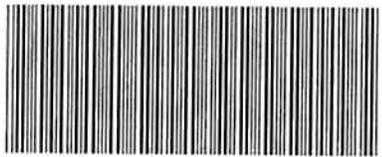




DEED BK 6119 PG 00001 to 00046
 INSTRUMENT # : 2018086464
 RECORDED DATE: 12/18/2018 02:47:08 PM



4266086-0009Y

RECORDER OF DEEDS
MONTGOMERY COUNTY
Jeanne Sorg

One Montgomery Plaza
 Swede and Airy Streets ~ Suite 303
 P.O. Box 311 ~ Norristown, PA 19404
 Office: (610) 278-3289 ~ Fax: (610) 278-3869

MONTGOMERY COUNTY ROD

OFFICIAL RECORDING COVER PAGE

Page 1 of 46

Document Type: Deed Miscellaneous
Document Date: 11/26/2018
Reference Info:

Transaction #: 4451453 - 1 Doc (s)
Document Page Count: 45
Operator Id: plai

RETURN TO: (Mail)
 MANKO, GOLD KATCHER & FOX, LLP
 401 CITY AVENUE
 SUITE 901
 BALA CYNWYD, PA 19004

PAID BY:
 MANKO GOLD KATCHER & FOX LLP

*** PROPERTY DATA:**

Parcel ID #:	23-00-01012-00-9	23-00-01015-00-6
Address:	200 W SEVENTH AVE	204 W SEVENTH AVE
	TRAPPE PA	PA
	19426	

Municipality:
 School District:

*** ASSOCIATED DOCUMENT(S):**

FEES / TAXES:

Recording Fee:Deed Miscellaneous	\$73.75
Additional Pages Fee	\$82.00
Additional Parcels Fee	\$15.00
Misc Fee	\$0.50
Total:	\$171.25

DEED BK 6119 PG 00001 to 00046
 Recorded Date: 12/18/2018 02:47:08 PM
 I hereby CERTIFY that this document is recorded in the Recorder of Deeds Office in Montgomery County, Pennsylvania.



Jeanne Sorg

Jeanne Sorg
Recorder of Deeds

Rev1a 2016-01-29

PLEASE DO NOT DETACH

THIS PAGE IS NOW PART OF THIS LEGAL DOCUMENT

NOTE: If document data differs from cover sheet, document data always supersedes.
 *COVER PAGE DOES NOT INCLUDE ALL DATA, PLEASE SEE INDEX AND DOCUMENT FOR ANY ADDITIONAL

MONTGOMERY COUNTY COMMISSIONERS REGISTRY

23-00-01015-00-6 TRAPPE
204 W SEVENTH AVE

UTI HOLDINGS LLC
B 003 U 052 L 2 2308 DATE: 12/18/2018

\$15.00
JU

When recorded, return to:
Manko, Gold, Katcher & Fox, LLP
401 City Avenue, Suite 901
Bala Cynwyd, PA 19004
Attn: Carol F. McCabe, Esquire
Telephone: 484-430-5700

MONTGOMERY COUNTY COMMISSIONERS REGISTRY

23-00-01012-00-9 TRAPPE
200 W SEVENTH AVE

UTI HOLDINGS LLC
B 003 U 019 L 3340 DATE: 12/18/2018

\$15.00
JU

The County Parcel Identification No. of the Property is: 23-00-01012-00-9 & 23-00-01015-00-6

Montgomery County

GRANTOR: UTI Holdings, LLC

DEC 18 2018

PROPERTY ADDRESS: 200 W. Seventh Ave., Trappe, Pennsylvania

Recorder of Deeds

ENVIRONMENTAL COVENANT

This Environmental Covenant is executed pursuant to the Pennsylvania Uniform Environmental Covenants Act, Act No. 68 of 2007, 27 Pa. C.S. §§ 6501 – 6517 (UECA). This Environmental Covenant subjects the Property identified in Paragraph 1 to the activity and/or use limitations in this document. As indicated later in this document, this Environmental Covenant has been approved by the United States Environmental Protection Agency (EPA).

1. **Property affected.** The property affected (Property) by this Environmental Covenant is located in Trappe Borough, Montgomery County.

The latitude and longitude of the center of the Property is: 40⁰/11⁷/39.5" north and 75⁰/28⁷/59.1" west

The Property has been known by the following name(s): UTI, Accellent

A complete description of the Property is attached to this Environmental Covenant as Exhibit A. A map of the Property is attached to this Environmental Covenant as Exhibit B.

2. **Property Owner / GRANTOR / GRANTEE.** UTI Holdings, LLC is the owner of the Property and the GRANTOR and GRANTEE and a HOLDER of this Environmental Covenant.

3. The mailing address of the owner is: 200 W. Seventh Ave., Trappe, PA 19426.

4. **Description of Contamination and Remedy.** The Property has been used for the production of small diameter specialty metal tubing and precision tubular parts since operations began in 1964. Certain substances were detected in groundwater at

45/32

the Property above Maximum Cleanup Levels (MCLs) set by EPA for volatile organic compounds (VOCs) and chromium. Owner subsequently performed remedial activities at the Property pursuant to a Final Administrative Order on Consent (AOC) executed with EPA in 1992. See In the Matter of UTI Corporation, USEPA Docket No. RCRA-III-055-CA, EPA I.D. PAD002344463. Pursuant to the AOC, certain Cleanup Goals were identified for chromium, trichloroethylene and 1,1,1 trichloroethane. Contaminated groundwater has been remediated via a groundwater treatment system, which will continue to operate at the Property in accordance with EPA's May 2016 Explanation of Significant Differences (ESD). Additional information about the historic remedial activities, including the specific substances detected, the sampling and monitoring that was performed, and the remedial activities that have been performed at the Property may be obtained from the United States Environmental Protection Agency, Region 3, 1650 Arch Street, Philadelphia, PA 19103. This Environmental Covenant sets forth the EPA-approved requirements for the Property. The administrative record pertaining to the ESD is located at the locations listed below:

US EPA Region 3
1650 Arch Street
Philadelphia, PA 19103

The administrative record is also available online at:

<https://www.epa.gov/hwcorrectiveactionsites/hazardous-waste-cleanup-acellent-incorporated-formerly-uniform-tubes>.

5. **Activity and Use Limitations.** The Property is subject to the following activity and use limitations, which the then current owner of the Property, and its tenants, agents, employees and other persons under its control, shall abide by:

- (a) Use of contaminated groundwater at the Property shall be prohibited;
- (b) A groundwater recovery and treatment system shall be operated with groundwater recovery from UTM-1 and/or UTM-11 at the Property as shown on Exhibit B, as required by the Post Remediation Care Plan; and,
- (c) Sampling shall be performed in accordance with the requirements of the Post Remediation Care Plan at Exhibit C at the TI Zone and Perimeter monitoring well locations shown on Exhibit B for trichloroethylene and 1,1,1 trichloroethane, and such sampling results shall be submitted to EPA and to the Grantor, if the Grantor is not the current owner of the Property.

These Activities and Use Limitations shall be binding upon the Property until such time as this Environmental Covenant is terminated in accordance with Section 10, below.

6. **Notice of Limitations in Future Conveyances.** Each instrument hereafter conveying any interest in the Property subject to this Environmental Covenant shall contain a notice of the activity and use limitations set forth in this Environmental Covenant and shall provide the recorded location of this Environmental Covenant.

7. **Compliance Reporting.** In conjunction with an annual report submitted in accordance with the Post Remediation Care Plan for the Property, the then current owner of the Property shall submit to EPA and any Holder, written documentation stating whether or not the activity and use limitations in this Environmental Covenant are being abided by. In addition, within 21 days after a) written request by EPA, b) transfer of title of the Property or of any part of the Property affected by this Environmental Covenant, c) becoming aware of noncompliance with paragraph 5 (Activity and Use Limitations), or d) an application for a permit or other approval for any building or site work that could affect the contamination subject to this Environmental Covenant, the then current owner shall send a report to EPA and any Holder. The report shall state whether or not there is compliance with paragraph 5. If there is noncompliance, the report will state the actions that will be taken to assure compliance.

8. **Access by EPA.** In addition to any rights already possessed by EPA, this Environmental Covenant grants to EPA a right of reasonable access of the Property in connection with implementation or enforcement of this Environmental Covenant.

9. **Recording and Notification of Recording.** Within 90 days after the EPA approval of this Environmental Covenant, the Owner shall file this Environmental Covenant with the Recorder of Deeds for each County in which the Property is located, and send a file-stamped copy of this Environmental Covenant to EPA, Trappe Borough, Montgomery County, the Pennsylvania Department of Environmental Protection (PADEP), any Holder, each person holding a recorded interest in the Property, and each person in possession of the Property.

