

Technical Memorandum

To: Kevin Welch, City of Tecumseh

From: Stacy Metz and Graham Crockford

Subject: Status of Well Decommissioning Activities

Date: March 2, 2012

Project: 02751.15.001

cc: Jason Smith, Tecumseh Products Company
Randy Kopke, Tecumseh Products Company
Douglas McClure, Conlin, McKenney and Philbrick, PC
Michelle Mullin, USEPA

Introduction and Background

In 2010 and 2011, the City of Tecumseh worked with the Michigan Department of Environmental Quality (MDEQ) and Tecumseh Products Company (TPC) to prepare a Groundwater Use Ordinance. The City of Tecumseh passed the Groundwater Use Ordinance on June 6, 2011. This ordinance restricts groundwater use in the area near the site. Specifically, the restricted area includes the area of affected groundwater, as well as an approximately one block buffer zone around the area of affected groundwater (Figure 1). A total of 272 parcels are included in the restricted zone. Groundwater use is restricted as follows:

- The installation, development, maintenance and use of private water wells is prohibited;
- Connection to the municipal water supply is required; and
- Existing private water wells must be abandoned.

In conjunction with preparation of the Groundwater Use Ordinance, TPC agreed to identify and abandon, with owner consent, private wells within the restricted zone. The results of efforts undertaken to identify all private wells within the restricted zone are documented in the September 28, 2011, Technical Memorandum titled "Summary of 2011 Private Well Survey Results." The 2011 Private Well Survey identified a total of 24 private wells within the restricted area (272 parcels), including 17 wells not in use; 3 wells used as a secondary, outdoor water supply, and 4 wells used as a primary drinking water source.

This technical memorandum describes efforts undertaken since September 2011 to facilitate the decommissioning of private wells within the restricted zone.

December 2011 Well Inspections

Using the results of the 2011 Private Well Survey, Mr. Jason Smith of Tecumseh Products Company contacted well owners in person between December 12, 2011 and December 15, 2011 in order to verify the presence and use status of private wells within the restricted zone and to facilitate private well abandonment as appropriate. Table 1 summarizes the current status of each of the 24 parcels identified as having a private well in the September 28, 2011 Technical Memorandum titled "Summary of 2011 Private Well Survey Results." Results of the December 2011 well inspections are briefly summarized below:

- Wells used as a primary, drinking water source (4 total) had been inspected previously, and were not evaluated during the December 2011 well inspections.
- The presence of a well that is not in use had been previously verified at one location (325-0323-00), the status of that well was not re-evaluated during the December 2011 well inspections.
- Use of a private well as a secondary, outdoor water supply was confirmed at parcel 325-0312-00. The well owner signed an access agreement allowing TPC access to decommission this well on December 15, 2011.
- The presence of private wells at parcels 000-0481-00 and 325-0370-00 was confirmed. However these wells are not in use.
- The presence of a well, which is not in use, was confirmed at two additional properties (325-0321-00 and 325-0401-00).
- At 7 parcels (000-0272-00, 305-1021-00, 325-0301-00, 325-0313-00, 780-0330-00, 780-0550-00 and 810-0100-00) evidence of a well was present but the current status of the well (decommissioned or not) could not be verified without additional tools and equipment.
- The owners of 4 parcels (325-0410-00, 780-0461-00, 780-0510-00, and 780-0520-00) indicated that a well had been present and used on the parcel historically. However based on site reconnaissance, the current presence or historic location of a well could not be verified. In most cases the alleged well had not been used for several decades.
- The owner of parcel 325-0380-00 indicated that the well historically used at that location had already been decommissioned.
- The owners of 2 parcels (000-0223-00 and 325-0091-00) indicated that no well was present at those locations.
- All well owners agreed to allow TPC to facilitate well decommissioning at their property.

Connection to the Municipal Water Supply

Prior to well decommissioning activities, Tecumseh Products Company arranged for all properties with private wells used as a primary water supply to be connected to the municipal water supply. Parcels 325-0432-00, 325-0434-00, and 325-0435-00 were connected on November 21, 2011 and Parcel 000-0421-00 was connected on January 24, 2012.

Well Decommissioning

Following connection to the municipal water supply in November 2011, three private wells previously used as a primary water supply, as well as one well that had not been in use were decommissioned by Alcock Drilling on December 16, 2011. Decommissioned wells are located on parcels 325-0323-00, 325-0432-00, 325-0434-00, and 325-0435-00. Well abandonment forms are included as Attachment 1. The property owners of parcels with wells that were previously in use (000-0421-00 and 325-0312-00) have signed access agreements allowing TPC to decommission their wells and final arrangements for well decommissioning activities are underway.

