

May 15, 2019

Charles Pinter
Ford Motor Company Environmental Quality Office
Fairlane Plaza North
290 Town Center Drive, Suite 800
Dearborn, MI 48126

RE: Certificate of Completion
Ford Twin Cities Plant
966 South Mississippi River Boulevard, St. Paul
MPCA Site ID: VP23530
MPCA Billing ID: 685
PIN: 172823130002 (Main Parcel)

Dear Mr. Pinter:

The Minnesota Pollution Control Agency (MPCA) staff in the Voluntary Investigation and Cleanup (VIC) Program is pleased to send the enclosed Commissioner's Certificate of Completion of Response Actions Under the Land Recycling Act of 1992, As Amended (Certificate of Completion) for the main parcel of the Ford Twin Cities Plant site. The MPCA appreciates the cooperative effort of Ford Motor Company during the extended investigation and cleanup of the main parcel.

If you have any questions about the enclosed Certificate of Completion, please contact me at (651) 757-2402 or by email at amy.hadiaris@state.mn.us, or Shanna Schmitt at (651) 757-2697 or shanna.schmitt@state.mn.us.

Sincerely,

Amy K. Hadiaris

This document has been electronically signed.

Amy K. Hadiaris
Supervisor, Voluntary Investigation and Cleanup Program
Remediation Division

AH:ah

Enclosure

ecc: Ryan Oesterreich, Arcadis
Menaka Mohan, St. Paul PED
Melanie McMahon, St. Paul Ward 3
Zack Hansen, Ramsey County Environmental Health
Jon Blaha, Ryan Companies
Mark Miller, Terracon

STATE OF MINNESOTA
Minnesota Pollution Control Agency

Commissioner's Certificate
of Completion of Response Actions
Under the Land Recycling Act of 1992, As Amended

WHEREAS, Ford Motor Company has undertaken response actions pursuant to Minn. Stat. § 115B.175 (the Land Recycling Act of 1992, as amended) on the main parcel of the Ford Twin Cities Plant site, located at 966 S Mississippi River Blvd, Saint Paul and further described in a legal description in **Exhibit A** to this Certificate (the Site) and shown on the map in **Exhibit D** to this Certificate; and

WHEREAS, Ford Motor Company submitted a Voluntary Response Action Plan (comprised of the documents and reports listed as nos. 43 through 62 in **Exhibit B** of this Certificate) including an Investigation Report (comprised of the documents and reports listed as 1 through 42 in Exhibit B of this Certificate), to the Minnesota Pollution Control Agency (MPCA) under Minn. Stat. § 115B.17, subd. 14, governing review of voluntary investigation and response actions; and

WHEREAS, in accordance with Minn. Stat. §§ 115B.17 subd. 14, and 115B.175, the Commissioner of the MPCA or the Commissioner's delegate has determined that the Investigation Report adequately identified and evaluated the nature and extent of the releases and threatened releases at or from the Site; and

WHEREAS, the Commissioner or the Commissioner's delegate has approved a Voluntary Response Action Plan (comprised of documents 43 through 62 in Exhibit B of this Certificate) including the response actions determined by the Commissioner or the Commissioner's delegate to be necessary to protect public health and welfare, and the environment, from releases or threatened releases of hazardous substances, pollutants, or contaminants at or from the Site, as described in **Exhibit C** of this Certificate; and

WHEREAS, Ford Motor Company has completed the response actions set forth in the approved Voluntary Response Action Plan, including the actions necessary to carry out any reuse or development of the Site as proposed by Ryan Companies, Inc. in a manner that protects public health and welfare and the environment.

NOW, THEREFORE, pursuant to Minn. Stat. § 115B.175, subd. 5,

The Commissioner of the Minnesota Pollution Control Agency certifies under Minn. Stat. § 115b.175 (the land recycling act of 1992, as amended), that response actions have been completed as set forth in the approved voluntary response action plan for the site.

