

**SUMMARY REPORT TO MANAGER**  
For City Council Meeting of October 23, 2006

**SUBJECT:** DOW CHEMICAL – SOIL SAMPLING LICENSE AGREEMENT

**INITIATED BY:** Noel D. Bush, Utilities Director

**RESOLUTION SUMMARY:** The attached resolution will authorize the Mayor and City Clerk to execute a license agreement with The Dow Chemical Company to allow Dow and its contractors to sample the soil of fourteen (14) City parcels, as part of Dow’s corrective action obligations under its hazardous waste facility Operating License for the Midland Facility, subject to document approval by the City Attorney.

**ITEMS ATTACHED:**

- 1. Letter of transmittal
- 2. Letter from The Dow Chemical Company
- 3. Brochure – Midland Area Representative Soils Study Summary
- 4. Aerial Map
- 5. License Agreement
- 6. Resolution

**COUNCIL ACTION:**

- 1. 3/5 vote required to approve resolution.

NDB:jjjs



City Hall • 333 West Ellsworth Street • Midland, Michigan 48640-5132 • 989.837.3300 • 989.835.2717 Fax • [www.midland-mi.org](http://www.midland-mi.org)

October 18, 2006

Honorable Mayor and City Council  
City of Midland  
333 W. Ellsworth Street  
Midland, Michigan 48640

SUBJECT: SOIL SAMPLING LICENSE AGREEMENT

Dear Councilmen:

The Dow Chemical Company is requesting that it be authorized to sample the soil of fourteen (14) City-owned parcels as part of Dow's corrective action obligations under its hazardous waste facility Operating License for the Midland Facility. Dow's request is part of a broader scope and is being asked of other property owners in the City of Midland and surrounding areas. There were a total of 571 letters sent to property owners soliciting access for soil sampling. This sampling is intended to aid Dow in conducting a bioavailability study necessary to develop a site specific clean-up limit for Midland.

The attached letter of request from Dow outlines the reasons the samples are needed, and identifies the specific properties targeted for soil sampling and analysis. These properties are also shown on the attached map.

Attached is a license agreement that City staff recommends be executed to allow Dow and its contractors the right to access the identified City-owned properties and to obtain a soil sample.

Respectfully submitted,

Noel Bush, Utilities Director



The Dow Chemical Company  
Midland, Michigan 48667

September 19, 2006

City of Midland  
Noel Bush, Utilities Director  
333 W. Ellsworth  
Midland, MI 48640

Dear Landowner:

As part of The Dow Chemical Company's (Dow) corrective action obligations under its hazardous waste facility Operating License for the Midland Facility, Dow is evaluating if chemicals historically released from operations at its Midland Plant have affected area properties. The purpose of this letter is to request that you allow Dow and its contractors to collect a soil sample from your properties at:

Property Addresses:

3400 ORCHARD DR	217 E PATRICK RD
205 E GROVE ST	505 W ST ANDREWS RD
1316 E GROVE ST	1012 E PATRICK RD
1306 E CARPENTER ST	1419 IOWA ST
701 E LYON RD	400 KENT CT
816 LYON RD	130 CRONKRIGHT ST
410 E NELSON ST	411 STATE ST

City of Midland Property Tax Identification Numbers:

14-08-40-500	14-15-50-636
14-16-50-900	14-09-40-002
14-21-20-186	14-22-10-180
14-21-10-054	14-15-40-130
14-22-80-012	14-23-60-132
14-21-10-270	14-21-80-104
14-16-20-584	14-21-80-484

Dow is making this same request of other property owners in the City of Midland and surrounding areas.

This soil sampling and analysis (testing) is part of a plan developed jointly by Dow and the Michigan Department of Environmental Quality (MDEQ) to determine the types of soils typically found in the Midland area that have been affected by dioxins and furans, or other chemicals produced by Dow's operations (at selected locations). If you agree to allow Dow to sample your soil, Dow's contractor will take enough soil that would approximately fill a quart container from the top six inches of soil. This sample will be submitted to an independent third party, which will assign blind identification numbers to the soil samples so that Dow, MDEQ, and the laboratory handling the soil sample will not know the location where the sample was taken. The laboratory will test the soil to identify its type and determine whether it contains dioxins and furans and, if so, how much of those chemicals.

