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DEPARTMENT OF ENVIRONMENTAL PROTECTION



Bureau of Environmental Cleanup & Brownfields

BISHOP TUBE HSCA SITE

East Whiteland Township
Information Session

June 7, 2017

➤ Agenda

- History
- DEP's Investigation
- Prospective Purchaser Agreement (PPA) & Amendments
- DEP's Response Action

➤ Agenda (continued)

- Consent Order and Agreement (CO&A)
- Johnson Matthey Inc/Whittaker Corp (JM/W) Investigation Activities
- Constitution Drive Partners (CDP)'s Proposed Cleanup Activities
- DEP's Next Steps



The Property

- Legend**
- ★ Site Location
 - Stream
 - - - Drainage Swale
 - Site Boundary
 - Parcels

Note:
 1. Service Layer Credits: ESRI, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community, Layer Access Date: 8/27/2015.



Title:

LOCAL AREA MAP

FORMER BISHOP TUBE FACILITY
 CHESTER COUNTY, PENNSYLVANIA

Prepared For:

BISHOP TUBE PROJECT TEAM

	Compiled by: SET	Date: 8/27/2015	FIGURE
	Prepared by: SET	Scale: 1:7,200	3
	Project Mgr: JAK	Office: NJ	
	File No: 10-18-F3(B)	Project: 0834 0003.000	

▶ Aerial View



History

- 1950s: J. Bishop
 - Precious Metals
 - Tube Milling and Manufacturing
- 1960s - 1990s: Matthey Bishop, Whittaker Corp., Christiana Metals, Alloy Steel & Marcegaglia, USA
 - Stainless Steel Tubing