Upon issuance of this Certificate, the persons qualified for protection under Minn. Stat. § 115B.175, subd. 6a, are entitled to protection from liability under Minn. Stat. §§ 115B.01 to 115B.18, to the extent provided in the Land Recycling Act of 1992, as amended. The protection from liability provided under Minn. Stat. § 115B.175, does not apply to any person excluded from that protection under Minn. Stat § 115B.175, subd. 7.

Nothing in this Certificate or in the Land Recycling Act of 1992, as amended, affects the authority of the MPCA or the MPCA Commissioner to exercise any powers or duties under Minn. Stat §§ 115B.01 to 115B.18, or other law with respect to any release or threatened release at the Site, or the right of the MPCA or the MPCA Commissioner to seek any relief available under those sections against any person who is not entitled to protection from liability under the Land Recycling Act of 1992, as amended, with respect to such release or threatened release.

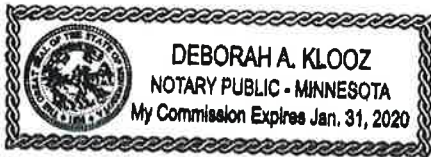
Signed and Certified this 15th day of May, 2019.



Kathryn J. Sather
Division Director
Remediation Division

State of Minnesota)
) ss.
County of Ramsey)

The foregoing was acknowledged before me this 15th day of May, 2019, by Kathryn J. Sather, pursuant to delegation by Laura Bishop, Commissioner of the Minnesota Pollution Control Agency, a state agency, on behalf of the State of Minnesota.





Notary Public

My Commission Expires 1-31-2020

Exhibit A
Legal Description of Main Parcel
FORD TWIN CITIES PLANT
MPCA VIC Project Number VP23530

Parcel A1 (Abstract property):

That part of Lot 1, Auditor's Subdivision No. 87, lying north of the plat of Ford Motor Company First Addition,

Except that part of said Lot 1 lying within the east 671.40 feet of the Northeast Quarter of Section 17, Township 28, Range 23, and lying north of a line drawn at right angles to the east line of said Northeast Quarter from a point on said east line distant 1530.54 feet south from the intersection of the south line of Ford Road with the east line of said Northeast Quarter,

And except that part of said Lot 1 contained within the following: Beginning at the intersection of the southerly right-of-way of Ford Parkway, as now established, with a line distant westerly 671.40 feet from and parallel with the east line of Section 17, Township 28, Range 23; thence southerly 500 feet along a line distant 671.40 feet westerly and parallel with the east line of said Section 17; thence westerly and parallel with the southerly right-of-way line of Ford Parkway, as now established, a distance of 328 feet; thence northerly along a line distant westerly 999.40 feet and parallel with the east line of said Section 17, a distance of 500 feet to the southerly right-of-way line of Ford Parkway, as now established; thence easterly along the said southerly right-of-way line of Ford Parkway, as now established, a distance of 328 feet to the point of beginning,

And except the following described parcel: All of the North half of the Southeast quarter of the Northeast quarter of Section 17, Township 28, Range 23 West of the Fourth Principal Meridian, except the East 671.40 feet thereof (being part of Lot 1, Auditor's Subdivision No. 87),

And except the following described parcel: All that part of the Southeast quarter of the Northeast quarter of Section 17, Township 28, Range 23 lying South of a line dividing the North and South halves of the Southeast quarter of the Northeast quarter of said Section 17 except those parts of said Tract taken and condemned by the City of St. Paul, Minnesota for the widening of Cleveland Avenue, and also except from the above property that part described as follows: Beginning at a point in the East line of said Section 17 which point is 1280.54 feet south of the intersection of the present south line of the Ford Road with the said East line of said Section 17; thence West at right angles with said East line of Section 17, a distance of 671.40 feet to a point; thence North and parallel with the said East line of Section 17, a distance of 22.66 feet to a point in the North line of said South half of the Southeast quarter of the Northeast quarter of said Section 17; thence East along the North line of the South half of the Southeast quarter of the Northeast quarter of Section 17, 671.40 feet to the said East line of Section 17 aforesaid; thence South 26.34 feet to the place of beginning; also except that part described as follows: Beginning at a point in the East line of Section 17 which point is 1280.54 feet South of the intersection of the present South line of Ford Road with the said East line of Section 17; thence West at right angles with the said East line of Section 17 a distance of 671.40 feet to a point; thence South and parallel with the said East line of Section 17 a distance of 250.00 feet to a point; thence East and parallel with the first course of the land herein described 671.40 feet to a point in the said East line of Section 17; thence North along the said East line of Section 17 a distance of 250.00 feet to the point of beginning.

