



Evergreen Services & Consulting, Inc.

** 9931 Haley Road, Jacksonville, FL 32257 * 310 Bromack Dr SE, Atlanta, GA 30315 **

(T) 478-232-4831 E-Mail: cmorms65@gmail.com

March 18, 2021

U.S. Environmental Protection Agency
Region V
Land, Chemical, and Redevelopment Division
Mail Code L-171
77 W. Jackson Blvd.
Chicago, IL 60604-3590

Attention: Edward Nam, Director, Land, Chemical, and Redevelopment Division

RE: Request for Modification to the PCB Commercial Storer Approval issued April 27, 2018 and Response to EPA's Letter dated February 26, 2021

Dear Mr. Nam:

On behalf of Trans-Cycle Industries of Ohio, LLC (TCI), please note that I have been retained to submit a request for a modification to the existing PCB Commercial Storer Approval. This letter also serves as a response to the letter referenced above from Lisa Graczyk, EPA Region 5, RCRA C & D Section, in accordance with Condition I.G of the existing Approval. A hard copy of this entire Modification package is being mailed to the above address and also being emailed to Lisa Graczyk.

Item 1: The purpose of the Modification request is indicated below:

1. Amend the footprint of the existing PCB Commercial Storage Area in Building 150 to allow for better access to the processing area for non-PCB material and reduce the Maximum Allowable PCB Inventory for that building.
2. Add a second PCB Commercial Storage Area in an adjacent building (Building 130) to the Approval.

Item 2: The modified approval should be transmitted to Mr. Craig Renner, General Manager, at the same address as the facility. All correspondence to the facility will utilize the 150 Ira Bean Parkway, Richwood, OH 43344 address.

Item 3: Both properties are owned by Trans-Cycle Industries of Ohio, LLC. (TCI). The subject properties are adjacent to each other and share a common side. As a result, TCI treats both properties as one contiguous operation, uses the 150 Ira Bean Parkway address as the official address, and will utilize the same EPA ID number for both buildings.

Item 4: The request has been re-titled as *Request for Modification to PCB Commercial Storer Approval (Issued April 27, 2018)*.

Item 5: An Introduction has been added to the request as Section I and is included below. Please note that since a new section has been added, all other sections have been re-numbered and the responses below reflect the new section numbers.

TCI purchased the original building and land at 150 Ira Bean Parkway in May of 2017 and began the processing of non-PCB electrical equipment that same year. During this time, TCI submitted an application for a PCB Commercial Storer permit to EPA, Region V, to allow for the consolidation of regulated PCB articles in order to reduce costs to their customers. EPA, Region V, issued a PCB Commercial Storer Approval on April 27, 2018.

Since the issuance of the permit, TCI's operations and customer base have grown and it was determined that the original building and land were not sufficient for what was needed. Additionally, the layout and size of the PCB Commercial Storer Area in Building 150 impeded the processing of the non-PCB electrical equipment which is the bulk of the operations.

As a result, TCI negotiated the purchase of the adjacent building and land known as 130 Ira Bean Parkway in September 2020 and is now requesting a modification to the existing approval to add a PCB Commercial Storer Area in the new building (Building 130), revise the footprint of the existing PCB Commercial Storer Area at Building 150, and reduce the Maximum Allowable PCB Inventory associated with Building 150.

Item 6: TCI will not be performing laboratory analyses of any samples at the facility. All samples will be sent off-site to an EPA approved, accredited laboratory for PCB analysis. TCI reserves the right to do so in the future and will notify EPA of this intent prior to adding on-site laboratory operations.

Items 7 & 8: This Section (now Section VII) has been revised to reflect the existing approved building (150) and the new building 130. The request to modify the existing Maximum PCB Inventory (at Building 150) has been noted in the Introduction as well as this cover letter.

Item 9: Section VII has been revised accordingly.

Item 10: TCI is currently requesting a modification to the existing approved PCB Commercial Storer Area for Building 150. No change has yet been made and is awaiting EPA approval in accordance with Condition I.G. of the Approval.

Item 11: Section X (previously Section IX) has been revised accordingly.

Items 12 & 13: Schematics of the drains leading to the retention pond have been attached to this section. Additionally, a Physical Setting Report has been added to provide more details regarding the surface and groundwater information and to address the well locations.

Item 14: A final version of the Contingency Plan is included in this section (revised to be Section XV).

Item 15: The SPCC for the existing building (150) has been added as Section XVI. As 130 is not currently operational, the SPCC does not reflect that building. Prior to beginning any operations in 130, the SPCC will be revised.

We trust that the preceding and attached documents address all issues. If you should have any questions and/or need additional information, please do not hesitate to contact me through email (cmorms65@gmail.com) or by phone at 478-232-4831.

With kind regards,



Cynthia M. Orms
President

**REQUEST FOR MODIFICATION TO PCB
COMMERCIAL STORAGE APPROVAL
(ISSUED APRIL 27, 2018)**

TRANS-CYCLE INDUSTRIES OF OHIO, LLC

Prepared For:

**TRANS-CYCLE INDUSTRIES OF OHIO, LLC
150 IRA BEAN PARKWAY
RICHWOOD, OHIO 43344
EPA ID: OHW000205856**

DATE: March 2021

Prepared By:

**Evergreen Services & Consulting, Inc.
9931 Haley Road
Jacksonville, FL 32257**

TRANS-CYCLE INDUSTRIES OF OHIO, LLC
COMMERCIAL STORER PERMIT APPLICATION
TABLE OF CONTENTS

SECTION NO.	SECTION TITLE
I	Introduction
II	Owners & Operators of the Facility
III	Operations & Management of Facility
IV	Technical Qualifications & Training Schedule of Plant Personnel
V	Disclosure of State and/or Federal Environmental Violations
VI	Disclosure of Affiliated Companies
VII	Estimate of Maximum PCB Waste Quantities to be handled by the Facility
VIII	Certification of Compliance
IX	Closure Plan
X	Closure Cost Estimate
XI	Financial Responsibility
XII	Surface & Groundwater Information/Facility Layout & Schematics
XIII	Standard Operating Procedures
XIV	Health & Safety Plan
XV	Contingency Plan
XVI	Spill Prevention Control & Countermeasure Plan

SECTION I

TRANS-CYCLE INDUSTRIES OF OHIO, LLC

**150 Ira Bean Parkway
Richwood, Ohio 43344**

INTRODUCTION

The purpose of this modification is to request revisions to the existing PCB Commercial Storer Approval dated April 27, 2018 in two ways:

1. Amend the footprint of the existing PCB Commercial Storage Area in Building 150 to allow for better access to the processing area for non-PCB material and reduce the Maximum Allowable PCB Inventory for that building.
2. Add a second PCB Commercial Storage Area in an adjacent building (Building 130) to the Approval.

TCI purchased the original building and land at 150 Ira Bean Parkway in May of 2017 and began the processing of non-PCB electrical equipment that same year. During this time, TCI submitted an application for a PCB Commercial Storer permit to EPA, Region V, to allow for the consolidation of regulated PCB articles in order to reduce costs to their customers. EPA, Region V, issued a PCB Commercial Storer Approval on April 27, 2018.

Since the issuance of the permit, TCI's operations and customer base have grown and it was determined that the original building and land were not sufficient for what was needed. Additionally, the layout and size of the PCB Commercial Storer Area in Building 150 impeded the processing of the non-PCB electrical equipment which is the bulk of the operations.

As a result, TCI negotiated the purchase of the adjacent building and land known as 130 Ira Bean Parkway in September 2020 and is now requesting a modification to the existing approval to add a PCB Commercial Storer Area in the new building (Building 130), revise the footprint of the existing PCB Commercial Storer Area at Building 150, and reduce the Maximum Allowable PCB Inventory associated with Building 150.

SECTION II

TRANS-CYCLE INDUSTRIES OF OHIO, LLC

150 Ira Bean Parkway
Richwood, Ohio 43344

OWNERS & OPERATORS OF THE FACILITY 40 CFR 761.65(d)(3)(i)

Name	Title	Ownership %
George Jackson	Member	20
Ben Bodie	Member	2
Brian Hemlock	Member	2
Jeffrey Lefkovits 2012 Trust #1	Member	25.333
George Newmark 2012 Trust #1	Member	25.333
Jerry and Janice Coleman Trust	Member	4.331
Odas Coleman	Member	2.004
Revocable Trust W. Rosenfeld	Member	18.999
	Total	100

SECTION III

TRANS-CYCLE INDUSTRIES OF OHIO, LLC

**150 Ira Bean Parkway
Richwood, Ohio 43344**

OPERATIONS & MANAGEMENT OF FACILITY

ORGANIZATIONAL CHART

40 CFR 761.65(d)(3)(ii)

NAME & TITLE	PRIMARY RESPONSIBILITIES	YEARS WITH TCI	OTHER WORK EXPERIENCE	EDUCATIONAL BACKGROUND
GENERAL MANAGER Craig Renner	Responsible for overall facility operations, sales, managing sales force, submittal of bids, and marketing	1 year	Univar Solutions – 11 years Clean Harbors Environmental Services – 3 years	University of Findlay – BA of Science - 2009
PRODUCTION Rich Johnson Supervisors	Responsible for overall management of plant operations to include Quality Control, Environmental Compliance and Waste Tracking.	3 years	Rich Johnson – Honda of North America – 30 years	
TRANSPORTATION Laura Waugh Supervisor	Coordination of transportation for movement of incoming and outgoing waste	3 years	Lowe’s Home Improvement – 5 years	
HEALTH & SAFETY Chris Smith Manager	Responsible for overall management of on-site and off- site operations concerning Health and Safety	1 year	Metalplate Galvanizing – Safety Director – 1 year International Fire Protection – Safety Director – 7 years	Certified Safety Manager West Virginia University – Construction Research and Training
CUSTOMER SERVICE Cindy Ziglar Manager	Customer service, manifesting, scheduling of incoming shipments, sales assistant	4 years	Power Lifts Inc. – 6 years Enterprise Electronics – 12 years Howell Corp – 11 years Adjunct Professor – 28 years	Troy University – BS in Business and Masters of Business Administration

Craig P. Renner

Work Experience

Trans-Cycle Industries of Ohio, LLC
General Manager

Richwood, OH
Started in 2020

Univar Solutions (formerly Nexeo Solutions)
Site Manager at Honda

Dublin, OH
March 2019 – May 2020

Management of a zero-waste to landfill program at customer location. Responsibility of a multi-shift operation with of twenty-six direct reports.

Nexeo Solutions
Regional Operations Manager

Dublin, OH
January 2016 – February 2019

Management of nine total waste management accounts totaling \$21M in annual revenue with eight direct reports, 180 indirect reports. Responsibility includes supply chain management, customer relations, business development, and P&L oversight.

Nexeo Solutions
Operations Manager

Dublin, OH
February 2015 – January 2016

Focus on leveraging our supply chain including \$44M in revenue and \$6M in commodity rebates, building customer and supplier relationships, implementing new business strategy, and managing a team of six business analysts.

Nexeo Solutions (formerly Ashland)
Site Manager at JCB

Savannah, GA
March 18, 2013 – January 31, 2015

Managed five to eight employees, supply chain, and environmental compliance. My focus is around efforts to turn manufacturing waste into profitable waste streams through beneficial reuse and other cost down methods. I have shown an almost quarter million dollar savings to my customer while maintaining profit through leveraging existing suppliers and transitioning to new.

Ashland/Nexeo Solutions (Ashland divested April 2012)
Logistics Support

Dublin, Ohio
December 13, 2010 – March 15, 2013

Managed employees and vendors during implementation of onsite total waste management turn-key operations.

Clean Harbors Environmental Services
Field Technician/Project Coordinator

Cleveland, Ohio
May 10, 2008 – December 10, 2010

Managed and responded to chemical spills, provided comprehensive industrial services.

Gandee & Associates
Resident Project Representative

Dublin, Ohio
May 10, 2007 – August 2007

Provided air monitoring services and conducted inspections.

Eagle Construction & Environmental Services
Field Technician

Harriman, Tennessee
May 15, 2006 – August 2006

Remediated methamphetamine labs and responded to chemical spills.

Education

The University of Findlay, Findlay, OH
Bachelor of Science – Environmental, Safety, and Occupational Health Management

August, 2005 – 2009
3.62 GPA

Graduation: May 6th, 2009

Certifications

- 40- Hour OSHA, Hazardous Waste Site Worker
- 30- Hour OSHA, General Industrial Compliance
- 10- Hour OSHA, General Industry
- 10- Hour OSHA, Construction
- RCRA & DOT Certificates
- Confined Space Entrant/Attendant Supervisor and Basic Rescue Training
- Certified Air Monitoring Technician
- Certified Asbestos Abatement Specialist

SECTION IV

TRANS-CYCLE INDUSTRIES OF OHIO, LLC

**150 Ira Bean Parkway
Richwood, Ohio 43344**

**TRAINING SCHEDULE
OF PLANT PERSONNEL
RESPONSIBLE FOR PCB HANDLING
40 CFR 761.65(d)(3)(iii)**

NAME	EMPLOYEES REQUIRING TRAINING	FREQUENCY
Plant Orientation	All employees	Initially
Plant Rules & Safety Policies	All employees	Initially/Throughout the year*
Hazard Communication	All employees w/potential chemical exposure	Initially/Throughout the year
Asbestos & Lead Awareness	All exposed employees	Initially/Annually
PCB Hazard Awareness	All Employees w/potential PCB	Initially/Throughout the year
Confined Space	All affected employees	Initially/Annually
Fall Protection	All affected employees	Initially/Throughout the year
Lockout Tagout Affected Employee	All affected employees	Initially/Throughout the year
Lockout Tagout Authorized Employee	Maintenance/Equipment operators who may inspect, clean, or adjust machinery	Initially/ Throughout the year
Mobile Equipment & Pedestrian Safety	All employees	Initially/Throughout the year
Forklift & Skid Steer Safety	All employees	Initially/Throughout the year
Spill Prevention Control and Countermeasure	All employees	Initially/Throughout the year
Hearing Conservation	All employees	Initially/Throughout the year
Personal Protective Equipment	All exposed employees	Initially/Throughout the year
Fire Extinguisher	All employees	Initially/ Annually
Ladder Safety	All affected employees	Initially/Annually
Cranes, Chains & Slings	All affected employees	Initially/Annually
Respiratory/Respirators	All affected employees	Initially/Throughout the year
Compressed Gas Cylinders	All affected employees	Initially/Annually
Electrical Awareness	All employees	Initially/Annually
General Safety Meeting	All employees	Monthly

SECTION V

TRANS-CYCLE INDUSTRIES OF OHIO, LLC

150 Ira Bean Parkway
Richwood, Ohio 43344

DISCLOSURE OF STATE AND/OR FEDERAL ENVIRONMENTAL VIOLATIONS 40 CFR 761.65(d)(3)(iv)

Facility:

Trans-Cycle Industries of Ohio, LLC

Ohio EPA
Notice of Violation (NPDES - 4GRN01098)
October 28, 2019/February 21, 2020
Final Disposition Pending

Affiliated Companies:

G&S Motor Equipment Company, Inc.

New Jersey DEP
Notice of Violation: PEA19000-1010198
Provided opportunity to correct/respond
December 3, 2019
Closed April 3, 2020

Hydrodec of North America, LLC

Canton City Health Department Air Pollution Control Division/OH
Document Number: 1384016
Notice of Violation dated: February 5, 2016
Issue addressed; Violation closed March 4, 2016

Ohio EPA
Incident #: 1803EPA0555
Date: March 28, 2018
Issue addressed; Incident closed May 3, 2018

Canton City Health Department Air Pollution Control Division/OH
Enforcement Warning: #: 1803EPA0555
Incident Date: April 15, 2018
Issue addressed; Incident closed August 3, 2018

Transformer Technologies, LLC

Warning Letter with Opportunity to Correct
Oregon Department of Environmental Quality
Dated: February 16, 2016
Letter Verifying Issues Resolved
Date: March 17, 2016

TCI of NY, LLC

New York State Department of Environmental Conservation
Notice of Violation/Consent Order No.: C04-20170214-30
Dated: August 31, 2015
Notice of Consent Signed: February 21, 2017

No other affiliated companies have any State and/or Federal violations on record within the last 5 years.

SECTION VI

TRANS-CYCLE INDUSTRIES OF OHIO, LLC

**150 Ira Bean Parkway
Richwood, Ohio 43344**

DISCLOSURE OF AFFILIATED COMPANIES

40 CFR 761.65(d)(3)(v)

G&S MOTOR EQUIPMENT CO, INC.

6250 Gorman Rd.
Henrico, VA, 23231
EPA ID No.: VAR000530311

G&S MOTOR EQUIPMENT CO., INC.

1800 Harrison Avenue
Kearny, NJ 07032
EPA ID No.: NJD011370525

HYDRODEC OF NORTH AMERICA, LLC

2021 Steinway Blvd. S.E.
Canton, OH 44707
EPA ID No.: OHR000143263

TCI of NY, LLC

PO Box 936
99 Coeymans Industrial Park Lane
Coeymans NY 12045
EPA ID No: NYR000211540

TRANSFORMER TECHNOLOGIES LLC

4705 Turner Road SE
Salem, Oregon 97301
EPA ID No: ORQ000026715

SECTION VII

TRANS-CYCLE INDUSTRIES OF OHIO, LLC

150 Ira Bean Parkway
Richwood, Ohio 43344

ESTIMATE OF MAXIMUM PCB WASTE QUANTITIES TO BE HANDLED BY THE FACILITY 40 CFR 761.65(d)(3)(vi)

REVISED STORAGE CAPACITY FOR BUILDING 150 (EXISTING APPROVED BUILDING)

Category	Regulatory Levels	Quantity
PCB-contaminated Articles with fluid	$\geq 50 - < 500$ ppm	70,000 P containing 3,000 G fluid
PCB-contaminated Articles drained	$\geq 50 - < 500$ ppm	7,000 P
Assumed PCB Articles with fluid	≥ 500 ppm	295,000 P containing 16,500 G fluid
PCB Articles with fluids	≥ 500 ppm	40,000 P containing 2,000 G fluid
PCB Articles drained	≥ 500 ppm	7,000 P
PCB-contaminated fluid	$\geq 50 - < 500$ ppm	3,000 G
PCB debris/solids	≥ 50 ppm	55,000 P

LEGEND: P = pounds; G = Gallons

STORAGE CAPACITY FOR BUILDING 130 (NEW BUILDING)

Category	Regulatory Levels	Quantity
PCB-contaminated Articles with fluid	$\geq 50 - < 500$ ppm	15,500 P containing 600 G fluid
PCB-contaminated Articles drained	$\geq 50 - < 500$ ppm	1,500 P
Assumed PCB Articles with fluid	≥ 500 ppm	70,000 P containing 4,000 G fluid
PCB Articles with fluids	≥ 500 ppm	10,000 P containing 500 G fluid
PCB Articles drained	≥ 500 ppm	2,000 P
PCB-contaminated fluid	$\geq 50 - < 500$ ppm	1,500 G
PCB debris/solids	≥ 50 ppm	12,500 P

LEGEND: P = pounds; G = Gallons

Storage & Handling of Regulated PCB Items:

- Each building will have a dedicated PCB Commercial Storage Area pending shipment of the equipment off-site to a facility for disposal and/or recycling.
- The procedures for receiving, sampling, storing, and shipping off-site will be the same at each building.
- TCI will maintain the same EPA ID number for both buildings and the address for the facility will remain 150 Ira Bean Parkway, Richwood, Ohio.
- Any items received as assumed PCB will be tested upon receipt at either building.
- Any items testing < 50 ppm PCBs will be removed to non-PCB storage and processing areas.
 - Manifests will be corrected accordingly and appended with associated analytical data.
- Any items testing ≥ 50 PCBs will have manifests corrected accordingly with associated analytical data appended thereto but will remain in one of the PCB Commercial Storage Areas awaiting shipment for off-site recycling and/or disposal.
- No processing of ≥ 50 ppm PCBs articles will take place at either building.
- In the event of a spill or leak of a regulated item, TCI will, upon discovery, initiate cleanup of the PCB or PCB contaminated article and all affected areas in accordance with the PCB Spill Cleanup Policy as per 40 CFR 761, Subpart G.
 - Any wastes generated during spill cleanup will be treated as PCB waste and handled in accordance with 40 CFR 761, Subpart D.
 - If necessary, the PCB article may require draining to stop the leak or spill. The drained fluids will be stored in 55 G DOT/UN approved drums and/or DOT/UN approved totes awaiting transportation and disposal/recycling as per 40 CFR 761, Subpart D.

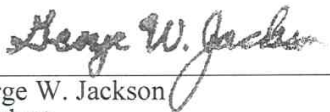
SECTION VIII

TRANS-CYCLE INDUSTRIES OF OHIO, LLC

150 Ira Bean Parkway
Richwood, Ohio 43344

CERTIFICATION OF COMPLIANCE 40 CFR 761.65(d)(3)(vii)

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.



George W. Jackson
President
Trans-Cycle Industries of Ohio, LLC

12/22/2020

Date

SECTION IX

TRANS-CYCLE INDUSTRIES OF OHIO, LLC

**150 Ira Bean Parkway
Richwood, Ohio 43344**

**CLOSURE PLAN
40 CFR 761.65(d)(3)(viii)**

ATTACHED AS SEPARATE DOCUMENT

PCB CLOSURE PLAN

TRANS-CYCLE INDUSTRIES OF OHIO, LLC

Prepared For:

**TRANS-CYCLE INDUSTRIES OF OHIO, LLC
150 IRA BEAN PARKWAY
RICHWOOD, OHIO 43344
EPA ID: OHW000205856**

DATE SUBMITTED: December 2020

Prepared By:
**Evergreen Services & Consulting, Inc.
9931 Haley Road
Jacksonville, FL 32257**

TRANS-CYCLE INDUSTRIES OF OHIO, LLC
PCB CLOSURE PLAN
TABLE OF CONTENTS

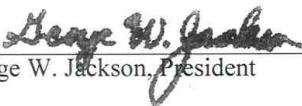
SECTION	SECTION TITLE	PAGE NO.
	CERTIFICATION	ii
1.0	INTRODUCTION	1-4
1.1	Introduction	1
1.2	Final Closure Activities	1
1.3	Land Uses	2
1.4	Adjoining and Surrounding Property Uses	2-3
1.5	Underground Storage Tanks	3
1.6	Traffic Patterns	3
1.7	Security Systems	3
1.8	Legal Description	3
1.9	Closed PCB and Hazardous Waste Units	3
1.10	Other Wastes Handled by the Facility	4
2.0	ENVIRONMENTAL CONDITIONS	4-5
2.1	Proximity to Surface Waters	4
2.2	Proximity to Private/Public Drinking Sources	4
2.3	Groundwater	5
3.0	FACILITY DESIGN & LOCATION	5-7
3.1	Facility Layout & Design	5-6
3.2	Facility Operations	6
3.3	Bulk Storage	6-7
3.4	Loading & Unloading	7
3.5	100 Year Flood Plain	7
4.0	INVENTORY, REMOVAL, AND DISPOSAL OF PCB REGULATED MATERIAL	7-11
4.1	Maximum Regulated Inventory	7-8
4.2	Management of PCB Inventory	8
4.3	Disposal of PCB Inventory	8-9
4.4	Decontamination of Material Handling & Other Movable Equipment	9
4.5	Decontamination of Interior Areas of Facility	9-10
4.6	Roadways, Parking Areas, & Loading Docks	10
4.7	Verification of Decontamination and Cleanup	10-11
4.8	Post-Closure Plan	11
4.9	Notice In Deed	11
4.10	Expected Year of Closure	11
5.0	CERTIFICATION OF CLOSURE	12
6.0	SAFETY PROCEDURES FOR DECONTAMINATION OF PERSONNEL	12
7.0	DISPOSAL OF REGULATED PCB MATERIALS GENERATED DURING CLOSURE ACTIVITIES	12
8.0	CLOSURE COSTS ESTIMATE	13
9.0	CLOSURE SCHEDULE	14

**TRANS-CYCLE INDUSTRIES OF OHIO, LLC
PCB CLOSURE PLAN
TABLE OF CONTENTS continued**

TABLES, FIGURES & APPENDICES		
TABLES		
1	Revised Storage Capacity for Building 150	
2	Proposed Storage Capacity for Building 130	
3	Disposition of Regulated PCB Inventory	
4	Sampling Details	
5	Disposition of Regulated PCB Materials Generated During Closure Activities	
FIGURES		
1	Site Vicinity	
2	Site Property Map	
3	Traffic Flow -150	
4	Traffic Flow - 130	
5	Facility Layout - 150	
6	Facility Layout -130	
7	Storm Sewer Schematics - 150	
8	Storm Sewer Schematics - 130	
APPENDICES		
A	Legal Description	
B	3 rd Party Closure Costs	
C	Physical Setting Report	

CERTIFICATION

Under civil and criminal penalties of law for the making or submission of false or fraudulent statements or representations (18 U.S.C. 1001 and 15 U.S.C. 2615), I certify that the information contained in or accompanying this document is true, accurate, and complete. As to the identified section(s) of this document for which I cannot personally verify truth and accuracy, I certify as the company official having supervisory responsibility for the persons who, acting under my direct instructions, made the verification that this information is true, accurate, and complete.



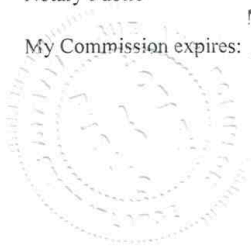
George W. Jackson, President

NOTARY
State of Alabama
St. Clair County

George W. Jackson, appeared before me, the undersigned officer, on the 22nd day of December, 2020 known to me to be the person described in the foregoing certification and acknowledged that he executed the same in the capacity therein stated and for the purposes therein contained and that the statements contained therein are true and correct. IN WITNESS WHEREOF, I HEREUNTO SET MY HAND AND OFFICIAL SEAL.



Notary Public
My Commission Expires June 22, 2022



PCB CLOSURE PLAN

SECTION 1.0 INTRODUCTION

1.1 Introduction

This Closure Plan has been developed for Trans-Cycle Industries, of Ohio, LLC (TCI) located at 150 Ira Bean Parkway, Richwood, Union County, Ohio 43344. This Closure Plan has been prepared in accordance with the requirements of 40 CFR Part 761.65(d) and (e). This plan identifies all steps that will be necessary to both buildings at any point during its operating life. This plan covers the closure of the regulated portion of the facility and disposal of the PCB Inventory.

TCI will maintain an on-site copy of the approved Closure Plan at the facility office until the certification of closure has been submitted to and accepted by the U.S. Environmental Protection Agency (EPA). The Director of the Office of Resource Recovery and Conservation will be notified at least 30 days prior to the date TCI expects to begin final closure. Initiation of closure activities will commence within 30 days of the receipt of the last regulated items at the facility. The closure date for the facility is estimated to be 2047 A.D. This date will be dependent on the demand for TCI's services. Upon completion of closure, TCI will submit a certification by its owner and by an independent registered environmental professional that the facility has been closed in accordance with the specifications in the approved Closure Plan.

1.2 Final Closure Activities

All regulated material will be removed from each building as outlined in Section 4 and all necessary equipment, structures, wastes, soils, and/or other materials contaminated with regulated levels of PCBs will be decontaminated and/or disposed of according to their regulatory levels during closure activities. The PCB levels to be achieved for final closure are as follows: (1) ≤ 1 ppm for high occupancy areas; and (2) ≤ 25 ppm for low occupancy areas; (3) $\leq 10 \mu\text{g}/100 \text{ cm}^2$ for non-porous surface areas in high occupancy areas and $< 100 \mu\text{g}/100 \text{ cm}^2$ for non-porous surface areas in low occupancy areas. (4) $\leq 10 \mu\text{g}/100 \text{ cm}^2$ for porous surfaces.

1.3 Land Uses

The subject property consists of two (2) parcels: One parcel, hereafter referred to as Building 150, is located on Ira Bean Parkway, Richwood, Ohio and includes an 8.65-acre parcel and a 50,692-square foot warehouse-type building. The second parcel, hereafter referred to as Building 130, consists of a 3.29 acre parcel including a 48,240 sq foot building. The 2 sites are contiguous, share a common side, and will be referred collectively as one facility with two (2) separate buildings. Physical address will be 150 Ira Bean Parkway, Richwood, Ohio 43344. Site vicinity (Figure 1) and site property maps (Figure 2) are included.

The subject property is surrounded by land consisting of multiple uses. The property is bounded by a small residential subdivision along Kells Lane. It is bounded to the south by Ira Bean Parkway, then by a farmed field. The subject property is bounded to the east by another farmed field. To the north, the subject property is bounded by Tawa Road, and across the street by a farmed field. Land usage in the vicinity of the subject property is mixed including commercial businesses (Zoned B-1), residential (Zoned R-1), and agriculture. The Village of Richwood zoning designations are indicated below:

- B-1: service business district involving sales, service, and repair establishments requiring highway access and large tracts of land
- R-1: low density residential
- Agriculture: used for farming & agricultural purposes including but not limited to crops and livestock

1.4 Adjoining and Surrounding Property Uses

The following was indicated during a review of environmental regulatory agency listings:

- No NPL sites were identified within the standard ASTM search distance of one mile.
- No facilities were identified in the EDR map findings summary as RCRA hazardous waste notifiers within or close to the standard ASTM search distance of one mile.
- There have been two (2) UST/groundwater incidents/releases identified between ½ and 1 mile as indicated below:
 - Certified Oil (Tier 2 Pending/Ohio BUSTR Database), 25 E Blagrove, Richwood, Ohio

- Richwood Mini Mart (No further action/Ohio BUSTR database), 3 E Bomford St. Richwood, Ohio
- No SEMS (formerly CERCLIS facilities) were identified within or close to the standard ASTM search distance of ½ mile in the EDR map findings summary.
- No currently permitted solid waste management facilities were identified within ½ mile of the subject property on the database of permitted solid waste facilities.
- No facilities were identified within standard ASTM search distances from the subject property on the State Hazardous Waste Sites or the Hazardous Substances Disposal Sites databases.

1.5 Underground Storage Tanks

There are 2 locations located between ½ and 1 mile of the facility that have registered underground storage tanks as indicated below:

- Certified Oil, 25 E Blagrove, Richwood, Ohio
- Richwood Mini-Mart, 3 E Bomford St. Richwood, Ohio

1.6 Traffic Patterns

Figure 3 shows traffic patterns around the both buildings.

1.7 Security Systems

TCI is a gated, fenced facility with controlled access 24/7/365. Unauthorized ingress and egress will be prohibited. A security system is installed at the facilities and will remain operational until Closure is completed, certified, and accepted by the EPA.

1.8 Legal Description

A legal description of both parcels is included as Exhibit A.

1.9 Closed PCB or Hazardous Waste Management Units

There are no closed PCB or hazardous waste management units in the vicinity of TCI.

1.10 Other Wastes Handled by the Facility

There are no other wastes handled by the facility other than non-PCB (< 50 ppm PCBs). Materials containing ≥ 50 ppm PCBs will be stored in each building in accordance with the PCB Commercial Storer permit. No processing of equipment containing ≥ 50 ppm PCBs will take place at either building.

SECTION 2.0 ENVIRONMENTAL CONDITIONS

There are no environmental conditions that would make the facility an unreasonable risk to human health or the environment. Appendix C provides a Physical Setting Report with greater detail as to the below items.

2.1 Proximity to Surface Waters

There are no surface water bodies on the property with only a roadway drainage ditch along the northern property boundary adjacent to Tawa Road.

2.2 Proximity to Private or Public Drinking Sources

A well is located on-site near the southwest corner of the building. The facility is connected to the Village of Richwood community public water system. The Village of Richwood water system operates 2 wells that pump approximately 162,000 gallons of water per day from a dolomite aquifer (water-rich zone) specifically the "Newburg Zone," which is a highly fractured portion of the Silurian Greenfield Formation (Roadcap and Bair, 1990). The dolomite bedrock is covered by 8 to 10 feet of low-permeability material overlying 20 to 30 feet of sand and gravel, which provides minimal protection from contamination. Depth to water in the aquifer is 10 to 15 feet below the ground surface. Soils in the area are silty loams which are moderately well-drained, meaning that much of the rainfall and snowmelt will infiltrate into the soil, instead of running off or ponding. The topography of the area is relatively flat. Ground water is replenished by the gradual flow of water underground from higher to lower elevations and by precipitation that infiltrates through the soil. At the Village of Richwood wellfield, ground water flows generally toward the east, based on a water table elevation map completed by Roadcap and Bair (1990). There are 25 known private wells within 1 mile of the facility.

2.3 Groundwater

The geology in the area of the tract is dominated by rocks of the Silurian era (Geologic Map of Ohio, State of Ohio Geological Survey). Rocks encountered in this area would generally consist of sedimentary rocks such as dolomite, anhydrite, gypsum, salt, and shale. The hydrogeological system in the area of the subject property includes both the surficial sediments and underlying bedrock. Groundwater in sediments is present in pores between individual sediment grains. In bedrock, groundwater is present predominantly in horizontal and sub-horizontal unloading fractures, and in near, vertical stress fractures. Groundwater depths are variable and generally approach ground surface near streams and rivers. Based on the historical groundwater flow characteristics in the area, groundwater flow typically mirrors surface topography. Groundwater flow on the subject property would be west to east. There are no facilities located upgradient that could be considered potential sources of subsurface soil and groundwater environmental contamination on the property.

SECTION 3.0 FACILITY DESIGN & LOCATION

3.1 Facility Layout & Description

Building 150 (Figure 4) consists of a building with a footprint of 50,692 ft². Area 150-1, the PCB Commercial Storage Area, represents 15,843 ft². The processing area referred to as Area 150-2 represents 32,289 ft² and the remaining ~2,560 ft² is office space, employee locker room, and bathrooms. The facility includes jib cranes, a gantry crane, three loading docks, and 3 drive through doors (2 useable).

Building 130 (Figure 5) consists of a building with a footprint of 48,000 sq ft. Area 130-1, the PCB Commercial Storage Area, represents ~5,471 sq ft. The processing area, Area 130-2, represents 42,529 ft². Office space, employee locker room, and bathrooms are upstairs and are not counted in the preceding square footage. The facility includes jib cranes, a gantry crane, three loading docks, and 3 drive through doors (2 useable).

The roofed areas of the both buildings are designed to prevent rain or other precipitation from contacting any PCB regulated items. Area 150-1 contain a 6-inch continuous curb; 130-1 contains a 7-inch continuous

curb. The curb is provided with rollover areas to allow passage of equipment as necessary. The floors are epoxy coated. The containment capacity of Area 150-1 is 59,256 gallons and the containment capacity of Area 130-1 is 23,949 gallons. The conveyors, shown in both Facility Diagrams, are on 6-inch metal supports (located along their lengths). In the event of a spill, the displacement by these supports will be negligible. Additionally, some assumed PCB Articles may remain on the conveyors until analysis is received to determine their PCB contamination levels. Based on these 2 factors, displacement was not calculated for the conveyors.

3.2 Facility Operations

TCI provides utilities and major industries with equipment decommissioning, dismantling, and recycling services for non-PCB (< 50 ppm PCBs) articles. Any regulated PCB items, as defined by 40 CFR §761.3, will be stored in Area 1 until shipped to EPA approved disposal facilities.

3.3 Bulk Storage

Building 150:

This building includes the following permanent bulk storage totaling 65,900 gallons:

- Tank 4 = 19,400 G
- Tank 3 = 15,500 G
- Tank 2 = 15,500 G
- Tank 1 = 15,500 G

All tanks are designed, constructed, and operated in accordance with the Occupational Safety and Health Standards at 29 CFR §1910.106. The tanks are equipped with vents, drains, manways, and fittings. The tanks will contain non-PCB fluids (< 50 ppm) and, thus, are not a part of this Closure Plan.

Building 130:

This building includes the following permanent bulk storage totaling 46,500 gallons:

- Tank 5 = 15,500 G
- Tank 6 = 15,500 G
- Tank 7 = 15,500 G

All tanks are designed, constructed, and operated in accordance with the Occupational Safety and Health Standards at 29 CFR §1910.106. The tanks are equipped with vents, drains, manways, and fittings. The tanks will contain non-PCB fluids (< 50 ppm) and, thus, are not a part of this Closure Plan.

3.4 Loading & Unloading

All loading and unloading of regulated PCB materials takes place either inside the two (2) building or at one of the loading docks.

3.5 100 Year Flood Plain

According to FEMA Flood (FIRM) Maps (Panel 166 Of 500/Map #39159C0166D), the site is not located in a 100-year flood plain.

SECTION 4.0 INVENTORY, REMOVAL, AND DISPOSAL OF PCB REGULATED MATERIAL

4.1 Maximum Regulated Inventory

The maximum estimated inventory of regulated PCB material is set forth by building in the tables below:

TABLE 1: REVISED STORAGE CAPACITY FOR BUILDING 150

Category	Regulatory Levels	Quantity
PCB-contaminated Articles with fluid	≥ 50 - < 500 ppm	70,000 P containing 3,000 G fluid
PCB-contaminated Articles drained	≥ 50 - < 500 ppm	7,000 P
Assumed PCB Articles with fluid	≥ 500 ppm	295,000 P containing 16,500 G fluid
PCB Articles with fluids	≥ 500 ppm	40,000 P containing 2,000 G fluid
PCB Articles drained	≥ 500 ppm	7,000 P
PCB-contaminated fluid	≥ 50 - < 500 ppm	3,000 G
PCB debris/solids	≥ 50 ppm	55,000 P

LEGEND: P = pounds; G = Gallons

TABLE 2: PROPOSED STORAGE CAPACITY FOR BUILDING 130

Category	Regulatory Levels	Quantity
PCB-contaminated Articles with fluid	≥ 50 - < 500 ppm	15,500 P containing 600 G fluid
PCB-contaminated Articles drained	≥ 50 - < 500 ppm	1,500 P
Assumed PCB Articles with fluid	≥ 500 ppm	70,000 P containing 4,000 G fluid
PCB Articles with fluids	≥ 500 ppm	10,000 P containing 500 G fluid
PCB Articles drained	≥ 500 ppm	2,000 P
PCB-contaminated fluid	≥ 50 - < 500 ppm	1,500 G
PCB debris/solids	≥ 50 ppm	12,500 P

LEGEND: P = pounds; G = Gallons

4.2 Management of PCB Inventory

TCI will operate at all times in compliance with the PCB Spill Clean-Up Policy at 40 CFR 761, Subpart G, and any and all spills or releases of regulated materials will be cleaned up immediately. All storage of regulated materials will take place indoors; thus, it is not anticipated that there will be any outstanding environmental conditions at the time of closure. This section provides a detailed description of the activities to be implemented in completing closure at both buildings within the subject property. These activities are detailed below in their anticipated sequence of implementation.

4.3 Disposal of PCB Inventory

All regulated inventory in both buildings will be handled in an identical manner. PCB and PCB Contaminated Articles will be drained prior to transportation to the landfill. The equipment, fluids, and debris will be disposed of in accordance with 40 CFR 761.60 as indicated Table 1 below. All regulated material (≥ 50 ppm PCBs) will be managed off-site at 3rd party facilities in accordance with the disposal requirements at 40 CFR 761.60. TCI will utilize DOT approved roll-off containers and trailers for transportation of all regulated wastes. Transportation to EPA approved disposal facilities will be accomplished with DOT/EPA permitted PCB waste haulers. The table below indicates the approved EPA disposal facilities and disposal methods for the regulated material.

TABLE 3: Disposition of Regulated PCB Inventory

Regulated Material	Quantity	Designated Disposal Facility	Disposal Method
≥ 50 PCB fluids	31,100 G ¹	Environmental Protection Services, Inc. 3 Industrial Park Drive Wheeling, WV 26003 EPA ID No.: WVD988770673	De-chlorination
≥ 50 ppm PCB Articles drained	215,000 P ¹	Environmental Protection Services, Inc. 4 Industrial Park Drive Wheeling, WV 26003 EPA ID No.: WVD988770673	Recycling
PCB solids/debris	67,500 P	Waste Management 36964 Highway 17 North Emelle, AL 35459 EPA ID No.: ALD000622464	Landfill

NOTE¹: To break down the fluid and weight of the drained articles, the following calculations were used:

- 7.5 lbs/G for PCB-Contaminated fluid
- 12 /bs/G for PCB fluid

4.4 Decontamination of Material Handling Equipment and Other Movable Equipment

The following equipment will be decontaminated in accordance with 40 CFR 761.79(c)(1) and (c)(2):

- 2- skid steer with bucket
- 1-2-ton Gantry crane (hook only)
- 1- 10 T Gantry Crane
- 2- 5 T Jib cranes
- 2- 6k forklift
- 2- 12k forklift
- 22k forklift
- conveyors
- various hand tools

Water & detergent will be used for decontamination and disposed of as PCB fluids following decontamination. Records documenting the self-implementing procedures will be appended to the final Closure Report to meet the record requirements of 40 CFR 761.79(f)(2).

4.5 Decontamination of Interior Areas of Facility

As TCI will strictly adhere to the cleanup and confirmatory sampling requirements of the PCB Spill Clean-Up policy throughout its operations, it is not anticipated that the floors and walls where regulated PCBs are stored at the facility will be contaminated $\geq 10\mu\text{g}/100\text{cm}^2$. Those areas will, however, be double

washed/rinsed in accordance with 40 CFR 761.123 prior to sampling. Detergent will be used for these purposes and disposed of as PCB fluids following decontamination. All interior areas of Area 150-1 and 130-1, to include floors and walls, will be decontaminated as follows:

- The floors in both areas will be scrubbed using a floor scrubber with water & detergent. The walls will be scrubbed with stiff, bristle brushes. The areas will then be vacuumed dry to remove any residue.
- The wash/rinse fluids will be reused until they reach 50 ppm PCBs and will be disposed of as PCB fluids.

The areas will be sampled in accordance with the requirements of 40 CFR 761 Subpart G, the guidance document entitled “Verification of PCB Spill Cleanup by Sampling and Analysis,” and the sampling scheme set forth in “Field Manual for Grid Sampling of PCB Spill Sites to Verify Cleanup.” Verification of decontamination is indicated by all tests resulting in the following: $\leq 10 \mu\text{g}/100 \text{ cm}^2$.

If any wipe test results are greater than the allowed level, that area will be re-cleaned 55 feet in all directions from the sample locations. A second group of samples in the area will be collected and analyzed. Cleaning and re-analysis will continue until results confirm the required cleanup levels.

4.6 Roadways, Parking Areas, and Loading Docks

TCI strictly adheres to the Spill Cleanup Policy in accordance with 40 CFR 761 Subpart G during all facility operations. For this reason, PCB spills are unlikely to occur outside the facility and un-cleaned spill areas are unlikely to exist. However, to ensure contaminated areas outside the facility do not exist, at the time of closure, outdoor areas will be sampled and analyzed in accordance with 40 CFR 761 Subpart G, the guidance document entitled “Verification of PCB Spill Cleanup by Sampling and Analysis,” and the sampling scheme set forth in “Field Manual for Grid Sampling of PCB Spill Sites to Verify Cleanup.”

4.7 Verification of Decontamination & Clean Up

As previously stated, during closure cleanup and decontamination will be verified according to the guidance document entitled “Verification of PCB Spill Cleanup by Sampling and Analysis,” and the sampling scheme set forth in “Field Manual for Grid Sampling of PCB Spill Sites to Verify Cleanup.” Following the guidance in these documents, sample areas, quantities, and sample types will be as follows:

TABLE 4: Sampling Details

Location	# of Samples	Composite Samples	Sample Type
BUILDING 150			
Area 150-1 (PCB Storage Area)	280	0	Wipe
Area 150-2	23	0	Wipe
Administration/Office Area	2	0	Wipe
Loading Docks	15	0	Core
Roadways (asphalt)	18	0	Grab
Roadways & Parking (dirt/gravel)	90	9	Grab
BUILDING 130			
Area 130-1 (PCB Storage Area)	60	0	Wipe
Area 130-2	44	0	Wipe
Administration/Office Area	2	0	Wipe
Loading Docks	5	0	Core
Roadways (asphalt)	10	0	Grab
Roadways & Parking (dirt/gravel)	45	5	Grab
Quality Control (10%)	60	0	Wipe/Concrete/Grab
TOTAL SAMPLES TAKEN	654	14	
TOTAL SAMPLES TO BE ANALYZED	533		411 (Wipe) 23 (Core) 47(Grab)

4.8 Post-Closure Plan

Post-closure care will not be needed for this facility because all regulated material will be transported off-site for EPA approved disposal. Thus, there will be no need for further action at the facility following completion and certification as a result of closure activities.

4.9 Notice in Deed

Determination as to whether a deed restriction will be required will be dependent on the cleanup levels achieved during closure. It is not anticipated that a deed restriction will be required.

4.10 Expected Year of Closure

The expected year of closure is the year 2050 A.D.

**SECTION 5.0
 CERTIFICATION OF CLOSURE**

This closure activity shall be attested, reported and certified by an independent, registered Environmental Professional.

**SECTION 6.0
 SAFETY PROCEDURES FOR DECONTAMINATION PERSONNEL**

All persons participating in decontamination for closure will be adequately trained for the preceding activities. Safety equipment will include but not be limited to the following:

- Disposable protective coveralls
- Boots and Gloves
- Respirators, if necessary with the appropriate cartridge filters

**SECTION 7.0
 DISPOSITION OF REGULATED PCB MATERIALS GENERATED DURING CLOSURE ACTIVITIES**

The regulated wastes will be transported to the EPA approved disposal facilities indicated below utilizing DOT/EPA permitted PCB waste haulers.

TABLE 5: Disposition of Regulated PCB Materials Generated During Closure Activities

Waste Description	Quantity	Disposal Facility	Disposal Method
Contaminated Detergent/Solvent to clean floors, equipment, etc.	2,000 G	Veolia ES Technical Solutions, LLC 7665 Highway 87 Port Arthur, TX 77642 EPA ID No.: TXD000838896	Incineration
PCB Solids Generated from the following activities: <ul style="list-style-type: none"> • 1,000 P of contaminated solids used to decontaminate equipment, floors, etc. • 200 P of porous direct contact equipment • 500 P of miscellaneous PPE, sampling equipment, brooms, shovels, etc. generated during closure activities 	6,000 P	Waste Management 36964 Highway 17 North Emelle, AL 35459 EPA ID No.: ALD000622464	Landfill

SECTION 8

CLOSURE COSTS ESTIMATE: The Closure Costs Estimate has been developed to ensure that adequate funds along with a viable financial instrument will be available to pay for costs in the event that TCI is unable to complete closure. A summary of the estimated costs of employing a third party to implement all closure activities is provided.

Item	Description	Quantity	Unit	Unit Rate	Amount
1	Removal of Inventory (Labor):	435	MH	\$55	\$23,925
	■ Loading of trucks: 75 MH. Sample Collection: 60 MH				
	■ Clean/Decontamination of walls, ceilings, & equipment: 250 MH				
	■ Crush drums: 10 MH Cleaning of floors: 40 MH				
2	Equipment Rental for loading of inventory (15 days/3 weeks)	3	W	\$2,554	\$7,662
3	Fuel for equipment loading inventory	90	G	\$2.50	\$225
4	DOT/UN Drums used for used detergent/water	40	EA	\$26	\$1,040
5	Transportation of PCB & PCB-contaminated articles & drums to EPS, Wheeling, WV	16	L	\$3,250	\$52,000
6	Disposal of PCB-contaminated articles to Wheeling, WV	94,000	P	\$0.10	\$9,400
7	Disposal of PCB articles to EPS, Wheeling, WV	415,000	P	\$0.60	\$249,000
8	Disposal of PCB articles (drained) to EPS, Wheeling, WV	9,000	P	\$0.35	\$3,150
9	Disposal of PCB-contaminated fluid in drums to Wheeling, WV	90	D	\$75	\$6,750
10	Transportation of PCB solids/debris to WM, Emelle, AL	2.5	L	\$3,075	\$7,688
11	Disposal of PCB solids/debris to WM, Emelle, AL (67,500 lbs)	34	T	\$95	\$3,230
12	Transportation of PCB solids/debris from cleanup to WM, Emelle, AL	Incl in 10 above	--	--	--
13	Disposal of PCB solids/debris from cleanup to WM, Emelle, AL (6,000 P)	3	T	\$95	\$285
14	Transportation of used detergent/water from cleanup to Veolia, Port Arthur, TX (2,000 G)	.35	LTL	\$5,075	\$1,776
15	Disposal of used detergent/water from cleanup to Veolia, Port Arthur, TX (2,000 G)	16,000	P	.38	\$6,080
16	Detergent/Solvent for cleanup	--	--	--	\$800
17	Personal Protective Equipment for on-site cleanup personnel	--	--	--	\$1,750
18	Sample Analysis (Wipe)	411	S	\$61	\$25,071
19	Sample Analysis (Grab)	47	S	\$83	\$3,901
20	Sample Analysis (Core)	23	S	\$83	\$1,909
				SUBTOTAL	\$405,642
21	Engineering Oversight & Supervision				\$5,000
22	Certification of Closure (10%)	--	--	--	\$40,564
23	Contingency (10%)	--	--	--	\$40,564
	LEGEND: MH = Manhours; H = hours; G – gallons; L = truckloads' P = pounds; T = tons; D = drums; S = samples			TOTAL	\$491,770

SECTION 9.0
CLOSURE SCHEDULE

<u>Event</u>	<u>Days</u>
Notification given to EPA of closure (60 days prior to start)	0
Last Regulated Material received at the facility	30
Closure Activities Begin	60
• Removal of PCB Inventory	74
• Decontamination of Tanks & Removal of Tank Liner	104
• Cleaning of Floors, Walls, and Ceilings	125
• Sampling & Analysis	146
• Re-cleaning & re-sampling, if indicated	176
• Final Analysis Received	197
Closure Activities Complete	197
Closure Certification	260
Final Certification and Report Submitted to EPA	290

FIGURES

Figure 1	Site Vicinity (150 & 130)
Figure 2	Site Property Map
Figure 3	Traffic Flow – 150
Figure 4	Traffic Flow - 130
Figure 5	Facility Layout – 150
Figure 6	Facility Layout – 130
Figure 7	Storm Sewer Schematics – 150
Figure 8	Storm Sewer Schematics - 130

FIGURE 1
SITE VICINITY

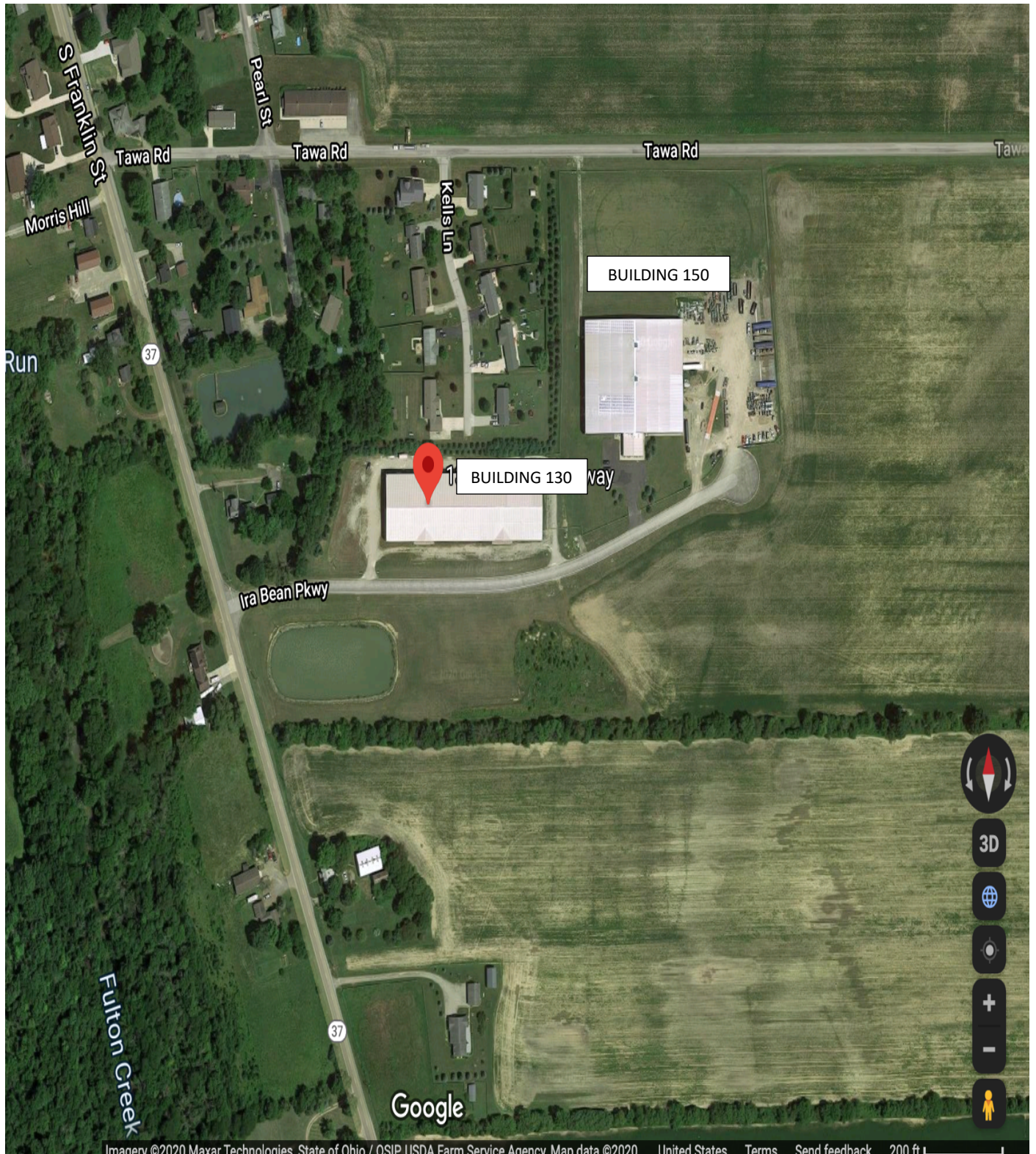


FIGURE 2
SITE PROPERTY MAP

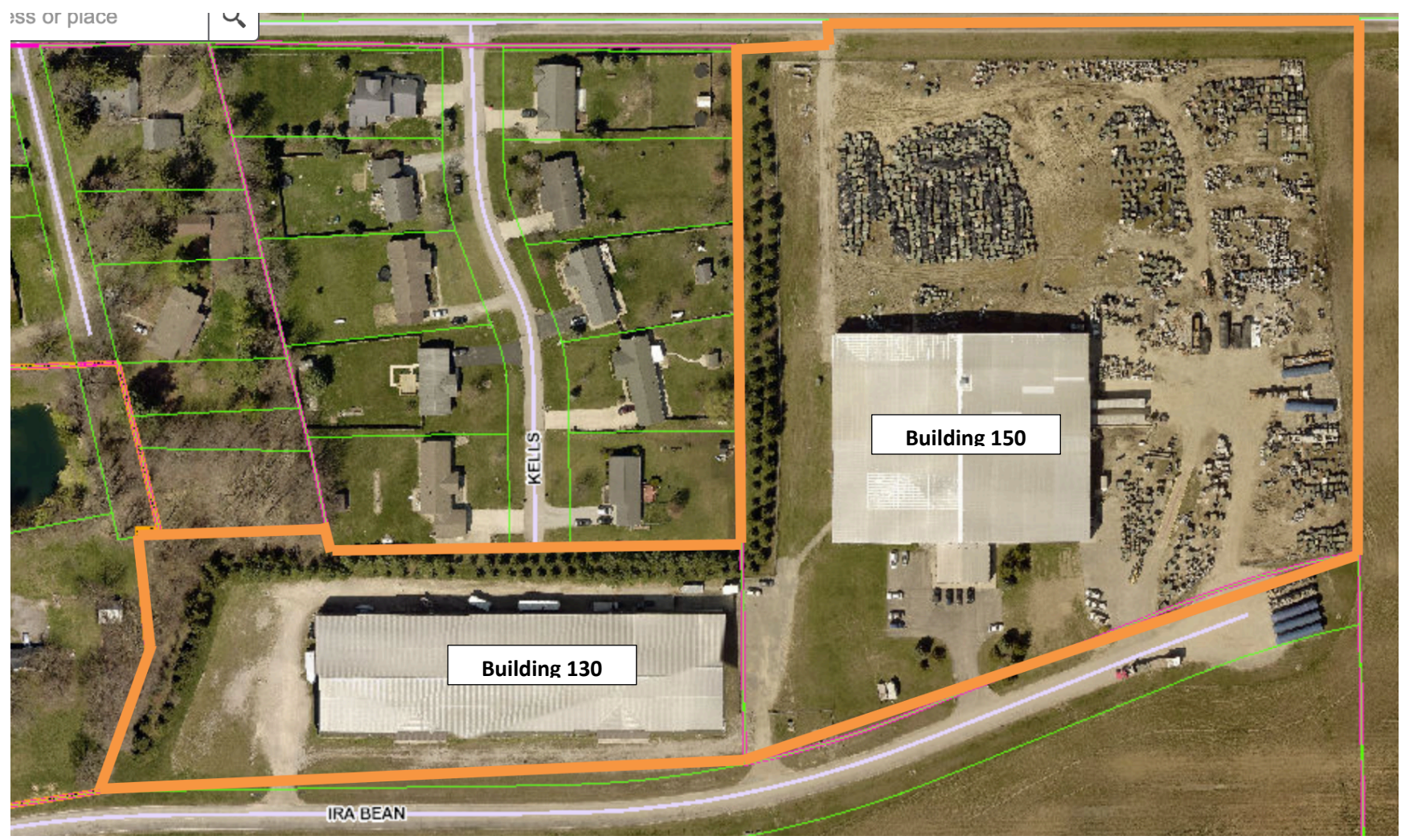


FIGURE 3
TRAFFIC PATTERNS – BUILDING 150

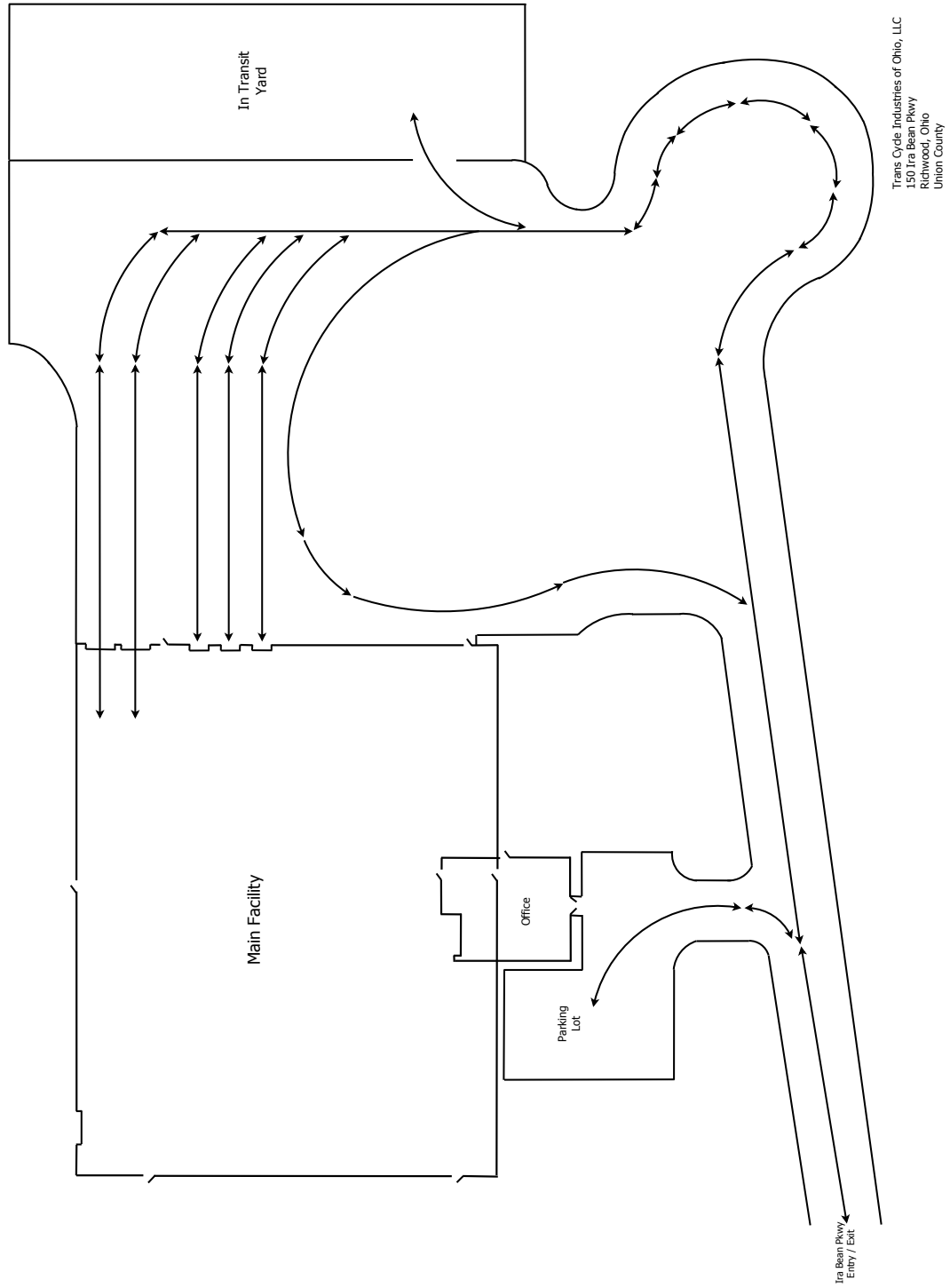
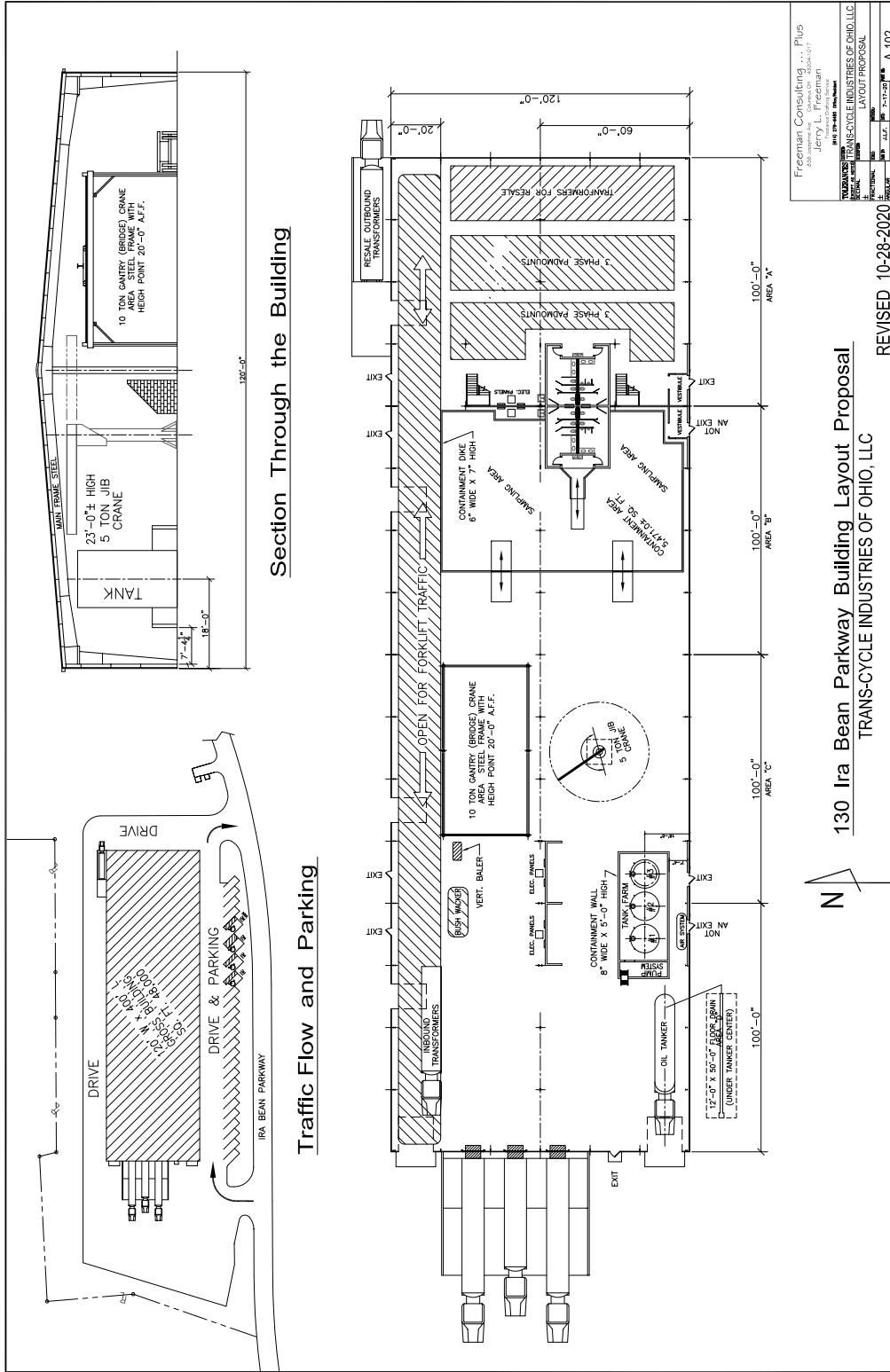
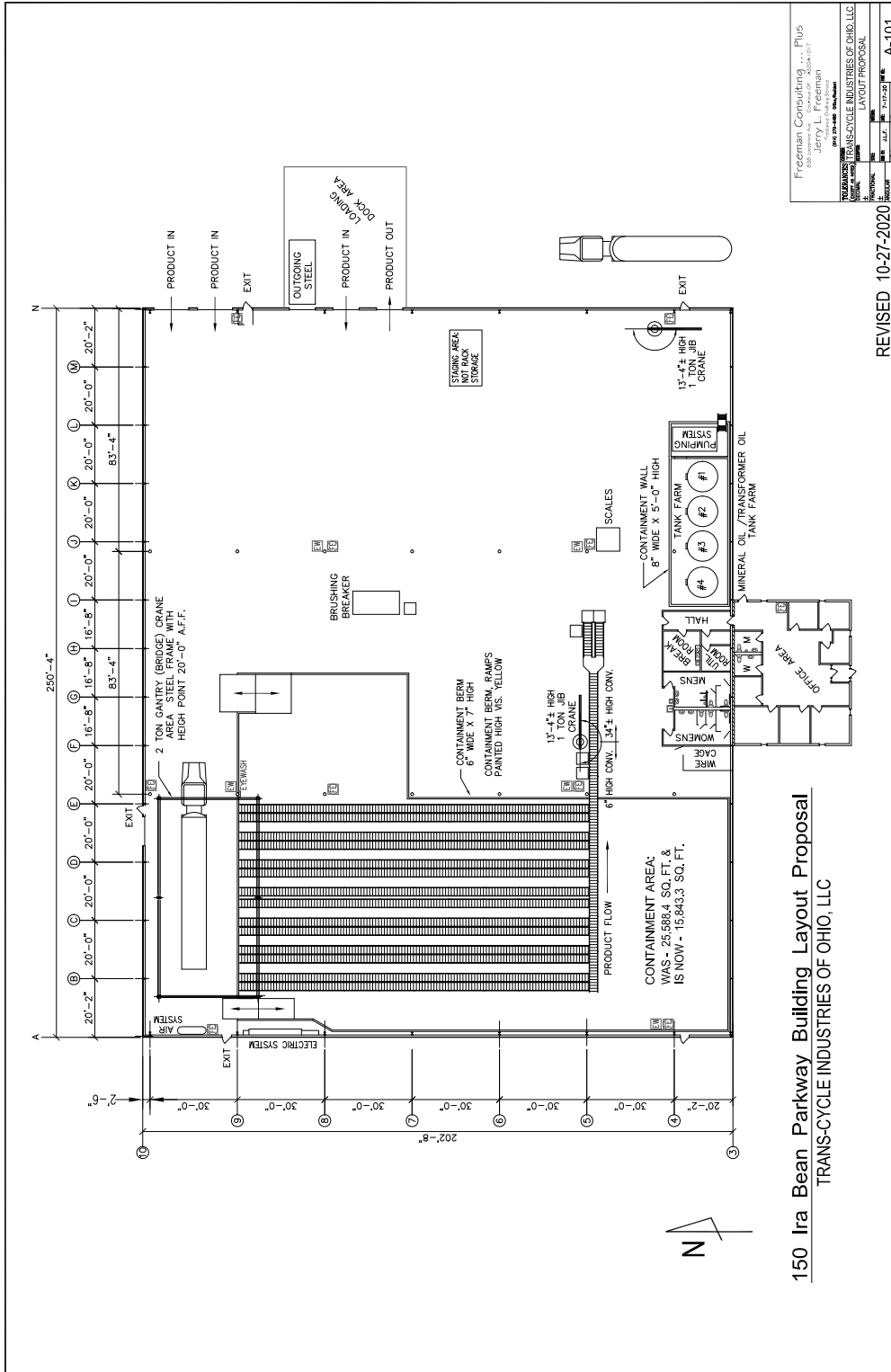