Summary

Twenty-four parcels were identified as having private wells in the September 28, 2011 Technical Memorandum titled "Summary of 2011 Private Well Survey Results." Since that time TPC conducted well inspections to facilitate well decommissioning activities, and began well decommissioning activities. The current status of private wells within the restricted zone is summarized in Table 1, illustrated on Figure 1, and summarized below:

- The four parcels which previously used a private well as their primary water source have been connected to the municipal water supply.
- Four wells have been decommissioned.
- The owners of two additional wells have signed access agreements, and final arrangements are underway to decommission those wells.
- The owners of four additional wells that are not in use are amenable to assistance from TPC in decommissioning those wells. TPC will attempt to facilitate well decommissioning at these locations by July 1, 2012.
- Evidence of wells used historically was found at seven additional parcels. TPC will attempt to verify the status of these wells and facilitate well decommissioning, if needed, at these locations by July 1, 2012.
- At two locations the owners indicated that to their knowledge no private wells are present.
- At one location the owner indicated that the well had already been filled and decommissioned.

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- Owners at the four remaining locations indicated knowledge of a private well used on the parcel historically. However no physical evidence of the well could be identified during well inspection activities. Given that wells cannot be located, and have not been in use of years, TRC does not believe that further action is needed to ensure compliance with the Groundwater Use Ordinance at these locations.

Table

Table 1
 Parcels with Private Wells Within Groundwater Use Ordinance Area
 Well Status and Decommissioning Record
 Tecumseh, Michigan
 February 2012

