



UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION III

STATEMENT OF BASIS

Parcel B
Former 6Twelve Properties, L.P. La Brea Flats Parcel
Follansbee Plant
Follansbee, West Virginia

EPA ID: WVD004319539

Prepared by

RCRA Corrective Action Branch 1
Land, Chemicals and Redevelopment Branch

November 2021

Section 1: Introduction

The United States Environmental Protection Agency (EPA) has prepared this Statement of Basis (SB) to solicit public comment on its proposed remedy for the former 6Twelve Properties, L.P. (6Twelve) La Brea Flats parcel (hereinafter referred to as Parcel B) located at the Follansbee Plant, 600 Veterans Drive, Follansbee, Brooke County, West Virginia (Facility). EPA's proposed remedy for Parcel B of the Facility consists of coal tar decanter sludge (TDS) and soil encapsulation and capping, groundwater monitored natural attenuation (MNA), and compliance with and maintenance of land and groundwater use restrictions. This SB highlights key information relied upon by EPA in making its proposed remedy.

Parcel B is subject to the Corrective Action Program under the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, and the Hazardous and Solid Waste Amendments (HSWA) of 1984, 42 U.S.C. §§ 6901 et seq.

EPA has compiled an administrative record (AR) containing all documents, including data and quality assurance information, upon which EPA's proposed remedy is based. Section 8 lists the AR documents. To review the AR documents listed, see Section 8, Public Participation.

EPA is providing a thirty (30)-day public comment on EPA's proposed remedy for Parcel B. EPA may modify its proposed remedy based on comments received during this period. EPA will evaluate comments received and select a final remedy in a Final Decision and Response to Comments (Final Decision) after the public comment period has ended.

Information on the Corrective Action Program as well as a fact sheet for the Facility can be found by navigating to <https://www.epa.gov/hwcorrectiveactionsites/hazardous-waste-cleanup-follansbee-plant-also-known-trimodal-terminal>.

Section 2: Facility Background

Parcel B lies southeast of the intersection of State Route 2 and Archer Hill Road, Follansbee, Brooke County, West Virginia and is referred to as the Former Coal Tar Derivative Accumulation Area. The Parcel B property is approximately 21.8 acres and is located in a mixed-use area. Unpaved access roads provide limited access from Archer Hill Road and State Route 2 to Parcel B, which is completely surrounded by a 326-acre parcel, known as Parcel A. On November 11, 2014, EPA selected a final remedy of no further corrective action for Parcel A.

In December 2013, EPA entered into an Administrative Order on Consent (AOC) with then-owner at the Facility, 6Twelve, to conduct interim measures, a RCRA Facility Investigation (RFI), and a Corrective Measures Study for the Facility. The AOC was amended in 2017 to update the areas of the Facility owned by 6Twelve, among other modifications. 6Twelve also entered into an agreement with the West Virginia Department of Environmental Protection (WVDEP) on April 9, 2014 for the performance of remedial work at the Facility pursuant to West Virginia's Voluntary Remediation Program (VRP). In February 2021, Empire Go-Green

Recycling, LLC (Empire GG) acquired all the property owned by 6Twelve at the Facility, including Parcel B.

Section 3: Summary of Environmental Investigations

Parcel B was historically used by the Wheeling-Pittsburgh Steel Corporation (WPSC) for the disposal of unwanted industrial byproducts, including slag, steel filings, and coal tar derivatives, including TDS. WPSC took steps to reduce direct contact, precipitation interaction, and surface-water runoff by placing a soil cover over these TDS areas in the 1990s. In 1998, pursuant to Section 3008(h) of RCRA, EPA issued a Unilateral Administrative Order (UAO) to WPSC requiring interim measures, a RCRA Facility Investigation (RFI), and a Corrective Measures Study. Several Facility investigations occurred in 1998 and 1999, but were limited to records review, field reconnaissance, TDS sampling and analysis, and soil and surface water sampling.

In 2005, the WPSC completed an RFI pursuant to the UAO that included Parcel B. The scope of work for the RFI included the installation of soil borings and groundwater monitoring wells; collection of surface soil, subsurface soil, groundwater, soil gas, sediment, and surface water samples; and hydrogeologic characterization. The RFI identified the following: free product in the subsurface, metals and polycyclic aromatic hydrocarbons (PAHs) in the surface soil; PAHs and volatile organic compounds (VOCs) in the subsurface soil; and metals, PAHs, phenols, and VOCs in the groundwater of the perched aquifer.

Since WPSC's placement of the soil cover in the 1990s, TDS material has wicked to the surface in two areas. Both locations correspond directly with the two free product areas delineated during the 2005 RFI. As an interim measure, these two locations have been fenced to restrict access. The fenced area farthest north has been identified as TDS Area 1, and the fenced area farthest south has been identified as TDS Area 2.

Following the execution of the AOC by EPA and 6Twelve, and in accordance with an EPA-approved work plan, supplemental assessment activities were conducted from 2016-2017, during which a small amount of TDS material was observed outside the fenced area of TDS Area 2. Additional fencing was installed at TDS Area 2 as an interim measure to restrict access to the TDS observed on the ground surface.

The following conclusions resulted from the supplemental assessment activities:

- PAHs, arsenic, benzene, toluene, and xylenes were detected at concentrations greater than their respective cleanup levels, either WV VRP human health industrial soil de minimis values or EPA Regional Screening Levels (RSLs) for composite worker soil set at risk level of 1×10^{-6} and a Hazard Quotient of 1, whichever is more stringent, and were deemed contaminants of concerns (COCs) in the TDS material at Parcel B. See Table 6, below, for a list of all COCs.