10. **Termination or Modification.**

(a) This Environmental Covenant runs with the land unless terminated or modified in accordance with 27 Pa. C.S. §§ 6509 or 6510 or in accordance with this paragraph.

(b) Exhibit B to the Environmental Covenant may be amended upon written agreement by the Grantor and EPA to identify alternative TI Zone and Perimeter monitoring wells as appropriate based on sampling data. The designation and total number of monitoring wells shall remain as described within the Post Remediation Care Plan attached as Exhibit C, unless otherwise agreed upon by both parties.

(c) This Environmental Covenant may be terminated upon attainment with the EPA maximum contaminant levels (MCLs) for chromium, trichloroethylene and

1,1,1 trichloroethane at the Property. EPA must approve, in writing, of such termination.

(d) In accordance with 27 Pa. C.S. § 6510(a)(3)(i), Grantor hereby waives the right to consent to any amendment or termination of the Environmental Covenant by consent; it being intended that any amendment to or termination of this Environmental Covenant by consent in accordance with this Paragraph requires only the following signatures on the instrument amending or terminating this Environmental Covenant: (i) the Holder at the time of such amendment or termination; (ii) the then current owner of the Property; and (iii) EPA.

(e) This Environmental Covenant may be amended or terminated as to any portion of the Property that is acquired for use as state highway right-of-way by the Commonwealth of Pennsylvania provided that: (1) PADEP waives the requirements for an environmental covenant and for conversion pursuant to 27 Pa. C.S. § 6517 to the same extent that this Environmental Covenant is amended or terminated; (2) PADEP determines that termination or modification of this Environmental Covenant will not adversely affect human health or the environment; and (3) PADEP provides 30-days advance written notice to the current property owner, each holder, and, as practicable, each person that originally signed the Environmental Covenant or successors in interest to such persons.

11. **Notification and Enforcement.**

(a) **Notification.** The then current owner shall provide the EPA written notice of:

- (1) the pendency of any proceeding that could lead to a foreclosure as referred to in 27 Pa. C.S. § 6509(a)(4), within seven calendar days of the owner's receiving notice of the pendency of such proceeding;
- (2) any judicial action referred to in 27 Pa. C.S. § 6509(a)(5), within seven calendar days of the owner's receiving notice of such judicial action;
- (3) any judicial action referred to in 27 Pa. C.S. § 6509(b), within seven calendar days of the owner's receiving notice of such judicial action;
and
- (4) termination or amendment of this Environmental Covenant pursuant to 27 Pa. C.S. § 6510, within seven calendar days of the owner's becoming aware of such termination or amendment.

(b) **Enforcement.** A civil action for injunctive or other equitable relief for violating this Environmental Covenant may be maintained by the EPA.

12. **EPA's and PADEP's addresses.** Communications with EPA and PADEP regarding this Environmental Covenant shall be sent to:

Director
Land and Chemicals Division
USEPA Region 3
1650 Arch Street
Philadelphia, PA 19103

Regional Manager
Environmental Cleanup and Brownfields
PADEP
SE Regional Office
2 E. Main Street
Norristown, PA 19401

13. **Severability.** The paragraphs of this Environmental Covenant shall be severable and should any part hereof be declared invalid or unenforceable, the remainder shall continue in full force and effect between the parties.

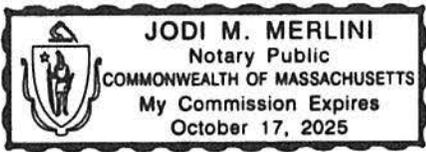
ACKNOWLEDGMENTS

Date: 11-26-18 UTI Holdings, LLC, Grantor
By: [Signature]
Name: Anthony Gilarde
Title: Chief Financial Officer

COMMONWEALTH OF MASSACHUSETTS)
)
COUNTY OF NORFOLK) SS:

On this 26 day of November, 2018, before me, the undersigned officer, personally appeared Anthony Gilarde, who acknowledged himself to be the Chief Financial Officer of UTI Holdings, LLC, a limited liability corporation, whose name is subscribed to this Environmental Covenant, and acknowledged that he is authorized to act on behalf of UTI Holdings, LLC and executed this Environmental Covenant for the purposes therein contained.

In witness whereof, I hereunto set my hand and official seal.



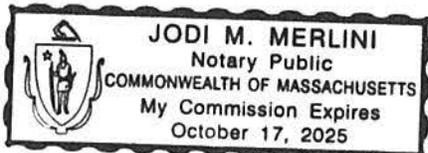
[Signature]
Notary Public

Date: 11-26-18 UTI Holdings, LLC, Grantee/Holder
By: [Signature]
Name: Anthony Gilarde
Title: Chief Financial Officer

COMMONWEALTH OF MASSACHUSETTS)
)
COUNTY OF NORFOLK) SS:

On this 26 day of November, 2018, before me, the undersigned officer, personally appeared Anthony Gilarde, who acknowledged himself to be the Chief Financial Officer of UTI Holdings, LLC, a limited liability corporation, whose name is subscribed to this Environmental Covenant, and acknowledged that he is authorized to act on behalf of UTI Holdings, LLC and executed this Environmental Covenant for the purposes therein contained.

In witness whereof, I hereunto set my hand and official seal.



[Signature]
Notary Public

Date: 12.12.18

APPROVED, by U.S. Environmental Protection Agency

By: *John A. Armstead*

Name: John A. Armstead

Title: Director

Land and Chemicals Division

United States Environmental Protection Agency

Region 3

COMMONWEALTH OF PENNSYLVANIA)

)

COUNTY OF PHILADELPHIA) SS:

On this 12th day of December, 2018, before me, the undersigned officer, personally appeared John A. Armstead, who acknowledged himself to be the Director of the Land and Chemicals Division of the U.S. Environmental Protection Agency, Region 3, whose name is subscribed to this Environmental Covenant, and acknowledged that he is authorized to act on behalf of the U.S. Environmental Protection Agency and executed this Environmental Covenant for the purposes therein contained

In witness whereof, I hereunto set my hand and official seal.

Patricia J. Schwenke
Notary Public

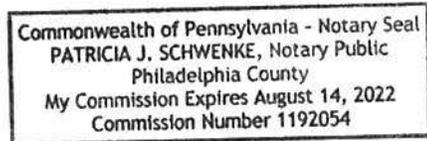


EXHIBIT A

Site Description

Metes and Bounds from Property Deeds

Order No: D273367GD
Reference No:

Collegeville

**Schedule C
Description and Recital**

23-00-01012-00-9 (Premises)

PREMISES "A"

ALL THAT CERTAIN, lot or piece of ground with the buildings and improvements thereon erected.

SITUATE in the Borough of Trappe, County of Montgomery and Commonwealth of Pennsylvania bounded and described according to a certain plan thereof made by Will D. Hiltner, Registered Surveyor, Norristown Pennsylvania, dated February 31st 1949 as follows to wit.

BEGINNING at a spike set in the center line of West 7th Avenue (33 feet wide) at a common corner of this and lands of Hiram Hedrick, land formerly of Oliver D. Berchel and land now or late of Edwin H. Coggenhall; thence extending along the center line of said West 7th Avenue, partly along said Coggenhall's land, North 46 degrees, 13 minutes East five hundred eighty feet and forty seven one-hundredths feet to a point; thence extending South 57 degrees, 23 minutes, 40 seconds East, along land now or late of Jesse Trump, seven hundred seventy one feet and fifty six one-hundredths feet to a stake; thence extending still along said Trump's land and along land now or late of Griesbach property North 41 degrees, 46 minutes East seven hundred ninety one feet and twenty one-hundredths feet to a stake; thence extending along land of Raymond Pollarine and land formerly of Ramond Pollarine, South 56 degrees, 15 minutes East six hundred forty seven feet to a spike in the center line of West 50th Avenue, thence extending along the center line of West 50th Avenue South 41 degrees, 45 minutes West, seventeen hundred ninety-three feet and eighty one-hundredths feet to a point; thence extending along land now or late of Hiram Hedrick North 39 degrees, 57 minutes West fourteen hundred sixty-three feet and twenty one-hundredths feet to the first mentioned point and place of beginning.

CONTAINING thirty-seven and six hundred twenty four one-thousandths acres of land more or less.

EXCEPTING OUT OF PREMISES "A"

EXCEPTING AND RESERVING THEREOUT AND THEREFROM:

ALL THAT CERTAIN, lot or piece of land situate in Trappe, Montgomery County, Pennsylvania bounded and described in accordance with a survey thereof made by Meixner Registered Surveyors, on April 8, 1960 shown on plan 60-1720-08 dated April 25, 1960 as follows, to wit.

