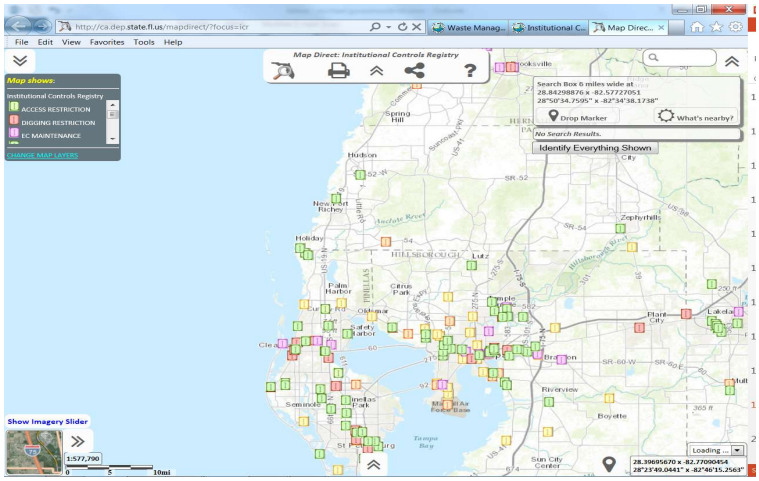
III. Web Review

http://ca.dep.state.fl.us/mapdirect/



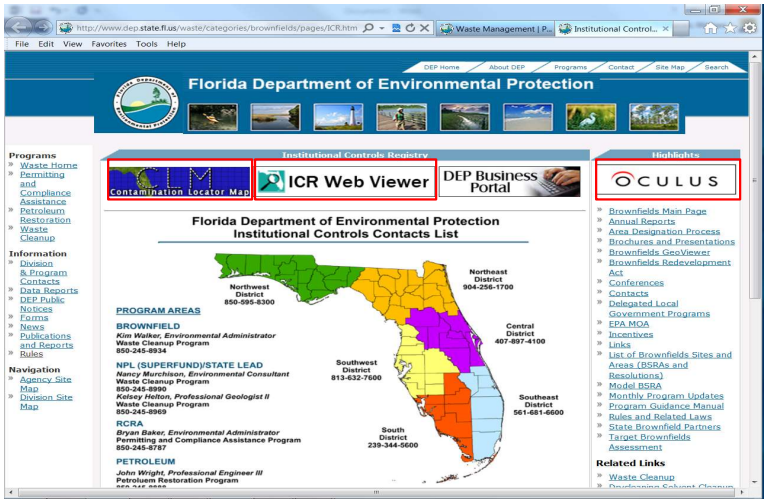
III. Web Review

http://ca.dep.state.fl.us/mapdirect/?focus=icr



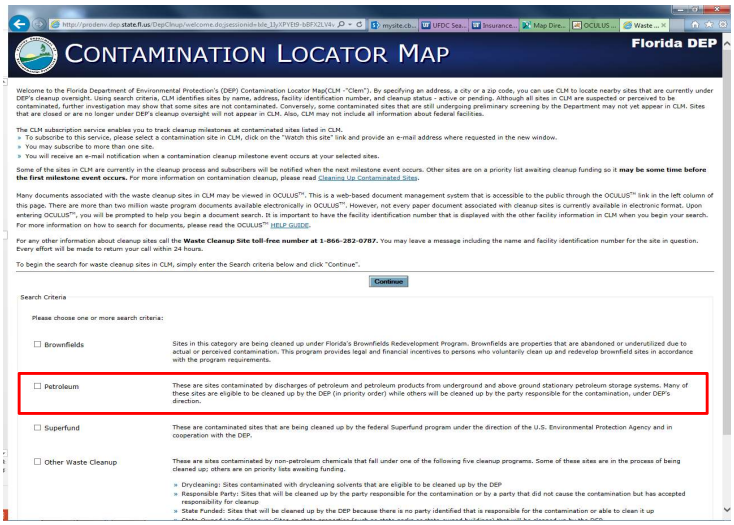
III. Web Review

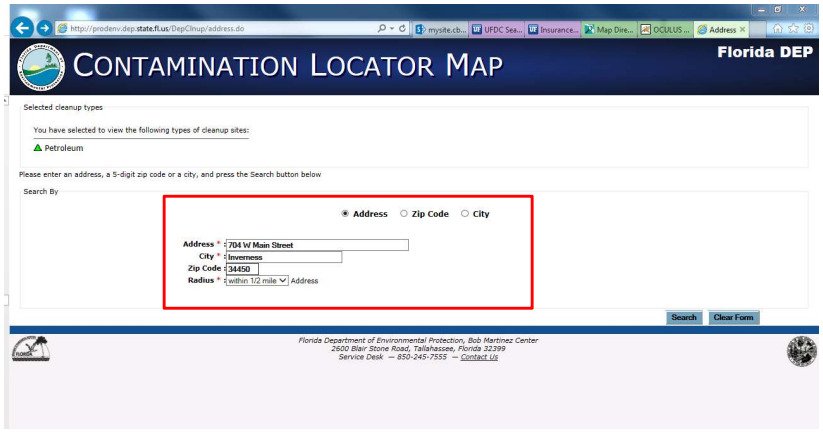
http://www.dep.state.fl.us/waste/categories/brownfields/pages/ICR.htm