Table 1: Free Product Contaminants of Concern – TDS Material (mg/kg)

COC	Soil Cleanup Level	TDS Area 1 (12/10/2004)	TDS Area 2 (12/10/2004)	TDS Area 2 (5/3/2016)	Near MWH6 (5/3/2016)
Arsenic	3.0†	13.6	72	51.3	48.4
Benzene	5.1†	2,400	28,500	12	25,000
Toluene	820§	160	8,500	9.7	7,600
Xylenes	260§	240	890	7.9	2160

*EPA MCL

† EPA RSL

§ WV VRRRA Groundwater De Minimis Concentration

ND – Non-detect

- Benzene, ethylbenzene, and xylenes concentrations in soil gas samples exceeded target soil gas concentrations calculated using the EPA Vapor Intrusion Screening Level Calculator Version 3.5.1, May 2016.

Table 2: Soil Gas Concentrations (ug/m3) - 2004

COC	EPA VISL Soil Gas Concentration	TDS Area 1 (SGH5A)	TDS Area 2 (SGH34A)	TDS Area 1 (SGH35A)
Benzene	524	2,500	< 100	< 100
Ethylbenzene	1,640	< 200	4,400	4,800
Xylenes	14,600	300	14,000	15,000

- Vanadium, arsenic, benzo(a)anthracene, benzo[a]pyrene, indeno(1,2,3-cd)pyrene, benzo(b)fluoranthene, and dibenz(a,h)anthracene were detected at concentrations greater than their respective WV VRRP human health industrial soil de minimis or RSL values in surface soils at the Site, defined as 0-2 feet (ft) below ground surface (bgs).

Table 3: Surface Soil Contaminants of Concern (mg/kg) -5/2/2016

COC	Soil Cleanup Level	Concentration
Arsenic	3.0†	11.3-75.4
Vanadium	5,800§	16.9-444
Benzo(a)anthracene	21†	0.14-160
Benzo(a)pyrene	2.1†	0.12-110
Indeno(1,2,3-cd)pyrene	21†	0.11-66
Benzo(b)fluoranthene	21†	0.14-140
Dibenz(a,h)anthracene	2.1†	0.11-22

*EPA MCL

† EPA RSL

§ WV VRRRA Groundwater De Minimis Concentration

ND – Non-detect

- Benzo(a)pyrene, benzene, toluene, and xylenes exceeded their respective WV VRRP industrial soil de minimis or RSL values, depending on which is more stringent, values in subsurface soils at the Facility, defined as greater than 2 feet bgs.

Table 4: Subsurface Soil Contaminants of Concern (mg/kg) - 2004

COC	Soil Cleanup Levels	TDS Area 2 (9/1/2004) 771.2 ft	TDS Area 2 (10/14/2004) 780.1 ft	Southwest of TDS Area 2 (10/21/2004) 748.5 ft
Benzo(a)pyrene	0.115†	5.2	6.2	24
Benzene	57§	0.03	0.084	2,000
Toluene	820§	0.009	1.5	1,000
Xylenes	260§	660	0.116	660

*EPA MCL

† EPA RSL

§ WV VRRRA Groundwater De Minimis Concentration

ND – Non-detect

- Benzene, dissolved aluminum, cobalt, iron, dissolved manganese, vanadium, aniline, pyridine, naphthalene, benz[a]anthracene, and benz[b]fluoranthene were detected at concentrations greater than their respective MCL, tapwater RSL set at a risk level of 1×10^{-6} and a Hazard Quotient of 1, or WV Groundwater De Minimis Concentration (together, “Groundwater Cleanup Levels”), whichever is most stringent. Groundwater contamination has largely been decreasing since originally sampled in 2004 as compared to the most recent sampling event in 2016, and EPA expects that following source control of the TDS, as proposed in this SB, this decline will continue. For more information on historical comparison of groundwater sampling, see the table included as Appendix 1.

Table 5: Groundwater Contaminants of Concern (ug/L) - 2016

COC	Groundwater Cleanup Level	Concentration
Benzene	5*	ND-55,000
Aluminum	20,000†§	ND-4,580
Cobalt	6†§	ND-44.1
Iron	300*	ND-171,000
Manganese	50*	ND-14,100
Vanadium	1.2§	ND-4.8
Aniline	13§	ND-29
Pyridine	5.3§	ND-340
Naphthalene	0.17§	ND-7.6
Benzo(a)anthracene	0.012 §	ND-0.093
Benzo(b)fluoranthene	0.034§	ND-0.094

Table key:

*EPA MCL

† EPA RSL

§ WV VRRRA Groundwater De Minimis Concentration

ND – Non-detect

Table 6: COCs, Exposure Pathways, and Potential Receptors

Pathway	COCs	Area of Concern	Receptors
Groundwater	Benzene, toluene, aluminum, cobalt, iron, manganese, vanadium, aniline, pyridine, naphthalene, benzo[a]pyrene, and benzo[b]fluoranthene	Entire Site	Potential Drinking Water User, Construction worker
Surface Soil	Vanadium, benzo[a]anthracene, benzo[b]fluoranthene, benzo[a]pyrene, dibenz[a,h]anthracene, and indeno[1,2,3-cd]pyrene	Approximate 250,000 ft ² area surrounding TDS Area 1 and TDS Area 2	Outdoor worker, construction worker, visitor, and trespasser
TDS material	Arsenic, benzene, toluene, xylenes, and PAHs	Exposed TDS material	Outdoor worker, construction worker, visitor, and trespasser
Subsurface Soil	Benzene, toluene, xylenes, and benzo[a]pyrene	TDS Area 1, TDS Area 2 and area downgradient of Construction worker TDS Area 2	Construction worker
Indoor Air	Benzene, ethylbenzene, and xylenes	TDS Area 1, TDS Area 2, and areas surrounding MWH1 and MWH3	Future indoor worker
Outdoor Air	Benzene, ethylbenzene, and xylenes	TDS Area 1, TDS Area 2, and areas surrounding MWH1 and MWH3	Construction worker in a trench

In 1998, as an interim measure pursuant to the UAO, WPSC installed an 18-inch clean fill soil cover in the area of concern comprising approximately 250,000 square feet with elevated surface soil concentrations surrounding TDS Area 1. The soil cover is depicted in Figure 4.

In 2005, at TDS Area 2, 6Twelve created a TDS entombment area to consolidate and entomb TDS historically disposed of at Parcel B. Parcel B is an area of contamination where TDS was generally dispersed. The entombment area is depicted in Figure 3. The entombment area was constructed with a low permeability liner that includes a clay liner, a geotextile material, and a second clay liner in which the TDS material was placed. Finally, a 24-inch cover was placed on the entombment area, compacted, and seeded. Contaminated soil remains in the

sub-surface soil downgradient of the entombment area, which will be addressed by EPA's proposed remedy. As explained in Section 5, below, EPA proposes to require an engineered soil cap to be constructed over that contaminated soil.

Section 4: Corrective Action Objectives

EPA's Corrective Action Objectives for the specific environmental media at Parcel B are as follows:

Soil and TDS

COCs remain in soil and TDS at the Facility at levels creating an unacceptable risk to human health and the environment. Therefore, EPA's Corrective Action Objective for the surface soil and TDS is to control direct contact of hazardous constituents remaining in the soil and TDS that are above WVDEP industrial soil de minimis values or EPA RSLs for composite worker soil, whichever is more stringent.

Groundwater

EPA expects final remedies to return usable groundwater to its maximum beneficial use within a timeframe that is reasonable given the circumstances of the Facility. For facilities where aquifers are either currently used for water supply or have the potential to be used for water supply, EPA uses federal Maximum Contaminant Levels (MCLs) promulgated pursuant to Section 42 U.S.C. §§ 300f et seq. of the Safe Drinking Water Act and codified at 40 C.F.R. Part 141 as a corrective action objective for groundwater. Where a contaminant does not have an MCL, EPA uses tapwater RSLs or WV VRRRA Groundwater De Minimis Concentrations, whichever is more stringent.

COCs remain in groundwater at Parcel B at levels exceeding Groundwater Cleanup Levels, which creates an unacceptable risk to human health and the environment. Therefore, EPA's CAOs for Parcel B groundwater are to achieve Groundwater Cleanup Levels throughout the groundwater plume and control exposure to the hazardous constituents remaining in the groundwater until Groundwater Cleanup Levels are achieved.

Vapor Intrusion

VOCs are present in groundwater and subsurface soil at Parcel B at levels that create an unacceptable risk to human health via vapor intrusion to indoor air. Therefore, EPA's CAO for vapor intrusion is to prevent human exposure to contaminants at levels above soil gas screening levels using EPA's Vapor Intrusion Screening Level Calculator.

Section 5: Proposed Remedy

EPA's proposed remedy for Parcel B of the Facility consists of TDS encapsulation and capping, groundwater MNA, and compliance with and maintenance of land and groundwater use restrictions, as described below:

1. Soil and TDS

EPA's proposed remedy for Parcel B soil and TDS consists of:

- At TDS Area 2:
 - Construction of a permanent encapsulation cell that replaces the temporary entombment area depicted in Figure 3 and consolidates TDS from Area 1 and the small area of TDS observed near the southeastern edge of Parcel B and
 - Construction of an engineered soil cap over the encapsulation cell and any contaminated soil;
- At TDS Area 1 and the 250,000 square feet of surrounding contaminated soil depicted in Figure 4: Construction of an engineered soil cap to replace the temporary soil cover;
- Submission of a Soil Management Plan for EPA and WVDEP review and approval prior to any planned subsurface soil disturbance activities (including excavation, drilling and construction) in locations where contaminants remain at levels above EPA's screening levels for non-residential use;
- Maintenance of the caps at the Parcel in accordance with an EPA and WVDEP-approved Soil Management Plan; and
- Compliance with and maintenance of the following land use restrictions, given that COCs remain in the soil above levels acceptable for residential use:
 - Compliance with an EPA and WVDEP-approved Soil Management Plan; and
 - The Parcel B property shall be used only for non-residential purposes such as commercial or industrial purposes, unless the then current landowner demonstrated to EPA and WVDEP that such use will not pose a threat to human health or the environment or adversely affect or interfere with the selected remedy, and the Facility owner obtains prior written approval from EPA for such use. Non-residential uses do not include schools, day cares centers, nursing homes or other residential-style facilities or recreational areas.

2. Vapor Intrusion

EPA's proposed remedy for vapor intrusion at Parcel B consists of the following use restriction:

- Any future buildings constructed for occupation at the Parcel B property shall include a vapor intrusion control system, the design of which shall be reviewed and approved by EPA in writing prior to installation, unless EPA provides written approval that vapor intrusion does not pose a threat to human health.