BEGINNING at a point in the center line of 7th Avenue said point being located North 47 degrees, 23 minutes East 220.28 feet from a bend said center line; said bend being located North 35 degrees, 8 minutes East 568 feet along the center line of an old road bed from the center line of Township line (Linfield) Road; thence along the center line of 7th Avenue North 46 degrees, 54 minutes and

28 seconds East 18.25 feet to a spike; thence along other lands of Uniform Tubes, Inc. of which this is a part of South 36 degrees, 18 minutes and 15 seconds East 389.10 feet to an iron pin; thence along other lands of Harold Derwiler North 38 degrees, 59 minutes West 387.37 feet to aforementioned point and place of beginning.

CONTAINING 0.08092 acres.

PREMISES "B"

ALL THAT CERTAIN, lot or piece of ground, situate in the Borough the Trappe, County of Montgomery and Commonwealth of Pennsylvania described according to a survey and plan made by David Maisner, Registered Surveyor on the first day of April A.D. 1966, as follows, to wit.

BEGINNING at a spike set on the center line of 7th Avenue (no width given), a corner of other land of Uniform Tubes Inc; thence from said point of beginning along the said center line of 7th Avenue, North 42 degrees, 38 minutes 29 seconds East, 150 feet to a point; thence South 56 degrees, 29 minutes, 31 seconds East crossing an iron pin set on the Southeasterly side of said 7th Avenue and extending along line of other lands of Melvin T. Hunsworth, seven hundred seventy-one and fifty-six one-hundredths feet to an iron pin; thence South 42 degrees, 38 minutes, 39 seconds West along other lands of Uniform Tubes Inc., 150 feet to an iron pin; thence North 56 degrees, 29 minutes, 39 seconds West still along other land of Uniform Tubes, Inc., seven hundred seventy-one and fifty-six one-hundredths feet to a spike set on the center line of 7th Avenue, the first mentioned point and place of beginning

CONTAINING 2.62320 acres of land be the same more or less.

Being as to Premises "A" the same premises which Elsie Carlier and Louis Carlier by Deed dated 9/29/1959 and recorded 9/29/1959 in Montgomery County in Deed Book 3003 page 312 conveyed unto Uniform Tubes, Inc., in fee.

Being as to Premises "B" the same premises which Melvin T. Hunsworth and Elizabeth V. Hunsworth by Deed dated 8/31/1966 and recorded 9/1/1966 in Montgomery County in Deed Book 3442 page 1127 conveyed unto Uniform Tubes, Inc., a Pennsylvania Corporation, in fee

Exhibit B

Site Monitoring Plan

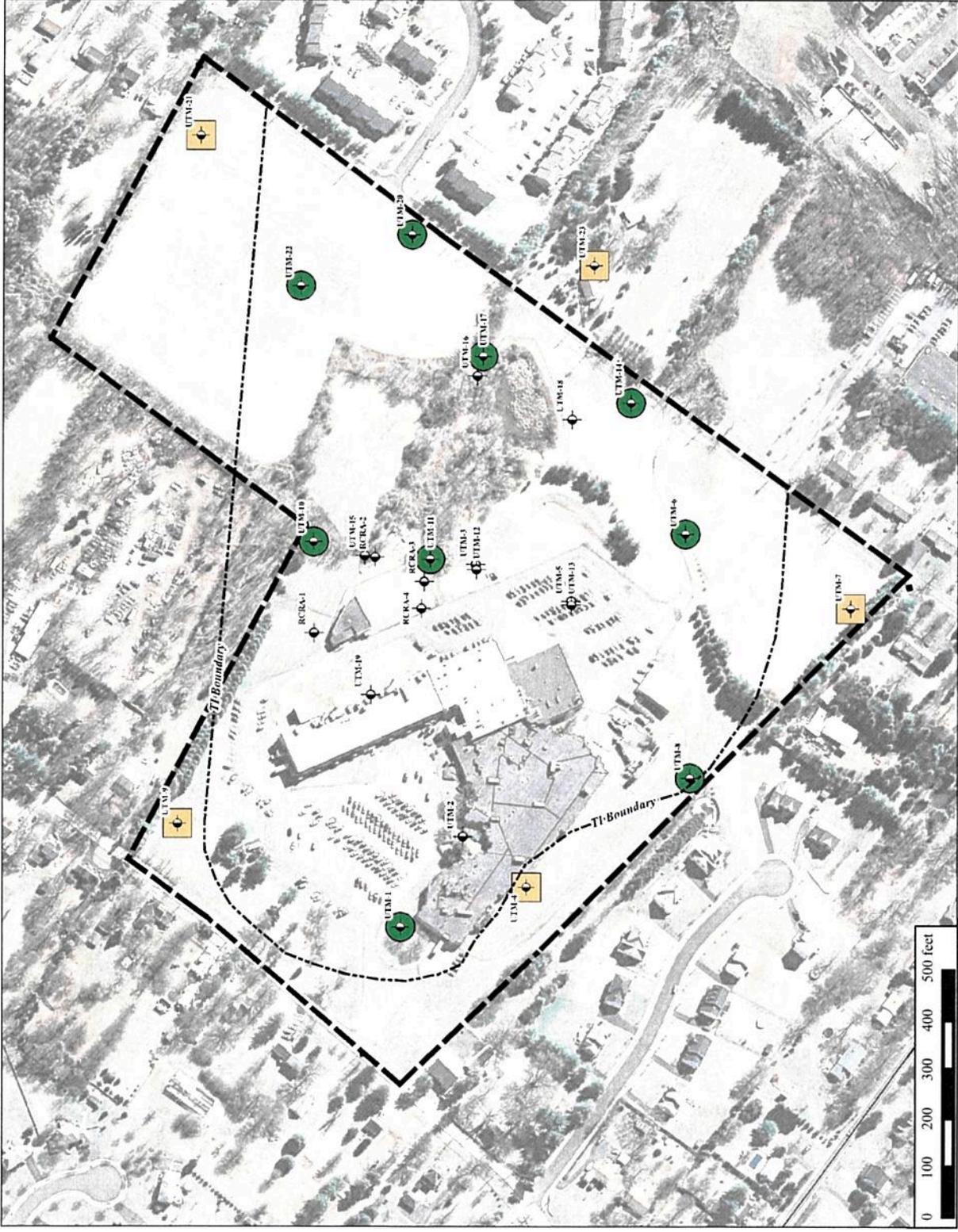
Legend

- UTM Collegeville Land Parcel Boundary - Approximate
- TI Zone Boundary
- Monitoring Well
- TI Zone Monitoring Well
- Annual Point of Compliance Well



MARKS Environmental, Inc.

Exhibit B
 Post-Remediation Groundwater Monitoring Points
 Collegeville Pennsylvania Facility
 UTI Holdings, LLC



Note: UTM-1 and UTM-11 are continuously operating groundwater recovery wells.

Exhibit C

Post Remediation Care Plan (without Appendix C)

POST REMEDIATION CARE PLAN

**UTI Holdings, LLC
Groundwater Remediation**

Collegeville, PA Facility

June 2018

**Prepared by:
Marks Environmental, Inc.
140 Bollinger Road
Elverson, PA 19520**

**Prepared for:
UTI Holdings, LLC
Collegeville, Pennsylvania**

SECTION 1 INTRODUCTION

Section 1.1 General

This Post-Remediation Care Plan (PRCP) was prepared by Marks Environmental, Inc. (MEI) on behalf of UTI Holdings, LLC (UTI). This PRCP provides for the on-going operation and monitoring of a groundwater extraction system that has been operated at the UTI site (Site) located in Montgomery County, Pennsylvania (Figure 1) under the Consent Order (USEPA Docket No. RCRA-III-055-CA). The remediation of the Site has been on-going since 1978, initiated in less than a year after the discovery of a release of trichloroethene (TCE) and 1,1,1 trichloroethane (TCA) at the Site. The Site is comprised of two real estate parcels, Parcel #23-00-01012-00-9 (37.62 acres) and Parcel #23-00-01015-00-6 (2.64 acres).