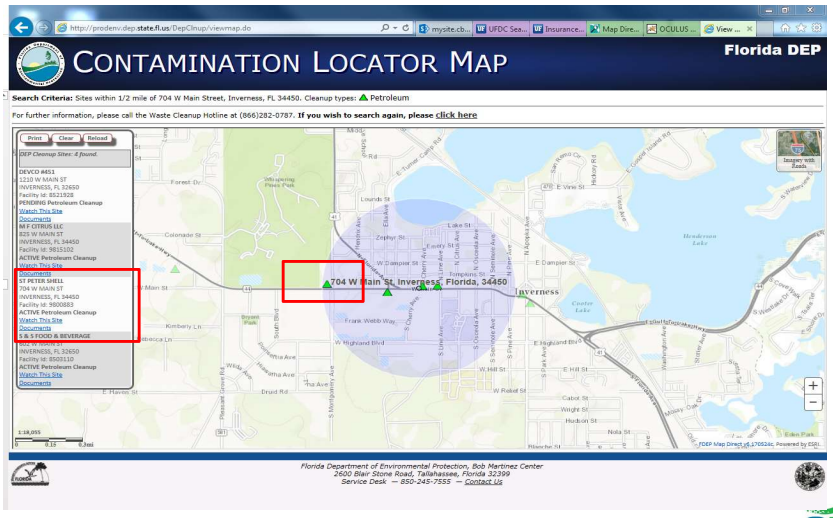


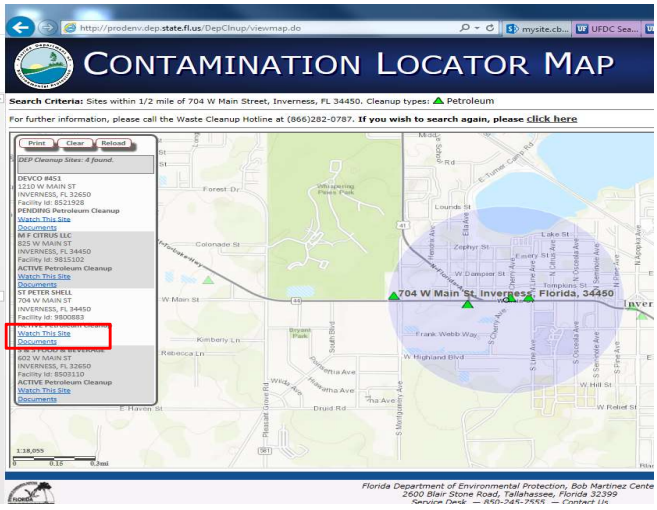
FDEP
Contamination Locator Map

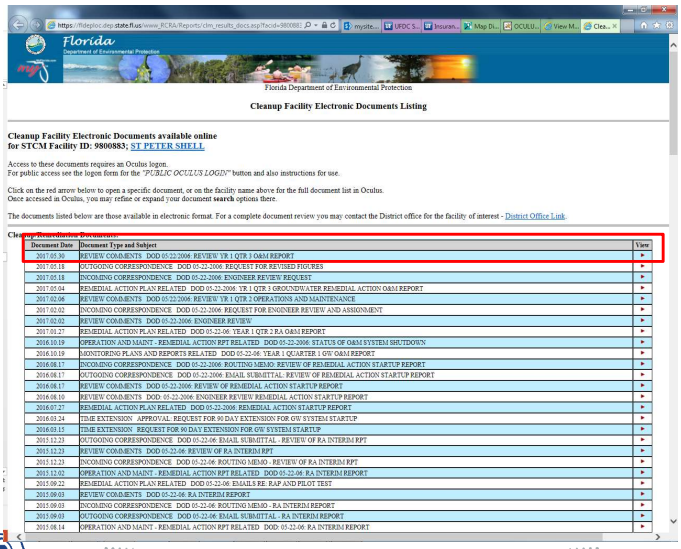
Contamination Training – Part 1


CONTAMINATION LOCATOR MAP
Florida DEP
Welcome to the Florida Department of Environmental Protection's (DEP) Contamination Locator Map(CLM -"Clem"). By specifying an address, a city or a zip code, you can use CLM to locate nearby sites that are currently under DEP's cleanup oversight. Using search criteria, CLM identifies sites by name, address, facility identification number, and cleanup status - active or pending. Although all sites in CLM are suspected or perceived to be contaminated, further investigation may show that some sites are not contaminated. Conversely, some contaminated sites that are still undergoing preliminary screening by the Department may not yet appear in CLM. Sites that are closed or are no longer under DEP's cleanup oversight will not appear in CLM. Also, CLM may not include all information about federal facilities.
The CLM subscription service enables you to track cleanup milestones at contaminated sites listed in CLM.
» To subscribe to this service, please select a contamination site in CLM, click on the "Watch this site" link and provide an e-mail address where requested in the new window.
» You may subscribe to more than one site.
» You will receive an e-mail notification when a contamination cleanup milestone event occurs at your selected sites.
Some of the sites in CLM are currently in the cleanup process and subscribers will be notified when the next milestone event occurs. Other sites are on a priority list awaiting cleanup funding so it may be some time before the first milestone event occurs. For more information on contamination cleanup, please read Cleaning Up Contaminated Sites.
Many documents associated with the waste cleanup sites in CLM may be viewed in OCULUS™. This is a web-based document management system that is accessible to the public through the OCULUS™ link in the left column of this page. There are more than two million waste program documents available electronically in OCULUS™. However, not every paper document associated with cleanup sites is currently available in electronic format. Upon entering OCULUS™, you will be prompted to help you begin a document search. It is important to have the facility identification number that is displayed with the other facility information in CLM when you begin your search.
For more information on how to search for documents, please read the OCULUS™ HELP GUIDE.
For any other information about cleanup sites call the Waste Cleanup Site toll-free number at 1-866-282-0787. You may leave a message including the name and facility identification number for the site in question. Every effort will be made to return your call within 24 hours.
To begin the search for waste cleanup sites in CLM, simply enter the Search criteria below and click "Continue".
Continue
Search Criteria
Please choose one or more search criteria:
Brownfields
Sites in this category are being cleaned up under Florida's Brownfields Redevelopment Program. Brownfields are properties that are abandoned or underutilized due to actual or perceived contamination. This program provides legal and financial incentives to persons who voluntarily clean up and redevelop brownfield sites in accordance with the program requirements.
Petroleum
These are sites contaminated by discharges of petroleum and petroleum products from underground and above ground stationary petroleum storage systems. Many of these sites are eligible to be cleaned up by the DEP (in priority order) while others will be cleaned up by the party responsible for the contamination, under DEP's direction.
Superfund
These are contaminated sites that are being cleaned up by the federal Superfund program under the direction of the U.S. Environmental Protection Agency and in cooperation with the DEP.
Other Waste Cleanup
These are sites contaminated by non-petroleum chemicals that fall under one of the following five cleanup programs. Some of these sites are in the process of being cleaned up; others are on priority lists awaiting funding.
» Drycleaning: Sites contaminated with drycleaning solvents that are eligible to be cleaned up by the DEP
» Responsible Party: Sites that will be cleaned up by the party responsible for the contamination or by a party that did not cause the contamination but has accepted responsibility for cleanup
» State Funded: Sites that will be cleaned up by the DEP because there is no party identified that is responsible for the contamination or able to clean it up


CONTAMINATION LOCATOR MAP
Florida DEP
Selected cleanup types
You have selected to view the following types of cleanup sites:
Petroleum
Please enter an address, a 5-digit zip code or a city, and press the Search button below
Search By
Address
Zip Code
City
Address * 704 W Main Street
City * Inverness
Zip Code * 34450
Radius * within 1/2 mile Address
Search
Clear Form
Florida Department of Environmental Protection, Bob Martinez Center
2600 Blair Stone Road, Tallahassee, Florida 32399
Service Desk — 850-245-7555 — Contact Us


CONTAMINATION LOCATOR MAP
Florida DEP
Search Criteria: Sites within 1/2 mile of 704 W Main Street, Inverness, FL 34450. Cleanup types: Petroleum
For further information, please call the Waste Cleanup Hotline at (866)282-0787. If you wish to search again, please click here
704 W Main St, Inverness, Florida, 34450
Inverness
Florida Department of Environmental Protection, Bob Martinez Center
2600 Blair Stone Road, Tallahassee, Florida 32399
Service Desk — 850-245-7555 — Contact Us


CONTAMINATION LOCATOR MAP
Search Criteria: Sites within 1/2 mile of 704 W Main Street, Inverness, FL 34450. Cleanup types: Petroleum
For further information, please call the Waste Cleanup Hotline at (866)282-0787. If you wish to search again, please click here
704 W Main St, Inverness, Florida, 34450



Florida Department of Environmental Protection

Cleanup Facility Electronic Documents Listing

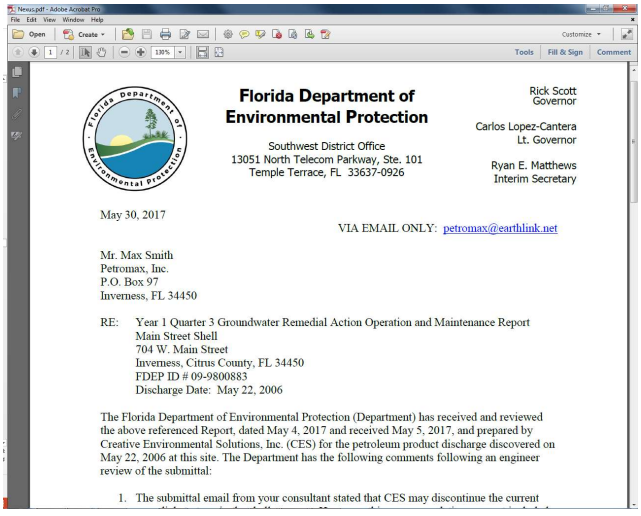
Cleanup Facility Electronic Documents available online
for STCM Facility ID: 9800883; ST PETER SHELL

Access to these documents requires an Oculus logon.
For public access see the logon form for the *"PUBLIC OCULUS LOGIN"* button and also instructions for use.

Click on the red arrow below to open a specific document, or on the facility name above for the full document list in Oculus.
Once accessed in Oculus, you may refine or expand your document **search** options there.