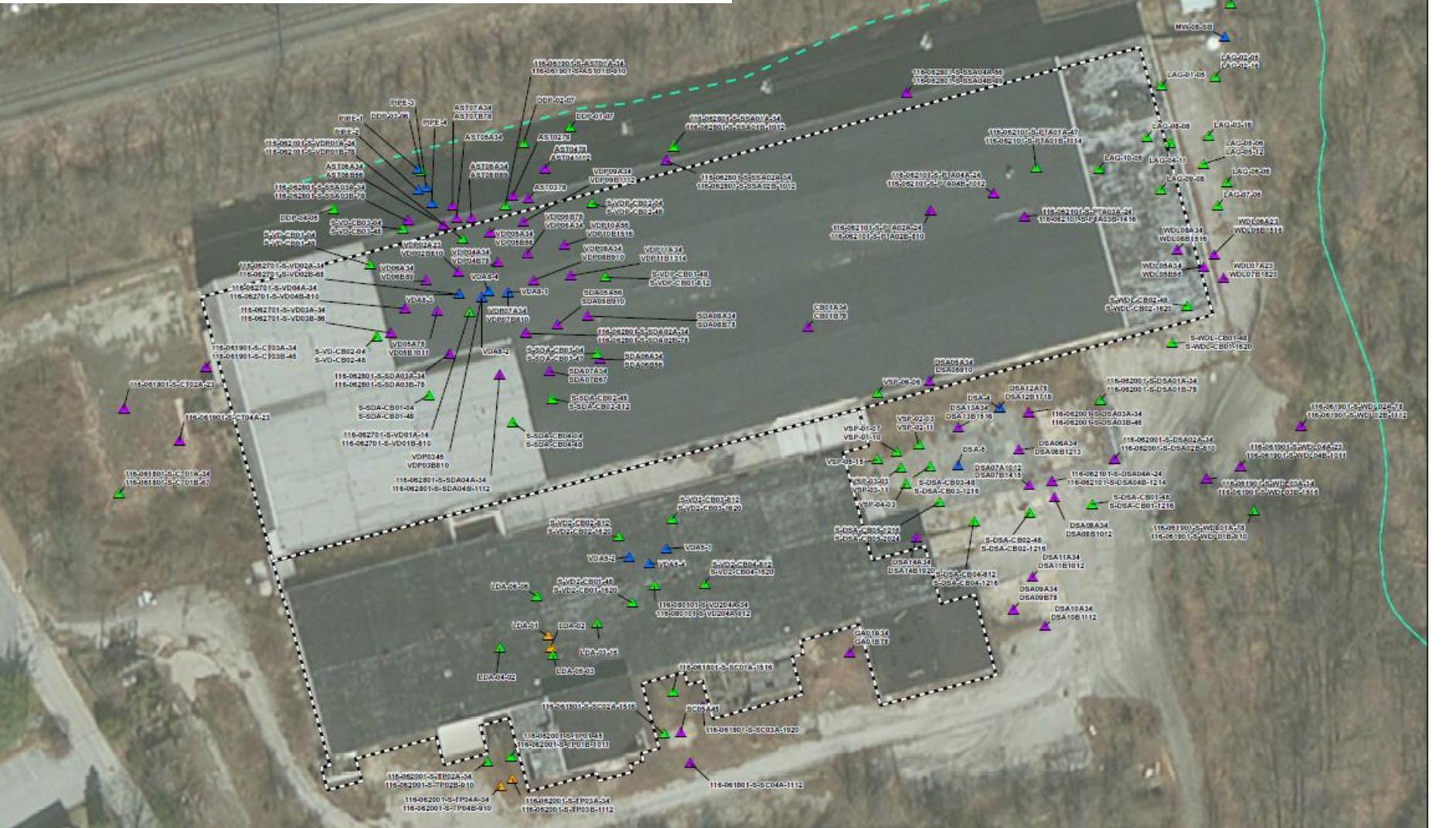
History

- Early 1970s: Discovered releases to Little Valley Creek from waste acid (pickle liquor) lagoon
- 1980s: Groundwater contamination discovered (fluoride initially, later chlorinated degreasers)
- 1980s - 1990s: Actions by Christiana Metals to study the contamination
- 1999: Site abandoned by Christiana Metals and HSCA Investigation initiated

▶ DEP's Investigation

- 1999: Hazardous Sites Cleanup Program
 - Soil
 - Groundwater (shallow & deep)
 - Surface water (Little Valley Creek)
 - Exposure pathways (i.e., private wells)