3. Groundwater

To follow on the source control actions listed above, EPA's proposed remedy for groundwater at Parcel B consists of:

- Once source control of TDS has been completed, MNA in accordance with an EPA-approved groundwater monitoring program until COCs in groundwater achieve Groundwater Cleanup Levels; and
- Compliance with and maintenance of the following groundwater use restrictions while contaminant levels remain above the applicable MCLs or RSLs:
 - Groundwater at Parcel B shall not be used for any purpose other than the maintenance and monitoring activities required by EPA or WVDEP, unless it is demonstrated to EPA that such use will not pose a threat to human health or the environment or adversely affect or interfere with the final remedy, and the then-current owner of Parcel B obtains prior written approval from EPA for such use;
 - No new wells shall be installed on Parcel B unless it is demonstrated to EPA that such wells are necessary to implement the final remedy and EPA provides prior written approval to install such wells; and
 - Compliance with an EPA-approved groundwater monitoring program.

EPA proposes to implement the groundwater and land use restrictions necessary to prevent human exposure to contaminants at Parcel B through an enforceable mechanism such as a permit, order, or environmental covenant. In addition, the Parcel B owner shall provide EPA with a coordinate survey as well as a metes and bounds survey of the Parcel B boundary. Mapping the extent of the land use restrictions will allow for presentation in a publicly accessible mapping program such as Google Earth or Google Maps.

If EPA determines that additional maintenance and monitoring activities, institutional controls, or other corrective actions are necessary to protect human health or the environment, EPA has the authority to require and enforce such additional corrective actions through an enforceable mechanism which may include an order or environmental covenant, provided any necessary public participation requirements are met.

Section 6: Evaluation of Proposed Remedy

This section provides a description of the criteria EPA used to evaluate the proposed remedy consistent with EPA guidance. The criteria are applied in two phases. In the first phase, EPA evaluates three decision threshold criteria as general goals. In the second phase, for those remedies which meet the threshold criteria, EPA then evaluates seven balancing criteria.

Threshold Criteria	Evaluation
1) Protect human health and the environment	EPA’s proposed remedy for Parcel B protects human health and the environment by eliminating, reducing, or controlling potential unacceptable risk. With respect to groundwater, the proposed remedy requires ongoing monitoring of the natural attenuation processes following the completion of source control of TDS and the implementation of groundwater use restrictions to minimize the

	<p>potential for human exposure to contamination and protect the integrity of the remedy.</p> <p>With respect to soil and TDS, the proposed remedy protects human health and the environment through source control actions as well as implementation of land use restrictions prohibiting residential land use and through the capping and encapsulation of contaminated TDS and soil.</p> <p>In addition, any future buildings constructed for occupation at Parcel B shall include an EPA-approved vapor intrusion control system to prevent potential unacceptable exposure to VOCs.</p>
<p>2) Achieve media cleanup objectives</p>	<p>EPA’s proposed remedy meets the media cleanup objectives based on assumptions regarding current and reasonably anticipated land and water resource use(s). The remedy proposed in this SB is based on the anticipated non-residential land use at the Facility and is based on returning groundwater to drinking water standards.</p> <p>The groundwater plume appears to be stable (not migrating); although contaminants are above Groundwater Cleanup Levels, they are largely declining over time. EPA expects once source control of the contaminated TDS and soil is completed, as proposed in this remedy, groundwater contaminants will naturally attenuate. In addition, groundwater monitoring will continue until Groundwater Cleanup Levels are met. EPA’s proposed remedy also requires the implementation and maintenance of use restrictions to ensure that groundwater beneath Facility property is not used for any purpose except to conduct the maintenance and monitoring activities required by EPA or WVDEP.</p>
<p>3) Remediating the Source of Releases</p>	<p>In all proposed remedies, EPA seeks to eliminate or reduce further releases of hazardous wastes and hazardous constituents that may pose a threat to human health and the environment.</p> <p>The source of contaminants from the soil will be capped and TDS will be encapsulated at Parcel B, thereby eliminating, to the extent practicable, further releases of hazardous constituents from on-Facility soils and TDS.</p> <p>Contaminants in groundwater are expected to continue to decline through natural attenuation. Eliminating the source of groundwater contaminants through encapsulation of the TDS material is expected to further reduce groundwater contamination. There are no other discrete sources of groundwater contamination. Groundwater is not</p>