Parcel A2 (Certificate of Title No. 203819):

All of the North half of the Southeast quarter of the Northeast quarter of Section 17, Township 28, Range 23 West of the Fourth Principal Meridian, except the East 671.40 feet thereof, (being part of Lot 1, Auditor's Subdivision No. 87).

Parcel A3 (Certificate of Title No. 231951):

All that part of the Southeast quarter of the Northeast quarter of Section 17, Township 28, Range 23 lying South of a line dividing the North and South halves of the Southeast quarter of the Northeast quarter of said Section 17 except those parts of said Tract taken and condemned by the City of St. Paul, Minnesota for the widening of Cleveland Avenue, and also except from the above property that part described as follows: Beginning at a point in the East line of said Section 17 which point is 1280.54 feet south of the intersection of the present south line of the Ford Road with the said East line of said Section 17; thence West at right angles with said East line of Section 17, a distance of 671.40 feet to a point; thence North and parallel with the said East line of Section 17, a distance of 22.66 feet to a point in the North line of said South half of the Southeast quarter of the Northeast quarter of said Section 17; thence East along the North line of the South half of the Southeast quarter of the Northeast quarter of Section 17, 671.40 feet to the said East line of Section 17 aforesaid; thence South 26.34 feet to the place of beginning; also except that part described as follows: Beginning at a point in the East line of Section 17 which point is 1280.54 feet South of the intersection of the present South line of Ford Road with the said East line of Section 17; thence West at right angles with the said East line of Section 17 a distance of 671.40 feet to a point; thence South and parallel with the said East line of Section 17 a distance of 250.00 feet to a point; thence East and parallel with the first course of the land herein described, 671.40 feet to a point in the said East line of Section 17; thence North along the said East line of Section 17 a distance of 250.00 feet to the point of beginning.

Parcel B1 (Abstract property):

Lot 2, Auditor's Subdivision No. 87,

Except that part thereof lying within the plat of Ford Motor Company First Addition,

And except the following described parcel: All of the North Half of Lot 2, Section 17, Township 28, Range 23 according to the Government Survey thereof, which is situated East of the Easterly line of the Mississippi River Boulevard Number 2 as said easterly line is determined and defined by the recorded plat of said Mississippi River Boulevard Number 2 on file and of recorded in the office of the Register of Deeds in and for said County of Ramsey and State of Minnesota,

And except the following described parcel: That part of Government Lot 2, Section 17, Township 28, Range 23, lying southerly of a line dividing the North and South halves of the Southeast Quarter of the Northeast Quarter of said Section 17 prolonged and extended in a straight line in a West direction to the Mississippi River and lying easterly and southerly of the following described line: Beginning at the intersection of a line dividing the North and South halves of the Southeast Quarter of the Northeast Quarter of said Section 17 prolonged and extended in a straight line in a West direction to the Mississippi River and the westerly line of Mississippi River Blvd.; thence South 30 degrees 15 minutes 28 seconds East, assumed bearing along said westerly line a distance of 126.12 feet, thence South 60 degrees 37 minutes 58 seconds West, to the Mississippi River and there terminating; excepting however from said tract, that part taken for Mississippi River Blvd.

Parcel B2 (Certificate of Title No. 81985):

All of the North half of Lot 2 Section 17, Township 28, Range 23, according to the Government Survey thereof, which is situated East of the Easterly line of the Mississippi River Boulevard Number 2 as said Easterly line is determined and defined by the recorded plat of said Mississippi River Boulevard Number 2 on file and of record in the office of the Register of Deeds in and for said County of Ramsey and State of Minnesota.