The documents listed below are those available in electronic format. For a complete document review you may contact the District office for the facility of interest - District Office Link

Document Date	Document Type and Subject	View
2017.05.30	REVIEW COMMENTS DOD 05-22-2006: REVIEW YR 1 QTR 3 O&M REPORT	
2017.05.18	OUTGOING CORRESPONDENCE DOD 05-22-2006: REQUEST FOR REVISED FIGURES	
2017.05.18	INCOMING CORRESPONDENCE DOD 05-22-2006: ENGINEER REVIEW REQUEST	
2017.05.04	REMEDIAL ACTION PLAN RELATED DOD 05-22-2006: YR 1 QTR 3 GROUNDWATER REMEDIAL ACTION O&M REPORT	
2017.02.06	REVIEW COMMENTS DOD 05-22-2006: REVIEW YR 1 QTR 2 OPERATIONS AND MAINTENANCE	
2017.02.02	INCOMING CORRESPONDENCE DOD 05-22-2006: REQUEST FOR ENGINEER REVIEW AND ASSIGNMENT	
2017.02.02	REVIEW COMMENTS DOD 05-22-2006: ENGINEER REVIEW	
2017.01.27	REMEDIAL ACTION PLAN RELATED DOD 05-22-06: YEAR 1 QTR 2 RA O&M REPORT	
2016.10.19	OPERATION AND MAINT - REMEDIAL ACTION RPT RELATED DOD 05-22-2006: STATUS OF O&M SYSTEM SHUTDOWN	
2016.10.19	MONITORING PLANS AND REPORTS RELATED DOD 05-22-06: YEAR 1 QUARTER 1 GW O&M REPORT	
2016.08.17	INCOMING CORRESPONDENCE DOD 05-22-2006: ROUTING MEMO: REVIEW OF REMEDIAL ACTION STARTUP REPORT	
2016.08.17	OUTGOING CORRESPONDENCE DOD 05-22-2006: EMAIL SUBMITTAL: REVIEW OF REMEDIAL ACTION STARTUP REPORT	
2016.08.17	REVIEW COMMENTS DOD 05-22-2006: REVIEW OF REMEDIAL ACTION STARTUP REPORT	
2016.08.10	REVIEW COMMENTS DOD: 05-22-2006: ENGINEER REVIEW REMEDIAL ACTION STARTUP REPORT	
2016.07.27	REMEDIAL ACTION PLAN RELATED DOD 05-22-2006: REMEDIAL ACTION STARTUP REPORT	
2016.03.24	TIME EXTENSION APPROVAL: REQUEST FOR 90 DAY EXTENSION FOR GW SYSTEM STARTUP	
2016.03.15	TIME EXTENSION REQUEST FOR 60 DAY EXTENSION FOR GW SYSTEM STARTUP	
2015.12.23	OUTGOING CORRESPONDENCE DOD 05-22-06: EMAIL SUBMITTAL - REVIEW OF RA INTERIM RPT	
2015.12.23	REVIEW COMMENTS DOD 05-22-06: REVIEW OF RA INTERIM RPT	
2015.12.23	INCOMING CORRESPONDENCE DOD 05-22-06: ROUTING MEMO - REVIEW OF RA INTERIM RPT	
2015.12.02	OPERATION AND MAINT - REMEDIAL ACTION RPT RELATED DOD 05-22-06: RA INTERIM REPORT	
2015.09.22	REMEDIAL ACTION PLAN RELATED DOD 05-22-06: EMAILS RE: RAP AND PILOT TEST	
2015.09.03	REVIEW COMMENTS DOD 05-22-06: RA INTERIM REPORT	
2015.09.03	INCOMING CORRESPONDENCE DOD 05-22-06: ROUTING MEMO - RA INTERIM REPORT	
2015.09.03	OUTGOING CORRESPONDENCE DOD 05-22-06: EMAIL SUBMITTAL - RA INTERIM REPORT	
2015.08.14	OPERATION AND MAINT - REMEDIAL ACTION RPT RELATED DOD: 05-22-06: RA INTERIM REPORT	



Florida Department of Environmental Protection

Southwest District Office
13051 North Telecom Parkway, Ste. 101
Temple Terrace, FL 33637-0926

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Ryan E. Matthews
Interim Secretary

May 30, 2017

VIA EMAIL ONLY: petromax@earthlink.net

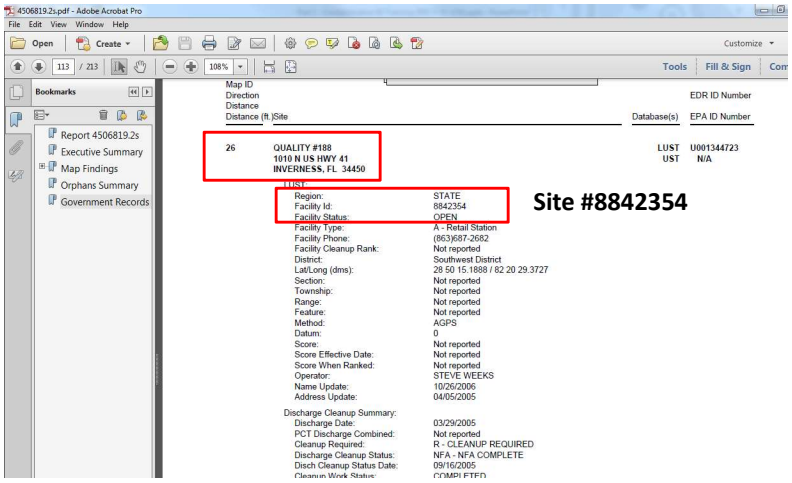
Mr. Max Smith
Petromax, Inc.
P.O. Box 97
Inverness, FL 34450

RE: Year 1 Quarter 3 Groundwater Remedial Action Operation and Maintenance Report
Main Street Shell
704 W. Main Street
Inverness, Citrus County, FL 34450
FDEP ID # 09-9800883
Discharge Date: May 22, 2006

The Florida Department of Environmental Protection (Department) has received and reviewed the above referenced Report, dated May 4, 2017 and received May 5, 2017, and prepared by Creative Environmental Solutions, Inc. (CES) for the petroleum product discharge discovered on May 22, 2006 at this site. The Department has the following comments following an engineer review of the submittal:

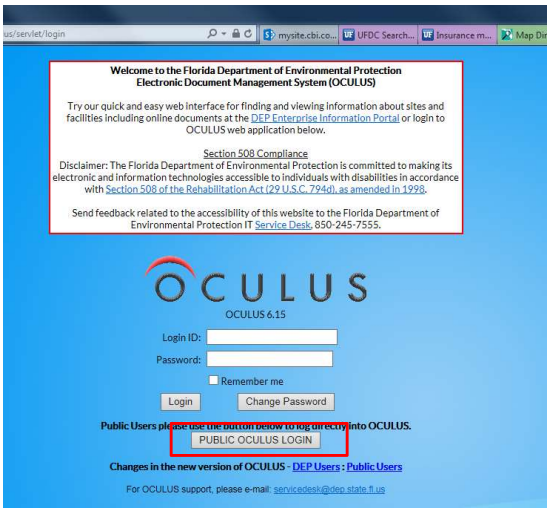
1. The submittal email from your consultant stated that CES may discontinue the current