This PRCP follows USEPA's approval of the *Technical Impracticability Determination for Groundwater Remediation, Accellent Inc., Montgomery County, Collegeville, PA* (TI Waiver Request), prepared by Marks Environmental, Inc., June 2012 on behalf of UTI, pursuant to which it has been demonstrated that the attainment of the Cleanup Goals identified in the Consent Order is technically impracticable. Accordingly, UTI has proposed alternate performance standards and Points of Compliance (POCs), and has demonstrated attainment with such alternate performance standards at the proposed POCs. The TI Waiver Request was approved by the USEPA by letter dated August 22, 2013. This PRCP presents the groundwater monitoring and routine operation and maintenance (O&M) requirements for the ongoing operation of the Site groundwater extraction system. Annual reporting requirements and an environmental covenant (EC), that will ensure the continued protection of human health and the environment, are also included in, or referenced as an integral part of, this PRCP. Together, the PRCP and the EC provide enforceable mechanisms for site operation and USEPA oversight following termination of the Consent Order.

SECTION 2 POST-REMEDATION CARE PLAN

EPA's approval of the TI Waiver Request was based on the determination that areas within the designated TI Zone will not be required to meet the original cleanup goals identified in the Consent

Order, but will be monitored on a periodic basis via the TI Zone Monitoring Wells. It has been demonstrated that off-site receptors are not impacted by contaminant concentrations above USEPA's maximum contaminant levels (MCLs). On-site wells outside of the perimeter of the plume (i.e.: point of compliance [POC] wells) have demonstrated consistent compliance with the MCLs due to their position outside of the TI Zone. Natural variability in the Site hydrogeology and groundwater quality will be monitored in accordance with this PRCP to ensure that the documented progress in reducing the size of the plume continues. USEPA considers compliance at the plume perimeter as a statistical demonstration that contaminant levels outside of the TI Zone perimeter do not rise above the MCLs and that off-site potential users remain protected. During a meeting on June 15, 2015 between the USEPA and UTI, the historic groundwater quality data were reviewed and appropriate monitoring points for attainment monitoring were selected and incorporated into this PRCP.

As set forth below, this PRCP includes requirements for the continued operation of the pump and treat system, ongoing groundwater monitoring, and annual reporting to USEPA.

The PRCP includes the following elements:

1. Plume containment via groundwater extraction using both extraction wells (UTM-1 and UTM-11).
2. Annual groundwater level and contaminant concentration monitoring at site wells, including both TI Zone monitoring wells and POC wells.
3. Annual reporting of operations, maintenance, and monitoring results to USEPA.
4. Prohibition of future groundwater use (for potable water supply) within the TI-Zone.

Details regarding the ongoing monitoring and operations at the Site are provided in Sections 2.2 through 2.6 of the PRCP.

The Final Remedy described in the PRCP and the EC, will remain in place until USEPA agrees that the results of groundwater monitoring, Fate and Transport groundwater modeling, or other data indicate that attainment of the groundwater cleanup goals can be maintained without the continued operation of the pump and treat system. UTI or the then current Site owner may petition the USEPA to change or terminate these ongoing requirements in the future.

Section 2.1 Points-of-Contact

Key project points-of-contact are presented below in Table 1.

Table 1
Project Points-of-Contact

Contact/Affiliation	Title	Contact Phone and Email	Address
Ms. Tran N. Tran USEPA	RCRA Project Manager	(215) 814-2079 Tran.tran@epa.gov	Office of PA Remediation 1650 Arch Street, 36020 Philadelphia, PA 19103-2029
Mr. Christopher Ford UTI Holdings, LLC	Director of Operations	(716) 759-5368 chris.ford@integer.net	200 West 7 th Avenue Collegeville, PA 19426
Mr. Thomas Marks Marks Environmental, Inc.	Principal Hydrogeologist	(610) 909-8250 marksenvironmental@comcast.net	140 Bollinger Road Elverson, PA 19520

Section 2.2 Groundwater Cleanup Goals

The groundwater cleanup goal outside the TI Zone is the Federal MCL for TCE, TCA, and chromium, which are as follows:

- TCE - 5 µg/l
- TCA - 200 µg/l
- Total Chromium – 100 µg/l

In order to demonstrate continued attainment at the Site, and continued containment of the plume, five POC monitoring wells are established in Section 2.3 below, that will be monitored annually for TCE/TCA. Chromium has previously been documented as having attained the cleanup goal in all of the site monitoring wells therefore analysis for chromium is no longer required. Also included in Section 2.3 are TI Zone monitoring wells to be sampled annually as part of the ongoing Site monitoring program. Figure 2 shows the TI Zone, POC monitoring wells and the TI Zone monitoring wells. The geographic survey coordinates and elevations for all of the on-site monitoring wells are included in Appendix A. Also included in Appendix A, are the geographic survey coordinates for eight property corners along the Site property boundary. These boundary corner coordinates are labeled as Property Corner #1 through #8 on Figure 2 and in the table in Appendix A.

For purposes of future monitoring efforts, USEPA considers ongoing compliance with the groundwater cleanup standard to be a statistical demonstration that contaminant levels at the POC wells do not rise above MCLs, and that off-Site potential groundwater users remain protected. Practically, this compliance goal can be demonstrated by maintaining the TI Zone at its approximate current footprint, or smaller. The statistical approach and POC wells presented below are designed to reflect this goal, while at the same time allowing for the natural variations in groundwater quality that have been documented over the past 35 years of active remediation at the Site.

Section 2.3 Post-Remediation Care Groundwater Monitoring

Annual (or Quarterly where designated or as warranted) Post Remediation groundwater sampling will be conducted to monitor the TI Zone and the area outside of the TI Zone. UTI, or the then current owner of the Site, will sample and analyze the monitoring wells listed in Table 2 for TCE and TCA. The analytical method to be used for the analyses, and the QA/QC samples that will be collected with each sampling event, are also shown in Table 2. The selected locations include five wells located outside the perimeter of the TI Zone and nine wells located within the TI Zone.

Table 2
Annual Groundwater Monitoring Sample Collection Locations

Well	Sampling Frequency	Sample Parameters and Analysis	
		Compound	EPA Analytical Method
Point of Compliance Wells			
UTM-4	Annual	TCE/TCA	8260B
UTM-7*	Quarterly/Annual		
UTM-9	Annual		
UTM-21	Annual		
UTM-23	Annual		
TI Zone Monitoring Wells			
UTM-1	Annual	TCE/TCA	8260B
UTM-6	Annual		
UTM-8	Annual		
UTM-10	Annual		
UTM-11	Annual		
UTM-14	Annual		
UTM-17	Annual		
UTM-20	Annual		
UTM-22	Annual		
QA/QC Samples			
Trip Blank	One per shipment	TCE/TCA	8260B

*Note: POC well UTM-7 will be monitored quarterly for four quarters, and annually thereafter, in order to establish a recent data set for the statistical analyses.

Sampling will be performed using the low-flow sampling method (EPA, Puls and Barcelona, 1995), consistent with historic sampling at the Site. A trip blank will be submitted to the laboratory for quality assurance/quality control (QA/QC) purposes for each shipment of samples. All samples will be placed into a pre-chilled cooler and submitted under chain-of-custody documentation to a Pennsylvania-certified analytical laboratory (currently TestAmerica Laboratory, Pittsburgh, Pennsylvania) for TCE/TCA analysis in accordance with USEPA Method 8260B.

After the first two annual rounds of Post Remediation groundwater sampling are completed, UTI will review the results and propose, if appropriate, a reduced number of TI Zone Monitoring Points. Any USEPA-approved changes to the PRCP will constitute a modification to the EC requirements, and thereby will become part of the required ongoing groundwater monitoring at the Site.

Section 2.4 Statistical Demonstration

The POC wells have been below the MCL during the most recent monitoring events, although there are not eight recent data points for UTM-7. As noted in Table 2 above, UTM-7 was designated for four quarters of quarterly monitoring in order to obtain sufficient recent data for statistical analysis. Quarterly groundwater samples were collected from well UTM-7 from May 2016 through February 2017 in order to establish enough data points to allow valid statistical analysis of the results. The results of the quarterly sampling of well UTM-7, and the subsequent statistical analysis, allowed the redesignation of this well as an Annual POC sampling point following the February 2017 sampling event.

Although results above the MCL are not expected for the POC wells, such a result would not necessarily be a cause for concern if the remediation system is operating properly. The heterogeneous nature of the Brunswick Formation bedrock aquifer at the Site has been well documented. Significant seasonal variations in groundwater quality, likely related to dewatering portions of the aquifer (and upper fracture zones) occur during periods when the water table is low. The water table elevation typically fluctuates between 10 feet to 30 feet above MSL throughout the year, depending on the monitoring point. Over the past 35 years of remediation monitoring at the Site, order of magnitude variations in the concentrations of TCE and TCA have been commonly observed within a one year period. Laboratory precision and field conditions during sampling, impart additional variability into the data. Even with the variability in groundwater quality at the

Site - the historic monitoring of on-site and off-site wells, the Fate and Transport model, and the receptor survey have demonstrated that there are no complete exposure pathways.