FIGURE 4
TRAFFIC PATTERNS – BUILDING 130



**FIGURE 5
FACILITY LAYOUT - 150**

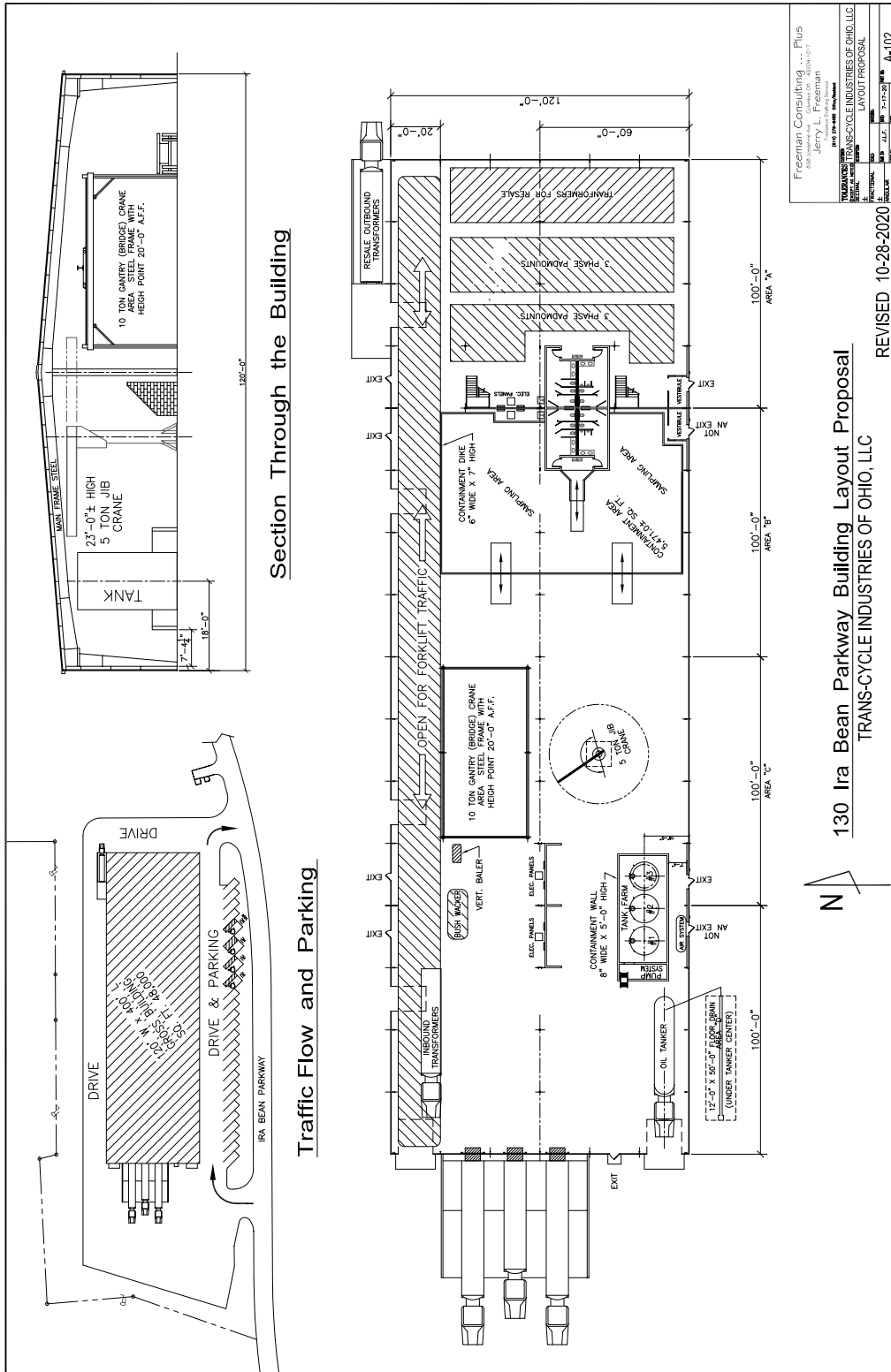


150 Ira Bean Parkway Building Layout Proposal
TRANS-CYCLE INDUSTRIES OF OHIO, LLC

Freeman Consulting, Inc. Plus 10000 Sycamore Drive Cincinnati, OH 45240 Jerry L. Freeman 419 233-1868 jlfreeman@freeman.com	
PROJECT: TRANS-CYCLE INDUSTRIES OF OHIO, LLC DATE: 10-17-2020 DRAWN BY: JLF CHECKED BY: JLF SCALE: AS SHOWN SHEET: A-101	

REVISED 10-27-2020

**FIGURE 6
FACILITY LAYOUT – 130**



Freeman Consulting ... Plus
 Jerry L. Freeman
 TRANSCYCLE INDUSTRIES OF OHIO, LLC
 LAYOUT PROPOSAL
 DATE: 10-28-2020
 DRAWN BY: JLF
 CHECKED BY: JLF
 SCALE: AS SHOWN
 SHEET NO: A-102

130 Ira Bean Parkway Building Layout Proposal
 TRANSCYCLE INDUSTRIES OF OHIO, LLC
 REVISED 10-28-2020

FIGURE 7
STORM SEWER SCHEMATICS – 150

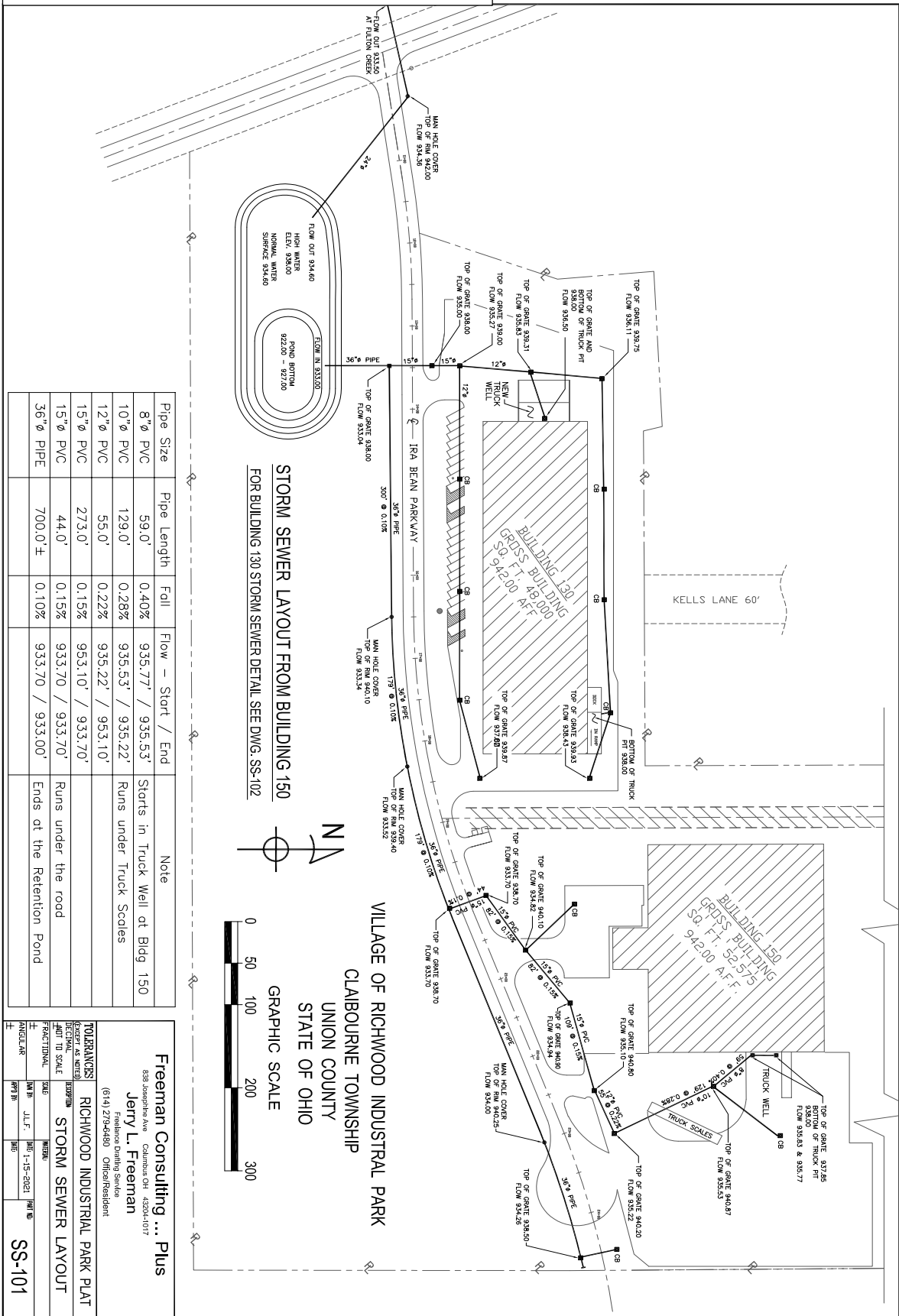
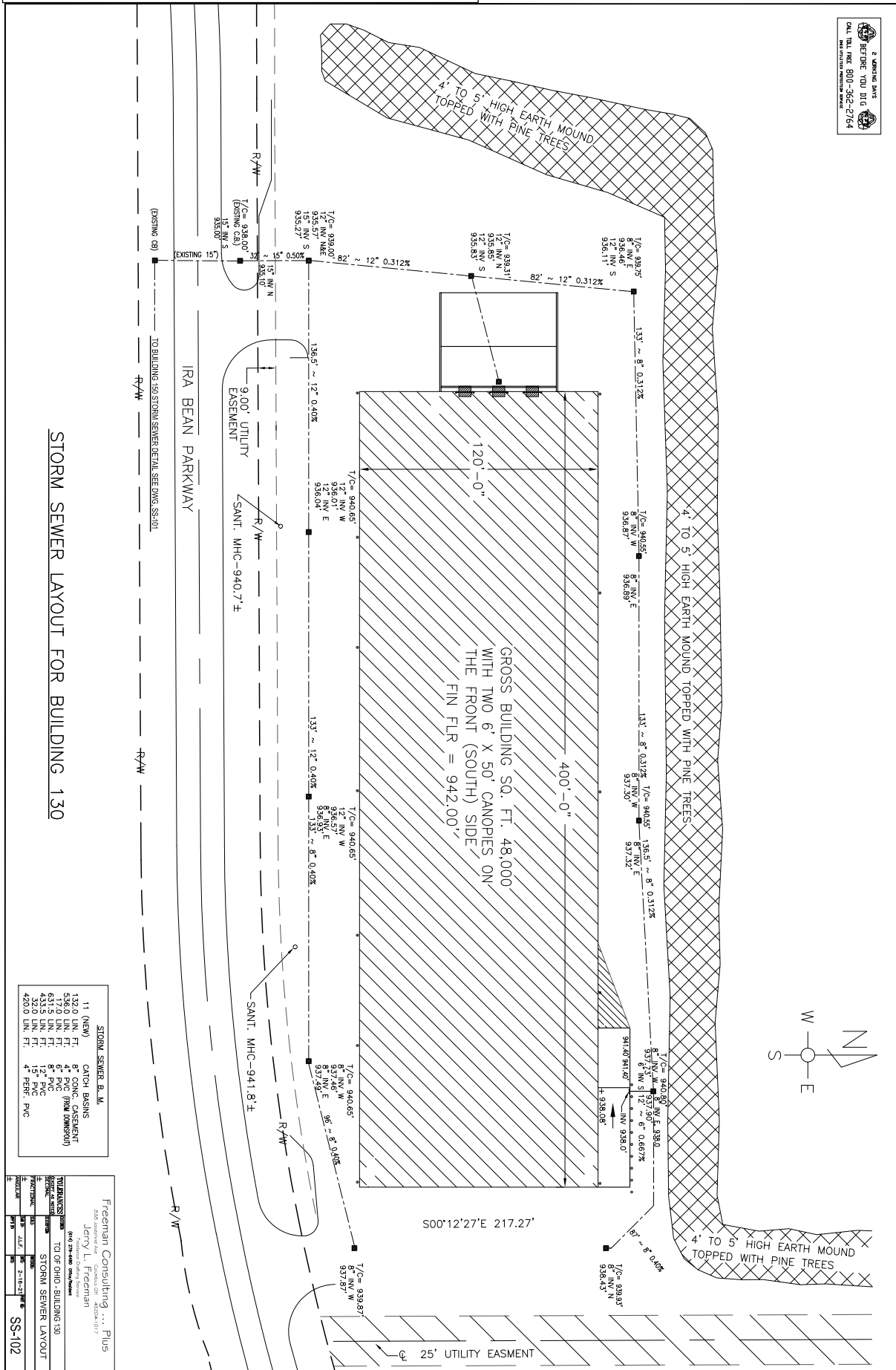


FIGURE 8
STORM SEWER SCHEMATICS – 130



STORM SEWER LAYOUT FOR BUILDING 130

STORM SEWER B. M.	
11 (NSU)	CATCH BASIN
133.0 LIN. FT.	8" CONC. CULVERT
536.0 LIN. FT.	4" PVC (FROM DOWNHILL)
17.0 LIN. FT.	6" PVC
433.5 LIN. FT.	12" PVC
32.0 LIN. FT.	18" PVC
420.0 LIN. FT.	4' PERM. PVC

Freeman Consulting ... Plus	
6000 Lakeside Blvd., Columbus, OH 43219	Project No. 130
10000 Lakeside Blvd., Columbus, OH 43219	Sheet No. SS-102
7010 Old Ohio Building 130	Client: Freeman Consulting ... Plus
STORM SEWER LAYOUT	Scale: 1" = 20'
DATE: 11/11/11	DESIGNED BY: JMD
CHECKED BY: JMD	DATE: 11/11/11

APPENDIX A
LEGAL DESCRIPTION

LEGAL DESCRIPTION – BUILDING 150

03/17/2004 13:52 9376440422

UNION COUNTY CHAMBER

PAGE 04



POGGEMEYER DESIGN GROUP, INC.

**1168 NORTH MAIN STREET
BOWLING GREEN, OHIO 43402**

(419) 352-7537

E-MAIL askinal@poggemeyer.com

**LEGAL DESCRIPTION OF 8.6588 ACRES
FOR THE VILLAGE OF RICHWOOD**

THE FOLLOWING DESCRIBED TRACT OF LAND SITUATED IN THE STATE OF OHIO, COUNTY OF UNION, TOWNSHIP OF CLAIBOURNE, V.M.S. #6293 , VILLAGE OF RICHWOOD AND BEING PART OF A 22.954 ACRE TRACT DESCRIBED IN OFFICIAL RECORD 256, PAGE 109, SAID TRACT BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING FOR REFERENCE AT A CAPPED 3/8 INCH IRON PIN FOUND AT THE NORTHEAST CORNER OF LOT #2 OF RICHWOOD ACRES SUBDIVISION AS RECORDED IN PLAT BOOK 4, PAGE 162 (SLIDE 55 B), AT AN ANGLE POINT IN THE SOUTH RIGHT-OF-WAY LINE OF TAWA ROAD (50 FEET WIDE) AND THE WEST LINE OF THE 22.954 ACRE TRACT;

THENCE NORTH 00DEG 12MIN 27SEC WEST, 5.00 FEET, FOLLOWING THE WEST LINE OF SAID 22.954 ACRE TRACT, TO A FOUND IRON PIN AT AN ANGLE POINT IN THE SOUTH RIGHT-OF-WAY LINE OF TAWA ROAD (50 FEET WIDE) TO THE NORTH LINE OF SAID 22.954 ACRE TRACT;

THENCE NORTH 89DEG 44MIN 57SEC EAST, 80.88 FEET, FOLLOWING THE SOUTH RIGHT-OF-WAY LINE OF TAWA ROAD (50 FEET WIDE) AND NORTH LINE OF SAID 22.954 ACRE TRACT, TO A FOUND IRON PIN IN THE WEST LINE OF SAID 22.954 ACRE TRACT;

THENCE NORTH 01DEG 13MIN 14SEC WEST, 25.00 FEET FOLLOWING THE WEST LINE OF SAID 22.954 ACRE TRACT TO A FOUND NAIL ON THE CENTERLINE OF SAID TAWA ROAD (50 FEET WIDE);

THENCE NORTH 89DEG 44MIN 57SEC EAST, FOLLOWING THE CENTERLINE OF SAID TAWA ROAD (50 FEET WIDE) AND THE NORTH LINE OF SAID 22.954 ACRE TRACT A DISTANCE OF 523.95 FEET (523.96 FEET RECORD) TO A FOUND NAIL MARKING THE NORTHEAST CORNER OF SAID 22.954 ACRE TRACT;

BETHEL L. TEMPLE
RECORDER, UNION CO., OHIO

2004 APR -5 AM 10:11

36.00

OR 532 00879

03/17/2004 WED 13:02 [TX/RX NO 6454] 004

LEGAL DESCRIPTION – BUILDING 130

EXHIBIT "A"

LEGAL DESCRIPTION

Case Number: 9662

Real Estate situated in the State of Ohio, County of Union and the Township of Claibourne., VMS # 6293 and VMS # 7008, Village of Richwood, and being more particularly described as follows:

Being Lot B of Richwood Industrial Park as recorded in Plat book #5, Page 155 of the Union County Records.

Last Deed Recorded in Volume 256, Page 109 of the Union County Official Records

Also Known As: 3.2999 Acres, Richwood, OH 43344
Parcel Number: 06-0010052.101
Map Number: 035-00-00-053.000

EXISTING DESCRIPTION
ACCEPTABLE FOR TRANSFER
DATE 11-8-06 MLK
STEVE STOLTE UNION CO. ENG

TERESA L. MARKHAM
RECORDER, UNION CO., OHIO

2007 JAN 12 PM 3:45

2800

OR 718 PG 046

APPENDIX B

3RD PARTY CLOSURE COSTS



304.232.1590 

support@EPSONline.com 

4 Industrial Park Drive | Wheeling, WV 26003 

October 26, 2020

TCl of Ohio
Mr. George Jackson
150 Ira Bean Parkway
Richwood, OH 43344


Dear Mr. Jackson:

In the event of the closure of the TCl of Ohio facility in Richwood, OH, Environmental Protection Services (EPS) would accept PCB and PCB-Contaminated transformers and regulators our facility in Wheeling, WV. EPS can also accept PCB-Contaminated mineral oil in drums. TCl of Ohio will be responsible to arrange the transportation of the material to the EPS facility. The pricing for the disposal of this material is as follows:

Transformers and Regulators < 500 ppm PCB (Full or Empty):	\$0.10 per pound
Transformers and Regulators ≥ 500 ppm PCB (Empty):	\$0.35 per pound
Transformers and Regulators ≥ 500 ppm PCB (Full):	\$0.60 per pound
55-Gallon Drums of Mineral Oil Dielectric Fluid (50 – 499 ppm PCB):	\$75.00 per drum

EPS will issue TCl of Ohio a Certificate of Disposal in accordance with 40 CFR 761.218 (b) once the material has been processed. Please let me know if you have any questions.

Respectfully,

A handwritten signature in black ink that reads "Brad Joseph". The signature is fluid and cursive, with a long horizontal stroke at the end.

Brad Joseph
Vice President



Wichita Facility & Corporate Offices
 2626 S Rock Road, Suite 124
 Wichita, KS 67210
 316-68-8787 (voice)

Mound Valley Facility
 111 East 5th Street, Box A
 Mound Valley, KS 67354
 620-328-3222 (voice)

Analytical Services Quotation

Trans-Cycle Industries of Ohio, LLC
 Attn: Tracy Helms
 150 Ira Bean Parkway
 Richwood, OH 43344
 205-338-9997 (phone)

Bid Date: 10/27/2020
Bid Expires: 12/26/2020
Prices Expire: 10/27/2021
Project Name: Facility Closure

Matrix	Parameters	Method	QTY	Unit Price	Sub Total
Soil	PCBs, Total	EPA 3550/8082	1	\$82.50	\$82.50
Wipe	PCBs, Total	EPA 3550/8082	1	\$60.50	\$60.50

Price includes: Standard 10-business day TAT.
 Electronic reporting of results by PDF and Excel EDD.
 Reporting by 1600 Central Time on day due.
 TATs are business-days, not including weekends or holidays observed by Meridian Labs.
Wipe Sample Templates, Solvent-Moistened Gauze Pads and Containers for Wipe Samples.

Meridian ANALYTICAL Labs, LLC

Duane P. Koszalka
 Vice President, COO
 620-328-3222



11/10/2020

George Jackson
Trans-Cycle Industries of Ohio, LLC
150 Ira Bean Parkway
Richwood, OH 43344

Customer No.: 513415
Generator No.: Pending

Subject: Closure Pricing Estimate for TCI of Ohio LLC

Veolia is pleased to present the following price quotation for your review and acceptance. This estimate is based on information provided by TCI of Alabama LLC. All pricing is dependent upon final approval. Veolia will assist with profiling, and will provide all necessary documentation for shipping. All materials must be manifested directly to Veolia ES Technical Solutions LLC-Port Arthur TX for receipt & disposal.

Applicable disposal pricing is noted below:

Stream	PTA Approval Code	PTA Process Code	Disposal Cost	Disposal Minimum
Mineral Oil	PTABV2871	BF	\$0.10/lb.	\$2271.00 per shipment
Water	PTAAI6597	BLL	\$0.20/lb.	\$2271.00 per shipment
Oil/Water Mix	PTAAI6590	BLH	\$0.38/lb.	\$2271.00 per shipment

Pricing is contingent upon receipt of signed Veolia WIPs for the Richwood OH site. Billing for loads will be sent to Pell City AL service center. All applicable disposal taxes will be billed at standard rates. Load scheduling into Port Arthur will be coordinated by our Veolia-College Park GA service team.

Veolia reserves the right to modify this quotation upon written notice at any time after original thirty (30) days from date of issuance.

Thank you for the opportunity to submit this proposal. Please call me at 678 231 7710 if you have any questions. We look forward to working with you. Thank you for your confidence in VES and our environmental philosophies.

Sincerely,

Albert T Williams
Account Manager
678 231 7710
Albert.Williams@veolia.com

Veolia North America
4730 Clark Howell Highway
College Park GA 30349
Office Number (404) 675-3250

www.veolianorthamerica.com

APPENDIX C

PHYSICAL SETTING REPORT

SECTION X

TRANS-CYCLE INDUSTRIES OF OHIO, LLC

150 Ira Bean Parkway

Richwood, Ohio 43344

CLOSURE COST ESTIMATE

40 CFR 761.65(d)(3)(ix)

CLOSURE COSTS ESTIMATE: The Closure Costs Estimate has been developed to ensure that adequate funds along with a viable financial instrument will be available to pay for costs in the event that TCI is unable to complete closure. A summary of the estimated costs of employing a third party to implement all closure activities is provided.

Item	Description	Quantity	Unit	Unit Rate	Amount
1	Removal of Inventory (Labor):	435	MH	\$55	\$23,925
	■ Loading of trucks: 75 MH. Sample Collection: 60 MH				
	■ Clean/Decontamination of walls, ceilings, & equipment: 250 MH				
	■ Crush drums: 10 MH Cleaning of floors: 40 MH				
2	Equipment Rental for loading of inventory (15 days/3 weeks)	3	W	\$2,554	\$7,662
3	Fuel for equipment loading inventory	90	G	\$2.50	\$225
4	DOT/UN Drums used for used detergent/water	40	EA	\$26	\$1,040
5	Transportation of PCB & PCB-contaminated articles & drums to EPS, Wheeling, WV	16	L	\$3,250	\$52,000
6	Disposal of PCB-contaminated articles to Wheeling, WV	94,000	P	\$0.10	\$9,400
7	Disposal of PCB articles to EPS, Wheeling, WV	415,000	P	\$0.60	\$249,000
8	Disposal of PCB articles (drained) to EPS, Wheeling, WV	9,000	P	\$0.35	\$3,150
9	Disposal of PCB-contaminated fluid in drums to Wheeling, WV	90	D	\$75	\$6,750
10	Transportation of PCB solids/debris to WM, Emelle, AL	2.5	L	\$3,075	\$7,688
11	Disposal of PCB solids/debris to WM, Emelle, AL (67,500 lbs)	34	T	\$95	\$3,230
12	Transportation of PCB solids/debris from cleanup to WM, Emelle, AL	Incl in 10 above	--	--	--
13	Disposal of PCB solids/debris from cleanup to WM, Emelle, AL (6,000 P)	3	T	\$95	\$285
14	Transportation of used detergent/water from cleanup to Veolia, Port Arthur, TX (2,000 G)	.35	LTL	\$5,075	\$1,776
15	Disposal of used detergent/water from cleanup to Veolia, Port Arthur, TX (2,000 G)	16,000	P	.38	\$6,080
16	Detergent/Solvent for cleanup	--	--	--	\$800
17	Personal Protective Equipment for on-site cleanup personnel	--	--	--	\$1,750
18	Sample Analysis (Wipe)	411	S	\$61	\$25,071
19	Sample Analysis (Grab)	47	S	\$83	\$3,901
20	Sample Analysis (Core)	23	S	\$83	\$1,909
				SUBTOTAL	\$405,642
21	Engineering Oversight & Supervision				\$5,000
22	Certification of Closure (10%)	--	--	--	\$40,564
23	Contingency (10%)	--	--	--	\$40,564
	LEGEND: MH = Manhours; H = hours; G = gallons; L = truckloads' P = pounds; T = tons; D = drums; S = samples			TOTAL	\$491,770

SECTION XI

TRANS-CYCLE INDUSTRIES OF OHIO, LLC

**150 Ira Bean Parkway
Richwood, Ohio 43344**

FINANCIAL RESPONSIBILITY

40 CFR 761.65(d)(3)(x)

- A Letter of Credit will be used as the funding instrument. It will be issued/adjusted upon receipt of notice by U.S. EPA Region 5 that the Revised Closure Plan and Costs are approved.
- TCI will maintain the current executed closure instrument held by U.S. EPA Region 5 until the new Closure Plan is accepted.

SECTION XII

TRANS-CYCLE INDUSTRIES OF OHIO, LLC

**150 Ira Bean Parkway
Richwood, Ohio 43344**

SURFACE & GROUNDWATER INFORMATION

NOTE: The buildings are referred to as Building 150 and Building 130. Building 130 is the new building. They are contiguous properties adjoined as shown on the Property Layout included at the end of this section.

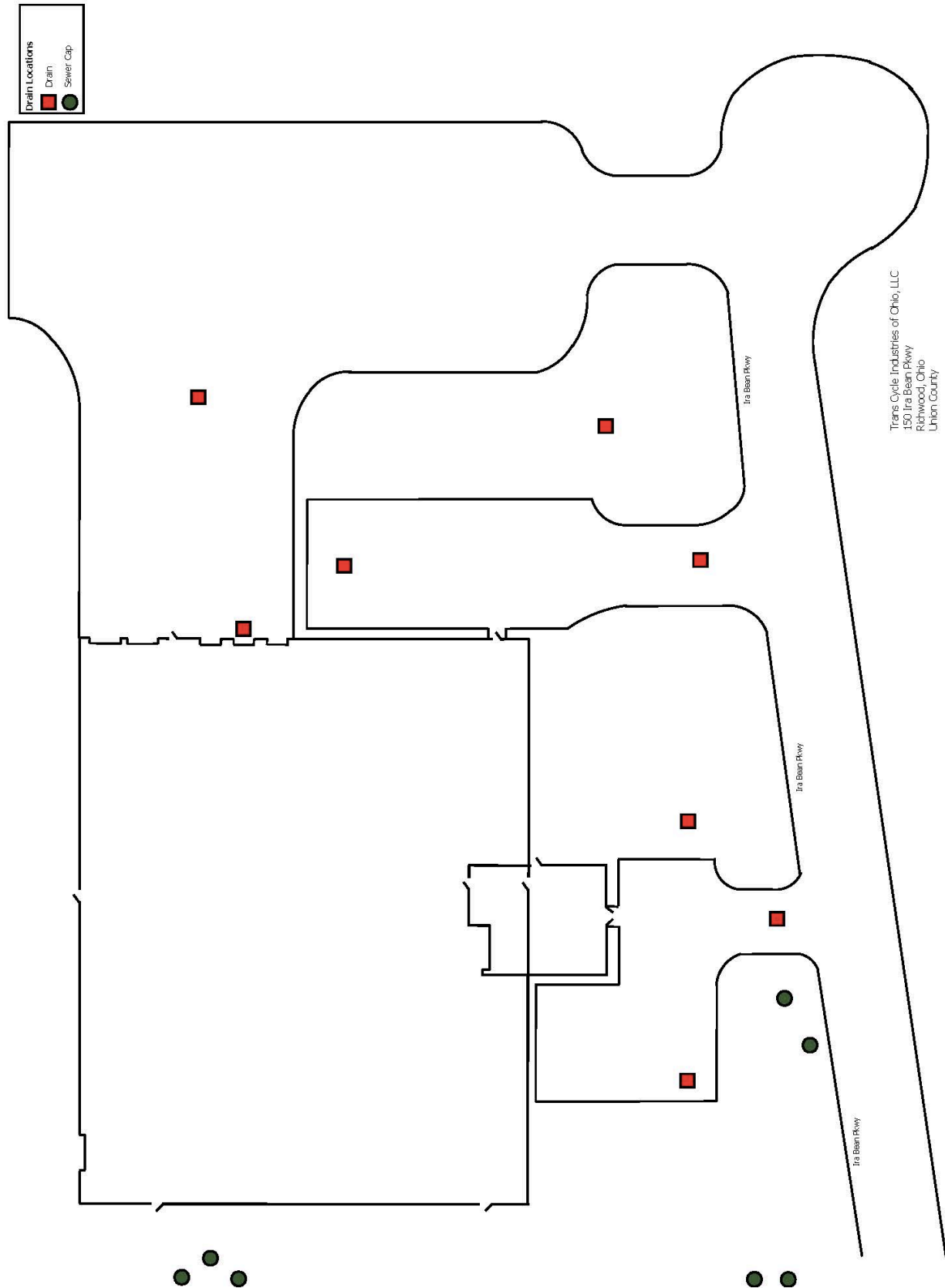
PHYSICAL SETTING REPORT

PROPERTY LAYOUT (Both Buildings included)

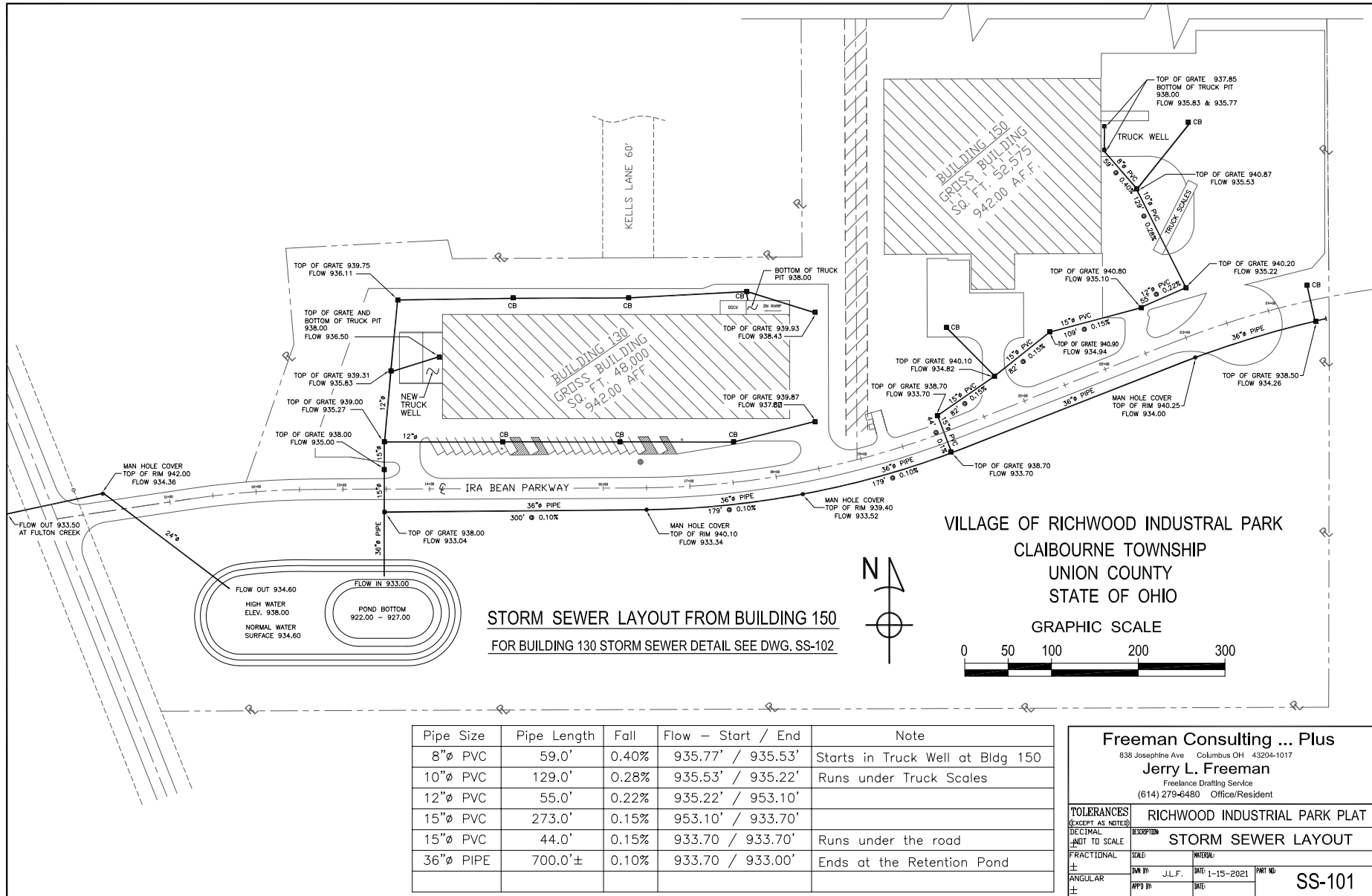
Address or place



BUILDING 150 DRAIN MAP



**BUILDING 150
STORM SEWER SCHEMATICS**



STORM SEWER LAYOUT FROM BUILDING 150
FOR BUILDING 130 STORM SEWER DETAIL SEE DWG. SS-102

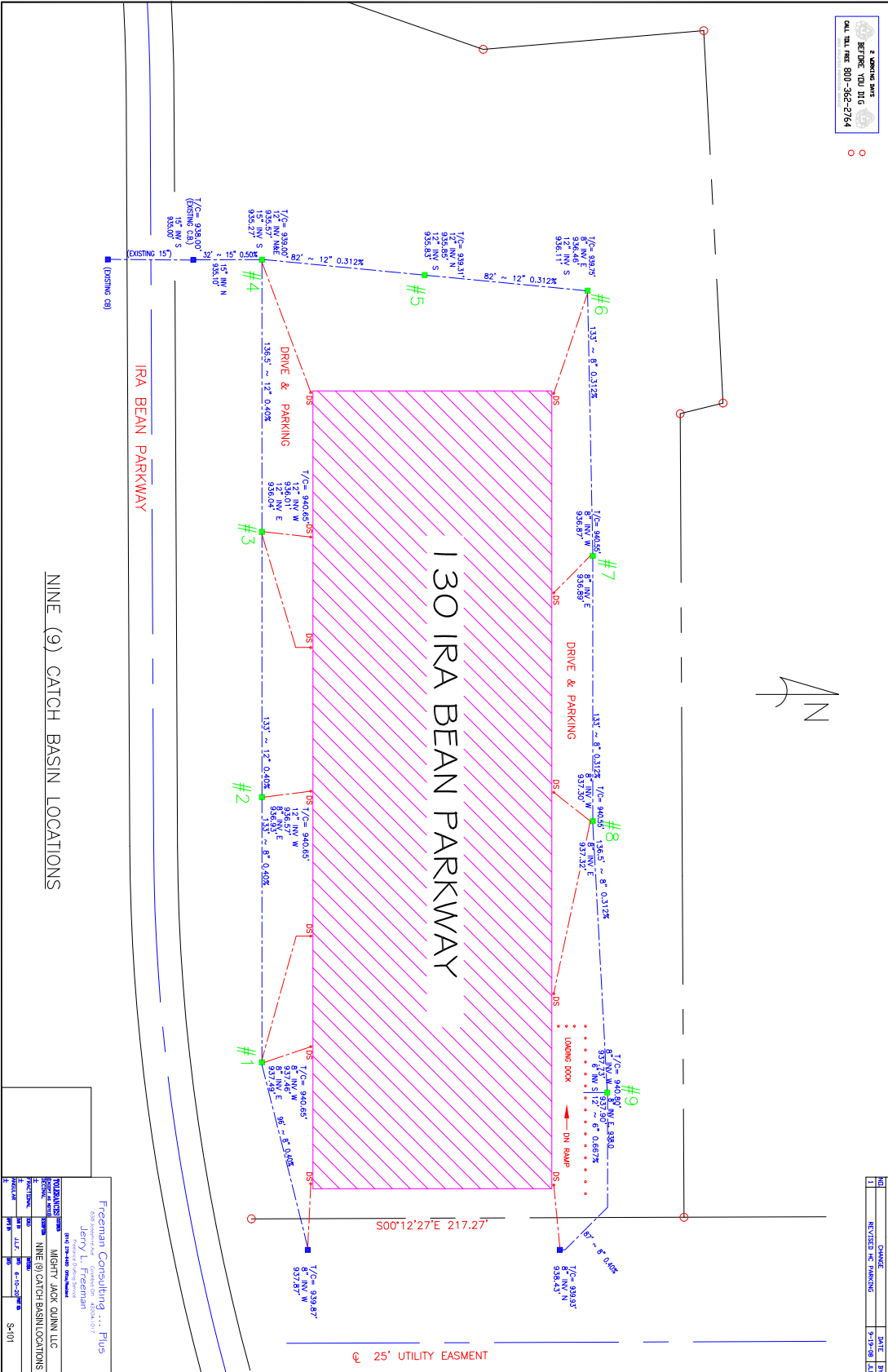
VILLAGE OF RICHWOOD INDUSTRIAL PARK
CLAIBOURNE TOWNSHIP
UNION COUNTY
STATE OF OHIO
GRAPHIC SCALE

Pipe Size	Pipe Length	Fall	Flow - Start / End	Note
8"Ø PVC	59.0'	0.40%	935.77' / 935.53'	Starts in Truck Well at Bldg 150
10"Ø PVC	129.0'	0.28%	935.53' / 935.22'	Runs under Truck Scales
12"Ø PVC	55.0'	0.22%	935.22' / 953.10'	
15"Ø PVC	273.0'	0.15%	953.10' / 933.70'	
15"Ø PVC	44.0'	0.15%	933.70' / 933.70'	Runs under the road
36"Ø PIPE	700.0'±	0.10%	933.70' / 933.00'	Ends at the Retention Pond

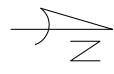
Freeman Consulting ... Plus
838 Josephine Ave Columbus OH 43204-1017
Jerry L. Freeman
Freelance Drafting Service
(614) 279-6480 Office/Resident

TOLERANCES (EXCEPT AS NOTED)	RICHWOOD INDUSTRIAL PARK PLAT		
DECIMAL	1/16"	ANGULAR	30'
NOT TO SCALE	STORM SEWER LAYOUT		
FRACTIONAL	SCALE:	MATERIAL:	
±	DWN BY: J.L.F.	DATE: 1-15-2021	PRT NO:
ANGULAR	APP'D BY:	DATE:	
±			SS-101

Building 130 Drain Map (Drains numbered in green)



EXISTING MANHOLE
25' UTILITY EASMENT
CALL THE NUMBER 800-562-2764



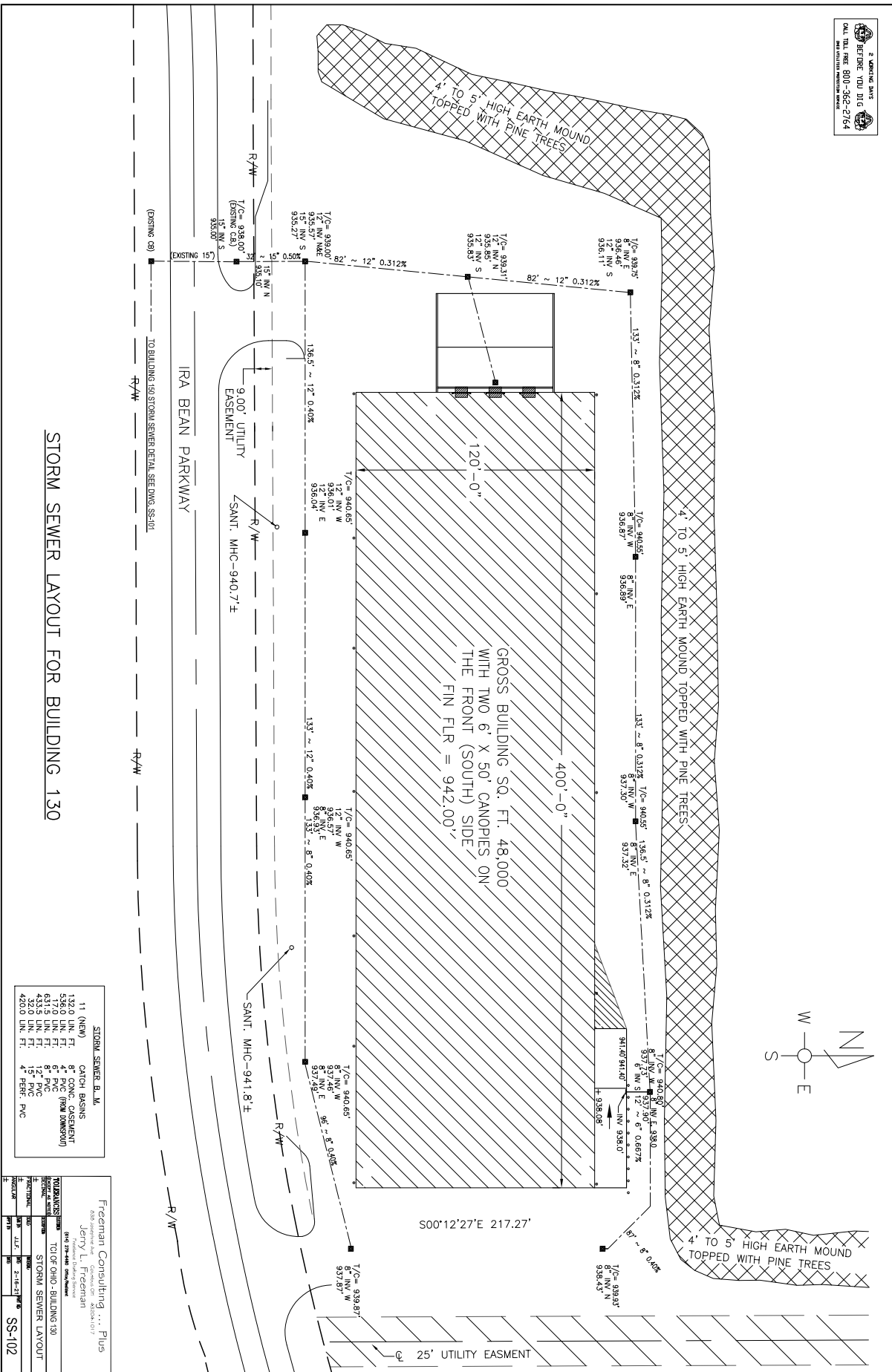
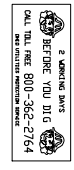
NO.	REVISIONS	DATE	BY
1	CHANGE RECEIVED THE DRAWING	9-19-08	JLF

NINE (9) CATCH BASIN LOCATIONS

Freeman Consulting, Inc. Plus
 Jerry L. Freeman
 10000 ...
 408-238-2200
 www.freemanconsulting.com

PROJECT: MIGHTY JACK GINN, LLC
 DRAWING: NINE (9) CATCH BASIN LOCATIONS
 DATE: 9-18-08
 SCALE: S-410

BUILDING 130 STORM SEWER SCHEMATICS



STORM SEWER LAYOUT FOR BUILDING 130

STORM SEWER B. M.		CATCH BASIN	
11	(NEW)	1320	LN. FT.
		5360	LN. FT.
		6170	LN. FT.
		6170	LN. FT.
		4335	LN. FT.
		320	LN. FT.
		4260	LN. FT.
		4	PERH. PVC

TOTAL WORK		DATE	
DESIGN	10/10/20	DATE	10/10/20
PERMIT	10/10/20	DATE	10/10/20
CONSTRUCTION	10/10/20	DATE	10/10/20
AS-BUILT	10/10/20	DATE	10/10/20

Freeman Consulting ... Plus
3650 Anderson Road, Cincinnati, OH 45236-1077
Tel: 513-754-0400 Fax: 513-754-0401
www.freemanconsulting.com

10/10/20
TOP OF OHIO - BUILDING 130
STORM SEWER LAYOUT
SS-102



Property Information

Order Number: 20200702259p
 Date Completed: July 2, 2020
 Project Number:
 Project Property: 130 Ira Bean Parkway
 130 Ira Bean Parkway Richwood OH 43344
 Coordinates:
 Latitude: 40.41658758
 Longitude: -83.28966115
 UTM Northing: 4476513.31235 Meters
 UTM Easting: 305739.74859 Meters
 UTM Zone: UTM Zone 17T
 Elevation: 938.83 ft
 Slope Direction: W

Topographic Information.....2
 Hydrologic Information.....4
 Geologic Information.....7
 Soil Information.....10
 Wells and Additional Sources.....14
 Summary.....15
 Detail Report.....17
 Radon Information.....73
 Appendix.....74
 Liability Notice.....76

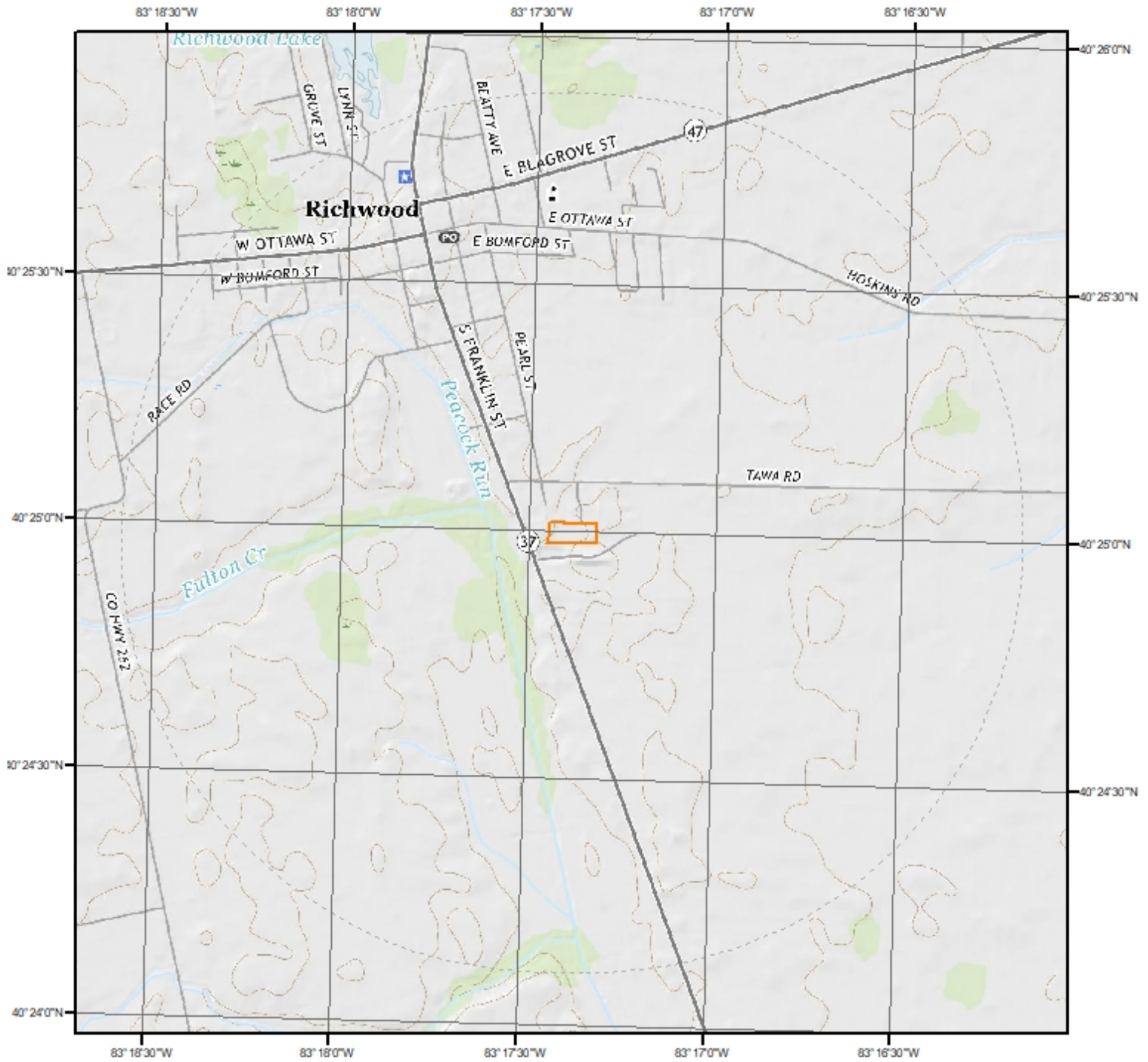
The ERIS **Physical Setting Report - PSR** provides comprehensive information about the physical setting around a site and includes a complete overview of topography and surface topology, in addition to hydrologic, geologic and soil characteristics. The location and detailed attributes of oil and gas wells, water wells, public water systems and radon are also included for review.

The compilation of both physical characteristics of a site and additional attribute data is useful in assessing the impact of migration of contaminants and subsequent impact on soils and groundwater.

Disclaimer

This Report does not provide a full environmental evaluation for the site or adjacent properties. Please see the terms and disclaimer at the end of the Report for greater detail.

Topographic Information



Current USGS Topo



Quadrangle(s): Richwood, OH

Source: USGS 7.5 Minute Topographic Map

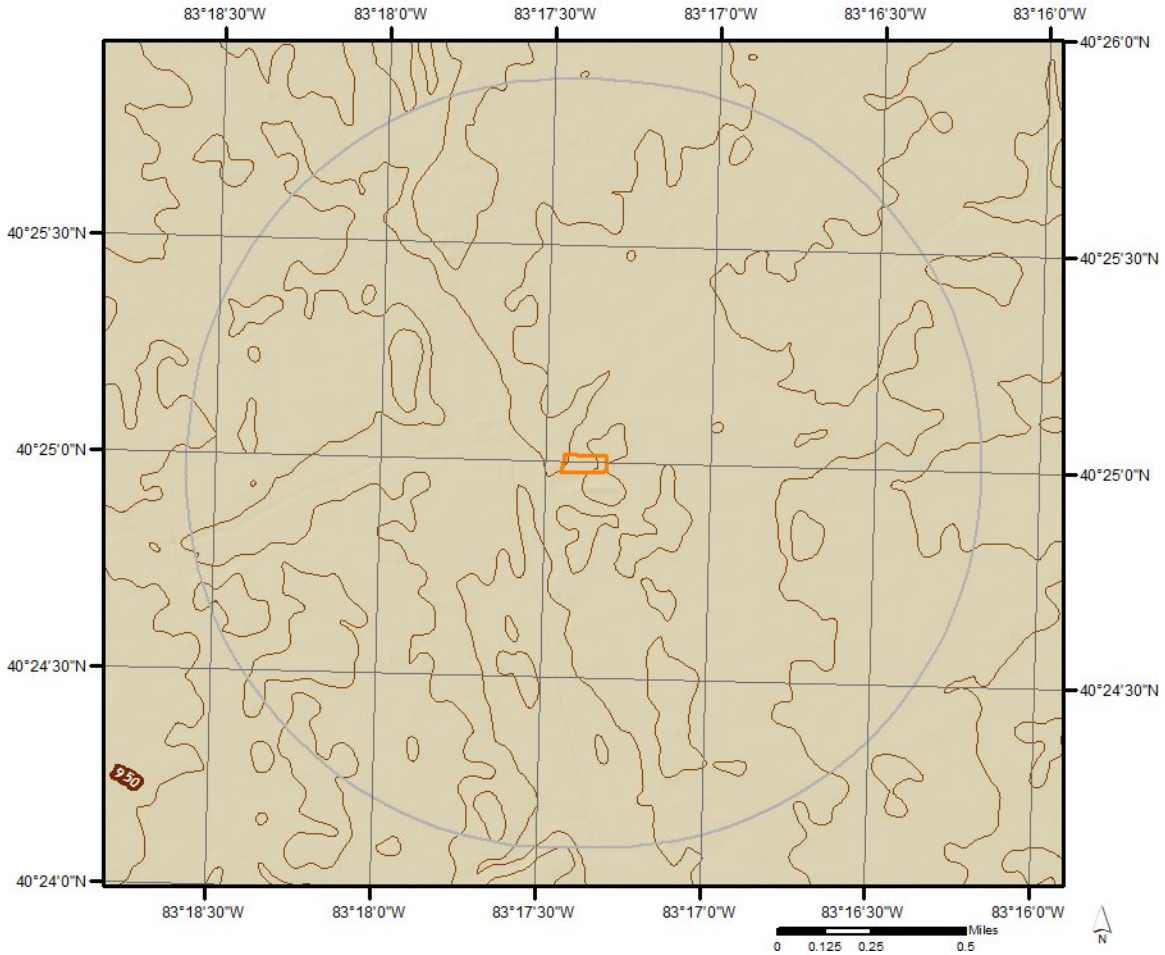


Topographic Information

The previous topographic map(s) are created by seamlessly merging and cutting current USGS topographic data. Below are shaded relief map(s), derived from USGS elevation data to show surrounding topography in further detail.