Parcel B3 (proposed subdivision of the land on Certificate of Title No. 570430):

That part of Government Lot 2, Section 17, Township 28, Range 23, lying southerly of a line dividing the North and South halves of the Southeast Quarter of the Northeast Quarter of said Section 17 prolonged and extended in a straight line in a West direction to the Mississippi River, and lying East of the Easterly line of the Mississippi River Boulevard Number 2 as said Easterly line is determined and defined by the recorded plat of said Mississippi River Boulevard Number 2 on file and of record in the office of the County Recorder in and for said County of Ramsey and State of Minnesota.

Parcel C (Certificate of Title No. 270211):

Lot 1, Block 1, Ford Motor Company First Addition.

Parcel D (Abstract property):

That part of Lot 3, Block 1, Ford Motor Company First Addition, lying northeasterly, northerly and northwesterly of the following described line: Beginning at a point on the west line of said Lot 3; said point of beginning being located along said west line South 00 degrees 06 minutes 52 seconds West, assumed bearing, a distance of 10.58 feet from the northwest corner of said Lot 3; thence South 49 degrees 54 minutes 51 seconds East a distance of 199.01 feet; thence North 67 degrees 29 minutes 09 seconds East a distance of 61.60 feet; thence South 62 degrees 12 minutes 36 seconds East a distance of 163.97 feet; thence South 69 degrees 21 minutes 00 seconds East a distance of 100.00 feet; thence North 67 degrees 29 minutes 09 seconds East a distance of 18.93 feet; thence South 69 degrees 21 minutes 00 seconds East a distance of 605.99 feet; thence North 89 degrees 37 minutes 00 seconds East a distance of 249.70 feet to the northeast corner of said Lot 3 and there terminating

Exhibit B

Site Documents

FORD TWIN CITIES PLANT

MPCA VIC Project Number VP23530

All documents prepared by Arcadis, U.S., Inc. on behalf of Ford Motor Company

Investigation Reports

Phase I Environmental Site Assessment

1. Phase I Environmental Site Assessment, June 29, 2007
2. Initial Receptor Survey, November 1, 2010
3. Final Receptor Survey, July 18, 2011

Phase II Investigation Work Plans

4. Soil Investigation and Risk Assessment Work Plan - Baseball Fields, September 7, 2007
5. Quarterly Groundwater Sampling Events Work Plan, December 19, 2007
6. Groundwater Seep & Mississippi River Sampling Work Plan, April 11, 2008
7. Supplemental Phase II Exterior Investigation Work Plan, May 13, 2008
8. North Parking Area Supplemental Phase II - Exterior Investigation Work Plan, May 19, 2008
9. Phase II - Interior Investigation Work Plan, May 28, 2010
10. Subsurface Investigation Work Plan - Element 1, July 15, 2013
11. Subsurface Investigation Work Plan - Element 2, June 6, 2014
12. Former Fill Areas A and B Investigation Work Plan, December 8, 2014
13. Subsurface Investigation Work Plan - Element 3, July 6, 2015
14. Work Plan for Installation and Sampling of Bedrock Monitoring Wells, January 7, 2016
15. Work Plan for Site-Wide Groundwater Sampling of Monitoring Wells, May 11, 2016
16. Interim Groundwater Sampling Work Plan, May 4, 2018

Phase II Investigation Reports

17. Soil Investigation Report - Baseball Fields, September 7, 2007
18. Initial Phase II - Exterior Investigation Report, October 29, 2007
19. Additional Soil Investigation and Surface Soil Risk Assessment - Baseball Fields, Dec. 19, 2007
20. December 2007 Quarterly Groundwater Sampling Event, March 24, 2008
21. March 2008 Quarterly Groundwater Sampling Event, June 27, 2008
22. September 2008 Quarterly Groundwater Sampling Event, December 31, 2008
23. 2009 Groundwater Sampling Event, February 18, 2010
24. Technical Memorandum – Seep and River Sampling Events, February 22, 2011
25. Technical Memorandum – Underground Storage Tank Sampling Event, February 28, 2011
26. Initial Phase II - Interior Investigation Report, March 13, 2011
27. Supplemental Phase II Exterior Investigation Report, May 31, 2012
28. Summary of Underground Storage Tank (UST) Sump Sampling Events, December 4, 2012
29. Sampling of Propane Tank Removals, May 2, 2013
30. Supplemental Phase II Exterior Investigation Report, May 29, 2013
31. Solvent UST Removal Summary, November 12, 2013
32. Work Element 1 Data Summary, January 28, 2014