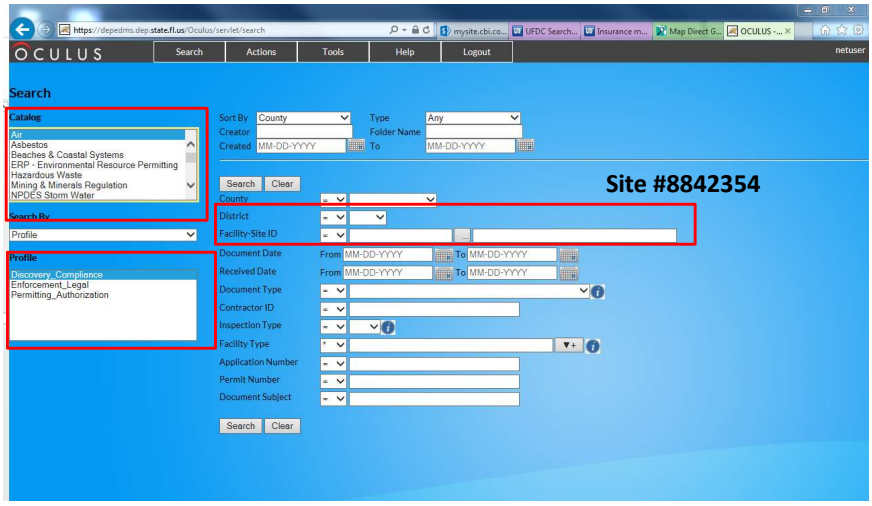
FDEP OCULUS

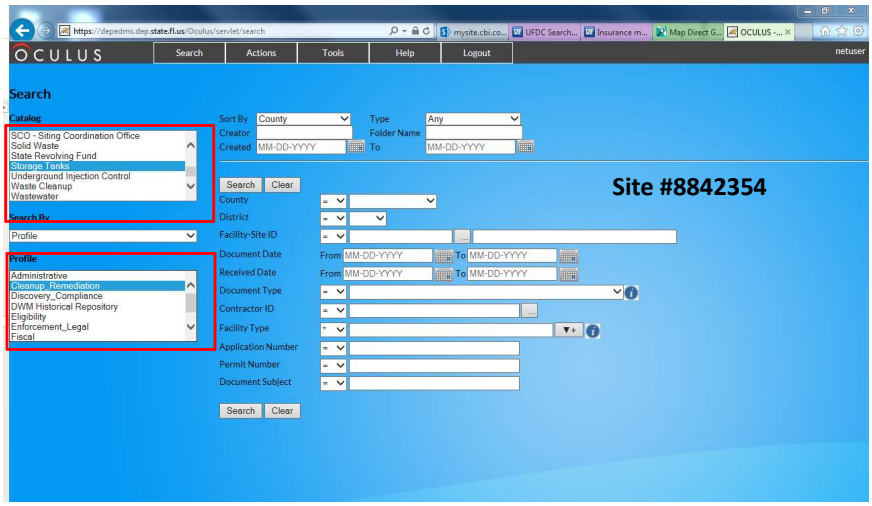


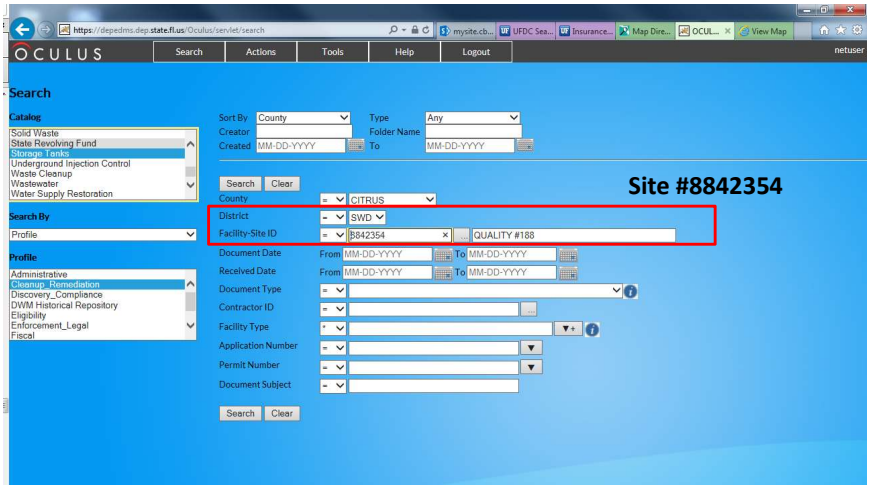
Site #8842354

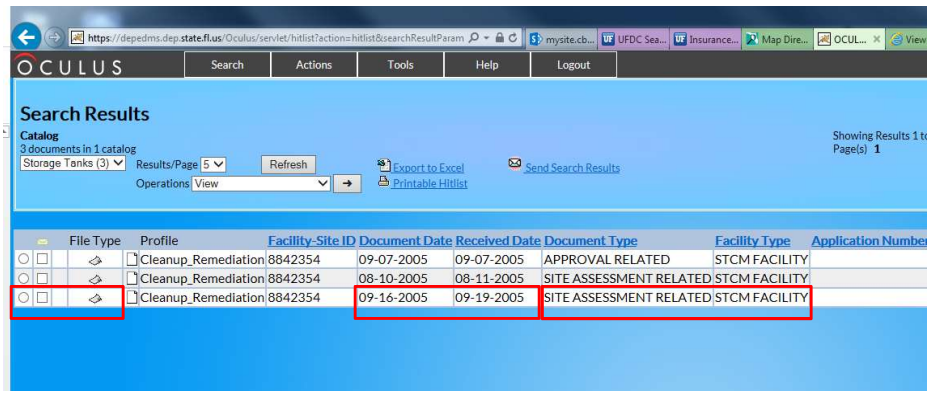
Contamination Training – Part 1

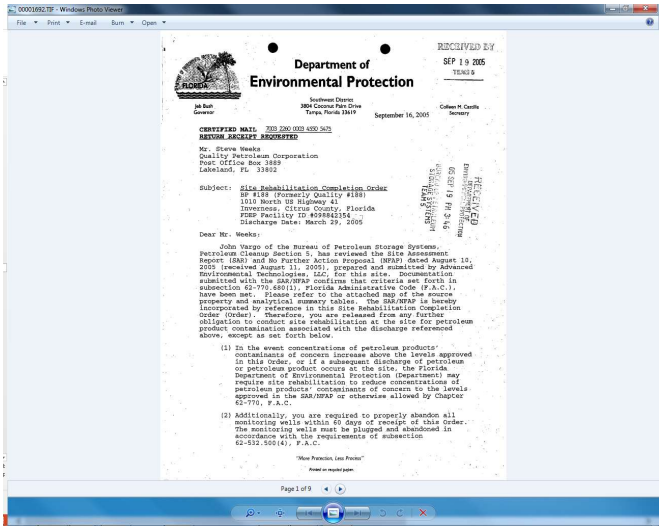

Welcome to the Florida Department of Environmental Protection
Electronic Document Management System (OCULUS)
Try our quick and easy web interface for finding and viewing information about sites and facilities including online documents at the DEP Enterprise Information Portal or login to OCULUS web application below.
Section 508 Compliance
Disclaimer: The Florida Department of Environmental Protection is committed to making its electronic and information technologies accessible to individuals with disabilities in accordance with Section 508 of the Rehabilitation Act (29 U.S.C. 794d), as amended in 1998.
Send feedback related to the accessibility of this website to the Florida Department of Environmental Protection IT Service Desk, 850-245-7555.
OCULUS
OCULUS 6.15
Login ID:
Password:
Remember me
Login
Change Password
Public Users please use the button below to log directly into OCULUS.
PUBLIC OCULUS LOGIN
Changes in the new version of OCULUS - DEP Users : Public Users
For OCULUS support, please e-mail: servicedesk@dep.state.fl.us


OCULUS
Search
Actions
Tools
Help
Logout
netuser
Search
Catalog
Air
Asbestos
Beaches & Coastal Systems
ERP - Environmental Resource Permitting
Hazardous Waste
Mining & Minerals Regulation
NPDES Storm Water
Search By
Profile
Profile
Discovery_Compliance
Enforcement_Legal
Permitting_Authorization
Sort By
County
Type
Any
Creator
Folder Name
Created
MM-DD-YYYY
To
Search
Clear
County
District
Facility-Site ID
Site #8842354
Document Date
Received Date
Document Type
Contractor ID
Inspection Type
Facility Type
Application Number
Permit Number
Document Subject


OCULUS
Search
Actions
Tools
Help
Logout
netuser
Site #8842354


OCULUS
Search
Actions
Tools
Help
Logout
netuser
Site #8842354


OCULUS
Search
Actions
Tools
Help
Logout
Search Results
Catalog
3 documents in 1 catalog
Storage Tanks (3)
Results/Page 5
Refresh
Export to Excel
Printable Hitlist
Send Search Results
Operations View
Showing Results 1 t
Page(s) 1
File Type
Profile
Facility-Site ID
Document Date
Received Date
Document Type
Facility Type
Application Numbe
Cleanup_Remediation 8842354 09-07-2005 09-07-2005 APPROVAL RELATED STCM FACILITY
Cleanup_Remediation 8842354 08-10-2005 08-11-2005 SITE ASSESSMENT RELATED STCM FACILITY
Cleanup_Remediation 8842354 09-16-2005 09-19-2005 SITE ASSESSMENT RELATED STCM FACILITY