The results of this soil sampling and testing will be critical in selecting the soil types to be included in a bioavailability study Dow may conduct, which would help explain if or how dioxins and furans make their way from soil into the human body in a form that could potentially affect human health. When the results of a bioavailability study are added to information to be gathered regarding the health risks of exposure to these chemicals, Dow and MDEQ will be able to begin developing site-specific cleanup criteria. These criteria are the threshold amounts of dioxins and furans found in soil

that would require Dow to conduct a cleanup in particular areas. The soil sampling and testing Dow is doing now will also help determine the location and amounts of dioxins and furans and other chemicals in the soil. Quick action will be taken to protect the public if this testing indicates the need for interim response activities. The brochure included with this letter provides additional information concerning this soil sampling and analysis plan.

Dow and the MDEQ, with input from the City of Midland and other interested parties, have worked hard to minimize the effects of soil sampling and analysis on property owners. Dow and the MDEQ have agreed to keep the soil samples anonymous unless contamination is present at levels that require interim response activities or until site-specific cleanup criteria are developed. Dow and the MDEQ have also agreed to release results from the group of properties that make up a sampling station without identifying the particular property tested. This will allow owners to learn preliminary results while keeping the testing anonymous. At the time your property is sampled, you will be told how to obtain results for your sample station. The MDEQ may "split" samples collected by Dow. However, the anonymity of the sample location will be maintained unless interim response activities are determined to be necessary.

Dow is committed to minimizing any inconvenience to you if you allow it to take a soil sample from your property and it will restore your property to its original condition after sampling. MDEQ has also provided its assurance that allowing Dow to sample your property does not automatically mean that it is contaminated or that it will be considered a "facility" under Michigan law.

Dow hopes that you will agree to allow it to take these soil samples by signing and returning the enclosed "License Agreement" to Dow's contractor CH2M HILL in the enclosed postage paid envelope. If you decide not to participate please contact us at 989-638-8121 to let us know of your decision. MDEQ requires Dow to use "best efforts" to obtain access to properties for this evaluation. If we do not receive a call or signed agreement from you we are required to attempt to contact you through various means (phone, home visits, etc.).

If you have any questions about the study, please contact one of the following individuals.

Contact	Phone Number	e-mail Address
Julie Clark, CH2M HILL	989-638-8121	<a href="mailto:jclark9@ch2m.com">jclark9@ch2m.com</a>
Cheryl Howe, MDEQ	517-373-9881	<a href="mailto:howec@michigan.gov">howec@michigan.gov</a>
Allan Taylor, MDEQ	517-335-4799	<a href="mailto:taylorab@michigan.gov">taylorab@michigan.gov</a>
Garret Geer, Dow	989-636-9467	<a href="mailto:mjernst@dow.com">mjernst@dow.com</a>