Figure 31: 2015 Remedial Investigation Report



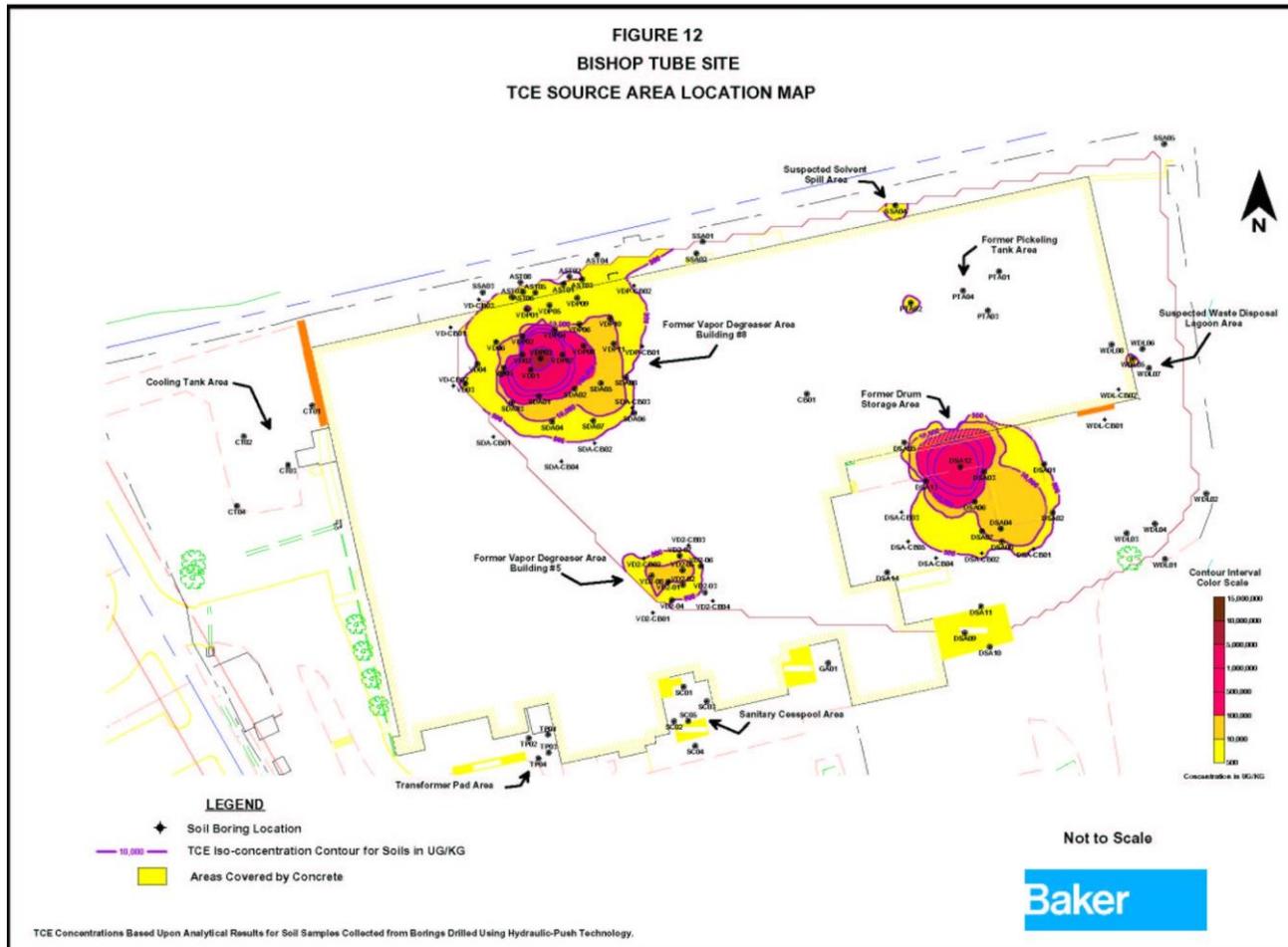
- Legend**
- ▲ Roux Soil Boring Location with Laboratory Analytical Results for VOCs
 - ▲ Baker Soil Boring Location with Laboratory Analytical Results for VOCs
 - ▲ Baker Soil Boring Location with Mobile Lab Results for VOCs
 - ▲ Baker Soil Boring Location Without Results for VOCs
 - Stream
 - - - Drainage Swale
 - Building Outline

- Notes:**
1. Service Layer Credits: ESRI, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGR, swisstopo, and the GIS User Community, Layer Access Date: 8/26/2015.
 2. Baker soil boring locations are based on the 2002, 2003, and 2008 Baker reports. Boring locations are therefore approximate.
 3. Some Baker soil boring locations are also associated with SVOC, PCB and/or Metals laboratory analytical results.
 4. Only Roux soil boring locations with laboratory analytical results for VOCs in soil are shown.
 5. VOCs = Volatile Organic Compounds.
 6. Soil data are not contemporaneous. Data depicted was collected between 2002 and 2015.



SOIL SAMPLE LOCATIONS			
FORMER BISHOP TUBE FACILITY CHESTER COUNTY, PENNSYLVANIA			
Prepared For:			
BISHOP TUBE PROJECT TEAM			
	Compiled by: SSP	Date: 8/26/2015	FIGURE 31
	Prepared by: SSP	Scale: 1:480	
	Project Mgr: JAK	Office: NJ	
	File No: 1018.F31(C)1	Project: 0539.0003.000	

DEP's Investigation - Soil



2000-2003: DEP's Soil Investigation revealed 3 hot spots.

▶ DEP's Investigation - Groundwater

2000 - 2008: Findings

- Onsite groundwater contaminated by TCE and other chlorinated solvents in deep and shallow aquifers
- Evidence of free product
- Onsite stream discharge of contaminated groundwater.
- Migration off-site confirmed (bedrock geology increases complexity)
- Full extent of the contamination was not known

ATSDR Involvement

2007: East Whiteland's Environmental Advisory Committee (EAC) petitioned the Agency for Toxic Substances and Disease Registry (ATSDR) to conduct "public health assessment activities" for the community.