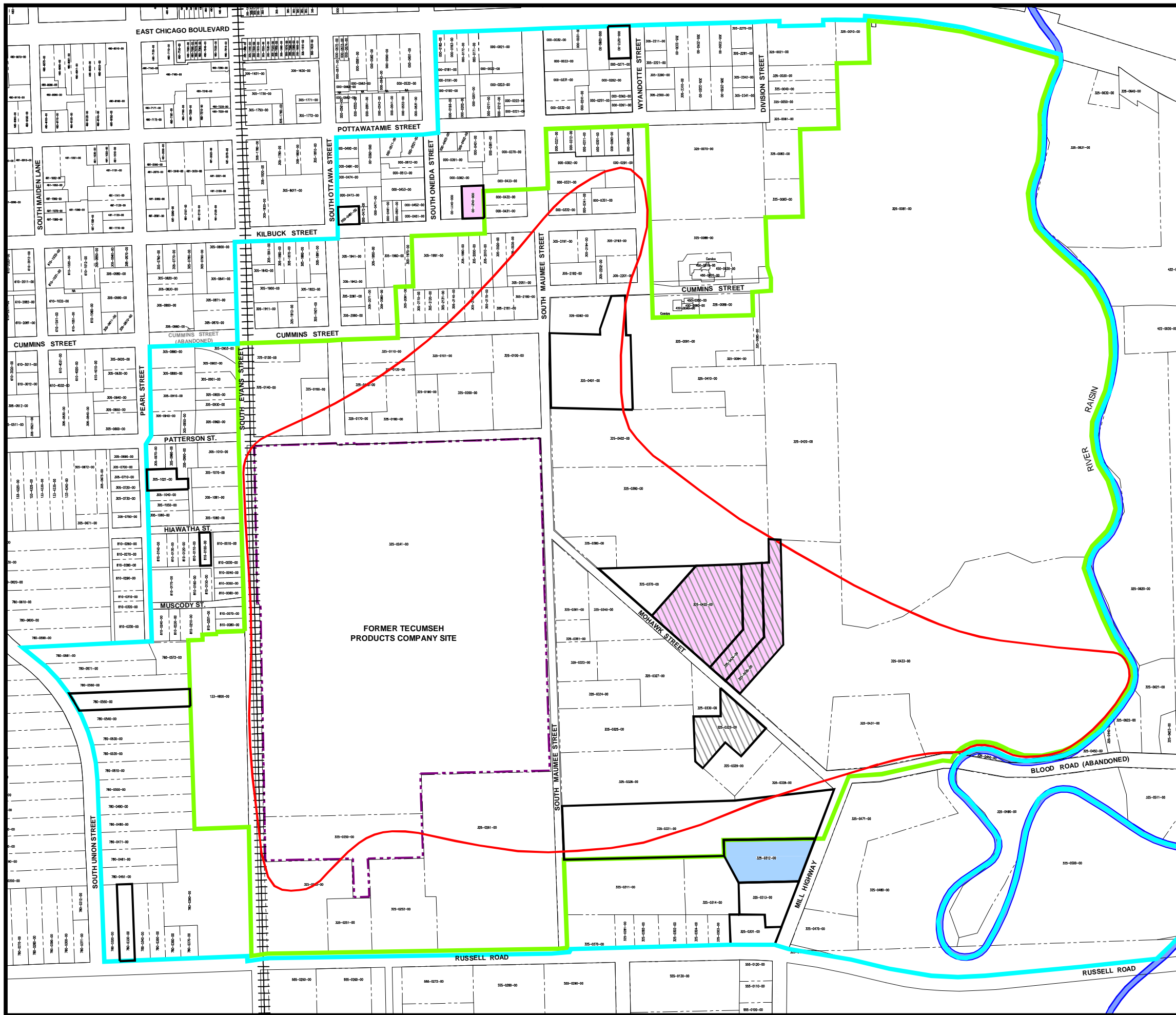
Parcel #	Property Address	Owner Name	Owner Address	Owner City	ST	Zip Code	Private Supply Well Uses ⁽¹⁾	Approximate Date of Last Known Well Use	Well Status
Parcels with wells used as a primary, drinking water source and no connection to the municipal water supply									
000-0421-00	307 E KILBUCK ST	HEISLER, SHARON	307 E KILBUCK ST	TECUMSEH	MI	49286	Primary	2012	Decomission Needed
325-0432-00	607 MOHAWK ST	LOGAN, ROBERT W	1207 MURRAY DR	TECUMSEH	MI	49286	Primary	2011	Decomissioned 12/16/2011
325-0434-00	611 MOHAWK ST	BIRCHFIELD, RONALD A & SHERRIE L	615 MOHAWK ST	TECUMSEH	MI	49286	Primary	2011	Decomissioned 12/16/2011
325-0435-00	615 MOHAWK ST	BIRCHFIELD, RONALD A & SHERRIE L	615 MOHAWK ST	TECUMSEH	MI	49286	Primary	2011	Decomissioned 12/16/2011
Parcels with municipal water as the primary water source and a well that is used as a secondary, non-drinking water source									
325-0312-00	701 MILL HWY	MAYNARD MINI SERVICES, INC	101 CARRIAGE DR	TECUMSEH	MI	49286	Outdoor	2011	Decomission Needed
Parcels with municipal water as the primary water source and a well that is not in use									
000-0272-00	416 E CHICAGO BLVD	KNISELY, CARLOS & BARBARA	6375 BILLMYER HWY	TECUMSEH	MI	49286	None	Before 1961	Verify Status, Decomission if Needed
000-0481-00	201 E KILBUCK ST	DAVIS, THOMAS B & SARAH L	409 E RUSSELL RD	TECUMSEH	MI	49286	None	Before 1998	Decomission Needed
325-0301-00	515 E RUSSELL RD	HELMS TRUST, MICHAEL A & CAROL A	4324 BILLMEYER HWY	BRITTON	MI	49229	None	b/w 1989 & 1995	Verify Status, Decomission if Needed
325-0313-00	803 MILL HWY	HURLEY, MATTHEW	803 MILL HWY	TECUMSEH	MI	49286	None	Unknown	Verify Status, Decomission if Needed
325-0321-00	800 S MAUMEE ST	ROBERTS INVESTMENT COMPANY LLC	P.O. BOX 400	TECUMSEH	MI	49286	None	Before 1981	Decomission Needed
325-0323-00	704 MOHAWK ST	BIRCHFIELD, TAYLOR & RONALD	704 MOHAWK ST	TECUMSEH	MI	49286	None	Unknown	Decomissioned 12/16/2011
325-0370-00	509 MOHAWK ST	BATYIK, FRANK L	3614 NOLAND DR	TECUMSEH	MI	49286	None	2000	Decomission Needed
325-0401-00	414 S MAUMEE ST	BOOT, MARTIN & CAROL	807 RED MILL DR	TECUMSEH	MI	49286	None	Before 1996	Decomission Needed
305-1021-00	502 S PEARL ST	FROLICH, RICHARD J & CONSTANCE	502 S PEARL ST	TECUMSEH	MI	49286	None	Before 1981	Verify Status, Decomission if Needed
780-0330-00	205 W RUSSELL RD	WOTRING, LEONARD TRUST	205 W RUSSELL RD	TECUMSEH	MI	49286	None	Before 1987	Verify Status, Decomission if Needed
780-0550-00	738 S UNION ST	MATTHEWS, DEBRA K	738 S UNION ST	TECUMSEH	MI	49286	None	Before 1987	Verify Status, Decomission if Needed
810-0100-00	106 HIAWATHA ST	LEUTGEB, MARTIN A & MARSH, CHRISTINE	605 W POTTAWATAMIE	TECUMSEH	MI	49286	None	Unknown	Verify Status, Decomission if Needed
Parcels with municipal water as the primary water source and no current well on the property									
000-0223-00	111 S MAUMEE ST	GALL, BYRON J & JEAN L	111 S MAUMEE ST	TECUMSEH	MI	49286	None	Not Applicable	No Well on Property
325-0091-00	416 E CUMMINS ST	BOOT MARTIN JR & CAROL	416 E CUMMINS ST	TECUMSEH	MI	49286	None	Not Applicable	No Well on Property
325-0380-00	426 S MAUMEE ST	NOVAK LLC	426 S MAUMEE ST	TECUMSEH	MI	49286	None	Before 2001	Well Previously Decomissioned
325-0410-00	500 E CUMMINS ST	RYAN, JOHN J & ANNE E	210 W CHICAGO BLVD	TECUMSEH	MI	49286	None	Before 1996	No Well on Property/Well Previously Decomissioned
780-0461-00	824 S UNION ST	STEUWE, KATHLEEN M	824 S UNION ST	TECUMSEH	MI	49286	None	Before 1996	No Well on Property/Well Previously Decomissioned
780-0510-00	804 S UNION ST	CREGER, DONALD	804 S UNION ST	TECUMSEH	MI	49286	None	1950	No Well on Property/Well Previously Decomissioned
780-0520-00	800 S UNION ST	GLENN TRUST, SALLY A	800 S UNION ST	TECUMSEH	MI	49286	None	1956	No Well on Property/Well Previously Decomissioned