Sincerely,

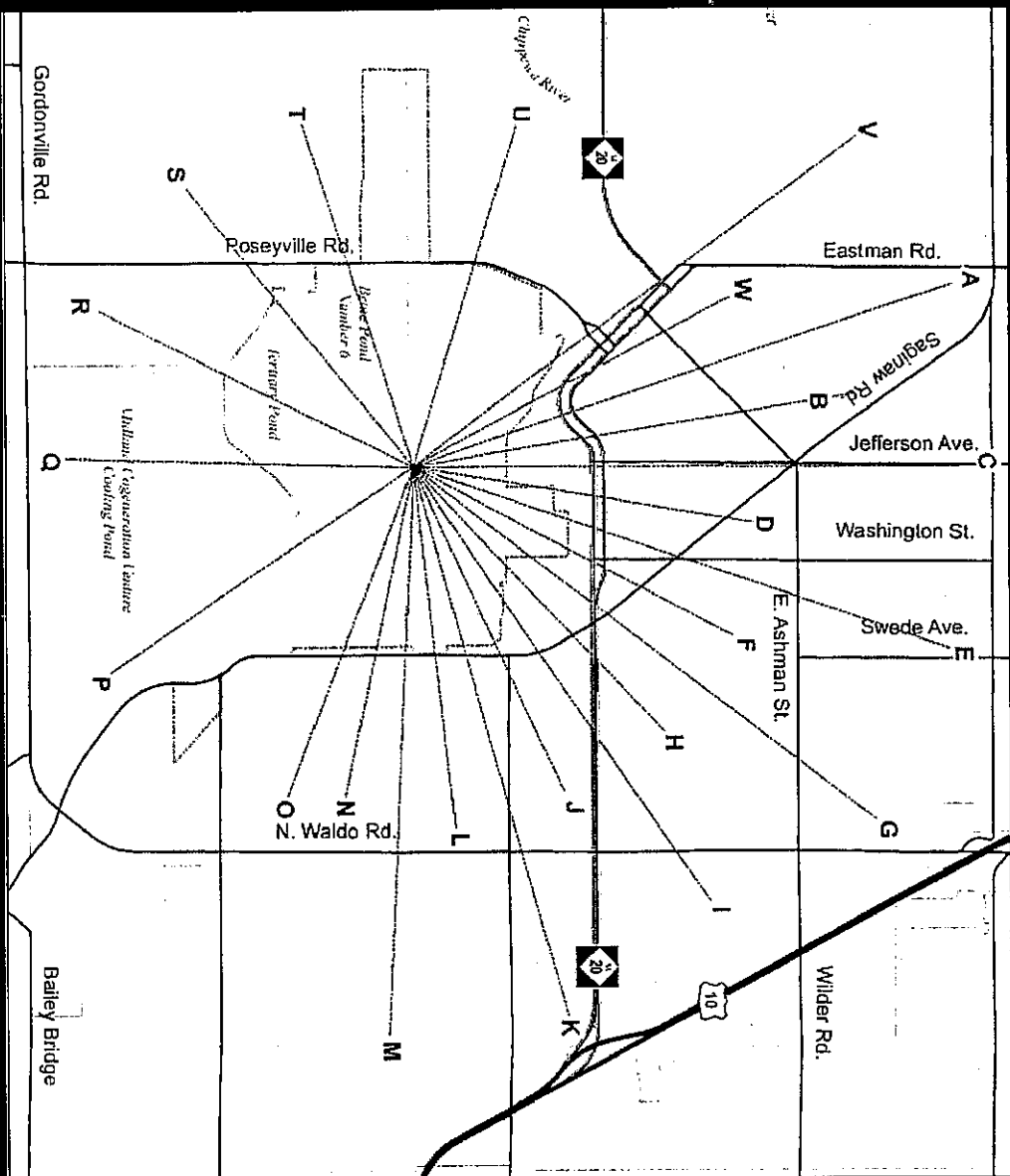
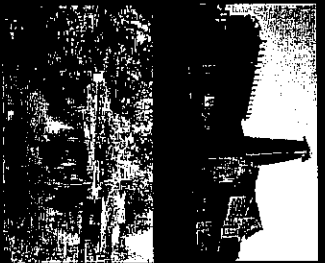


The Dow Chemical Company  
Attachments

Summary of Midland Representative Soils Study  
License Agreement



# Midland Area Representative Soils Study Summary



Midland representative soils study area sampling transects shown

**FOR MORE INFORMATION CONTACT:**

Julie Clark, (989) 638-8121, CH2M HILL  
 Al Taylor, (517) 335-4799, or Cheryl Howe,  
 (517) 373-9881, MDEQ  
 Garret Geer (989) 636-9467, Dow

The Dow Chemical Company, in collaboration with the Michigan Department of Environmental Quality (MDEQ) and the United States Environmental Protection Agency (USEPA) will be conducting a detailed study of soil conditions in the Midland area.

This study intends to meet the following objectives:

- Characterize the local distribution of soil properties that might influence the bioavailability of dioxins and furans in the soil (bioavailability is the ability of a substance to be absorbed into the body).
- Develop additional information about the distribution of contamination in Midland area surface soil.
- Determine whether additional Dow-related hazardous substances are present in Midland area soil.
- Maintain anonymity of private property owners who participate in the study.