2008: ATSDR completed the Health Consultation in cooperation with the Chester County Health Department, PA's Department of Health, and DEP.

- the report identified off-site data gaps.

2016: the Health Consultation was updated.

➤ Prospective Purchaser Agreement (PPA)

- A PPA is a common agreement between DEP and parties that want to purchase a contaminated property and remediate it for reuse and limit their liability associated with the existing contamination.
- 2005: DEP executed a PPA with Constitution Drive Partners, L.P. (CDP).

► Prospective Purchaser Agreement (PPA)

- In the PPA, CDP agreed to
 - (1) assess and clean up soil contamination to a nonresidential Act 2 Standard;
 - (2) not to exacerbate any existing contamination; and
 - (3) to provide access and right of entry to the DEP for potential future remediation of groundwater contamination

➤ Prospective Purchaser Agreement (PPA)

- January 2007 amendment: defined responsibilities associated with the Air Sparging & Soil Vapor Extraction remedial system (AS/SVE System)

CDP's responsibilities

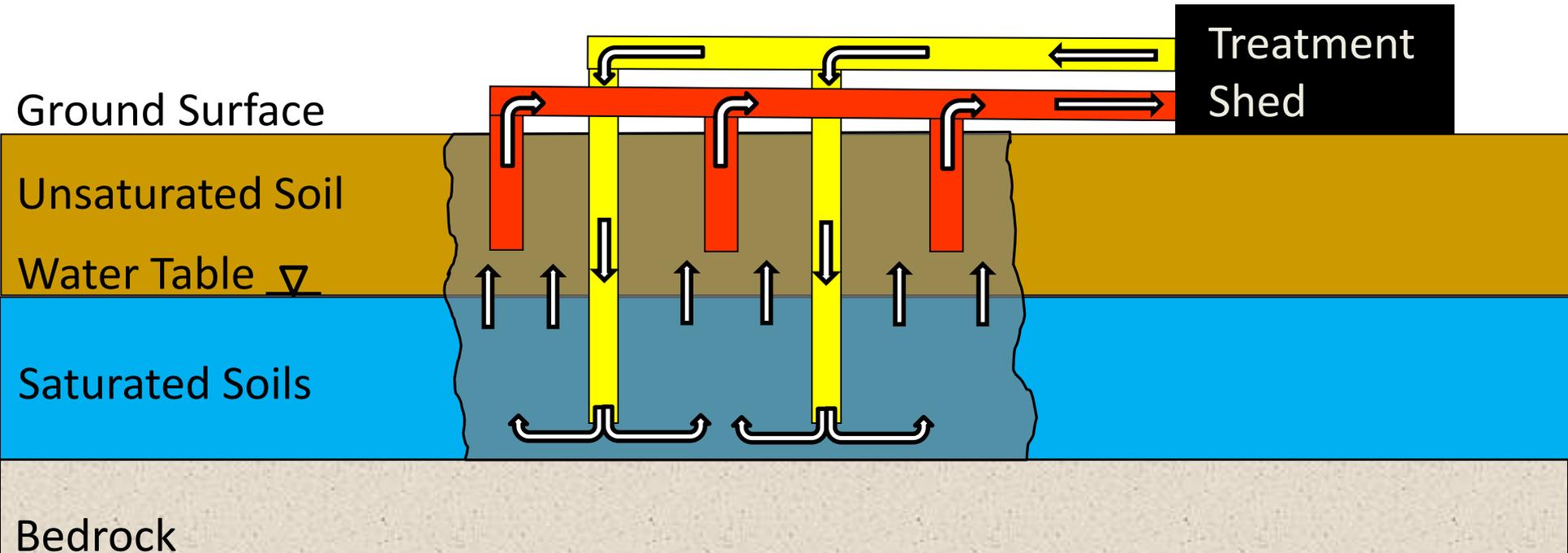
- Design the system
- Provide the mechanical equipment for the system
- Demonstrate the performance of the system

DEP's responsibilities

- Install the system
- Operate the system after the performance demonstration

AS/SVE System

A system that involves pumping air into ground to help flush (bubble) the contaminants up through collection pipes (suction).