The above variability is common for groundwater remediation and it may be necessary to perform statistical analysis to demonstrate that contaminant levels outside of the TI Zone perimeter do not rise above the MCLs and that off-site potential users remain protected. USEPA requested that the statistical demonstration consist of comparing the 95% Upper Confidence Limit (UCL) for the POC wells to the MCLs to determine whether increased monitoring or other corrective action is warranted.

Statistical Testing

The following sequential approach will be utilized for determining whether any POC well analytical result continues to demonstrate attainment with the cleanup standard with sufficiently high confidence, or whether additional evaluation is warranted:

1. If the analytical result and/or the 95% UCL calculated based on the last 8 monitoring results are below the MCL, no further action (other than routine monitoring) is needed.
2. If the analytical result and the 95% UCL are above the MCL, the well will be re-sampled within two weeks of receipt of the initial analytical report, to determine whether the laboratory or field error may have been the cause of the anomalous result.
3. If using the re-sampling result in the place of the initial result indicates the initial sampling was anomalous (i.e., the result and/or the 95% UCL calculated using the re-sampling analysis are below the MCL), routine monitoring would resume, and the initial result will be replaced by the re-sampling result for the future UCL calculations.
4. If the result and the 95% UCL remain above the MCL (using the re-sampling analytical result in place of the initial result), the well will be monitored quarterly until the 95% UCL drops below the MCL, at which time routine annual monitoring will resume.
5. If TCE is detected at a concentration greater than 15 ug/L in two separate sampling events during the eight quarters of monitoring, or if the 95% UCL does not drop below the MCL

after eight quarters of sampling, a re-evaluation of the Site hydrology will be initiated immediately as described below.

Additional Corrective Action

Additional corrective action will include reevaluating hydrology of the Site area and assessing whether new pumping wells or changes in pumping rates have occurred in the Site area. The additional corrective action will also include an evaluation of possible off Site sources, as appropriate, that could explain a change in groundwater quality at the Site. Should this re-evaluation indicate a change in the local hydrogeology is responsible for the exceedance, a survey and evaluation of potential off-Site ecological or human receptors will be conducted to determine whether the apparent change in the groundwater flow regime poses a threat to any receptor. The evaluation shall include a determination of whether additional actions are necessary or appropriate to address contaminant levels at POC wells. A report of corrective action activities, findings and any proposed additional actions shall be submitted to the USEPA in accordance with the requirements in Section 4 below, in the next Quarterly or Annual Groundwater Monitoring Report. It is expected that this receptor survey will involve a modification of the fate and transport model for the plume (using updated analytical and hydrologic measurements) and a review of previous receptor surveys to determine potential exposure pathways. The assessment of potential off-Site sources will include a regulatory file review to determine whether releases in the Site area may be responsible for anomalous analytical results.

Section 2.5 Post-Remediation System Operations and Maintenance

The Final Remedy includes the continuous operation of the groundwater extraction system. Routine groundwater extraction system operation and maintenance (O&M) has been and will continue to be performed by UTI personnel, or any future owner of the Site, MEI personnel, and outside contractors, as necessary. System O&M consists of daily, weekly, and monthly system checks that are performed in accordance with Site Operations and Maintenance Manual for the Groundwater Remediation and Soil Vapor Extraction Systems (O&M Manual) (MEI, 2002; updated January 2014). The O&M Manual is currently filed at the UTI Collegeville Plant Maintenance Supervisor's office and in the Environmental, Health and Safety Manager's office.

The section of the O&M Manual listing periodic system maintenance and inspection requirements is included at Appendix B to this PRCP.

The extraction well system will remain in continuous operation and O&M activities will continue to occur at the frequencies identified in the O&M Manual until such time as USEPA approves changes to the required operation of the pump and treat system.

Section 2.6 System Failure Notifications

If system maintenance or repairs require that the primary (UTM-1) or secondary (UTM-11) groundwater extraction wells be shut down for greater than 10 days, the USEPA shall be notified by telephone. This notification will, at a minimum, include the following information:

1. The date of well(s) failure and suspected cause.
2. Current well status (returned to operation or temporarily down for repairs).
3. Expected time frame for repair activities/parts acquisition.
4. Expected time frame for return of system to operation.
5. Contingencies in place to deal with Plant 1 Sump water during the time period that the wells are not operable.

Upon completion of a system repair following such a notification, a letter and/or electronic mail summary of the actions performed to rectify each occurrence will be forwarded to USEPA.

SECTION 3 ENVIRONMENTAL COVENANT

An Environmental Covenant (EC) was required by USEPA to be recorded for the Site to ensure that the PRCP was implemented and able to be enforced by USEPA. A copy of the EC is attached as Appendix C, and will be, upon USEPA approval, filed with the Recorder of Deeds for Montgomery County, PA.

SECTION 4 QUARTERLY/ANNUAL REPORTING

Quarterly sampling of POC well UTM-7 is required for four quarters, beginning upon approval of this PRCP (November 20, 2015). Depending upon the statistical evaluation of the groundwater results to be collected following the closure of the Consent Order, quarterly sampling of other wells may be required for a period of time necessary to evaluate anomalous data. Quarterly (if applicable) or Annual Groundwater Monitoring Reports covering the groundwater monitoring and system operations activities conducted pursuant to this PRCP shall be prepared and forwarded to the USEPA. The sampling events and reports will be conducted/prepared in a frequency consistent with the current schedule outlined in the Consent Order. Quarterly sampling rounds (if required) will be conducted during May, August, and November of each year. The annual sampling round will be conducted in February of each year. Quarterly reports (when applicable) will be submitted by the 15th day of the month of the next scheduled quarterly sampling event (i.e.: a quarterly report for a sampling event completed in August would be due by November 15th). The Annual Groundwater Monitoring Report will be submitted by May 15th of each year. Reports will be submitted by the then current owner of the Site.

The Annual Groundwater Monitoring Report shall include the following information:

- Sampling event dates, wells sampled, and general observations (e.g., well condition).
- Summary of analytical data findings and data comparison to previous sampling events, including comparing the POC well results and 95% UCL for the last 8 sampling events to the MCLs.
- Summary of extraction well system functionality and O&M repairs performed over the year period of performance.
- Summary of extraction well system compliance with NPDES and DRBC permit requirements.
- A discussion of general groundwater quality trends and any observed changes in groundwater quality at the Site.

- The results of any necessary re-sampling of POC wells and re-evaluations of the Site hydrogeology (i.e.: updated graphical depictions of the TI-Zone and groundwater quality results, revised fate & transport groundwater flow model, etc.), as appropriate.
- A TCE plume isoconcentration map shall be prepared every five years, beginning five years from the date of approval of the PRPC.

The Quarterly Groundwater Monitoring Report, when required, shall include the following information:

- Sampling event dates, wells sampled, and general observations (e.g., well condition).
- Summary of analytical data findings and data comparison to previous sampling events.
- Summary of statistical analyses of the data.
- A discussion of general groundwater quality trends and any observed changes in groundwater quality at the Site.
- An evaluation of whether quarterly sampling continues to be appropriate, or whether a return to annual sampling is warranted.

If Additional Corrective Action (pursuant to Section 2.4) is required at the Site, the USEPA will be notified, and will be provided an opportunity to review proposed corrective actions before final implementation.