Department of
Environmental Protection
RECEIVED BY
SEP 19 2005
September 16, 2005
CERTIFIED MAIL
RETURN RECEIPT REQUESTED
Mr. Steve Weeks
Quality Petroleum Corporation
Post Office Box 3889
Lakeland, FL 33802
Subject: Site Rehabilitation Completion Order
SP #188 (Formerly Quality #188)
1010 North US Highway 41
Inverness, Citrus County, Florida
FDEP Facility ID #398842154
Discharge Date: March 29, 2005
Dear Mr. Weeks:
John Vargo of the Bureau of Petroleum Storage Systems, Petroleum Cleanup Section 5, has reviewed the Site Assessment Report (SAR) and No Further Action Proposal (NFAP) dated August 10, 2005 (received August 11, 2005), prepared and submitted by Advanced Environmental Technologies, LLC, for this site. Documentation submitted with the SAR/NFAP confirms that criteria set forth in subsection 62-770.680(1), Florida Administrative Code (F.A.C.), have been met. Please refer to the attached map of the source property and analytical summary tables. The SAR/NFAP is hereby incorporated by reference in this Site Rehabilitation Completion Order (Order). Therefore, you are released from any further obligation to conduct site rehabilitation at the site for petroleum product contamination associated with the discharge referenced above, except as set forth below.
(1) In the event concentrations of petroleum products' contaminants of concern increase above the levels approved in this Order, or if a subsequent discharge of petroleum or petroleum product occurs at the site, the Florida Department of Environmental Protection (Department) may require site rehabilitation to reduce concentrations of petroleum products' contaminants of concern to the levels approved in the SAR/NFAP or otherwise allowed by Chapter 62-770, F.A.C.
(2) Additionally, you are required to properly abandon all monitoring wells within 60 days of receipt of this Order. The monitoring wells must be plugged and abandoned in accordance with the requirements of subsection 62-532.500(4), F.A.C.
"More Protection, Less Process"
Page 1 of 9

IV. CSER/Level I Report

IV. CSER/Level I Report

Purpose of the report, Purpose & Need Statement from ETDM Screening Summary report

- Project Description
  - Proposed improvements
  - Project termini
- Land Uses
- Hydrologic Features
- Methods used to perform Level I Assessment
- Brief description of each alternative
- Identification of contaminated sites on a figure or table
- Ensure contaminated site information is presented in the appropriate NEPA documents

IV. CSER/Level I Report

Describe the potential contamination issues

- Include table that summarizes findings:
  - Contamination concerns
  - Contamination rating
  - Distance from right-of-Way
  - Other contamination-related information on each property in or adjacent to the project area

IV. CSER/Level I Report

- Discussion of potential contamination impacts on the project
- Provide recommendation as to which alternative would have the least potential for contamination impacts

IV. CSER/Level I Report

- Figures in the Level I include:
  - Project Location map
  - Land Use map
  - Detailed map showing all potential contamination sites with Low, Medium or High ratings

A revised CSER may need to be done if enough time has elapsed or there has been plan changes.

Questions

1. What are some sources of information you can use to determine potential contamination?
2. True or false: the Level I needs a detailed map showing the contaminated site locations along the project corridor.
3. True or false: A low risk rating means contamination is present at that site that will impact construction.

IV. CSER/Level I Report

Field Review - So, what exactly are we looking for?

V. Field Review

V. Field Review

Everyone thinks of this as a potential contamination problem…

…and they would be correct, but…

…not every contamination issue is so easy to see.