▶ DEP's Response Action

- September 2007: DEP selected a response action that involved the treatment of groundwater within the former Plant #8 Source Area.
- October 2007: The installation of the system was completed.
- February to April 2008: CDP undertook the system performance demonstrations.

***The system failed to meet some of the flow rate performance requirements .*

▶ Prospective Purchaser Agreement

- June 2010: Second Amendment to the PPA. CDP agreed to -
 - repair and run the AS/SVE system for a seventy-two (72) hour period
 - after which it would relinquish control to the DEP
 - pay the DEP an amount of \$30,000

**CDP had fulfilled remedial obligations*

➤ Consent Order & Agreement

- August 2008: DEP entered into a Consent Order and Agreement (CO&A) with Johnson Matthey Inc.
- August 2009: the CO&A was amended to include Whittaker Corp.

Consent Order & Agreement

Johnson Matthey Inc. and Whittaker Corp (JM/W) agreed to:

- 1) Investigate groundwater contamination contained within the bedrock and the overburden
- 2) Investigate the vapor intrusion pathway
- 3) Investigate the groundwater to surface water pathway
- 4) Perform of a Risk Assessment
- 5) Perform a Feasibility Study

JM/W Activities

JM/W has submitted the following for DEP approval:

- February 2009 - Remedial Investigation (RI) Work Plan
- December 2010 - RI Report
- July 2011 - Supplemental RI Work Plan
- December 2012 - RI Conceptual Work Plan
 - Treatability Study (TS) Conceptual Work Plan
- March 2013 - RI Workplan Addendum

***Note: this is not a comprehensive list of all of the documents that JM/W has submitted**

JM/W Activities

JM/W documents continued:

- September 2014 - TS Work Plan
- August 2015 - RI Report
- October 2015 - TS Report
- July 2016 - Feasibility Study (FS) Work Plan
- December 2016 - FS Work Plan Addendum
- March 2017 - Preliminary FS Screening Memorandum

***Note: this is not a comprehensive list of all of the documents that JM/W has submitted**

JM/W Activities - Surface Water



(Modified) Figure 8: 2015 Remedial Investigation Report

● Approximate sampling locations

JM/W Activities - Groundwater

Estimated Area of Study



JM/W Activities - Continuing

- Delineate the full downgradient extent of groundwater contamination
- Complete the Risk Assessment
 - Vapor Intrusion (VI) investigation activities
 - Update the Surface Water Risk Assessment information
 - Additional sampling
 - Toxicology information

CDP's Proposed Cleanup Activities

- 2016: Letter of Intent to apply for an Industrial Sites Reuse (ISRP) Grant submitted by Chester County Economic Development Council (CCEDC) to Department of Community and Economic Development (DCED).
- CDP plans to partner with the CCEDC to remediate three soil hotspots by excavating the soil and transporting it off-site.

CDP's Proposed Cleanup Activities

- DEP's role in the ISRP grant process:
 - Help determine eligibility of a Site
 - Review the scope of work (SOW) to determine if the proposed activities will meet requirements of our Land Recycling Program (Act 2)
 - If the grant is awarded by DCED
 - CDP will perform the work under CCEDC's direction
 - DEP will provide oversight

***DEP has not yet approved a SOW.**



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Next Steps

- After review and approval of JM/W's RI and FS: DEP will propose a comprehensive response action to fully address the contamination (soil, ground & surface water).
- DEP will open an Administrative Record for a 90 day public comment period. A Public Hearing will be held during the comment period.
- After the comment period closes DEP will respond to public comments and select and implement the remedy.

Key Points

- Any local land development issues, such as zoning or steep slope variances, are exclusively under the authority of East Whiteland Township.
- DEP's role is to review cleanup plans/reports related to the proposed use of the property.
- Full remediation means that the cleanup will address soil, groundwater, and surface water contamination.



Bureau of Environmental Cleanup & Brownfields

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