Topographic information at project property:

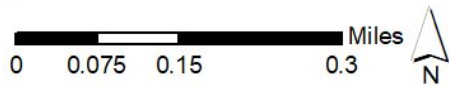
Elevation: 938.83 ft
Slope Direction: W




Hydrologic Information



Wetland

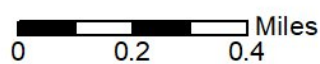
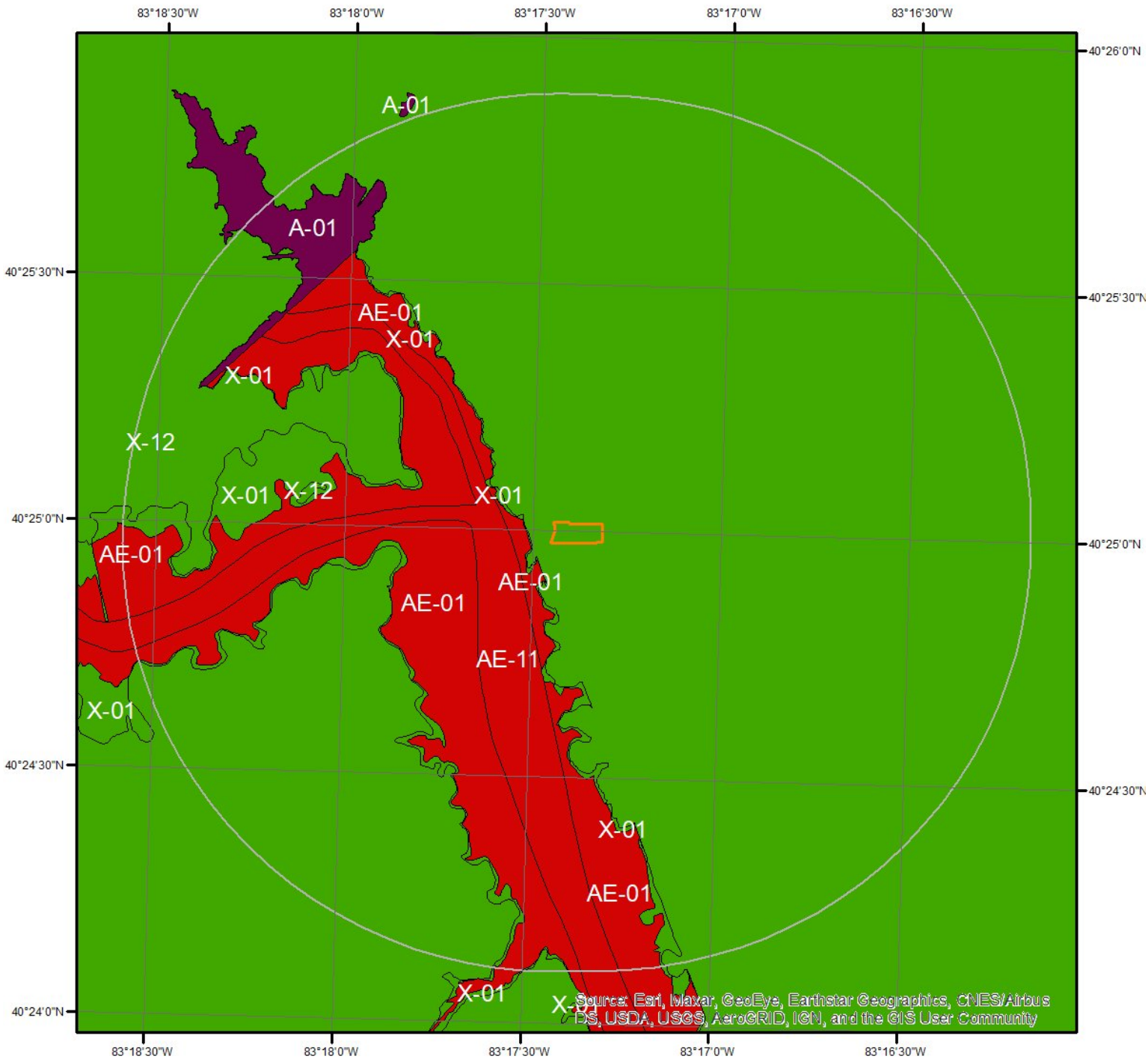


This map shows wetland existence using data from US Fish & Wildlife. Data coverage is shown to the right. Gray indicates no data available in the area.

- | | |
|---|---|
|  Estuarine and Marine Deepwater |  Freshwater Pond |
|  Estuarine and Marine Wetland |  Lake |
|  Freshwater Emergent Wetland |  Other |
|  Freshwater Forested/Shrub Wetland |  Riverine |



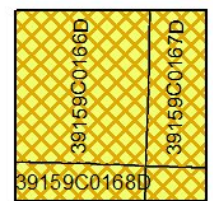
Hydrologic Information



Flood Hazard Zones

This map shows FEMA flood hazard zones. FIRM panels are shown to the right, and blank indicates no data is available.

- | | | |
|---|--|---|
| A | AO | X |
| A99 | V | OPEN WATER |
| AE | VE | NOT POPULATED |
| AH | D | AREA NOT INCLUDED |



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Hydrologic Information

The Wetland Type map shows wetland existence overlaid on an aerial imagery. The Flood Hazard Zones map shows FEMA flood hazard zones overlaid on an aerial imagery. Relevant FIRM panels and detailed zone information is provided below.

Available FIRM Panels in area: 39159C0167D(effective:2008-12-16) 39159C0169D(effective:2008-12-16)
39159C0168D(effective:2008-12-16) 39159C0166D(effective:2008-12-16)

Flood Zone A-01

Zone: A
Zone subtype:

Flood Zone AE-01

Zone: AE
Zone subtype:

Flood Zone AE-11

Zone: AE
Zone subtype: FLOODWAY

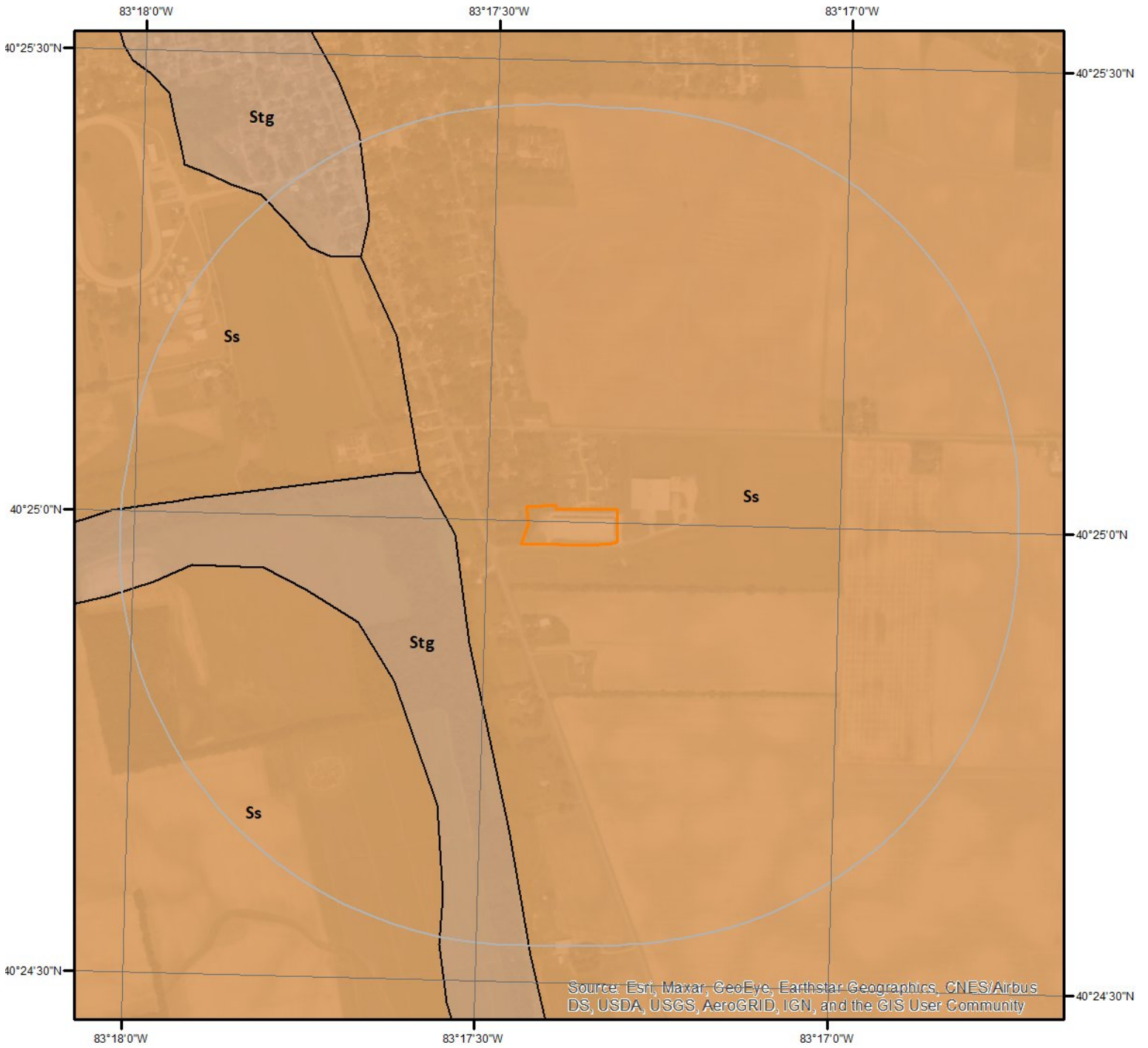
Flood Zone X-01

Zone: X
Zone subtype: 0.2 PCT ANNUAL CHANCE FLOOD HAZARD

Flood Zone X-12

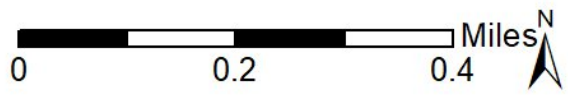
Zone: X
Zone subtype: AREA OF MINIMAL FLOOD HAZARD

Geologic Information



Geologic Units

This maps shows geologic units in the area. Please refer to the report for detailed descriptions.



Geologic Information

The previous page shows USGS geology information. Detailed information about each unit is provided below.

Geologic Unit Stg

Unit Name: Tymochtee and Greenfield Formations, Undivided
Unit Age: Silurian
Primary Rock Type: dolostone (dolomite)
Secondary Rock Type: shale
Unit Description: Tymochtee and Greenfield Formations, Undivided - Dolomite, olive-gray to yellowish- brown, thin to massive bedded, upper two-thirds commonly contains brownish-black to gray shale laminae; locally developed brecciated zones in lower one third.

Geologic Unit Ss

Unit Name: Salina Group
Unit Age: Silurian
Primary Rock Type: dolostone (dolomite)
Secondary Rock Type: shale
Unit Description: Salina Group - Dolomite, gray, yellow-gray to olive-gray, laminated to thin bedded; occasional thin bed and laminae of dark gray shale and anhydrite and/or gypsum; brecciated zones in part.

Geologic Unit Ss

Unit Name: Salina Group
Unit Age: Silurian
Primary Rock Type: dolostone (dolomite)
Secondary Rock Type: shale
Unit Description: Salina Group - Dolomite, gray, yellow-gray to olive-gray, laminated to thin bedded; occasional thin bed and laminae of dark gray shale and anhydrite and/or gypsum; brecciated zones in part.

Geologic Unit Stg

Unit Name: Tymochtee and Greenfield Formations, Undivided
Unit Age: Silurian
Primary Rock Type: dolostone (dolomite)
Secondary Rock Type: shale
Unit Description: Tymochtee and Greenfield Formations, Undivided - Dolomite, olive-gray to yellowish- brown, thin to massive bedded, upper two-thirds commonly contains brownish-black to gray shale laminae; locally developed brecciated zones in lower one third.

Geologic Unit Ss

Unit Name: Salina Group
Unit Age: Silurian
Primary Rock Type: dolostone (dolomite)

Geologic Information

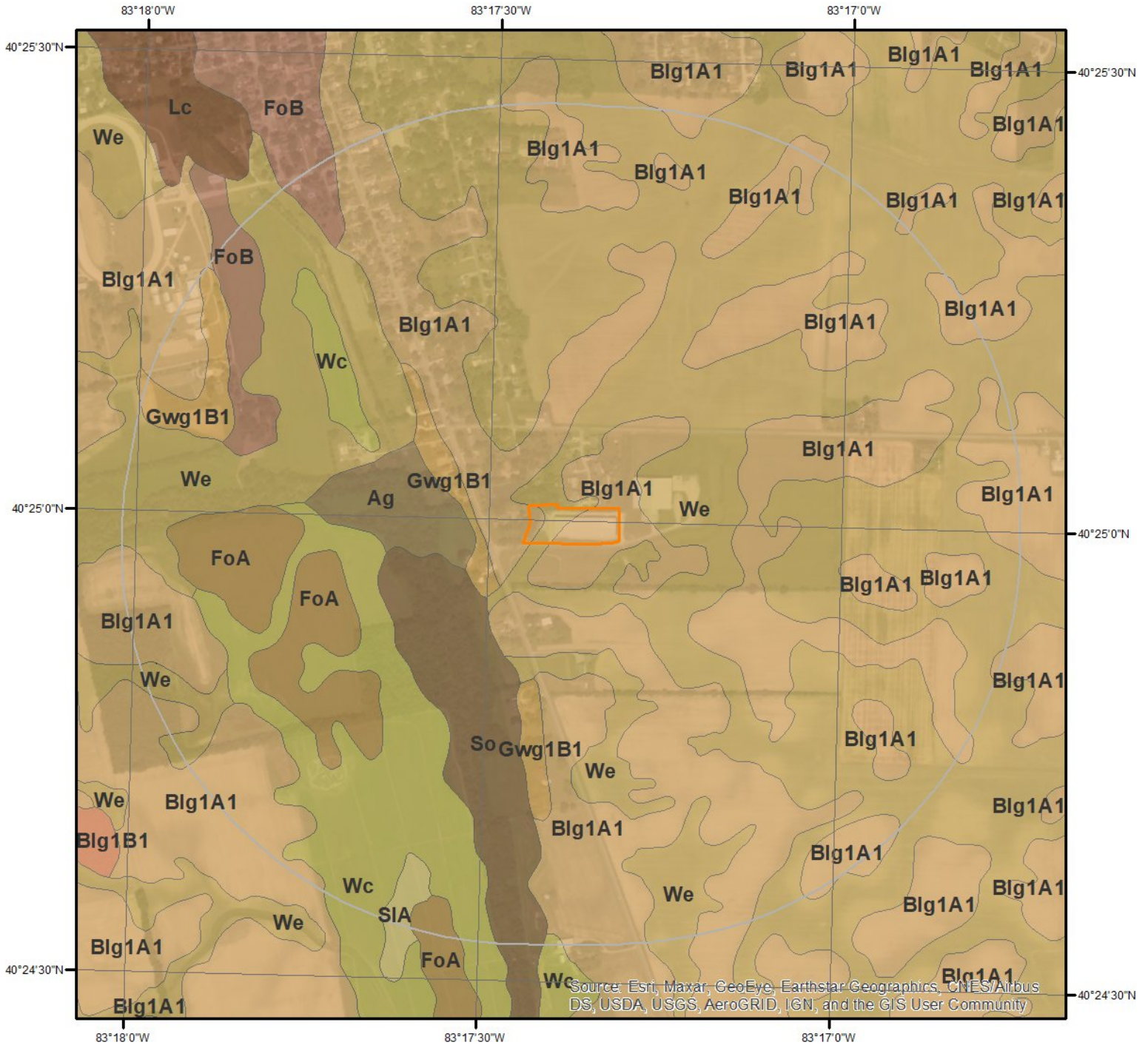
Secondary Rock Type:

shale

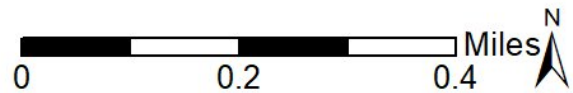
Unit Description:

Salina Group - Dolomite, gray, yellow-gray to olive-gray, laminated to thin bedded; occasional thin bed and laminae of dark gray shale and anhydrite and/or gypsum; brecciated zones in part.

Soil Information



SSURGO Soils



This maps shows SSURGO soil units around the target property. Please refer to the report for detailed soil descriptions.



Soil Information

The previous page shows a soil map using SSURGO data from USDA Natural Resources Conservation Service. Detailed information about each unit is provided below.

Map Unit Ag (0.08%)

Map Unit Name: Algiers silt loam
Bedrock Depth - Min: null
Watertable Depth - Annual Min: 15cm
Drainage Class - Dominant: Somewhat poorly drained
Hydrologic Group - Dominant: B/D - These soils have moderately low runoff potential when drained and high runoff potential when undrained.

Major components are printed below

Algiers(95%)
horizon H1(0cm to 48cm) Silt loam
horizon H2(48cm to 119cm) Silty clay loam
horizon H3(119cm to 152cm) Clay loam

Map Unit Blg1A1 (10.28%)

Map Unit Name: Blount silt loam, ground moraine, 0 to 2 percent slopes
Bedrock Depth - Min: null
Watertable Depth - Annual Min: 23cm
Drainage Class - Dominant: Somewhat poorly drained
Hydrologic Group - Dominant: D - Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted.

Major components are printed below

Blount(85%)
horizon Ap(0cm to 25cm) Silt loam
horizon Bt(25cm to 83cm) Silty clay
horizon BC(83cm to 99cm) Clay loam
horizon Cd(99cm to 200cm) Clay loam

Map Unit FoA (0.24%)

Map Unit Name: Fox silt loam, 0 to 2 percent slopes
Bedrock Depth - Min: null
Watertable Depth - Annual Min: null
Drainage Class - Dominant: Well drained
Hydrologic Group - Dominant: B - Soils in this group have moderately low runoff potential when thoroughly wet. Water transmission through the soil is unimpeded.

Major components are printed below

Fox(99%)
horizon H1(0cm to 23cm) Silt loam
horizon H2(23cm to 43cm) Clay loam
horizon H3(43cm to 76cm) Clay
horizon H4(76cm to 86cm) Gravelly loam
horizon H5(86cm to 152cm) Stratified sand and gravel

Soil Information

Map Unit FoB (0.41%)

Map Unit Name:	Fox silt loam, 2 to 6 percent slopes
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	null
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	B - Soils in this group have moderately low runoff potential when thoroughly wet. Water transmission through the soil is unimpeded.

Major components are printed below

Fox(100%)

horizon H1(0cm to 20cm)	Silt loam
horizon H2(20cm to 41cm)	Clay loam
horizon H3(41cm to 74cm)	Clay
horizon H4(74cm to 84cm)	Gravelly loam
horizon H5(84cm to 152cm)	Stratified sand and gravel

Map Unit Gwg1B1 (0.1%)

Map Unit Name:	Glynwood silt loam, ground moraine, 2 to 6 percent slopes
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	46cm
Drainage Class - Dominant:	Moderately well drained
Hydrologic Group - Dominant:	D - Soils in this group have high runoff potential when thoroughly wet. Water movement through the soil is restricted or very restricted.

Major components are printed below

Glynwood(85%)

horizon Ap(0cm to 23cm)	Silt loam
horizon Bt(23cm to 74cm)	Clay
horizon BC(74cm to 86cm)	Clay loam
horizon Cd(86cm to 200cm)	Clay loam

Map Unit SIA (0.02%)

Map Unit Name:	Sleeth silt loam, 0 to 2 percent slopes
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	23cm
Drainage Class - Dominant:	Somewhat poorly drained
Hydrologic Group - Dominant:	B/D - These soils have moderately low runoff potential when drained and high runoff potential when undrained.

Major components are printed below

Sleeth(95%)

horizon H1(0cm to 38cm)	Silt loam
horizon H2(38cm to 137cm)	Silty clay loam
horizon H3(137cm to 165cm)	Very gravelly sand

Map Unit So (0.51%)

Map Unit Name:	Sloan silty clay loam
----------------	-----------------------

Soil Information

Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	15cm
Drainage Class - Dominant:	Very poorly drained
Hydrologic Group - Dominant:	B/D - These soils have moderately low runoff potential when drained and high runoff potential when undrained.

Major components are printed below

Sloan(95%)	
horizon H1(0cm to 43cm)	Silty clay loam
horizon H2(43cm to 64cm)	Silty clay loam
horizon H3(64cm to 152cm)	Silty clay loam

Map Unit Wc (0.77%)

Map Unit Name:	Westland silty clay loam
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	7cm
Drainage Class - Dominant:	Very poorly drained
Hydrologic Group - Dominant:	B/D - These soils have moderately low runoff potential when drained and high runoff potential when undrained.

Major components are printed below

Westland(95%)	
horizon H1(0cm to 36cm)	Silty clay loam
horizon H2(36cm to 48cm)	Silty clay
horizon H3(48cm to 84cm)	Silty clay loam
horizon H4(84cm to 145cm)	Gravelly loam
horizon H5(145cm to 165cm)	Stratified sand and gravel

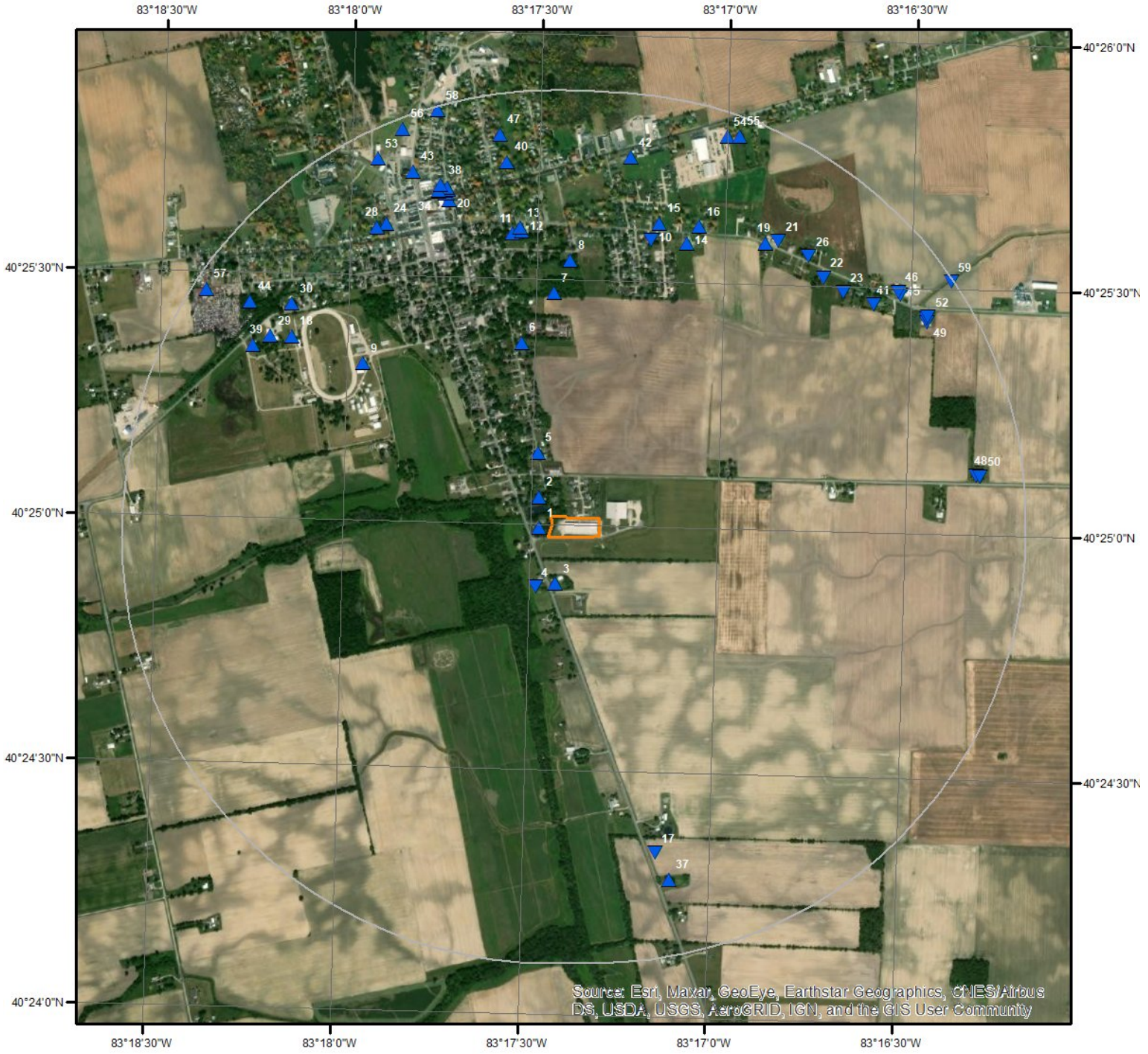
Map Unit We (87.58%)

Map Unit Name:	Wetzel silty clay loam
Bedrock Depth - Min:	null
Watertable Depth - Annual Min:	8cm
Drainage Class - Dominant:	Poorly drained
Hydrologic Group - Dominant:	C/D - These soils have moderately high runoff potential when drained and high runoff potential when undrained.

Major components are printed below

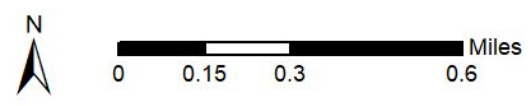
Wetzel(95%)	
horizon H1(0cm to 23cm)	Silty clay loam
horizon H2(23cm to 81cm)	Silty clay
horizon H3(81cm to 152cm)	Silty clay loam

Wells and Additional Sources



Wells & Additional Sources

- ▲ Sites with Higher Elevation
- Sites with Same Elevation
- ▼ Sites with Lower Elevation
- Sites with Unknown Elevation



Wells and Additional Sources Summary

Federal Sources

Public Water Systems Violations and Enforcement Data

Map Key	PWS ID	Distance (ft)	Direction
5	OH8033112	809.65	NNW
43	OH8000412	4,602.26	NNW

Safe Drinking Water Information System (SDWIS)

Map Key	ID	Distance (ft)	Direction
No records found			

USGS National Water Information System

Map Key	Monitoring Loc Identifier	Distance (ft)	Direction
4	USGS-402452083172900	648.88	SSW
13	USGS-402536083173300	3,601.40	N
18	USGS-402522083180900	3,909.37	NW
23	USGS-402529083164100	4,111.67	NE
48	USGS-402507083161900	4,694.18	E
53	USGS-402544083175600	4,926.82	NNW

State Sources

Oil and Gas Wells

Map Key	ID	Distance (ft)	Direction
No records found			

Public Water Systems

Map Key	ID	Distance (ft)	Direction
No records found			

Water Wells Log Report

Map Key	Well Log No	Distance (ft)	Direction
1	427410	131.27	W
2	171397	284.13	NW
3	171368	583.99	SSW
6	210201	2,187.61	NNW
7	76474	2,767.79	N
8	97840	3,171.81	N
9	83696	3,006.11	NW
10	171364	3,496.47	NNE
11	76482	3,542.46	NNW
12	171362	3,553.12	N
14	220594	3,578.41	NNE

Wells and Additional Sources Summary

15	133301	3,729.96	NNE
16	272821	3,822.78	NNE
17	1015317	3,996.34	SSE
19	2016134	3,983.56	NE
20	2010754	4,124.84	NNW
21	208670	4,080.54	NE
22	398691	4,067.57	NE
24	133308	4,164.34	NNW
25	2001036	4,208.85	NNW
26	2032450	4,148.60	NE
27	2001035	4,216.27	NNW
28	9980015	4,182.10	NNW
29	97828	4,137.34	WNW
30	97826	4,152.93	NW
31	2001034	4,246.25	NNW
32	2010760	4,249.92	NNW
33	2010757	4,251.45	NNW
34	2016515	4,263.39	NNW
35	2006040	4,278.71	NNW
36	2016514	4,273.43	NNW
37	2034580	4,344.34	SSE
38	2006042	4,326.44	NNW
39	94938	4,261.12	WNW
40	9980014	4,427.24	N
41	410710	4,305.81	NE
42	171372	4,485.03	N
44	76491	4,580.28	NW
45	208687	4,636.05	NE
46	171365	4,638.93	NE
47	9980013	4,779.87	N
49	363664	4,722.99	ENE
50	2039568	4,747.07	E
51	133303	4,751.94	ENE
52	133302	4,769.09	ENE
54	1008938	4,988.54	NNE
55	210240	5,042.05	NNE
56	37317	5,142.44	NNW
57	422325	5,117.58	WNW
58	37318	5,226.16	NNW
59	2063344	5,246.18	ENE

Wells and Additional Sources Detail Report

Public Water Systems Violations and Enforcement Data

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
5	NNW	0.15	809.65	939.39	PWSV

Address Line 2:
 State Code: OH
 Zip Code: 43344
 City Name: RICHWOOD
 Address Line 1: 287 PEARL STREET
 PWS ID: OH8033112
 PWS Type Code: TNCWS
 PWS Type Description: Transient Non-Community Water System
 Primary Source Code: GW
 Primary Source Desc: Groundwater
 PWS Activity Code: A
 PWS Activity Description: Active
 PWS Deactivation Date:
 Phone Number: 937-358-2626

--Details--

Population Served Count: 100
 City Served:
 County Served: Union
 State Served: OH
 Zip Code Served:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
43	NNW	0.87	4,602.26	944.83	PWSV

Address Line 2:
 State Code: OH
 Zip Code: 43344
 City Name: RICHWOOD
 Address Line 1: 153 N. Franklin Street
 PWS ID: OH8000412
 PWS Type Code: CWS
 PWS Type Description: Community Water System
 Primary Source Code: GW
 Primary Source Desc: Groundwater
 PWS Activity Code: A
 PWS Activity Description: Active
 PWS Deactivation Date:
 Phone Number: 740-943-3315

Wells and Additional Sources Detail Report

--Details--

Population Served Count: 2156

City Served:

County Served: Union

State Served: OH

Zip Code Served:

USGS National Water Information System

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
4	SSW	0.12	648.88	937.84	FED USGS

Organiz Identifier:	USGS-OH	Formation Type:	Bass Islands Dolomite
Organiz Name:	USGS Ohio Water Science Center	Aquifer Name:	Silurian-Devonian aquifers
Well Depth:	33	Aquifer Type:	Mixed (confined and unconfined) multiple aquifers
Well Depth Unit:	ft	Country Code:	US
Well Hole Depth:	33	Provider Name:	NWIS
W Hole Depth Unit:	ft	County:	UNION
Construction Date:		Latitude:	40.4145034
Source Map Scale:	24000	Longitude:	-83.2913074
Monitoring Loc Name:	U-43		
Monitoring Loc Identifier:	USGS-402452083172900		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:	05060001		
Drainage Area:			
Drainage Area Unit:			
Contrib Drainage Area:			
Contrib Drainage Area Unit:			
Horizontal Accuracy:	1		
Horizontal Accuracy Unit:	seconds		
Horizontal Collection Mthd:	Interpolated from MAP.		
Horiz Coord Refer System:	NAD83		
Vertical Measure:	941.00		
Vertical Measure Unit:	feet		
Vertical Accuracy:	005		
Vertical Accuracy Unit:	feet		
Vertical Collection Mthd:	Interpolated from topographic map.		
Vert Coord Refer System:	NGVD29		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
13	N	0.68	3,601.40	939.72	FED USGS

Organiz Identifier:	USGS-OH	Formation Type:	Bass Islands Dolomite
Organiz Name:	USGS Ohio Water Science Center	Aquifer Name:	Silurian-Devonian aquifers

Wells and Additional Sources Detail Report

Well Depth:	29	Aquifer Type:	Mixed (confined and unconfined) multiple aquifers
Well Depth Unit:	ft	Country Code:	US
Well Hole Depth:	29	Provider Name:	NWIS
W Hole Depth Unit:	ft	County:	UNION
Construction Date:	19560629	Latitude:	40.4267255
Source Map Scale:	24000	Longitude:	-83.2924186
Monitoring Loc Name:	U-47		
Monitoring Loc Identifier:	USGS-402536083173300		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:	05060001		
Drainage Area:			
Drainage Area Unit:			
Contrib Drainage Area:			
Contrib Drainage Area Unit:			
Horizontal Accuracy:	1		
Horizontal Accuracy Unit:	seconds		
Horizontal Collection Mthd:	Interpolated from MAP.		
Horiz Coord Refer System:	NAD83		
Vertical Measure:	941.33		
Vertical Measure Unit:	feet		
Vertical Accuracy:	.01		
Vertical Accuracy Unit:	feet		
Vertical Collection Mthd:	Level or other surveyed method.		
Vert Coord Refer System:	NGVD29		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
18	NW	0.74	3,909.37	941.08	FED USGS

Organiz Identifier:	USGS-OH	Formation Type:	Bass Islands Dolomite
Organiz Name:	USGS Ohio Water Science Center	Aquifer Name:	Silurian-Devonian aquifers
Well Depth:	32	Aquifer Type:	Mixed (confined and unconfined) multiple aquifers
Well Depth Unit:	ft	Country Code:	US
Well Hole Depth:	32	Provider Name:	NWIS
W Hole Depth Unit:	ft	County:	UNION
Construction Date:	19780802	Latitude:	40.4228366
Source Map Scale:	24000	Longitude:	-83.3024189
Monitoring Loc Name:	U-48		
Monitoring Loc Identifier:	USGS-402522083180900		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:	05060001		
Drainage Area:			
Drainage Area Unit:			

Wells and Additional Sources Detail Report

Contrib Drainage Area:
 Contrib Drainage Area Unit:
 Horizontal Accuracy: 1
 Horizontal Accuracy Unit: seconds
 Horizontal Collection Mthd: Interpolated from MAP.
 Horiz Coord Refer System: NAD83
 Vertical Measure: 942.
 Vertical Measure Unit: feet
 Vertical Accuracy: 5
 Vertical Accuracy Unit: feet
 Vertical Collection Mthd: Interpolated from topographic map.
 Vert Coord Refer System: NGVD29

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
23	NE	0.78	4,111.67	934.09	FED USGS

Organiz Identifier:	USGS-OH	Formation Type:	Bass Islands Dolomite
Organiz Name:	USGS Ohio Water Science Center	Aquifer Name:	Silurian-Devonian aquifers
Well Depth:	85	Aquifer Type:	Unconfined multiple aquifer
Well Depth Unit:	ft	Country Code:	US
Well Hole Depth:	85	Provider Name:	NWIS
W Hole Depth Unit:	ft	County:	UNION
Construction Date:		Latitude:	40.4247813
Source Map Scale:	24000	Longitude:	-83.2779736
Monitoring Loc Name:	U-46 SIMPSON AT RICHWOOD OH		
Monitoring Loc Identifier:	USGS-402529083164100		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:	05060001		
Drainage Area:			
Drainage Area Unit:			
Contrib Drainage Area:			
Contrib Drainage Area Unit:			
Horizontal Accuracy:	1		
Horizontal Accuracy Unit:	seconds		
Horizontal Collection Mthd:	Interpolated from MAP.		
Horiz Coord Refer System:	NAD83		
Vertical Measure:	936.00		
Vertical Measure Unit:	feet		
Vertical Accuracy:	5		
Vertical Accuracy Unit:	feet		
Vertical Collection Mthd:	Interpolated from topographic map.		
Vert Coord Refer System:	NGVD29		

Wells and Additional Sources Detail Report

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
48	E	0.89	4,694.18	936.66	FED USGS

Organiz Identifier:	USGS-OH	Formation Type:	Bass Islands Dolomite
Organiz Name:	USGS Ohio Water Science Center	Aquifer Name:	Silurian-Devonian aquifers
Well Depth:	44.5	Aquifer Type:	Mixed (confined and unconfined) multiple aquifers
Well Depth Unit:	ft	Country Code:	US
Well Hole Depth:	44.5	Provider Name:	NWIS
W Hole Depth Unit:	ft	County:	UNION
Construction Date:		Latitude:	40.4186703
Source Map Scale:	24000	Longitude:	-83.2718623
Monitoring Loc Name:	U-44		
Monitoring Loc Identifier:	USGS-402507083161900		
Monitoring Loc Type:	Well		
Monitoring Loc Desc:			
HUC Eight Digit Code:	05060001		
Drainage Area:			
Drainage Area Unit:			
Contrib Drainage Area:			
Contrib Drainage Area Unit:			
Horizontal Accuracy:	1		
Horizontal Accuracy Unit:	seconds		
Horizontal Collection Mthd:	Interpolated from MAP.		
Horiz Coord Refer System:	NAD83		
Vertical Measure:	937.00		
Vertical Measure Unit:	feet		
Vertical Accuracy:	005		
Vertical Accuracy Unit:	feet		
Vertical Collection Mthd:	Interpolated from topographic map.		
Vert Coord Refer System:	NGVD29		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
53	NNW	0.93	4,926.82	942.14	FED USGS

Organiz Identifier:	USGS-OH	Formation Type:	
Organiz Name:	USGS Ohio Water Science Center	Aquifer Name:	
Well Depth:		Aquifer Type:	
Well Depth Unit:		Country Code:	US
Well Hole Depth:		Provider Name:	NWIS
W Hole Depth Unit:		County:	UNION
Construction Date:		Latitude:	40.4289477
Source Map Scale:		Longitude:	-83.2988077
Monitoring Loc Name:	RICHWOOD LAKE PK ODNR NR RICHWOOD OH		
Monitoring Loc Identifier:	USGS-402544083175600		

Wells and Additional Sources Detail Report

Monitoring Loc Type: Lake, Reservoir, Impoundment
 Monitoring Loc Desc:
 HUC Eight Digit Code: 05060001
 Drainage Area: 16
 Drainage Area Unit: sq mi
 Contrib Drainage Area:
 Contrib Drainage Area Unit:
 Horizontal Accuracy: 1
 Horizontal Accuracy Unit: seconds
 Horizontal Collection Mthd: Interpolated from MAP.
 Horiz Coord Refer: NAD83
 System:
 Vertical Measure:
 Vertical Measure Unit:
 Vertical Accuracy:
 Vertical Accuracy Unit:
 Vertical Collection Mthd:
 Vert Coord Refer System:

Water Wells Log Report

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	W	0.02	131.27	942.67	WATER WELLS

Well Log No:	427410	Pump Type:	
Permit No:		Pump Capacity:	
Lot No:		Pump Set At:	
Sect No:		Pitless Type:	
Loc No:		Pump Inst By:	
Well Type Code:	W	Elev Source:	
Drill Type Code:		U Version:	
Test Type Code:		End User ID:	
Well Use Code:		County Code:	
Well Use Desc:		County:	UNION
Aquifer Type Code:	LIMESTONE	Township Code:	
Flowing Well Ind:		Loc Map Year:	
Test Rate:		Loc Area:	
Draw Down:		S Water Level:	10
Sub Name:		S Water Meas Pt Cd:	
Sub Map Year:		S Water Level Date:	
Sub No:		Cas HT:	
Str Direction Code:		Screen Length:	
Street No:		Total Depth:	73
Street Name:	SR 37	Dt of Completion:	08/27/1971
Street Type Code:		Located Ind:	
Sec Add:		Assoc RPT Ind:	
Sec Add No:		Depth To Bedrock:	70

Wells and Additional Sources Detail Report

City:	CLAIBORNE	Drill Year:	
State Code:		Water Level El:	942
Zip:		Well Drilled By:	
Well Location Desc:		Subcon ODH No:	
Screen Slot Size:		Well Seal RPT No:	
Attatch Status:		Date Added:	
Screen Diam:		Added By:	
Screen Type:		Date Changed:	
Screen Mat:		Zone Code:	
Screened Intvl From:		Horiz X:	
Screened Intvl To:		Horiz Y:	
Sustained Yield:		Horiz Datum Code:	
Dem Elev:	943.6	Latitude:	40.416536
Case Length:	25	Longitude:	-83.291199
Completion:	52099200000	Changed By:	
Draw Down Test Dur:			
Sec Owner Name:	ROBERT, RUSSELL		
Comments:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
2	NW	0.05	284.13	942.28	WATER WELLS

Well Log No:	171397	Pump Type:	
Permit No:		Pump Capacity:	
Lot No:		Pump Set At:	
Sect No:		Pitless Type:	
Loc No:		Pump Inst By:	
Well Type Code:	W	Elev Source:	
Drill Type Code:		U Version:	
Test Type Code:		End User ID:	
Well Use Code:		County Code:	
Well Use Desc:		County:	UNION
Aquifer Type Code:	LIMESTONE	Township Code:	
Flowing Well Ind:		Loc Map Year:	
Test Rate:		Loc Area:	
Draw Down:		S Water Level:	7
Sub Name:		S Water Meas Pt Cd:	
Sub Map Year:		S Water Level Date:	
Sub No:		Cas HT:	
Str Direction Code:		Screen Length:	
Street No:		Total Depth:	31
Street Name:	PEARL ST	Dt of Completion:	06/25/1958
Street Type Code:		Located Ind:	
Sec Add:		Assoc RPT Ind:	
Sec Add No:		Depth To Bedrock:	18
City:	CLAIBORNE	Drill Year:	

Wells and Additional Sources Detail Report

State Code:		Water Level El:	941
Zip:		Well Drilled By:	
Well Location Desc:		Subcon ODH No:	
Screen Slot Size:		Well Seal RPT No:	
Attatch Status:		Date Added:	
Screen Diam:		Added By:	
Screen Type:		Date Changed:	
Screen Mat:		Zone Code:	
Screened Intvl From:		Horiz X:	
Screened Intvl To:		Horiz Y:	
Sustained Yield:		Horiz Datum Code:	
Dem Elev:	943.2	Latitude:	40.417585
Case Length:	23	Longitude:	-83.29125
Completion:	-363571200000	Changed By:	
Draw Down Test Dur:			
Sec Owner Name:	BROWN, TOM		
Comments:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	SSW	0.11	583.99	941.53	WATER WELLS

Well Log No:	171368	Pump Type:	
Permit No:		Pump Capacity:	
Lot No:		Pump Set At:	
Sect No:		Pitless Type:	
Loc No:		Pump Inst By:	
Well Type Code:	W	Elev Source:	
Drill Type Code:		U Version:	
Test Type Code:		End User ID:	
Well Use Code:		County Code:	
Well Use Desc:		County:	UNION
Aquifer Type Code:	LIMESTONE	Township Code:	
Flowing Well Ind:		Loc Map Year:	
Test Rate:		Loc Area:	
Draw Down:		S Water Level:	9.5
Sub Name:		S Water Meas Pt Cd:	
Sub Map Year:		S Water Level Date:	
Sub No:		Cas HT:	
Str Direction Code:		Screen Length:	
Street No:		Total Depth:	31
Street Name:	SR 37	Dt of Completion:	08/02/1956
Street Type Code:		Located Ind:	
Sec Add:		Assoc RPT Ind:	
Sec Add No:		Depth To Bedrock:	19
City:	CLAIBORNE	Drill Year:	
State Code:		Water Level El:	941

Wells and Additional Sources Detail Report

Zip:	Well Drilled By:
Well Location Desc:	Subcon ODH No:
Screen Slot Size:	Well Seal RPT No:
Attatch Status:	Date Added:
Screen Diam:	Added By:
Screen Type:	Date Changed:
Screen Mat:	Zone Code:
Screened Intvl From:	Horiz X:
Screened Intvl To:	Horiz Y:
Sustained Yield:	Horiz Datum Code:
Dem Elev: 942.9	Latitude: 40.414647
Case Lengt: 25	Longitude: -83.290415
Completion: -423360000000	Changed By:
Draw Down Test Dur:	
Sec Owner Name: ZUSPOM, GOFF	
Comments:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
6	NNW	0.41	2,187.61	939.92	WATER WELLS

Well Log No: 210201	Pump Type:
Permit No:	Pump Capacity:
Lot No:	Pump Set At:
Sect No:	Pitless Type:
Loc No:	Pump Inst By:
Well Type Code: W	Elev Source:
Drill Type Code:	U Version:
Test Type Code:	End User ID:
Well Use Code:	County Code:
Well Use Desc:	County: UNION
Aquifer Type Code: LIMESTONE	Township Code:
Flowing Well Ind:	Loc Map Year:
Test Rate:	Loc Area:
Draw Down:	S Water Level: 7
Sub Name:	S Water Meas Pt Cd:
Sub Map Year:	S Water Level Date:
Sub No:	Cas HT:
Str Direction Code:	Screen Length:
Street No:	Total Depth: 30
Street Name: PEARL ST	Dt of Completion: 10/18/1958
Street Type Code:	Located Ind:
Sec Add:	Assoc RPT Ind:
Sec Add No:	Depth To Bedrock: 17
City: CLAIBORNE	Drill Year:
State Code:	Water Level El: 941
Zip:	Well Drilled By:

Wells and Additional Sources Detail Report

Well Location Desc:	Subcon ODH No:
Screen Slot Size:	Well Seal RPT No:
Attatch Status:	Date Added:
Screen Diam:	Added By:
Screen Type:	Date Changed:
Screen Mat:	Zone Code:
Screened Intvl From:	Horiz X:
Screened Intvl To:	Horiz Y:
Sustained Yield:	Horiz Datum Code:
Dem Elev: 942.4	Latitude: 40.422824
Case Lengt: 29	Longitude: -83.292188
Completion: -353635200000	Changed By:
Draw Down Test Dur:	
Sec Owner Name: DIRST, CHARLES	
Comments:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
7	N	0.52	2,767.79	939.54	WATER WELLS

Well Log No: 76474	Pump Type:
Permit No:	Pump Capacity:
Lot No:	Pump Set At:
Sect No:	Pitless Type:
Loc No:	Pump Inst By:
Well Type Code: W	Elev Source:
Drill Type Code:	U Version:
Test Type Code:	End User ID:
Well Use Code:	County Code:
Well Use Desc:	County: UNION
Aquifer Type Code: LIMESTONE	Township Code:
Flowing Well Ind:	Loc Map Year:
Test Rate:	Loc Area:
Draw Down:	S Water Level: 6
Sub Name:	S Water Meas Pt Cd:
Sub Map Year:	S Water Level Date:
Sub No:	Cas HT:
Str Direction Code:	Screen Length:
Street No:	Total Depth: 27
Street Name: RONFORD ST	Dt of Completion:
Street Type Code:	Located Ind:
Sec Add:	Assoc RPT Ind:
Sec Add No:	Depth To Bedrock: 24
City: CLAIBORNE	Drill Year:
State Code:	Water Level El: 941
Zip:	Well Drilled By:
Well Location Desc:	Subcon ODH No:

Wells and Additional Sources Detail Report

Screen Slot Size:	Well Seal RPT No:
Attatch Status:	Date Added:
Screen Diam:	Added By:
Screen Type:	Date Changed:
Screen Mat:	Zone Code:
Screened Intvl From:	Horiz X:
Screened Intvl To:	Horiz Y:
Sustained Yield:	Horiz Datum Code:
Dem Elev: 940.1	Latitude: 40.424534
Case Lengt: 23	Longitude: -83.290813
Completion:	Changed By:
Draw Down Test Dur:	
Sec Owner Name: CRAMER, GUY	
Comments:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
8	N	0.60	3,171.81	940.59	WATER WELLS

Well Log No: 97840	Pump Type:
Permit No:	Pump Capacity:
Lot No:	Pump Set At:
Sect No:	Pitless Type:
Loc No:	Pump Inst By:
Well Type Code: W	Elev Source:
Drill Type Code:	U Version:
Test Type Code:	End User ID:
Well Use Code:	County Code:
Well Use Desc:	County: UNION
Aquifer Type Code: LIMESTONE	Township Code:
Flowing Well Ind:	Loc Map Year:
Test Rate:	Loc Area:
Draw Down:	S Water Level: 8
Sub Name:	S Water Meas Pt Cd:
Sub Map Year:	S Water Level Date:
Sub No:	Cas HT:
Str Direction Code:	Screen Length:
Street No:	Total Depth: 25
Street Name: BOMFORD ST	Dt of Completion: 11/14/1953
Street Type Code:	Located Ind:
Sec Add:	Assoc RPT Ind:
Sec Add No:	Depth To Bedrock: 18
City: CLAIBORNE	Drill Year:
State Code:	Water Level EI: 940
Zip:	Well Drilled By:
Well Location Desc:	Subcon ODH No:
Screen Slot Size:	Well Seal RPT No:

Wells and Additional Sources Detail Report

Attatch Status:	Date Added:
Screen Diam:	Added By:
Screen Type:	Date Changed:
Screen Mat:	Zone Code:
Screened Intvl From:	Horiz X:
Screened Intvl To:	Horiz Y:
Sustained Yield:	Horiz Datum Code:
Dem Elev: 940.7	Latitude: 40.425665
Case Lengt: 23	Longitude: -83.290126
Completion: -509068800000	Changed By:
Draw Down Test Dur:	
Sec Owner Name: BAKER, WILLIS	
Comments:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
9	NW	0.57	3,006.11	943.34	WATER WELLS

Well Log No: 83696	Pump Type:
Permit No:	Pump Capacity:
Lot No:	Pump Set At:
Sect No:	Pitless Type:
Loc No:	Pump Inst By:
Well Type Code: W	Elev Source:
Drill Type Code:	U Version:
Test Type Code:	End User ID:
Well Use Code:	County Code:
Well Use Desc:	County: UNION
Aquifer Type Code: LIMESTONE	Township Code:
Flowing Well Ind:	Loc Map Year:
Test Rate: 10	Loc Area:
Draw Down:	S Water Level: 12
Sub Name:	S Water Meas Pt Cd:
Sub Map Year:	S Water Level Date:
Sub No:	Cas HT:
Str Direction Code:	Screen Length:
Street No:	Total Depth: 72
Street Name: SR 4	Dt of Completion: 08/19/1952
Street Type Code:	Located Ind:
Sec Add:	Assoc RPT Ind:
Sec Add No:	Depth To Bedrock: 28
City: CLAIBORNE	Drill Year:
State Code:	Water Level El: 944
Zip:	Well Drilled By:
Well Location Desc:	Subcon ODH No:
Screen Slot Size:	Well Seal RPT No:
Attatch Status:	Date Added:

Wells and Additional Sources Detail Report

Screen Diam:		Added By:	
Screen Type:		Date Changed:	
Screen Mat:		Zone Code:	
Screened Intvl From:		Horiz X:	
Screened Intvl To:		Horiz Y:	
Sustained Yield:		Horiz Datum Code:	
Dem Elev:	944.5	Latitude:	40.421988
Case Length:	28	Longitude:	-83.299227
Completion:	-548121600000	Changed By:	
Draw Down Test Dur:			
Sec Owner Name:	RICHWOOD COUNCIL & F,		
Comments:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
10	NNE	0.66	3,496.47	938.60	WATER WELLS

Well Log No:	171364	Pump Type:	
Permit No:		Pump Capacity:	
Lot No:		Pump Set At:	
Sect No:		Pitless Type:	
Loc No:		Pump Inst By:	
Well Type Code:	W	Elev Source:	
Drill Type Code:		U Version:	
Test Type Code:		End User ID:	
Well Use Code:		County Code:	
Well Use Desc:		County:	UNION
Aquifer Type Code:	LIMESTONE	Township Code:	
Flowing Well Ind:		Loc Map Year:	
Test Rate:		Loc Area:	
Draw Down:		S Water Level:	2.5
Sub Name:		S Water Meas Pt Cd:	
Sub Map Year:		S Water Level Date:	
Sub No:		Cas HT:	
Str Direction Code:		Screen Length:	
Street No:		Total Depth:	25
Street Name:	HOSKINS CR	Dt of Completion:	07/11/1956
Street Type Code:		Located Ind:	
Sec Add:		Assoc RPT Ind:	
Sec Add No:		Depth To Bedrock:	13
City:	CLAIBORNE	Drill Year:	
State Code:		Water Level El:	940
Zip:		Well Drilled By:	
Well Location Desc:		Subcon ODH No:	
Screen Slot Size:		Well Seal RPT No:	
Attatch Status:		Date Added:	
Screen Diam:		Added By:	

Wells and Additional Sources Detail Report

Screen Type:	Date Changed:
Screen Mat:	Zone Code:
Screened Intvl From:	Horiz X:
Screened Intvl To:	Horiz Y:
Sustained Yield:	Horiz Datum Code:
Dem Elev: 939.3	Latitude: 40.426389
Case Lengt: 15	Longitude: -83.286553
Completion: -425260800000	Changed By:
Draw Down Test Dur:	
Sec Owner Name: CHENEY CONSTRUCTION,	
Comments:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
11	NNW	0.67	3,542.46	941.48	WATER WELLS

Well Log No: 76482	Pump Type:
Permit No:	Pump Capacity:
Lot No:	Pump Set At:
Sect No:	Pitless Type:
Loc No:	Pump Inst By:
Well Type Code: W	Elev Source:
Drill Type Code:	U Version:
Test Type Code:	End User ID:
Well Use Code:	County Code:
Well Use Desc:	County: UNION
Aquifer Type Code: LIMESTONE	Township Code:
Flowing Well Ind:	Loc Map Year:
Test Rate:	Loc Area:
Draw Down:	S Water Level: 8
Sub Name:	S Water Meas Pt Cd:
Sub Map Year:	S Water Level Date:
Sub No:	Cas HT:
Str Direction Code:	Screen Length:
Street No:	Total Depth: 30
Street Name:	Dt of Completion:
Street Type Code:	Located Ind:
Sec Add:	Assoc RPT Ind:
Sec Add No:	Depth To Bedrock: 26
City: CLAIBORNE	Drill Year:
State Code:	Water Level El: 943
Zip:	Well Drilled By:
Well Location Desc:	Subcon ODH No:
Screen Slot Size:	Well Seal RPT No:
Attatch Status:	Date Added:
Screen Diam:	Added By:
Screen Type:	Date Changed:

Wells and Additional Sources Detail Report

Screen Mat:		Zone Code:	
Screened Intvl From:		Horiz X:	
Screened Intvl To:		Horiz Y:	
Sustained Yield:		Horiz Datum Code:	
Dem Elev:	942.5	Latitude:	40.426529
Case Lengt:	26	Longitude:	-83.292712
Completion:		Changed By:	
Draw Down Test Dur:			
Sec Owner Name:	EHLE, DAVID		
Comments:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
12	N	0.67	3,553.12	940.14	WATER WELLS

Well Log No:	171362	Pump Type:	
Permit No:		Pump Capacity:	
Lot No:		Pump Set At:	
Sect No:		Pitless Type:	
Loc No:		Pump Inst By:	
Well Type Code:	W	Elev Source:	
Drill Type Code:		U Version:	
Test Type Code:		End User ID:	
Well Use Code:		County Code:	
Well Use Desc:		County:	UNION
Aquifer Type Code:	LIMESTONE	Township Code:	
Flowing Well Ind:		Loc Map Year:	
Test Rate:		Loc Area:	
Draw Down:		S Water Level:	5.5
Sub Name:		S Water Meas Pt Cd:	
Sub Map Year:		S Water Level Date:	
Sub No:		Cas HT:	
Str Direction Code:		Screen Length:	
Street No:		Total Depth:	29
Street Name:	OTTAWA ST	Dt of Completion:	06/29/1956
Street Type Code:		Located Ind:	
Sec Add:		Assoc RPT Ind:	
Sec Add No:		Depth To Bedrock:	22
City:	CLAIBORNE	Drill Year:	
State Code:		Water Level El:	942
Zip:		Well Drilled By:	
Well Location Desc:		Subcon ODH No:	
Screen Slot Size:		Well Seal RPT No:	
Attatch Status:		Date Added:	
Screen Diam:		Added By:	
Screen Type:		Date Changed:	
Screen Mat:		Zone Code:	

Wells and Additional Sources Detail Report

Screened Intvl From:	Horiz X:
Screened Intvl To:	Horiz Y:
Sustained Yield:	Horiz Datum Code:
Dem Elev: 940.5	Latitude: 40.426603
Case Lengt: 24	Longitude: -83.292307
Completion: -426297600000	Changed By:
Draw Down Test Dur:	
Sec Owner Name: LINDSEY GLASS,	
Comments:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	NNE	0.68	3,578.41	939.44	WATER WELLS

Well Log No: 220594	Pump Type:
Permit No:	Pump Capacity:
Lot No:	Pump Set At:
Sect No:	Pitless Type:
Loc No:	Pump Inst By:
Well Type Code: W	Elev Source:
Drill Type Code:	U Version:
Test Type Code:	End User ID:
Well Use Code:	County Code:
Well Use Desc:	County: UNION
Aquifer Type Code: LIMESTONE	Township Code:
Flowing Well Ind:	Loc Map Year:
Test Rate:	Loc Area:
Draw Down:	S Water Level: 5
Sub Name:	S Water Meas Pt Cd:
Sub Map Year:	S Water Level Date:
Sub No:	Cas HT:
Str Direction Code:	Screen Length:
Street No:	Total Depth: 50
Street Name: SR 47	Dt of Completion: 12/17/1958
Street Type Code:	Located Ind:
Sec Add:	Assoc RPT Ind:
Sec Add No:	Depth To Bedrock: 48
City: CLAIBORNE	Drill Year:
State Code:	Water Level EI: 940
Zip:	Well Drilled By:
Well Location Desc:	Subcon ODH No:
Screen Slot Size:	Well Seal RPT No:
Attatch Status:	Date Added:
Screen Diam:	Added By:
Screen Type:	Date Changed:
Screen Mat:	Zone Code:
Screened Intvl From:	Horiz X:

Wells and Additional Sources Detail Report

Screened Intvl To:	Horiz Y:
Sustained Yield:	Horiz Datum Code:
Dem Elev: 940.1	Latitude: 40.426342
Case Leng: 25	Longitude: -83.284952
Completion: -348451200000	Changed By:
Draw Down Test Dur:	
Sec Owner Name: RICHWOOD CONCRETE PR,	
Comments:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
15	NNE	0.71	3,729.96	940.47	WATER WELLS

Well Log No: 133301	Pump Type:
Permit No:	Pump Capacity:
Lot No:	Pump Set At:
Sect No:	Pitless Type:
Loc No:	Pump Inst By:
Well Type Code: W	Elev Source:
Drill Type Code:	U Version:
Test Type Code:	End User ID:
Well Use Code:	County Code:
Well Use Desc:	County: UNION
Aquifer Type Code: LIMESTONE	Township Code:
Flowing Well Ind:	Loc Map Year:
Test Rate:	Loc Area:
Draw Down:	S Water Level: 4
Sub Name:	S Water Meas Pt Cd:
Sub Map Year:	S Water Level Date:
Sub No:	Cas HT:
Str Direction Code:	Screen Length:
Street No:	Total Depth: 40
Street Name: HOSKINS PI	Dt of Completion: 05/07/1954
Street Type Code:	Located Ind:
Sec Add:	Assoc RPT Ind:
Sec Add No:	Depth To Bedrock: 22
City: CLAIBORNE	Drill Year:
State Code:	Water Level El: 940
Zip:	Well Drilled By:
Well Location Desc:	Subcon ODH No:
Screen Slot Size:	Well Seal RPT No:
Attatch Status:	Date Added:
Screen Diam:	Added By:
Screen Type:	Date Changed:
Screen Mat:	Zone Code:
Screened Intvl From:	Horiz X:
Screened Intvl To:	Horiz Y:

Wells and Additional Sources Detail Report

Sustained Yield:		Horiz Datum Code:	
Dem Elev:	941.9	Latitude:	40.426995
Case Length:	27	Longitude:	-83.286214
Completion:	-494035200000	Changed By:	
Draw Down Test Dur:			
Sec Owner Name:	HUNT, GEORGE		
Comments:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
16	NNE	0.72	3,822.78	940.05	WATER WELLS

Well Log No:	272821	Pump Type:	
Permit No:		Pump Capacity:	
Lot No:		Pump Set At:	
Sect No:		Pitless Type:	
Loc No:		Pump Inst By:	
Well Type Code:	W	Elev Source:	
Drill Type Code:		U Version:	
Test Type Code:		End User ID:	
Well Use Code:		County Code:	
Well Use Desc:		County:	UNION
Aquifer Type Code:	LIMESTONE	Township Code:	
Flowing Well Ind:		Loc Map Year:	
Test Rate:		Loc Area:	
Draw Down:		S Water Level:	7
Sub Name:		S Water Meas Pt Cd:	
Sub Map Year:		S Water Level Date:	
Sub No:		Cas HT:	
Str Direction Code:		Screen Length:	
Street No:		Total Depth:	71
Street Name:	OTTAWA ST	Dt of Completion:	06/26/1961
Street Type Code:		Located Ind:	
Sec Add:		Assoc RPT Ind:	
Sec Add No:		Depth To Bedrock:	70
City:	CLAIBORNE	Drill Year:	
State Code:		Water Level El:	940
Zip:		Well Drilled By:	
Well Location Desc:		Subcon ODH No:	
Screen Slot Size:		Well Seal RPT No:	
Attatch Status:		Date Added:	
Screen Diam:		Added By:	
Screen Type:		Date Changed:	
Screen Mat:		Zone Code:	
Screened Intvl From:		Horiz X:	
Screened Intvl To:		Horiz Y:	
Sustained Yield:		Horiz Datum Code:	

Wells and Additional Sources Detail Report

Dem Elev:	941.1	Latitude:	40.42692
Case Lengt:	30	Longitude:	-83.284423
Completion:	-268790400000	Changed By:	
Draw Down Test Dur:			
Sec Owner Name:	WILLS, DUDLEY		
Comments:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
17	SSE	0.76	3,996.34	937.73	WATER WELLS

Well Log No: 1015317 Permit No: Lot No: Sect No: Loc No: Well Type Code: W Drill Type Code: ROTARY Test Type Code: Well Use Code: Well Use Desc: Aquifer Type Code: LIMESTONE Flowing Well Ind: Test Rate: 20 Draw Down: Sub Name: Sub Map Year: Sub No: Str Direction Code: Street No: 27424 Street Name: SR 37 Street Type Code: Sec Add: Sec Add No: City: CLAIBORNE State Code: Zip: Well Location Desc: Screen Slot Size: Attatch Status: Screen Diam: Screen Type: Screen Mat: Screened Intvl From: Screened Intvl To: Sustained Yield: Dem Elev: 938.9	Pump Type: Pump Capacity: Pump Set At: Pitless Type: Pump Inst By: Elev Source: U Version: End User ID: County Code: County: UNION Township Code: Loc Map Year: Loc Area: S Water Level: 21 S Water Meas Pt Cd: S Water Level Date: Cas HT: Screen Length: Total Depth: 80 Dt of Completion: 08/18/2011 Located Ind: Assoc RPT Ind: Depth To Bedrock: 14 Drill Year: Water Level El: 940 Well Drilled By: Subcon ODH No: Well Seal RPT No: Date Added: Added By: Date Changed: Zone Code: Horiz X: Horiz Y: Horiz Datum Code: Latitude: 40.405567
--	--

Wells and Additional Sources Detail Report

Case Lengt: 27 Longitude: -83.285717
 Completion: 1313625600000 Changed By:
 Draw Down Test Dur:
 Sec Owner Name: BERRY, MIZE
 Comments:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
19	NE	0.75	3,983.56	939.30	WATER WELLS

Well Log No:	2016134	Pump Type:	
Permit No:		Pump Capacity:	
Lot No:		Pump Set At:	
Sect No:		Pitless Type:	
Loc No:		Pump Inst By:	
Well Type Code:	W	Elev Source:	
Drill Type Code:	ROTARY	U Version:	
Test Type Code:		End User ID:	
Well Use Code:		County Code:	
Well Use Desc:		County:	UNION
Aquifer Type Code:	LIMESTONE	Township Code:	
Flowing Well Ind:		Loc Map Year:	
Test Rate:	12	Loc Area:	
Draw Down:		S Water Level:	8
Sub Name:		S Water Meas Pt Cd:	
Sub Map Year:		S Water Level Date:	
Sub No:		Cas HT:	
Str Direction Code:		Screen Length:	
Street No:	11514	Total Depth:	64
Street Name:	HOSKINS RD	Dt of Completion:	04/22/2008
Street Type Code:		Located Ind:	
Sec Add:		Assoc RPT Ind:	
Sec Add No:		Depth To Bedrock:	24
City:	CLAIBORNE	Drill Year:	
State Code:		Water Level El:	940
Zip:		Well Drilled By:	
Well Location Desc:		Subcon ODH No:	
Screen Slot Size:		Well Seal RPT No:	
Attatch Status:		Date Added:	
Screen Diam:		Added By:	
Screen Type:		Date Changed:	
Screen Mat:		Zone Code:	
Screened Intvl From:		Horiz X:	
Screened Intvl To:		Horiz Y:	
Sustained Yield:		Horiz Datum Code:	
Dem Elev:	940.9	Latitude:	40.426417
Case Lengt:	35	Longitude:	-83.281483

Wells and Additional Sources Detail Report

Completion: 1208822400000 Changed By:
 Draw Down Test Dur:
 Sec Owner Name: GIBSON, TODD
 Comments:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
20	NNW	0.78	4,124.84	946.35	WATER WELLS

Well Log No: 2010754	Pump Type:
Permit No:	Pump Capacity:
Lot No:	Pump Set At:
Sect No:	Pitless Type:
Loc No:	Pump Inst By:
Well Type Code: W	Elev Source:
Drill Type Code: AUGER	U Version:
Test Type Code:	End User ID:
Well Use Code:	County Code:
Well Use Desc:	County: UNION
Aquifer Type Code: SILT	Township Code:
Flowing Well Ind:	Loc Map Year:
Test Rate:	Loc Area:
Draw Down:	S Water Level: 6
Sub Name:	S Water Meas Pt Cd:
Sub Map Year:	S Water Level Date:
Sub No:	Cas HT:
Str Direction Code:	Screen Length:
Street No: 25	Total Depth: 15
Street Name: BLAGROVE ST	Dt of Completion: 05/29/2007
Street Type Code:	Located Ind:
Sec Add:	Assoc RPT Ind:
Sec Add No:	Depth To Bedrock:
City: CLAIBORNE	Drill Year:
State Code:	Water Level El: 948
Zip:	Well Drilled By:
Well Location Desc:	Subcon ODH No:
Screen Slot Size:	Well Seal RPT No:
Attatch Status:	Date Added:
Screen Diam:	Added By:
Screen Type:	Date Changed:
Screen Mat:	Zone Code:
Screened Intvl From:	Horiz X:
Screened Intvl To:	Horiz Y:
Sustained Yield:	Horiz Datum Code:
Dem Elev: 947.8	Latitude: 40.427617
Case Lengt: 3	Longitude: -83.295583
Completion: 1180396800000	Changed By:

Wells and Additional Sources Detail Report

Draw Down Test Dur:

Sec Owner Name: CERTIFIED #140,

Comments:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
21	NE	0.77	4,080.54	937.17	WATER WELLS

Well Log No: 208670

Permit No:

Lot No:

Sect No:

Loc No:

Well Type Code: W

Drill Type Code:

Test Type Code:

Well Use Code:

Well Use Desc:

Aquifer Type Code: LIMESTONE

Flowing Well Ind:

Test Rate: 8

Draw Down:

Sub Name:

Sub Map Year:

Sub No:

Str Direction Code:

Street No:

Street Name: HOSKINS SR

Street Type Code:

Sec Add:

Sec Add No:

City: CLAIBORNE

State Code:

Zip:

Well Location Desc:

Screen Slot Size:

Attatch Status:

Screen Diam:

Screen Type:

Screen Mat:

Screened Intvl From:

Screened Intvl To:

Sustained Yield:

Dem Elev: 938.4

Case Leng: 24

Completion: -388540800000

Draw Down Test Dur:

Pump Type:

Pump Capacity:

Pump Set At:

Pitless Type:

Pump Inst By:

Elev Source:

U Version:

End User ID:

County Code:

County: UNION

Township Code:

Loc Map Year:

Loc Area:

S Water Level: 5

S Water Meas Pt Cd:

S Water Level Date:

Cas HT:

Screen Length:

Total Depth: 52

Dt of Completion: 09/09/1957

Located Ind:

Assoc RPT Ind:

Depth To Bedrock: 50

Drill Year:

Water Level El: 939

Well Drilled By:

Subcon ODH No:

Well Seal RPT No:

Date Added:

Added By:

Date Changed:

Zone Code:

Horiz X:

Horiz Y:

Horiz Datum Code:

Latitude: 40.426474

Longitude: -83.280924

Changed By:

Wells and Additional Sources Detail Report

Sec Owner Name: COWGILL, R
 Comments:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
22	NE	0.77	4,067.57	936.14	WATER WELLS

Well Log No:	398691	Pump Type:	
Permit No:		Pump Capacity:	
Lot No:		Pump Set At:	
Sect No:		Pitless Type:	
Loc No:		Pump Inst By:	
Well Type Code:	W	Elev Source:	
Drill Type Code:		U Version:	
Test Type Code:		End User ID:	
Well Use Code:		County Code:	
Well Use Desc:		County:	UNION
Aquifer Type Code:	LIMESTONE	Township Code:	
Flowing Well Ind:		Loc Map Year:	
Test Rate:		Loc Area:	
Draw Down:		S Water Level:	3
Sub Name:		S Water Meas Pt Cd:	
Sub Map Year:		S Water Level Date:	
Sub No:		Cas HT:	
Str Direction Code:		Screen Length:	
Street No:		Total Depth:	37
Street Name:	HOSKINS CR	Dt of Completion:	12/15/1969
Street Type Code:		Located Ind:	
Sec Add:		Assoc RPT Ind:	
Sec Add No:		Depth To Bedrock:	36
City:	CLAIBORNE	Drill Year:	
State Code:		Water Level El:	937
Zip:		Well Drilled By:	
Well Location Desc:		Subcon ODH No:	
Screen Slot Size:		Well Seal RPT No:	
Attatch Status:		Date Added:	
Screen Diam:		Added By:	
Screen Type:		Date Changed:	
Screen Mat:		Zone Code:	
Screened Intvl From:		Horiz X:	
Screened Intvl To:		Horiz Y:	
Sustained Yield:		Horiz Datum Code:	
Dem Elev:	937.1	Latitude:	40.425276
Case Length:	24	Longitude:	-83.278881
Completion:	-1468800000	Changed By:	
Draw Down Test Dur:			
Sec Owner Name:	WILLS, DUDLEY		

Wells and Additional Sources Detail Report

Comments:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
24	NNW	0.79	4,164.34	948.23	WATER WELLS

Well Log No:	133308	Pump Type:	
Permit No:		Pump Capacity:	
Lot No:		Pump Set At:	
Sect No:		Pitless Type:	
Loc No:		Pump Inst By:	
Well Type Code:	W	Elev Source:	
Drill Type Code:		U Version:	
Test Type Code:		End User ID:	
Well Use Code:		County Code:	
Well Use Desc:		County:	UNION
Aquifer Type Code:	LIMESTONE	Township Code:	
Flowing Well Ind:		Loc Map Year:	
Test Rate:		Loc Area:	
Draw Down:		S Water Level:	5
Sub Name:		S Water Meas Pt Cd:	
Sub Map Year:		S Water Level Date:	
Sub No:		Cas HT:	
Str Direction Code:		Screen Length:	
Street No:		Total Depth:	36
Street Name:	HOSKINS PI	Dt of Completion:	06/19/1954
Street Type Code:		Located Ind:	
Sec Add:		Assoc RPT Ind:	
Sec Add No:		Depth To Bedrock:	18
City:	CLAIBORNE	Drill Year:	
State Code:		Water Level El:	950
Zip:		Well Drilled By:	
Well Location Desc:		Subcon ODH No:	
Screen Slot Size:		Well Seal RPT No:	
Attatch Status:		Date Added:	
Screen Diam:		Added By:	
Screen Type:		Date Changed:	
Screen Mat:		Zone Code:	
Screened Intvl From:		Horiz X:	
Screened Intvl To:		Horiz Y:	
Sustained Yield:		Horiz Datum Code:	
Dem Elev:	949.2	Latitude:	40.426745
Case Lengt:	23	Longitude:	-83.29836
Completion:	-490320000000	Changed By:	
Draw Down Test Dur:			
Sec Owner Name:	RUSSELL, MARY		
Comments:			

Wells and Additional Sources Detail Report

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
25	NNW	0.80	4,208.85	945.92	WATER WELLS

Well Log No:	2001036	Pump Type:	
Permit No:		Pump Capacity:	
Lot No:		Pump Set At:	
Sect No:		Pitless Type:	
Loc No:		Pump Inst By:	
Well Type Code:	W	Elev Source:	
Drill Type Code:	AIR ROTARY	U Version:	
Test Type Code:		End User ID:	
Well Use Code:		County Code:	
Well Use Desc:		County:	UNION
Aquifer Type Code:	CLAY	Township Code:	
Flowing Well Ind:		Loc Map Year:	
Test Rate:		Loc Area:	
Draw Down:		S Water Level:	10
Sub Name:		S Water Meas Pt Cd:	
Sub Map Year:		S Water Level Date:	
Sub No:		Cas HT:	
Str Direction Code:		Screen Length:	
Street No:	25	Total Depth:	20
Street Name:	BLAGROVE ST	Dt of Completion:	01/17/2006
Street Type Code:		Located Ind:	
Sec Add:		Assoc RPT Ind:	
Sec Add No:		Depth To Bedrock:	
City:	CLAIBORNE	Drill Year:	
State Code:		Water Level El:	948
Zip:		Well Drilled By:	
Well Location Desc:		Subcon ODH No:	
Screen Slot Size:		Well Seal RPT No:	
Attatch Status:		Date Added:	
Screen Diam:		Added By:	
Screen Type:		Date Changed:	
Screen Mat:		Zone Code:	
Screened Intvl From:		Horiz X:	
Screened Intvl To:		Horiz Y:	
Sustained Yield:		Horiz Datum Code:	
Dem Elev:		Latitude:	40.42783
Case Lengt:	5.5	Longitude:	-83.2957
Completion:	1137456000000	Changed By:	
Draw Down Test Dur:			
Sec Owner Name:	CERTIFIED #140,		
Comments:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
---------	-----------	---------------	---------------	----------------	----

Wells and Additional Sources Detail Report

26 NE 0.79 4,148.60 936.46 WATER WELLS

Well Log No: 2032450 Permit No: Lot No: Sect No: Loc No: Well Type Code: W Drill Type Code: ROTARY Test Type Code: Well Use Code: Well Use Desc: Aquifer Type Code: LIMESTONE Flowing Well Ind: Test Rate: 12 Draw Down: Sub Name: Sub Map Year: Sub No: Str Direction Code: Street No: 11384 Street Name: HOSKINS RD Street Type Code: Sec Add: Sec Add No: City: CLAIBORNE State Code: Zip: Well Location Desc: Screen Slot Size: Attatch Status: Screen Diam: Screen Type: Screen Mat: Screened Intvl From: Screened Intvl To: Sustained Yield: Dem Elev: 937.5 Case Lengt: 28.5 Completion: 1303948800000 Draw Down Test Dur: Sec Owner Name: CRAMER, PAUL Comments:	Pump Type: Pump Capacity: Pump Set At: Pitless Type: Pump Inst By: Elev Source: U Version: End User ID: County Code: County: UNION Township Code: Loc Map Year: Loc Area: S Water Level: 5 S Water Meas Pt Cd: S Water Level Date: Cas HT: Screen Length: Total Depth: 60 Dt of Completion: 04/28/2011 Located Ind: Assoc RPT Ind: Depth To Bedrock: 20 Drill Year: Water Level El: 937 Well Drilled By: Subcon ODH No: Well Seal RPT No: Date Added: Added By: Date Changed: Zone Code: Horiz X: Horiz Y: Horiz Datum Code: Latitude: 40.425983 Longitude: -83.27955 Changed By:
--	--

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
27	NNW	0.80	4,216.27	946.82	WATER WELLS

Wells and Additional Sources Detail Report

Well Log No:	2001035	Pump Type:	
Permit No:		Pump Capacity:	
Lot No:		Pump Set At:	
Sect No:		Pitless Type:	
Loc No:		Pump Inst By:	
Well Type Code:	W	Elev Source:	
Drill Type Code:	AUGER	U Version:	
Test Type Code:		End User ID:	
Well Use Code:		County Code:	
Well Use Desc:		County:	UNION
Aquifer Type Code:	CLAY	Township Code:	
Flowing Well Ind:		Loc Map Year:	
Test Rate:		Loc Area:	
Draw Down:		S Water Level:	6
Sub Name:		S Water Meas Pt Cd:	
Sub Map Year:		S Water Level Date:	
Sub No:		Cas HT:	
Str Direction Code:		Screen Length:	
Street No:	25	Total Depth:	18
Street Name:	BLAGROVE ST	Dt of Completion:	01/17/2006
Street Type Code:		Located Ind:	
Sec Add:		Assoc RPT Ind:	
Sec Add No:		Depth To Bedrock:	
City:	CLAIBORNE	Drill Year:	
State Code:		Water Level El:	948
Zip:		Well Drilled By:	
Well Location Desc:		Subcon ODH No:	
Screen Slot Size:		Well Seal RPT No:	
Attatch Status:		Date Added:	
Screen Diam:		Added By:	
Screen Type:		Date Changed:	
Screen Mat:		Zone Code:	
Screened Intvl From:		Horiz X:	
Screened Intvl To:		Horiz Y:	
Sustained Yield:		Horiz Datum Code:	
Dem Elev:		Latitude:	40.42783
Case Length:	5.5	Longitude:	-83.29578
Completion:	1137456000000	Changed By:	
Draw Down Test Dur:			
Sec Owner Name:	CERTIFIED #140,		
Comments:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
28	NNW	0.79	4,182.10	944.73	WATER WELLS

Wells and Additional Sources Detail Report

Well Log No:	9980015	Pump Type:	
Permit No:		Pump Capacity:	
Lot No:		Pump Set At:	
Sect No:		Pitless Type:	
Loc No:		Pump Inst By:	
Well Type Code:	W	Elev Source:	
Drill Type Code:		U Version:	
Test Type Code:		End User ID:	
Well Use Code:		County Code:	
Well Use Desc:		County:	UNION
Aquifer Type Code:	LIMESTONE	Township Code:	
Flowing Well Ind:		Loc Map Year:	
Test Rate:		Loc Area:	
Draw Down:		S Water Level:	11
Sub Name:		S Water Meas Pt Cd:	
Sub Map Year:		S Water Level Date:	
Sub No:		Cas HT:	
Str Direction Code:		Screen Length:	
Street No:		Total Depth:	52
Street Name:	FRANKLIN ST	Dt of Completion:	06/15/1946
Street Type Code:		Located Ind:	
Sec Add:		Assoc RPT Ind:	
Sec Add No:		Depth To Bedrock:	20
City:	CLAIBORNE	Drill Year:	
State Code:		Water Level El:	946
Zip:		Well Drilled By:	
Well Location Desc:		Subcon ODH No:	
Screen Slot Size:		Well Seal RPT No:	
Attatch Status:		Date Added:	
Screen Diam:		Added By:	
Screen Type:		Date Changed:	
Screen Mat:		Zone Code:	
Screened Intvl From:		Horiz X:	
Screened Intvl To:		Horiz Y:	
Sustained Yield:		Horiz Datum Code:	
Dem Elev:	945.6	Latitude:	40.42661
Case Lengt:	28	Longitude:	-83.298768
Completion:	-743126400000	Changed By:	
Draw Down Test Dur:			
Sec Owner Name:	BOYD, C		
Comments:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
29	WNW	0.78	4,137.34	941.15	WATER WELLS

Well Log No: 97828 Pump Type:

Wells and Additional Sources Detail Report

Permit No:	Pump Capacity:
Lot No:	Pump Set At:
Sect No:	Pitless Type:
Loc No:	Pump Inst By:
Well Type Code: W	Elev Source:
Drill Type Code:	U Version:
Test Type Code:	End User ID:
Well Use Code:	County Code:
Well Use Desc:	County: UNION
Aquifer Type Code: LIMESTONE	Township Code:
Flowing Well Ind:	Loc Map Year:
Test Rate:	Loc Area:
Draw Down:	S Water Level: 5
Sub Name:	S Water Meas Pt Cd:
Sub Map Year:	S Water Level Date:
Sub No:	Cas HT:
Str Direction Code:	Screen Length:
Street No:	Total Depth: 27
Street Name: SR 37	Dt of Completion: 07/07/1953
Street Type Code:	Located Ind:
Sec Add:	Assoc RPT Ind:
Sec Add No:	Depth To Bedrock: 15
City: CLAIBORNE	Drill Year:
State Code:	Water Level El: 941
Zip:	Well Drilled By:
Well Location Desc:	Subcon ODH No:
Screen Slot Size:	Well Seal RPT No:
Attatch Status:	Date Added:
Screen Diam:	Added By:
Screen Type:	Date Changed:
Screen Mat:	Zone Code:
Screened Intvl From:	Horiz X:
Screened Intvl To:	Horiz Y:
Sustained Yield:	Horiz Datum Code:
Dem Elev: 942.1	Latitude: 40.422833
Case Lengt: 23	Longitude: -83.303391
Completion: -520300800000	Changed By:
Draw Down Test Dur:	
Sec Owner Name: VANBRIMMER, GEORGE	
Comments:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
30	NW	0.79	4,152.93	940.29	WATER WELLS

Well Log No: 97826	Pump Type:
Permit No:	Pump Capacity:

Wells and Additional Sources Detail Report

Lot No:	Pump Set At:
Sect No:	Pitless Type:
Loc No:	Pump Inst By:
Well Type Code: W	Elev Source:
Drill Type Code:	U Version:
Test Type Code:	End User ID:
Well Use Code:	County Code:
Well Use Desc:	County: UNION
Aquifer Type Code: LIMESTONE	Township Code:
Flowing Well Ind:	Loc Map Year:
Test Rate:	Loc Area:
Draw Down:	S Water Level: 5
Sub Name:	S Water Meas Pt Cd:
Sub Map Year:	S Water Level Date:
Sub No:	Cas HT:
Str Direction Code:	Screen Length:
Street No:	Total Depth: 25
Street Name: SR 47	Dt of Completion: 06/26/1953
Street Type Code:	Located Ind:
Sec Add:	Assoc RPT Ind:
Sec Add No:	Depth To Bedrock: 15
City: CLAIBORNE	Drill Year:
State Code:	Water Level El: 941
Zip:	Well Drilled By:
Well Location Desc:	Subcon ODH No:
Screen Slot Size:	Well Seal RPT No:
Attatch Status:	Date Added:
Screen Diam:	Added By:
Screen Type:	Date Changed:
Screen Mat:	Zone Code:
Screened Intvl From:	Horiz X:
Screened Intvl To:	Horiz Y:
Sustained Yield:	Horiz Datum Code:
Dem Elev: 941.5	Latitude: 40.423947
Case Lengt: 20	Longitude: -83.302451
Completion: -521251200000	Changed By:
Draw Down Test Dur:	
Sec Owner Name: JEREW, JOHN	
Comments:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
31	NNW	0.80	4,246.25	946.84	WATER WELLS

Well Log No: 2001034	Pump Type:
Permit No:	Pump Capacity:
Lot No:	Pump Set At:

Wells and Additional Sources Detail Report

Sect No:	Pitless Type:
Loc No:	Pump Inst By:
Well Type Code: W	Elev Source:
Drill Type Code: AUGER	U Version:
Test Type Code:	End User ID:
Well Use Code:	County Code:
Well Use Desc:	County: UNION
Aquifer Type Code: CLAY	Township Code:
Flowing Well Ind:	Loc Map Year:
Test Rate:	Loc Area:
Draw Down:	S Water Level: 6
Sub Name:	S Water Meas Pt Cd:
Sub Map Year:	S Water Level Date:
Sub No:	Cas HT:
Str Direction Code:	Screen Length:
Street No: 25	Total Depth: 16
Street Name: BLAGROVE ST	Dt of Completion: 01/17/2006
Street Type Code:	Located Ind:
Sec Add:	Assoc RPT Ind:
Sec Add No:	Depth To Bedrock:
City: CLAIBORNE	Drill Year:
State Code:	Water Level El: 948
Zip:	Well Drilled By:
Well Location Desc:	Subcon ODH No:
Screen Slot Size:	Well Seal RPT No:
Attatch Status:	Date Added:
Screen Diam:	Added By:
Screen Type:	Date Changed:
Screen Mat:	Zone Code:
Screened Intvl From:	Horiz X:
Screened Intvl To:	Horiz Y:
Sustained Yield:	Horiz Datum Code:
Dem Elev:	Latitude: 40.42792
Case Leng: 5.5	Longitude: -83.29577
Completion: 1137456000000	Changed By:
Draw Down Test Dur:	
Sec Owner Name: CERTIFIED #140,	
Comments:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
32	NNW	0.80	4,249.92	945.58	WATER WELLS

Well Log No: 2010760	Pump Type:
Permit No:	Pump Capacity:
Lot No:	Pump Set At:
Sect No:	Pitless Type:

Wells and Additional Sources Detail Report

Loc No:		Pump Inst By:	
Well Type Code:	W	Elev Source:	
Drill Type Code:	AUGER	U Version:	
Test Type Code:		End User ID:	
Well Use Code:		County Code:	
Well Use Desc:		County:	UNION
Aquifer Type Code:	SAND	Township Code:	
Flowing Well Ind:		Loc Map Year:	
Test Rate:		Loc Area:	
Draw Down:		S Water Level:	8
Sub Name:		S Water Meas Pt Cd:	
Sub Map Year:		S Water Level Date:	
Sub No:		Cas HT:	
Str Direction Code:		Screen Length:	
Street No:	26	Total Depth:	15
Street Name:	BLAGROVE ST	Dt of Completion:	05/29/2007
Street Type Code:		Located Ind:	
Sec Add:		Assoc RPT Ind:	
Sec Add No:		Depth To Bedrock:	
City:	CLAIBORNE	Drill Year:	
State Code:		Water Level El:	947
Zip:		Well Drilled By:	
Well Location Desc:		Subcon ODH No:	
Screen Slot Size:		Well Seal RPT No:	
Attatch Status:		Date Added:	
Screen Diam:		Added By:	
Screen Type:		Date Changed:	
Screen Mat:		Zone Code:	
Screened Intvl From:		Horiz X:	
Screened Intvl To:		Horiz Y:	
Sustained Yield:		Horiz Datum Code:	
Dem Elev:	946.6	Latitude:	40.427967
Case Length:	3	Longitude:	-83.295633
Completion:	1180396800000	Changed By:	
Draw Down Test Dur:			
Sec Owner Name:	CERTIFIED #140,		
Comments:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
33	NNW	0.81	4,251.45	945.15	WATER WELLS

Well Log No:	2010757	Pump Type:	
Permit No:		Pump Capacity:	
Lot No:		Pump Set At:	
Sect No:		Pitless Type:	
Loc No:		Pump Inst By:	

Wells and Additional Sources Detail Report

Well Type Code:	W	Elev Source:	
Drill Type Code:	AUGER	U Version:	
Test Type Code:		End User ID:	
Well Use Code:		County Code:	
Well Use Desc:		County:	UNION
Aquifer Type Code:	SAND	Township Code:	
Flowing Well Ind:		Loc Map Year:	
Test Rate:		Loc Area:	
Draw Down:		S Water Level:	7
Sub Name:		S Water Meas Pt Cd:	
Sub Map Year:		S Water Level Date:	
Sub No:		Cas HT:	
Str Direction Code:		Screen Length:	
Street No:	25	Total Depth:	15
Street Name:	BLAGROVE ST	Dt of Completion:	05/29/2007
Street Type Code:		Located Ind:	
Sec Add:		Assoc RPT Ind:	
Sec Add No:		Depth To Bedrock:	
City:	CLAIBORNE	Drill Year:	
State Code:		Water Level El:	947
Zip:		Well Drilled By:	
Well Location Desc:		Subcon ODH No:	
Screen Slot Size:		Well Seal RPT No:	
Attatch Status:		Date Added:	
Screen Diam:		Added By:	
Screen Type:		Date Changed:	
Screen Mat:		Zone Code:	
Screened Intvl From:		Horiz X:	
Screened Intvl To:		Horiz Y:	
Sustained Yield:		Horiz Datum Code:	
Dem Elev:	946.6	Latitude:	40.427967
Case Length:	3	Longitude:	-83.29565
Completion:	1180396800000	Changed By:	
Draw Down Test Dur:			
Sec Owner Name:	CERTIFIED #140,		
Comments:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
34	NNW	0.81	4,263.39	950.61	WATER WELLS

Well Log No:	2016515	Pump Type:	
Permit No:		Pump Capacity:	
Lot No:		Pump Set At:	
Sect No:		Pitless Type:	
Loc No:		Pump Inst By:	
Well Type Code:	W	Elev Source:	

Wells and Additional Sources Detail Report

Drill Type Code:	GEOPROBE	U Version:	
Test Type Code:		End User ID:	
Well Use Code:		County Code:	
Well Use Desc:		County:	UNION
Aquifer Type Code:	GRAVEL & SILT	Township Code:	
Flowing Well Ind:		Loc Map Year:	
Test Rate:		Loc Area:	
Draw Down:		S Water Level:	12.5
Sub Name:		S Water Meas Pt Cd:	
Sub Map Year:		S Water Level Date:	
Sub No:		Cas HT:	
Str Direction Code:		Screen Length:	
Street No:	25	Total Depth:	20
Street Name:	BLAGROVE ST	Dt of Completion:	05/14/2008
Street Type Code:		Located Ind:	
Sec Add:		Assoc RPT Ind:	
Sec Add No:		Depth To Bedrock:	
City:	CLAIBORNE	Drill Year:	
State Code:		Water Level El:	949
Zip:		Well Drilled By:	
Well Location Desc:		Subcon ODH No:	
Screen Slot Size:		Well Seal RPT No:	
Attatch Status:		Date Added:	
Screen Diam:		Added By:	
Screen Type:		Date Changed:	
Screen Mat:		Zone Code:	
Screened Intvl From:		Horiz X:	
Screened Intvl To:		Horiz Y:	
Sustained Yield:		Horiz Datum Code:	
Dem Elev:	951.6	Latitude:	40.427883
Case Lengt:	10	Longitude:	-83.296083
Completion:	1210723200000	Changed By:	
Draw Down Test Dur:			
Sec Owner Name:	CERTIFIED #140,		
Comments:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
35	NNW	0.81	4,278.71	945.15	WATER WELLS

Well Log No:	2006040	Pump Type:	
Permit No:		Pump Capacity:	
Lot No:		Pump Set At:	
Sect No:		Pitless Type:	
Loc No:		Pump Inst By:	
Well Type Code:	W	Elev Source:	
Drill Type Code:	GEOPROBE	U Version:	

Wells and Additional Sources Detail Report

Test Type Code:	End User ID:
Well Use Code:	County Code:
Well Use Desc:	County: UNION
Aquifer Type Code: SILT	Township Code:
Flowing Well Ind:	Loc Map Year:
Test Rate:	Loc Area:
Draw Down:	S Water Level: 5.5
Sub Name:	S Water Meas Pt Cd:
Sub Map Year:	S Water Level Date:
Sub No:	Cas HT:
Str Direction Code:	Screen Length:
Street No: 25	Total Depth: 11.9
Street Name: BLAGROVE ST	Dt of Completion: 09/13/2006
Street Type Code:	Located Ind:
Sec Add:	Assoc RPT Ind:
Sec Add No:	Depth To Bedrock:
City: CLAIBORNE	Drill Year:
State Code:	Water Level El: 947
Zip:	Well Drilled By:
Well Location Desc:	Subcon ODH No:
Screen Slot Size:	Well Seal RPT No:
Attatch Status:	Date Added:
Screen Diam:	Added By:
Screen Type:	Date Changed:
Screen Mat:	Zone Code:
Screened Intvl From:	Horiz X:
Screened Intvl To:	Horiz Y:
Sustained Yield:	Horiz Datum Code:
Dem Elev: 946.3	Latitude: 40.428033
Case Lengt: 11.6	Longitude: -83.2957
Completion: 1158105600000	Changed By:
Draw Down Test Dur:	
Sec Owner Name: CERTIFIED #140,	
Comments:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
36	NNW	0.81	4,273.43	950.61	WATER WELLS

Well Log No: 2016514	Pump Type:
Permit No:	Pump Capacity:
Lot No:	Pump Set At:
Sect No:	Pitless Type:
Loc No:	Pump Inst By:
Well Type Code: W	Elev Source:
Drill Type Code: GEOPROBE	U Version:
Test Type Code:	End User ID:

Wells and Additional Sources Detail Report

Well Use Code:	County Code:
Well Use Desc:	County: UNION
Aquifer Type Code: GRAVEL & SAND	Township Code:
Flowing Well Ind:	Loc Map Year:
Test Rate:	Loc Area:
Draw Down:	S Water Level: 13
Sub Name:	S Water Meas Pt Cd:
Sub Map Year:	S Water Level Date:
Sub No:	Cas HT:
Str Direction Code:	Screen Length:
Street No: 25	Total Depth: 20
Street Name: BLAGROVE ST	Dt of Completion: 05/14/2008
Street Type Code:	Located Ind:
Sec Add:	Assoc RPT Ind:
Sec Add No:	Depth To Bedrock:
City: CLAIBORNE	Drill Year:
State Code:	Water Level El: 949
Zip:	Well Drilled By:
Well Location Desc:	Subcon ODH No:
Screen Slot Size:	Well Seal RPT No:
Attatch Status:	Date Added:
Screen Diam:	Added By:
Screen Type:	Date Changed:
Screen Mat:	Zone Code:
Screened Intvl From:	Horiz X:
Screened Intvl To:	Horiz Y:
Sustained Yield:	Horiz Datum Code:
Dem Elev: 951.6	Latitude: 40.427917
Case Lengt: 10	Longitude: -83.296067
Completion: 1210723200000	Changed By:
Draw Down Test Dur:	
Sec Owner Name: CERTIFIED #140,	
Comments:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
37	SSE	0.82	4,344.34	939.80	WATER WELLS

Well Log No: 2034580	Pump Type:
Permit No:	Pump Capacity:
Lot No:	Pump Set At:
Sect No:	Pitless Type:
Loc No:	Pump Inst By:
Well Type Code: W	Elev Source:
Drill Type Code: ROTARY	U Version:
Test Type Code:	End User ID:
Well Use Code:	County Code:

Wells and Additional Sources Detail Report

Well Use Desc:		County:	UNION
Aquifer Type Code:	LIMESTONE	Township Code:	
Flowing Well Ind:		Loc Map Year:	
Test Rate:	12	Loc Area:	
Draw Down:		S Water Level:	10
Sub Name:		S Water Meas Pt Cd:	
Sub Map Year:		S Water Level Date:	
Sub No:		Cas HT:	
Str Direction Code:		Screen Length:	
Street No:	27266	Total Depth:	40
Street Name:	SR 37	Dt of Completion:	09/20/2011
Street Type Code:		Located Ind:	
Sec Add:		Assoc RPT Ind:	
Sec Add No:		Depth To Bedrock:	19
City:	CLAIBORNE	Drill Year:	
State Code:		Water Level El:	939
Zip:		Well Drilled By:	
Well Location Desc:		Subcon ODH No:	
Screen Slot Size:		Well Seal RPT No:	
Attatch Status:		Date Added:	
Screen Diam:		Added By:	
Screen Type:		Date Changed:	
Screen Mat:		Zone Code:	
Screened Intvl From:		Horiz X:	
Screened Intvl To:		Horiz Y:	
Sustained Yield:		Horiz Datum Code:	
Dem Elev:	942.7	Latitude:	40.4047
Case Lengt:	30	Longitude:	-83.28505
Completion:	1316476800000	Changed By:	
Draw Down Test Dur:			
Sec Owner Name:	ADONGO, PETE		
Comments:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
38	NNW	0.82	4,326.44	947.15	WATER WELLS

Well Log No:	2006042	Pump Type:	
Permit No:		Pump Capacity:	
Lot No:		Pump Set At:	
Sect No:		Pitless Type:	
Loc No:		Pump Inst By:	
Well Type Code:	W	Elev Source:	
Drill Type Code:	GEOPROBE	U Version:	
Test Type Code:		End User ID:	
Well Use Code:		County Code:	
Well Use Desc:		County:	UNION

Wells and Additional Sources Detail Report

Aquifer Type Code:	GRAVEL & SILT	Township Code:	
Flowing Well Ind:		Loc Map Year:	
Test Rate:		Loc Area:	
Draw Down:		S Water Level:	12
Sub Name:		S Water Meas Pt Cd:	
Sub Map Year:		S Water Level Date:	
Sub No:		Cas HT:	
Str Direction Code:		Screen Length:	
Street No:	25	Total Depth:	20
Street Name:	BLAGROVE ST	Dt of Completion:	09/13/2006
Street Type Code:		Located Ind:	
Sec Add:		Assoc RPT Ind:	
Sec Add No:		Depth To Bedrock:	
City:	CLAIBORNE	Drill Year:	
State Code:		Water Level El:	948
Zip:		Well Drilled By:	
Well Location Desc:		Subcon ODH No:	
Screen Slot Size:		Well Seal RPT No:	
Attatch Status:		Date Added:	
Screen Diam:		Added By:	
Screen Type:		Date Changed:	
Screen Mat:		Zone Code:	
Screened Intvl From:		Horiz X:	
Screened Intvl To:		Horiz Y:	
Sustained Yield:		Horiz Datum Code:	
Dem Elev:	949.7	Latitude:	40.4281
Case Lengt:	2.5	Longitude:	-83.295967
Completion:	1158105600000	Changed By:	
Draw Down Test Dur:			
Sec Owner Name:	CERTIFIED #140,		
Comments:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
39	WNW	0.81	4,261.12	941.93	WATER WELLS

Well Log No:	94938	Pump Type:	
Permit No:		Pump Capacity:	
Lot No:		Pump Set At:	
Sect No:		Pitless Type:	
Loc No:		Pump Inst By:	
Well Type Code:	W	Elev Source:	
Drill Type Code:		U Version:	
Test Type Code:		End User ID:	
Well Use Code:		County Code:	
Well Use Desc:		County:	UNION
Aquifer Type Code:	LIMESTONE	Township Code:	

Wells and Additional Sources Detail Report

Flowing Well Ind:	Loc Map Year:
Test Rate:	Loc Area:
Draw Down:	S Water Level: 8
Sub Name:	S Water Meas Pt Cd:
Sub Map Year:	S Water Level Date:
Sub No:	Cas HT:
Str Direction Code:	Screen Length:
Street No:	Total Depth: 52
Street Name: GRAHAM-JONES RD	Dt of Completion: 08/08/1952
Street Type Code:	Located Ind:
Sec Add:	Assoc RPT Ind:
Sec Add No:	Depth To Bedrock: 50
City: CLAIBORNE	Drill Year:
State Code:	Water Level El: 942
Zip:	Well Drilled By:
Well Location Desc:	Subcon ODH No:
Screen Slot Size:	Well Seal RPT No:
Attatch Status:	Date Added:
Screen Diam:	Added By:
Screen Type:	Date Changed:
Screen Mat:	Zone Code:
Screened Intvl From:	Horiz X:
Screened Intvl To:	Horiz Y:
Sustained Yield:	Horiz Datum Code:
Dem Elev: 941.6	Latitude: 40.422507
Case Lengt: 25	Longitude: -83.304149
Completion: -549072000000	Changed By:
Draw Down Test Dur:	
Sec Owner Name: KLINE, CHARLES	
Comments:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
40	N	0.84	4,427.24	941.38	WATER WELLS

Well Log No: 9980014	Pump Type:
Permit No:	Pump Capacity:
Lot No:	Pump Set At:
Sect No:	Pitless Type:
Loc No:	Pump Inst By:
Well Type Code: W	Elev Source:
Drill Type Code:	U Version:
Test Type Code:	End User ID:
Well Use Code:	County Code:
Well Use Desc:	County: UNION
Aquifer Type Code: LIMESTONE	Township Code:
Flowing Well Ind:	Loc Map Year:

Wells and Additional Sources Detail Report

Test Rate: 103	Loc Area:
Draw Down:	S Water Level: 12
Sub Name:	S Water Meas Pt Cd:
Sub Map Year:	S Water Level Date:
Sub No:	Cas HT:
Str Direction Code:	Screen Length:
Street No:	Total Depth: 70
Street Name:	Dt of Completion: 05/02/1935
Street Type Code:	Located Ind:
Sec Add:	Assoc RPT Ind:
Sec Add No:	Depth To Bedrock: 38
City: CLAIBORNE	Drill Year:
State Code:	Water Level EI: 943
Zip:	Well Drilled By:
Well Location Desc:	Subcon ODH No:
Screen Slot Size:	Well Seal RPT No:
Attatch Status:	Date Added:
Screen Diam:	Added By:
Screen Type:	Date Changed:
Screen Mat:	Zone Code:
Screened Intvl From:	Horiz X:
Screened Intvl To:	Horiz Y:
Sustained Yield:	Horiz Datum Code:
Dem Elev: 942.4	Latitude: 40.428945
Case Lengt: 40	Longitude: -83.293062
Completion: -1094083200000	Changed By:
Draw Down Test Dur:	
Sec Owner Name: CITY OF RICHWOOD,	
Comments:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
41	NE	0.82	4,305.81	934.47	WATER WELLS

Well Log No: 410710	Pump Type:
Permit No:	Pump Capacity:
Lot No:	Pump Set At:
Sect No:	Pitless Type:
Loc No:	Pump Inst By:
Well Type Code: W	Elev Source:
Drill Type Code:	U Version:
Test Type Code:	End User ID:
Well Use Code:	County Code:
Well Use Desc:	County: UNION
Aquifer Type Code: LIMESTONE	Township Code:
Flowing Well Ind:	Loc Map Year:
Test Rate:	Loc Area:

Wells and Additional Sources Detail Report

Draw Down:		S Water Level:	3
Sub Name:		S Water Meas Pt Cd:	
Sub Map Year:		S Water Level Date:	
Sub No:		Cas HT:	
Str Direction Code:		Screen Length:	
Street No:		Total Depth:	39
Street Name:	HOSKINS SR	Dt of Completion:	08/11/1970
Street Type Code:		Located Ind:	
Sec Add:		Assoc RPT Ind:	
Sec Add No:		Depth To Bedrock:	37
City:	CLAIBORNE	Drill Year:	
State Code:		Water Level El:	936
Zip:		Well Drilled By:	
Well Location Desc:		Subcon ODH No:	
Screen Slot Size:		Well Seal RPT No:	
Attatch Status:		Date Added:	
Screen Diam:		Added By:	
Screen Type:		Date Changed:	
Screen Mat:		Zone Code:	
Screened Intvl From:		Horiz X:	
Screened Intvl To:		Horiz Y:	
Sustained Yield:		Horiz Datum Code:	
Dem Elev:	935.6	Latitude:	40.424399
Case Lengt:	27	Longitude:	-83.276594
Completion:	19180800000	Changed By:	
Draw Down Test Dur:			
Sec Owner Name:	GIBSON, TODD		
Comments:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
42	N	0.85	4,485.03	941.78	WATER WELLS

Well Log No:	171372	Pump Type:	
Permit No:		Pump Capacity:	
Lot No:		Pump Set At:	
Sect No:		Pitless Type:	
Loc No:		Pump Inst By:	
Well Type Code:	W	Elev Source:	
Drill Type Code:		U Version:	
Test Type Code:		End User ID:	
Well Use Code:		County Code:	
Well Use Desc:		County:	UNION
Aquifer Type Code:	LIMESTONE	Township Code:	
Flowing Well Ind:		Loc Map Year:	
Test Rate:		Loc Area:	
Draw Down:		S Water Level:	6

Wells and Additional Sources Detail Report

Sub Name:	S Water Meas Pt Cd:
Sub Map Year:	S Water Level Date:
Sub No:	Cas HT:
Str Direction Code:	Screen Length:
Street No:	Total Depth: 30
Street Name: SR 47	Dt of Completion: 08/29/1956
Street Type Code:	Located Ind:
Sec Add:	Assoc RPT Ind:
Sec Add No:	Depth To Bedrock: 19
City: CLAIBORNE	Drill Year:
State Code:	Water Level El: 941
Zip:	Well Drilled By:
Well Location Desc:	Subcon ODH No:
Screen Slot Size:	Well Seal RPT No:
Attatch Status:	Date Added:
Screen Diam:	Added By:
Screen Type:	Date Changed:
Screen Mat:	Zone Code:
Screened Intvl From:	Horiz X:
Screened Intvl To:	Horiz Y:
Sustained Yield:	Horiz Datum Code:
Dem Elev: 942.9	Latitude: 40.429201
Case Leng: 23	Longitude: -83.287536
Completion: -421027200000	Changed By:
Draw Down Test Dur:	
Sec Owner Name: MCMAHON, TOM	
Comments:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
44	NW	0.87	4,580.28	940.45	WATER WELLS

Well Log No: 76491	Pump Type:
Permit No:	Pump Capacity:
Lot No:	Pump Set At:
Sect No:	Pitless Type:
Loc No:	Pump Inst By:
Well Type Code: W	Elev Source:
Drill Type Code:	U Version:
Test Type Code:	End User ID:
Well Use Code:	County Code:
Well Use Desc:	County: UNION
Aquifer Type Code: LIMESTONE	Township Code:
Flowing Well Ind:	Loc Map Year:
Test Rate:	Loc Area:
Draw Down:	S Water Level: 6.5
Sub Name:	S Water Meas Pt Cd:

Wells and Additional Sources Detail Report

Sub Map Year:	S Water Level Date:
Sub No:	Cas HT:
Str Direction Code:	Screen Length:
Street No:	Total Depth: 30
Street Name: KINNEY PI	Dt of Completion:
Street Type Code:	Located Ind:
Sec Add:	Assoc RPT Ind:
Sec Add No:	Depth To Bedrock: 22
City: CLAIBORNE	Drill Year:
State Code:	Water Level El: 941
Zip:	Well Drilled By:
Well Location Desc:	Subcon ODH No:
Screen Slot Size:	Well Seal RPT No:
Attatch Status:	Date Added:
Screen Diam:	Added By:
Screen Type:	Date Changed:
Screen Mat:	Zone Code:
Screened Intvl From:	Horiz X:
Screened Intvl To:	Horiz Y:
Sustained Yield:	Horiz Datum Code:
Dem Elev: 940.8	Latitude: 40.423989
Case Lengt: 24	Longitude: -83.304309
Completion:	Changed By:
Draw Down Test Dur:	
Sec Owner Name: RIDGEWAY, JOE	
Comments:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
45	NE	0.88	4,636.05	934.76	WATER WELLS

Well Log No: 208687	Pump Type:
Permit No:	Pump Capacity:
Lot No:	Pump Set At:
Sect No:	Pitless Type:
Loc No:	Pump Inst By:
Well Type Code: W	Elev Source:
Drill Type Code:	U Version:
Test Type Code:	End User ID:
Well Use Code:	County Code:
Well Use Desc:	County: UNION
Aquifer Type Code: LIMESTONE	Township Code:
Flowing Well Ind:	Loc Map Year:
Test Rate:	Loc Area:
Draw Down:	S Water Level: 2.5
Sub Name:	S Water Meas Pt Cd:
Sub Map Year:	S Water Level Date:

Wells and Additional Sources Detail Report

Sub No:	Cas HT:
Str Direction Code:	Screen Length:
Street No:	Total Depth: 45
Street Name: HOSKINS CR	Dt of Completion: 02/01/1958
Street Type Code:	Located Ind:
Sec Add:	Assoc RPT Ind:
Sec Add No:	Depth To Bedrock: 40
City: CLAIBORNE	Drill Year:
State Code:	Water Level El: 934
Zip:	Well Drilled By:
Well Location Desc:	Subcon ODH No:
Screen Slot Size:	Well Seal RPT No:
Attatch Status:	Date Added:
Screen Diam:	Added By:
Screen Type:	Date Changed:
Screen Mat:	Zone Code:
Screened Intvl From:	Horiz X:
Screened Intvl To:	Horiz Y:
Sustained Yield:	Horiz Datum Code:
Dem Elev: 935.7	Latitude: 40.424759
Case Lengt: 22	Longitude: -83.275452
Completion: -376012800000	Changed By:
Draw Down Test Dur:	
Sec Owner Name: CHENEYS, GERGER	
Comments:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
46	NE	0.88	4,638.93	935.04	WATER WELLS

Well Log No: 171365	Pump Type:
Permit No:	Pump Capacity:
Lot No:	Pump Set At:
Sect No:	Pitless Type:
Loc No:	Pump Inst By:
Well Type Code: W	Elev Source:
Drill Type Code:	U Version:
Test Type Code:	End User ID:
Well Use Code:	County Code:
Well Use Desc:	County: UNION
Aquifer Type Code: LIMESTONE	Township Code:
Flowing Well Ind:	Loc Map Year:
Test Rate:	Loc Area:
Draw Down:	S Water Level: 2.7
Sub Name:	S Water Meas Pt Cd:
Sub Map Year:	S Water Level Date:
Sub No:	Cas HT:

Wells and Additional Sources Detail Report

Str Direction Code:	Screen Length:
Street No:	Total Depth: 31
Street Name: HOSKINS CR	Dt of Completion: 07/14/1956
Street Type Code:	Located Ind:
Sec Add:	Assoc RPT Ind:
Sec Add No:	Depth To Bedrock: 15
City: CLAIBORNE	Drill Year:
State Code:	Water Level EI: 935
Zip:	Well Drilled By:
Well Location Desc:	Subcon ODH No:
Screen Slot Size:	Well Seal RPT No:
Attatch Status:	Date Added:
Screen Diam:	Added By:
Screen Type:	Date Changed:
Screen Mat:	Zone Code:
Screened Intvl From:	Horiz X:
Screened Intvl To:	Horiz Y:
Sustained Yield:	Horiz Datum Code:
Dem Elev: 936	Latitude: 40.424854
Case Lengt: 23	Longitude: -83.275537
Completion: -425001600000	Changed By:
Draw Down Test Dur:	
Sec Owner Name: CHENEY CONSTRUCTION,	
Comments:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
47	N	0.91	4,779.87	941.66	WATER WELLS

Well Log No: 9980013	Pump Type:
Permit No:	Pump Capacity:
Lot No:	Pump Set At:
Sect No:	Pitless Type:
Loc No:	Pump Inst By:
Well Type Code: W	Elev Source:
Drill Type Code:	U Version:
Test Type Code:	End User ID:
Well Use Code:	County Code:
Well Use Desc:	County: UNION
Aquifer Type Code: LIMESTONE	Township Code:
Flowing Well Ind:	Loc Map Year:
Test Rate: 103	Loc Area:
Draw Down:	S Water Level: 12
Sub Name:	S Water Meas Pt Cd:
Sub Map Year:	S Water Level Date:
Sub No:	Cas HT:
Str Direction Code:	Screen Length:

Wells and Additional Sources Detail Report

Street No:	Total Depth:	60
Street Name:	Dt of Completion:	05/04/1935
Street Type Code:	Located Ind:	
Sec Add:	Assoc RPT Ind:	
Sec Add No:	Depth To Bedrock:	35
City: CLAIBORNE	Drill Year:	
State Code:	Water Level El:	944
Zip:	Well Drilled By:	
Well Location Desc:	Subcon ODH No:	
Screen Slot Size:	Well Seal RPT No:	
Attatch Status:	Date Added:	
Screen Diam:	Added By:	
Screen Type:	Date Changed:	
Screen Mat:	Zone Code:	
Screened Intvl From:	Horiz X:	
Screened Intvl To:	Horiz Y:	
Sustained Yield:	Horiz Datum Code:	
Dem Elev: 942.5	Latitude:	40.429885
Case Lengt: 40	Longitude:	-83.293395
Completion: -1093910400000	Changed By:	
Draw Down Test Dur:		
Sec Owner Name: CITY OF RICHWOOD,		
Comments:		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
49	ENE	0.89	4,722.99	935.22	WATER WELLS

Well Log No: 363664	Pump Type:
Permit No:	Pump Capacity:
Lot No:	Pump Set At:
Sect No:	Pitless Type:
Loc No:	Pump Inst By:
Well Type Code: W	Elev Source:
Drill Type Code:	U Version:
Test Type Code:	End User ID:
Well Use Code:	County Code:
Well Use Desc:	County: UNION
Aquifer Type Code: LIMESTONE	Township Code:
Flowing Well Ind:	Loc Map Year:
Test Rate:	Loc Area:
Draw Down:	S Water Level: 7
Sub Name:	S Water Meas Pt Cd:
Sub Map Year:	S Water Level Date:
Sub No:	Cas HT:
Str Direction Code:	Screen Length:
Street No:	Total Depth: 54

Wells and Additional Sources Detail Report

Street Name:	HOSKINS CR	Dt of Completion:	07/07/1967
Street Type Code:		Located Ind:	
Sec Add:		Assoc RPT Ind:	
Sec Add No:		Depth To Bedrock:	52
City:	CLAIBORNE	Drill Year:	
State Code:		Water Level El:	935
Zip:		Well Drilled By:	
Well Location Desc:		Subcon ODH No:	
Screen Slot Size:		Well Seal RPT No:	
Attatch Status:		Date Added:	
Screen Diam:		Added By:	
Screen Type:		Date Changed:	
Screen Mat:		Zone Code:	
Screened Intvl From:		Horiz X:	
Screened Intvl To:		Horiz Y:	
Sustained Yield:		Horiz Datum Code:	
Dem Elev:	935.8	Latitude:	40.423848
Case Length:	25	Longitude:	-83.27423
Completion:	-78537600000	Changed By:	
Draw Down Test Dur:			
Sec Owner Name:	ROBERTS, R		
Comments:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
50	E	0.90	4,747.07	937.02	WATER WELLS

Well Log No:	2039568	Pump Type:	
Permit No:		Pump Capacity:	
Lot No:		Pump Set At:	
Sect No:		Pitless Type:	
Loc No:		Pump Inst By:	
Well Type Code:	W	Elev Source:	
Drill Type Code:	ROTARY	U Version:	
Test Type Code:		End User ID:	
Well Use Code:		County Code:	
Well Use Desc:		County:	UNION
Aquifer Type Code:	LIMESTONE	Township Code:	
Flowing Well Ind:		Loc Map Year:	
Test Rate:	15	Loc Area:	
Draw Down:		S Water Level:	14.5
Sub Name:		S Water Meas Pt Cd:	
Sub Map Year:		S Water Level Date:	
Sub No:		Cas HT:	
Str Direction Code:		Screen Length:	
Street No:	10998	Total Depth:	110
Street Name:	TAWA RD	Dt of Completion:	09/06/2012

Wells and Additional Sources Detail Report

Street Type Code:	Located Ind:
Sec Add:	Assoc RPT Ind:
Sec Add No:	Depth To Bedrock: 20
City: CLAIRBORNE	Drill Year:
State Code:	Water Level El: 938
Zip:	Well Drilled By:
Well Location Desc:	Subcon ODH No:
Screen Slot Size:	Well Seal RPT No:
Attatch Status:	Date Added:
Screen Diam:	Added By:
Screen Type:	Date Changed:
Screen Mat:	Zone Code:
Screened Intvl From:	Horiz X:
Screened Intvl To:	Horiz Y:
Sustained Yield:	Horiz Datum Code:
Dem Elev: 938.3	Latitude: 40.41865
Case Lengt: 30	Longitude: -83.271667
Completion: 1346889600000	Changed By:
Draw Down Test Dur:	
Sec Owner Name: PRICE, GALE	
Comments:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
51	ENE	0.90	4,751.94	935.44	WATER WELLS

Well Log No: 133303	Pump Type:
Permit No:	Pump Capacity:
Lot No:	Pump Set At:
Sect No:	Pitless Type:
Loc No:	Pump Inst By:
Well Type Code: W	Elev Source:
Drill Type Code:	U Version:
Test Type Code:	End User ID:
Well Use Code:	County Code:
Well Use Desc:	County: UNION
Aquifer Type Code: LIMESTONE	Township Code:
Flowing Well Ind:	Loc Map Year:
Test Rate:	Loc Area:
Draw Down:	S Water Level: 5
Sub Name:	S Water Meas Pt Cd:
Sub Map Year:	S Water Level Date:
Sub No:	Cas HT:
Str Direction Code:	Screen Length:
Street No:	Total Depth: 31
Street Name: HOSKINS RD	Dt of Completion: 05/14/1954
Street Type Code:	Located Ind:

Wells and Additional Sources Detail Report

Sec Add:	Assoc RPT Ind:
Sec Add No:	Depth To Bedrock: 18
City: CLAIBORNE	Drill Year:
State Code:	Water Level El: 935
Zip:	Well Drilled By:
Well Location Desc:	Subcon ODH No:
Screen Slot Size:	Well Seal RPT No:
Attatch Status:	Date Added:
Screen Diam:	Added By:
Screen Type:	Date Changed:
Screen Mat:	Zone Code:
Screened Intvl From:	Horiz X:
Screened Intvl To:	Horiz Y:
Sustained Yield:	Horiz Datum Code:
Dem Elev: 936.3	Latitude: 40.423967
Case Lengt: 18	Longitude: -83.274206
Completion: -493430400000	Changed By:
Draw Down Test Dur:	
Sec Owner Name: ROBERTS, JESS	
Comments:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
52	ENE	0.90	4,769.09	935.36	WATER WELLS

Well Log No: 133302	Pump Type:
Permit No:	Pump Capacity:
Lot No:	Pump Set At:
Sect No:	Pitless Type:
Loc No:	Pump Inst By:
Well Type Code: W	Elev Source:
Drill Type Code:	U Version:
Test Type Code:	End User ID:
Well Use Code:	County Code:
Well Use Desc:	County: UNION
Aquifer Type Code: LIMESTONE	Township Code:
Flowing Well Ind:	Loc Map Year:
Test Rate:	Loc Area:
Draw Down:	S Water Level: 4
Sub Name:	S Water Meas Pt Cd:
Sub Map Year:	S Water Level Date:
Sub No:	Cas HT:
Str Direction Code:	Screen Length:
Street No:	Total Depth: 30
Street Name: HOSKINS RD	Dt of Completion: 05/11/1954
Street Type Code:	Located Ind:
Sec Add:	Assoc RPT Ind:

Wells and Additional Sources Detail Report

Sec Add No:		Depth To Bedrock:	17
City:	CLAIBORNE	Drill Year:	
State Code:		Water Level EI:	936
Zip:		Well Drilled By:	
Well Location Desc:		Subcon ODH No:	
Screen Slot Size:		Well Seal RPT No:	
Attatch Status:		Date Added:	
Screen Diam:		Added By:	
Screen Type:		Date Changed:	
Screen Mat:		Zone Code:	
Screened Intvl From:		Horiz X:	
Screened Intvl To:		Horiz Y:	
Sustained Yield:		Horiz Datum Code:	
Dem Elev:	936.3	Latitude:	40.424029
Case Lengt:	22	Longitude:	-83.274185
Completion:	-493689600000	Changed By:	
Draw Down Test Dur:			
Sec Owner Name:	ROBERTS, JESS		
Comments:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
54	NNE	0.94	4,988.54	940.57	WATER WELLS