Photo Credit: CB&I

Photo Credit: CB&I

V. Field Review

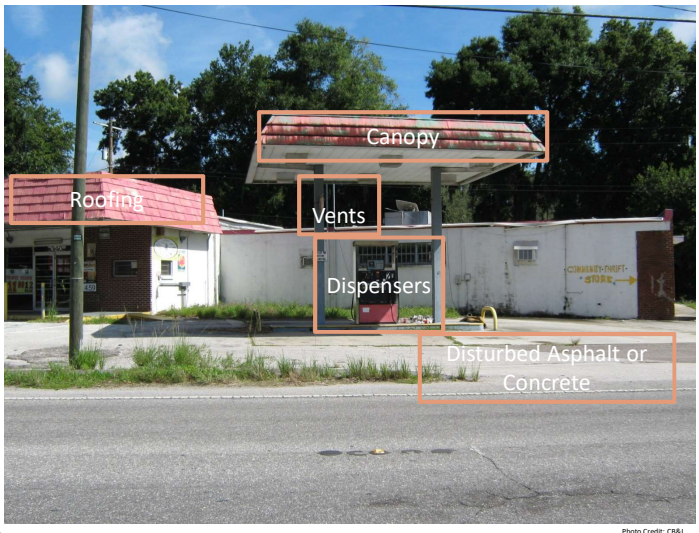


Photo Credit: CB&I

V. Field Review

Photo Credit: CB&I

V. Field Review

Photo Credit: CB&I

V. Field Review

Photo Credit: CB&I

V. Field Review

Photo Credit: CB&I

V. Field Review

Photo Credit: CB&I

V. Field Review

Photo Credit: CB&I

V. Field Review

Photo Credit: CB&I

V. Field Review

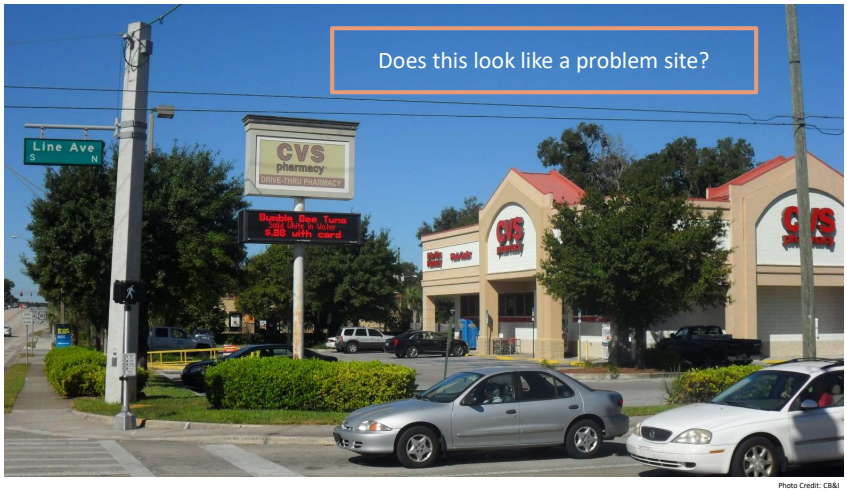


Photo Credit: CB&I

V. Field Review

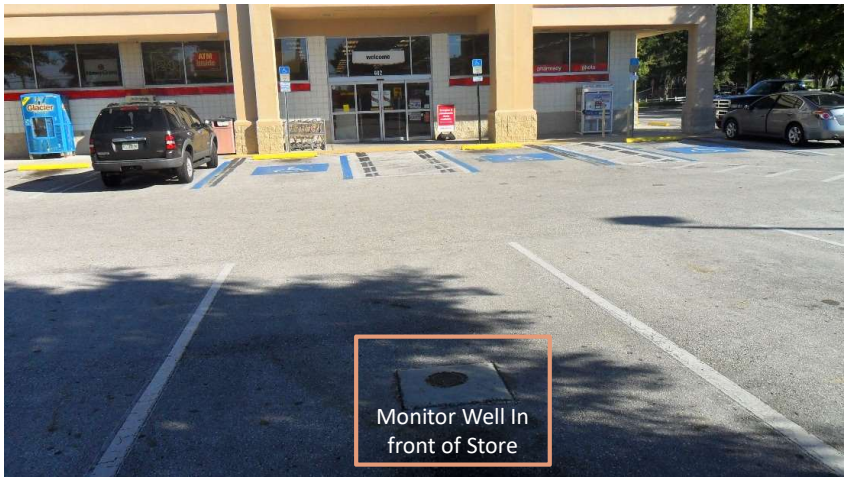


Photo Credit: CB&I

V. Field Review

Photo Credit: CB&I

V. Field Review

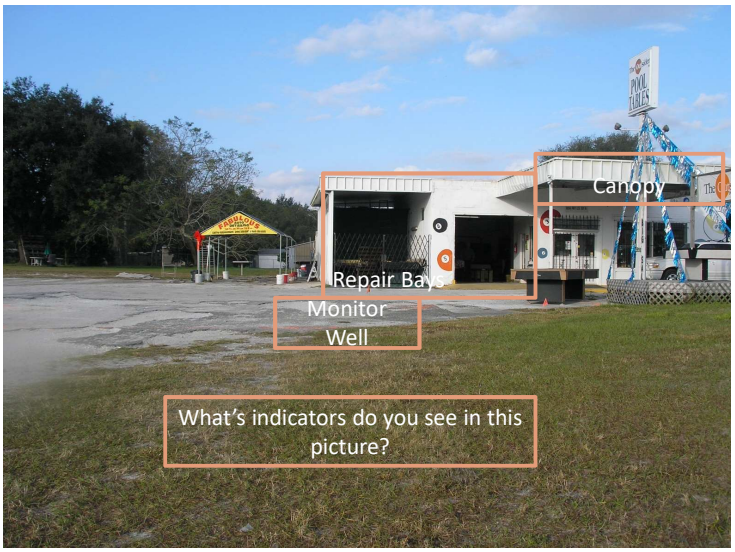


Photo Credit: CB&I

V. Field Review

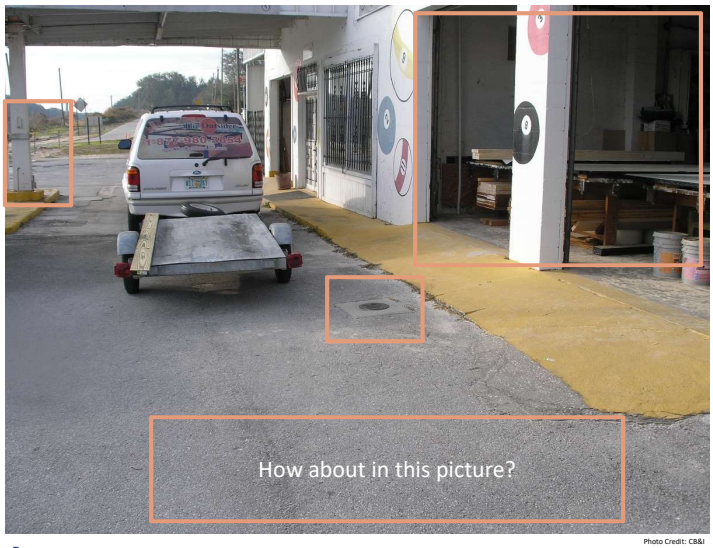


Photo Credit: CB&I

V. Field Review

- Contamination does not just occur ***outside***

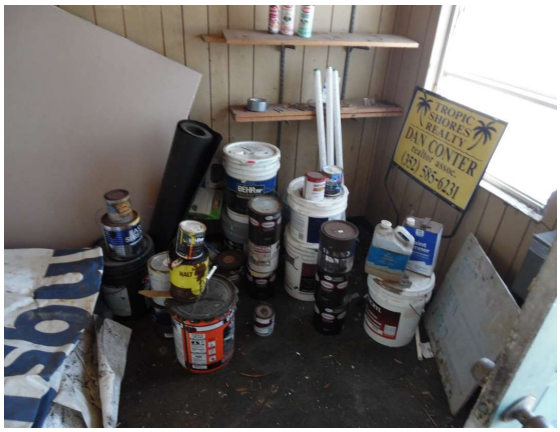


Photo Credit: CB&I

V. Field Review

Photo Credit: CB&I

V. Field Review

Photo Credit: CB&I

VI. Level II Assessment

What kinds of contamination are we looking for?

Gas stations (depending on age)

Gasoline products

Diesel products

Lead (from leaded gasoline)(age of facility plays a big part here)

Fuel additives, like

- Alcohols (methanol, ethanol, isopropyl alcohol)
- Ethers (MTBE and others)
- Stabilizers (butylated hydroxytoluene(BHT) and other antioxidants)
- Antiknock agents (BHT and toluene)
- Fuel dyes (Red 24, Blue 35 and others)

What kinds of contamination are we looking for?

Repair shops

Spent Solvents (parts washers)

Waste oils and greases

Petroleum products

Paint products

Batteries

Tires

VI. Level II Assessment

Important points to consider during design:

- If the design has a direct impact on potential contamination movement, design changes will effect this
- Remember that reference to "**exacerbate**"?
  - For example, a French Drain system at the edge of pavement in an area of groundwater contamination
  - Could create groundwater mound and change the groundwater flow direction
  - Groundwater mounding is an issue that could modify groundwater flow thereby "exacerbating" the groundwater issues at the site.
  - Review changes with the DCIC before making any changes

VI. Level II Assessment

- After Location Design Concept Acceptance (LDCA) sites listed in the CSER as having contamination potential:
  - Must be further assessed (Level II investigation)
  - To verify/refute contamination concerns
- Level II assessments done only for projects in the 5-year work program
- Level II assessments can be done in PD&E phase or prior to the right-of-way phase

VI. Level II Assessment

- Level II Assessment should be completed prior to the end of the right-of-way phase and as necessary during design phase.
- Evaluation should be done for full take, partial take, or widening projects
- During Level II activities, primary and alternative pond locations should be investigated
- Pay attention to the changes to the design that may occur after PD&E
  - Additional utilities added via Utility Work by Highway Contractor Agreement (UWHCA- PPM, Chapter 27)
  - Revised pond locations
  - Items added to a "simple project" (mast arms, drainage inlets…)
  - Etc.

VI. Level II Assessment

Level II Assessment also include:

- Field investigation
- Recommendations for remediation, if needed
- Cost estimate for work program, if possible
- If contamination is verified, appropriate steps should be taken to:
  - **Avoid** contamination by design or alternate selection
  - **Minimize** potential for worker exposure
  - **Remediate** contamination prior to construction

VI. Level II Assessment

- Conduct soil borings to collect soil samples
- Install temporary wells to collect groundwater samples
- Ground Penetrating Radar (GPR) or other method to determine if there are buried tanks or waste filled areas on site
- Test pits to determine if there is solid waste buried in an area

VI. Level II Assessment

- There *IS* a difference between solid waste and unsuitable material, but it is not always clear from the geotech borings
  - *All solid waste is unsuitable material, but not all unsuitable material is solid waste*
  - *Sharing of geotech information with the DCIC is important*
- Screen soils with an Organic Vapor Analyzer (OVA) to determine if there are petroleum or other hydrocarbons present
- Collect soil and groundwater samples from borings or wells to submit to a laboratory
  - Determine if the soil or groundwater are impacted, remediation needed

VI. Level II Assessment

Photo Credit: CB&I

Direct Push Drill Rig for Soil Borings and Groundwater Samples

Hand Augers for Soil Borings and Groundwater Samples

Photo Credit: CB&I

VI. Level II Assessment

Monitor wells within ROW need to be identified and abandoned prior to the start of construction

Photo Credit: CB&I

VI. Level II Assessment

Photo Credit: CB&I

Test Pits can be dug based on GPR as you look for buried materials

Photo Credit: CB&I

Contamination Identification Training – Part 2

Instructor: Michael Gonsalves, P.G.

July, 2017

The environmental review, consultation, and other actions required by applicable federal environmental laws described in this training are carried out by FDOT pursuant to 23 U.S.C. §327 and a Memorandum of Understanding dated December 14, 2016 executed by FHWA and FDOT.

Training Outline

VII. Example Level I/ Level II

VIII. Construction Phase

IX. Project Considerations

X. Remediation Equipment

XI. Other Considerations

VII. Example Site- S.R. 60

S.R. 60 (Gulf to Bay Blvd.)- Court/ Highland to W of Damascus Rd

- Approximately 5 mile long corridor through Clearwater

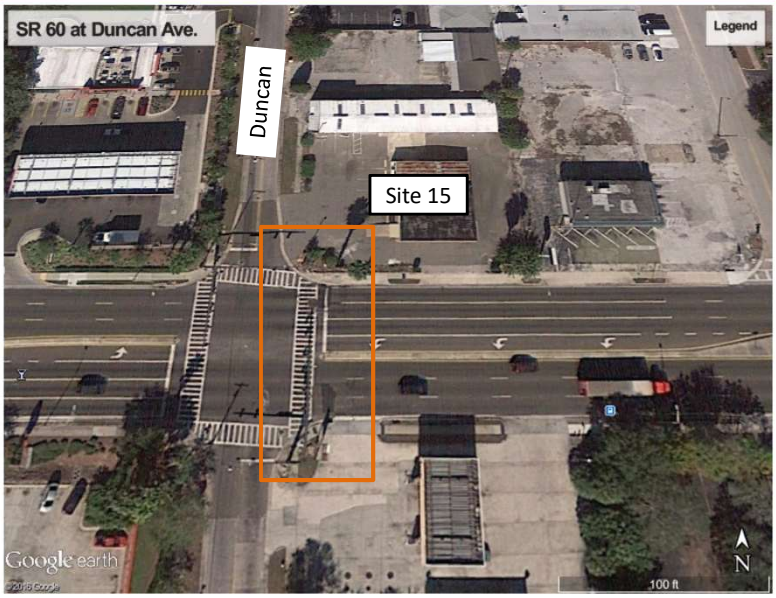
- Mix of automotive repair, gas stations, parks, apartments, shopping centers and mobile homes.