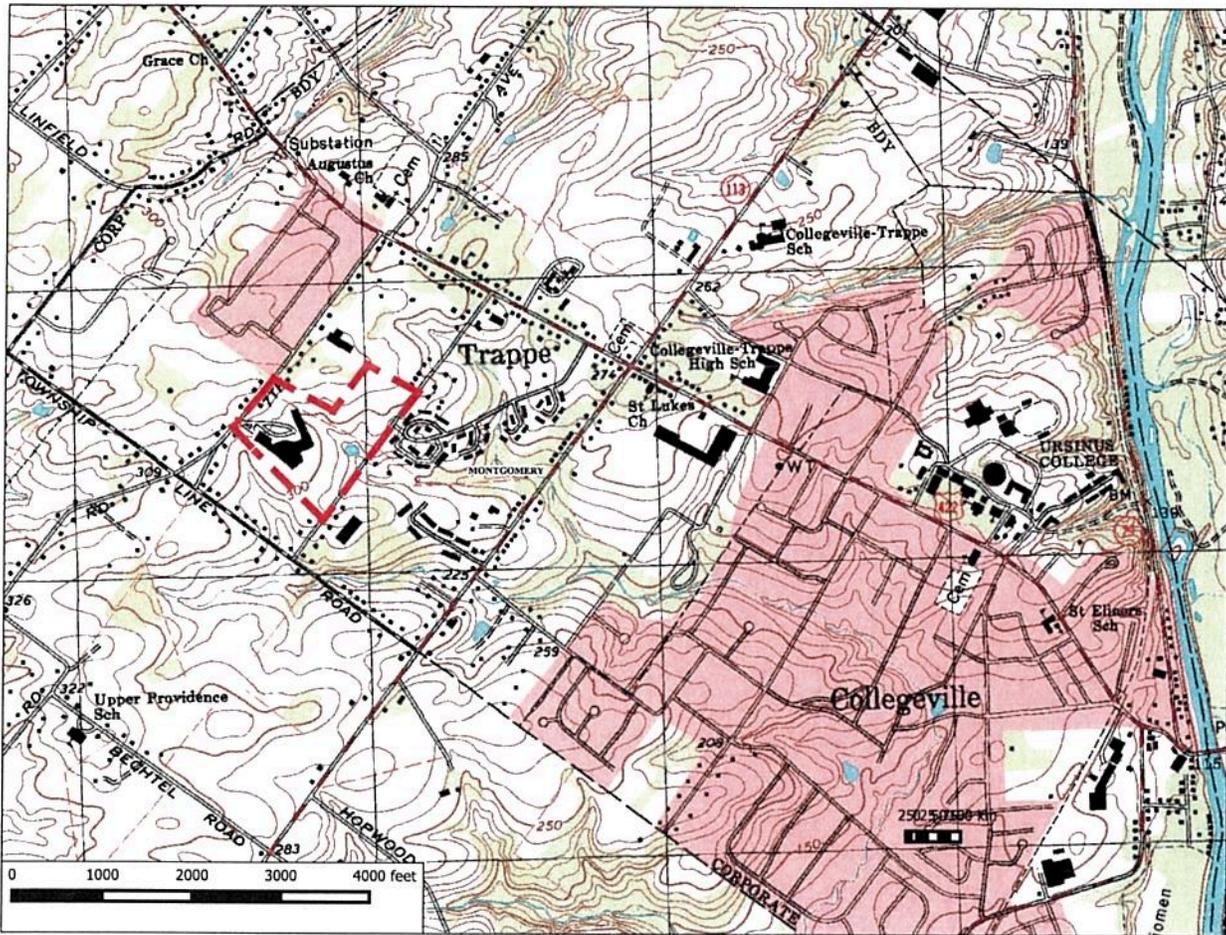
SECTION 5 FINANCIAL ASSURANCE / POST REMEDIATION CARE COST ESTIMATE

UTI, or the then current owner of the Site, shall provide a Financial Assurance Report annually that provides an updated cost estimate for the continued implementation of the Post Remediation Care Plan, and any other associated costs associated with the continued operations, monitoring, and maintenance of the groundwater extraction system. The report shall also provide financial assurance regarding the availability of funds to continue the remedial activities at the Site. This report shall be prepared in conjunction with the Annual Groundwater Monitoring Report and shall be submitted to the USEPA by May 15th of each year.

REFERENCES CITED

- EPA, March 2009, Statistical Analysis of Ground Water Monitoring Data at RCRA Facilities—Unified Guidance, United States Environmental Protection Agency (USEPA), EPA 530/R-09-007)
- Puls, R.W. and M.J. Barcelona, December 1995, *Low-Flow (Minimal Drawdown) Groundwater Sampling Procedures*, United States Environmental Protection Agency (USEPA), EPA/540/5-95/504.
- Marks Environmental, Inc., June 11, 2012; *Request for Technical Impracticability Determination for Groundwater Remediation*, Accellent Inc., Montgomery County, Collegeville, PA.
- Marks Environmental, Inc., 2002; *Site Operations and Maintenance Manual for the Groundwater Remediation and Soil Vapor Extraction Systems*, Accellent Inc., Montgomery County, Collegeville, PA.

FIGURES



Legend

- 1 TL Collegeville Land Parcel Boundary - Approximate

Site Location in Montgomery County, Southeastern Pennsylvania:

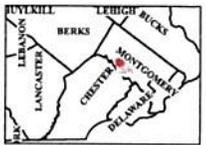
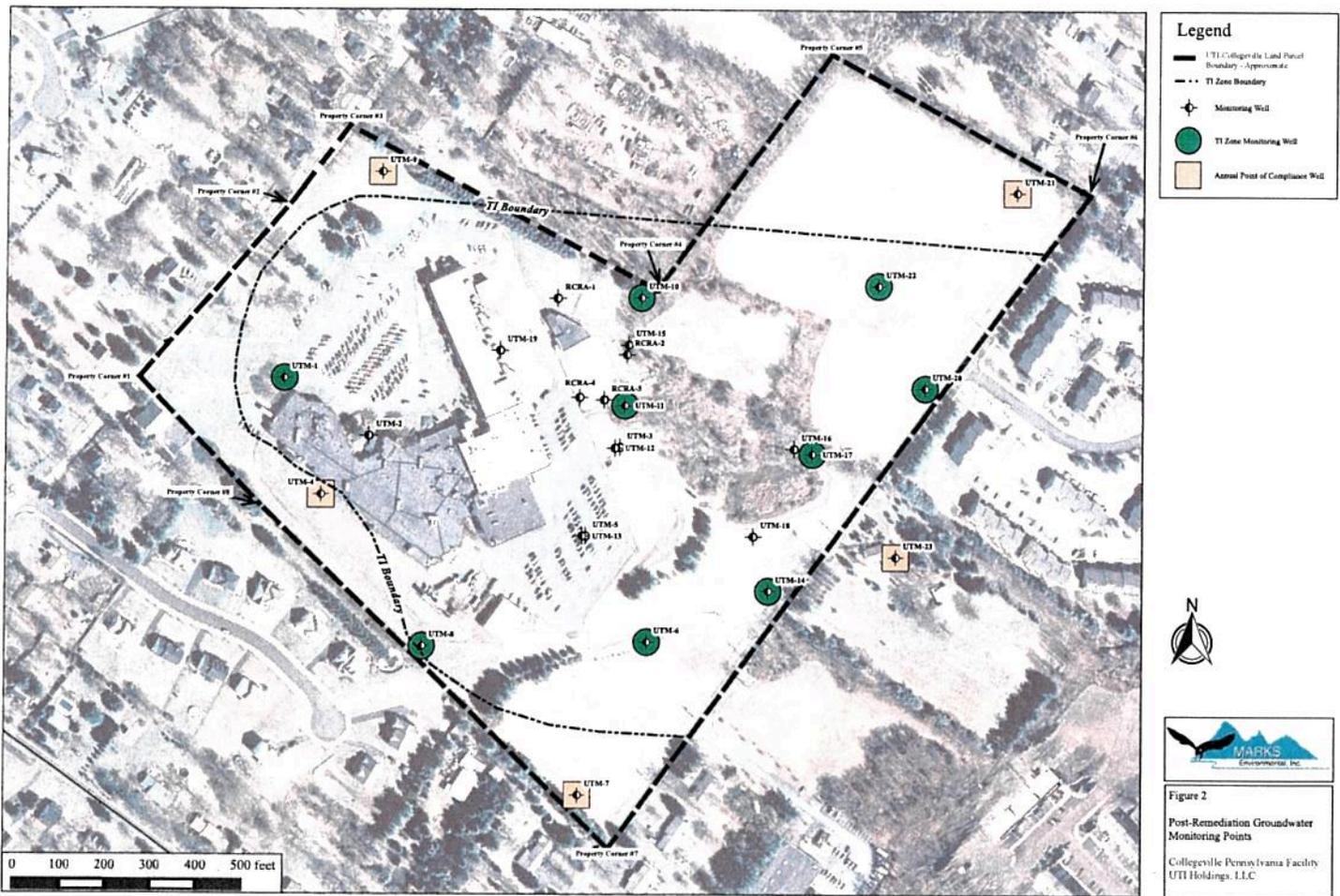


Figure 1
 Facility Location Map
 Collegeville Pennsylvania Facility
 UTI Holdings, LLC



Note UTM-1 and UTM-11 are continuously operating groundwater recovery wells

Appendix A
Geographic Survey Coordinates for
Monitoring Wells and Property Corners



Site Boundary Corners Geographic Coordinates
(Survey Completed by Register Assoc. Inc., Kennett Square, PA)