Well Log No:	1008938	Pump Type:	
Permit No:		Pump Capacity:	
Lot No:		Pump Set At:	
Sect No:		Pitless Type:	
Loc No:		Pump Inst By:	
Well Type Code:	W	Elev Source:	
Drill Type Code:	ROTARY	U Version:	
Test Type Code:		End User ID:	
Well Use Code:		County Code:	
Well Use Desc:		County:	UNION
Aquifer Type Code:	LIMESTONE	Township Code:	
Flowing Well Ind:		Loc Map Year:	
Test Rate:	20	Loc Area:	
Draw Down:		S Water Level:	16
Sub Name:		S Water Meas Pt Cd:	
Sub Map Year:		S Water Level Date:	
Sub No:		Cas HT:	
Str Direction Code:		Screen Length:	
Street No:	11547	Total Depth:	72
Street Name:	SR 47	Dt of Completion:	09/16/2008
Street Type Code:		Located Ind:	
Sec Add:		Assoc RPT Ind:	
Sec Add No:		Depth To Bedrock:	25

Wells and Additional Sources Detail Report

City:	CLAIBORNE	Drill Year:	
State Code:		Water Level El:	942
Zip:		Well Drilled By:	
Well Location Desc:		Subcon ODH No:	
Screen Slot Size:		Well Seal RPT No:	
Attatch Status:		Date Added:	
Screen Diam:		Added By:	
Screen Type:		Date Changed:	
Screen Mat:		Zone Code:	
Screened Intvl From:		Horiz X:	
Screened Intvl To:		Horiz Y:	
Sustained Yield:		Horiz Datum Code:	
Dem Elev:	941.3	Latitude:	40.43
Case Lengt:		Longitude:	-83.283283
Completion:	1221523200000	Changed By:	
Draw Down Test Dur:			
Sec Owner Name:	APT, EILEEN		
Comments:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
55	NNE	0.95	5,042.05	940.79	WATER WELLS

Well Log No:	210240	Pump Type:	
Permit No:		Pump Capacity:	
Lot No:		Pump Set At:	
Sect No:		Pitless Type:	
Loc No:		Pump Inst By:	
Well Type Code:	W	Elev Source:	
Drill Type Code:		U Version:	
Test Type Code:		End User ID:	
Well Use Code:		County Code:	
Well Use Desc:		County:	UNION
Aquifer Type Code:	LIMESTONE	Township Code:	
Flowing Well Ind:		Loc Map Year:	
Test Rate:		Loc Area:	
Draw Down:		S Water Level:	8.5
Sub Name:		S Water Meas Pt Cd:	
Sub Map Year:		S Water Level Date:	
Sub No:		Cas HT:	
Str Direction Code:		Screen Length:	
Street No:		Total Depth:	32
Street Name:	SR 47	Dt of Completion:	09/02/1961
Street Type Code:		Located Ind:	
Sec Add:		Assoc RPT Ind:	
Sec Add No:		Depth To Bedrock:	21
City:	CLAIBORNE	Drill Year:	

Wells and Additional Sources Detail Report

State Code:		Water Level El:	942
Zip:		Well Drilled By:	
Well Location Desc:		Subcon ODH No:	
Screen Slot Size:		Well Seal RPT No:	
Attatch Status:		Date Added:	
Screen Diam:		Added By:	
Screen Type:		Date Changed:	
Screen Mat:		Zone Code:	
Screened Intvl From:		Horiz X:	
Screened Intvl To:		Horiz Y:	
Sustained Yield:		Horiz Datum Code:	
Dem Elev:	941.1	Latitude:	40.430021
Case Length:	26	Longitude:	-83.282744
Completion:	-262915200000	Changed By:	
Draw Down Test Dur:			
Sec Owner Name:	CODER, MARION		
Comments:			

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
56	NNW	0.97	5,142.44	940.60	WATER WELLS

Well Log No:	37317	Pump Type:	
Permit No:		Pump Capacity:	
Lot No:		Pump Set At:	
Sect No:		Pitless Type:	
Loc No:		Pump Inst By:	
Well Type Code:	W	Elev Source:	
Drill Type Code:		U Version:	
Test Type Code:		End User ID:	
Well Use Code:		County Code:	
Well Use Desc:		County:	UNION
Aquifer Type Code:	ROCK	Township Code:	
Flowing Well Ind:		Loc Map Year:	
Test Rate:		Loc Area:	
Draw Down:		S Water Level:	12
Sub Name:		S Water Meas Pt Cd:	
Sub Map Year:		S Water Level Date:	
Sub No:		Cas HT:	
Str Direction Code:		Screen Length:	
Street No:		Total Depth:	49
Street Name:	FRANKLIN ST	Dt of Completion:	11/04/1948
Street Type Code:		Located Ind:	
Sec Add:		Assoc RPT Ind:	
Sec Add No:		Depth To Bedrock:	40
City:	CLAIBORNE	Drill Year:	
State Code:		Water Level El:	944

Wells and Additional Sources Detail Report

Zip:	Well Drilled By:
Well Location Desc:	Subcon ODH No:
Screen Slot Size:	Well Seal RPT No:
Attatch Status:	Date Added:
Screen Diam:	Added By:
Screen Type:	Date Changed:
Screen Mat:	Zone Code:
Screened Intvl From:	Horiz X:
Screened Intvl To:	Horiz Y:
Sustained Yield:	Horiz Datum Code:
Dem Elev: 941.3	Latitude: 40.429978
Case Lengt: 38	Longitude: -83.297737
Completion: -667699200000	Changed By:
Draw Down Test Dur:	
Sec Owner Name: GODWIN, RALPH	
Comments:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
57	WNW	0.97	5,117.58	941.75	WATER WELLS

Well Log No: 422325	Pump Type:
Permit No:	Pump Capacity:
Lot No:	Pump Set At:
Sect No:	Pitless Type:
Loc No:	Pump Inst By:
Well Type Code: W	Elev Source:
Drill Type Code:	U Version:
Test Type Code:	End User ID:
Well Use Code:	County Code:
Well Use Desc:	County: UNION
Aquifer Type Code: LIMESTONE	Township Code:
Flowing Well Ind:	Loc Map Year:
Test Rate:	Loc Area:
Draw Down:	S Water Level: 6
Sub Name:	S Water Meas Pt Cd:
Sub Map Year:	S Water Level Date:
Sub No:	Cas HT:
Str Direction Code:	Screen Length:
Street No:	Total Depth: 37
Street Name: MARRIOTT SR	Dt of Completion: 07/07/1971
Street Type Code:	Located Ind:
Sec Add:	Assoc RPT Ind:
Sec Add No:	Depth To Bedrock: 35
City: CLAIBORNE	Drill Year:
State Code:	Water Level El: 944
Zip:	Well Drilled By:

Wells and Additional Sources Detail Report

Well Location Desc:	Subcon ODH No:
Screen Slot Size:	Well Seal RPT No:
Attatch Status:	Date Added:
Screen Diam:	Added By:
Screen Type:	Date Changed:
Screen Mat:	Zone Code:
Screened Intvl From:	Horiz X:
Screened Intvl To:	Horiz Y:
Sustained Yield:	Horiz Datum Code:
Dem Elev: 942.8	Latitude: 40.424366
Case Lengt: 27	Longitude: -83.30629
Completion: 47692800000	Changed By:
Draw Down Test Dur:	
Sec Owner Name: DURBAN, HAROLD	
Comments:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
58	NNW	0.99	5,226.16	948.21	WATER WELLS

Well Log No: 37318	Pump Type:
Permit No:	Pump Capacity:
Lot No:	Pump Set At:
Sect No:	Pitless Type:
Loc No:	Pump Inst By:
Well Type Code: W	Elev Source:
Drill Type Code:	U Version:
Test Type Code:	End User ID:
Well Use Code:	County Code:
Well Use Desc:	County: UNION
Aquifer Type Code: ROCK	Township Code:
Flowing Well Ind:	Loc Map Year:
Test Rate:	Loc Area:
Draw Down:	S Water Level: 16
Sub Name:	S Water Meas Pt Cd:
Sub Map Year:	S Water Level Date:
Sub No:	Cas HT:
Str Direction Code:	Screen Length:
Street No:	Total Depth: 51
Street Name: FRANKLIN ST	Dt of Completion: 11/11/1948
Street Type Code:	Located Ind:
Sec Add:	Assoc RPT Ind:
Sec Add No:	Depth To Bedrock: 25
City: CLAIBORNE	Drill Year:
State Code:	Water Level El: 947
Zip:	Well Drilled By:
Well Location Desc:	Subcon ODH No:

Wells and Additional Sources Detail Report

Screen Slot Size:	Well Seal RPT No:
Attatch Status:	Date Added:
Screen Diam:	Added By:
Screen Type:	Date Changed:
Screen Mat:	Zone Code:
Screened Intvl From:	Horiz X:
Screened Intvl To:	Horiz Y:
Sustained Yield:	Horiz Datum Code:
Dem Elev: 948.9	Latitude: 40.430645
Case Length: 35	Longitude: -83.296191
Completion: -667094400000	Changed By:
Draw Down Test Dur:	
Sec Owner Name: WALTER & CASE ELEVAT,	
Comments:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
59	ENE	0.99	5,246.18	927.49	WATER WELLS

Well Log No: 2063344	Pump Type:
Permit No:	Pump Capacity:
Lot No:	Pump Set At:
Sect No:	Pitless Type:
Loc No:	Pump Inst By:
Well Type Code: W	Elev Source:
Drill Type Code: ROTARY	U Version:
Test Type Code:	End User ID:
Well Use Code:	County Code:
Well Use Desc:	County: UNION
Aquifer Type Code: LIMESTONE	Township Code:
Flowing Well Ind:	Loc Map Year:
Test Rate: 30	Loc Area:
Draw Down:	S Water Level: 3
Sub Name:	S Water Meas Pt Cd:
Sub Map Year:	S Water Level Date:
Sub No:	Cas HT:
Str Direction Code:	Screen Length:
Street No: 11000	Total Depth: 62
Street Name: HOSKINS RD	Dt of Completion: 07/17/2017
Street Type Code:	Located Ind:
Sec Add:	Assoc RPT Ind:
Sec Add No:	Depth To Bedrock: 18
City: CLAIBORNE	Drill Year:
State Code:	Water Level El: 900
Zip:	Well Drilled By:
Well Location Desc:	Subcon ODH No:
Screen Slot Size:	Well Seal RPT No:

Wells and Additional Sources Detail Report

Attatch Status:		Date Added:	
Screen Diam:		Added By:	
Screen Type:		Date Changed:	
Screen Mat:		Zone Code:	
Screened Intvl From:		Horiz X:	
Screened Intvl To:		Horiz Y:	
Sustained Yield:		Horiz Datum Code:	
Dem Elev:		Latitude:	40.42523
Case Lengt:	27	Longitude:	-83.27318
Completion:	1500249600000	Changed By:	
Draw Down Test Dur:			
Sec Owner Name:	P & D BUILDERS,		
Comments:			

Radon Information

This section lists any relevant radon information found for the target property.

Federal EPA Radon Zone for *UNION* County: 1

Zone 1: Counties with predicted average indoor radon screening levels greater than 4 pCi/L

Zone 2: Counties with predicted average indoor radon screening levels from 2 to 4 pCi/L

Zone 3: Counties with predicted average indoor radon screening levels less than 2 pCi/L

Federal Area Radon Information for *UNION* County

No Measures/Homes:	6
Geometric Mean:	0.9
Arithmetic Mean:	1.5
Median:	1.6
Standard Deviation:	1.1
Maximum:	2.9
% >4 pCi/L:	0
% >20 pCi/L:	0
Notes on Data Table:	TABLE 1. Screening indoor radon data from the EPA/State Residential Radon Survey of Ohio conducted during 1988-89. Data represent 2-7 day charcoal canister measurements from the lowest level of each home tested.

Federal Sources

FEMA National Flood Hazard Layer

FEMA FLOOD

The National Flood Hazard Layer (NFHL) data incorporates Flood Insurance Rate Map (FIRM) databases published by the Federal Emergency Management Agency (FEMA), and any Letters Of Map Revision (LOMRs) that have been issued against those databases since their publication date. The FIRM Database is the digital, geospatial version of the flood hazard information shown on the published paper FIRMs. The FIRM Database depicts flood risk information and supporting data used to develop the risk data. The FIRM Database is derived from Flood Insurance Studies (FISs), previously published FIRMs, flood hazard analyses performed in support of the FISs and FIRMs, and new mapping data, where available.

Indoor Radon Data

INDOOR RADON

Indoor radon measurements tracked by the Environmental Protection Agency(EPA) and the State Residential Radon Survey.

Public Water Systems Violations and Enforcement Data

PWSV

List of drinking water violations and enforcement actions from the Safe Drinking Water Information System (SDWIS) made available by the Drinking Water Protection Division of the US EPA's Office of Groundwater and Drinking Water. Enforcement sensitive actions are not included in the data released by the EPA. Address information provided in SWDIS may correspond either with the physical location of the water system, or with a contact address.

Radon Zone Level

RADON ZONE

Areas showing the level of Radon Zones (level 1, 2 or 3) by county. This data is maintained by the Environmental Protection Agency (EPA).

Safe Drinking Water Information System (SDWIS)

SDWIS

The Safe Drinking Water Information System (SDWIS) contains information about public water systems as reported to US Environmental Protection Agency (EPA) by the states. Addresses may correspond with the location of the water system, or with a contact address.

Soil Survey Geographic database

SSURGO

The Soil Survey Geographic database (SSURGO) contains information about soil as collected by the National Cooperative Soil Survey at the Natural Resources Conservation Service (NRCS). Soil maps outline areas called map units. The map units are linked to soil properties in a database. Each map unit may contain one to three major components and some minor components.

U.S. Fish & Wildlife Service Wetland Data

US WETLAND

The U.S. Fish & Wildlife Service Wetland layer represents the approximate location and type of wetlands and deepwater habitats in the United States.

USGS Current Topo

US TOPO

US Topo topographic maps are produced by the National Geospatial Program of the U.S. Geological Survey (USGS). The project was launched in late 2009, and the term "US Topo" refers specifically to quadrangle topographic maps published in 2009 and later.

USGS Geology

US GEOLOGY

Seamless maps depicting geological information provided by the United States Geological Survey (USGS).

USGS National Water Information System

FED USGS

The U.S. Geological Survey (USGS)'s National Water Information System (NWIS) is the nation's principal repository of water resources data. This database includes comprehensive information of well-construction details, time-series data for gage height, streamflow, groundwater level, and precipitation and water use data.

State Sources

Oil and Gas Wells

OGW

Oil and Gas Well Data by county collected by the Ohio Department of Natural Resources.

Public Water Systems

PWS

Public water systems (PWSs) are regulated by the Ohio EPA Division of Drinking and Ground Waters (Ohio EPA DDAGW). Public water systems use either a ground water source, a surface water source or a ground water under the direct influence of surface water source.

Water Wells Log Report

WATER WELLS

Water Wells Log Report developed and maintained by Department of Natural Resources.

Liability Notice

Reliance on information in Report: The Physical Setting Report (PSR) DOES NOT replace a full Phase I Environmental Site Assessment but is solely intended to be used as a review of environmental databases and physical characteristics for the site or adjacent properties.

License for use of information in Report: No page of this report can be used without this cover page, this notice and the project property identifier. The information in Report(s) may not be modified or re-sold.

Your Liability for misuse: Using this Service and/or its reports in a manner contrary to this Notice or your agreement will be in breach of copyright and contract and ERIS may obtain damages for such mis-use, including damages caused to third parties, and gives ERIS the right to terminate your account, rescind your license to any previous reports and to bar you from future use of the Service.

No warranty of Accuracy or Liability for ERIS: The information contained in this report has been produced by ERIS Information Inc. ("ERIS") using various sources of information, including information provided by Federal and State government departments. The report applies only to the address and up to the date specified on the cover of this report, and any alterations or deviation from this description will require a new report. This report and the data contained herein does not purport to be and does not constitute a guarantee of the accuracy of the information contained herein and does not constitute a legal opinion nor medical advice. Although ERIS has endeavored to present you with information that is accurate, ERIS Information Inc. disclaims, any and all liability for any errors, omissions, or inaccuracies in such information and data, whether attributable to inadvertence, negligence or otherwise, and for any consequences arising therefrom. Liability on the part of ERIS is limited to the monetary value paid for this report.

Trademark and Copyright: You may not use the ERIS trademarks or attribute any work to ERIS other than as outlined above. This Service and Report(s) are protected by copyright owned by ERIS Information Inc. Copyright in data used in the Service or Report(s) (the "Data") is owned by ERIS or its licensors. The Service, Report(s) and Data may not be copied or reproduced in whole or in any substantial part without prior written consent of ERIS.

SECTION XIII

TRANS-CYCLE INDUSTRIES OF OHIO, LLC

**150 Ira Bean Parkway
Richwood, Ohio 43344**

**STANDARD OPERATING PROCEDURES
(ATTACHED AS SEPARATE DOCUMENTS)**

Receiving and Accepting Shipments for Processing & Storage

Sampling & Wipe Testing

TRANS CYCLE INDUSTRIES OF OHIO, LLC
Environmental, Health, & Safety Program

Subject: Receiving & Accepting Shipments for Processing or Storage	SOP No. 800-310	SECTION Facility - General
	Date Reviewed 2/10/2021	Pages 7
Reviewed by: Chris Smith, EHS Manager		
Approved by: Craig Renner, General Manager		

Synopsis: Provision for accepting and receiving items and materials into the facility that verify compliance with applicable requirements, including inspection method, acceptance criteria, recordkeeping, labeling, marking, and storage.

1.0 Introduction

Trans-Cycle Industries of Ohio, LLC (TCI) provides utilities and major industries with equipment decommissioning, dismantling, and recycling services for non-PCB (< 50 ppm PCBs) articles along with storage of PCB regulated material for storage only. Any regulated PCB items, as defined by 40 CFR §761.3, will be stored in Area I until shipment to EPA approved disposal facilities. It should be noted that TCI will receive both regulated and non-regulated articles (e.g., electrical equipment) and debris at the facility and many shipments will consist of both regulated and non-regulated material. Provided below are the procedures for receiving, analyzing, and storage of regulated PCB Articles, PCB fluids, and PCB debris. TCI will, at all times, operate the facility in accordance with all applicable local, state, and federal regulations.

2.0 General Procedures

2.1 Personal Protective Equipment (PPE) for Receiving Material

Plant staff may choose to implement a more restrictive PPE policy with the approval of the President and Health & Safety Manager. Engineered solutions to environmental conditions and experienced staff judgment shall be used for unique conditions and situations. No employee may personally choose his/her level of PPE to be worn. Determination of PPE requirements must be approved by the President and Health & Safety Manager. While accepting shipments regardless of the PCB level of the material being received, staff shall wear, at a minimum, the following PPE:

- safety glasses with side shields or goggles
- footwear protection
- protective gloves

- long-sleeved shirt and pants or the equivalent
- protective apron or Tyvek
- hard hats

2.2 Ergonomic Considerations

Proper ergonomic techniques shall be used while handling materials; Proper techniques may include:

- Avoid bending and twisting while lifting materials from vehicles.
- Use mobile equipment to move materials from the vehicle to the conveyor area.
- Staff shall test materials, send samples to the lab. (turnaround time is approx. 24 hours)
- Precautions for the overall health and safety of staff shall be addressed, (e.g., training, PPE). Staff shall be trained within six months of hire or starting a new position or shall be supervised by trained and experienced staff.
- Staff shall endeavor to prevent spills and impacts to the environment during all site activities.

2.3 Unloading Vehicles

TCI plant personnel unloading trucks/trailers shall do so in a manner that is generally safe for plant personnel to access and handle. The unloading of material should not expose personnel to unsafe hazards. If waste is delivered in a manner that is unsafe, the Shift Supervisor, in coordination with the President, will determine the following options:

- Unload or remove the materials so the load is safe to handle.
- Secure additional personnel and/or equipment to ensure the waste is safely accessible.
- Reject the material and inform the Generator.

2.4 Spill Kits and Spill Clean-up Procedures

Spill kits will be stocked and readily available. Spill Kits will be inspected monthly to ensure they contain all needed items to respond to a regulated spill. After each and every spill incident, spill kits will be immediately re-stocked.

In the event of a spill, all personnel will follow the PCB Spill Clean-up Policy at 40 CFR 761 Subpart G. Employees will be trained in proper spill clean-up and containment procedures within 6 months of being hired and will be strictly supervised by Supervisory personnel prior to being trained and for 6 months following the training period.

2.5 Signage

Signage in the facility pertains to the following:

- Smoking prohibited.
- Designated PCB Storage Areas
- Directing traffic flow into and out of Area I – PCB Storage Area.
- Exit locations.
- Emergency Evacuation Routes
- Spill Kits
- Fire Extinguishers
- Emergency Alarm locations.

3.0 Receiving Shipments

3.1 Accepted Waste Types

TCI may receive multiple shipments on a daily basis and during multiple shifts.

The types of materials received at the facility will generally fall into the following categories as defined by 40 CFR 761.3:

- Non-PCB (< 50 ppm PCBs) articles (e.g., electrical equipment) drained and undrained
- Non-PCB fluids
- Non-PCB debris
- PCB-contaminated (50-499 ppm PCBs) articles, drained and undrained
- PCB-contaminated article containers
- PCB-contaminated fluids in drums
- PCB-contaminated debris
- PCB (\geq 500 ppm PCBs) articles, drained and undrained
- PCB article containers
- PCB fluids in drums
- PCB debris
- Assumed PCB (\geq 500 ppm PCBs) articles, drained and undrained
- Assumed PCB article containers
- Assumed PCB fluids in drums
- Assumed PCB debris

3.2 Waste Types Not Accepted and their Exceptions

TCI does not accept or process any items containing the following with the noted exceptions:

- Friable asbestos
 - Non-friable asbestos-containing materials contain asbestos fibers that are bound in tar-like or petroleum-based materials (such as roofing tar) and will be accepted for proper disposal.
- Explosives shall not be accepted.

- Radioactive material shall not be accepted.
 - Naturally occurring radioactive materials are sometimes found in electrical equipment. These items will be handled according to Generator's requirements.
- Hazardous wastes as defined by 40 CFR Subtitle C of the Resource Conservation & Recovery Act.

Each Generator will certify, prior to shipment, that the items being shipped do not meet any of the above excluded categories.

3.3 Unidentified Waste

On occasion, TCI may receive shipments of unidentified waste. Prior to accepting any material into the facility, the type, quantity, and weight must be verified to determine that it meets one of the accepted waste types as shown in 3.1 above.

If the material meets the accepted waste types, then it may be accepted into the facility. If the material is determined to meet one of the non-accepted waste types as shown in 3.2 above, it will be rejected and returned to the Generator.

3.4 Waste Discrepancies

Deficiencies and non-conforming wastes that are noted during the receiving process will be handled in the following manner.

- Discrepancies will be documented and a letter/email provided to the Generator.
- Discrepancies will be resolved by written documentation between TCI and the Generator until the discrepancy no longer exists.
 - The regulations require manifest discrepancies be resolved within 15 days of receipt. 40 CFR761.215.
- In the case of discrepancies identified in the field or prior to receipt at the facility, Office Personnel will be notified in advance by telephone and, where possible, an email sent detailing the discrepancy.
 - Office Personnel will make a determination, after reviewing the Waste Profile and contacting the Generator if necessary), whether or not the waste material can ship or manifests/shipping documentation can be corrected.

3.5 Receiving Waste Materials into the Facility

Once a determination is made verifying that the waste can be accepted into the facility, each item will be segregated as it comes off the truck/trailers into the following categories:

- non-regulated (< 50 ppm PCBs)
- regulated (\geq 50 ppm PCBs) as verified by analysis or nameplate
- assumed PCB (\geq 500 ppm PCBs).

Each of these categories will then be further segregated by equipment type.

- Group A: capacitors, single phase pad mounts, pole mounts, debris drums
- Group B: CT's, PT's, bushings, three phase pad mounts, networks

All Group A regulated PCB material, assumed or otherwise, will be immediately placed in Building 150 Area I – PCB Storage Area. Non-regulated material will be placed into Area II slots for draining and/or processing. All Group B regulated PCB material, assumed or otherwise, will be immediately placed in Building 130 Area I – PCB Storage Area. Non-regulated material in both building 150 and 130 will be placed into Area II slots for draining and/or processing. At no time, will regulated PCB items in both building 150 and 130 be placed into Area II for storage or processing.

Each item received will be inspected for leaks. Any leaking items will be wiped down, if necessary, and either placed in a secondary containment (e.g. pan, drum, tote) or drained of all free-flowing liquids. Leaking non-regulated items will be moved to the pumping station and pumped into the bulk storage tanks. Once drained, they will be placed into secondary containment (in Area II) if still leaking or placed into an Area II slot for processing. Leaking, regulated items will be containerized, if possible, or drained using hand pumps into drums or totes. The leaking, regulated item and the drained fluid will be placed into Area I for storage. If necessary, the leaking, regulated item will be placed into a secondary containment within Area I awaiting shipment off-site for disposal. All identifying information and labels on the original regulated item will be placed on the new fluid container.

All regulated material will also be inspected for proper labeling and required identifying information. The information shown below is required for each regulated item:

- Hazardous Waste label
- Generator Name
- Generator Address
- Unique ID or Serial #
- Date removed from service (label or marking)
- Manifest #
- PCB M_L Mark

Exception: Drained, PCB-contaminated (50 - <500 ppm PCBs) articles do not require a PCB M_L Mark, Date Removed from Service or manifest.

Any items not properly labeled or not showing the required identifying information will be corrected at the time the item is placed into storage. Any missing identifying information should be available on the shipping documents (e.g., manifests). If the required identifying information is missing on the shipping documentation, the Generator will be immediately contacted to obtain the information.

3.6 Assumed PCB Material

Material shipped into the facility as assumed PCB will be tested as soon as

practical to determine the actual PCB level. (See Sampling Procedures SOP for details.) This material will be stored in Area I pending receipt of analysis.

Any items testing as PCB-contaminated (50 - < 500 ppm PCBs) will require the Generator be notified; analysis provided to the Generator; and the manifest corrected as directed by the Generator. These items will remain in Area I awaiting shipment off-site for disposal. Any label or identifying information that needs to be corrected will be done upon receipt of analysis.

Any items testing as PCB will remain in Area I awaiting shipment for off-site disposal.

Any items testing as non-regulated (< 50 ppm PCBs) will require the Generator be notified; analysis provided to the Generator; the manifest corrected as directed by the Generator; the PCB labels removed or painted over, and the items will be moved to Area II for processing. Based on historical industry data, 90% of the items shipped a assumed test as non-regulated (< 50 ppm PCBs).

4.0 PCB Inspections

At least once every working day, a person designated by the General Manager will do a walk- through of the PCB Storage Area in both building 150 and 130. The following will be inspected:

- 1) No spills resulting in standing PCB fluid or absorbent on the floor or in containment pans.
- 2) No leaking items found in PCB storage area.
- 3) Concrete floor free of cracks and curbing intact.
- 4) No excessive wear of concrete floor joints.
- 5) No degradation of epoxy coating.
- 6) Roof intact preventing precipitation from entering the PCB Storage Area.

If any corrective action is taken, it will be noted on the PCB Monthly Inspection form with a detailed explanation of any issue and the date it was discovered with the resolution and date the issue was resolved. If no corrective action was taken, then the designated employee will note the date, write, "No issues found." and initial it.

At least once every 30 days, the General Manager and designated Supervisor will perform the same inspection verifying that no issues were found and no corrective action was necessary. If issues are found, then it will be noted on the PCB Monthly Inspection form with a detailed explanation of the issue, the date it was discovered, with the resolution and date the issue was resolved. If no corrective action was taken, then the President or designated Manager/Supervisor will note the date, write, "No issues found." and initial it.

The PCB Monthly Inspection form is attached as Exhibit A.

TRANS CYCLE INDUSTRIES OF OHIO, LLC
Environmental, Health, and Safety Program

Subject: Sampling & Wipe Testing	SOP No. 800-320	SECTION Facility - General
	Date Reviewed 11/18/2017	Pages 4
Reviewed by: Chris Smith, EHS Manager		
Approved by: Craig Renner, General Manager		

Synopsis:

This procedure is designed to ensure that: (1) sampling is done in a manner, which is safe for TCI personnel, the associated equipment and the environment; and (2) consistent, representative samples are obtained.

1.0 SAMPLING METHODOLOGY

Whether for a small or large number of units, TCI personnel are fully trained with all the equipment needed to safely and efficiently draw samples from the units to be tested.

1.1. Oil Sampling

Depending on the type, size, and number of units to be sampled, one of the following methods will be employed:

NOTE: ALL UNITS MUST BE VENTED/PRESSURE RELEASED BEFORE PUNCTURE.

1. Draw sample from bottom drain valve, or
2. Remove top cover and draw sample using a one-use disposable pipet, or
3. Use a cordless drill & bit to puncture the top of the unit. Then, use a disposable pipet to draw the sample.

All methods used are completed only after the unit is restored to a totally sealed condition. Drain valves are shut and plugged, top covers are secured, and the holes are sealed with gasketed screws.

1.1.1 Sample Identification, Packaging, and Shipping

1. Each sample obtained is identified as following:
 - a. Location
 - b. Date and time of sampling
 - c. Name of sampler
 - d. Source (ex: type equipment and serial number)

2. The samples are packaged in special styrofoam mailers to ensure against leakage or damage in handling.
3. The samples are delivered or shipped to the appropriate lab by our personnel.

1.2 WIPE TESTING

This procedure describes the proper method of performing the wipe test specified in the PCB Spill Cleanup Plan or in taking a test for a Generator.

After the elements of a spill have been removed and the surface area cleaned in accordance with PCB spill cleanup procedures, mark off 10 cm square (4" x 4") spaces using a permanent marking pen every three to four feet along the spill area. Also, mark off at least two clean areas outside the known spill area for background samples.

1.2.1 Procedure:

1. Mark off 10 cm square sample locations using a disposable template and a permanent marking pen or use an impervious disposable template by itself.
2. Prepare wiping pads and sample containers.
 - a. Open 3" x 3" gauze pads and place them in the sample bottles. Make up one more sample container than needs to be used as a field blank;
 - b. Measure 6 mL of hexane or iso-octane into each sample container;
 - c. Be sure all pads are wet with hexane or iso-octane and placed into each sample container;
 - d. Close lids on the sample bottles.

CAUTION: Read SDS warning on hexane or iso-octane label. Use only with adequate ventilation. Material is flammable and evaporates readily.

3. Put on surgical latex protective gloves.
4. Remove gauze pad from sample bottle.
5. Wipe 10 cm x 10 cm sample area thoroughly with gauze pad. Wipe first in one direction until area has been wiped once. Fold gauze pad to expose new surface. Then wipe in a direction at right angle to the first direction.
6. Carefully roll or fold gauze pad and place in the sample bottle.
7. Level sample bottle.
8. Remove gloves and place in a plastic bag for disposal in PCB contaminated trash. Use new gloves for each sample.
9. The extra sample bottle with its gauze pad is not used to wipe an area. This is a field blank sample; label it and submit it with the other samples.

1.2.3 Sample Identification, Packing and Shipping

Follow the procedures detailed in 1.1.1 above.

1.3 SAMPLING PROTOCOL FOR ELECTRICAL BUSHINGS

The following procedure details how to determine the PCB content of the dielectric fluid in transformer bushings. Sampling porcelain bushings requires the adherence to specific guidelines that protect the employee from toxic exposures to PCB and hazardous physical exposures to cuts, pinches, flying metal particles, and splashes associated with this procedure. However, keep in mind that this written SOP is only an aid to instruction and should be accompanied by actual hands-on instruction.

THESE PROCEDURES APPLY TO ALL SIZES OF BUSHINGS TO BE SAMPLED USING THE FOLLOWING METHOD: CORDLESS DRILL WITH COBALT DRILL BIT PROCEDURES

1.3.1 Personal Protective Equipment Required

During these procedure, the sampler must wear Tyvek (or equivalent) coveralls; safety glasses and splash shield; nitrile, Kevlar, and leather gloves; Kevlar sleeves; Kevlar apron; and steel toe boots.

1.3.2 Tools Required

The following equipment is required: fire blanket; spill pan, bucket, pipettes, sample vials, nitrile sampling gloves, hex wrench set, punch, hammer, Hilti (or equivalent) gun, screws, rubber washers

1.3.3 Procedures

As bushings are unloaded from trailer, ensure that the bushings have been properly placed in slots and arranged to allow easy access to the top (head) of each unit with the drain port (if available) turned up. Do not crowd the bushings to allow safe and easy access. Label each bushing correctly according to their PCB level as shipped.



1. Cover with Fire Blanket, use cordless drill with bit drilling through Fire Blanket to access oil in bushing.



2. Don clean nitrile gloves and remove a new pipette and sample vial from their packs.
3. Squeeze pipette bulb and insert the pipette into the drilled hole and release the bulb to draw oil sample into it.
4. Apply label to the sample vial with serial number or unique identifying number.
5. Inject silicone into drilled hole in bushing to prevent oil spill.
6. Remove nitrile gloves and discard along with used pipette into bucket for later disposal.
7. Repeat as needed.

If bushing head is constructed of steel or the copper/aluminum/brass is too thick to penetrate, consider the unit as PCB and store in PCB Storage Area for shipment off-site for disposal/recycling.

1.4 Laboratories

TCI will utilize EPA certified laboratories for all analysis. In certain circumstances, TCI will utilize the laboratory at TCI of Alabama, LLC.

SECTION XIV

TRANS-CYCLE INDUSTRIES OF OHIO, LLC

**150 Ira Bean Parkway
Richwood, Ohio 43344**

**HEALTH & SAFETY PLAN
(ATTACHED AS SEPARATE DOCUMENT)**



TRANS-CYCLE INDUSTRIES OF OHIO, LLC

HEALTH & SAFETY PLAN

DATE: FEBRUARY 2021

TRANS-CYCLE INDUSTRIES OF OHIO, LLC
HEALTH & SAFETY PLAN

TABLE OF CONTENTS

INTRODUCTION	1
SAFETY POLICY.....	2
RESPONSIBILITIES	2
PLANT VISITOR GUIDELINES	3
GENERAL SAFETY PLAN.....	5
EMERGENCY PROCEDURES PLAN.....	19
EVACUATION PLAN	21
FIRE SAFETY PLAN.....	22
TRAINING	24
ACCIDENT/INCIDENT INVESTIGATION.....	25
SAFETY COMMITTEE.....	27
ACCIDENT REVIEW COMMITTEE.....	27
SELF INSPECTION	28
FORKLIFT/SKIDSTEER LOADER / MANLIFT SAFETY.....	29
LOCK-OUT/TAG-OUT PLAN.....	31
CONFINED SPACE ENTRY PLAN	34
HEARING CONSERVATION PLAN	42
LEAD EXPOSURE CONTROL PLAN	45
BLOODBORNE PATHOGENS EXPOSURE CONTROL PLAN.....	49
HAZARD COMMUNICATION PLAN	67
SUBSTANCE ABUSE PLAN	72

INTRODUCTION

Personal care for safety and safe conditions will avoid putting you and your fellow employees at risk of injury. The safety of our employees is a serious concern of Trans-Cycle Industries of Ohio, LLC (TCI or Company). Prevention of accidents is an acquired skill which we wish all our employees to master.

The goal of the TCI Health & Safety Plan (Plan) is to identify and implement plans and programs to control accidents and their resultant expense in a cost-effective manner.

In addition to personal safety issues, accidents are costly. Many people falsely believe that the medical expenses resulting from an accident are paid by "the state" or "the insurance company". Nothing is further from reality. Although a payment may come from a state organization or an insurer, TCI pays the bill by fully funding these Plans.

There are many benefits to an effective Health & Safety Plan. For example, safety enhances productivity. There is a direct relationship between safety and productivity. Good housekeeping is critical in all areas. An operation kept in good order is more efficient and there are fewer accidents. A strong Plan can also have positive effects on morale and public relations.

This Plan was developed to heighten our employees' awareness of safety as an everyday issue that impacts everything we do. This Plan will not, by itself, create and maintain a safe work environment. Our operation will be as safe as possible only if all employees give safety their constant attention.

In short, accident prevention makes smart business sense. We want you to always remember to "Work Smart. Be Safe."

SAFETY POLICY

TCI strives to maintain a safe work environment for our employees. To achieve this objective, the Company will comply with all federal, state and local laws regarding safety in the workplace. In addition, the Company will take pro-active steps to promote safe practices by:

1. Communicating this policy to all employees.
2. Creating a heightened awareness among employees regarding safe practices and accident prevention.
3. Training employees to recognize potential and actual unsafe circumstances and how to avoid or correct them.

4. Giving employees the opportunity to notify their managers and the Company of any unsafe condition so that action to correct the hazard can be taken.

The Health & Safety Director (Director) is responsible for the day to day direction of the Health & Safety Plan. In practice, however, safety is everyone's responsibility. Every employee is obligated to maintain a safe work environment by:

1. Performing his or her job safely.
2. Reminding other employees of their obligations to do the same.
3. Immediately stopping or preventing unsafe acts.
4. Immediately correcting unsafe conditions.
5. Notifying management of unsafe conditions with the assurance that no retaliatory action will be taken against them.

A safe work environment ensures that TCI employees can perform their jobs without risk to their well-being. The effectiveness of the Company's effort to create this environment requires cooperation and compliance from all employees.

The Company expects all employees to commit to its safety goals and will, with Company support, take proper action to see that these goals are achieved. Non-compliance will result in disciplinary action and may include termination of employment.

RESPONSIBILITIES

This Health & Safety Plan must be read, understood and practiced in its entirety. Among other responsibilities, specific actions are required as follows.

1. New employees will be given comprehensive training to provide them with a basic understanding of their job assignment duties, as well as, health and safety issues that pertain to that assignment. A check list for the completed orientation training must then be signed by the employee.
2. Plant-Wide Safety meetings are to be conducted at least monthly. All employees are expected to participate.
3. Each employee injury is to be investigated by the Accident Review Committee as soon as possible, but no later than 48 hours after the incident. Both the injured employee (if available) and his/her immediate supervisor will be present at the committee meeting.

4. Whenever an employee is directed to perform a task, the supervisor is to review the Safe Operating Procedure with the employee and remind the employee of the safe and proper techniques to use for any unusual circumstances safely (e.g., ladder use, lifting, over-reaching, etc.).
5. Safety reminders are to be used regularly.
6. Safe practices are to be acknowledged and positively reinforced.

If there is any uncertainty regarding the operation of this Plan, the President or the Director are to be contacted.

PLANT VISITOR GUIDELINES

PLANT ENTRY AND EXIT

Visitors to the plant area must be authorized by TCI supervisory or management personnel.

Before entering the plant area, visitors must read and sign both the TCI Confidentiality Agreement and these Visitor Guidelines (both are available from the receptionist). A temporary identification badge will be issued to visitors. This badge must be worn at all times on the plant site and returned to the receptionist's desk prior to leaving the plant.

Plant visitors, other than contractors, must be accompanied by TCI personnel at all times while in the plant area.

Entry into enclosed spaces (e.g. tanks, vessels, large transformers) is prohibited unless entry permit is obtained from TCI management.

Operation of TCI mobile equipment (e.g. forklift, skid steer loader, etc.) by non-TCI personnel is strictly prohibited.

Firearms, explosives, alcohol, drugs and intoxicants are forbidden on the TCI site. Persons appearing to be under the influence of drugs or alcohol may be permanently denied permission to enter the site.

Cameras, tape recorders, video recorders and other electronic equipment will not be allowed on the site without management approval.

Smoking is allowed only in the patio area outside the employee break room.

Boisterous conduct, fighting, horseplay, running and practical jokes are not allowed on the TCI site.

PLANT EMERGENCY - EVACUATION PROCEDURES

A plant emergency is signaled by an announcement over the plant public address system concerning the location and nature of the emergency.

In the event of severe weather (such as a tornado):

1. Get away from the perimeter of the building and exterior glass.
2. Leave perimeter offices - close doors.
3. Sit down in an interior corridor (employee break room, storage room,) and protect yourself by putting your head as close to your lap as possible, or kneel protecting your head.
4. DO NOT go outside of the building.
5. If you are trapped in a perimeter office, seek protection under a desk.
6. If you are trapped in the plant area, move away from perimeter walls and stacked material. Seek shelter under fixed structures or tables.

Do not leave the plant site without notifying your TCI contact.

In the event of a plant emergency (other than severe weather):

1. Look for a possible gas release, spill, or fire. Visitors inside the plant facility should immediately proceed to the nearest exit door.
2. Once clear of the building, proceed to the parking lot and await further instructions. (EXCEPTION: If the evacuation is due to fire, move upwind of the building after exiting to avoid breathing smoke and vapors).
3. Stand-by. Do not leave the plant site without notifying your TCI contact.

INJURIES / FIRST AID

All injuries, no matter how minor, must be reported to TCI Supervision. An accident report must be filed. For injuries other than minor, contact your TCI contact or if they are unavailable call any of the emergency numbers posted at each of the plant telephones.

BE ALERT TO THESE HAZARDS

- Entry into enclosures and confined spaces - an entry permit is required.
- Flammable or toxic materials
- Hot surfaces
- Electrical shock
- Falls and Impacts
- Noise
- Overhead work

PERSONAL PROTECTIVE EQUIPMENT

Depending on the plant area to be visited, visitors may be required to wear an ANSI certified hard hat. Visitors may use their own hard hat provided it meets this certification requirement.

Safety toe footwear is required in the plant. (This requirement may be waived if a visitor's stay in the plant is less than one day)

Visitors are required to wear ANSI certified safety glasses with side shields while in the plant. Wearing of contact lenses is allowed under most circumstances (Ask your TCI contact).

Hearing protection is required in certain designated areas of the plant. Foam ear canal plugs or ear muffs must be obtained from TCI personnel prior to entering the plant operating areas.

Protective shoe covers, coveralls, and/or gloves may be required in certain areas of the plant.

WORK AT ELEVATIONS

The use of a safety harness and lanyard is required whenever working outside handrail areas, from forklift or manlift baskets, or from any surface where there is a risk of injury from falling. Be alert to the potential for incomplete platforms and railings. The safety lanyard shall be secured whenever the work location is not protected by handrails or a complete platform.

FLAMMABLE OR TOXIC MATERIALS

Information regarding the hazards associated with all materials on the TCI plant site is available from safety data sheets (SDS's) located at various locations throughout the plant or from TCI's Health & Safety Department. This information can be obtained through your TCI contact.

GENERAL SAFETY PLAN

PLAN ADMINISTRATION

The Health & Safety Director (Director) is responsible for Plan administration. The duties include:

1. Oversight of employee training under the Plan.
2. Oversight of training of supervisors concerning their knowledge of health and safety rules, laws and hazard avoidance.
3. Identification and monitoring of workplace hazards, both chemical and physical.
4. Coordination of the development of methods and procedures to reduce and eliminate health and safety hazards.

The ability of the Director to succeed depends on the assistance given by all employees. The Director may assign certain duties to others in the Company under the Plan, and all employees are expected to cooperate fully.

The thrust of the safety Plan is to highlight safety at all times, prevent accidents and ensure that accidents, if they do occur, are not repeated. It is up to TCI employees to set the tone for safety. If everyone "thinks safety", then accidents are less likely to happen.

COMPLIANCE

All employees must abide by this Plan and the Company's general health and safety policies. No employee is exempt. Any violation of this Plan, or of any health and safety policies or procedures, can result in discipline and may include termination at the discretion of the Company. Discipline can be imposed whether the violation is intentional or negligent. Compliance with this Plan will be evaluated by the President and the Director.

COMMUNICATION

The Company will notify employees of health and safety issues as they arise and on a regular basis. TCI will communicate health and safety issues through the following methods:

1. Posting of memos and notices.
2. Distributing the various safety Plans and materials to new employees.
3. Conducting safety training Plans and meetings.
4. Analysis and discussion of accident and incident reports.
5. Disseminated through either of the safety related committees.

The Company encourages employees to direct any questions they may have about the Plan or health and safety issues to their supervisor, Director, or the President. If an employee is aware of a workplace hazard or other unsafe or unhealthy condition at work, the employee must immediately advise their supervisor, whether the hazard is considered minor or serious.

Employees are encouraged to report hazardous conditions to any supervisory personnel, the Director, or the President. The Company will not discipline, terminate or retaliate against any employee for bringing a hazardous or unhealthy condition to the attention of the TCI management, Health & Safety Director, or other Company official.

IDENTIFICATION OF HAZARDS

The Company will identify and evaluate health and safety hazards in the workplace in several ways.

1. Committee investigations: Representatives of the Accident Review committee, will conduct periodic inspections of the work areas. Findings are reviewed. Corrective action plans are decided upon and time tables for corrections are implemented.

Committee Findings and actions are also reviewed by the President. High cost action plans are turned over to President for review prior to implementation.

2. Unannounced inspections will be conducted from time to time, as determined by the Director.
3. The Director will coordinate an inspection of any new substance, process, procedure or equipment introduced into the workplace.
4. An inspection will occur whenever the Company is made aware of a new or previously unrecognized hazard.

All inspections will include documentation of the persons making the inspection, the areas and procedures inspected, any unsafe or unhealthy conditions or practices identified, and/or the proposed action to remedy any unsatisfactory conditions or practices.

INVESTIGATION OF INJURY AND ILLNESS

Work-related injuries or illnesses, must be reported promptly. The Accident Review Committee will meet as soon as possible following notification of the incident (usually within 24 hours). The affected employee (if available), his/her immediate supervisor, and witnesses will be called before the committee to testify to the circumstances surrounding the incident. Action plans will be developed and timetables set for corrective actions. Written documentation of the meeting will be maintained showing who conducted the investigation, when it occurred, what changes, if any, are recommended to avoid similar incidents in the future, and whether changes in Plan inspection procedures are necessary to better anticipate the potential for such incidents to occur.

CORRECTING HAZARDOUS CONDITIONS

Whenever an unsafe or unhealthy condition or procedure is discovered and brought to the Company's attention, appropriate corrective action will be taken at once. The severity of the hazard will be considered in determining how corrective action will occur.

Documentation will be maintained for all hazardous conditions, describing the condition, when it was identified, how it was corrected, who corrected it, when it was corrected and what steps will be taken to avoid future problems.

TRAINING AND INSTRUCTION

An important part of the Plan is the training of all employees in health and safety awareness. The Company will provide training to all employees about any specific hazards they may face in their job positions and on general safety issues.

Training will be provided at various times:

1. All employees will be trained upon implementation of this Plan.
2. New hires will receive safety training as part of their orientation.
3. All employees will receive periodic refresher training on certain topics as determined by regulatory requirements or company guidelines.

4. When an employee receives a new job assignment involving conditions or procedures for which the employee has not received safety training.
5. When new substances, processes, procedures or equipment are introduced into the workplace which constitute a new hazard.
6. When the company is made aware of a new or previously unknown hazard.
7. A discussion of relevant safety issues will be presented during monthly safety meetings.

In addition, management will receive training in the health and safety hazards faced by employees under their supervision and control.

The Director will maintain documentation of the training provided under this Plan, including the persons involved, dates of training and type of training.

SAFETY RULES AND WORK PRACTICES

There are certain safe work practices which each employee must follow to protect themselves and their fellow employees. The following list of practices is not meant to provide an answer to every safety question, nor are they a substitute for good judgment. However, it is expected that every employee will be familiar with them and consistently comply with them. As stated in the TCI Safety Policy, "Every employee is obligated to maintain a safe work environment."

General

- Boisterous conduct, fighting, horseplay, running and practical jokes could result in injury. Such conduct does not reflect a professional attitude and could result in disciplinary action.
- Caution fellow employees should you observe a safety incident developing or stop work if he/she is committing an unsafe act.
- No maintenance work or adjustments to equipment should be carried out without the proper approvals.
- Know and understand the emergency procedures for your work area.
- Never possess or consume alcohol or illegal drugs on the premises or in company vehicles.
- No traveling in company vehicles without using seat belts and shoulder harnesses when provided.
- If you are not sure how to perform a job, please ask your supervisor.
- Report all unsafe conditions to your supervisor immediately.

- Only trained and authorized drivers may operate forklifts, skid steers, or manlifts.
- If you are injured on the job, no matter how minor it may seem, notify your supervisor immediately.
- Always wear your personal protective equipment, as required by your supervisor.
- Please make sure your work area remains neat and clean as possible.
- (Maintenance Personnel) - Lock and tag-out all mechanical equipment prior to beginning maintenance or repair.
- Never attempt to operate machinery that has been locked or tagged out. Never remove tags.

Fire Control

- Smoking on company property is prohibited except in designated areas.
- Report at once to the responsible supervisor any conditions which may cause a fire. If appropriate, take immediate corrective action.
- Flammable paints, solvents, cleaners, etc. should be properly stored in fire resistant cabinets.
- Keep emergency response equipment (fire extinguishers) clear of obstructions at all times.
- Keep emergency exits and exit aisles clear at all times.
- Know the locations of fire extinguishers and emergency exits in your work area.
- Be alert for leaks of flammable or toxic materials. Report any leaks immediately to responsible supervision. If appropriate, take immediate corrective action to stop the leak source.
- If you see a fire, immediately notify employees in the affected area. Contact the emergency coordinator by calling any of the numbers posted next to all plant phones.

Safe Tool Use

- Always hold hand tools firmly to prevent slippage and loss of balance.
- Check tools regularly and return defective tools for replacement or repair.

- Do not use punches, chisels or hammers with mushroomed heads.
- Tools should be transported in a tool tray or pouch as provided.
- Carry and store tools with sharp points or edges down and away from the body whenever possible. Use protective covers.
- Do not throw tools.
- Keep tools, cords and hoses out of aisles and walkways.
- Do not place tools in locations where they can fall.
- Use only files equipped with handles.
- Never hammer, strike or pry with a file or screwdriver.
- When using a knife or sharp tool, always cut away from your hands and body.
- Never hammer with any tool except a hammer.
- Never strike a wrench with a hammer unless the wrench is provided with a striking surface.
- When using jacks, block up the object being raised with wooden blocks or jack stands. Do not exceed capacity or travel limit indicated on the jack.
- Remove the jack handle when the jack is not being raised or lowered.
- Never use extensions ("cheaters") on tools to increase leverage.
- All electric-powered tools must be grounded before using. Do not use a portable electric power tool if the ground lug has been removed from either the tool's cord or from any extension cord. Only a double insulated tool can be used with a two-wire cord.
- Check the source of supply before connecting air-powered tools. Ensure the air supply is at the required pressure.
- Keep guards on power tools in place during use.
- Disconnect power tools from their power source before making repairs or adjustments.
- Avoid creating tripping hazards and equipment damage by routing hoses or electric cords overhead or providing protection where people and equipment travel.

- Never use a pedestal grinder without ensuring that the tool rest is 1/8" maximum from the wheel.
- Never grind on the side of a grinding wheel.
- Never grind with a cutting wheel.
- Never grind aluminum, brass, copper, or other soft metals on a pedestal grinder.
- Face shield and safety glasses or goggles are required to be worn when using a grinder or jackhammer.
- Never operate a power impact tool unless the retainer ring or pin is in place and the tool or plunger is against a solid object to prevent it from being thrown out.
- Get instructions on the safe way to use tools with which you are not familiar.

Machinery

- Before starting any machinery, ensure all guards are in place and all persons are clear of moving parts. If you have questions about the proper operation of a safety guard, contact your supervisor immediately.
- Never attempt to clear a jam when equipment is operating.
- Adjust a machine that is in motion only when there is an approved procedure for such activity. Agreement of supervision must be obtained before initiating work.
- ***Never*** remove or defeat a safety guard on a piece of equipment or tool. ***This act will result in your immediate dismissal.***
- Never operate or start equipment unless you are sure all the guards are in place.
- Rotating equipment can be dangerous. If you have long hair, pin it so that your hair is not below your shoulders. Also, be sure sleeves are buttoned up and are not hanging loose.
- Never operate any machine or equipment unless you have been trained and are authorized.

Housekeeping

- Clean up all spills and leaks promptly.
- Keep aisles and emergency exits clear of material.

- Keep all utility hoses and extension cords properly stored when not in use.
- Return all tools to proper storage places when you are finished with them.
- Remove all excess material to maintain an orderly work area as the job progresses.

Material Handling and Storage

- Use mechanical material handling devices whenever practical. They should be operated only by trained personnel.
- Avoid throwing material from elevations.
- Keep your hands and fingers out of the ends of pipe or other tubular material such as small transformer cans.
- When rolling a drum on its side, push with your hands against the side of the drum. Never grasp the ends of the drum or use your feet to push it.
- Use a mechanical aid or assistance when you need to up end a full drum.
- When two or more persons carry a long object, carry from the same side.
- Stack sheet material, such as plywood, flat on a pallet or floor. Do not lean the material against walls or other objects.
- Stack finished bales (aluminum/lead) no more than two high. They should be stacked neat and straight with no tendency to lean. Pallets should be in good condition.
- Stack copper boxes no more than two boxes high. They should be at least double banded. They should be stacked neat and straight with no tendency to lean. Pallets should be in good condition.
- Stack cable reels no more than two high. Do not stack reels that are bent or warped.
- Stored or stacked material should not protrude into aisles.

When lifting a heavy object:

- Look over all loads before lifting them. Tilt the load on its edge. Does it appear too heavy for you to handle alone? **(If the load is too heavy to lift comfortably using one hand, GET HELP!)** Would the object limit your vision or cause loss of

balance? If so, call for additional help or use a mechanical device like a hand truck.

- Check the load for protruding nails, screws, staples, and sharp edges. Always use Kevlar® protective gloves and sleeves when handling such items. Pay particular attention when handling porcelain items. Broken porcelain is extremely sharp.
- Keep your back straight and use the strength of your leg and thigh muscles, rather than your back muscles.
- If you use a Back Belt, be sure it is adjusted properly. A Back Belt is only designed to help maintain a straight back posture during normal lifting. **DO NOT ATTEMPT TO LIFT MORE WEIGHT THAN YOU WOULD FEEL COMFORTABLE LIFTING WITHOUT THE BELT!**
- Know the seven basic steps for lifting an object and follow them always. If you don't know how to lift an object, ask your supervisor to show you.

SEVEN STEPS FOR PROPER LIFTING

1. Face the object and get as close to it as you can.
2. Put one foot in front of the other and balance. Keep your feet slightly apart.
3. Bend your knees and squat, keeping your back as straight as possible;
4. Grip opposite sides of the object with your whole hands, not just with your fingertips.
5. Tighten your stomach muscles and take a deep breath and hold it.
6. Use your leg and thigh muscles to raise yourself to a standing position.
7. To twist or change direction, move your feet; don't ever twist at the waist.

Traffic

Pedestrian:

- Where walkways are marked, use them.
- Never run unless in immediate danger.
- Do not use shortcuts. Try to stay in designated walkways. Never attempt to climb over or around stacked materials that may collapse.
- When going up or down stairways, keep at least one hand on the rail at all times.

Vehicles and mobile equipment:

- **Pedestrians have the right-of-way.**
- Use your warning devices (e.g. lights, backup alarms, horn).

- Slow down and use your horn when approaching blind corners.
- If your equipment is equipped with mirrors or windows, keep them clean for visibility.

Compressed Gases

- Never use oxygen for ventilating or cooling purposes.
- Never use oxygen in place of compressed air.
- The use of utility or compressed air for cleaning floors or other objects is prohibited. The use of utility air or compressed air for cleaning clothes or cleaning your person is also not allowed.
- Breathing air equipment must only be connected to grade D breathing air cylinders.
- Contents of cylinders should not be discharged to the atmosphere at a rapid rate to prevent static generation and resultant ignition.
- Close cylinder valves, not the regulator, when the cylinders are left unattended or when emptied. Valve cap must be secured in place when the cylinder is not in use (This applies to both full and empty cylinders).
- All cylinders (both full and empty) must be properly chained or strapped in an upright position when stored. Cylinders must be stored at least 20 ft. from any highly combustible material. Flammable gases such as acetylene must also be stored at least 20 ft. from oxygen cylinders.
- Keep aisles open to compressed gas cylinders that are in use.
- Store and use cylinders only in well ventilated areas.
- Never leave a gas-burning or welding torch unattended.

Office

- Keep desk and file drawers closed when they are not being used. Never open more than one drawer of a file cabinet at one time.
- Observe good housekeeping practices at all times.
- Never stand on drawers, chairs, desk tops, waste cans or other similar objects.
- Do not place heavy objects on the top shelf of tall cabinets.

- Turn off electric office machines before you clean them.
- Keep electric cords routed out of walking paths.
- Know the location of the nearest emergency escape routes.

Working at Elevations

- Use a ladder to reach elevations when other means are not provided or other methods are not prescribed for the work.
- Use only ladders in good condition and equipped with ladder shoes.
- Notify your supervisor about structurally defective ladders. NEVER USE DEFECTIVE LADDERS!
- Extension ladders should be lashed or held securely to the ground and tied off at the top when in use.
- An extension or straight rail ladder must be placed with its feet approximately 1/4 of the ladder length away from the wall, pipe support, etc.
- When ascending or descending ladders, face the ladder, hold on to the side rails (not the rungs) with both hands and always maintain body position within the side rails of the ladder.
- Do not place a ladder where it can be bumped, such as in front of a door, stairway, vehicle path, etc. unless adequate precautions are taken to protect both the climber and others who may be in the area.
- Never use ladders in a horizontal position for standing or supporting weight.
- Never climb higher than the third rung from the top of an extension or straight rail ladder, nor the second tread from the top of a step ladder.
- An extension or straight rail ladder should extend at least three feet beyond the level of the elevation.
- Always have both hands free for grasping side rails when climbing ladders.
- A safety harness and lanyard shall be worn and attached to the basket when working from an aerial lift.
- Do not remove a handrail and leave it unattended unless the opening is protected from someone accidentally falling through.

Overhead Cranes and Other Lifting Equipment

- Each manual or powered hoist shall be identified with its lifting capacity.
- Each device shall be visually checked prior to each use.
- Slings/chokers and all their components shall be inspected prior to each use.
- Damaged or defective slings/chokers shall be removed from service immediately.
- Slings/chokers shall not be shortened with knots, bolts or other makeshift methods.
- Sling legs shall not be kinked.
- Slings/chokers shall not be loaded in excess of their rated capacities.
- Slings/chokers shall be securely attached to the load.
- Slings/chokers shall be padded or otherwise protected from sharp edges.
- Shock loading is prohibited.
- Slings/chokers shall not be pulled from under a load when the load is at rest on the sling.

PERSONAL PROTECTIVE EQUIPMENT

A number of TCI's safety rules relate to protective equipment. The plant's personal protective equipment Plan is designed to protect employees from injury and/or overexposure to potentially hazardous chemicals during the course of their work. It is TCI's intent to supply personal protective equipment without cost to the employee.

HEAD PROTECTION POLICY

Hard Hats Shall Be Worn:

- by all personnel including visitors and contractors when the overhead crane is in use.
- when any overhead work is under way.
- when there is a danger of falling objects anywhere within the facility.

EYE PROTECTION POLICY

Safety Glasses Shall Be Worn:

- while in the operations area of the facility.

Safety Goggles Shall Be Worn:

- when in the vicinity of operations which could reasonably be expected to result in splashing fluids.

Safety Shields Shall Be Worn:

- when performing abrasive, particle generating operations such as: cutting, grinding, chipping, or sawing.
- when servicing batteries on electric mobile equipment (includes connecting and disconnecting charger cables)

Special Eye Protection Shall Be Worn:

- when welding or torch cutting (welding hoods and goggles respectively).

RESPIRATORY PROTECTION POLICY

Respiratory Protection Shall Be Worn:

- when sweeping the floor in the plant and furnace room using either a hand broom or a powered sweeper (NIOSH approved dust/mist disposable respirator).
- when sweeping or vacuuming in the plant (half-mask w/organic vapor and HEPA cartridges).

(Respiratory training and fit testing are required before you can be issued a full-face respirator. Except for mustaches, employees who are issued respirators are required to remain clean shaven for the duration of employment at TCI. It is imperative that half-mask respirators be maintained in clean working order. They will be checked monthly by the Health & Safety department and unannounced spot checks will be taken periodically. Failure to maintain respirators properly, stealing respirators, or laying/hanging unprotected respirators in contaminated areas will result in disciplinary action.)

HAND/ARM PROTECTION POLICY

Leather Gloves Shall Be Worn at all times while working in the operations area of the facility except:

- when operating any mobile equipment.
- when operating the pressure washer (nitrile rubber gloves are required).

Kevlar[®]Gloves and Sleeves Shall Be Worn Underneath Leather Gloves:

- when tearing down equipment for processing.
- when handling any material where there is an exposure to sharp edges.

15 mil. Nitrile Rubber Gloves Shall Be Worn Underneath Leather Gloves:

- when extended exposure to contaminated oil is likely.