A detailed work plan describing the sampling and data evaluation efforts associated with this study is available at:

<https://www.deq.state.mi.us/documents/deq-whm-hw-midlandBRS-Rev-080406.pdf>

or a hard copy is available for review at the Grace A. Dow Memorial Library.

## Study Location

The study area encompasses residential, commercial, and industrial properties surrounding the Dow Plant, as shown in this brochure.

## Sample Locations

Surface soil samples will be collected from 145 defined areas called "sample stations" at regularly spaced intervals along a series of lines radiating outward from the Dow Plant, as shown on the map on the back of this brochure. These lines were chosen because of wind patterns. Sample stations are positioned every 950 ft along each line and consist of a box approximately 300 x 300 ft.

## Sample Collection Process

Samples from residential properties will be preferentially collected from a location in the central area in the front yard if possible. In most cases, the front of the house is the best place to collect samples because the soil there is less likely to be disturbed and the area is more easily accessible to the sampling team. There may be some properties where the samples will be taken from other areas because of conditions specific to the property.

Samples from commercial, industrial or public properties will be collected from undeveloped or vegetated areas, such as wood lots and grassy areas (if available).

Dow and its contractors will collect samples from the top six inches of soil and in most cases take no more soil than would fill a one quart container. They will use only hand tools, not heavy equipment, and will cause minimal disturbance to the property. It should take about 1 hour to collect a sample at each location.

## Protecting the Anonymity of Property Owners

In response to community concerns, the sampling program has been designed to protect the anonymity of property owners where possible. This will be achieved by sampling multiple properties within a sample station, as shown below.

Example Sample Station  
Consisting of 10 Properties

1	2	3	4	5
6	7	8	9	10

Properties randomly selected  
Sample collected, but not analyzed  
Sample collected and analyzed

Soil samples will be collected from locations within each sample station and then provided to an independent third party that will "blind" the samples to prevent Dow, MDEQ, and the laboratory from knowing where the samples came from and who owns the property.



Where possible, samples will be collected from 5 properties within each sample station, but only one sample selected by the independent third party will be submitted for laboratory analysis. The independent third party will relabel the samples before sending them to the laboratory and will store and preserve the other samples that will not be tested. After the laboratory analyzes the soil samples, the results will be shared with Dow and MDEQ, and the independent third-party. The independent third-party will tell Dow and MDEQ the results for the sample stations, but will not identify the individual properties where the samples were taken or who owns the property in order to preserve the anonymity of this sampling plan. At the time your property is sampled, you will be told how to obtain results for your sample station. However, if the results show that contaminants exceed action levels or otherwise pose unacceptable near-term risks of harm to human health, the independent third party will promptly identify the specific property and its owner for Dow and MDEQ so that they can determine the appropriate steps to take to address the contamination.

## Schedule

The sampling program is scheduled to take place in the Fall of 2006. Sampling may extend past then if there is bad weather or it takes a long time to obtain access to a sufficient number of properties.

Sample station test results will be available approximately 90 days after sampling.