Notes

1) Private supply well uses as of September 2011 are designated as follows: "None" - wells that are not in use, "Primary" - wells used as the primary water source from the parcel including drinking water, bathing, cleaning, and outdoor uses, and "Outdoor" - indicates wells used as a secondary water source for outdoor use only.

Figure

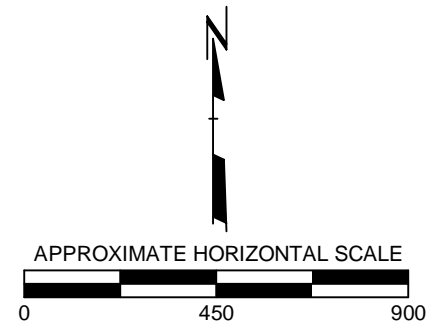
PLOT DATA
 Drawing Name: J:_TRC\Tecomseh Products\Tecomseh\004309\0001\01\004309.0001.01.dwg
 Operator Name: STEHLE, DIANAH
 Drawing Plot Scale: 0.386863
 Dwg Size: 0.57 Mb
 Plot Date: February 23, 2012
 Plot Time: 8:46 AM
 Attached Xrefs: btm100110 (No Wellands)
 Attached Images: FIG01 Private Well Update Feb2012
 Layout: FIG01 Private Well Update Feb2012



- LEGEND**
- FORMER TECUMSEH PRODUCTS SITE BOUNDARY
 - PARCEL BOUNDARY
 - PARCEL ID NUMBER
 - RAILROAD TRACKS (APPROXIMATE LOCATION)
 - BOUNDARY OF AREA THAT RECEIVED NOTICES OF OFF-SITE MIGRATION
 - BOUNDARY OF AREA AFFECTED BY GROUNDWATER USE ORDINANCE
 - EXTENT OF VOCs ABOVE MDEQ PART 201 DRINKING WATER CRITERIA

- WELL STATUS**
- PROPERTIES WITH A PRIVATE WELL THAT IS NOT IN USE
 - PROPERTIES WITH A PRIVATE WELL AS A PRIMARY WATER SUPPLY IN 2011
 - PROPERTIES WITH A PRIVATE WELL AS A SECONDARY WATER SUPPLY IN 2011
 - PRIVATE WELL HAS BEEN DECOMMISSIONED

- NOTES**
1. BASE MAP DEVELOPED FROM SITE PLAN PROVIDED BY THE CITY OF TECUMSEH, DRAWING NO. CITY.DWG, MARCH 2009.