3 mil. Nitrile or Latex Rubber Gloves Shall Be Worn:

- at all times throughout the plant (unless heavier gloves are required due to direct exposure to contaminated oils).
- when incidental exposure to contaminated metals or solids is likely.

PROTECTIVE CLOTHING POLICY

Company Provided Uniforms Shall Be Worn:

- when working within the plant.

{Employees are not allowed to leave the plant site while wearing company uniforms}

Disposable Tyvek Coveralls Shall Be Worn:

- when working anywhere in the plant, except while welding or torch cutting which requires leather protective clothing.

(If any article of protective clothing becomes contaminated by harmful fluids, remove it immediately and bring it to your supervisor who will ensure that it is properly disposed. This includes uniforms. Clothing replacements will then be issued)

PROTECTIVE FOOTWEAR POLICY

Hard Leather Steel Toe Safety Boots Which Offer Ankle Protection Shall Be Worn:

- when working in either unit of the plant.
- when working in the plant yard.

{Boots are to be replaced every 6 months during your employment with TCI (Replacements may occur more often, depending on assigned job duties). New employees must supply their own first pair of boots which become the property of TCI. After 90 days, TCI will reimburse the employee for all additional boot purchases (up to \$50.00).}

Hard Leather Steel Toe Safety Boots Which Offer Ankle and Metatarsal Protection Shall Be Worn:

{Boots are to be replaced every 6 months during your employment with TCI (Replacements may occur more often, depending on assigned job duties). New employees must supply their own first pair of boots which become the property of TCI. After 90 days, TCI will reimburse the employee for all additional metatarsal boot purchases}

Disposable Tyvek Booties Shall Be Worn:

- by management and visitors while in the plant area.

HEARING PROTECTION POLICY

All plant employees are included in TCI's Hearing Conservation Plan due to potential exposure to excessive noise produced by various equipment such as jackhammers. As part of this Plan, hearing protection (foam ear canal plugs and/or ear muffs) is required by employees and visitors in the following areas:

PERSONAL HYGIENE POLICY

Due to the potentially toxic nature of chemicals processed and used at TCI, operations at this site require strict adherence to hygienic practices by all plant employees, contractors and visitors. The following is a list of those items we feel must be strictly enforced to ensure their safety:

- No eating, drinking, or chewing (gum or tobacco products) within the operational units of the plant.
- Smoking is allowed only in the patio area outside the break room.
- When going outside to the break room patio or to your car during breaks, street shoes or leather slippers must be worn (Only personal shoes and clothes may be worn away from the plant site).
- Hands and face must be washed using soap and water before entering restrooms or break areas.

EMERGENCY PROCEDURES PLAN

In case of an emergency, the first priority is the safety and preservation of human life. Only after this is assured should there be any effort to protect Company property. The following are the procedures to take in case of emergencies and procedures to quickly evacuate the building:

GENERAL PROCEDURES

When there is a general emergency, the following steps will apply. Procedures for specific emergencies are outlined in other sections of this Plan.

1. Upon discovery of an emergency situation where assistance is required (e.g., police, fire or ambulance), notify your supervisor immediately. If your supervisor is not available, call either of the emergency numbers posted next to each plant telephone. These numbers connect you with the front office. State the nature and location of the emergency and whether anyone has been injured. This information will be passed on to the emergency coordinators and, if need be, an alarm message will be broadcast over the plant intercom system.
2. If evacuation is necessary, an announcement will be broadcast over the plant intercom. Employees should immediately proceed to the nearest exit door. Once clear of the building, all employees should gather at the parking lot and await further instructions. (EXCEPTION: If the evacuation is due to fire, employees should move upwind of the building after exiting to avoid breathing smoke and vapors). The employee's first line supervisor should obtain time cards and proceed to the rally point and count all employees to ensure that all are out of the building. The supervisor will immediately notify the Fire Department Chief and/or Emergency Coordinator if all employees have not been accounted for.
 - a. NOTE: Employees should, as part of their orientation, already know the routes to and locations of emergency exits. It is vital these routes and locations be kept unobstructed and accessible at all times.
3. Ambulances or rescue squads should be called immediately at any point in the emergency if they are needed.
4. If there is time and it is possible, the main power should be shut off.

MEDICAL EMERGENCIES

- *Report all injuries or illnesses (no matter how minor) to your supervisor immediately!! If he/she is unavailable, contact any management personnel.*
- A card for wallet or purse which lists emergency contact telephone numbers is issued to each employee.
- Your supervisor must fill out a *1st Report of Injury or Illness* form for each incident. If he does not fill out this form, contact the Director.

MEDICAL TREATMENT

- Based on the apparent severity of the injury or illness, you will either be transported as soon as possible for evaluation by TCI's company physician or, for medical emergencies, transported to nearest hospital emergency room.

- *After hours/weekends/holidays* - If an injury or illness worsens after normal business hours, you must contact your supervisor or the Director for instructions (See emergency contact card). *Obviously, if the injury or illness has become a medical emergency, go directly to the nearest Emergency Room at once and if possible have the E.R. staff contact someone from the list.*

TORNADOES/SEVERE THUNDERSTORMS

By definition, a tornado warning is an alert by the National Weather Service confirming a tornado sighting and location. The weather service will announce the approximate time of detection and direction of movement. Wind will be 75 mph or greater. Radio stations will be monitored for severe weather warnings for the local area.

If an approaching tornado is sighted, the employees should take the following action:

1. Get away from the perimeter of the building and exterior glass.
2. Leave perimeter offices - close door.
3. Sit down in an interior corridor (locker rooms, interior halls,) and protect yourself by putting your head as close to your lap as possible, or kneel protecting your head.
4. DO NOT go outside of the building.
5. If you are trapped in a perimeter office, seek protection under a desk.
6. If you are trapped in the plant area, move away from perimeter walls and stacked material. Seek shelter under fixed structures or tables.

POWER FAILURES

Utility power failures occur infrequently and usually only last a short time. Patience is required while the local utility company restores power.

In the event of a power failure, employees should remain where they are and wait for an announcement by their supervisor. Avoid moving about unless the area is safely lighted. There is no need to evacuate the area unless instructed by management members to do so. The building is equipped with emergency lighting which illuminates emergency exits.

EVACUATION PLAN

The rapid evacuation of employees is a critical responsibility. The following procedures must be discussed with all employees upon hire and practiced at regular intervals:

RESPONSIBILITIES

The Health and Safety Director (Director) is responsible for arranging annual fire drills and developing the details of the evacuation plan. The Director is also responsible for providing all new employees with the lists of emergency procedures and keeping all employees advised of any emergency plan changes.

PROCEDURES

- Diagrams of the emergency exits, exit routes, and outside meeting locations are posted at various locations throughout the facility. All new hires should familiarize themselves with the information on these diagrams.
- Emergency drills will be held annually. These drills will be planned in advance and are designed to reinforce employees' awareness of the fire exits, evacuation procedures, fire alarm procedures, and outside meeting locations.

BUILDING EVACUATION

If a fire emergency is broadcast over the plant intercom, it must be treated as a building emergency -- and the following actions must be taken:

If a fire or emergency condition requires a building evacuation, proceed immediately to the nearest fire exit.

The pace must not be hasty, but it should be orderly, without delay.

Proceed immediately to your pre-arranged meeting location outside of the building. Your supervisor will make sure all persons have been safely evacuated and will notify the Fire Department if all employees have not been accounted for.

If the alarm proves to be false, an announcement will be issued. With this announcement, the emergency is over.

FIRE SAFETY PLAN

Each year, fire takes a terrifying toll in life and property. The disquieting feature about most industrial fires is that they are caused by things which can be easily controlled by periodic inspection and follow up. Most of the causes are so obvious that you need only to look around regularly to spot them.

An effective fire safety Plan includes:

1. Fire Prevention - The goal is to prevent the fire from happening in the first place. The focus of fire prevention is on good housekeeping, and the control of ignition sources such as careless smoking, the improper use and storage of flammable liquids, welding sparks, and electrical failures caused by poor maintenance.
2. Life Safety - Employees have to get out of the building quickly in the event of a fire. Life safety includes fire exit requirements, planned escape routes, alarms, and emergency drills.

3. Fire Protection - The TCI facility is equipped with an extensive sprinkler system to prevent a fire from getting out of control.
 - a. The fire protection system includes automatic sprinkler systems, fire extinguishers, hose connections, etc. The proper maintenance and testing of this system is critical to the safety of this facility. The following fire safety Plans attend to these needs and are the direct responsibility of the V.P. of Operations. It should be noted that fire safety is everyone's concern, thus, fire safety hazards should be reported to your supervisor immediately. All TCI employees (both hourly and salaried) are provided with yearly portable fire extinguisher training that addresses attack plans for small incipient fires, how to contact emergency authorities, and how to determine when it's time to evacuate the facility.

GENERAL INSPECTIONS

The key to fire prevention, life safety, and fire protection is a sound self-inspection Plan. As part of a general hazard inspection, the Director will make a formal tour of the facility at least once a week to look for housekeeping problems, ignition sources, and anything which can hinder the rapid evacuation of the structure.

Results of this inspection will be presented to the President and supervisors at the weekly staff meeting (Problems which could create an immediate hazard are taken directly to the supervisor for prompt action). Responsibility for correcting problems will be assigned during this meeting. Follow up will occur at the time of the next inspection report. The Director will retain copies of these inspection report forms.

The following items are checked during the weekly inspection:

1. Housekeeping - List all housekeeping problems found during the tours. Be especially alert for storage against electrical control panels, electrical equipment areas, heating equipment, and other places where there are potential ignition sources.
2. Ignition Sources - List all electrical problems, evidence of careless smoking, violations of the company's welding and torch cutting procedures, etc.
3. Flammable Liquids - Note any solvent storage problems and examples of the improper handling of flammable liquids.
4. Fire Exits and Life Safety - Check to make sure that all fire exits are not blocked by storage. Also test the emergency lighting.
5. Sprinkler System - Check to see that the main valve is in the open position, chained, and sealed. Also check to see that air pressure is nominal and the air compressor is plugged in.

MONTHLY FIRE PROTECTION EQUIPMENT CHECKS (Conducted by the Maintenance Department.)

1. Fire Extinguishers
 - a. Check that each extinguisher is securely mounted at an accessible location.
 - b. Examine the extinguisher for physical damage.
 - c. Determine that the nozzle is unobstructed and the discharge hose is in good condition.
 - d. Examine the seal and locking pin to verify that the seal is intact and that the pin cannot be removed or the valve operated without breaking the seal.
 - e. With stored-pressure type dry chemical, and stored pressure type water extinguishers, check the pressure gauge. Remove extinguisher if low and replace with backup.
 - f. Weigh CO2 extinguishers and compare to full weight as stamped on cylinder. Remove if low and replace with backup.

2. Fire Hydrants - Should not be blocked by plant growth or parked cars. Make sure caps are in place. Hydrants should be painted at least bi-annually to maintain a bright contrasting color. Hydrants should be flow tested at least annually.

3. Alarms - Verify that central station alarm contractor is checking and maintaining alarms.

TRAINING

Training is a critical part of an effective Health & Safety Plan because approximately 80 percent of all accidents are caused by unsafe acts. In the process of preparing safety training Plans, there is also an opportunity to reinforce other training objectives.

An important part of the Plan at TCI is the training of all employees in health and safety awareness. The Company will provide training to all employees on any specific hazards they may face in their job positions and on general safety issues.

RESPONSIBILITIES

As a general rule, orientation training will be performed by the Director and the Plant Supervisor prior to the employee beginning work at TCI. This training will cover an overview of the processes and general policies of TCI, plant rules and safety policies, hazardous materials and hazardous waste handling, emergency response procedures, PPE, hearing conservation, and other job specific training as discussed later.

Plant employees, all of whom have routine contact with hazardous chemicals, will receive Hazard Communication Training. Special training is directed toward providing an understanding of specific hazards associated with handling oils, harmful chemicals, and solvents that are commonly used at this facility.

Employees responsible for operating a forklift, skid steer, or articulated boom mobile manlift will receive training and certification from the Plant Supervisor and Health and Safety Director. This training will include viewing a videotape on each type of equipment they hope to operate, hands-on training, and a written examination. A score of 80% is required on the exam in order to qualify as an equipment operator for TCI. After passing the exam, the employee is issued a temporary permit which is good for one month. At the end of the month the employee is evaluated by his supervisor for driving competency and safety. If the supervisor approves, the employee will be issued a 2-year license. However, it is the supervisor's prerogative to "pull" an employee's license for any driving or safety related offense.

The Plant Supervisor is responsible for providing specific job-related training to the new employee. Every effort will be made to integrate safety into the job training. Safety is not an aside to job training - it is simply a part of doing the job right.

PROCEDURES

Training will be provided at various times:

1. All employees will be trained upon implementation of this Plan.
2. New hires will receive safety training as part of their orientation.
3. When an employee receives a new job assignment involving conditions or procedures for which the employee has not received safety training.
4. When new substances, processes, procedures or equipment are introduced into the workplace which constitute a new hazard.
5. When the Company is made aware of a new or previously unknown hazard.
6. Supervisors must include a discussion of relevant safety issues during the regular monthly safety meetings with their employees.

In addition, management will receive training in the health and safety hazards faced by employees under their supervision and control.

The Director will maintain documentation of the training provided under this Plan, including the persons involved, dates of training and type of training.

ACCIDENT/INCIDENT INVESTIGATION

POLICY

All employee accidents/incidents must be investigated promptly and thoroughly in order to determine causes and prevent future occurrences. An accident is defined as any work

related event which results in injury to an employee, requiring medical treatment beyond simple first aid. An incident, for TCI's purposes, is any accident or potential accident that, while not resulting in significant bodily harm or destruction of property, did have the potential to do so. Therefore, both accidents and incidents are treated equally.

RESPONSIBILITIES

The Accident Review Committee will meet as soon as possible following notification of the accident/incident (usually within 24 hours). The affected employee (if available), his/her immediate supervisor, and witnesses will be called before the committee to testify to the circumstances surrounding the incident. Action plans will be developed and timetables set for corrective actions. Written documentation of the meeting will be maintained showing who conducted the investigation, when it occurred, what changes, if any, are recommended to avoid similar incidents in the future, and whether changes in Plan inspection procedures are necessary to better anticipate the potential for such incidents to occur.

Documentation will be maintained for all hazardous conditions, describing the condition, when it was identified, how it was corrected, who corrected it, when it was corrected and what steps will be taken to avoid future problems.

The Director is responsible for determining if an incident is OSHA recordable and, if it is found to be, then recording it on the OSHA 300 log.

REPORT FORM

The "1st Report of Injury and Illness" and the "Supplemental Accident Investigation" forms are used to investigate all incidents. These forms must be completed as soon as possible following the incident, preferably, by the end of the shift.

All relevant facts, circumstances and information relating to the incident are to be included on the forms in order to be sure that the Accident Review Committee has an accurate picture of events and circumstances. If possible, the names of persons who witnessed the incident will be obtained.

The original completed forms will be kept in chronological order in a central file maintained by the TCI Office Manager. Copies of all subsequent medical bills will be attached to the forms.

ACCIDENT/INCIDENT REVIEW AND FOLLOW-UP

At the next scheduled plant safety meeting, the Plant Supervisor and Director will review and discuss with employees each accident/incident which occurred since the last meeting.

The Director will compile incident reports based on types of incident and costs associated with medical treatment. Trends and repetitive problems should then be identified and addressed. For example, if the same type of incident recurs, systems problems which need to be corrected at the plant level can be presented to management.

SAFETY COMMITTEE

The purpose of TCI's Safety Committees is to encourage the involvement of all employees in the Health & Safety Plan and to develop good communication at all levels. The committee organizations are designed to show management's 100% commitment to the safety effort and foster a spirit of cooperation between all employees.

The key to the committees' existence is to train and motivate all employees to keep their eyes open at all times for any safety problems which develop throughout the day. To accomplish this, the following are the general goals and functions of the committee:

- To promote a total commitment to safety awareness.
- To determine training needs through direct observation (plant surveys), input from employees, communications with other committees, or from outside sources.
- To develop action plans to ensure that shortcomings in training are remedied in a timely manner.
- To become directly involved in safety training (either in-house or procurement of outside assistance)
- To review and constructively criticize training Plans to ensure continuous improvement.
- Maintain an active involvement in the Safety Incentive Plan.
- Responsible for health and safety facility audits that address safety and health problems throughout the facility. Committee members are empowered to report any problems directly to management for resolution and action plan development. The committee member will obtain commitment dates for problem resolution and follow-up until the problem is corrected.
- To investigate ergonomic issues through direct observation (plant surveys), input from employees, communications with other committees, or from outside sources.

ACCIDENT REVIEW COMMITTEE

TCI will utilize an Accident Review Committee to review any and all accidents and/or injuries regardless of whether they are OSHA recordable incidents. The responsibility of that committee may include but not be limited to:

- To review all accidents involving medical treatment beyond first aid, as well as, all incidents which have the potential for severe injury.
- To gather all pertinent data surrounding an accident/incident

- To develop an action plan to correct hazardous conditions that may have contributed to the accident/incident.
- To ensure that the circumstances and the action plan are all communicated to all of the employees at TCI.

SELF INSPECTION

Supervisors should constantly be aware of hazards in their areas. Once spotted, immediate action should be taken to mitigate the hazard.

RESPONSIBILITY

The following self inspection safety related items should be included as a supplement to the supervisor's normal daily inspections of the work area:

Floors - Floors should be clean and free of hazards, debris, etc. Aisles used by forklifts should be marked with lines and should not have storage, debris, water or oil spills, etc.

Elevated walkways and platforms over four feet high must be protected by railings, including an intermediate rail. A kick or toe board should also be installed if someone could walk below the elevated walkway or platform.

Electrical - No bare wires and spliced or frayed cords. All plugs should be in proper receptacles (i.e. no octopus arrangement). All electrical apparatuses should be grounded except minor office equipment such as clocks, typewriters, lights, etc. All outlets and junction boxes must have the cover plate installed.

Controls and Electrical Panels - These should be labeled unless their position makes their function obvious. Switches in an electrical panel or remote switches should be labeled. Access to panels and switches should not be blocked by storage, etc.

Fire Exits - These must be marked, and aisles to fire exits must be kept clear of storage, etc. Fire exits cannot be locked.

Fire Extinguishers - There should be an extinguisher within 75 feet of walking distance from every point in the building. Extinguishers should be multipurpose dry chemical.

Extinguishers must be wall mounted, and the top of the extinguisher can be no more than five feet from the floor. They must be checked monthly and serviced yearly. (There will be a tag on the extinguisher listing the date of the annual service.) Extinguishers are to be readily accessible and should not be blocked by storage, etc.

Battery Storage and Handling Acids - Areas where batteries are charged or acid is handled must have a functioning eye wash station. Eye shields and proper gloves must be provided and used. No smoking. Make sure the area is well ventilated.

Compressed Gas Cylinders - Must be chained even when empty. When not in use, cylinders must have a safety cap over the valve. Oxygen and acetylene cylinders may not be stored together even when empty. They should be separated by twenty feet.

Machine Guarding - Pinch points, pulleys, blades, chain drives, and gears must be guarded. Common hazards include:

- A. Exposed belts, pulleys, chain drives, and gears.
- B. Saws/Grinders - Only working part of the blade may be exposed. All other parts of the blade must be fully enclosed.
- C. Fans - If the blades are under seven feet from the floor or an elevated walking platform, the fan guard openings may be no more than one-half inch.
- D. Bench Grinders - Must have a tool rest (maximum opening between the tool rest and the grinding wheel is one-eighth inch), side guard, and a see-through front shield. (Goggles or a face shield must be provided and used.) The floor area around the grinder should be clear of tripping hazards.
- E. Balers/Drum Crushers - There should be a constant pressure or dead man control. Doors must be interlocked.

Housekeeping

- A. Pallets may not be left leaning on end, against walls, doors, etc. They should be stacked on the floor (out of aisles).
- B. Empty pallet stacks should not be any higher than six feet (eight feet in sprinklered areas).
- C. Baled and boxed processed materials should not be stacked more than two high.
- D. Cable spools should never be stacked more than three high.
- E. No excessive, unorganized, or loose storage on top of storage cabinets.
- F. No unorganized storage, trash, etc.
- G. Paint and other flammable liquids should be stored only in approved metal cabinets.
- H. All combustible materials and wastes should be cleaned up and removed.

Welding

All combustible material and storage should be removed from the area. A second person (fire watch) should observe where the sparks go. The fire watch must remain in the area for one-half hour after the job is finished (smoldering sparks) and must have an extinguisher handy.

FORK LIFT / SKID STEER / MANLIFT SAFETY

Fork lifts, skid steer loaders and articulated boom mobile manlifts are all important equipment to TCI's operations. It is essential that this equipment be properly maintained and kept in good working order at all times. Only trained operators are authorized to use this equipment. Authorization will be denoted by color coded authorization badges to be worn at all times while operating any of this equipment. Any employee found operating such equipment without proper authorization will be subject to disciplinary action.

RESPONSIBILITIES

The Plant Supervisor is responsible for training operators to use motorized material handling equipment within their respective units. Employees must be trained and authorized to use each model of equipment. Each employee will be given both videotape and hands on training. Following the training sessions, a written examination will be given. To be certified, a score of 80 or above must be made on the exam. The Director of Health and Safety will file the document in the employee's personnel file and issue the certificates and badges.

The Director will maintain a list of all employees trained to operate each model of equipment and the date(s) of training.

PROCEDURES AND RULES

Operator Selection

An employee assigned to operate a lift truck, skid steer or manlift will meet the minimum requirements in the following areas:

1. Eyesight 20/40 vision, correctable if necessary.
2. Effective use of limbs and good eye-hand-foot coordination.
3. Good hearing ability
4. Ability to understand signs, labels, and instructions.

Training

The Plant Supervisor will provide or arrange for employee training prior to assignment as an operator. A videotape and written training materials will be used in conjunction with the training Plan. Training will be provided for each type of equipment which the employee is assigned to operate. The training will include:

1. Capabilities and limitations of the equipment and attachments.
2. Purpose, use, and limitations of controls.
3. How to make daily inspection checks and completion of the daily inspection checklist form.
4. Safety standards.
5. Hands-on vehicle operation using simulated working conditions.

Maintenance

The Plant Supervisor is responsible for preventive maintenance on the equipment in accordance with the manufacturer's instructions. Equipment operators will complete and sign the daily inspection checklist before taking the equipment at the start of the shift. All defects will be brought immediately to the attention of the Maintenance Supervisor or Plant Supervisor, and will be described on the inspection checklist.

If the vehicle is deemed to be unsafe to operate, the keys are to be turned over immediately to either the Plant Supervisor or the Maintenance Supervisor and it is to be removed from service until the maintenance department returns the vehicle and keys to Operations.

Operations

Lift trucks and skid steer loaders are some of the most hazardous pieces of equipment in use at our facility. ONLY TRAINED OPERATORS ARE ALLOWED TO USE A FORKLIFT OR SKID STEER LOADER.

Operation rules include:

- A. Never allow anyone to walk under a raised load. Employees should stand back whenever a load is off the floor.
- B. Only one person is allowed on the truck.
- C. Seatbelts must be worn.
- D. Never lift personnel up with the forks to change lights, access truck trailers, etc.
- E. Head lights are to be on at all times.
- F. Backup alarms and warning lights are not to be tampered with.

LOCK-OUT/ TAG-OUT PLAN

SCOPE

A high percentage of serious employee accidents occur during maintenance and cleaning operations when someone inadvertently turns on the machine, opens a valve, or in some other way releases stored energy. This procedure establishes a Plan to protect employees while working on equipment during its shutdown for repair, adjustment, cleaning, etc.

RESPONSIBILITY

All TCI management and employees are responsible for adherence to these procedures. Each new employee and other employees whose work operations are or may be in the area shall be instructed on the purpose and use of the lock-out and tag-out procedure. This Plan shall be administered by the Director.

TRAINING

Training is directed toward two primary groups of employees:

- (1) Authorized employees (maintenance personnel or Plant Supervisors) who will be responsible for locking and tagging out equipment. Their training covers the recognition of applicable hazardous energy sources, the type and magnitude of the energy available in the workplace, and the methods and means necessary for energy isolation and control.
- (2) Affected employees who may come in contact with the locks and tags need only a general understanding of the lock-out/ tag-out procedures and to understand that locks and tags are to be left undisturbed. Separate training will be presented to each group.

PERIODIC INSPECTION

At least yearly, the Director will conduct a certified inspection of the lock-out tag-out procedure at TCI to ensure that the procedure and the requirements of this standard are being followed.

The inspection will be documented and will cover a review of an actual procedure. The equipment, control procedures, employees involved, the date of the inspection and the individual conducting the inspection will be included.

The inspection must also include a review, between the inspector and the authorized employee, of that employee's responsibilities under TCI's lock-out/tag-out Plan.

GENERAL REQUIREMENTS FOR LOCKOUT/TAGOUT

- A. All equipment must be properly locked out prior to maintenance or servicing regardless of the number of energy sources or potential energy sources that may be associated with the equipment.
- B. Authorized employees must inform all affected employees that equipment will be down and locked out.
- C. Authorized employees will notify affected employees when equipment is to be returned to operation.
- D. Only after all tools have been removed from the machine or equipment, guards have been reinstalled and employees are in the clear, the authorized employee can remove the tag and lock-out device to restore energy to the machine or equipment.
- E. No one is allowed to place a **"Do Not Operate"** tag unless the piece of equipment has been locked out.
- F. The lock-out procedure will still be followed even if the motor leads to electric motors have been disconnected.
- G. Only the supervisor of the maintenance employee who installed a lock may authorize its removal.
- H. Any person who removes a lock-out device or a warning tag without authorization is subject to dismissal.

- I. Personnel removing locks and tags are also responsible for reinstalling any machine guards before the equipment is restarted.

PROCEDURES FOR WHEN MORE THAN ONE AUTHORIZED EMPLOYEE IS INVOLVED

If more than one employee is required to lockout or tagout equipment, each shall place his own personal lock-out or tag-out device on the energy isolating device(s). When an energy isolating device cannot accept multiple locks or tags, a multiple lockout or tagout device may be used. Each authorized employee can then use his/her own lock to secure it. As each employee no longer needs to maintain his lockout protection, that person will remove his lock from the lockout device.

PROCEDURES FOR MAINTAINING CONTINUITY OF LOCKOUT ACROSS SHIFTS

For LO/TO operations that extend beyond a single shift, any outgoing authorized employee must ensure that the incoming employee has attached his lock to the lockout device. At that point, the outgoing employee may remove his own lock and leave the area. All incoming affected employees should be notified of the LO/TO operation in progress.

CONTRACTORS

All contractors shall follow this standard. They will be allowed to use their own lock or they may obtain one from the Director.

MACHINE PROCEDURES

The following procedures establish the minimum requirements for the lock-out or tag-out of energy isolating devices on machinery or equipment that contain hazardous energy sources that must be controlled. They shall be used to ensure that the machine or equipment is isolated from all hazardous energy and locked out or tagged out before employees perform any servicing or maintenance activities where the unexpected energization, start-up, or release of hazardous energy could cause injury. This includes locking and tagging out electrical sources to equipment; draining of compressed air/steam; draining or locking hydraulic systems; locking and tagging supply valves; releasing stored potential mechanical energy such as springs, elevated machine parts, rotating flywheels; isolating heat energy sources; etc.

1. Identification - The authorized employee(s) must prepare a list of all equipment which could potentially cause a serious accident in the event it is inadvertently turned on during maintenance or cleaning operations. All isolating devices must be located and identified to be certain which switch(es), valve(s), or other energy isolating devices apply to the equipment to be locked or tagged out. This list should be reviewed with the department supervisor and Director to ensure all proper isolating devices have been identified.

2. Locks and Lock-out Tags - Each department affected by this procedure should be supplied with an adequate supply of lock out devices and tags. Lock-out devices include both key locks, multi-lock holders, and lock-out devices designed to adapt to valves, breakers, switches, etc.

CONFINED SPACE ENTRY PLAN

SCOPE

This Plan includes all site wide employee confined space activities which could result in accidental entrapment, engulfment, asphyxiation, exposure to mechanical injury, exposure to temperature extremes, or exposure to hazardous chemicals.

DEFINITIONS

(A) Confined Space - a space that:

- (1) Is large enough and so configured that an employee can bodily enter and perform assigned work; and
- (2) Has limited or restricted means for entry or exit (for example, tanks, vessels, silos, storage bins, hoppers, vaults, and pits are spaces that may have limited means of entry.); and
- (3) Is not designed for continuous employee occupancy.

(B) Permit-Required Confined Space - a confined space that requires a permit for authorized entry (permit space) as defined by the Occupational Safety and Health Administration (OSHA). Their definition for a permit-required confined space includes the following descriptions:

- (1) Contains or has a potential to contain a hazardous atmosphere;
 - (2) Contains a material that has the potential for engulfing an entrant;
 - (3) Has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section; or
 - (4) Contains any other recognized serious safety or health hazard.
- "Permit-required confined space Plan (permit space Plan)" means the employer's overall Plan for controlling and, where appropriate, for protecting employees from, permit space hazards and for regulating employee entry into permit spaces.

At TCI, the shredder, all fixed storage tanks, and nitrogen blanketed transformer tanks are always to be treated as potential permit-required confined spaces.

(C) Permit-Required Confined Space Entry - as soon as any part of the entrant's body breaks the plane of any opening into the confined space, and for all ensuing activities in that space.

(D) Confined Space Entry Permit - the written TCI permit which authorizes trained TCI employees to enter a permitted space. The permit will define the conditions under which the confined space may be entered.

(E) Hazardous Atmosphere - an atmosphere which exposes an employee to a risk of death, incapacitation, injury or acute illness. Pertaining to the confined spaces at TCI, one or more of the following characterize a hazardous atmosphere:

- an atmospheric oxygen concentration below 19.5% or above 23.5%
- an atmospheric flammable gas, vapor or most concentration in excess of 10% of its lower flammable limit (LFL).
- an atmospheric concentration of any substance which could expose an employee in excess of the OSHA permissible exposure limit (PEL). If the substance does not have a PEL, the American Conference of Governmental Industrial Hygienists (ACGIH) threshold limit value (TLV) or recommendations on the Safety Data Sheet (SDS) may be used.
- any atmospheric condition that is immediately dangerous to life or health (IDLH).

(F) Immediately Dangerous to Life and Health (IDLH) - any condition that poses an immediate or delayed threat to life or that would cause irreversible health effects or that would interfere with an individual's ability to escape unaided from a permit space.

DESIGNATION OF PERMIT SPACES

A. Identification

All areas that meet the definition of permit-required confined space above shall be identified by the TCI employee who is in charge of the confined space entry Plan as noted on the entry permit.

B. Posting Signs

Signs shall be posted on each confined space in which entry will be required. The signs shall notify employees of the hazards within the confined space and that the space may only be entered by authorized entrants. Signs shall read:

DANGER

CONFINED SPACE - ENTRY BY PERMIT ONLY

TRAINING AND DUTIES OF AUTHORIZED EMPLOYEES

A. General

Only those employees who have been trained and authorized may enter or attend permit confined spaces.

B. Authorized Entrants

Training - All TCI employees who will be authorized to enter permit confined spaces will take part in a training session that will provide information for entry. The training will include information on:

- The hazards that may be present
- The signs and symptoms of exposure to the hazards
- Consequences of exposure to the hazards
- Any personal protective equipment that is required to be used in the confined space
- Emergency procedures

Duties - In addition to performing the work specified in the permit, the authorized entrant shall:

- Maintain continuous contact with the attendant
- Properly use personal protective equipment provided
- Exit the confined space when the attendant orders evacuation, when automatic monitoring alarms sound, or when they perceive they are in danger
- Not introduce foreign substances, such as unspecified cleaning solvents, nor perform unauthorized activities within the confined space.

C. Authorized Attendants

Training - all authorized attendants who will be stationed outside the confined space will take part in a training session that will provide information on:

- The hazards that may be present in the confined space
- Recognition of the signs and symptoms of exposure to the hazards
- Procedures for monitoring the atmosphere in the confined space
- Recognition of external hazards that may endanger the entrant(s)
- The prohibition of the attendant entering the confined space to rescue the entrant(s)

- Any rescue procedures they must perform while not entering the confined space, such as initiating additional ventilation of the space or notification of the plant emergency coordinator or North Union County Fire and Rescue.

(All employees who act as attendants are required to be currently certified in CPR, First aid, and have received training in Bloodborne Pathogens including universal precautions)

Duties - the attendant's primary function is to remain outside the confined space at all times while performing the following functions:

- Maintain continuous and effective contact with the entrants. this can be achieved by continuous visual contact, and/or a voice activated communication system.
- Order entrants to evacuate the confined space immediately when:
 1. Conditions arise that are not allowed in the entry permit.
 2. Behavioral effects of the entrant(s) from exposure to the hazards are observed.
- A hazard originating from outside the confined space may threaten the entrants.
- Any uncontrolled hazard arises.
- The attendant must leave the work station.
 - Summon emergency coordinator and/or rescue services for the entrant(s).
 - Warn unauthorized personnel that they are not permitted to enter the permit space.
 - Properly perform rescue functions while remaining outside of the permit space.
 - Perform atmospheric testing if designated to do so.
 - Sign in and out the entrants on the entry permit.

Employee Authorizing Entry

Training - The employee who authorizes entry into confined spaces shall be designated as such in writing on the entry permit. The person shall be capable, by education, experience, or training, of anticipating, recognizing, and evaluating employee exposure to hazardous conditions, and shall be capable of specifying necessary control measures to insure entrant safety.

If the employee who authorizes entries into permit spaces also acts as an entrant or an attendant, the person must receive the training described above.

Duties - The primary responsibility of the person who authorizes entry into a permit space, is the issuance of the written entry permit. To issue the permit, the individual must:

- Assure that the permit contains all the pertinent information for the particular permitted entry
- Assure that all measures have been taken for safe entry to occur
- Assure that all conditions for the permit remain in affect
- Cancel the entry permit if entry conditions are not acceptable
- Cancel the permit after the work in the permit space has been completed
- Remove all unauthorized personnel from within or near the permit space

Rescue

General - Due to the nearby location of its facility, TCI will use the services of the North Union County Fire Department in the event of an emergency situation involving any confined space entries. Phone numbers for quickly accessing the rescue service will be included on the entry permit.

Atmospheric Testing on Permit Spaces

General - Entry into permit spaces by any employee shall be prohibited until monitoring of the internal atmosphere of each permit space has been conducted to determine if a hazardous atmosphere exists. The monitoring shall determine what, if any, additional measures must be taken to attempt to render the atmosphere non-hazardous.

Frequency of Testing - Before an employee enters each permit required confined space, the internal atmosphere shall be tested, from outside the permit space, using direct-reading instruments equipped with a remote sampling probe. Monitoring of the permit space atmosphere must be conducted so that an accurate representation of the atmosphere is achieved. Particular emphasis shall be placed on monitoring the atmosphere in all locations in which the entrants may enter. Care shall be taken to monitor the atmosphere representing the breathing zone of the entrants.

Testing Equipment - All equipment used for testing shall be explosion proof and equipped with an audible alarm or danger signaling device that will alert employees when a hazardous condition develops. All testing equipment shall be properly calibrated in accordance with the manufacturer's guidelines. The calibration of each testing device shall be checked prior to each use.

Testing Procedures - the sequence of testing of the permit space atmosphere shall be as follows:

- Oxygen Concentration
- Flammable Gases and Vapors
- Toxic Contaminants, if applicable

Testing for Toxic Contaminants - (Transformers) It is TCI's policy to receive transformers that are not "pre-cleaned", or had foreign substances placed within

by prior owners or handlers of the transformers. In addition, no TCI employee shall place a foreign substance in a transformer, such as an organic solvent for cleaning, that have not been specified by TCI for the transformer reclamation process. However, to guard against exposure to foreign substances that may have unknowingly or inadvertently been added to the transformers, the following measures shall be taken:

- The person authorizing entry into the transformer shall perform or verify performance of a visual inspection of the transformer, from outside the transformer, to determine if there are obvious signs of a foreign substance. The presence of possible unusual odors is one indication.
- If a foreign substance is noted, entry into the transformer shall be prohibited until the substance is identified by testing and/or consulting with previous owners and handlers.
- Air monitoring shall be conducted for the substance to determine the airborne concentration for comparison to the OSHA PEL or applicable exposure limit.

Permitted Confined Space Entry Procedures

General - Upon acquisition of large transformers for disassembly, the tops are removed prior to core removal. The tops must often be removed by using a flame/plasma torch or reciprocating saw. To prevent an internal fire during this procedure, the transformer is first purged with nitrogen (“blanketed”). After the top is removed, entry into the unit to unbolt the core would be considered a permit required confined space entry if done immediately after removing the top before the low oxygen environment has a chance to dissipate.

Prior to entry into tanks, the supervisor must confirm that all connecting lines (both solvent and steam) are bled down and double blocked, all associated pumps are properly shut down and locked out (see TCI Lockout/Tagout Plan), and all forms of stored mechanical energy are relieved and locked out. This should be documented on the entry permit.

Notification - Prior to entry into a permit space, notification shall be made by the supervisor in charge of the work that will require entry into the permit space to the individual who is in charge of issuing the entry permit (“Designated Personnel” on entry permit). The supervisor shall describe the work required inside the permit space and shall give a list of entrants.

Procedures for Individual Issuing Permit

- Secure a complete list of names of the entrants. Record on the permit.
 - If Contractors must enter the permit space, provide all information contained on the permit and any additional information on the hazards associated with the permit space to the Contractor. The Contractor

is required to have his own Confined Space Entry Plan for his employees. However, TCI shall provide information on the specific permit space so that the Contractor may include this information in his Plan.

- Assign an authorized attendant to the permit space. Record on the permit.
- Verify that the entrants and attendant have received proper training and are authorized to enter or attend the permit space.
- Verify that procedures to prepare the permit space for occupancy have been completed. Record on permit.
- Perform and verify performance of atmospheric testing inside permit space. Record on permit.

If initial atmospheric testing reveals that a hazardous atmosphere does not exist, and that there is a low likelihood that a hazardous atmosphere will arise:

- Forced ventilation of the space by mechanical means is not required unless the work performed inside the space may generate a hazard.
- Testing of the permit space shall be conducted at regular intervals using the remote sampling probe to ensure that a hazardous atmosphere does not develop.
- If initial testing reveals that a hazardous atmosphere exists:
 - **Prohibit Entry**
 - Notify the entrants and attendant.
 - Initiate forced ventilation of the permit space by using a mechanical blower. Care shall be taken to prevent channeling, or tunneling of air so that all areas inside of the permit space are adequately ventilated. In addition, the air supply for the forced ventilation shall be from a clean source and may not increase the hazards inside the space.
 - Retest the permit space atmosphere.
- If the hazard has been abated:
 - Continue forced ventilation to prevent the recurrence of the hazard.
 - Continuous testing of the atmosphere shall be conducted by the use of direct-reading, personal sampling devices with audible alarms.

- If the hazard has not been completely abated (but is below IDLH levels) and cannot be abated using other feasible measures:
 - Require entrants to be equipped with personal protective equipment which shall properly protect them from the hazards (as determined by the Health & Safety Director). Record on permit.
 - Continuous testing of the atmosphere shall be conducted.
- Notify emergency coordinator(s) when the entry will be made and include the duration of the entry. Record on permit.
- Obtain supervisor of work signature on the permit after the supervisor has read the permit and determined that applicable information is accurate.
- Sign the entry permit and give to the attendant or post in a conspicuous location near the permit space entrance.
- Verify that all conditions of the permit are met throughout the entry.
 - If an emergency or non-permit condition arises, void the permit and issue a new permit when acceptable conditions are achieved.
 - Issue a new permit once the acceptable conditions have been achieved.
- Cancel the entry permit once the required work inside the permit space has been completed and all entrants have signed out on the entry permit.

Procedures for Authorized Entrants

- Determine the type of work to be performed, such as mechanical repair, unbolting cores (transformers), cleaning, etc.
- Become familiar with the hazards of the permit space and the signs, symptoms, and consequences of exposure to the hazards (contact the Director).
- Review the Confined Space Entry Permit to become familiar with the methods of preparation and control of hazards. Verify for yourself that the preparations and controls as listed in the permit are satisfactory and the hazards have been contained.
- Review personal protective equipment which has been determined to be required to be worn and verify that respiratory protection training and medical surveillance has been obtained. Make sure that your PPE is worn correctly.
- Assure that name is included on the list of authorized entrants.
- Obtain the name(s) of authorized attendant.
- Sign in on permit.

- Verify that communication system with the authorized attendant(s) is operating properly where required. Upon entry into the permit space, maintain continuous contact with the authorized attendant.
- Follow all requirements of the permits.
- Immediately evacuate the permit space when necessary. Notify authorized attendant when evacuation is occurring.
- Sign out on permit following exit from the permit space.

Periodic Permit Space Plan Review

At least yearly, the Director will conduct a written review of TCI's permit required confined space entry Plan or when there is reason to believe that the measures taken under the permit space Plan may not protect employees.

Note: Examples of circumstances requiring the review of the permit space Plan are: any unauthorized entry of a permit space, the detection of a permit space hazard not covered by the permit, the detection of a condition prohibited by the permit, the occurrence of an injury or near-miss during entry, a change in the use or configuration of a permit space, and employee complaints about the effectiveness of the Plan.

The review will utilize the canceled permits from the previous 12 month period. The review will look for any shortcomings in the permit system that would expose employees participating in entry operations to permit space hazards.

HEARING CONSERVATION PLAN

SCOPE

The Hearing Conservation Plan provides guidelines for eliminating and/or monitoring noise exposure in the work environment. Harmful effects of noise are usually not known until years after the exposure. TCI believes the best way to protect its employees and the environment from this hazard is through proper planning, as well as, through developing, training and enforcing company policies.

This Plan is outlined as follows:

- Engineering / Administrative Controls
- Monitoring
- Hearing Protection
- Annual Testing of Employee Hearing
- Training

Engineering / Administrative Controls

The first step in addressing the hazard of noise exposure is planning how to eliminate it from the work environment. This should be done by using engineering controls. Where such controls are not deemed feasible, administrative measures may be taken to reduce the time and/or degree of exposure. The goal at TCI is to bring employee exposure to below 85 decibels (dBA) for an average 8-hour day. Examples of engineering controls include:

- Using acoustic curtain walls between work areas
- Substituting with quieter machinery and tools where possible
- Placing all noisy machinery in isolated areas
- Ensuring equipment is well maintained
- Limiting employee time around high noise exposures

The ultimate goal at TCI is to use engineering controls to eliminate the need for personal hearing protection. However, at present, such controls may not be possible or feasible for certain TCI work environments. All job categories within the plant may involve movement from one area to another. Therefore, all plant employees have potential for over-exposure and are thus included in the Hearing Conservation Plan. By following company the guidelines set forth in this Plan and by properly wearing the personal protective equipment provided, the employees' exposure should be minimized.

Monitoring

TCI periodically conducts noise surveys consisting of both area noise levels (e.g. core pile work, shearing, etc.) and personnel average exposures (dosimetry). This is done to determine the effects of added work environment modifications (machinery or control additions or removals) and to ensure that employee hearing protection is adequate.

Results of these surveys are maintained on file in the Health & Safety Department and are readily accessible to the employees at all times. Following the surveys, the results are discussed with the employees to ensure that they are made fully aware of their noise exposure at the plant.

Hearing Protection

Where engineering controls cannot eliminate or reduce noise exposure to a safe level, employees are required to wear appropriate hearing protection.

TCI provides its' employees with both foam ear canal plugs and ear muffs. Custom made plugs are available for those employees who have difficulty wearing either of the standard protective devices.

Through dosimetry surveys, TCI ensures that the hearing protection provided to employees is sufficient to lower noise exposure to below 90 dBA as required by OSHA.

All visitors and contractors at TCI will be provided with appropriate protection while in designated high noise areas.

Annual Employee Audiometric Exam

TCI contracts annual audiometric exams for all employees who participate in the Hearing Conservation Plan. TCI maintains copies of all audiograms and audiometer calibration records obtained from the contracted health care provider.

The audiogram consists of bilateral pure tone air conductance discrimination of a standard frequency matrix from 250 to 8000 hertz.

A baseline audiogram is conducted as part of an employee's pre-employment physical. If a Standard Threshold Shift (STS) (an average 10 dB discrimination shift from baseline across the 2, 3 and 4000 hertz frequencies in either ear) is noted on an employee's annual audiogram, the test will be repeated within 30 days. If the retest agrees with the initial shift, the employee is notified in writing and given a work modification in an effort to reduce the employee's exposure. They are also refit with hearing protection and retrained in its proper use and care. Should an STS of 25 dB occur, this would be considered an OSHA recordable illness and the employee would be referred to a physician for further evaluation.

Training

Employees must receive annual training on TCI's Hearing Conservation Plan. The training is documented and includes the following:

- Instruction on proper selection, fitting, use and care of hearing protection devices
- Explanation of the effects of noise on hearing
- Description of the disadvantages/advantages of each type of hearing protection device

This training is provided by the Health & Safety Director and is presented through a combination of lecture, hands-on demonstration, videotapes, written training module and comprehensive test.

Following training in the Hearing Conservation Plan, the employee will be able to:

- Explain the effect of noise on hearing
- Explain the purpose of hearing protection
- Choose proper hearing protection
- Explain the purpose of audiometric testing

TCI will maintain records indicating you received this annual safety training for the duration of your employment.

Adherence to this guideline is mandatory for **all** personnel.

Certain mechanical tasks or activities occurring within the plant produce noise levels greater than 85 dBA and therefore require the use of hearing protection. The following is a partial list of tasks and activities that require hearing protection:

Using of the following tools:

- (a) Pneumatic impact chisel
- (b) Pneumatic impact wrench
- (c) Pneumatic or electric circular saw
- (d) Disk grinder
- (e) Table saw
- (f) Electric reciprocating saw

If you are involved in an activity not included here, but it is one in which you feel the noise exposure may be excessive, notify your supervisor and wear your hearing protection.

TCI provides employees and contractors with personal hearing protection devices and through Plant design modifications are ongoing in an effort to reduce noise levels throughout the plant. Warning signs are posted at high noise areas throughout the plant.

Hearing protective devices muffle the sound waves as they enter the ear. The hearing protection devices approved for use at TCI are of two basic types, those worn over the ear, commonly referred to as ear muffs. Those worn inside the ear are moldable (Foam plug) to fit each wearer and are disposable to provide clean, safe hearing protection.

Foam plug hearing protective devices are readily available in the storeroom and at the entrance to the plant. Ear muffs are also available in the storeroom. Please request them from your supervisor.

LEAD EXPOSURE CONTROL PLAN

SCOPE

This Plan includes all site wide employee activities on equipment owned or operated at TCI, which could potentially result in employee exposure to inorganic lead. It provides the methods and procedures that are followed to meet the requirements of the OSHA General Industry Standard, "Lead", 29CFR 1910.1025, "HazCom" 29CFR 1910.1200, "Respiratory Protection" 29CFR 1910.134, "Personal Protective Equipment" 29CFR 1910.132,133,134

An assessment of our operations and mechanical tasks in other affiliated facilities indicates that the OSHA PEL of 50 $\mu\text{g}/\text{m}^3$ or "action level" of 30 $\mu\text{g}/\text{m}^3$ for lead could potentially be exceeded in excess of 30 days per year for employees. This Plan outlines our efforts to systematically evaluate and institute controls to reduce the employee's exposure potential during this operation. Also, previous monitoring data has confirmed that employees who use cutting torches to remove transformer lids are potentially exposed to lead fumes coming from the lead based paints which were commonly used on older transformers. Although this operation is seldom performed now (10-15 times per year, 1-4 hours per occurrence), controls have been established to ensure employee exposure remains below the action level. These controls will also be addressed in this Plan.

General Information – Lead

Lead may also be found in varying percentages in coatings that have been applied to the electrical equipment processed by TCI. When sufficient heat is applied to these coatings, such as during flame torch cutting, lead fumes may be generated.

Lead is a hazardous material. Exposure to lead can occur from inhaling airborne lead fumes, dust, and mist or from ingesting lead through hand-to-mouth contact with lead contaminated materials. Lead is a potent poison that serves no known useful purpose once absorbed by the body. It adversely affects numerous body systems and causes health impairment and disease which arise after periods of exposure as short as days or as long as several years. Exposure to lead may result in damage to the nervous, gastrointestinal, renal, cardiovascular, skeletal, reproductive, and blood forming systems.

Torch Cutting - Approximately 10 to 15 times per year, it is necessary to use a cutting torch to remove the tops from large transformers. This usually involves one employee operating from the top of the transformer or from a platform, either of which puts his breathing zone above and near the torch. Another employee is usually standing on the ground acting as fire watch. Monitoring has indicated lead exposures in excess of 150 $\mu\text{g}/\text{m}^3$ during this operation.

Personal Protective Equipment

- PPE must be worn at all times while cutting tops off lead coated transformers.
 - full-face respirator w/organic vapor and HEPA cartridges
 - disposable Tyvek[®] coveralls w/hood
 - steel toed leather boots
 - polyethylene booties
 - leather gloves
 - 4 mil. nitrile gloves
 - Kevlar gloves

All Tyvek articles must remain intact throughout the shift. Any articles that are torn or saturated by oil are to be replaced immediately.

TCI requires that all employees who must wear respirators be clean shaven in facial areas that will have contact with the sealing surfaces of full face respirators (Only mustaches are allowed). This will be checked by the supervisor at the start of each shift before the employees are allowed to work.

Respirators are required to be kept as clean as possible at all times. Employees are instructed to inspect the face seals and valves of their respirators at least twice a day and to wash, wipe and disinfect the face piece at the end of each shift using detergent and alcohol swabs. They are instructed to replace HEPA filter cartridges whenever breathing becomes labored. They are also instructed to replace organic vapor cartridges whenever an odor is detected while wearing the respirator and the respirator passes the negative and positive fit checks. Replacement cartridges are available from the supervisor.

MEDICAL MONITORING AND REMOVAL

As part of TCI's Medical Monitoring Plan, all employees are tested at least annually for blood lead concentration. Those employees whose exposures are shown through quarterly air sampling to possibly exceed the OSHA action level of $30 \mu\text{g}/\text{m}^3$ are given tests for blood lead and zinc protoporphyrin every 6 months. If an employee's blood lead ever exceeds $40 \mu\text{g}/\text{dL}$, it is TCI's policy to immediately transfer them to another job in which the airborne concentration is below $30 \mu\text{g}/\text{m}^3$ and to increase the blood lead analysis for that employee to every 2 months until the level returns below $30 \mu\text{g}/\text{dL}$.

Employees who may be exposed to airborne lead levels greater than $30 \mu\text{g}/\text{m}^3$ also receive yearly a thorough physician's exam and additional laboratory tests including: Complete Blood Count (CBC), Blood Urea Nitrogen (BUN), Serum Creatinine, and Urinalysis.

EMPLOYEE TRAINING

All employees at TCI are given orientation training prior to job assignment and yearly thereafter if assigned to a job where (1) the OSHA action level for airborne lead exposure is expected to be exceeded or (2) where the OSHA permissible exposure level (PEL) or excursion limit (EL) is expected to be exceeded. The training consists of a review of:

- The contents of the written TCI Lead Exposure Control Plan and the OSHA general industry standards for lead (29 CFR 1910.1025, including appendices A and B).
- The health effects associated with lead overexposure, including its effects on reproductive systems of both males and females.
- The purpose and a description of a Medical Surveillance Plan, and the Medical Removal Protection Plan.

- The engineering controls and proper work practices associated with the job assignment.
- The purpose of and the proper use, care, and maintenance of personal protective equipment to be used as part of job assignment. This includes the limitations of such equipment.
- The purpose of chelating agents and why they are not to be routinely used to remove lead from their bodies and should not be used at all except under the direction of a physician.

RESPIRATORY TRAINING

All employees at TCI who are assigned to a job where the OSHA action level for airborne lead exposure is expected to be exceeded more than 30 days out of the year or above the OSHA permissible exposure level (PEL) or the OSHA excursion level (EL) are given respiratory protection training by TCI's Health & Safety Director as per TCI's Respiratory Protection Plan and OSHA 1910.134 which includes:

- The contents of the written Plan and OSHA general industry standard for respiratory protection.
- A review of the proper selection, fitting, use, care, and storage of the respirators they were assigned. This includes how to and how often to clean and disinfect the respirators.
- How to conduct a field lead check.
- How to determine when a respirator is not functioning properly and what actions to take should this occur.
- How to obtain replacement parts for the respirators.

As part of the respiratory training, a thorough qualitative fit test is given to these employees prior to job assignment and every 6 months thereafter if, after a physician's review, he/she is found to be fit to wear a negative pressure respirator.

RECORD KEEPING

Records to be kept at TCI include the following:

- Exposure monitoring
 - date, number, duration, location, and results of each of the samples taken
 - the operations involved
 - description of the sampling and analytical methods used and evidence of their accuracy
 - the type of respiratory protective devices worn, if any
 - name, social security number and job classification of the employee monitored and of all other employees whose exposure the measurement is tended to represent
 - the environmental variables that could affect the measurement of employee exposure

(These records shall be maintained for a period of at least 40 years or for the duration of employment plus 20 years, whichever is longer.)

- Medical surveillance
 - name, social security number, and description of the duties of the employee

- a copy of the physician's written opinions
 - the results of any airborne exposure monitoring done for that employee and the representative exposure levels supplied to the physician
 - any employee medical complaints related to exposure to lead or asbestos
 - a copy of the medical examination results including medical and work history
 - a description of the laboratory procedures and a copy of any standards or guidelines used to interpret the test results or references to that information (to be maintained by the physician)
 - a copy of the results of biological monitoring
(These records shall be maintained by TCI or the physician for a period of at least 40 years, or for the duration of employment plus 20 years, whichever is longer.)
- Medical Removals for Lead
 - name and social security number of the employee
 - the date on each occasion that the employee was removed from current exposure to lead as well as the corresponding date on which the employee was returned to his/her former job status
 - a brief explanation of how each removal was or is being accomplished
 - a statement with respect to each removal indicating whether or not the reason for the removal was an elevated blood lead level.
(These records shall be maintained by TCI for at least the duration of an employee's employment.)
 - Training Records
(These records will be maintained by TCI for at least one year beyond the date of employment.)

BLOODBORNE PATHOGENS EXPOSURE CONTROL PLAN

SCOPE

The text of OSHA 1910.1030, "Bloodborne Pathogens", is an extensive document which places employers under an exacting burden to protect its employees from exposure to infectious bloodborne diseases such as HIV ("AIDS") and Hepatitis B while in the work place. Compliance with this rule will require TCI, as an employer, to take extensive measures to protect employees who are expected to perform certain services as part of their job descriptions.

The OSHA code is divided into seven major sections, six of which will apply to TCI in meeting compliance with the code. These sections are titled **Exposure Control, Methods of Compliance, Hepatitis B Vaccination and Post-exposure Follow-up, Communication of Hazards, and Recordkeeping**. The section which is not expected to apply to TCI is titled **HIV and HBV Research Laboratories and Production facilities**. Major subsections of the code specify requirements for assessing exposure potential to

various employees, defining procedures and specific equipment to eliminate or minimize exposure hazards, training and medical assessments. It is readily apparent that such activities require competencies which are most generally associated with the field of medicine.

The code itself refers in several subject areas to persons knowledgeable in the areas of epidemiology and symptoms of bloodborne diseases, medical assessments and to licensed health care professionals (see definitions section). Such code words and terms suggest that a bloodborne pathogens exposure control plan is best managed by an employee with extensive competency in medicine, epidemiology or an Director. TCI's Exposure Control Plan will be administered by the Health & Safety Director in coordination with the Company Physician as designated.

PURPOSE

This plan is intended to reduce occupational exposure to Hepatitis B Virus (HBV), Human Immunodeficiency Virus (HIV) and other bloodborne pathogens that TCI employees may encounter in their work place.

This Exposure Control Plan for Occupational Bloodborne Pathogen (BBP) Exposure has been developed for TCI in compliance with the CDC guidelines and the OSHA Bloodborne Pathogens Standard, 29 CFR 1910.1030 as adopted and enforced by the State of Ohio.

TCI believes that there are a number of "good general principles" that should be followed when potentially working with bloodborne pathogens. These include:

1. It is prudent to minimize all exposure to bloodborne pathogens.
2. Risk of exposure to bloodborne pathogens should never be underestimated.
3. Our facility should institute as many work practice and engineering controls as possible to eliminate or minimize employee exposure to bloodborne pathogens.

We have implemented the Exposure Control Plan to meet the letter and intent of the OSHA Bloodborne Pathogens Standard. The objective of this plan is twofold:

1. To protect our employees from the health hazards associated with bloodborne pathogens.
2. To provide appropriate treatment and counseling should an employee be exposed to bloodborne pathogens

DEFINITIONS

Bloodborne Pathogens: Microorganisms that are present in human blood and can cause disease in humans. These pathogens include Hepatitis B Virus (HBV) and Human Immunodeficiency Virus (HIV).

Exposure Incident: When an employee has contact with blood or other potentially infectious materials as a result of his or duties. This contact includes specific eye, mouth, other mucous membrane, non-intact skin or parenteral contact.

Non-Intact Skin: Skin that has cuts, abrasions or other openings through which bloodborne pathogens could enter the bloodstream.

Occupational Exposure: Reasonably anticipated employee contact with blood or other potentially infectious materials that may result from the performance of an employee's duties. This includes skin, eye, mucous membrane or parenteral contact.

Other Potentially Infectious Materials: This means human body fluids: semen, pericardial fluid, peritoneal fluid, amniotic fluid, saliva, body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids.

Source Individual: Any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee.

Universal Precautions: An approach to infection control in which all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV and other bloodborne pathogens.

RESPONSIBILITIES

Director – Michelle Botter-Lee, Health & Safety Director

This person is responsible for:

- Issuing and administering this plan and making sure that the plan satisfies the requirements of all applicable federal, state or local bloodborne pathogen regulations
- Working with management and other employees to develop and administer any additional bloodborne pathogens related policies and practices needed to support the effective implementation of this plan
- Identifying which employees are likely to be exposed to bloodborne pathogens
- Developing procedures for post-exposure incidents
- Maintaining medical records of exposure incidents, training records and hepatitis B vaccination records
- Completing exposure incident reports and notifying affected individuals
- Evaluating and updating the Plan annually (by Dec. 31st) or whenever new or modified tasks and procedures are implemented which affect occupational exposure of TCI employees
- Training employees annually

Current First Aid/ CPR Providers (as of 11/17)

Name and Titles

Michelle Botter-Lee– Safety Director
Angie Masters– EHS Coordinator
Frank Jackson – Company President

These people are responsible for:

- Knowing what tasks they perform that have occupational exposure
- Using universal precautions in all situations that involve exposure to blood and other potentially infectious materials
- Developing good personal hygiene habits
- Informing the Director of all exposure incidents
- Attending the bloodborne pathogens training sessions

Determination of Exposure

OSHA requires employers to perform an exposure determination concerning which employees may incur occupational exposure to blood or other potentially infectious material. The exposure determination is made without regard to the use of personal protective equipment. The determination is derived from the following:

1. Job classifications in which all employees have occupational exposure to bloodborne pathogens and the tasks in which occupational exposure to bloodborne pathogens occur
2. Job classifications in which some employees have occupational exposure to bloodborne pathogens and the tasks in which occupational exposure to bloodborne pathogens occur

Job classification in which all employees have potential exposure to bloodborne pathogens and the tasks in which occupational exposure to bloodborne pathogens occur

NONE AT THIS TIME

Compliance Methods

Universal precautions will be observed at TCI in order to prevent contact with blood or other potentially infectious material. All blood or other potentially infectious material will be considered infectious regardless of the perceived status of the source individual.

Engineering and Work Practice Controls

Such controls will be utilized to eliminate or minimize exposure to employees at this facility. Where occupational exposure remains after institution of these controls, personal

protective equipment shall also be utilized. At TCI, the following engineering controls will be used:

1. Bio-Hazard Debris Containers (polyethylene bags), Pre-Labeled, Predominantly Red
2. Gloves, Latex or Nitrile Disposable, Non-Sterile
3. Eyewear, Safety Glasses with Side Shields
4. Disinfectant Cleanup Solution - Sodium Hypochlorite 5.25% Solution, Dilute 1:10 Clorox, or Commercial Quaternary ammonium or active chlorine cleaning and absorbent products rated for HIV/HBV disinfected efficacy
5. Towelettes, Antiseptic Hand Wipe
6. Pocket Mask, CPR, with One-way valve anti-emesis

The above controls will be examined and maintained on a regular schedule. These items are located in designate areas inside the facility and the office. Also, employees who expend personal protective or other response material under this plan shall inform their supervisor in a timely manner to assure adequate inventories are maintained. Any employee performing a response action or other duties under this plan who feels he or she may have been exposed in the course of that duty shall immediately report same to the Director. In such cases, the Director shall assist the employee in completing an Exposure Determination form.