	used for potable purposes at the Facility or at neighboring facilities. In addition, groundwater monitoring will continue until Groundwater Cleanup Levels are met through natural attenuation. Therefore, EPA has determined that this criterion has been met.
4) Long-term effectiveness	The proposed remedy will be effective in the long-term. Groundwater contamination is not migrating off Parcel B and the plume size appears to be shrinking. The contaminated TDS will be consolidated, and the contaminated soil will be capped on Parcel B. This encapsulation and capping combined with the implementation of land use restrictions will effectively eliminate the potential for unacceptable risk over the long term. Groundwater monitoring and implementation of use restrictions will continue once source control actions are completed until Groundwater Cleanup Levels are achieved.
5) Reduction of toxicity, mobility, or volume of the Hazardous Constituents	Under EPA's proposed remedy, the contaminated TDS will be encapsulated and the contaminated soil will be capped on Parcel B. Some reduction in groundwater contamination has already been achieved, as demonstrated by the data from the groundwater monitoring in Section 3. The reduction of toxicity, mobility and volume of hazardous constituents will continue through MNA of COCs in groundwater once source control is completed.
6) Short-term effectiveness	EPA anticipates that use land and groundwater restrictions will be fully implemented shortly after the issuance of the Final Decision. EPA's proposed remedy takes into consideration future anticipated activities at Parcel B, such as construction or excavation that would pose short-term risks to workers, by requiring the then-current Facility owners to adhere to an EPA-approved Soil Management Plan.
7) Implementability	EPA's proposed remedy is readily implementable. Groundwater monitoring wells are already installed and can be used to implement this proposed remedy. EPA proposes to implement the remedy through one or more enforceable mechanisms, such as an environmental covenant, permit, or order.
8) Cost	The cost associated with the remedy, including in-situ treatment and continued groundwater monitoring is estimated at \$210,000.
9) Community Acceptance	EPA will evaluate community acceptance of the proposed remedy during the public comment period, and it will be described in the Final Decision.
10) State/Support	WVDEP has reviewed and concurred with the proposed remedy for

Agency Acceptance	Parcel B.
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Overall, based on the evaluation criteria, EPA has determined the proposed remedy meets the threshold criteria and provides the best balance of tradeoffs with respect to the evaluation criteria.

Section 7: Financial Assurance

The Facility will be required to demonstrate and maintain financial assurance established and maintained pursuant to the standards contained in the Code of Federal Regulations, 40 C.F.R. Part 264.

Section 8: Public Participation

The public may participate in the remedy selection process by reviewing this SB and documents contained in the AR for the Facility and providing comments. The AR contains all information considered by EPA when proposing this remedy. The AR documents are available for public review at the location below:

U.S. EPA Region III
1650 Arch Street (3LD10)
Philadelphia, PA 19103
Contact: Caitlin Elverson
Phone: (215) 814-5455
Fax: (215) 814-3113
Email: elverson.caitlin@epa.gov

The public comment period will last thirty (30) calendar days from the date that the notice is published in a local newspaper. You may submit comments by mail, fax, or e-mail to Ms. Caitlin Elverson. EPA will hold a public meeting to discuss this proposed remedy upon request. If you would like to request a public meeting, please contact Ms. Caitlin Elverson.

EPA will respond to all relevant comments received during the comment period. If EPA determines that new information warrants a modification to the proposed remedy, EPA will modify the proposed remedy or select an alternative based on the new information and/or public comments. In the Final Decision, EPA will announce the selection of its final remedy, respond to all relevant comments received, and explain the rationale for any changes to the proposed remedy. All persons who comment on this proposed remedy will receive a copy of the Final Decision. Others may obtain a copy by contacting Ms. Caitlin Elverson at the address listed above. The Final Decision will also be made publicly available on EPA's website for the Facility.

Section 9: Signature

Date: 11/23/2021

Dana Aunkst, Director
Land, Chemicals, and Redevelopment Division
US EPA, Region III

Section 10: Index to the Administrative Record

1998, June; *Unilateral Administrative Order*, RCRA-III-080-CA, EPA.

1998, August; *RCRA Corrective Action, Description of Current Conditions, Steubenville East Coke Plant*, Arcadis Geraghty & Miller.

2005, September; *Environmental Indicator Human Exposure Follansbee Plant (Trimodal Terminal and 6Twelve Properties) in Follansbee, West Virginia*, EPA.

2005, September; *RCRA Facility Investigation Report, Wheeling Pittsburgh Steel Corporation Steubenville East Coke Plant, WV Facility*, EPA.

2009, September; *Phase II RFI Work Plan*, Severstal International, Follansbee, WV Facility.

2013, December; *Administrative Order on Consent*, Docket No. RCRA-03-2014-0048CA, EPA.

2015, December; *Statement of Basis*, EPA.

2016, February; *Supplemental Site Assessment Work Plan, VRP Project #13626 Parcel B La Brea Flats, 6twelve Properties, L.P.*, West Virginia Environmental Standards.

2017, April; *Administrative Order on Consent, First Modification*, Docket No. RCRA-03-2014-0048CA, EPA.

2017, November; *Human Health and Ecological Risk Assessment Report, Parcel B, La Brea Flats, 6twelve Properties, L.P., Follansbee, Brooke County*, West Virginia Environmental Standards.

2017, February; *Supplemental Site Assessment Report, VRP Project #13626 Parcel B La Brea Flats, 6twelve Properties, L.P.*, West Virginia Environmental Standards.

2021, May; *Corrective Measure Study Report and Remedial Action Work Plan – Revision 2*, West Virginia Environmental Standards.

Attachments:

Appendix 1: Groundwater Contamination Historical Comparison (2004-2016)