PROJECT: FORMER TECUMSEH PRODUCTS SITE TECUMSEH, MICHIGAN			
TITLE: PRIVATE WELL STATUS UPDATE FEBRUARY 2012			
DRAWN BY: SJL/DGS	SCALE: AS INDICATED	PROJ. NO. 004309.0001.01	
CHECKED BY: SEM		FILE NO. 004309.0001.01.01.dwg	
APPROVED BY: GC	DATE PRINTED:	FIGURE 1	
DATE: FEBRUARY 2012			

1540 Eisenhower Place
Ann Arbor, MI 48108
Phone: 734.971.7080
Fax: 734.971.9022

Attachment 1



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER BUREAU

ABANDONED WELL PLUGGING RECORD

Completion is required under authority of Part 127 Act 368 PA 1978.
Failure to comply is a misdemeanor.

Permit No.

WSSN & Source ID/Well No.

Tax No. _____

Latitude _____ Longitude _____ County **Lenawee** Township _____

Distance & Direction from Road Intersection _____ Well Street Address, City/ZIP _____

Fraction 1/4 1/4 1/4 Section _____ Town No. _____ Range No. _____

Well Owner Tecums & h Tire
Address 611 Monawk
City/ZIP Tecums & h, MI 49286
Owner Address Same as Well Address? Yes No

Drilling Unknown Rotary Cable Tool
Method Other _____

Casing Status After Plugging 1 ft. Below Grade Above Grade
 Casing Pulled

Date of Well Plugging 12/16/11

Well Use Household Type I Public
 Type II Public Type III Public Industrial
 Irrigation Test Well Heat Pump
 Other _____

Note: Cutting casing off 4 feet below grade is recommended.

Reason For Abandoning Well Public Water Connection Well in Disrepair
 Well No Longer Needed Dry Hole Uncompleted Well
 Other _____

Measured Well Depth 65 ft.

Abandonment Method Pumped Through Grout Pipe Poured From Surface
 Poured Through Grout Pipe Other _____

Date Well Constructed / /
 Unknown

Well Construction Type Drift Well
 Rock Well Dry Hole Unknown
 Other _____

Flowing Well Yes No

Pumping Equipment Removed Yes No

Equipment Removed Bremer Check Valve Drawdown Seal
 Drop Pipe Electrical Wiring Packer Ptiess Adapter Spool
 Check Valve Pump Cylinder Pump Rods Stones/Debris
 Submersible Pump Turbine Pump Bowls Unknown Obstruction
 Obstruction Driven to Bottom Other _____

Casing Steel-black Steel-galvanized Plastic
 Clay Tile Crock Other _____

Diameter _____ in. to _____ ft. depth
Diameter _____ in. to _____ ft. depth

Note: Plugging well from bottom up to ground surface is required.

Plugging Material (Enter the layers from top to bottom.)	From	To	Quantity	Units
<input checked="" type="checkbox"/> Bentonite Chips/Pellets <input type="checkbox"/> Bentonite Slurry <input type="checkbox"/> Clean Soil Fill <input type="checkbox"/> Concrete <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other _____	<u>0</u> ft.	<u>65</u> ft.	<u>8</u>	<input checked="" type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other _____
<input type="checkbox"/> Bentonite Chips/Pellets <input type="checkbox"/> Bentonite Slurry <input type="checkbox"/> Clean Soil Fill <input type="checkbox"/> Concrete <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other _____	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other _____
<input type="checkbox"/> Bentonite Chips/Pellets <input type="checkbox"/> Bentonite Slurry <input type="checkbox"/> Clean Soil Fill <input type="checkbox"/> Concrete <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other _____	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other _____
<input type="checkbox"/> Bentonite Chips/Pellets <input type="checkbox"/> Bentonite Slurry <input type="checkbox"/> Clean Soil Fill <input type="checkbox"/> Concrete <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other _____	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other _____
<input type="checkbox"/> Bentonite Chips/Pellets <input type="checkbox"/> Bentonite Slurry <input type="checkbox"/> Clean Soil Fill <input type="checkbox"/> Concrete <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other _____	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other _____
<input type="checkbox"/> Bentonite Chips/Pellets <input type="checkbox"/> Bentonite Slurry <input type="checkbox"/> Clean Soil Fill <input type="checkbox"/> Concrete <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other _____	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other _____
<input type="checkbox"/> Bentonite Chips/Pellets <input type="checkbox"/> Bentonite Slurry <input type="checkbox"/> Clean Soil Fill <input type="checkbox"/> Concrete <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other _____	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other _____
<input type="checkbox"/> Bentonite Chips/Pellets <input type="checkbox"/> Bentonite Slurry <input type="checkbox"/> Clean Soil Fill <input type="checkbox"/> Concrete <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other _____	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other _____
<input type="checkbox"/> Bentonite Chips/Pellets <input type="checkbox"/> Bentonite Slurry <input type="checkbox"/> Clean Soil Fill <input type="checkbox"/> Concrete <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other _____	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other _____
<input type="checkbox"/> Bentonite Chips/Pellets <input type="checkbox"/> Bentonite Slurry <input type="checkbox"/> Clean Soil Fill <input type="checkbox"/> Concrete <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other _____	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other _____