Prop. Corner ID	Northing(X)	Easting(X)
Prop. Corner #1	321984.35	2600582.97
Prop. Corner #2	322411.83	2600948.14
Prop. Corner #3	322532.82	2601036.81
Prop. Corner #4	322181.27	2601723.63
Prop. Corner #5	322698.44	2602102.68
Prop. Corner #6	322391.05	2602672.00
Prop. Corner #7	320942.83	2601612.72
Prop. Corner #8	321698.43	2600846.88

On-Site Monitoring Well Geographic Coordinates
(Survey Completed by Register Assoc. Inc., Kennett Square, PA)

Well ID	Northing(X)	Easting(X)	Gnd. el. (ft. msl)	Top Steel Casing Elevation (ft. msl)	Top PVC Elevation (ft. msl)	Water Level Measuring Point
UTM-1	321984.66	2600904.31	311.40	311.98	311.98	PVC Drop pipe
UTM-2	321858.37	2601088.80	308.16	309.37		Steel Csg.
UTM-3	321833.50	2601642.46	295.11	296.50		Steel Csg.
UTM-4	321729.01	2600985.34	308.55	310.49		Steel Csg.
UTM-5	321638.76	2601567.62	296.49	300.16		Steel Csg.
UTM-6	321405.37	2601703.72	284.61	285.13		Steel Csg.
UTM-7	321068.31	2601552.70	286.78	287.41		Steel Csg.
UTM-8	321395.54	2601207.08	303.76	304.86		Steel Csg.
UTM-9	322439.16	2601114.42	321.00	322.40		Steel Csg.
UTM-10	322162.31	2601687.97	301.84	303.35		Steel Csg.
UTM-11	321925.44	2601653.57	292.34	293.99	294.03	PVC Drop pipe
UTM-12	321832.38	2601632.18	295.74	297.91		Steel Csg.
UTM-13	321638.63	2601559.84	297.00	298.86		Steel Csg.
UTM-14	321517.68	2601970.64	272.78	273.50		Steel Csg.
UTM-15	322058.93	2601660.39	296.37	298.02		Steel Csg.
UTM-16	321830.88	2602026.26	282.27	283.87		Steel Csg.
UTM-17	321820.21	2602066.43	282.63	284.53		Steel Csg.
UTM-18	321637.62	2601936.82	275.56	277.52		Steel Csg.
UTM-19	322046.64	2601376.63	305.70	306.81		Steel Csg.
UTM-20	321965.26	2602313.32	286.48	288.84		Steel Csg.
UTM-21	322395.95	2602515.39	304.13	306.49		Steel Csg.
UTM-22	322190.67	2602209.39	300.07	302.20		Steel Csg.
RCRA-1	322161.66	2601503.57	299.73	302.47	301.80	PVC Inner Csg.
RCRA-2	322037.86	2601656.94	294.31	296.64	295.89	PVC Inner Csg.
RCRA-3	321938.25	2601607.41	297.31	300.52	299.72	PVC Inner Csg.
RCRA-4	321943.88	2601552.53	298.26	300.62	300.08	PVC Inner Csg.

Appendix B

**Groundwater Remediation System O&M Manual
System Maintenance and Inspection Requirements**



**OPERATIONS AND MAINTENANCE MANUAL
FOR THE GROUNDWATER REMEDIATION
SYSTEM**

Prepared for:

**UTI Holdings LLC
Collegeville, Pennsylvania**

**May 2018
Revision No. 5**

Prepared by:

**Marks Environmental, Inc.
140 Bollinger Road
Elverson, PA 19520**

Table of Contents

- I. Operations and Maintenance Procedures/Emergency Procedures**
 - I.1 Groundwater Recovery/Plant No. 1 Sump Interlock Logic - Operations and Emergency Procedures
 - I.2 Groundwater Extraction/Treatment System – Operations and Maintenance Procedures

- II. As-Built Diagrams**
 - II.1 Roy F. Weston, Inc. Design As-Built Diagrams
 - II.2 Supplemental Design As-Built Diagrams
 - II.3 Groundwater Pump & Treat Electrical Control Diagram
 - II.4 Stripping Tower FRP Structural Design

- III. Equipment Manuals and Specification Sheets – Groundwater Extraction/Treatment System**
 - III.1 Groundwater Control (Flow Meters, Flow Control Valves, Solenoids, Water Level Sensors)
 - III.2 Groundwater Pumps/Tower Blower
 - III.3 Tower Feed Pump at Tank T-1

UTI Holdings LLC Collegeville, PA	I.2 Groundwater Extraction/Treatment System Operations and Maintenance Procedures	Rev. 5 5/15/18 Page 1 of 4
--------------------------------------	--	----------------------------------

Purpose

The Purpose of this procedure is to define the daily and periodic inspection and maintenance requirements for the critical equipment associated with the groundwater extraction/treatment system. During normal operations the system will operate automatically and is equipped with malfunction alarms and interlocks, but periodic inspection and maintenance is required to ensure that it continues to operate reliably.

This procedure lists the recommended operation and maintenance (O&M) checks that will be completed by facility personnel or outside support and is based on the original O&M Plan (Weston, Final Design Document, Appendix C; O & M Plan, 1995), current system equipment, equipment manufacturer recommendations and over thirty years of operating experience. Items originally included on the weekly and quarterly log sheets are now either included in daily operational checks (not logged) or the monthly preventive maintenance, as described below. The attached groundwater treatment system monitoring monthly preventive maintenance log sheet is used in documenting the periodic maintenance inspections.

Major Mechanical Equipment associated with the groundwater extraction system includes the following:

1. Well UTM-11 pump, flow throttling valve, flow totalizer and associated flow meter, level controller, enclosure heater and fiberglass enclosure;
2. Well UTM-1 pump, flow restrictor, flow totalizer and associated flow meter.
3. Control and interlock floats in T-1 pump tank (stripping tower pump tank);
4. Air stripping tower feed pump, flow totalizer and associated flow meter, 80 gpm flow restrictor (with high flow bypass), and blower.
5. 2 ½" diameter high flow bypass valve on air stripper tower feed piping.

Daily Operational Checks

Daily operational checks are conducted during each normal business day while obtaining required flow totalizer readings at UTM-1, UTM-11, Plant 1 Sump and the Air Stripping Tower used for NPDES Permit and Delaware River Basin Commission (DRBC) Permit reporting. Malfunction alarms (e.g., high level in the T-1 Pump Tank, Air Stripper low air flow) audibly alert operators when malfunctions occur at other times and these are telemetered to an auto-dialer during off hours to alert on-call personnel.

During visits to the flow meter/totalizers, operators perform a range of visual and audible checks for unusual conditions and report any problems for corrective action. While the flow readings are logged, the associated operational checks are considered routine

UTI Holdings LLC Collegeville, PA	I.2 Groundwater Extraction/Treatment System Operations and Maintenance Procedures	Rev. 5 5/15/18 Page 2 of 4
--------------------------------------	---	----------------------------------

operations responsibilities and are not formally documented under the Preventive Maintenance program.

Daily readings and operational checks include:

1. Record day, time, and flow totalizer readings for UTM-1, UTM-11, and Plant 1 Sump (on "*Water Daily/Monthly Flow Meter Readings*" log¹) and for the Air Stripping Tower (on "*Tower Inlet 002...Daily Flow Meter Readings...*" log¹).
2. Calculate Air Stripping Tower net flow vs. prior reading and record (on "*Tower Inlet 002...Daily Flow Meter Readings...*" log¹).
3. Check for leaks in groundwater conveyance piping, where visible;
4. Check the heater in well UTM-11 enclosure is working during winter months;
5. Check for unusual vibrations or surging in UTM-1 and UTM-11 well pumps evident at meter/piping;
6. Check to ensure that level controls are properly operating the T-1 pump by observing cycling of either the T-1 pump or tower high flow bypass, by no water visible above T-1 top float and by no alarms;
7. Observe proper operation of the stripping tower flow meter which should register about 80 gpm with normal flow through the flow restrictor when the pump is on and about 130-150 gpm with the high flow bypass valve open.
8. Check that the Air Stripper blower is on (normally audible) and there are no unusual vibrations or noise.
9. SHUT DOWN WELLS IMMEDIATELY if any of the following are observed:
 - a. A leak of untreated groundwater;
 - b. Unusual vibration likely to cause essential equipment failure;
 - c. Air Stripper blower is off or not blowing air (and the system has not already shut itself down by the low air flow interlock);
 - d. T-1 pump and/or high flow bypass valve are not cycling normally and there is a risk of overflow; or
 - e. There is any other malfunction or failure of essential equipment or instrumentation/alarms that can cause a permit violation or system failure.