Figure 1: Entire Facility Map

Figure 2: Parcel B Features

Figure 3: Parcel B Entombment Area

Figure 4: Parcel B Soil Cover Area

Appendix 1: Groundwater Contamination Historical Comparison 2004-2016

Parameter	Units	MWH1	MWH1	MWH2	MWH2	MWH3	MWH3	MWH4	MWH4	MWH5A	MWH5A
		12/13/2004	5/3/2016	12/13/2004	5/3/2016	12/14/2004	5/2/2016	1/10/2005	5/3/2016	12/19/2004	5/3/2016
		East of TDS Disposal Area 1		South of TDS Disposal Area 2		Southwest of TDS Disposal Area 2		Between Original Swales of TDS Area 1 and 2		Southwest of TDS Disposal Area 1	
Volatile Organic Compounds											
Benzene	ug/L	1,600	11,000	250	20	130,000	55,000	< 1	< 1	3,100	< 1
Toluene	ug/L	320	< 5	1	< 1	11,000	1,000	< 1	< 1	2	< 1
m+p-Xylene	ug/L	62	9	0.7	< 1	2,500	220	< 1	< 1	4	< 1
o-Xylene	ug/L	22	6	0.6	< 1	720	200	< 1	< 1	0.6	< 1
1,2-Dichloroethane	ug/L	< 1	< 5	< 1	< 1	< 1	< 20	< 1	< 1	62	< 1
Semi-Volatile Organic Compounds											
Aniline	ug/L	not analyzed	1 J	not analyzed	< 1	not analyzed	29	not analyzed	na	not analyzed	< 1
Acetophenone	ug/L	74	3	< 25	< 1	96	8	< 25	na	< 25	< 1
4-Methylphenol (p-Cresol)	ug/L	110	6	< 10	< 10	990	610	< 10	na	< 10	< 10
Pyridine	ug/L	< 10	25	< 10	< 51	6	340	< 10	na	< 10	< 51
2,4-Dimethylphenol	ug/L	39	10	< 10	< 1	520	100	< 10	na	< 10	< 1
2-Methylphenol (o-Cresol)	ug/L	100	28	< 10	< 10	960	690	< 10	na	< 10	< 10
Naphthalene	ug/L	13	7.3	0.5	< 0.06	130	7.6	< 10	na	1.2	0.048
Benzo(b)fluoranthene	ug/L	< 10	< 0.051	0.62	< 0.051	< 10	0.094	< 10	na	< 10	< 0.051
Inorganics											
Aluminum, Dissolved	ug/L	54,200	4,580	31.9	< 200	15.7	< 200	44.4	na	< 4.9	< 200
Arsenic, Dissolved	ug/L	9.6	6.5	< 1.7	1.2 J	17.2	9	< 1.7	na	2.2	< 4
Beryllium, Dissolved	ug/L	8	1.9	< 0.07	< 1	< 0.07	< 1	< 0.07	na	< 0.07	< 1
Cobalt, Dissolved	ug/L	276	44.1	0.56	< 1	0.92	0.14 J	0.53	na	< 0.5	0.38 J
Iron, Dissolved	ug/L	238,000	171,000	173	39.9 J	69.5	59.4 J	38.2	na	4,160	31.0 J
Manganese, Dissolved	ug/L	40,200	14,100	223	133	1,960	1,320	1.2	na	2,310	659
Nickel, Dissolved	ug/L	408	51.1	2.5	< 0.94	0.87	< 0.94	1.8	na	0.89	1.1 J
Thallium, Dissolved	ug/L	< 2.6	< 1	< 2.6	< 1	< 2.6	< 1	6.4	na	< 2.6	< 1
Vanadium, Dissolved	ug/L	6.6	0.47 J	1.4	3.8	6	4.8	9.4	na	0.88	< 0.22

Notes:

Bold indicates an increase in concentration.

ug/L = microgram per liter.

na = not analyzed due to insufficient sample volume.