General Remarks _____

Water Well Contractor's Certification Well Owner Plugged Well
This well was plugged under my supervision and this report is true to the best of my knowledge and belief.

Alcock Drilling, Inc 1273
Registered Business Name Registration No.

Address 6375 Sutton Road
City/State/ZIP BRITTON MI 49229

Perry Alcock 12/16/11
Signature of Registered Contractor Date



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER BUREAU

ABANDONED WELL PLUGGING RECORD

Completion is required under authority of Part 127 Act 368 PA 1978.
Failure to comply is a misdemeanor.

Permit No.

WSSN & Source ID/Well No.

Tax No.		Latitude		Longitude		County Lenawee		Township	
Distance & Direction from Road Intersection		Well Street Address, City/ZIP		Fraction 1/4 1/4 1/4		Section		Town No. Range No.	
				Well Owner <i>Jecumsak Fire</i>		Address <i>615 Mohawk</i>		City/ZIP <i>Jecumsak, MI 49286</i>	
				Owner Address Same as Well Address? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					

Drilling Unknown Rotary Cable Tool
Method Other _____

Date of Well Plugging *12/16/11*

Well Use Household Type I Public
 Type II Public Type III Public Industrial
 Irrigation Test Well Heat Pump
 Other _____

Measured Well Depth *65* ft.

Date Well Constructed */ /*

Well Construction Type Drift Well
 Rock Well Dry Hole Unknown
 Other _____

Flowing Well Yes No

Casing Status After Plugging *1* ft. Below Grade Above Grade
 Casing Pulled
Note: Cutting casing off 4 feet below grade is recommended.

Reason For Abandoning Well Public Water Connection Well in Disrepair
 Well No Longer Needed Dry Hole Uncompleted Well
 Other _____

Abandonment Method Pumped Through Grout Pipe Poured From Surface
 Poured Through Grout Pipe Other _____

Pumping Equipment Removed Yes No

Equipment Removed Bremer Check Valve Drawdown Seal
 Drop Pipe Electrical Wiring Packer Pritess Adapter Spool
 Check Valve Pump Cylinder Pump Rods Stones/Debris
 Submersible Pump Turbine Pump Bowls Unknown Obstruction
 Obstruction Driven to Bottom Other _____

Note: Plugging well from bottom up to ground surface is required.

Plugging Material (Enter the layers from top to bottom.)