33. Data Collected from Monitoring Wells Along the Mississippi, September 2, 2014
34. Underground Gasoline Storage Tank Removal Report, April 10, 2015
35. Phase II Comprehensive Investigation Report, March 31, 2016
36. Comprehensive Phase II Site Investigation Report: Soil Addendum, August 8, 2016
37. Comprehensive Phase II Site Investigation Report: Groundwater Addendum, September 19, 2016
38. Technical Memorandum – Summary of Thallium Detections and Review of Fate and Transport Properties, November 30, 2017
39. 2017 Fourth Quarter Groundwater Sampling Summary, April 20, 2018
40. Technical Memorandum – Main Parcel Soil Vapor Monitoring Report, October 25, 2018
41. Supplemental Groundwater Monitoring Report, November 12, 2018
42. Technical Memorandum – St. Peter Sandstone Geochemistry Evaluation, November 14, 2018

Voluntary Response Action Plan

43. Soil Removal Work Plan – Baseball Fields, January 3, 2008
44. Remedial Action Plan, 1A Tunnel Barrier Wall, December 14, 2009
45. Underground Storage Tank Removal - Environmental Contingency Plan, April 9, 2013
46. Site-Wide Environmental Contingency Plan, July 17, 2013
47. Site Decommissioning Response Action Plan (SDRAP), April 1, 2015
48. SDRAP Addendums #1 through #63 (2015 - 2016)
49. Interim Response Action Plan - Isolated Impact Areas, June 8, 2016
50. Interim Response Action Plan - Consolidated Impact Areas, October 2016
51. Arsenic Addendum to the Consolidated Impact Areas Response Action Plan, June 28, 2017
52. *Interim Response Action Plan - CP Rail Property, November 2017**

Response Action Plan Implementation

53. Response Action Implementation Report - Baseball Fields, March 13, 2008
54. Tunnel 1A Response Action Implementation Report, January 11, 2011
55. Excavation of Temporary Sediment Retention Ponds, July 11, 2014
56. SDRAP Implementation Report, March 31, 2016
57. SDRAP Addendum Implementation Report, December 19, 2018
58. Isolated Impact Area Response Action Implementation Report, July 23, 2018
59. Consolidated Impact Area Response Action Implementation Report, August 16, 2018
60. Technical Memorandum – Additional Excavation Work Completed Outside of Approved Interim Response Action Plans, December 5, 2018
61. Comprehensive Response Action Implementation Report (Summary Report), March 12, 2019
62. *Canadian Pacific Railway Response Action Implementation Report, March 12, 2019**

** The CP Rail Property is not part of the Ford Twin Cities Plant site, but Ford Motor Company completed a soil response action on the western portion of the CP Rail Property due to a historical burn/disposal area (Area A/B) extending across the property boundary onto the CP Rail parcel. The two reports pertaining to the CP Rail property are included in the above list.*

Exhibit C

Site Summary

FORD TWIN CITIES PLANT

MPCA Project Number VP23530

This Certificate of Completion applies to the 122-acre main parcel of the larger Ford Twin Cities Plant site. Construction of the original portion of the main assembly building began in 1923, with various additions completed through the 1980s. The plant was used for automobile manufacturing and assembly until the mid-1970s, when it was converted to an assembly plant for light duty trucks, using parts manufactured elsewhere. The Twin Cities Assembly Plant ceased operation in December 2011. The Site is currently vacant land with a few remaining concrete/asphalt paved areas. Ryan Companies intends to construct a mixed use residential/commercial development at the Site.