- Almost 100 sites that could potentially be an issue

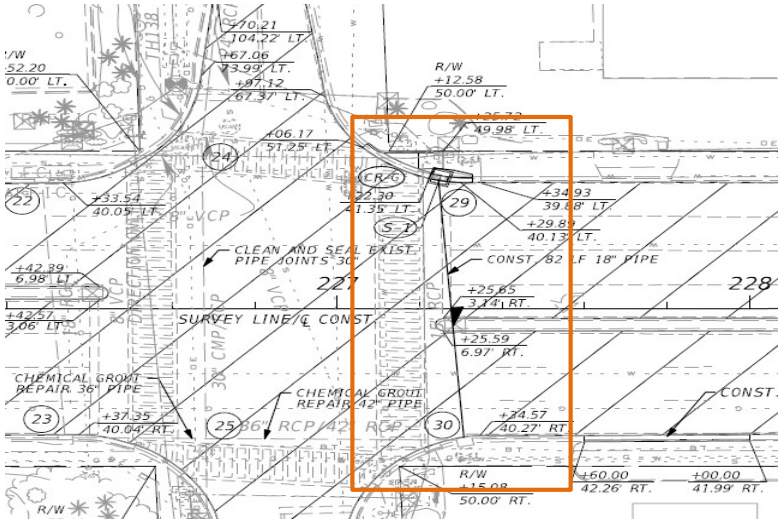
Questions on the Level I

- Which sites were recommended for Level II assessment?
- What could change the High sites to a lower rating?

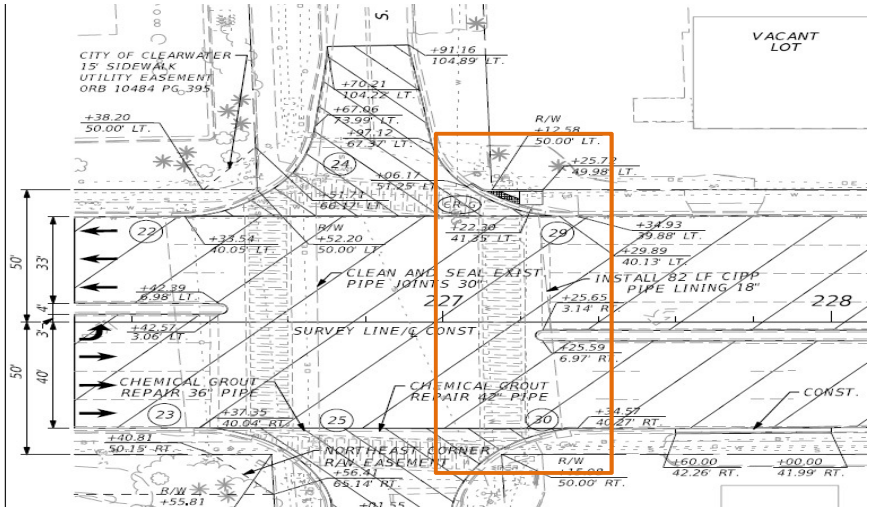
How does a rating change?



Phase II Plans (Site 15- Tucker Property)



Final Plans used for Level I (Site 15- Tucker Property)



Does the change in design affect the rating?

- That depends on several factors :
  - Was there contamination detected?
    - In this case, there wasn't anything above reporting limits
  - Are there utility adjustments?
    - Again, in this case, there weren't any noted
  - Are we adding light poles?
    - No, not at this intersection

So…The rating was "High", but based on this there is No impact to construction

VIII. Construction Phase

VIII. Construction Phase

- Contamination could include soil, groundwater, liquids, sludges, solids, ACM, metal-based coatings or other contaminants
- The construction contractor does not normally handle contamination issues during the construction phase:
  - If the construction contractor does handle contamination, ensure that the prime (or selected sub) has sufficient training and experience to recognize unexpected contamination
- To handle known contamination encountered during construction:
  - A special provision or other approved method must be included in the contract plans package within the construction contract

VIII. Construction Phase

- All known or previously identified contamination issues should be "resolved" prior to the start of construction, if practical

- Some contamination issues may be handled during construction if…
  - Source of the contamination is outside the R/W
  - Remediation of that source is not possible prior to construction

- The construction should not:
  - **Exacerbate** known contamination
  - Change the distribution of the contamination
  - Otherwise worsen the problem

VIII. Construction Phase

Dewatering Permits

- In cases where a high water table is present, dewatering may be necessary
- Often, dewatering operations must obtain a NPDES Generic Permit for Discharge of Ground Water from Dewatering Operations under Chapter 62-621.300 Florida Administrative Code (F.A.C.)
  - If necessary, treat the produced groundwater to limits set by the NPDES permit.
  - Greater than 1 acre may elect to obtain the Generic Permit for Stormwater Discharges form Construction Activities, 2015 revision (Construction General Permit or CGP)
- Keep in mind that many sites don't have sufficient retention, drainage, or ROW space to accommodate storage or recovery of contaminated groundwater.

VIII. Construction Phase

Dewatering Permits

To obtain an *NPDES Generic Dewatering Permit*:

- An evaluation of potential contamination impacts to the dewatering operations must be completed
  - Sample for the contaminants of concern
  - Define the extent of the contamination within the ROW, if possible
  - When dewatering treatment is required, sampling and reporting is required per the associated permit(s)

VIII. Construction Phase

Dewatering Permits

Sites are considered "uncontaminated" for the NPDES permit if they meet the following conditions and no sampling is required:

- Not identified as a contaminated site
- No sites identified as a contaminated by FDEP or USEPA cleanup/restoration program (or contaminated plumes) within 500 feet of the dewatering project
- Contaminated site, but documentation confirms site has been remediated

VIII. Construction Phase

Dewatering Permits

- Only *contaminated sites, or sites within 500 feet of a contaminated site or plume* usually require testing.
- The *CSER* conducted during PD&E and updated during design should show contaminated sites within 500 ft
- Testing only needs to be for the contaminant of concern
  - However, concentrations must be less than the surface water criteria in Chapter 62-302.530 FAC or other discharge criteria

VIII. Construction Phase

Asbestos on Bridges

- Projects involving the ***demolition, renovation, or rehabilitation*** of a bridge will require asbestos surveys to be completed
  - Must be conducted as early in the project as possible
  - Used to determine the type and extent of any potential ACM
  - Used to determine if management or removal is required

VIII. Construction Phase

Asbestos on Bridges

- If ACM is detected
  - It is the responsibility of the contractor that will perform asbestos abatement to meet all local, state and federal requirements
- This includes notifying the FDEP or delegated local agency
  - Minimum of *10 working days prior* to the start of any work that may release ACM.
- Removal of ACM must be conducted by an Asbestos Contractor licensed pursuant to Section 469.004(2), Florida Statutes (F.S.)

VIII. Construction Phase

So, what *IS* asbestos?

Asbestos is a set of naturally occurring silicate minerals, which have one thing in common*:*

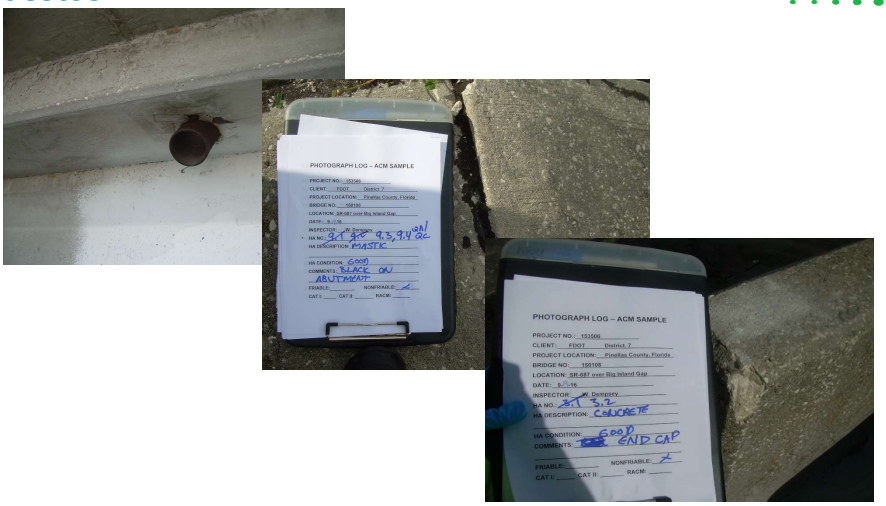
Long, thin fibrous crystals, with each visible fiber composed of millions of microscopic "fibrils" that can be released by abrasion and other processes.