<input checked="" type="checkbox"/> Bentonite Chips/Pellets <input type="checkbox"/> Bentonite Slurry <input type="checkbox"/> Clean Soil Fill	From <i>0</i> ft.	To <i>6.5</i> ft.	Quantity <i>8</i>	Units <input checked="" type="checkbox"/> Bags <input type="checkbox"/> Yards
<input type="checkbox"/> Concrete <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other _____	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Other _____
<input type="checkbox"/> Bentonite Chips/Pellets <input type="checkbox"/> Bentonite Slurry <input type="checkbox"/> Clean Soil Fill	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards
<input type="checkbox"/> Concrete <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other _____	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Other _____
<input type="checkbox"/> Bentonite Chips/Pellets <input type="checkbox"/> Bentonite Slurry <input type="checkbox"/> Clean Soil Fill	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards
<input type="checkbox"/> Concrete <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other _____	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Other _____
<input type="checkbox"/> Bentonite Chips/Pellets <input type="checkbox"/> Bentonite Slurry <input type="checkbox"/> Clean Soil Fill	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards
<input type="checkbox"/> Concrete <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other _____	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Other _____
<input type="checkbox"/> Bentonite Chips/Pellets <input type="checkbox"/> Bentonite Slurry <input type="checkbox"/> Clean Soil Fill	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards
<input type="checkbox"/> Concrete <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other _____	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Other _____
<input type="checkbox"/> Bentonite Chips/Pellets <input type="checkbox"/> Bentonite Slurry <input type="checkbox"/> Clean Soil Fill	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards
<input type="checkbox"/> Concrete <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other _____	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Other _____
<input type="checkbox"/> Bentonite Chips/Pellets <input type="checkbox"/> Bentonite Slurry <input type="checkbox"/> Clean Soil Fill	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards
<input type="checkbox"/> Concrete <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other _____	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Other _____

General Remarks

Water Well Contractor's Certification Well Owner Plugged Well
This well was plugged under my supervision and this report is true to the best of my knowledge and belief.

Alcock Drilling, Inc. *1272*
Registered Business Name Registration No.

Address *60375 Sutton Rd*

City/State/ZIP *Britton, MI 49229*

Jerry Alcock *12/16/11*
Signature of Registered Contractor Date

IMPORTANT: FILE WITH DEED

WELL OWNER COPY



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER BUREAU

ABANDONED WELL PLUGGING RECORD

Completion is required under authority of Part 127 Act 368 PA 1978.
Failure to comply is a misdemeanor.

Permit No.

WSSN & Source ID/Well No.

Tax No.

Latitude

Longitude

County Lenawee

Township

Distance & Direction from Road Intersection

Well Street Address, City/ZIP

Fraction
1/4 1/4 1/4

Section

Town No.

Range No.

Well Owner Rox/Jayla Birchfield
Address 704 Mohawk
City/ZIP Secaucus, MI 49286
Owner Address Same as Well Address? Yes No

Drilling Unknown Rotary Cable Tool
Method Other

Casing Status After Plugging 1 ft. Below Grade Above Grade
 Casing Pulled

Date of Well Plugging
12/16/11

Well Use Household Type I Public
 Type II Public Type III Public Industrial
 Irrigation Test Well Heat Pump
 Other

Note: Cutting casing off 4 feet below grade is recommended.
Reason For Abandoning Well Public Water Connection Well in Disrepair
 Well No Longer Needed Dry Hole Uncompleted Well
 Other

Measured Well Depth 22 ft.

Abandonment Method Pumped Through Grout Pipe Poured From Surface
 Poured Through Grout Pipe Other

Date Well Constructed
1/1
 Unknown

Well Construction Type Drift Well
 Rock Well Dry Hole Unknown
 Other
Flowing Well Yes No

Pumping Equipment Removed Yes No
Equipment Removed Bremer Check Valve Drawdown Seal
 Drop Pipe Electrical Wiring Packer Ptiess Adapter Spool
 Check Valve Pump Cylinder Pump Rods Stones/Debris
 Submersible Pump Turbine Pump Bowls Unknown Obstruction
 Obstruction Driven to Bottom Other
Note: Plugging well from bottom up to ground surface is required.

Casing Steel-black Steel-galvanized Plastic
 Clay Tile Crock Other Point well
Diameter 1 1/4 in. to 22 ft. depth
Diameter _____ in. to _____ ft. depth

Plugging Material (Enter the layers from top to bottom.)