ENVIRONMENTAL INVESTIGATION

Ford Motor Company (Ford) completed several environmental investigations at the Site between 2007 and 2018. Over 1,300 soil borings were advanced at the Site, with additional soil screening and sampling taking place during decommissioning activities, as building slabs and subsurface features were removed. Soil contaminants identified at the Site include heavy metals such as lead and arsenic, volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), and petroleum compounds. The most widespread VOCs detected in soil at the Site were associated with hydrocarbon solvents used in former painting operations (benzene, toluene, xylene, trimethylbenzene, etc.). Chlorinated VOCs were detected in relatively few soil samples and, with the exception of three discrete areas within the footprint of the main assembly building, were generally present at trace to low concentrations. The three discrete areas with high concentrations of tetrachloroethene (PCE) and trichloroethene (TCE) in soil were cleaned up during subsequent site-wide soil response actions.

The groundwater investigation at the Site included evaluation of shallow discontinuous perched groundwater in the unconsolidated material overlying the bedrock, perched groundwater in the Platteville Formation, and groundwater in the St. Peter aquifer, which contains the regional water table at a depth of approximately 100 feet below ground surface. Perched groundwater in the Platteville Formation flows towards the river valley and emerges from the upper portion of the bluff wall via small seeps. Groundwater in the St. Peter aquifer discharges to the Mississippi River, which is located a short distance west of the Site, across Mississippi River Boulevard. There are no drinking water receptors between the Site and the Mississippi River. This stretch of the Mississippi River is a designated Class 2 Water of the State, thus surface water quality standards for aquatic life and recreation were used to evaluate potential risk to the Mississippi River from the discharge of groundwater from the St. Peter aquifer.

Elevated concentrations of petroleum compounds (diesel range organics/gasoline range organics) and hydrocarbon VOCs (benzene, toluene, xylene, trimethylbenzene, etc.) were found in pockets of shallow perched groundwater in the unconsolidated overburden, and to a lesser extent in the Platteville Formation. Impacts to perched groundwater at the Site were dealt with by removing the impacted soil that caused the groundwater contamination. Minimal groundwater contamination was found in the St. Peter aquifer under the majority of the Site. Groundwater in the St. Peter aquifer is generally well protected from surface sources of contaminants by the overlying Decorah, Platteville, and Glenwood bedrock units.

Chlorinated VOCs are present in groundwater samples collected from three monitoring wells located along the west boundary of the Site, between the former main assembly building and Mississippi River Boulevard. In the Platteville monitoring well AMW-06, located just west of the northern portion of the former main assembly building, trichloroethene (TCE) and cis-1,2-dichloroethene (cis-DCE) first appeared in 2016 after having not been detected during previous sampling events. These chlorinated VOCs have continued to be present in AMW-06 since that time. The maximum concentrations of TCE and cis-DCE in AMW-06 were, respectively, 43 micrograms per liter ($\mu\text{g/l}$) and 720 $\mu\text{g/l}$. The change in groundwater quality observed at AMW-06 is likely due to greater infiltration at the Site after building slabs and parking lots had been removed, but prior to completion of soil remediation. Groundwater samples collected from temporary wells during the Site investigation identified an area of TCE-impacted perched groundwater in the overburden at the north end of the former main assembly building, which is likely related to the chlorinated VOCs detected in Platteville monitoring well AMW-06 beginning in 2016.

TCE has also been detected in St. Peter monitoring wells AMW-29 and AMW-30 at concentrations up to 34 micrograms per liter ($\mu\text{g/L}$). These two wells are located just west of the central portion of the former main assembly building. Each monitoring well is downgradient of a discrete area of TCE-impacted soil discovered within the footprint of the main assembly building. Each source area of TCE-impacted soil was excavated during subsequent response actions.