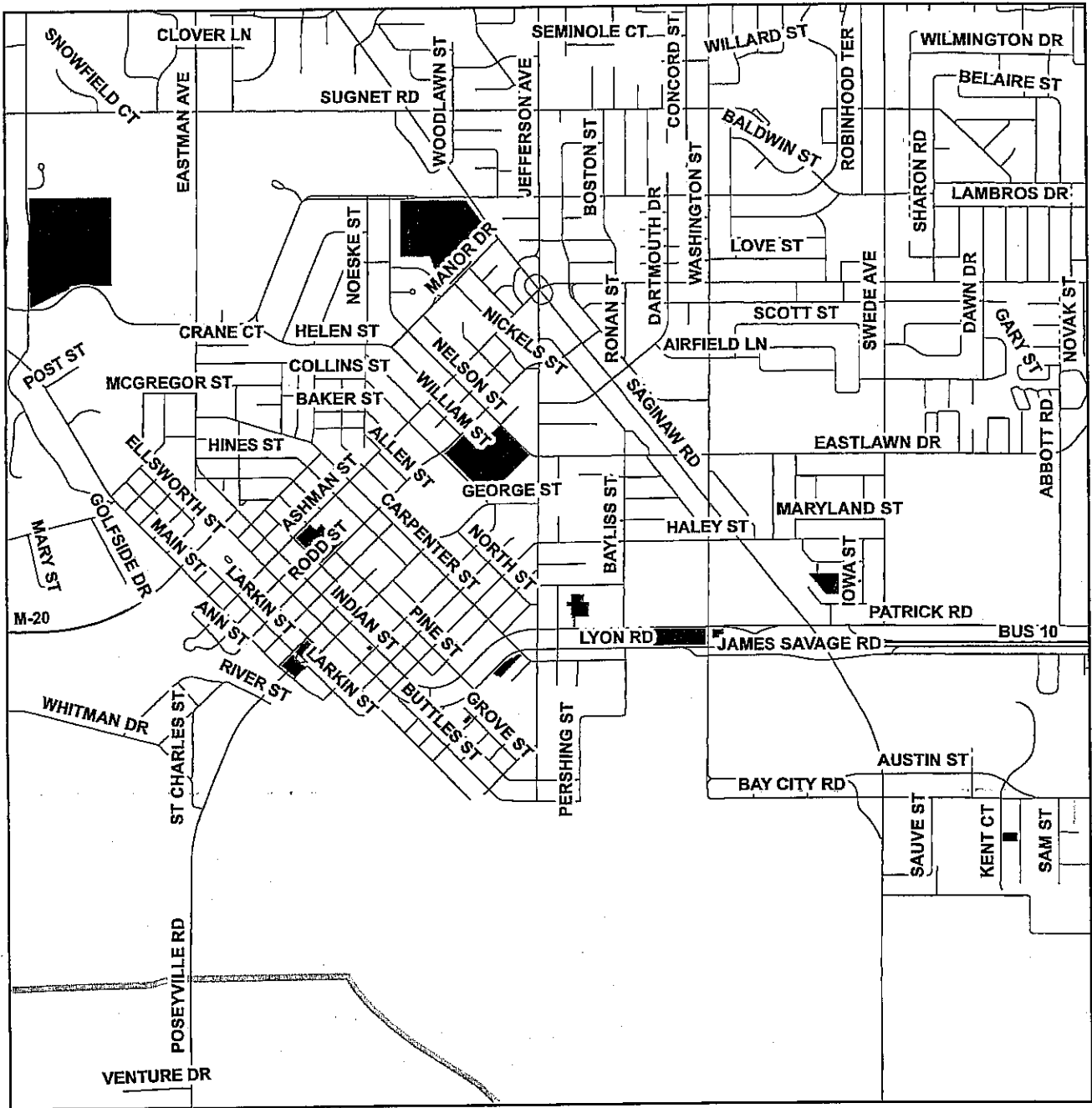
Once an owner becomes aware of the results for his or her specific property, that will be sufficient knowledge to determine whether the property is a "facility" under Michigan law. Generally, a facility is any place where contamination is present in an amount greater than cleanup criteria. An owner of a facility has the obligation of (1) not making contamination more difficult or costly to cleanup, (2) providing written notice to a person acquiring any interest in the property, and (3) complying with restrictions on relocating contaminated soil. MDEQ has developed several brochures that can provide you with additional information regarding facility status and a facility owner's obligations that can be found at:

<http://www.deq.state.mi.us/documents/deq-rrd-TR- Revised Supplemental/Advisory/DioxinFAQ-2-15-2005.pdf>

or a hard copy is available for review at the Grace A. Dow Memorial Library.

**Benefits of Study**  
The information generated by this study will be used as part of a process to develop site-specific cleanup criteria for dioxins and furans that are specific to the Midland area. The study will also provide information about the current levels of dioxins and furans, and possibly other Dow-related contamination in the community. This will allow Dow and MDEQ to make informed decisions about risks to human health.

# Soil Sample Test Sites



## Legend

 Park\_Parcels

**License Agreement**

This agreement is between the City of Midland, the owner, whose mailing address is 333 W. Ellsworth, Midland, MI 48640 and The Dow Chemical Company (Dow), a Delaware corporation with offices located at 1790 Building, Midland, Michigan 48674.