Material	From	To	Quantity	Units
<input checked="" type="checkbox"/> Bentonite Chips/Pellets <input type="checkbox"/> Bentonite Slurry <input type="checkbox"/> Clean Soil Fill <input type="checkbox"/> Concrete <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other	<u>0</u> ft.	<u>22</u> ft.	<u>2</u>	<input checked="" type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other
<input type="checkbox"/> Bentonite Chips/Pellets <input type="checkbox"/> Bentonite Slurry <input type="checkbox"/> Clean Soil Fill <input type="checkbox"/> Concrete <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other
<input type="checkbox"/> Bentonite Chips/Pellets <input type="checkbox"/> Bentonite Slurry <input type="checkbox"/> Clean Soil Fill <input type="checkbox"/> Concrete <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other
<input type="checkbox"/> Bentonite Chips/Pellets <input type="checkbox"/> Bentonite Slurry <input type="checkbox"/> Clean Soil Fill <input type="checkbox"/> Concrete <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other
<input type="checkbox"/> Bentonite Chips/Pellets <input type="checkbox"/> Bentonite Slurry <input type="checkbox"/> Clean Soil Fill <input type="checkbox"/> Concrete <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other
<input type="checkbox"/> Bentonite Chips/Pellets <input type="checkbox"/> Bentonite Slurry <input type="checkbox"/> Clean Soil Fill <input type="checkbox"/> Concrete <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other
<input type="checkbox"/> Bentonite Chips/Pellets <input type="checkbox"/> Bentonite Slurry <input type="checkbox"/> Clean Soil Fill <input type="checkbox"/> Concrete <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other
<input type="checkbox"/> Bentonite Chips/Pellets <input type="checkbox"/> Bentonite Slurry <input type="checkbox"/> Clean Soil Fill <input type="checkbox"/> Concrete <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other
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<input type="checkbox"/> Bentonite Chips/Pellets <input type="checkbox"/> Bentonite Slurry <input type="checkbox"/> Clean Soil Fill <input type="checkbox"/> Concrete <input type="checkbox"/> Neat Cement <input type="checkbox"/> Other	_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other

General Remarks

Water Well Contractor's Certification Well Owner Plugged Well
This well was plugged under my supervision and this report is true to the best of my knowledge and belief.
Alcock Drilling, Inc. 1272
Registered Business Name Registration No.
Address 6375 Sutton Rd
City/State/ZIP Britton, MI 49229
Terry Alcock 12/16/11
Signature of Registered Contractor Date

IMPORTANT: FILE WITH DEED

WELL OWNER COPY



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER BUREAU

ABANDONED WELL PLUGGING RECORD

Completion is required under authority of Part 127 Act 368 PA 1978.
Failure to comply is a misdemeanor.

Permit No.

WSSN & Source ID/Well No.

Tax No.

Latitude

Longitude

County Lenawee

Township

Distance & Direction from Road Intersection

Well Street Address, City/ZIP

Fraction
1/4 1/4 1/4

Section

Town No.

Range No.

Well Owner Robert Logan
Address 607 Moran R
City/ZIP Secaucus, NJ 49286
Owner Address Same as Well Address? Yes No

Drilling Unknown Rotary Cable Tool
Method Other

Casing Status After Plugging 1 ft. Below Grade Above Grade
 Casing Pulled

Date of Well Plugging
12/16/11

Well Use Household Type I Public
 Type II Public Type III Public Industrial
 Irrigation Test Well Heat Pump
 Other

Note: Cutting casing off 4 feet below grade is recommended.

Reason For Abandoning Well Public Water Connection Well in Disrepair
 Well No Longer Needed Dry Hole Uncompleted Well
 Other

Measured Well Depth 65 ft.

Abandonment Method Pumped Through Grout Pipe Poured From Surface
 Poured Through Grout Pipe Other

Date Well Constructed
/ /

Well Construction Type Rock Well Dry Hole Unknown Drift Well
 Other

Flowing Well Yes No

Pumping Equipment Removed Yes No

Casing Steel-black Steel-galvanized Plastic
 Clay Tile Crock Other

Diameter 5 in. to 65 ft. depth
Diameter _____ in. to _____ ft. depth

Equipment Removed Bremer Check Valve Drawdown Seal
 Drop Pipe Electrical Wiring Packer Pitless Adapter Spool
 Check Valve Pump Cylinder Pump Rods Stones/Debris
 Submersible Pump Turbine Pump Bowls Unknown Obstruction
 Obstruction Driven to Bottom Other

Note: Plugging well from bottom up to ground surface is required.

Plugging Material (Enter the layers from top to bottom.)

From	To	Quantity	Units
<u>0</u> ft.	<u>65</u> ft.	<u>10</u>	<input checked="" type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other
_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other
_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other
_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other
_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other
_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other
_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other
_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other
_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other
_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other
_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other
_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other
_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other
_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other
_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other
_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other
_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other
_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other
_____ ft.	_____ ft.	_____	<input type="checkbox"/> Bags <input type="checkbox"/> Yards <input type="checkbox"/> Other

Bentonite Chips/Pellets Bentonite Slurry Clean Soil Fill
 Concrete Neat Cement Other

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