In addition to the TCE impacts in AMW-29 and AMW-30, described above, groundwater samples from these two St. Peter monitoring wells show low pH values and high concentrations of dissolved metals. The collective body of information suggests that this may be the result of a geochemical reaction caused by oxygenated water coming into contact with naturally occurring reduced metal sulfide minerals such as pyrite. The resulting oxidation of reduced metal sulfide minerals creates sulfuric acid and releases any trace metals that are commonly adsorbed or co-precipitated with the metal sulfides, such as thallium. Additionally, the low pH created by the sulfuric acid can result in additional dissolution or desorption of other metals present in the aquifer matrix. While an anthropogenic source for the metals cannot be ruled out, no metals-impacted soil was identified in this portion of the Site during decommissioning or environmental investigation activities. The pH values of groundwater in the St. Peter aquifer downgradient of AMW-29 and AMW-30 (closer to the Mississippi River) are higher, and the concentration of metals much lower, suggesting that the geochemical conditions of the aquifer return to a more typical state prior to discharging to the river. A Tier 2 surface water evaluation demonstrated that the dissolved metals detected in the St. Peter aquifer do not pose a risk to the Mississippi River.

RESPONSE ACTIONS

Soil remediation began in 2013, during removal of building slabs and other features, and continued through January 2019. Soil response actions included the excavation of impacted soil, screening and visual inspection of all excavated and exposed soil, collection of confirmation samples to ensure removal of all impacted soil, and backfilling of excavations. Approximately 440,000 cubic yards of contaminated soil was excavated from the main parcel and the adjacent Central Pacific Rail parcel and sent to a permitted landfill for disposal. Excavated areas are shown on the figure in Exhibit E. Many areas of the Site were excavated down to bedrock. Soil confirmation samples indicate that soil with contaminant concentrations exceeding residential risk-based values was successfully removed from the Site. No groundwater response actions were necessary.

POST-CLEANUP DUE DILIGENCE

In July/August of 2018, Ryan Companies conducted a post-cleanup due diligence investigation at the Site. Ryan's environmental investigation included 46 soil borings, 59 test pits, 9 temporary wells, and a geophysical survey. A low concentration of diesel range organics (DRO, 186 mg/kg) was identified in soil at one test pit location and was excavated for landfill disposal, since the concentration exceeded the MPCA's unregulated fill criteria. No other exceedances of soil cleanup criteria were identified.

SOIL VAPOR

A total of 84 soil vapor monitoring points were installed at various locations and depths across the main parcel, in a phased approach as soil response actions were completed in different areas. Fourteen locations couldn't be sampled because of subsequent saturated conditions due to localized perched water. Of the 70 sampled locations, 12 locations had VOCs at concentrations greater than the MPCA's action level of thirty-three times (33x) residential intrusion screening values (ISVs). Specific VOCs which exceeded the MPCA's residential action level include benzene, ethylbenzene, xylene, 1,2,4- and 1,3,5-trimethylbenzene, hexane, cyclohexane, dichlorodifluoromethane (CFC-12), tetrachloroethene (PCE), and vinyl chloride. In all cases, the concentration of VOCs in other soil vapor samples located between the exceedances and potential off-site receptors were less than the action level of 33x residential ISVs. Based on the site-wide screening evaluation presented in the Soil Vapor Report (Document #40 on Exhibit B), there is not an off-site vapor intrusion risk related to vapor migration from the Site.

Of the 70 sampled locations, PCE was detected at 12 locations at concentrations ranging from 7.5 to 170 $\mu\text{g}/\text{m}^3$, exceeding its residential action level of 110 $\mu\text{g}/\text{m}^3$ at two locations. Trichloroethene (TCE) was detected at five locations at concentrations ranging from 6.1 to 24 $\mu\text{g}/\text{m}^3$, all less than its residential action level of 70 $\mu\text{g}/\text{m}^3$. Vinyl chloride was detected at one sample location at a concentration of 670 $\mu\text{g}/\text{m}^3$, exceeding its action level of 110 $\mu\text{g}/\text{m}^3$.

The MPCA considers the on-site soil vapor data collected to date to be a screening level evaluation of potential vapor intrusion risk at the Site. Additional soil vapor data will be necessary as the Site is redeveloped, to help inform future building-specific vapor mitigation decisions. The additional soil vapor data will be collected by the developer, prior to construction of Site buildings, and under the oversight of the MPCA.

Exhibit D
Main Parcel
FORD TWIN CITIES PLANT
MPCA VIC Project Number VP23530



Exhibit E

Soil Excavation Areas

FORD TWIN CITIES PLANT

MPCA VIC Project Number VP23530