NOTIFY on-duty or on-call maintenance supervision/management IMMEDIATELY if the system is shutdown or:

1. Tower inlet, UTM-1 or UTM-11 have unusually low or high flow or are not pumping,

¹ These log sheets are for the NPDES permit compliance program and are not included in these procedures.

UTI Holdings LLC Collegeville, PA	I.2 Groundwater Extraction/Treatment System Operations and Maintenance Procedures	Rev. 5 5/15/18 Page 3 of 4
--------------------------------------	---	----------------------------------

2. Any of the above observations are not considered “critical” requiring shutdown, but which need to be promptly addressed (e.g., other unusual vibration, leak or other malfunction or failure of equipment or instrumentation/alarms).

Monthly Equipment Checks and Preventive Maintenance

Monthly equipment checks will include the following:

1. Check Plant No. 1 Sump float switch and diaphragm pumps operation. Best done during rainy weather or using garden hose from acid room to run water into the sump. Observe that the first float turns on the lead pump and the high level float turns on the lag pump and opens the high flow bypass valve.
2. Check Stripping Tower Feed Tank T-1 operation including pump P-12, float controls and 2-1/2” bypass solenoid valve located on air stripper tower feed piping as follows (Warning: use pole, do not immerse hands in groundwater):
 - a. Lift/lower yellow float - Pump P-12 turns on/off; and
 - b. Lift/lower purple float - tower high flow bypass valve opens/closes;

Note: Blue float interlock shutting all flow from UTM-1, UTM-11 and Plant No. 1 Sump is tested below.

3. Measure air flow on air stripper blower inlet using pitot tube and hand-held, digital, differential pressure gauge. Verify differential pressure readings are within $\pm 10\%$ of the 0.3” w.c. design (corresponding to ~2,900 cfm air flow).
4. Check and lubricate the blower per manufacturer’s recommendations (lithium grease). [Motor bearings are sealed.]
5. Shut blower down and verify that the low air flow interlock shuts down feed pump P-12. After T-1 fills up, verify that the high level interlock in T-1 (blue float) shuts the wells off. Lock out the blower, inspect and adjust belt tension or change-out fan drive belts as per manufacturer’s recommendations. Check set screws in bearing collars for tightness.
6. Document results of all the daily checks performed on the day of the monthly PM on the monthly checklist (e.g., air stripper blower motor and fan for unusual vibration, air stripper tower and wells and associated piping, for cracks, leaks and physical damage, etc.).

Use the attached log sheet for keeping monthly equipment checks and preventive maintenance records. Report any problems requiring maintenance or repair to the Maintenance Supervisor.

Troubleshooting Low Air Flow

If air flow pitot tube differential pressure readings are below 0.27” w.c. (-10% of design):

UTI Holdings LLC Collegeville, PA	I.2 Groundwater Extraction/Treatment System Operations and Maintenance Procedures	Rev. 5 5/15/18 Page 4 of 4
--------------------------------------	---	----------------------------------

1. Verify lubrication and check pulleys and belt for proper operation.
2. Check power draw amps and verify in normal range.
3. Check inlet and outlet pressures of air stripper blower. If pressure drop is too high (>>> 5"- 6" w.c.), check for air stripper column or packing blockage. If pressure drop is too low (<3" w.c.), consult manufacturer's manual for further checks of blower, motor, or adjustable drive pulley/fan belt malfunctions.

Monthly Readings and Checks for DRBC

Monthly DRBC readings are taken to meet DBRC permit reporting requirements. MEI will complete the following monthly readings and checks:

1. Water level readings at all pumping wells and required monitoring wells.
2. Assess all daily operational inspection items (vibration, leaks, etc.) applicable to the pumping wells, including inside the UTM-1 below ground well chamber.
3. Compare the well UTM-11 water level readout to the hand-held electronic water level indicator reading and recommend recalibration or repair to the Maintenance Supervisor, when necessary.
4. Record day, time, and flow totalizer readings at the UTM-1, UTM-11, Plant 1 Sump and Air Stripping Tower inlet flow meters.
5. Calculate total flows at well UTM-1, UTM-11, Plant No. 1 sump and Tower inlet since last monthly reading. Compare the sum of the three sources vs. the Tower inlet for the same time period. If not within 10%, assess further. Advise the facility to clean, recalibrate or replace individual flow meters, as necessary.

EMERGENCY PHONE NUMBERS

If there are any mechanical problems, deviations from the expected conditions noted above or any unusual trends in readings, contact one of the following:

Darin Hilbert: 610-409-2348 (UTI)
Jeremy Gross: 610-409-2375 (UTI)

Consultants:
Tom Marks (MEI) 610-909-8250
Peter Puglionesi (Applied EHS) 610-449-3430 or 610-662-7061

Groundwater Treatment System Monthly PM Log Sheet

Year: _____

MONTHLY CHECKS	Date Done / By	Plant No. 1 Sump Floats ¹	Pump Tank T-1 Floats ²	Stripper Blower Flow ³	Blower Bearing Lubed ⁴	Blower Interlock Check ⁴	Belt / Collar Check ⁴	Well Pumps / Blower (Operational-No Leaks / Damage / Unusual Vibrations, Y/N)					
								in wc DP at pitot tube	Lubed Y/N	P-12 & wells stop Y/N	Tension / OK Y/N	UTM1	UTM11
MONTH	DD-MM-YY / Init.	Operational Y/N	Operational Y/N										
January													
February													
March													
April													
May													
June													
July													
August													
September													
October													
November													
December													

- ¹ Perform during wet weather if possible or fill; verify on/off and high flow bypass operates, check daily during periods of high precipitation or significant snowmelt.
- ² Open T-1 cover, verify pump P-12 turns on/off by lifting/lowering yellow float; stripper bypass solenoid opens/closes by lifting / lowering purple float.
- ³ Get air flow reading concurrent with an effluent sampling event. Connect gage to plastic tubes at pitot tube, top to negative side of gage. If avg. Delta P < 0.27 " w.c. ($\pm 10\%$ of 0.3" w.c., approx. 2,900 cfm design flow), notify and troubleshoot. If reading is negative, switch tube positions.
- ⁴ Lithium grease (until visible). Shut blower down, verify low flow switch shuts P-12 and T-1 high level interlock shuts wells off. LOTO, belt tension, snug collars.

WATER DAILY / MONTHLY FLOW METER READINGS

(used for LPVRS monthly report – from Maintenance – 3rd Shift)

Month _____ 20__

DAY / TIME	TUMBLING ROOM	UTM-1 WELL	UTM-11 WELL	PLANT-1 SUMP	Visual Insp. OK* / Corr. Action
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					

* Check for visible leaks at wells/piping; UTM-11 heater working; unusual vibrations or surging at meter/piping. Note “OK” or “Corrective Action” if a problem was observed and it was corrected.

BEGINNING OF THE MONTH READINGS

(take readings on the 1ST week day of the month)

	DATE	TIME	READING
#1 ACID ROOM METER			
#2 ACID ROOM METER			
#1 BOILER WATER			
PLT 2 BOILER WATER #2			
PLT 2 BOILER WATER #3			
PLANT 1 TOWER			
ROUND TANK			
SQUARE TANK			

Route to
CARA IVENS

STRIPPING TOWER INLET / OUTFALL 002
DAILY FLOW METER READINGS / INSPECTION LOG – FILE #3621

(Used for NPDES monthly report – from Maintenance)

Month _____ 20__

Last Meter Reading from Last Month: _____ Date _____

DATE/TIME	METER READING	DAILY FLOW CALC. *	Visual Insp. OK/ Corrective Action*
1	00	00	
2	00	00	
3	00	00	
4	00	00	
5	00	00	
6	00	00	
7	00	00	
8	00	00	
9	00	00	
10	00	00	
11	00	00	
12	00	00	
13	00	00	
14	00	00	
15	00	00	
16	00	00	
17	00	00	
18	00	00	
19	00	00	
20	00	00	
21	00	00	
22	00	00	
23	00	00	
24	00	00	
25	00	00	
26	00	00	
27	00	00	
28	00	00	
29	00	00	
30	00	00	
31	00	00	

* Check for visible leaks; unusual vibrations or surging at meter/piping; T-1 level controls cycling T-1 pump or high flow bypass; no water visible above T-1 top float; no alarms; ~ 80 gpm normal or 130-150 gpm with high flow bypass valve open; blower on & no unusual vibrations/noise. Note “OK” or “Corrective Action” if a problem was observed and it was corrected.

NOTE: > 108,000 gallons/day or unusually low flow-contact EH&S/Engineering immediately.

IAEH&S\NPDES - Ground Water Remediation -Water Readings

Appendix C
Environmental Covenant



Environmental Covenant

Intentionally Omitted