Photo Credit: Wikipedia

Photo Credit: Wikipedia

Where can you find asbestos?

- Scuppers
- Joint mastic
- Reflector mastic
- Class V coatings
- Bearing pads
- And yes…even concrete



IX. Project Considerations

Photo Credit: http://www.lamentiraestaahifuera.com / CC BY

IX. Project Considerations

- Construction Methods:
  - What is the method of construction?
  - Does this create more contaminated material that needs to be disposed of?

- Utilities:
  - What are they and where?
  - Are there UWHCA utilities that aren't shown on the 100% plans?

- Are the environmental commitments established during PD&E being maintained?

IX. Project Considerations

- If it is Design/Build:
  - How do we support D/B Contractor in a way that allows for changes?

- Historical Contamination Reports:
  - Are there previous CSER / Level I reports ?
  - Level II reports?
  - What did the previous information show?

IX. Project Considerations

- Staging Areas:
  - What areas will contamination contractor need?
  - What areas does prime contractor have available?
  - How do we negotiate?

- Before Notice to Proceed (NTP):
  - What remediation can be done prior to construction?
  - What are requirements for this work?

- Duration of Project:
  - How long will contamination support be needed?

IX. Project Considerations

- Soil:
  - What is depth of construction?
  - Will it encounter contaminated soils below grade?

- Groundwater:
  - Is groundwater contamination going to impact construction?
  - What is depth to water?

- Groundwater Treatment and Discharge:
  - Can contaminated water be treated on site?
  - Does it need to be disposed of?

IX. Project Considerations

- Bridges:
  - Are bridges going to be impacted?
  - Have we done metals based coatings and asbestos surveys?

- Backfill:
  - How much needed if remediation before NTP?
  - Who provides that material?
  - Where is it going to be staged?
  - Does it impact planned contamination support activities?

X. Remediation Equipment

X. Remediation Equipment

Photo Credit: CB&I

X. Remediation Equipment

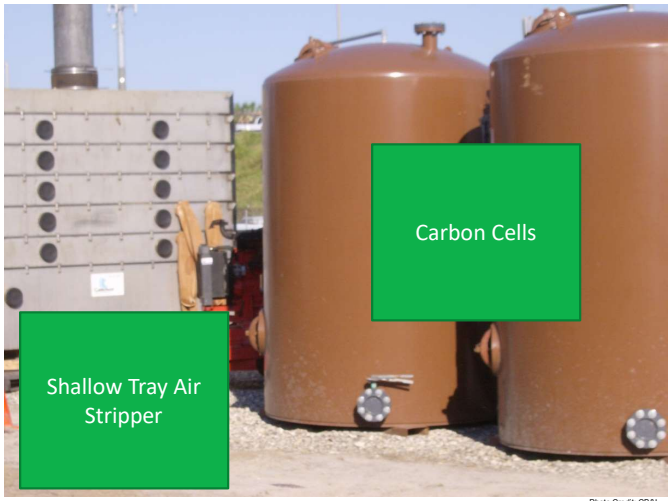


Photo Credit: CB&I

X. Remediation Equipment

This is what the Carbon looks like in the cells

Photo Credit: CB&I

X. Remediation Equipment

These are the types of bags the carbon is delivered in

Photo Credit: CB&I

X. Remediation Equipment

XI. Other Considerations

XI. Other Considerations

Photo Credit: CB&I

Transite Pipe encountered during construction

Photo Credit: CB&I

XI. Other Considerations

Underground Storage Tanks

Photo Credit: CB&I

XI. Other Considerations

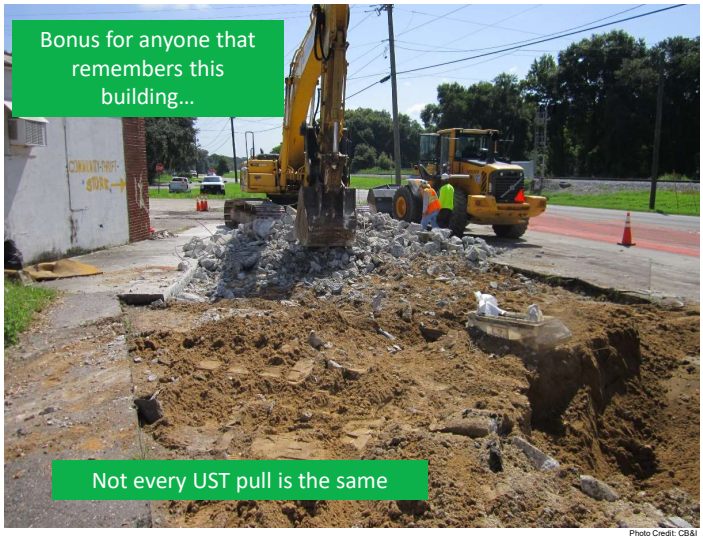


Photo Credit: CB&I

XI. Other Considerations

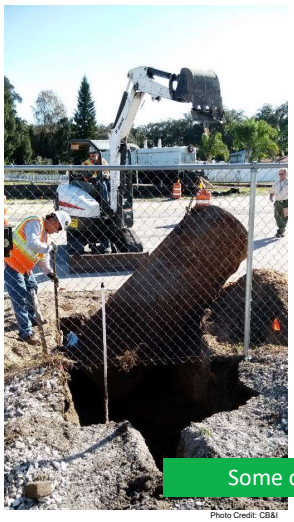


Photo Credit: CB&I

Photo Credit: CB&I

XI. Other Considerations

Photo Credit: CB&I

XI. Other Considerations

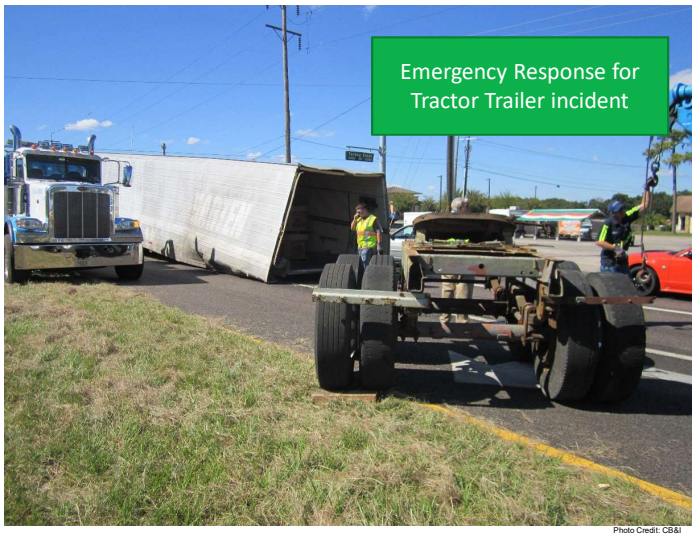


Photo Credit: CB&I

XI. Other Considerations

Photo Credit: CB&I

XI. Other Considerations

Photo Credit: CB&I

XI. Other Considerations

Remediation of the indoor gun range involved:

- Containerized approximately 90 cubic yards of rubber material and casings
  - Located in the back of the gun range, in the air recovery tanks, and in excess storage boxes
- Transported in lined dumpsters for disposal to Emelle, Alabama facility
- Disposed of 94 used air filters and 63 used filters with metal frames including HEPA filters and pleated filters

XI. Other Considerations

Remediation of the indoor gun range involved:

- HEPA vacuum walls, edges, surfaces, ledges, floors at entire range area, the steel components capturing the ammunition, and the area behind the steel components under negative pressure.
- Wash and wipe metal walls, concrete floors and exposed floors after carpet removal with TSP solution.
- Dispose of universal waste streams (i.e. hazardous cleaners in storage closets, fluorescent bulbs. and ballasts).

Questions?