Hand washing facilities are available to employees who incur exposure to blood or other potentially infectious materials. Designated responders under this plan shall wash with antiseptic cleaner or towelettes (when soap and water is not immediately available) after an exposure incident, further washing with soap and water as soon as practicable thereafter. In cases where there was potential exposure to broken skin, face, eyes or mucous membranes (such as nasal passage or mouth), employees shall ensure exposed areas have been flushed with water as soon as practicable following contact.

Personal Protective Equipment

- Employees will be provided with personal protective equipment at no cost
- Protective equipment will be removed before leaving the work area or after a garment becomes contaminated
- Used protective equipment will be placed in designated containers
- Gloves will be worn when the employee may have contact with blood or other potentially infectious materials
- Appropriate face and eye protection will be worn when splashes, sprays, spatters or droplets of blood or other potentially infectious materials pose a hazard to the eye, nose or mouth

- Appropriate protective body covering will be worn when occupational exposure is anticipated

Housekeeping

- All equipment and work surfaces that have been contaminated with blood or other potentially infectious materials will be cleaned and decontaminated with an appropriated disinfectant
- All infectious waste will be placed in red colored plastic bags for disposal.
- All regulated waste will be discarded according to Federal, State and Local regulations.

Labeling

- All infectious waste containers will be labeled with a bio-hazard symbol and the word “bio-hazard”

HBV Pre-Exposure Plan

Affected employees within TCI’s facility recognize that even with good adherence to all of our exposure prevention practices, exposure incidents can occur. As a result, we have implemented a Hepatitis B Vaccination Plan.

- The hepatitis B vaccine and vaccination series will be offered within 10 working days of initial assignment to employees who have potential occupational exposure unless the employee has previously received the complete Hepatitis B vaccination series, antibody testing has revealed that the employee is immune, or the vaccine is contraindicated for medical reasons. The series consists of three inoculations over a six-month period. As part of their bloodborne pathogen training, our employees have received information regarding Hepatitis vaccination, including its safety and effectiveness.
- Vaccinations are performed under the supervision of a licensed physician or other health care professional
- The vaccine and vaccinations, as well as all medical evaluations and follow-up will be made available to TCI employees at no cost.
- Vaccinations will be administered according to current recommendations of the U.S. Public Health Service
- All laboratory tests shall be conducted by an accredited laboratory at no cost to the employee
- Employees who decline the vaccination will sign a declination form
- The vaccination will be made available to the employee at a later date and at no cost if he/she continues to have the potential for exposure

Post-Exposure Evaluation and Follow-Up

All exposure incidents shall be reported, investigated and documented. When the employee incurs an exposure incident, it shall be reported to his/her supervisor who shall report same to the Director.

Note: For OSHA 300 Recordkeeping, an occupational bloodborne pathogens exposure incident shall be classified as an injury and shall be recorded if:

1. The incident is a work-related injury that involves loss of consciousness, transfer to another job or restriction of work or motion, or
2. The incident results in the recommendation of medical treatment beyond first aid, or
3. The incident results in a diagnosis of seroconversion: serological status of the employee not to be recorded on the OSHA 300

Source: OSHA enforcement document: CPL 2-2.44C

Following a report of an exposure incident (see definition), the exposed employee shall immediately receive a confidential medical evaluation and HBV vaccine will be offered within 24 hours of the incident. The Director will investigate every exposure incident that occurs in our facility. This investigation will be initiated within 24 hours after the incident occurs and will consist of the following components:

1. When the incident occurred - date and time
2. Where the incident occurred
3. What potentially infectious materials were involved in the incident - blood, saliva, etc.
4. Source of material
5. Under what circumstances the incident occurred - type of work being performed
6. How the incident was caused
7. Personal protective equipment being used at the time of the incident
8. Actions taken as a result of the incident - employee decontamination, cleanup, notifications made, etc.

This information will be reviewed via TCI's Accident Review Committee where recommendations will be made and action plans will be developed to help prevent future reoccurrences of similar incidents.

Additional exposure incident procedures will be followed in order to make sure that our employees receive the best and most timely treatment if an exposure to bloodborne pathogens should occur. These additional procedures consist of the following:

- The routes of exposure and how exposure occurred will be documented
- The source individual will be identified and documented (unless infeasible or prohibited by law)
- If consent is given, the source individual's blood will be tested and documented as soon as possible to determine HIV and HBV infectivity
- The exposed employee will be provided with the source individual's test results and information about applicable laws and regulations concerning source identity
- After consent is given, the exposed employee's blood will be tested for HBV and HIV serological status

- If the employee does not give consent for HIV serological testing, the baseline blood sample will be preserved for at least 90 days
- Recommendations by the U.S. Public Health Service will be followed
- The health care provider who is responsible for administering the vaccine and post-exposure evaluation will be given a copy of the OSHA Standard (29 CFR 1910.1030)
- After an exposure incident occurs, the health care provider will receive a description of the exposed employee's job duties relevant to the exposure incident, documentation of the route of exposure, circumstances of exposure, results of the source individual's blood tests and all relevant employee medical records, including vaccination status
- The employee will be provided with a copy of the health care provider's written opinion within 15 days after the evaluation. In keeping with this process' emphasis on confidentiality, the written opinion will contain only the following information:
 - Whether Hepatitis B Vaccination is indicated for the employee
 - Whether the employee has received the Hepatitis B Vaccination
 - Confirmation that the employee has been informed of the results of the evaluation
 - Confirmation that the employee has been told about any medical conditions resulting from the exposure incident which require further evaluation or treatment

All other findings or diagnoses will remain confidential and will not be included in the written opinion.

- The health care provider who will complete the post-exposure evaluations:

Marion Occupational Health, Marion, Ohio

Information and Training

Having well informed and educated employees is extremely important when attempting to eliminate or minimize our employees' exposure to bloodborne pathogens. Because of this, all employees at TCI who have the potential for exposure to bloodborne pathogens are provided comprehensive training at the time of initial assignment to tasks where occupational exposure may occur. Refresher training shall be presented to these designated personnel annually.

Training must be presented by a health care or other professional medically competent to understand and interpret bloodborne infections, including routes of entry, epidemiology and prophylaxis. Training shall be interactive and cover the following:

1. Copy of the standard and an explanation of its contents;
2. A discussion of the epidemiology and symptoms of bloodborne diseases;
3. An explanation of the modes of transmission of bloodborne pathogens;

4. An explanation of TCI's Bloodborne Pathogen Exposure Control Plan (this plan) and a method for obtaining a copy;
5. The recognition of tasks that may involve exposure;
6. An explanation of the use and limitations of methods to reduce exposure, for example engineering controls, work practices and personal protective equipment (PPE);
7. Information on the types, use, location, removal, handling, decontamination, and disposal of PPE's;
8. An explanation of the basis for selection of PPE's;
9. Information on the Hepatitis B vaccination, including efficacy, safety, method of administration, benefits, and that it will be offered free of charge;
10. Information on the appropriate actions to take and, for those employees not designated by this plan, persons to contact in an emergency involving blood or other potentially infectious materials;
11. An explanation of the procedures to follow if an exposure incident occurs, including the method of reporting and medical follow-up;
12. Information on the evaluation and follow-up required after an employee exposure incident;
13. An explanation of the signs, labels and color coding systems

Medical Records

All medical records are maintained in secure, confidential files in TCI's Administrative office.

Medical records shall be maintained in accordance with OSHA Standard 29 CFR 1910.1020. These records shall be kept confidential, and must be maintained for at least the duration of employment plus 30 years. The records shall include the following:

1. The name and social security number of the employee
2. A copy of the employee's HBV vaccination status including the dates of vaccination
3. A copy of all results of examinations, medical testing, and follow-up procedures
4. A copy of the information provided to the health care professional, including a description of the employee's duties as they relate to the exposure incident, and documentation of the routes of exposure and circumstances of the exposure

Training Records

TCI's Health & Safety Director is responsible for maintaining the following training records.

Training records shall be maintained for three years from the date of training. The following information shall be documented:

1. The dates of the training sessions
2. An outline describing the material presented
3. The names and qualifications of persons conducting the training

- 4. The names and job titles of all persons attending the training sessions

**Hepatitis B Vaccination
Statement of Declination**

I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no charge to myself. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

Employee Signature

Date

Employee Name Printed

Employer Representative Signature

TCI Exposure Determination Form I

Write the job titles and names of employees who have the potential of becoming exposed to blood or body fluids as a routine part of their assigned job at TCI (i.e. plant nurse, emergency first responders)

Note: People in this group are likely to have one or more exposures to blood or body fluids per month.

Job Title	Employee Name

TCI Exposure Incident Report

Part I. Exposed Individual

Name _____
Address _____
Social Security Number _____

1. Using the list below, check off the parts of the body that were exposed.

- Eye
- Mouth
- Mucous membrane
- Non-intact skin
- Puncture

2. What was the employee exposed to?

Blood Vomit Urine Feces Other (explain) _____

3. Describe the exposure incident.

What work was being done? _____
What caused the incident? _____
What personal protective equipment was worn? _____
What actions were taken immediately following the accident? _____

Part II. Source Individual

Name _____
Address _____

1. Does your state have a confidentiality requirement?	yes	no	unknown
2. Is the source individual infected with HBV or HIV?	yes	no	unknown
3. Has the source individual consented to blood testing?	yes	no	

TCI Exposure Incident Report

Part III. Medical Examination Checklist

Provide the following information to the health care provider who performs the follow-up medical evaluation on the exposed employee.

Initial and date when each step is complete.

- 1. Copy of the Bloodborne Pathogens Standard Initials _____ Date _____
- 2. Copy of this Exposure Incident Report Initials _____ Date _____
- 3. Results of the Source Individual's blood tests Initials _____ Date _____
- 4. Copy of the exposed employee's medical records
 relevant to the exposure Initials _____ Date _____

Signature of person completing this form _____

Print Name _____ Date _____

Attach source individual's blood test results and signed consent form or refusal form.

TCI Exposure Incident Checklist

Initial and date when each step is completed.

1. Exposure incident report completed.	Initials _____ Date _____
2. Source individual's medical release/refusal obtained	Initials _____ Date _____
3. The following information has been provided to the health care provider performing the follow-up evaluation:	
a. Cover letter requesting the evaluation	Initials _____ Date _____
b. A copy of the OSHA Standard	Initials _____ Date _____
c. All information available on the source individual	Initials _____ Date _____
d. A copy of the exposed employee's medical records relevant to the exposure	Initials _____ Date _____
4. Employee notification by the health care provider concerning the results of the follow-up evaluation.	Initials _____ Date _____

TCI Exposed Employee Medical Release Form

I hereby affirm the information found in the Exposure Incident Report is a true and correct account of my exposure incident. I further authorize my employer to release all relevant medical records to the health care provider who will be performing the medical evaluation and follow-up for this exposure incident. I understand that all information collected during this evaluation and the contents of this report will remain confidential.

Employee Signature _____ Date _____

Source Individual Medical Release/Refusal Form

Source Individual Name _____
Address _____

You have been involved in an incident that has exposed the following employee(s) to your blood or body fluids:

Permission For Source Individual's Medical Release

I hereby grant permission to have my blood drawn and tested to determine if I am a carrier of a bloodborne disease. I also grant permission to have the test results released to the individuals listed above, and to the health care providers performing the follow-up evaluations.

Source Individual's Signature _____ Date _____

Refusal For Source Individual's Medical Release

I have had the exposure evaluation process explained to me and I hereby refuse to consent to blood testing to determine my infectious status with regard to bloodborne pathogens, including but not limited to Hepatitis B Virus (HBV) or Human Immunodeficiency Virus (HIV). I understand that by refusing to do so, those individuals who were exposed to my blood or body fluids will have limited information to determine their potential for contracting these diseases.

Source Individual's Signature _____ Date _____

Dear Dr. TBD

Based upon the attached Exposure Incident Report, the following employee sustained an occupational exposure to bloodborne pathogens. Under the Occupational Safety and Health Administration Bloodborne Pathogen Standard 29 CFR 1910.1030, Trans-Cycle Industries is obligated to request a medical evaluation and follow-up for this employee.

You are being provided with the following information:

1. A copy of the OSHA Standard.
2. A copy of the Exposure Incident Report.
3. Information on the source individual.
4. A copy of the exposed employee's medical records relevant to this exposure and his/her HBV vaccine status.

Please verify, within 15 days, that the exposed employee has been informed of the following:

1. The results of the evaluation.
2. Any medical condition resulting from exposure.

3. Any further evaluation or treatment needed.

Please send the verification letter to my attention. If you have any questions, please contact me.

Sincerely,

Health & Safety Director

Bloodborne Pathogens Equipment List

Instructions: List all available equipment to be used for the bloodborne pathogens Plan, where it is stored and who is responsible for the equipment.

Personal Protective Equipment

Equipment Type	Storage Location	Person Responsible

Decontamination and Disposal Materials

Equipment Type	Storage Location	Person Responsible

Bloodborne Pathogens Plan Evaluation Record

Please Print

<u>Evaluation Date</u>	Plan Evaluator	List any changes made to the Plan	Annual Completion Date	Training	Comments

HAZARD COMMUNICATION PROGRAM

The TCI Hazard Communication Plan is an integral part of our policy to provide a healthful and safe working environment for employees. TCI feels that it is essential for its employees to be knowledgeable of the hazards to which they may be exposed, to recognize deleterious effects that may occur from such exposure, and to be familiar with work practices and the methods for controlling exposures.

In order to conduct our business, certain materials must be used that require specific precautions to protect our employees' health. Therefore, it will be the policy of TCI to communicate any hazards employed with handling hazardous materials to those employees involved.

It is the responsibility of the Health & Safety Director, as the designated Hazard Communication Plan Coordinator and all managers/supervisors to ensure proper information is obtained and disseminated to the appropriate employees.

It is each employee's responsibility to follow safe working practices as outlined in our operating procedures and in the Safety Data Sheets.

The effectiveness of this Hazard Communication Plan depends on the active support and involvement of all personnel.

INTRODUCTION

General

The purpose of this written Plan is to assure that information is available on hazards of chemicals present at our site that employees are aware of hazards of chemicals with which they work, and that training is provided in procedures and practices necessary to control exposures to these hazardous materials. The Plan applies to chemicals known to be present in such a manner that employees may be exposed under normal conditions of use or in a foreseeable emergency.

Regulatory Requirements

The regulatory requirements for this Plan are set forth in the Hazard Communication Standard (HSC) promulgated by the Occupational Safety and Health Administration (OSHA). This standard is contained in OSHA's General Industry Standards, 29 CFR 1910.1200.

The success of this Plan requires commitment from management and employees, each of whom bears a responsibility for assuring the goals of the Plan are met. Management is responsible for providing these sources necessary to assure that employees receive accurate and complete information on hazardous chemicals in this workplace. Employees are responsible for using this information to protect themselves and their fellow workers against hazardous chemicals.

Hazard Communication Plan Overview

The sections that follow describe the basic elements of the TCI Hazard Communication Plan (HCP). These elements include labels and other forms of warning, material safety data sheets (SDS's), and employee information and training Plans. Also included are sections on informing employees of the hazards of non-routine tasks and of the hazards associated with chemicals contained in unlabeled pipes. A section is included on informing Contractors with employees who may be in this facility of the hazardous chemicals their employees may be exposed to while in our facility. Finally, there is a list of the hazardous chemicals known to be present in this facility.

Plan Administration

Supervisors are assigned for carrying out various tasks under this Plan. These tasks and the assigned responsibilities are described in each section. Overall responsibility for implementation of the TCI HCP is assigned to Frank Jackson, President, and Michelle Botter-Lee, Health & Safety Director (Director), who acts as the HCP Program Administrator. The responsibilities of the Director include:

- Assuring that the basic elements of the Plan are implemented and that the Plan is kept current;
- Identifying department managers, supervisors, and their attendant responsibilities for carrying out the requirements of the Plan; and
- Coordinating the efforts of managers, supervisors, and their attendants who are assigned responsibilities in support of this Plan.
- Identifying hazardous chemicals used in the facility and listing those chemicals on the inventory form.
- Obtaining SDS's from all hazardous material suppliers and keeping an up-to-date file of all SDS's.
- Ensuring that no employee is allowed to work with a hazardous chemical unless training has been provided.
- Providing training to employees in safe handling of hazardous materials, which are used in the course of their assignments.
- Ensure the chemical training record is placed in the personnel file of each employee who has received hazard communication training.
- Ensure proper labeling practices are being followed.
- Enforce health and safety rules.

LABELS AND OTHER FORMS OF WARNING

Incoming Containers

The Supervisor insures that labels on incoming containers of hazardous chemicals are present and complete with the following information:

- Identity of the chemical;
- Presence of hazard warning(s); and
- Name and address of the chemical manufacturer, importer, or other responsible party.

If the label is absent or incomplete according to the above criteria, the Supervisor notifies the vendor and requests the appropriate information or label.

The Director assumes responsibility for determining the adequacy of the available vendor's label. If the label is not adequate according to the requirements of the standard with special attention to hazard warnings, the Director shall notify the vendor and request additional information, and pending acquisition of suitable information, place the material on hold.

In-Plant Containers

Portable Containers

Portable containers into which hazardous chemicals are transferred are labeled with the following information:

- Identity of the hazardous chemical; and
- Appropriate hazard warnings.

The supervisor is responsible for insuring the labeling of the portable container with the labels supplied by the Director.

Fixed Containers

Fixed containers of hazardous chemicals are labeled with the following information:

- Identity of the hazardous chemical; and
- Appropriate hazard warnings.

The Supervisor is responsible for assuring the labeling is correct.

Waste Materials

Labels for waste items in process and waste containers generated by TCI identify the hazardous chemicals present and provide the appropriate warnings per federal EPA Resource Conservation Recovery Act (RCRA) and the Toxic Substance Control Act (TSCA) regulations.

The following subsections identify the persons responsible for assuring the adequacy of SDSs and the tasks for which they are responsible.

Review Process

The Supervisor determines the availability of SDS's for incoming materials. If an SDS is not available from the vendor, the Supervisor notifies the Director who will request the appropriate SDS. If an SDS is available from the vendor, the Director conducts a preliminary review of the SDS to determine if the basic information as required by the regulations is presented. If the basic information is complete, the Director determines if the available technical information is adequate according to the regulatory criteria. If not, the Director requests additional information from the vendor. Once pertinent information is obtained, the Director researches the hazard of the material according to the regulatory criteria.

Availability of SDSs

The Director maintains a master list of SDS's for hazardous chemicals present at TCI, which is located in the Director's office. Another list specifically for the plant and office workers is located at the "Right to Know" station in the facility breakroom. Also, a list specifically for laboratory

chemicals is located in the laboratory. They are readily accessible during each work shift to employees when they are in the work area. For off-site workers, applicable SDS's are included as part of site specific health and safety plans and they are kept in the Site Supervisor's vehicle. Additional SDS's are always readily available via the Internet by contacting the Director.

Process Materials

Due to the nature of the process materials (scrapped out electrical equipment) and the source (end users of the equipment, not manufacturers), SDS's are usually not available for transfer to us. However, the Supervisor will ensure that any SDS obtained from any supplier of waste material for processing will pass through to downstream metals brokers, incinerators, oil recyclers, and smelters.

EMPLOYEE INFORMATION AND TRAINING

Initial Training

Employees exposed or potentially exposed to hazardous chemicals are trained upon initial hire and job assignment by the Director prior to the use of or potential exposure to the hazardous chemicals.

TCI uses a classroom type forum for training of employees. It consists of lecture by the Director including a hands on thorough review on the use of SDS's. Videos supplement the lecture to ensure complete coverage of all information on Right-to-Know and the Hazard Communication Standard.

The initial training provides employees the following information:

- overview of the OSHA Hazard Communication Standard and employees' rights under it,
- operations in their work areas where hazardous chemicals are present,
- location and availability of this written Plan, including the list of hazardous chemicals,
- location of the SDSs for hazardous chemicals in their work area, and an explanation of reading and interpreting SDSs,
- an explanation of reading and interpreting information on hazardous chemical labels,
- physical and health hazards of the chemicals in use in their work areas,
- measures they can take to protect themselves from hazardous chemicals, including procedures implemented to protect from exposure to hazardous chemicals such as safe work practices, engineering controls, and the use of personal protective equipment if necessary,
- proper procedures for responding to emergencies and for dealing with unusual operations,
- methods and observations they may use to detect the presence or release of a hazardous chemical in their workplace, including air monitoring, visual appearance or odor of hazardous chemicals when being released, and

changes in operational parameters.

The overall effectiveness of the Hazard Communication Plan relies on active participation by employees in all aspects of the Plan. Training especially requires participation and feedback as to scope and depth. Employees are encouraged to bring to the attention of the Director and/or their supervisors problems or questions concerning hazardous chemicals.

Periodic Training

Periodic training will be provided to potentially exposed employees whenever a new hazardous chemical is introduced into their work area and whenever new, significant information is received about hazardous chemicals already in their work area. This training will be provided by the Director.

Recordkeeping

The Director maintains a record of all training provided to employees under the hazard communication Plan.

MISCELLANEOUS

Non-Routine Tasks

Employees who may perform non-routine tasks such as confined space entries are trained beforehand by the Director. Training includes discussion of the health and physical hazards which may be encountered and procedures for measuring, if appropriate, and protecting against those hazards, including use of monitoring instruments, engineering controls, work practices, and personal protective equipment. Much of this information comes from the SDS's of any hazardous chemicals that may be encountered during the tasks.

Unlabeled Piping Systems

At TCI's facility, there are no unlabeled piping systems of hazardous chemicals.

Outside Contractors

It is the responsibility of the Supervisor in coordination with the Director, to ensure that outside contractors are provided with the following information before starting work on our site:

- hazardous chemicals to which their employees may be exposed while working in our facility, and
- precautions their employees must take to reduce the possibility of exposure to those hazardous chemicals.

LIST OF HAZARDOUS CHEMICALS

A list of known hazardous chemicals present at TCI are included in the SDS Binders located in the Director's office and the Employee Breakroom.

SUBSTANCE ABUSE PLAN

SUBSTANCE ABUSE POLICY STATEMENT

TCI is committed to providing a safe work environment and to fostering the well-being and health of its employees. That commitment is jeopardized when any TCI employee illegally uses drugs on the job, comes to work under the influence, possesses, distributes or sells drugs in the workplace, or abuses alcohol on the job. Therefore, TCI has established the following policy:

- (1) It is a violation of company policy for any employee to use, possess, sell, trade, offer for sale, or offer to buy illegal drugs or otherwise engage in the illegal use of drugs on the job.
- (2) It is a violation of company policy for anyone to report to work under the influence of illegal drugs or alcohol.
- (3) It is a violation of the company policy for anyone to use prescription drugs illegally. (However, nothing in the policy precludes the appropriate use of legally prescribed medications.)
- (4) Violations of this policy are subject to disciplinary action up to and including termination.
- (5) Refusal to submit to a substance abuse test and/or alcohol test upon a finding/confirmation of reasonable suspicion will be a presumption that the legal limits have been exceeded and the employee will be subject to discipline up to and including termination.

As a condition of employment, employees must abide by the terms of this policy and must notify EAC in writing of any conviction of a violation of a criminal drug statute no later than five (5) calendar days after such conviction.

Pre-Employment Drug Testing

All job applicants at TCI (including those applying through temporary agencies) will undergo testing for the presence of illegal drugs as a condition of employment. Any applicant with a confirmed positive test will be denied employment.

Applicants will be required to submit voluntarily to a urinalysis test at a laboratory chosen by TCI, and sign a consent agreement releasing TCI from liability.

If the physician, official or lab personnel has reasonable suspicion to believe that the job-applicant has tampered with the specimen, the applicant will not be considered for employment.

TCI will not discriminate against applicants for employment because of a past history of drug abuse. It is the current abuse of drugs, preventing employees from performing their jobs properly, that TCI will not tolerate.

Individuals who have failed a pre-employment test may initiate another inquiry with TCI after a period of not shorter than six (6) months; but they must present themselves drug-free as demonstrated by urinalysis or other test selected by TCI.

Employee Testing

TCI has adopted testing practices to identify employees who use illegal drugs on or off the job. It shall be a condition of employment for all employees to submit to drug testing under the following circumstances:

When there is reasonable suspicion to believe that an employee is using illegal drugs. The following circumstances could cause reasonable suspicion:

1. Observed drug abuse.
2. Apparent physical state of impairment.
3. Incoherent mental state.
4. Marked changes in personal behavior that are otherwise unexplainable.
5. Deteriorating work performance that is not attributable to other factors.
6. Accidents or other actions that provide reasonable cause to believe the employee may be under the influence of drugs.
7. When employees are involved in on-the-job accidents where personal injury or damage to company property occurs.

General Procedures

An employee reporting to work visibly impaired will be deemed unable to properly perform required duties and will not be allowed to work. If possible, the employee's supervisor will first seek another supervisor's opinion to confirm the employee's status. Next the supervisor will consult privately with the employee to determine the cause of the observation, including whether substance abuse has occurred. If, in the opinion of the supervisor, the employee is considered impaired, the employee will be referred to the Employee Assistance Coordinator (EAC) for further action. A drug test may be in order. An impaired employee will not be allowed to drive. If an employee, upon a finding of "reasonable suspicion" insists on driving, local authorities will be notified. TCI will provide transportation to the testing facility.

Employees with a confirmed positive test result may, at their option and expense, have a second confirmation test made on the same specimen. An employee will not be allowed to submit another specimen for testing. If the physician, official, or lab personnel has reason to believe that the employee has tampered with the specimen, the employee is subject to disciplinary action up to and including termination.

Test results will be reviewed by a Medical Review Officer (MRO) and the results will be communicated directly to the employee. In the case of positive results, the employee will

be given an opportunity to explain the results prior to their being reported to TCI's EAC. The EAC will then discuss the results with the employee and the employee's supervisor to determine what actions will be taken. All results will be kept otherwise confidential and will not be made part of the employee's personnel file.

Drug Substances Screened

The following drug families, cutoff limits and confirmation test levels will be tested by TCI:

Typical Cutoff Limits

	<u>SCREEN</u>
Amphetamines	1,000 ng/ml
Cannabinoid	50 ng/ml
Cocaine	300 ng/ml
Opiates	300 ng/ml
Phencyclidine	25 ng/ml

Confirmation of Positive Results

Because initial drug test results may be misleading, decisions about employees or applicants must not be based solely upon positive urine samples from a screening method like enzyme immunoassay or radioimmunoassay. Such positive results must be confirmed by gas chromatography/mass spectrometry (GC/MS) which is a well-documented reference method.

Confirmation Test Level

Amphetamines	500 ng/ml
Cannabinoids	15 ng/ml
Cocaine	150 ng/ml
Opiates	300 ng/ml
Phencyclidine	25 ng/ml/ml

Alcohol Abuse

An employee who is under the influence of alcoholic beverages at any time while traveling on TCI business, whether engaged in TCI business at the time or not, shall be guilty of misconduct and is subject to discipline up to and including termination. An employee who is under the influence of alcoholic beverage while on TCI property, whether on duty or not, shall be guilty of misconduct and is subject to discipline up to and including termination.

An employee shall be determined to be under the influence of alcohol if . . .

1. the employee's normal faculties are impaired due to the consumption of alcohol, or

2. the employee has a blood alcohol level of .04 or higher for safety sensitive functions or .08 or higher for non-safety sensitive functions.

All employees currently employed at TCI's facility are considered to be performing safety-sensitive functions.

Employee Assistance Plan (EAP)

The company offers an Employee Assistance Plan (EAP) for employees. The EAP is conducted by an Employee Assistance Coordinator (EAC). The current EAC is TBD. The EAP provides confidential assessment, referral and short-term counseling for employee's who need or request it. If an EAP referral to a treatment provider outside the EAP is necessary, costs may be covered by the employee's medical insurance, but the cost of such outside services are the employee's responsibility.

Participation in the EAP will not affect an employee's career advancement or employment, nor will it protect an employee from disciplinary action. The EAP is a process used in conjunction with discipline, not a substitute for discipline.

The EAP can be accessed by an employee through self-referral or through referral by a supervisor.

TCI offers resource information on various means of employee assistance in our community including but not limited to drug and alcohol abuse Plans. Employees are encouraged to use this resource file, which is located with the EAC. In addition, the EAC will distribute this information to employees for their confidential use.

Documentation

Applicants and employees will be asked to sign a Consent Form (Attachments I & II). All employees will be asked to sign an "Employee Certificate of Agreement" and return to their supervisor prior to starting work at TCI (Attachment III).

**ATTACHMENT I
PRE-EMPLOYMENT DRUG AND ALCOHOL TESTING
CONSENT AND RELEASE FORM**

I hereby consent to submit to urinalysis and/or other tests as shall be determined by TCI for the purpose of determining the drug content thereof.

I agree that Marion Occupational Health may collect these specimens for these tests and may test them or forward them to a testing laboratory designated by the company for analysis.

I further agree to and hereby authorize the release of the results of said tests to the company.

I understand that it is the current use of illegal drugs that prohibits me from being employed at TCI.

I further agree to hold harmless the Company and its agents (including the above named physician or clinic) from any liability arising in whole or part out of the collection of specimens, testing, and use of the information from said testings in connection with the Company's disciplinary action, if applicable.

I further agree that a reproduced copy of this pre-employment consent and release form shall have the same force and effect as the original.

I have carefully read the foregoing and fully understand its contents. I acknowledge that my signing of this consent and release form is a voluntary act on my part and that I have not been coerced into signing this document by anyone.

Applicant:
Print Name _____
S.S. #: _____

Applicant:
Signature _____
Date: _____

Witness Printed Name: _____

Witness Signature: _____

ATTACHMENT II
DRUG AND ALCOHOL TESTING
CONSENT AND RELEASE FORM

I hereby consent to submit to urinalysis and/or other tests as shall be determined by TCI for the purpose of determining the drug content thereof.

I agree that Marion Occupational Health and/or local hospital emergency room may collect these specimens for these tests and may test them or forward them to a testing laboratory designated by the company for analysis.

I further agree to and hereby authorize the release of the results of said tests to the company.

I understand that it is the current use of illegal drugs and abuse of alcohol that may result in disciplinary action taken against me up to and including termination.

I further agree to hold harmless the Company from any liability arising in whole or part out of the collection of specimens, testing, and use of the information from said testings in connection with the Company's disciplinary action, if applicable.

I further agree that a reproduced copy of this consent and release form shall have the same force and effect as the original.

I have carefully read the foregoing and fully understand its contents. I acknowledge that my signing of this consent and release form is a voluntary act on my part and that I have not been coerced into signing this document by anyone.

Applicant:
Print Name _____
S.S. #: _____

Applicant: Signature _____
Date: _____

Witness Printed
Name: _____

Witness
Signature: _____

**ATTACHMENT III
EMPLOYEE CERTIFICATE OF AGREEMENT**

I do hereby certify that I have received and read the TCI Substance Abuse Policy Statement and understand the aspects of said policy. I understand that if my performance indicates it is necessary, I will submit to a drug and/or alcohol test. I also understand that failure to comply with a testing request or a positive result may lead to termination of employment.

Name (please print)

Signature

Date

END OF DOCUMENT

SECTION XV

TRANS-CYCLE INDUSTRIES OF OHIO, LLC

**150 Ira Bean Parkway
Richwood, Ohio 43344**

**CONTINGENCY PLAN
(ATTACHED AS SEPARATE DOCUMENT)**



Doc No:	800-300
Initial Issue Date:	11/18/2017
Revision No.:	1.01
Next Revision Date:	3/1/2022

Trans-Cycle Industries of Ohio, LLC

Health & Safety Program

Contingency Plan

CONTINGENCY PLAN

EMERGENCY PERSONNEL NAMES AND PHONE NUMBERS DESIGNATED RESPONSIBLE PERSON:

Name: CRAIG RENNER Phone: 614-905-2418

EMERGENCY COORDINATOR:

Name: CRAIG RENNER Phone: 614-905-2418

AREA/FLOOR MONITORS (If applicable):

Area/Floor: Plant Operations Name: Richard Johnson Phone: 740-361-1208

Area/Floor: Shipping & Receiving Name: Laura Waugh Phone: 614-927-7399

ASSISTANTS TO PHYSICALLY CHALLENGED (If applicable):

Name: CRAIG RENNER Phone: 614-905-2418

EVACUATION ROUTES

Evacuation route maps have been posted in each work area, the office, and are attached hereto. The following information is marked on evacuation maps:

1. Emergency exits
2. Primary and secondary evacuation routes
3. Locations of fire extinguishers
4. Fire alarm pull stations' location

5. Assembly points
6. Site personnel should know at least two evacuation routes.

EMERGENCY PHONE NUMBERS

FIRE & EMS DEPARTMENT: 911 OR 740-943-2715

POLICE: 911 OR 740-943-5212

SECURITY (If applicable): _____

UTILITY COMPANY EMERGENCY CONTACTS (Specify name of the company, phone number and point of contact)

ELECTRIC: AEP OHIO - 614-672-2231 – Roger McIntire

WATER: City of Richwood - 740-341-7294 - Nick McDonald

GAS (if applicable): Columbia Gas – 740-751-9182 – Kent Baker

TELEPHONE COMPANY: Spectrum – 800-224-6603

EMERGENCY REPORTING AND EVACUATION PROCEDURES

Types of emergencies to be reported by site personnel are:

- MEDICAL
- FIRE
- SEVERE WEATHER
- BOMB THREAT
- CHEMICAL SPILL
- STRUCTURE CLIMBING/DESCENDING
- EXTENDED POWER LOSS

MEDICAL EMERGENCY

- Call medical emergency phone number (check applicable): 911 OR 740-943-2715
- Provide the following information:
 - a. Nature of medical emergency,
 - b. Location of the emergency (address, building, room number), and

c. Your name and phone number from which you are calling.

- Do not move victim unless absolutely necessary.
- Call the following personnel trained in CPR and First Aid to provide the required assistance prior to the arrival of the professional medical help:

Name: Craig Renner

Phone: 614-905-2418

Name: Laura Waugh

Phone: 614-927-7399

- If personnel trained in First Aid are not available, as a minimum, attempt to provide the following assistance:

1. Stop the bleeding with firm pressure on the wounds (note: avoid contact with blood or other bodily fluids).

2. Clear the air passages using the Heimlich maneuver in case of choking.

- In case of rendering assistance to personnel exposed to hazardous materials, consult the Safety Data Sheet (SDS) and wear the appropriate personal protective equipment. Attempt first aid ONLY if trained and qualified. FIRE EMERGENCY When fire is discovered:

- Activate the nearest fire alarm (if installed)
- Notify the local Fire Department by calling 911 OR 740-943-2715.

- If the fire alarm is not available, notify the site personnel about the fire emergency by the following means (check applicable):

- Voice
- Communication
- Phone Paging
- Radio

- Other (specify) Fight the fire ONLY if:

- The Fire Department has been notified.
- The fire is small and is not spreading to other areas.
- Escaping the area is possible by backing up to the nearest exit.
- The fire extinguisher is in working condition and personnel are trained to use it.

Upon being notified about the fire emergency, occupants must:

- Leave the building using the designated escape routes.
- Assemble in the designated area (specify location):
- Remain outside until the competent authority (Designated Official or designee) announces that it is safe to reenter.

Designated Official, Emergency Coordinator or supervisors must (when applicable):

- Disconnect utilities and equipment unless doing so jeopardizes his/her safety.
- Coordinate an orderly evacuation of personnel.
- Perform an accurate head count of personnel reported to the designated area.
- Determine a rescue method to locate missing personnel.
- Provide the Fire Department personnel with the necessary information about the facility.
- Perform assessment and coordinate weather forecast office emergency closing procedures

Area/Floor Monitors must:

- Ensure that all employees have evacuated the area/floor.
- Report any problems to the Emergency Coordinator at the assembly area.

Assistants to Physically Challenged should:

- Assist all physically challenged employees in emergency evacuation.

EXTENDED POWER LOSS

In the event of extended power loss to the facility certain precautionary measures should be taken depending on the geographical location and environment of the facility:

- Unnecessary electrical equipment and appliances should be turned off in the event that power restoration would surge causing damage to electronics and effecting sensitive equipment.
- Facilities with freezing temperatures should turn off and drain the following lines in the event of a long term power loss.
 - Fire sprinkler system
 - Standpipes
 - Potable water lines
 - Toilets
- Add propylene-glycol to drains to prevent traps from freezing

- Equipment that contain fluids that may freeze due to long term exposure to freezing temperatures should be moved to heated areas, drained of liquids, or provided with auxiliary heat sources.

Upon Restoration of heat and power:

- Electronic equipment should be brought up to ambient temperatures before energizing to prevent condensate from forming on circuitry.
- Fire and potable water piping should be checked for leaks from freeze damage after the heat has been restored to the facility and water turned back on.

CHEMICAL SPILL

The following are the locations of:

Spill Containment and Security Equipment: Near entrance/exits

Personal Protective Equipment (PPE): Maintenance cage on south wall

SDS binders are located: Office near time clock

When a Large Chemical Spill has occurred:

- Immediately notify the designated official and Emergency Coordinator.
- Contain the spill with available equipment (e.g., pads, booms, absorbent powder, etc.).
- Secure the area and alert other site personnel.
- Do not attempt to clean the spill unless trained to do so.
- Attend to injured personnel and call the medical emergency number, if required.
- Call a local spill cleanup company or the Fire Department (if arrangement has been made) to perform a large chemical (e.g., mercury) spill cleanup.
- Name of Spill Cleanup Company: Metropolitan Environmental Services
- Phone Number: 614-771-2761
- Evacuate building as necessary

When a Small Chemical Spill has occurred:

- Notify the Emergency Coordinator and/or supervisor.
- If toxic fumes are present, secure the area (with caution tapes or cones) to prevent other personnel from entering.
- Deal with the spill in accordance with the instructions described in the SDS.
- Small spills must be handled in a safe manner, while wearing the proper PPE.

- Review the general spill cleanup procedures.

STRUCTURE CLIMBING/DESCENDING EMERGENCIES

List structures maintained by site personnel (tower, river gauge, etc.): N/A

Emergency Response Organization: Metropolitan Environmental Services

Name: Brian Gaffey Phone Number: 614-636-5771

Name: Rick Gaffey Phone Number: 614-778-3303

If no Emergency Response Organization available within 30-minute response time additional personnel trained in rescue operations and equipped with rescue kit must accompany the climber(s).

TELEPHONE BOMB THREAT CHECKLIST

INSTRUCTIONS: BE CALM, BE COURTEOUS. LISTEN. DO NOT INTERRUPT THE CALLER.

YOUR NAME: _____ TIME: _____ DATE: _____

CALLER'S IDENTITY SEX: Male _____ Female _____ Adult _____ Juvenile _____

APPROXIMATE AGE: _____ ORIGIN OF CALL: Local _____ Long Distance _____ Telephone Booth _____

VOICE CHARACTERISTICS

SPEECH

LANGUAGE

___ Loud

___ High Pitch

___ Raspy

___ Intoxicated

___ Soft

___ Deep

___ Pleasant

Other

___ Fast

- Distinct
- Stutter
- Slurred
- Slow
- Distorted
- Nasal

Other

- Excellent
- Fair
- Foul
- Good
- Poor

Other

ACCENT

MANNER

BACKGROUND NOISES

- Local
- Foreign
- Race
- Not Local
- Region
- Calm
- Rational
- Coherent
- Deliberate
- Righteous
- Angry
- Irrational

___ Incoherent

___ Emotional

___ Laughing

___ Factory

___ Machines

___ Music

___ Office

___ Machines

___ Street

___ Traffic

___ Trains

___ Animals

___ Quiet

___ Voices

___ Airplanes

___ Party

___ Atmosphere

BOMB FACTS

PRETEND DIFFICULTY HEARING - KEEP CALLER TALKING - IF CALLER SEEMS AGREEABLE TO FURTHER CONVERSATION, ASK QUESTIONS LIKE:

When will it go off? Certain Hour ___ time Remaining

Where is it located? Building Area What kind of bomb? _____

What kind of package? _____

How do you know so much about the bomb? ___

What is your name and address?

If building is occupied, inform caller that detonation could cause injury or death.

Activate malicious call trace: Hang up phone and do not answer another line. Choose same line and dial *57 (if your phone system has this capability). Listen for the confirmation announcement and hang up.

Call Police at 911 OR 740-943-5212 and relay information about call.

Did the caller appear familiar with plant or building (by his/her description of the bomb location)?

Write out the message in its entirety and any other comments on a separate sheet of paper and attach to this checklist.

Notify your supervisor immediately.

SEVERE WEATHER AND NATURAL DISASTERS

Tornado:

- When a warning is issued by sirens or other means, seek inside shelter.

Consider the following:

- Small interior rooms on the lowest floor and without windows,
- Hallways on the lowest floor away from doors and windows, and
- Rooms constructed with reinforced concrete, brick, or block with no windows.
- Stay away from outside walls and windows.
- Use arms to protect head and neck.
- Remain sheltered until the tornado threat is announced to be over.

Earthquake:

- Stay calm and await instructions from the Emergency Coordinator or the designated official.
- Keep away from overhead fixtures, windows, filing cabinets, and electrical power.
- Assist people with disabilities in finding a safe place.
- Evacuate as instructed by the Emergency Coordinator and/or the designated official.

Flood:

If indoors:

- Be ready to evacuate as directed by the Emergency Coordinator and/or the designated official.
- Follow the recommended primary or secondary evacuation routes.

If outdoors:

- Climb to high ground and stay there.
- Avoid walking or driving through flood water.
- If car stalls, abandon it immediately and climb to a higher ground.

Blizzard:*If indoors:*

- Stay calm and await instructions from the Emergency Coordinator or the designated official.
- Stay indoors!
- If there is no heat:
- Close off unneeded rooms or areas.
- Stuff towels or rags in cracks under doors.
- Cover windows at night.
- Eat and drink food provides the body with energy and heat. Fluids prevent dehydration.
- Wear layers of loose-fitting, lightweight, warm clothing, if available.

If outdoors:

- Find a dry shelter. Cover all exposed parts of the body.
- If shelter is not available:
- Prepare a lean-to, wind break, or snow cave for protection from the wind.
- Build a fire for heat and to attract attention. Place rocks around the fire to absorb and reflect heat.
- Do not eat snow. It will lower your body temperature. Melt it first.

If stranded in a car or truck:

- Stay in the vehicle.
- Run the motor about ten minutes each hour. Open the windows a little for fresh air to avoid carbon monoxide poisoning. Make sure the exhaust pipe is not blocked.
- Make yourself visible to rescuers.
- Turn on the dome light at night when running the engine.
- Tie a colored cloth to your antenna or door.
- Raise the hood after the snow stops falling.
- Exercise to keep blood circulating and to keep warm.

CRITICAL OPERATIONS

During some emergency situations, it will be necessary for some specially assigned personnel to remain at the work areas to perform critical operations.

Assignments: Receiving or shipping essential goods/supplies

Work Area: Shipping & Receiving

Name: Laura Waugh, Craig Renner

Job Title: Supervisor, General Manager

Description of Assignment: Performing essential functions

Personnel involved in critical operations may remain on the site upon the permission of the site designated official or Emergency Coordinator.

In case emergency situation will not permit any of the personnel to remain at the facility, the designated official or other assigned personnel shall notify the appropriate personnel to initiate backups.

The following offices should be contacted: TCI of Alabama

Name/Location: George Jackson

Telephone Number: 404-307-3758

TRAINING

The following personnel have been trained to ensure a safe and orderly emergency evacuation of other employees:

Name & Title:

Craig Renner – General Manager

Laura Waugh - Supervisor

SECTION XVI

TRANS-CYCLE INDUSTRIES OF OHIO, LLC

150 Ira Bean Parkway

Richwood, Ohio 43344

SPILL PREVENTION CONTROL & COUNTERMEASURE PLAN

(ATTACHED AS SEPARATE DOCUMENT)

Spill Prevention Control & Countermeasure Plan



Trans-Cycle Industries of Ohio, LLC

150 Ira Bean Parkway
Richwood, Ohio 43344
EPA ID: OHW000205856

DATE PREPARED: 02/12/2018
Revised November 2019

Table of Contents

Introduction	1-2
Part 1: Plan Administration	3-5
1.1 Management Approval and Designated Person	3
1.2 Professional engineer Certification	3
1.3 Location of SPCC Plan	4
1.4 Plan Review	4
1.5 Facilities, Procedures, Methods or Equipment Not Yet Fully Operational	5
1.6 Cross-Reference with SPCC Provisions	5
Part 2: General Facility Information	6-8
2.1 Facility Description	6
2.2 Evaluation of Discharge Potential	8
Part 3: Discharge Prevention – General SPCC Provisions	9-16
3.1 Compliance with Applicable Requirements	9
3.2 Facility Layout Diagram	10
3.3 Spill Reporting	10
3.4 Potential Discharge Volumes and Direction of Flow	10
3.5 Containment and Diversionary Structures	10
3.6 Practicability of Secondary Containment	12
3.7 Inspections, Tests and Records	12
3.8 Personnel, Training and Discharge prevention Procedures	14
3.9 Security	15
3.10 Tank Truck Loading/Unloading Rack Requirements	16
3.11 Brittle Fracture Evaluation	16
3.12 Conformance with State and Local Applicable Requirements	16
Part 4: Discharge prevention – SPCC Provisions for Onshore Facilities	17-21
4.1 Facility Drainage	17
4.2 Bulk Storage Containers	17
4.3 Transfer Operations, Pumping and In-Plant Processes	20
Part 5: Discharge Response	22-25
5.1 Disposal of Recovered Material	23
5.2 Contact List	23
5.3 Discharge Notification	24
5.4 Response Procedures	25
Part 6: Spill Rates and Direction	26

Part 7: Inspection and Test Requirements	27-28
7.1 Daily Inspections	27
7.2 Monthly Inspections	27
7.3 Annual Testing	28
Part 8: Personnel Training	29
8.1 Operational Personnel Training	29
8.2 Oil-handling Personnel Training	29
8.3 Designated Accountable Person	29
8.4 Operational Personnel Annual Training	29
8.5 Oil-Handling Personnel Annual Training	29
Part 9: Security	30
9.1 Fencing	30
9.2 Oil Drain Valves	30
9.3 Starter Controls	30
9.4 Capping of Transfer Piping and Hoses	30
9.5 Facility Lighting	30
Part 10: Oil Handling Procedures	31
10.1 Oil Containment	31
10.2 Prevention of Vehicle Departure Prior to Hose Disconnection	31
10.3 Vehicle Inspection	31
Part 11: Field-Constructed Aboveground Containers	32
Part 12: Compliance	33

List of Tables

Table I: SPCC Cross-Reference	iv
Table 1-1: Plan Review L	5
Table 2-1: Oil-Filled Containers	7
Table 3-1: Equipment & Containers Volumes & Flow Rates	11
Table 4-1: Scope & Frequency of Bulk Storage Tanks Inspections & Tests	19
Table 6-1: Equipment and Container Volumes and Flow Rates	26

Appendices

A: Figures

A-1 Topography Map

A-2 Facility Diagram

A-3 Drain Map

B: Substantial Harm Determination

C: Oil Spill Report Form

D: Oil Spill Kit Contents

E: Monthly Inspection Form

F: Annual Inspection Form

G: Monthly Testing Form

H: Annual Testing Form

I: Records of Annual Discharge Prevention Training

J: Transfer Procedures for Bulk Storage Tanks

K: Transfer Procedures from Bulk Storage Tanks to Tanker

L: Calculation of Secondary Containment Capacity

Table I: SPCC Cross-Reference

Provision	Plan Section	Page
112.3(d)	Professional Engineer Certification	3
112.3(e)	Location of SPCC Plan	4
112.5	Plan Review	4 Table 1-1
112.7	Management Approval	3
112.7	Cross-Reference with SPCC Rule	iv
112.7(a)(3)	Part 2: General Facility Information Site Plan and Facility Diagram	6 Appendix A
112.7(a)(4)	5.3 Discharge Notification	25 Appendix C
112.7(a)(5)	Part 5: Discharge Response	23-26
112.7(b)	Part 6: Spill Rates and Direction	27
112.7(c)	3.5 Containment and Diversionary Structures	27
112.7(d)	3.6 Practicability of Secondary Containment	10
112.7(e)	3.7 Inspections, Tests and Records	12 Appendix E Appendix F Appendix G Appendix H
112.7(f)	Part 8: Personnel, Training and Discharge Prevention Procedures	30 Appendix I
112.7(g)	Part 9: Security	31
112.7(j)	3.12 Conformance with Applicable State and Local Requirements	16
112.8(b)	4.1 Facility Drainage	17
112.8(c)(1)	4.2.1 Construction	17
112.8(c)(2)	4.2.2 Secondary Containment	18
112.8(c)(3)	4.2.3 Drainage of Diked Areas	18
112.8(c)(4)	4.2.4 Corrosion Protection	18
112.8(c)(5)	4.2.5 Partially Buried and Bunkered Storage Tanks	18
112.8(c)(6)	4.2.6 Inspection and Tests	18 Appendix E Appendix F Appendix G Appendix H
112.8(c)(7)	4.2.7 Heating Coils	19
112.8(c)(8)	4.2.8 Overfill Prevention System	19
112.8(c)(9)	4.2.9 Effluent Treatment Facilities	20
112.8(c)(10)	4.2.10 Visible Discharges	20
112.8(c)(11)	4.2.11 Mobile and Portable Containers	20
112.8(d)	4.3 Transfer Operations, Pumping and In-Plant Processes	20
112.20(e)	Certification of Substantial Harm Determination	Appendix B

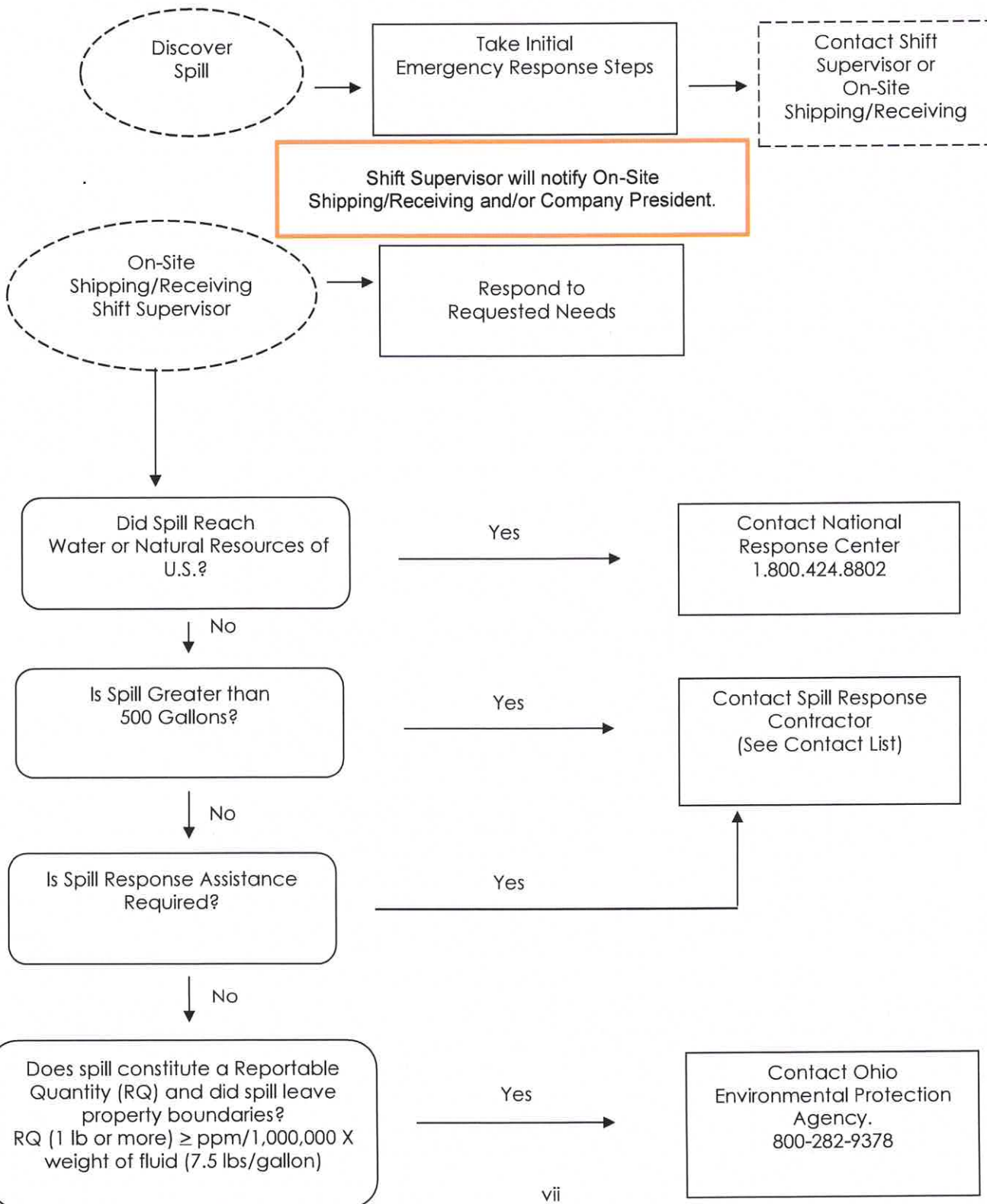
List of Acronyms & Abbreviations

AST.....	Aboveground Storage Tank
OH EPA.....	Ohio Environmental Protection Agency
EPA.....	U.S. Environmental Protection Agency
NPDES.....	National Pollutant Discharge Elimination System
PE.....	Professional Engineer
POTW.....	Publicly Owned Treatment Works
SPCC.....	Spill Prevention, Control and Countermeasure
STI.....	Steel Tank Institute
TSCA.....	Toxic Substance Control Act
UST.....	Underground Storage Tank

Spill Response Procedures

1. Notify 911 if medical, fire, or police assistance is required.
1. Stop the oil leak, if possible (see Part 5.0).
2. Control the spilled oil, if possible (see Part 5.0).
3. Contain the spilled oil (see Part 5.0).
4. Complete Spill Report and notify Shift Supervisor or Facility Manager. (see Appendix C).
5. Clean up spilled oil (see Part 5.0).
6. Dispose of the used oil and contaminated material (see Section 5.1).

Notification Procedures



Telephone Contact List		
On-Site Shipping/Receiving (Laura Waugh)		
		FACILITY 794-943-1330 or CELL 614-927-7399
Company Representative (George Jackson)		
		FACILITY 740-943-1330 or CELL 404-307-3758
National Response Center		800.424.8802
E.P.A. Region 5 77 W. Jackson Boulevard Chicago, IL 60604-3590		(312) 353-2000 (800) 621-8431 (in Region 5 only)
Ohio Environmental Protection Agency Division of Environmental Response, Investigation, and Enforcement 50 West Town Street, Suite 700, Columbus, OH 43215		800-282-9378
Medical Emergency		911
Fire		911
Police		911
Spill Response Contractors		
<i>Name</i>	<i>Phone Number</i>	<i>Contract Number</i>
Sunpro 7640 Whipple Avenue NW North Canton, OH 49720	800-488-0910	NA

Spill Prevention & Countermeasure Plan

**Trans-Cycle Industries of Ohio, LLC
150 Ira Bean Parkway
Richwood, Ohio 43344**

**DATE: January 18, 2018
REVISED: November 2019**

Introduction

Purpose

The purpose of this Spill Prevention, Control and Countermeasure (SPCC) Plan is to describe measures implemented by Trans-Cycle Industries of Ohio, LLC (TCI) to prevent oil discharges from occurring and to prepare the facility to respond in a safe, effective and timely manner to mitigate the impacts of a discharge.

The Plan has been prepared to meet the requirements of Title 40, *Code of Federal Regulation*, Part 112 (40 CFR Part 112).

In addition to fulfilling requirements of 40 CFR Part 112, this SPCC Plan is used as a reference for oil storage information and testing records, as a tool to communicate practices on preventing and responding to discharges with employees, as a guide to facility inspections and as a resource during emergency response.

TCI management has determined that this facility does not pose a risk of substantial harm under 40 CFR Part 112, as recorded in the "Substantial Harm Determination" included in Appendix B of this Plan.

This Plan provides guidance on key actions that TCI must perform to comply with the SPCC rule:

- Complete monthly and annual site inspections as outlined in the Inspections, Tests and Records section of this Plan (Section 3.7) using the inspection checklists included in Appendices E and F.
- Perform preventive maintenance of equipment, secondary containment systems and discharge prevention systems described in this Plan as needed to keep them in proper operating conditions.
- Conduct annual employee training as outlined in the Personnel, Training and Spill Prevention Procedures section of this Plan (Section 3.8) and document them on the log included in Appendix I.

-
- If either of the following occurs, submit the SPCC Plan to EPA Region 5 Regional Administrator (RA) and the Ohio Environmental Protection Agency (OH EPA) along with other information as detailed in Section 5.4 of this Plan:
 - The facility discharges more than 1,000 gallons of oil into or upon the navigable waters of the U.S. or adjoining shorelines in a single spill event.
 - The facility discharges oil in quantity greater than 42 gallons in each of two spill events within any 12-month period.
 - Review the SPCC Plan at least once every five (5) years and amend it to include more effective prevention and control technology, if such technology will significantly reduce the likelihood of a spill event and has been proven effective in the field at the time of the review. Plan amendments, other than administrative changes discussed above, must be recertified by a Professional Engineer on the certification page in Section 1.2 of this Plan.
 - Amend the SPCC Plan within six (6) months whenever there is a change in facility design, construction, operation or maintenance that materially affects the facility's spill potential. The revised Plan must be recertified by a Professional Engineer (PE).
 - Review the Plan on an annual basis. Update the Plan to reflect any "administrative changes" that are applicable, such as personnel changes or revisions to contact information, such as phone numbers. Administrative changes must be documented in the Plan review log of Section 1.4 of this Plan, but do not have to be certified by a PE.

TCI has prepared an SPCC Plan for this facility because the subject site currently stores greater than 1,320 gallons of oil in containers 55 gallons or greater in capacity. TCI has prepared this SPCC Plan to ensure practices and procedures are in place to minimize the risk or frequency of occurrence of an event that would introduce oil into navigable water or affect natural resources belonging to the United States.

Part 1: Plan Administration


1.1 Management Approval and Designated Person (40 CFR 112.7)

TCI is committed to preventing discharges of oil to navigable waters and the environment and to maintaining the highest standards for spill prevention, control, and countermeasures through the implementation of regular reviews and amendments to the Plan. This SPCC Plan has the full approval of TCI management. TCI has committed the necessary resources to implement the measures described in this Plan.

The President of TCI is the Designated Person Accountable for Oil Spill Prevention at the facility and has the authority to commit the necessary resources to implement this Plan.

Authorized Facility Representative (facility response coordinator):

Signature:
Title:
Date:


Member
11/11/2019

1.2 Professional Engineer Certification (40 CFR 112.3(d))

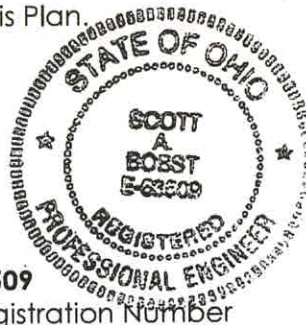
The undersigned Registered Professional Engineer is familiar with requirements of Part 112 of Title 40 of the *Code of Federal Regulations* (40 CFR part 112) and has visited and examined the facility. The undersigned Registered Professional Engineer attests that this Spill Prevention, Control and Countermeasure Plan has been prepared in accordance with good engineering practice including consideration of applicable industry standards and the requirements of 40 CFR part 112; that procedures for required inspection and testing have been established, and that that this Plan is adequate for the facility. [40 CFR 112.3(d)].

This certification in no way relieves the owner or operator of the facility of his duty to prepare and fully implement this SPCC Plan in accordance with the requirements of 40 CFR Part 112. This Plan is valid only to the extent that the facility owner and/or operator maintains, tests, and inspects equipment, containment and other devices as prescribed in this Plan.



Signature
Scott Bobst
Name of Professional Engineer

63509
Registration Number



11/27/2019
Date
OHIO
Issuing State

1.3 Location of SPCC Plan (40 CFR 112.3(3))

In accordance with 40 CFR 112.3(3), a complete copy of this SPCC Plan is maintained at the facility in the front office. The front office is attended whenever the facility is operating.