Figure 1: Entire Facility Map

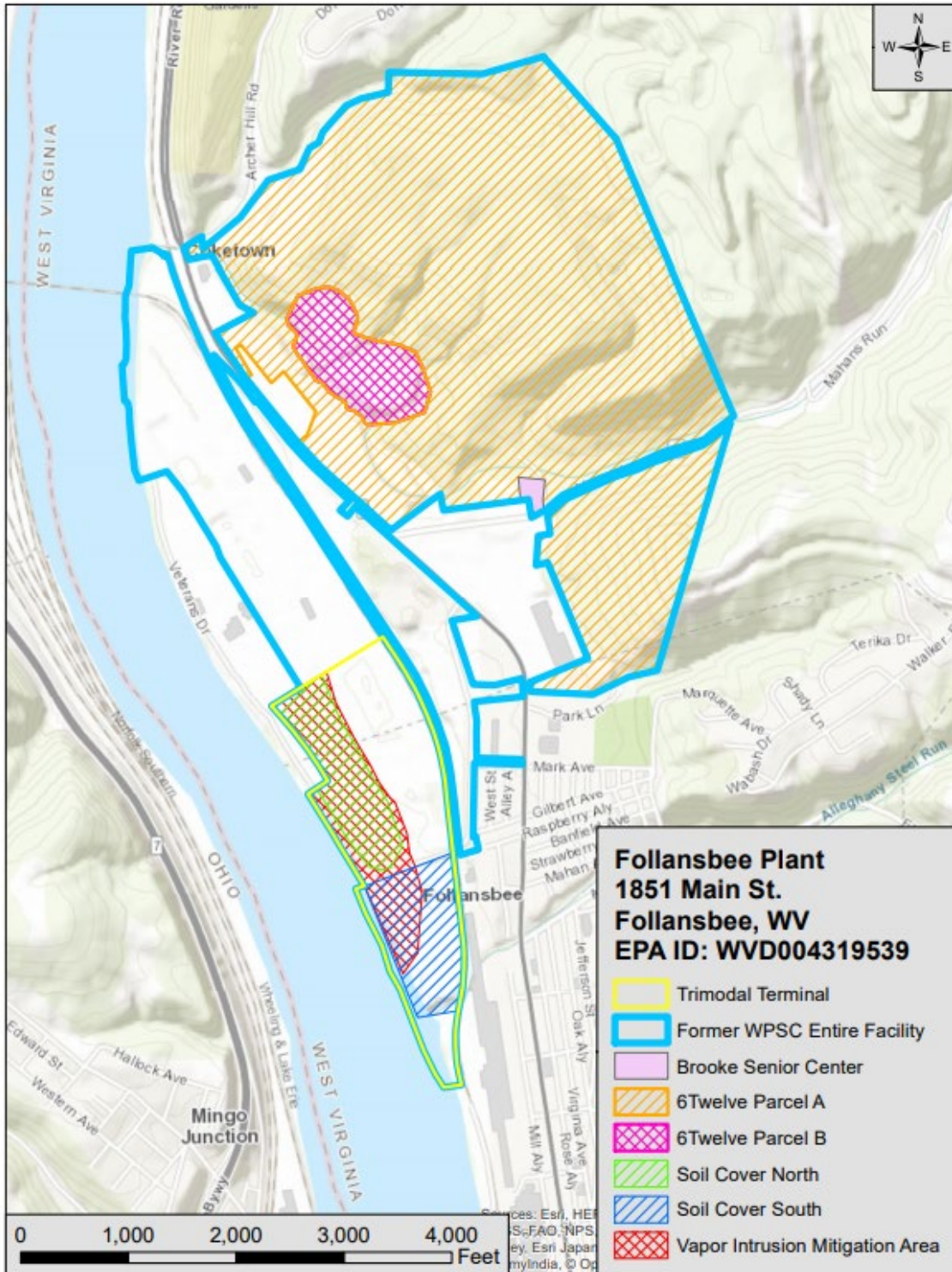


Figure 2: Parcel B Features

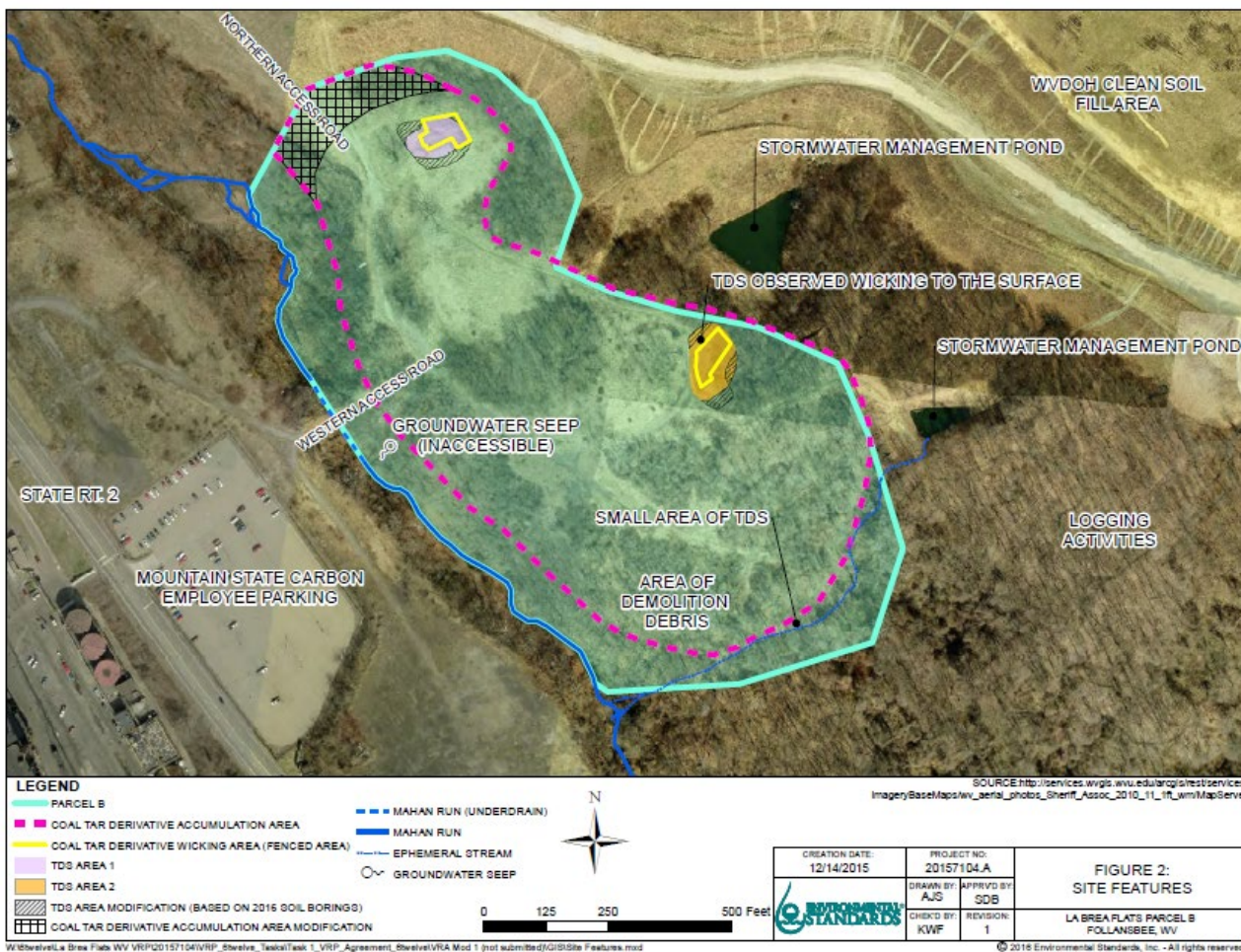


Figure 3: Parcel B Entombment Area

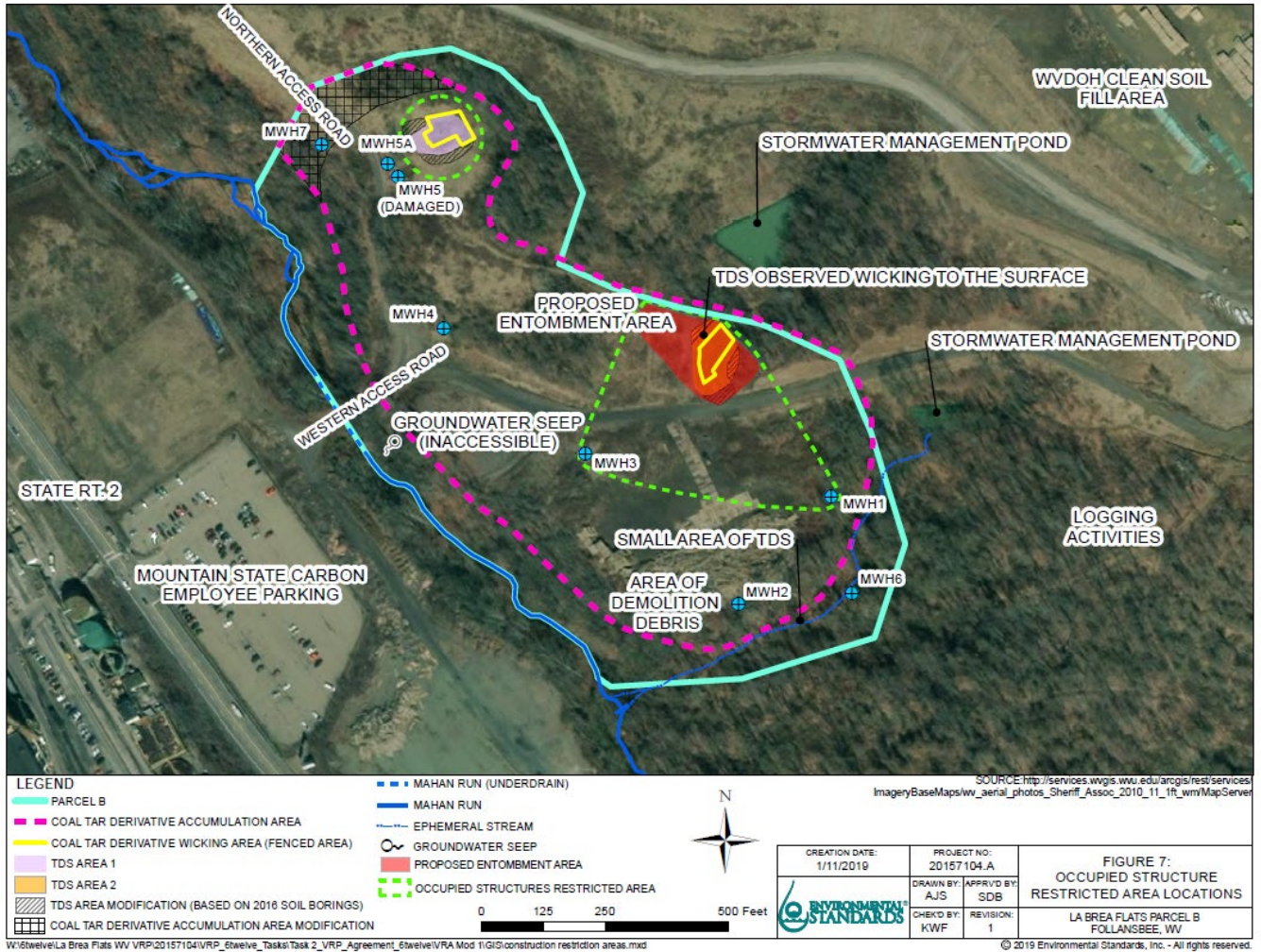


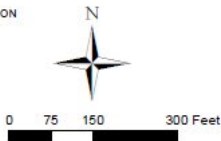
Figure 4: Parcel B Soil Cover Area



SOURCE http://services.wv.gov/arcgis/rest/services/ImageryBaseMaps/wv_aerial_photos_Sheriff_Assoc_2010_11_1ft_wv/MapServer

Legend

- ▬ PARCEL B
- - - COAL TAR DERIVATIVE ACCUMULATION AREA
- ▭ COAL TAR DERIVATIVE WICKING AREA (FENCED AREA)
- ▭ TDS AREA 1
- ▭ TDS AREA 2
- ▭ CURRENT CONTOURS
- SURFACE SOIL SAMPLE LOCATION
- - - SOIL SAMPLE GRID
- ▬ MAHAN RUN
- ▬ MAHAN RUN (UNDERDRAIN)
- - - EPHEMERAL STREAM
- ▭ PROPOSED 250,000 SQ. FT. SOIL COVER AREA



CREATION DATE: MARCH 10, 2021		PROJECT NO: 20157104.A		FIGURE 10: PROPOSED TDS AREA 1 SOIL COVER LA BREA FLATS PARCEL B FOLLANSBEE, WV
DRAWN BY: LM		APPRVD BY: LM		
CHECKED BY: LM		REVISION: 0		