The purpose of this agreement is to allow Dow and its contractors to access the property described below so that the soil can be sampled. The soil collected from the property may be analyzed to determine whether it contains dioxins, furans, other contaminants, or other characteristics relevant to a bioavailability study Dow may conduct. Additional information regarding these activities are described in the brochure called *Midland Representative Soils Study Summary*.

This agreement also allows the Michigan Department of Environmental Quality (MDEQ) and an independent third party to access the property for the purpose of overseeing or monitoring Dow's activities. This may include providing a portion of the sample to the MDEQ for analysis for oversight purposes, while maintaining property anonymity.

By signing this agreement, the owner grants Dow, MDEQ, the independent third party, and their respective contractor's permission to access the properties identified below:

The properties are located at:

3400 ORCHARD DR	816 LYON RD	1419 IOWA ST
205 E GROVE ST	410 E NELSON ST	400 KENT CT
1316 E GROVE ST	217 E PATRICK RD	130 CRONKRIGHT ST
1306 E CARPENTER ST	505 W ST ANDREWS RD	411 STATE ST
701 E LYON RD	1012 E PATRICK RD	

Parcel numbers:

14-08-40-500	14-21-10-270	14-15-40-130
14-16-50-900	14-16-20-584	14-23-60-132
14-21-20-186	14-15-50-636	14-21-80-104
14-21-10-054	14-09-40-002	14-21-80-484
14-22-80-012	14-22-10-180	

This agreement begins October 1, 2006. This agreement ends December 31, 2007 or earlier if requested by owner. Either party may terminate this agreement at any time.

Dow agrees to the following:

1. Dow will be responsible for proper disposal of any samples taken from the property.
2. Dow will repair any damage caused to the property by the activities allowed under this License Agreement.
3. Dow will notify resident or owner seven (7) days prior to accessing the property.
4. Dow will notify the resident or owner of test results if the dioxin and furan TEQ exceeds 1000 ppt or if other compounds are present at concentrations that indicate that interim response activities need to be taken.

To execute this agreement, please sign below:

**CITY OF MIDLAND, a Michigan municipal corporation**

**THE DOW CHEMICAL COMPANY**

By: \_\_\_\_\_  
Bruce A. Johnson, Mayor

By: \_\_\_\_\_

Date: \_\_\_\_\_

Name: \_\_\_\_\_

By: \_\_\_\_\_  
Selina Tisdale, City Clerk

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

**Contact Information**

Owner's Name: \_\_\_\_\_ Phone Number: \_\_\_\_\_

Resident's Name (*if different*): \_\_\_\_\_ Phone Number: \_\_\_\_\_

Property Address: \_\_\_\_\_

Owner's Mailing Address (*if different*): \_\_\_\_\_



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BY COUNCILMAN

WHEREAS, part of The Dow Chemical Company's (Dow) corrective action obligations under its hazardous waste facility Operating License for the Midland Facility requires Dow to evaluate if chemicals historically released from operations at its Midland Plant have affected area properties; and

WHEREAS, Dow is requesting that it be authorized to sample the soil of fourteen (14) City-owned parcels intended to aid Dow in conducting a bioavailability study necessary to develop a site specific clean-up limit for Midland; and

WHEREAS, staff recommends that a license agreement be executed to allow Dow and its contractors the right to access the identified City-owned properties and to obtain a soil sample; now therefore

RESOLVED, that the Mayor and City Clerk are authorized to execute a license agreement with The Dow Chemical Company to allow Dow and its contractors to sample the soil of fourteen (14) City parcels, as part of Dow's corrective action obligations under its hazardous waste facility Operating License for the Midland Facility, subject to document approval by the City Attorney.

YEAS:

NAYS:

ABSENT:

I, Selina Tisdale, City Clerk, City of Midland, Counties of Bay and Midland, State of Michigan, do hereby certify that the foregoing is a true and correct copy of a resolution adopted by a yeas vote of all the Councilmen present at a regular meeting of the City Council held Monday, October 23, 2006.

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Selina Tisdale, City Clerk