1.4 Plan Review (40CFR 112.3 and 112.5)

1.4.1 Changes in Facility Configuration

In accordance with 40 CFR 112.5(a), TCI reviews and evaluates the SPCC Plan for any change in the facility design, construction, operation or maintenance that materially affects the facility's potential for an oil discharge, including, but not limited to:

- Commissioning of containers;
- Reconstruction, replacement or installation of piping systems;
- Construction or demolition that might alter secondary containment structures;
- Changes of product or service, revisions to standard operating procedures, modification of testing/inspection procedures and use of new or modified industry standards or maintenance procedures.

Amendments to the Plan made to address changes of this nature are referred to as technical amendments and must be certified by a PE. Non-technical amendments can be done (and must be documented in this section) by the facility owner and/or operator. Non-technical amendments include the following:

- Change in the name or contact information (i.e., telephone numbers) of individuals responsible for the implementation of this Plan; or
- Change in the name or contact information of spill response or cleanup contractors.

TCI must make the needed revisions to the SPCC Plan as soon as possible, but no later than six months after the change occurs. The Plan must be implemented as soon as possible following any technical amendment, but no later than six months from the date of the amendment. The Facility Manager is responsible for initiating and coordinating revisions to the SPCC Plan.

1.4.2 Scheduled Plan Reviews

In accordance with 40 CFR 112.5(b), TCI reviews this SPCC Plan at least once every five years. Revisions to the Plan, if needed, are made within six months of the five-year review. A registered Professional Engineer certifies any technical amendment to the Plan as described above, in accordance with 40 CFR 112.3(d). The original SPCC Plan for this facility was developed when the facility began operation.

1.4.3 Record of Plan Reviews

Scheduled reviews and Plan amendments are recorded in the Plan Review Log (Table 1-1). This log must be completed even if no amendment is made to the Plan as a result of the review. Unless a technical or administrative change prompts an earlier review of the Plan, the next scheduled review of this Plan must occur within 5 years of the date of this Plan.

1.5 Facilities, Procedures, Methods or Equipment Not Yet Fully Operational (40 CFR 112.7)

NA

1.6 Cross-Reference with SPCC Provisions (40 CFR 112.7)

As this SPCC Plan does not follow the exact order presented in 40 CFR Part 112. Section headings identify, where appropriate, the relevant section(s) of the SPCC rule.

Table I on page iv of the Plan presents a cross-reference of Plan sections relative to applicable parts of 40 CFR Part 112.

Table 1-1: Plan Review

By	Date	Activity	PE Certification Required?	Comments
Scott Bobst	01/18/2018	Prepare Plan for Start of Operations	Yes	Initial SPCC Plan
Tonya Freeman Safety Mgr.	12/20/2018	Annual Review of plan contents	No	Removed Plant Manager title, name and phone number. Added Tonya Freeman as the Safety Manager and phone number.
Cynthia Orms	11/07/2019	Update based on EPA Review/Recommendations	Yes	Updated Personnel; Facility Topo Map; Drain Map

Part 2: General Facility Information

Name	Trans-Cycle Industries of Ohio, LLC
Address	150 Ira Bean Parkway Richwood, OH 43344
Type:	Electrical Equipment Dismantling Facility
Primary Contact	George Jackson Work: 740-943-1330 Cell (24 hours): 404-307-3758

2.1 Facility Description (40 112.7(a)(3))

2.1.1 Location and Activities

TCI is a dismantler and recycler of electrical transformers and other electrical equipment. The electrical equipment is transported to the facility both drained and undrained, depending upon customer preference together with federal, state, and local regulations. Oil is shipped to the facility from customers who prefer or are required by regulations to drain oil-filled equipment before shipping the equipment off-site for disposal. All electrical equipment and oil that is received at the facility that contains 50 parts per million (ppm) or greater of Polychlorinated Biphenyl's (PCBs) shall be placed directly into the Commercial PCB Storage Area. All electrical equipment and oil containing more than ≥ 50 ppm of PCBs will be managed in full compliance with 40 CFR 761.

All of the oil from the oil-filled electrical equipment that is received at the facility containing less than 50 ppm of PCBs is segregated between < 2 ppm and $2 - 49$ ppm PCBs. These items are drained and pumped directly to one of the bulk storage tanks located in the facility's Bulk Storage Containment area.

All oil containing less than 50 ppm of PCBs is shipped from the site via truck and tanker transport.

TCI's Facility is located in a commercial area at 150 Ira Bean Parkway, Richwood, Ohio. The 8.65-acre site contains one building, 50,692 square feet. There are 4 bulk storage tanks located at the facility as detailed below:

- 3 - 15,500 gallon single walled bulk storage tanks
- 1 - 19,400 gallon single walled bulk storage tank

The tanks are surrounded by a cinder block containment wall (dike) measuring 66 feet long by 20 feet wide and 5 feet high.

The 50,692 square foot building is used for the storage and dismantling of both pole-mounted and pad-mounted distribution transformers up to and including 2500 KVA in size. All oil-filled equipment containing less than 50 ppm of PCBs (non-PCB) received at the facility is off-loaded and drained of oil with the exception of bushings and capacitors.

When non-PCB bushings and capacitors are received at the facility, they may either be drained or undrained, depending on customer preference, together with state and local regulations. These items contain very small amounts of oil, typically less than 5 gallons.

2.1.2 Oil Storage

Oil storage at the facility consists of four (4) fixed aboveground storage tanks (ASTs). In addition, the facility will contain a varying amount of oil-filled electrical equipment waiting to be drained but this oil-filled electrical equipment is not considered oil storage under 40 CFR 112.8.

The storage capacities of the containers present at the site are listed in Table 2-1.

TABLE 2-1

OIL-FILLED EQUIPMENT AND CONTAINERS

TYPE OF EQUIPMENT OR CONTAINER	VOLUME	CONTENTS
Non-PCB Oil Collection Tank #1	15,500 gallons	Dielectric Oil
Non-PCB Oil Collection Tank #2	15,500 gallons	Dielectric Oil
Non-PCB Oil Collection Tank #3	15,500 gallons	Dielectric Oil
Non-PCB Oil Collection Tank #4	19,400 gallons	Dielectric Oil
Non-PCB Electrical Equipment Containing 55 Gallons or More of Oil	0 gallons This equipment is drained upon arrival	NA
≥ 50 ppm PCBs Electrical Equipment Containing 55 gallons or more of oil	7,200 gallons	Dielectric Oil
Largest Compartment on Tanker truck	6,000 gallon Compartment	Dielectric Oil
Total Oil Storage	86,300 gallons	Dielectric Oil

2.1.3 Piping

All piping associated with the bulk storage tanks are contained within the facility.

2.2 Evaluation of Discharge Potential

2.2.1 Distance to Navigable Waters and Flow Path

The facility is located on relatively level terrain. Drainage generally flows in the direction of drainage ditch along the west side of the site. There are no surface water bodies on the property with only a roadway drainage ditch along the northern property boundary adjacent to Tawa Road. Drainage is generally directed from west to east although there is little visible topographical relief. Based on the historical groundwater flow characteristics in this area, groundwater flow typically mirrors surface topography.

The facility is connected to the Village of Richwood community public water system. The Village of Richwood water system operates 2 wells that pump approximately 162,000 gallons of water per day from a dolomite aquifer (water-rich zone) specifically the "Newburg Zone," which is a highly fractured portion of the Silurian Greenfield Formation (Roadcap and Bair, 1990). The dolomite bedrock is covered by 8 to 10 feet of low-permeability material overlying 20 to 30 feet of sand and gravel, which provides minimal protection from contamination. Depth to water in the aquifer is 10 to 15 feet below the ground surface. Soils in the area are silty loams which are moderately well-drained, meaning that much of the rainfall and snowmelt will infiltrate into the soil, instead of running off or ponding. The topography of the area is relatively flat. Ground water is replenished by the gradual flow of water underground from higher to lower elevations and by precipitation that infiltrates through the soil. At the Village of Richwood wellfield, ground water flows generally toward the east, based on a water table elevation map completed by Roadcap and Bair (1990).

2.2.2 Discharge History

NA

Part 3: Discharge Prevention – General SPCC Provisions

The following measures are implemented to prevent oil discharges during the handling or transfer of oil at the facility. Oil-handling employees have received training in the proper implementation of these measures.

3.1 Compliance with Applicable Requirements (CFR 112.7(a)(2))

The four (4) vertical single walled above-ground tanks are positioned in a containment area comprised of reinforced concrete block. The floor is epoxy coated and the walls of the containment area are painted with exterior waterproof paint. The containment area measures 66 feet long 20 feet wide and 5 feet high. The tanks have level sensors and high limit alarms set at 95% of capacity. Both will be able to be monitored from any desktop in the facility. Leakage from the storage tanks would be detected by facility personnel during their daily routine or during scheduled monthly visual inspections. In addition, these tanks are subject to monthly and annual periodic inspections.

The tanks are subject to regular periodic inspections in accordance with STI standard SP001 tank inspection standard as described in this Plan. Any leakage from the tanks would be detected visually by operational personnel either during their daily routine or during scheduled monthly inspections. Non-destructive integrity evaluation is not performed on the 55 gallon oil-filled drums in storage or any of the electrical equipment containing 55 gallons or more of oil. A visual inspection of all items in storage is conducted daily. Since these items are stored on-site for usually short periods of time, and always less than a year, corrosion poses a minimal risk of failure. Any PCB oil at 50 ppm or greater stored in either 55-gallon drums or electrical equipment will be stored at the facility in accordance with the PCB Commercial Storer permit or 40 CFR 761.65 as applicable.

During tanker filling operations, tankers will park outside adjacent to the facility. Lines will run from the tanks inside the building through the wall to an outside fill port. A hose will be connected to the tanker. The tanker will be located in a gravel containment area underlain with HDPE liner that slopes toward the building in the event of a spill. Oil will not flow to the drains but be contained to the filling area. All drains will have covers and booms around them to further prevent any oils from entering.

The process of filling the tanker will involve the driver and an TCI employee trained in the proper method of filling a tanker. Hose connections will be of locking type and there will be an emergency shut off located a few feet

away from the filling activities. In the unlikely event of a spill, the pump will be immediately shut off, valves to the truck will be turned off. The employee will then take action to contain the spill to prevent any oil from entering the drain and notify management immediately. Any standing fluid will be immediately pumped and/or removed. Clean up will commence once it is determined the truck can be safely moved without further spilling.

3.2 Facility Layout Diagram (40 CFR 112.7(a)(3))

Figure A-1 in Appendix A shows the general location of the facility on a U.S. Geological Survey topographic map. Figure A-2 presents a layout of the facility showing the location of all storage tanks. Figure A-3 shows the location of drains located on the property.

3.3 Spill Reporting (40 CFR 112.7(a)(4))

The spill report form included in Appendix C will be completed upon the detection of any discharge at the facility.

3.4 Potential Discharge Volumes and Direction of Flow (40 CFR 112.7(b))

Table 3-1 shows the expected volume, discharge rate and direction of flow in the event of an equipment failure and the type of secondary containment.

3.5 Containment and Diversionary Structures (40 CFR CFR 112.7(c))

Methods of secondary containment at this facility include a combination of structures including, but not limited to, dikes and berms together with land based spill response including drain covers and sorbents to prevent oil from reaching navigable waters. (See Section 4.2 for additional information.)

- A. For the aboveground storage tanks:
 - Dike: The tanks are located in a physical containment area (dike) measuring 66 feet long 20 feet wide and 5 feet high providing containment of 33,709 gallons (excludes displacement). Spills/Leaks would be detected by the daily visual inspection, during any pumping operations from electrical equipment, and/or during monthly and annual inspections.

- B. For pumping transfer area (from transformers)
- Berm: The pumping area is located within the PCB Storage Area (Area 1) and is surrounded by a 7.5 in berm with an epoxy coated floor providing a secondary containment volume of 120,487 gallons.
 - Spill Pans: During pumping operations, a spill pan with absorbents will be placed under each connection to catch any small spills or leaks that may occur.
 - If a leak in the piping were to occur between the transfer area and the single-walled tanks, the oil would be contained in the bermed containment area or in the tank farm containment area.

TABLE 3-1
EQUIPMENT AND CONTAINER VOLUMES AND FLOW RATES

Type of Potential Event	Maximum	Flow Rate	Direction of Flow	Secondary Containment
15,500-gallon tank failure	15,500 gals	Gradual to instantaneous	In all directions within tank farm	Concrete Dike
15,500-gallon tank overfill	200 gals	100 gal/min	In all directions within tank farm	Concrete Dike
15,500-gallon tank pipe failure	6000 gals	100 gal/min	In all directions within tank farm	Concrete Berm
15,500-gallon tank valve failure	0 gals	0 gal/min	NA	NA
19,400-gallon tank failure	19,400 gals	Gradual to instantaneous	In all directions within tank farm	Concrete Dike
19,400-gallon tank overfill	200 gals	100 gal/min	In all directions within tank farm	Concrete Dike
19,400-gallon tank pipe failure	5000 gals	100 gal/min	In all directions within tank farm	Concrete Dike
19,400-gallon tank valve failure	0 gals	0 gal/min	NA	NA
Pumping Operations/Transfer	20 gals	2 gal/min	In all directions within tank farm or Area 1	Concrete Berm/Area 1 berm
Tanker compartment failure outside	6000 gals	Gradual to instantaneous	Flow downward toward building within containment area	Gravel Containment Area
Truck compartment failure inside	6000 gals	NA	NA	NA
Transfer hose failure outside	200 gals	100 gal/min	Flow downward toward building within containment area	Gravel Containment Area
Transfer hose failure inside	200 gals	100 gal/min	In all directions within tank farm	Concrete Berm
Electrical Equipment failure	400 gal	Gradual to instantaneous	In all directions within Area 1	Concrete Berm/Oil Sorbent Booms

3.6 Practicability of Secondary Containment (40 CFR 112.7(d))

For this facility, secondary containment has been found to be practicable and has been included in this Plan.

3.7 Inspections, Tests and Records (40 CFR 112.7(e))

The following sub-sections list the minimum requirements for monthly and annual inspections together with the purpose of the informal daily inspections. An additional subsection has been included for annual testing requirements.

3.7.1 Daily Inspections

The facility has a formal daily inspection program. Additionally, facility personnel do perform a complete walk-through of their work area Monday through Friday. This daily visual inspection involves looking for any leakage from storage tanks, piping and pumps together with excessive accumulation in the spill pans and Bulk Storage Containment Area.

3.7.2 Monthly Inspections

The monthly inspection form is contained in Appendix E and the key elements of the inspection are summarized below:

- Visually observe the exterior of the storage tanks and the associated piping, valves and caps.
- Observe the containment berms and dikes for any indication of settling, cracking, exposed rebar or spalling together with checking the containment area for water.
- Check the pipe and tank support for any type of settling, corrosion or damage.
- Ensure that all tank gauges are operating properly.
- Inspect and clean all catch basins/spill pans together with inspecting, cleaning and/or replacing the catch basin filters.
- Check spill kits for complete and proper contents.

3.7.3 Annual Inspections

The annual inspections are in addition to the monthly inspection requirements and the annual inspection form is contained in Appendix F. The key elements of the annual inspections are listed below:

- Checking containment area for damages, cracks, etc.
- Visibly inspect the tanks, piping and any related equipment for signs of paint failure.
- Check that all valves associated with the piping operate properly.
- Inspect tank vents to insure they are operating properly.
- Check tanks and piping for proper grounding.
- Check all bolted flanges and manhole covers for tight bolts and any signs of gasket deterioration.
- Visually inspect all wiring and electrical conduit for any sign of corrosion or damage.

3.7.4 Monthly Testing

The monthly testing form is contained in Appendix G and the primary purposes of the testing are listed below:

- Test alarms for proper operation

3.7.5 Annual Testing

The annual testing form is contained in Appendix H and the primary purposes of the testing are listed below:

- Test alarms for proper operation
- Test overflow alarms for proper operation
- Test fill pump shutdown on the tanks for proper operation
- Test all tank gauges for proper and accurate operation

3.7.6 Periodic Tank Testing

In addition to the above monthly and annual inspections and testing performed by facility personnel, the four (4) above-ground storage tanks are inspected in accordance with STI Standard SP001.

3.7.7 Periodic Pipe Monitoring

In addition to the monthly inspection of the piping, there is a daily visual inspection during all pumping/transfer operations. The facility is occupied during normal business hours.

3.8 Personnel Training and Discharge Prevention Procedures (40 CFR 112.7(f))

The management of TCI has trained not only oil-handling personnel but all operational personnel in spill response control and cleanup together with all the provisions of the SPCC Plan. Training requirements by group are detailed below.

3.8.1 Operational Personnel Training

TCI personnel authorized to operate the facility are trained in the oil-handling functions performed at the facility.

3.8.2 Oil-Handling Personal Training

TCI personnel handling oil at the facility are trained in the operation and maintenance of equipment to prevent discharges, discharge response, control and cleanup procedures; applicable laws, rules and regulations including, but not limited to, the used oil regulations, the Toxic Substance Control Act (TSCA) regulations and the SPPC regulations together with the operational and oil-handling procedures for the facility.

3.8.3 Designated Accountable Person

The Safety Manager is the designated accountable person for the prevention of oil spills at the facility.

3.8.4 Operational Personnel Annual Training

TCI operational personnel at the facility review spill response, control and cleanup as detailed in this SPCC Plan on an annual basis.

3.8.5 Oil-Handling Personnel Annual Training

TCI oil-handling personnel at the facility shall review any known discharges at the facility; any failures or malfunctioning of oil handling or containment systems; and any recently developed precautionary procedures together with spill response, control and cleanup and the requirements of this SPCC Plan on an annual basis.

3.8.6 Training Records

A record of the briefing and discharge prevention training are kept on the form shown in Appendix I and maintained as a part of this SPCC Plan for a period of not less than three (3) years.

3.9 Security (40 CFR 112.7(g))

The security associated with TCI's facility is described in the following subsections:

3.9.1 Fencing

The facility is fenced, gated, and locked when unattended.

3.9.2 Oil Drain Valves

The outlet valves on all oil storage tanks shall be closed except when transferring oil. In addition, all outlet piping is capped except when oil is being transferred into or out of the storage tanks. Drain valves on oil-containing equipment are kept closed, and a threaded plug is installed in the valve to prevent leakage in the event of a valve failure.

3.9.3 Starter Controls

All pumps shall be turned off except during the transfer of oil into an oil storage container. All starter controls are turned off and the power is disconnected when the site is unattended.

3.9.4 Capping of Transfer Piping and Hoses

All oil transfer piping and hoses shall be capped except when transferring oil. The procedures for hose draining at the facility are contained in Section 4.3 of this SPCC Plan.

3.9.5 Facility Lighting

The facility is well illuminated at night by building coil-pack lights. Surveillance is provided by security cameras for the prevention of vandalism or unauthorized entries.

3.10 Tank Truck Loading/Unloading Rack Requirements (40 CFR 112.7(h))

TCI's facility does not have any loading or unloading racks. All the transfers to and from tank trucks at the facility are performed by TCI personnel using hoses. These transfer procedures are described in Section 4.3 of this SPCC Plan.

3.11 Field-Constructed Aboveground Containers (40 CFR 117(i))

All of the tanks at the facility are shop-built tanks. Therefore, this portion of the regulations is not applicable to this facility.

3.12 Conformance with State and Local Applicable Requirements (40 CFR 112.7(j))

This facility is in full compliance with all TSCA regulations together with all the requirements of the facility's EPA issued PCB Commercial Storer Permit.

The facility operates in full compliance with the State of Ohio Used Oil Management Rules as codified in the Ohio Administrative Code (OAC) rules 3745-279-20 through 3745-279-24. The State of Ohio has additional SPCC requirements for oil transported by water together with land-based facilities that transfer oil to and from water vessels. Since this facility does not transfer oil to or from vessels, there are no additional State of OH SPCC requirements applicable to this facility.

There are no underground storage tanks located at this facility.

Part 4: Discharge Prevention – SPCC Provisions for Onshore Facilities (Excluding Production Facilities)

4.1 Facility Drainage (40 CFR 112.8(b))

Any drainage within the 8.65 acre site will be based on natural drainage. Drainage flows west to east.

Any potential discharge from the bulk storage tanks or any transfers to or from these containers will be contained within secondary containment inside of the facility and will not enter the outside drainage system.

During transfer to the bulk storage tanks, a drain pad and spill pan are placed in the transfer area. All spills will be contained within the transfer area. The Bulk Storage Containment Area has a capacity of 33,709 gallons and can easily contain the volume of a tank failure or the 200 gallons of oil that would escape the transfer piping or hose before the transfer operation could be stopped.

The pumping/transfer area is located within the PCB Commercial Storage area which is contained with a 7.5 in continuous berm with a containment volume of 120,487 gallons.

During transfer to tankers, the slope of the outdoor containment area precludes fluids from escaping to drains or off-site.

4.2 Bulk Storage Containers (40 CFR 112.8(c))

All of the bulk oil storage containers at the facility are shop-built steel tanks and the volume, together with the contents of all the bulk oil storage containers, are listed in Table 2-1.

4.2.1 Construction (40 CFR 112.8(c)(1))

All bulk storage containers at this facility are constructed of steel. The design and construction of all bulk storage containers are compatible with the characteristics of the mineral oil that they contain and with the associated temperature and pressure conditions.

The piping associated with the bulk oil storage tanks is made of steel and is placed aboveground on appropriate supports designed to minimize erosion and stress.

4.2.2 Secondary Containment (40 CFR 112.8(c)(2))

A concrete dike is provided around the bulk storage tanks. The dike has a total containment volume of 33,709 gallons. The floor and walls of the containment are constructed of reinforced concrete in accordance with the drawings and specifications developed by a structural engineer. The floor of the diked area is epoxy coated. The facility is unattended for a maximum of 64 hours (Friday evening through Monday morning) and therefore any spills into the containment area would be detected before it could escape the diked area. The containment area is visually inspected for any signs of cracking, heaving, settling or any other structural damage that could affect the ability of the enclosure to contain oil. Any damage or deterioration of the containment is promptly corrected to prevent migration of oil out of the containment area.

4.2.3 Drainage of Diked Area (40 CFR 112.8(c)(3))

The Bulk Storage Containment Area is only drained by authorized facility personnel. Oil in the containment area would be pumped using a portable 1" diaphragm pump, into a suitable container for disposal. Residual would be cleaned with floor dry and/or oil absorbent pads and placed into 55 gallon drums for disposal.

4.2.4 Corrosion Protection (40 CFR 112.8(c)(4))

This section is not applicable because the facility does not have any underground storage tanks.

4.2.5 Partially Buried and Bunkered Storage Tanks (40 CFR 112.8(c)(5))

This section is not applicable because the facility does not have any buried or bunkered storage tanks.

4.2.6 Inspections and Tests (40 CFR 112.8 (c)(6))

Visual inspections for the bulk storage tanks are performed by facility personnel on a monthly and annual basis. Records of these inspections and tests are signed by the inspector and kept at the facility for a minimum of three (3) years.

The scope and schedule of the inspections and tests performed on the facility's bulk storage tanks are in accordance with STI Standard SP001 or the environmental equivalent to STI Standard SP001. Records of the annual tests are kept at the facility for a minimum of three (3) years.

Table 4-1 summarizes inspections and tests on the bulk storage tanks at the facility.

Table 4-1
Scope and Frequency of
Bulk Storage Tank Inspections and Tests

Inspection/Test	Double-Walled Tanks	Single-Walled Tanks
Visual inspection by facility personnel	Monthly and Annually	Monthly and Annually
Apparatus testing by facility personnel	Annually	Annually
External inspection by certified inspector	N/A	N/A
Tank Gauge Testing	Annually	Annually

4.2.7 Heating Coils (40 CFR 112.8(c)(7))

This section is not applicable because there are no heating coils at this facility.

4.2.8 Overfill Prevention System (40 CFR 112.8(c)(8))

All tanks are equipped with a direct-reading level gauge. Additionally, all bulk storage tanks are equipped with high level alarms set at 95 percent of the rated capacity. The transfer pump associated with the storage tanks will be stopped anytime either one of the storage tanks has reached 95% of rated capacity.

TCI personnel are present throughout the filling operations to monitor the oil level in the tanks.

It is not anticipated that electrical equipment will be pumped into storage drums. In the event a regulated PCB item is leaking, it will be drained, if necessary, into 55-G storage drums. In that event, storage drums are monitored throughout the filling process to prevent the overfilling of the drums.

4.2.9 Effluent Treatment Facilities (40 CFR 112.8(c)(9))

This section is not applicable because the facility does not operate any effluent treatment facilities.

4.2.10 Visible Discharges (40 CFR 112.8(c)(10))

Visible discharges from any container or appurtenance, including seams, gaskets, piping, pumps, valves and bolts, are quickly corrected upon discovery.

Oil is promptly removed from the diked area and/or spill pans and disposed of according to the waste disposal method described in Part 5 of this Plan.

4.2.11 Mobile and Portable Containers (40 CFR 112.8(c)(11))

At the transfer area, secondary containment is provided by a spill pan and any other spills will be contained by the concrete floor until the spill is cleaned up using sorbent pads and appropriate cleaning products.

TCI will not receive full tank trucks at the facility requiring off-loading (pumping).

4.3 Transfer Operations, Pumping and In-Plant Processes (40 CFR 112.8(d))

The potential for discharges during transfer operations is of particular concern at this facility. The facility is committed to the safe transfer of oil to and from all the bulk storage tanks. The following measures have been implemented to prevent discharges between the bulk storage tanks at the facility and tank trucks.

The facility has two transfer areas: one for the transferring of oil from oil-filled electrical equipment and to tank trucks for off-site disposal/recycling.

4.3.1 Secondary Containment

The transfer area associated with the draining of oil-filled electrical equipment is equipped with a portable spill pan to catch any spills, leaks, or discharges. Any discharge of oil within this transfer area will be contained within the spill pan and drained on an as-needed basis or, at a minimum, daily at the end of each shift. This area is located within the PCB Commercial Storage area and is surrounded by a continuous 7.5 in concrete berm with a containment volume of 120,487 gallons.

The four (4) bulk storage tanks are located in a secondary containment area (dike) measuring 66 feet long 20 feet wide and 5 feet high providing containment of 33,709 gallons.

Any tank truck parked at the facility will usually be empty while parked at the facility. Tank trucks loaded with outgoing material will not remain parked at the facility but will leave the facility upon completion of loading.

4.3.2 Loading/Unloading Procedures

The loading of tank trucks at the facility is performed by TCI personnel in the transfer area at the facility. All TCI oil-handling personnel have been trained in proper transfer procedures together with proper discharge prevention and response procedures. The truck driver controls and monitors the entire transfer process in accordance with the procedures in Appendix J for transfers to the bulk storage tanks and in accordance with Appendix K for transfer to a tanker truck. There will be no unloading of tanker trucks at the facility.

4.3.3 Buried Piping (40 CFR 112.8(d)(1))

This section is not applicable because none of the piping is buried or in contact with the ground. All of the piping is aboveground and can be inspected visually.

4.3.4 Terminal Connections (40 CFR 112.8(d)(2))

All terminal connections that are not in the process of transferring oil are capped. In addition, all terminal connections are marked or color coded as to their origin.

4.3.5 Pipe Supports (40 CFR 112.8(d)(3))

All pipe supports are designed to prevent abrasion, minimize corrosion and to allow for expansion and contraction. Pipe supports are visually inspected during the monthly inspection of the facility.

4.3.6 Valves, Piping and Appurtenances (40 CFR 112.8(d)(4))

All above ground piping and valves are examined monthly to determine their condition. Inspections include aboveground valves, piping, appurtenances, expansion joints, valve glands and bodies, catch pans, piping supports, and that all containment drain valves are closed and locked.

4.3.7 Warning Signs (40 CFR 112.8(d)(5))

Warning signs are posted at appropriate locations throughout the facility to prevent vehicles from damaging aboveground piping and appurtenances. The aboveground piping at the facility is located within areas that are not accessible to vehicular traffic (e.g. behind dike walls) or protected by brightly painted bollards.

Part 5: Discharge Response

Any loss of oil from a regulated container will be captured within a secondary containment system. The most likely cause of a release of oil at the facility would be equipment failure during an oil transfer operation. The other, but less likely cause of an oil release at the facility, would be due to operator error during an oil transfer operation. In both of these cases, operation personnel would be immediately available to control, contain and clean up any release of oil. In the unlikely event of a container or equipment failure during static conditions (e.g. night or during the weekend), any release of regulated oil would be contained within the PCB Storage Area and discovered at the beginning of the next work day. Non-PCB equipment is drained upon arrival and not stored with fluid. Small or slow leaks would be detected and corrected during routine facility and maintenance inspections which are conducted at least monthly.

As soon as the release is detected, the spill response and cleanup would begin immediately. The first step in any spill response is to try to control the source of the release. If the cause of the release is operator error, close the valve or shut off the pump that is the source of the release as quickly as possible. If the source of the oil is the failure of a container or piece of equipment, duct seal, duct tape and epoxy putty are available in the spill response kit that can be used to stop the oil leak. Once the source of the oil spill has been controlled, the next step is to contain the released oil to the maximum extent possible. To contain the spilled oil, place granular absorbent at the outer perimeter of the released oil or, if outside, place a drain pad over the inlet of the catch basin that the discharge is draining toward. When the oil has been contained, any free oil can be picked up either with a wet/dry vacuum or a vacuum truck, depending on the size of the oil spill.

Following the removal of the free oil, the area that the released oil covers should be dried to the maximum extent possible with either absorbent pads or granular absorbent, all of which is readily available. When the area has been dried to the maximum extent possible, any surface that had been contacted by the spilled oil shall be thoroughly cleaned with an organic degreaser. After the surface has been cleaned and rinsed, the cleaned surface shall be dried to the maximum extent possible with either absorbent pads or granular absorbent.

Oil could be released outside of secondary containment during the unloading or loading (regulated items) or unloading or draining of non-regulated items. In the event of a spill during loading and unloading operations, the spill would quickly be contained either in the truck's secondary containment or within the facility itself. During the draining/transfer of non-regulated equipment to one of the bulk storage tanks, the possibility exists that a spill could occur. If this situation should occur, the first step is to stop the leak by shutting off and securing the lines and stopping the leak at the source.

In the event electrical equipment is leaking upon receipt at the facility or if it occurs during storage, controlling the leak may require anything from simply placing padding, epoxy putty, duct tape or duct seal over the leaking area or by placing the equipment into an over-pack drum. Over-pack drums together with duct seal, duct tape and epoxy putty are available in the spill response kit.

During tanker loading operations, the tanker will be placed in the downgradient position adjacent to the facility. Drain protectors will be placed over all drains in the vicinity of the loading area. Any free oil or oil/water mixture can be collected either with a wet/dry vacuum or a vacuum truck. Following the removal of the free oil or oil/water mixture, the surface that the oil contacted can be cleaned by removal of the gravel, the HDPE liner, and the first 6 inches of topsoil. Clean gravel and topsoil will be placed into the area prior to loading any further tankers. When the surface area contacted by the spilled oil has been cleaned, the storm drain protector(s) can be removed.

5.1 Disposal of Recovered Material (40 CFR 112.7(3)(v))

The disposal of recovered oil and associated spill cleanup materials is determined by the PCB content of the oil spilled as discussed in the information below. The disposal of recovered oil, water and associated cleanup materials will be disposed of as listed below:

- **Oil or Oil/Water Mixtures**

Oil collected from the spill shall be placed in one of the < 50 ppm PCB oil storage tanks or in 55 gallon barrels depending on the amount of oil or oil/water mixture. Oil/water mixtures will be sent off-site for oil and water separation and the separated oil will be returned to TCI.

- **Oil Pad and Adsorbents**

All oil soaked pads and absorbents from the spill cleanup shall be placed into Department of Transportation approved containers for shipment to and disposed of at a waste landfill according to the PCB concentration of the material spilled.

5.2 Contact List (40 CFR 112.7(3)(vi))

The contact list for any spill at this facility is located at the front of this SPCC Plan in the emergency portion of this Plan.

5.3 Discharge Notification (40 CFR 112.7(4))

If the spill is contained within the secondary containment at the site, the spill report form can be completed and filed at the facility office after notifying the Safety Manager. If the spill has escaped secondary containment, the information on the spill report form will have to be supplied immediately to the Safety Manager for forwarding to the National Response Center, and other state and local agencies when applicable. The spill report form can be found at the back of this SPCC Plan in Appendix C.

5.3.1 Required Information

- a. Facility Address and Phone Number: This information is provided on the spill report form located at the back of this Plan in Appendix C.
- b. Date and Time of Discharge: In the case of small leaks or spills and for leaks and spills that occur after hours, the time of discharge will be the time that the discharge was discovered. In the case of a spill or leak that occurs during operating hours, the time of the discharge will be the time that the spill occurred.
- c. Type of Material Discharged: For this facility, this will usually be mineral oil but, in some cases, it may be silicone or seed based oil.
- d. Estimate of Total Quantity Discharged: This may be difficult to determine. All you may be able to do is give it your best guess based on the total capacity of the equipment or the container as listed on the nameplate or as listed in Table 2-1.
- e. Estimate of Amount of Oil that Escaped the Facility or Containment: This would be the amount of oil that was spilled outside or escaped the facility boundaries. The secondary containment should capture most spills or discharges.
- f. Source of the Discharge: List the Manufacturer and Serial Number of the piece(s) of equipment or the container type and number from which the oil was discharged.
- g. Cause of the Discharge: If the cause of the discharge is known, list the cause (e.g., equipment leak, tank rupture, valve left open). If the cause is unknown, state that the cause is unknown.

- h. Description of all Affected Media: If the oil is contained within the secondary containment system and fire is not involved, there is not any affected media, with the exception of any water that may be in the secondary containment at the time of the release. If fire is involved, then air would be the affected media. If the oil has escaped the secondary containment, list any other media the oil may have contacted (e.g., soil, water, vegetation, etc.).
- i. Any Damages or Injuries Caused by the Discharge: If the oil is contained within the secondary containment system, any damage or injury should be limited to slipping and falling, together with those associated with the oil catching on fire. Should the oil escape secondary containment, the consequences in addition to those listed above could include, but not limited to: vehicle accidents, vegetation damage, soil contamination, water contamination, and personal property contamination or damage.
- j. Actions Taken to Stop, Remove, and Mitigate the Effects of the Discharge: These actions could include any or all of the following:
 - 1. Notify 911 if medical, fire, or police assistance is required
 - 2. Stop the oil leak, if possible (see Section 5.0)
 - 3. Control the spilled oil, if required (see Section 5.0)
 - 4. Contain the spilled oil (see Section 5.0)
 - 5. Clean up the spilled oil (see Section 5.0)
 - 6. Dispose of the used oil and contaminated material (see Section 5.1)
- k. Will an Evacuation be needed: An evacuation should only be required if fire or free-flowing oil outside the secondary containment system is a threat to human health.
- l. Names of Individuals and Organizations Who Have Been Contacted: Unless you have contacted someone other than the Shop Supervisor or Facility Manager directly concerning the spill, leave this section blank.

5.4 Response Procedures

The Spill Response Procedures are a listing (in order of occurrence) of most of the spill response procedures that will be required for a release of oil at the facility. This listing and the Telephone Contact List are located at the front of this SPCC Plan in the emergency portion of this Plan for quick reference by response personnel.

Part 6: Spill Rates & Direction

The spill flow rates together with the spill direction are listed in Table 6-1. Since the floor in the storage and dismantling building is flat and level, the flow direction for any oil released from the bulk storage tanks or during the transfer of oil to or from the tanks will be toward the center of the facility. Oil sorbent booms will be placed at the entry door during unloading operations and spill kits will be placed at the unloading doors and at strategic locations throughout the plant enabling a quick response to any spill or leak situation. Non-PCB electrical equipment is drained upon arrival.

If there is a release from one of the bulk storage tanks, the oil will be contained within the concrete dike forming the secondary containment. Within the secondary containment the oil will flow in all directions within the containment area.

In the event of a spill during tank loading operations, the spill will flow downward towards the facility due to the gradient of the loading area.

TABLE 6-1

EQUIPMENT AND CONTAINER VOLUMES AND FLOW RATES

TYPE OF EQUIPMENT OR CONTAINER	VOLUME	FLOW RATE GALLONS/HOUR	DIRECTION OF FLOW	SECONDARY CONTAINMENT
15,500 gallon Storage Tank	15,500 Gallons	15,500	All Directions	32,893 Gallons
19,400 gallon Storage Tank	19,400 Gallons	15,500	All Directions	32,893 Gallons
Oil Collection Pans	25 Gallons	25	All Directions	25 Gallons
Electrical Equipment at Facility Containing 55 Gallons or more of Oil	7,200	Gradual	All Directions	120,487 Gallons
Largest Compartment on Truck – Outside Transfer	6,000 Gallons	6,000	Towards the Facility	In Outside Containment Area

Part 7: Inspection & Test Requirements

The following sections provide an overview of the requirements for monthly and annual inspections together with the requirements for monthly and annual testing. Daily inspections are listed below but are routine and undocumented. The detailed inspection requirements are listed in Appendices E and F while the detailed testing requirements are listed in Appendices G and H.

7.1 Daily Inspections

- a. Inspect all oil-filled equipment and containers for any indication of an oil leak
- b. Inspect all secondary containment thresholds for cracks or any sign of leakage
- c. Check for an adequate supply of oil spill cleanup materials
- d. Check the outside secondary containment areas for any water or oil; remove if required

7.2 Monthly Inspections

The following monthly inspections shall be conducted in addition to the daily inspections:

- a. Inspect the bulk storage tanks and spill pans together with any associated valves, piping, caps, and hoses for signs of corrosion, wear or leakage
- b. Inspect secondary containment systems for any signs of cracks, corrosion or leakage
- c. Check to ensure that the storage tank level gauges are working properly.
- d. Inspect to ensure that all operational signage is in place, intact and not damaged

7.3 Annual Testing

The following annual tests shall be conducted in addition to the daily, monthly and quarterly inspections:

- a. The overfill alarm system on the four (4) single-walled oil storage tanks shall be tested by following the steps in note 1 of Appendix H

Part 8: Personnel Training

This section covers not only the training requirements for TCI oil-handling personnel, but the spill response training of all TCI operational personnel.

8.1 Operational Personnel Training

TCI personnel authorized to operate any of the pumping/transfer equipment or responsible for equipment loading/unloading shall be trained in spill response as detailed in this SPCC Plan, together with operation of the facility.

8.2 Oil-Handling Personnel Training

TCI personnel handling oil at the facility shall be trained in the oil-handling functions performed at the facility, together with the operation of the facility. In addition, oil-handling personnel shall be trained in spill response, control, and cleanup as detailed in the SPCC Plan.

8.3 Designated Accountable Person

The Safety Manager is the designated accountable person for the prevention of oil spills at the facility.

8.4 Operational Personnel Annual Training

TCI operational personnel at the facility shall review spill response as detailed in this SPCC Plan annually.

8.5 Oil-Handling Personnel and Training

TCI personnel handling oil at the facility shall review spill response, control, and cleanup as detailed in this SPCC Plan on an annual basis.

Part 9: Security

9.1 Fencing

The facility is fenced, gated, and locked when unattended.

9.2 Oil Drain Valves

The outlet valves on all oil storage tanks shall be closed except when transferring oil. Drain valves on oil-containing equipment are kept closed, and a threaded plug is installed in the valve to prevent leakage in the event of a valve failure.

9.3 Starter Controls

All pumps shall be turned off except during the transfer of oil into an oil storage container. All starter controls are secured in a locked building when the facility is unattended or the power to the starter controls is turned off and the disconnect is in a locked building when the facility is unattended.

9.4 Capping of Transfer Piping and Hoses

All oil transfer piping and hoses shall be capped except when transferring oil. All valves associated with the transfer piping and hoses at the facility are kept closed except when transferring oil

9.5 Facility Lighting

The facility is well illuminated at night by coil-pack lights on the building and surveillance is provided by security cameras to aid in the discovery of oil spills at night and for the prevention of theft or vandalism.

Part 10: Oil-Handling Procedures

Two types of oil handling are conducted at the facility. The first type of oil handling at the facility is the transfer of oil from oil-filled electrical equipment or the oil collection spill pans to the bulk storage tanks. The second type of oil handling is transfer from the bulk storage tanks to a tanker. The procedures below are applicable to both types of oil-handling operations.

10.1 Oil Containment

During draining oil-filled electrical equipment and transfer to the bulk storage tanks, all connections to either the equipment or the tanks shall be within the confines of the secondary containment systems (either the PCB Commercial Storage area or Tank Farm). The PCB Commercial Storage area capacity of 120,487 gallons is considerable larger than the largest piece of oil-filled equipment stored or processed at the facility. The procedures for filling and emptying of the bulk storage tanks are contained in Appendix K.

The containment of oil during transfer from the bulk storage tanks to the tanker will either be contained within the Tank Farm with a storage capacity of 33,709 gallons or within the outside containment area.

10.2 Prevention of Vehicle Departure Prior to Hose Disconnection

To prevent vehicle departure prior to hose disconnection, wheel chocks shall be in place on the tanker truck during any oil transfer operation.

10.3 Vehicle Inspection

Prior to and after any oil-transfer operations, a visual inspection of the lowest drains and outlets on the tanker truck shall be conducted to ensure that there is not any leakage.

Part 11: Field-Constructed Aboveground Containers

Not applicable.

Part 12: Compliance

All bulk storage tanks at this facility are registered with state and local authorities (Village of Richwood Fire Department) and have current registration with the Richwood Fire Department.

As all facility operations are conducted indoors no treatment of stormwater is required.

There are no underground storage tanks at this facility.

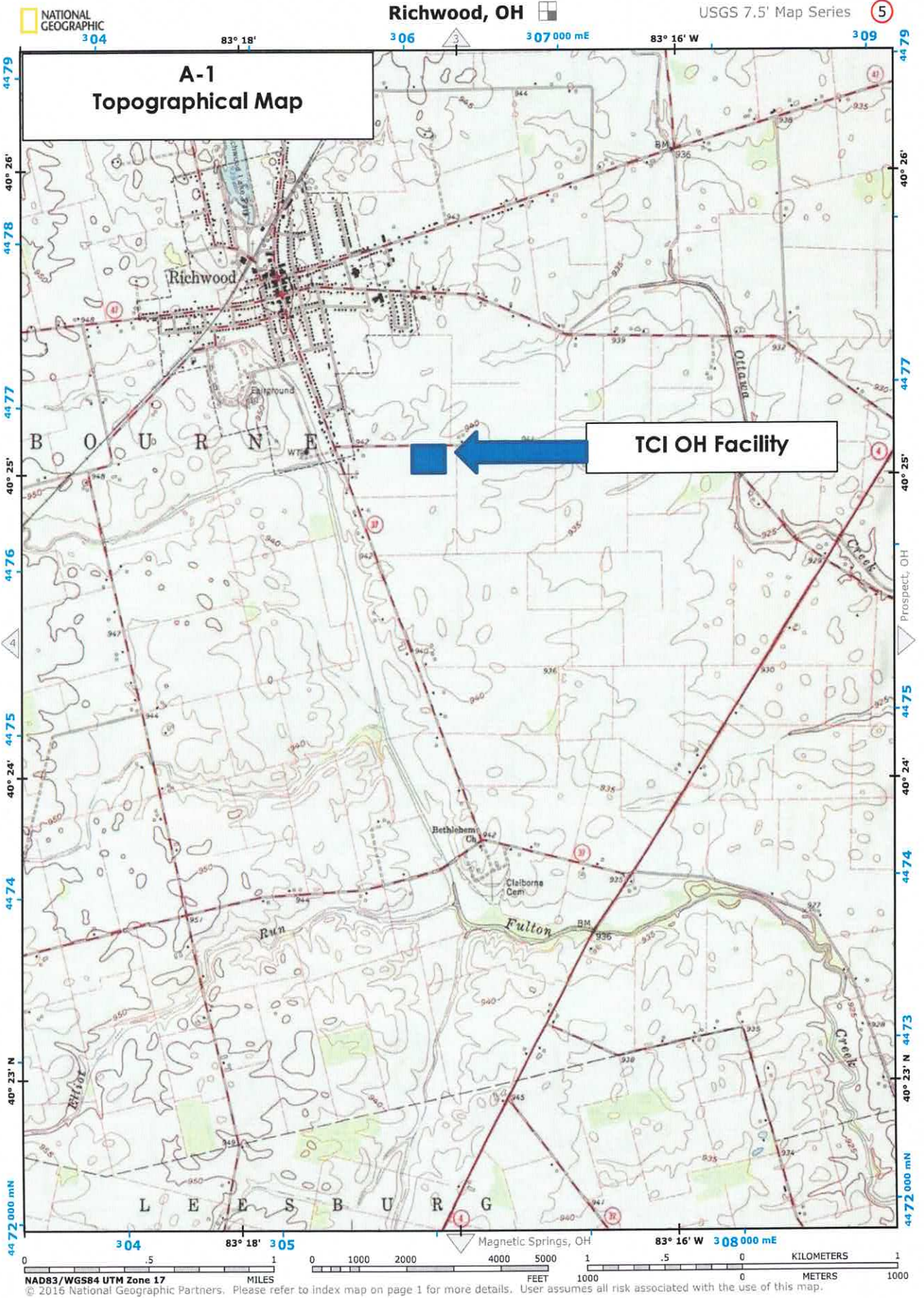
APPENDIX A

FIGURES

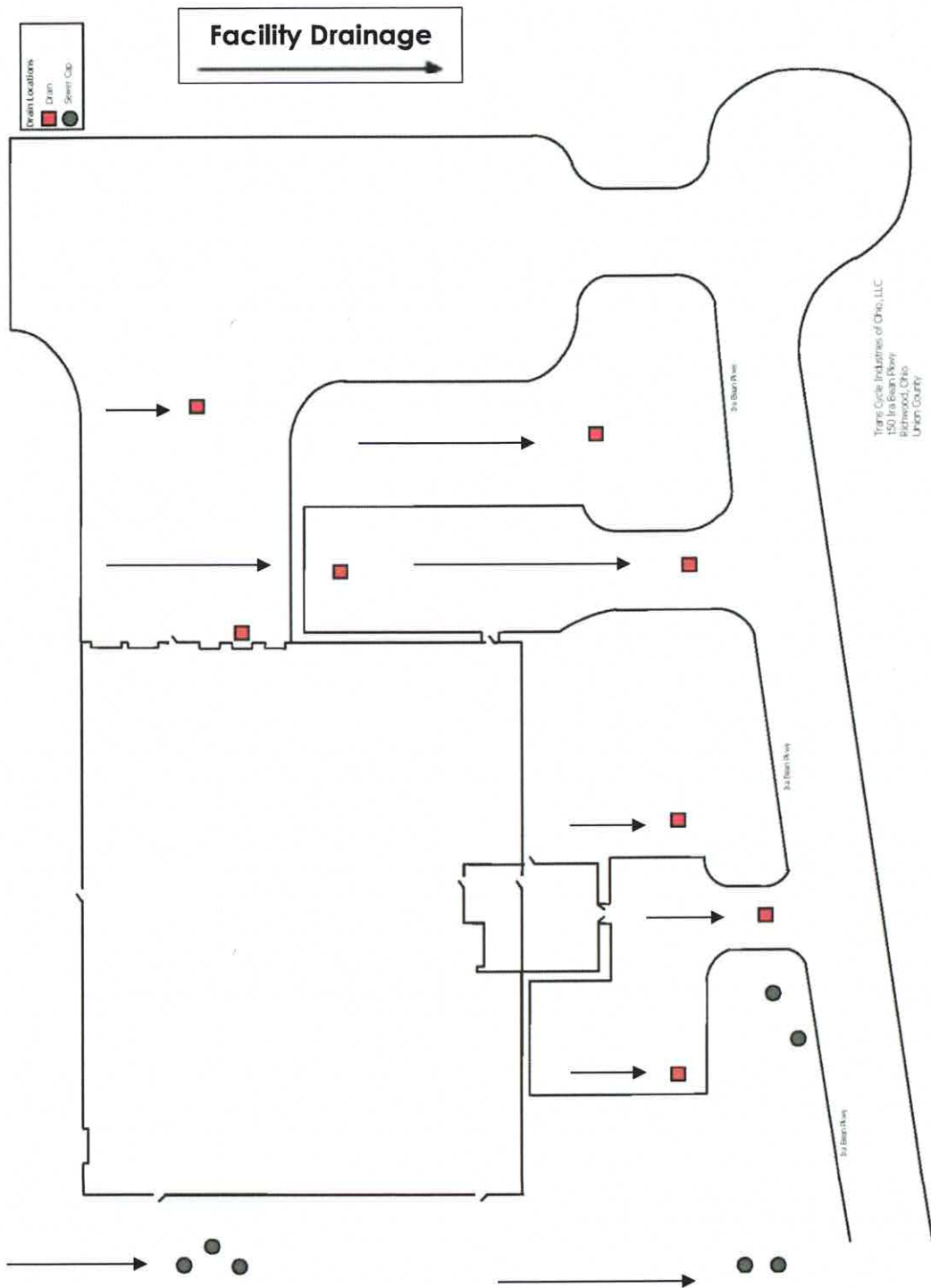
A-1 Topographical Map

A-2 Facility Map

A-3 Drain Map



A-3 Facility Drain Map



Appendix B

Certification of the Applicability of the Substantial Harm Criteria

Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000?

Yes _____

No _____

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and, within any storage area, does the facility Lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation?

Yes _____

No _____

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Appendix C of 40 CFR 112.20 or a comparable formula) such that the discharge from the facility could cause injury to fish and wildlife and sensitive environments?

Yes _____

No _____

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Appendix C of 40 CFR 112.20 or a comparable formula) such that the discharge from the facility would shut down a public drinking water intake?

Yes _____

No _____

Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil spill in an amount greater than or equal to 10,000 gallons within the last 5 years?

Yes _____

No _____

Certification:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted above, and that based on my inquiry of those individual responsible for obtaining information, I believe that the submitted information is true, accurate, and complete.

Appendix C

Trans-Cycle Industries of Ohio, LLC
Spill Report
150 Ira Bean Parkway
Richwood, Ohio 43344

1. Spill Observed By:
2. Date of Spill:
3. Time of Spill:
4. Container Type:
5. KVA Rating:
6. Company Number:
7. Voltage Rating:
8. Manufacture:
9. Serial Number:
10. Material Spilled:
11. Cause of Spill:
12. Estimate of Amount of Oil Spilled:
13. Estimate of Amount of Oil that Escaped the Secondary Containment System:
14. Description of all Affected Media:
15. Description of any Damage or Injuries Caused by the Spill:

Will an Evacuation be needed?

Names of Individual and Organizations Who Have Been Contacted:

Date	Time	Phone Number	Organization Contacted	Person Contacted	Reason

ARRIVAL AND DEPARTURE TIMES:

Name	Organization	Arrival Time and Date	Departure Time and Date

Appendix D

Oil Spill Kit Contents

- 1 – Bale of Oil Only Sorbent Pads
- 1 – 25# Bags of Granular Sorbent
- 1 – Storm Drain Protectors
- 1 – 85 Gallon Over-pack Drum
- 1 – Pole /Pad mounted Transformer Sack
- 6 pairs – Latex Gloves

Appendix E

Monthly Inspection Form

Date _____

Signature _____

Inspection Item	Yes	No	Description & Comments Including Tank ID
Tank or drum showing signs of leakage			
Check the battery light on overfill alarm for the four (4) single-walled storage tanks			
Tanks, tank supports or attachments showing signs of corrosion or damage			
Tank supports showing signs of settlement, cracking, exposed rebar or spalling			
Tank gauge operational and readable			
Tank vent showing signs of corrosion, damage or blockage			
Tank openings properly sealed			
Piping or valves showing any sign of leakage			
Piping supports showing signs of settling, corrosion or damage			
All piping connection points are capped			
Any water in containment			
Any water in piping vault			
Any stains or discoloration in containment area			
Containment area showing signs of settlement, cracking, exposed rebar or spalling			

Monthly Inspection Form

Date _____

Signature _____

Inspection Item	Yes	No	Description & Comments Including Tank ID
Piping vault showing signs of settlement, cracking, exposed rebar, or spalling			
Any foreign materials, debris or fire hazards in containment area			
Any foreign materials, debris, or fire hazards in piping area			
Egress from containment area is not obstructed			
All spill pans are clean			
Spill kits are complete including drain covers on outside of containment area			

Appendix F

Annual Inspection Form

Date _____

Signature _____

Inspection Item	Yes	No	Description & Comments Including Tank ID
Draining containment area removes all standing water			
Removing all standing water from facility floor/spill pans			
Tank paint shows any signs of deterioration or chalking			
Tanks are properly grounded			
Tank gaskets show signs of deterioration			
Tank manhole cover bolts are tight			
Piping paint shows any signs of deterioration or chalking			
Piping is properly grounded			
Piping or valve gaskets show signs of deterioration			
Flange bolts are tight			
Wiring or electrical conduit shows signs of corrosion or damage			
All warning signs and traffic bollards are in place and not damaged			
Fence gates operate properly and lock securely			
Fence shows signs of damage or corrosion			
Lighting functional and operating properly			
Security camera operating properly together with recording equipment			

Appendix G

Monthly Testing Form

Inspection Item	Yes	No	Description & Comments Including Tank ID
Overfill alarm on all tanks working properly			

Date _____

Signature _____

Appendix H

Annual Testing Form

Date _____

Signature _____

Inspection Item	Yes	No	Description & Comments Including Tank ID
Pump shutdown on tanks working properly			
Overfill alarm on all single-walled storage tanks working properly (See note 1)			
All tank vents are working properly			
All tank gauge readings are accurate			

Notes:

- 1 (a) Push test switch down. An alarm should sound and a red LED light. Release switch.
 - (b) Lift the float up allowing the alarm to sound, then lower float. Repeat three (3) times.
 - (c) Repeat steps (a) and (b) for all four (4) tanks
- 2 (a) Press and hold the "Up Arrow" key on the front keypad until the alarm activates
 - (b) The alarm will continue to operate for 5 seconds once the "up Arrow" button on the keypad is released.

Appendix I

Record of Annual Discharge Prevention Briefings and Training

Briefings will be scheduled and conducted by the facility owner or operator for operating personnel at regular intervals to ensure adequate understanding of this SPCC Plan. The briefings will also highlight and describe known discharge events or failures, malfunctioning components and recently implemented precautionary measures and best practices. Personnel will also be instructed in operation and maintenance of equipment to prevent the discharge of oil, and in applicable pollution laws, rules and regulations. Facility operators and other personnel will have an opportunity during the briefings to share recommendations concerning health, safety and environmental issues encountered during facility operations.

Date	Subjects Covered	Employees in Attendance	Instructor(s)

Appendix J

Transfer Procedure for Bulk Storage Tanks

Standard Operating Procedure: Filling the Oil Tanks

These steps are required when filling above ground storage tanks:

1. Turn off cell phone.
2. Verify the level of oil in the tank.
 - a. Each tank holds a maximum of 15,500 or 19,400 gallons respectively.
 - b. The level gauge provides height of oil in the tank.
 - c. The Tank Chart converts height to gallons.
3. Hook up the hose from the transfer pump to the Inlet Valve.
 - a. Place a spill pan or pad under the connection.
4. Place the suction pipe into the piece of electrical equipment to be drained.
5. Start the transfer pump and open up the tank inlet valve.
6. Proceed with filling the tank.
 - a. Monitor the tank level gauge during filling.
 - b. Monitor the tank level alarm during filling. An audible and visual alarm will activate if the level approaches 13,950 gallons (15,500 G tanks) or 17,460 gallons (19,400 G tank).
 - c. Turn off transfer pump when filling is complete.
7. Empty the fill lines.
 - a. Turn on the transfer pump.
 - b. When you hear air suction coming from the bleeder valve:
 - i. Disconnect the transfer hose from the suction pipe.
 - ii. Cap the end of the transfer hose.
 - c. Close storage tank inlet valve.
 - d. Shut off the transfer pump.
 - e. Cover the end of the suction pipe with a rag and rest in/over spill pan.
8. Verify before leaving the Tank Farm Area:
 - a. Inlet Valve is closed.
 - b. Cap in the Inlet Valve has been installed.

Appendix K

Transfer Procedure from Bulk Storage Tanks to Tanker

These steps are required when draining a bulk storage tank to a tanker:

1. Turn off cell phone.
2. Verify the level of oil in the tank.
 - a. Each tank holds a maximum of 15,500 or 19,400 gallons respectively.
 - b. Check the electronic tank gauge to determine the gallons of oil in the tank.
3. Hook up the hose from the tanker truck to the Outlet Valve on the hose from the outlet pump.
 - a. Place a spill pan or pad under the connection.
4. Open up the two (2) tank outlet valves.
 - a. One is located at the end of the tank.
 - b. One is located at the hose connection to the input of the outlet pump.
5. Proceed with emptying the tank.
 - a. Monitor the tanker truck compartment being filled.
 - b. Turn off outlet pump when the tanker truck is full.
6. Empty the fill lines
 - a. Close the tank outlet valve located at the inlet hose to the outlet pump.
 - b. Restart the pump.
 - c. Open the bleeder valve located on the inlet valve to the outlet pump.
 - d. When you hear air suction coming from the bleeder valve:
 - i. Close the bleeder valve.
 - ii. Close the outlet valve located at the hose connection to the tanker truck.
 - e. Shut off the outlet pump.
 - f. Turn off and lock power disconnect for outlet pump.
 - g. Disconnect the hose from the tanker truck and cap.
 - h. Install cap on the outlet valve
7. Verify before leaving the Tank Farm Area:
 - a. Both tank outlet valves are closed.
 - b. Bleeder Valve is closed.
 - c. Cap at the hose outlet valve has been installed.
 - d. Power disconnect for the outlet pump is turned off and locked.

Appendix L

Calculation of Secondary Containment Capacity

Tank Farm Containment Volume

Volume Cylinder: $A = \pi r^2 h$

Volume Box: $A = lwh$

Gallons per Cubic Foot = 7.48052

Tank Quantity = 4

24" x 15" x 15" Pump Quantity = 2

18" x 30" x 12" Pump Quantity = 1

Tank: $((3.14)(5.75 \text{ ft}^2)(5 \text{ ft})) \times 7.48052 \text{ ft/gal} = (3,883 \text{ gal} \times 4) = 15,532 \text{ gal}$

3 in. Pipe: $((3.14)(0.125 \text{ ft}^2)(136 \text{ ft})) \times 7.48052 \text{ ft/gal} = 50 \text{ gal}$

2 in. Pipe: $((3.14)(0.0833 \text{ ft}^2)(25 \text{ ft})) \times 7.48052 \text{ ft/gal} = 4 \text{ gal}$

24" x 15" x 15" Pump: $((2 \text{ ft})(1.25 \text{ ft})(1.25 \text{ ft}) \times 7.48052 \text{ ft/gal}) = (23.377 \text{ gal} \times 2) = 47.5 \text{ gal}$

18" x 30" x 12" Pump: $((1.5 \text{ ft})(2.5 \text{ ft})(1 \text{ ft}) \times 7.48052 \text{ ft/gal}) = 28 \text{ gal}$

Total Displacement = 15,662 gal

Gross Volume Tank Farm Containment (66' x 20' x 5') = $((66)(20)(5)) \times 7.48052 = 49,371$

Net Volume with displacement Tank Farm = 49,371 gal – 15,662 gal = 33,709 gal

PCB Commercial Storage Area - Area 1 Containment Volume

Volume Box: $A = lwh$

Gallons per Cubic Foot = 7.48052

Bushing breaker displacement:

$[(0.29167 \text{ ft} \times 9 \text{ ft} \times 3 \text{ ft}) \times 2] \times 7.48052 \text{ gal/ft} = 118 \text{ gal}$

Padmount drain tank displacement:

$(0.29167 \text{ ft} \times 10 \text{ ft} \times 6 \text{ ft}) \times 7.48052 \text{ gal/ft} = 131 \text{ gal}$

Total Displacement = 249 gal

At 7.5 inches for berm height:

$(0.625 \text{ ft} \times 165 \text{ ft} \times 142 \text{ ft}) \times 7.48052 \text{ gal/ft} = 109,543 \text{ gal}$

$(0.625 \text{ ft} \times 97 \text{ ft} \times 10 \text{ ft}) \times 7.48052 \text{ gal/ft} = 4,535 \text{ gal}$

$(0.625 \text{ ft} \times 89 \text{ ft} \times 16 \text{ ft}) \times 7.48052 \text{ gal/ft} = 6,658 \text{ gal}$

Gross Volume Area 1 = 120,736 gal

Net Volume with displacement in Area 1 = 120,736 gal – 248 gal = 120,487 gal