FID# 268188800

K P R G

ENVIRONMENTAL CONSULTATION & REMEDIATION

KPRG and Associates, Inc.

TRANSMITTAL LETTER

August 21, 2009

Ms. Victoria Stovall
Program Assistant, Remediation and Redevelopment
Wisconsin Department of Natural Resources
2300 N. Dr. Martin Luther King, Jr., Drive
Milwaukee, WI 53212-0436

VIA FEDERAL EXPRESS

KPRG Project No. 10009

Re: As-Built Report for DERF Remedial Action
Former Bask Dry Cleaners
Westbrook Shopping Center, Waukesha, WI
FID #268188800, BRRTS# 02-68-297669

Dear Ms. Stovall:

On behalf of the Former Bask Dry Cleaners, KPRG and Associates, Inc. (KPRG) is providing one copy of the As-Built Report for DERF Remedial Action. This submittal fulfills the requirements of Task 3 of the approved Remedial Action Plan for this site. The site was accepted into the Dry Cleaner Environmental Response Fund (DERF) program. It is our understanding that the standard review fee is not required for sites within the program.

We look forward to working with the WDNR in addressing the environmental issues associated with this property. If there are any questions, please contact me at 262-781-0475.

Sincerely,
KPRG and Associates, Inc.

Richard R. Gnat

Richard R. Gnat, P.G.
Principal

cc: Mr. Greg Butts, Westbrook Delaware Limited Partnership
Mr. Donald Gallo, Reinhart Boerner Van Deuren, SC

14665 West Lisbon Road, Suite 2B Brookfield, Wisconsin 53005 Telephone 262-781-0475 Facsimile 262-781-0478

AS-BUILT REPORT FOR DERF REMEDIAL ACTION
FORMER BASK DRY CLEANERS
WESTBROOK SHOPPING CENTER
WAUKESHA, WISCONSIN

BRRTS # 02-68-297669
FID # 268188800

KPRG

ENVIRONMENTAL CONSULTATION & REMEDIATION

KPRG and Associates, Inc.

AS-BUILT REPORT FOR DERF REMEDIAL ACTION
FORMER BASK DRY CLEANERS
WESTBROOK SHOPPING CENTER
WAUKESHA, WISCONSIN

BRRTS # 02-68-297669
FID # 268188800

PREPARED FOR:

Westbrook Delaware Limited Partnership
c/o Reinhart, Boerner, Van Deuren, S.C.
N16 W23250 W. Stone Ridge Drive, Suite 1
Waukesha, WI 53188

PREPARED BY:

KPRG and Associates, Inc.
14665 West Lisbon Road, Suite 2B
Brookfield, Wisconsin 53005

KPRG Project No. 10009

August 21, 2009

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1.0 INTRODUCTION

KPRG and Associates, Inc. (KPRG) was awarded the contract to complete additional site remediation activities at the former Bask Dry Cleaner site within the Westbrook Shopping Center facility located at 2136 E. Moreland Boulevard in Waukesha, Wisconsin. The contract was awarded through a competitive bidding process in accordance with Dry Cleaner Environmental Response Fund (DERF) guidelines. The following is the contact information for the project:

Responsible Party
The current property owner and responsible party is:

Mr. Greg Butts
Westbrook Delaware Limited Partnership
c/o Realty Management Consultants, Inc.
4811 South 76th Street
Greenfield, WI 53200

Environmental Consultant
The environmental consulting contact for this project is:

KPRG and Associates, Inc.
14665 West Lisbon Road, Suite 2B
Brookfield, Wisconsin 53005
Contact: Mr. Richard R. Gnat, P.G.
Phone No: 262-781-0475

The active portion of the remediation focused on source control. Specifically, this included the lining of the main sanitary sewer near the defined source area at the back of the property, and the injection of Hydrogen Release Compound Advanced 3D MicroEmulsion® produced by Regenesis (hereinafter referred to as HRC) to enhance the natural reductive dechlorination of the tetrachloroethene (a.k.a., perchloroethene [PCE]) in shallow impacted groundwater. In accordance with Task 3 of the approved Remedial Action Plan (RAP), this As-Built Report documents the field activities performed as part of source control activities. Section 2.0 of the report documents the work performed in the field and Section 3.0 outlines the required operation and maintenance/monitoring.

2.0 DOCUMENTATION OF SOURCE CONTROL FIELD ACTIVITIES

As noted in Section 1.0, the active portion of the remediation focused on source control. This included the lining of the main sanitary sewer at the back of the property and the injection of HRC to enhance the natural reductive dechlorination of the PCE in shallow impacted groundwater. Each item is discussed separately below.

2.1 Sanitary Sewer Lining

The initial site investigation work performed for this site included a camera survey of the main sanitary sewer line on the north side of the property. The lateral from the former dry cleaner suite discharged into this main line. Any fluids that may have included residual PCE that entered the main sewer line may have leaked through the noted cracks. As shown on Figure 1, the camera inspection identified 11 separate cracks or wide sewer joints within the main line. This was identified as a potential source of impacts.

To address this issue, KPRG obtained competitive bids from sewer rehabilitation contractors to repair the main sewer line. Visu-Sewer, Inc. Trenchless Solutions of Pewaukee, Wisconsin was selected to perform this work. All work was performed in late evening and night hours as not to impact ongoing use of building restroom facilities such as at the Kohl's Department Store (Kohl's). The following sewer repair was completed:

- On June 19, 2009, the sanitary sewer line was flushed clean and a camera inspection was performed to verify the condition of the sewer and accurately map the locations of any laterals. A total of 195 feet of sewer was mapped.

- On the evening (10 pm) of June 30, 2009, all use of sanitary facilities within the building was ceased. Work was started at the east end (upgradient) of the sewer line and progressed to the west.

- The subject line was pressure washed with water. At that point, an inverted, resin-impregnated liner was placed into the sewer and rolled out using pressurized air until the liner day-lighted at the west manhole.

- The liner was then fully inflated within the sewer.

- Once inflated, pressurized steam was introduced to activate and cure the resin. This process continued until a temperature of greater than 200 °F was achieved and held for over 1 hour. At that point the steam pressurization was stopped.

- Each end of the pipe was then trimmed and a robotic unit was introduced into the pipe to cut openings for the laterals which enter the main sewer. Work was completed on July 1, 2009 at approximately 6 am.

A video of the sewer line before and after the relining documenting the work is provided in Appendix A. The video requires VLC Media Player for viewing/playback.

2.2 HRC Injection

The HRC injection was performed from July 10 through July 15, 2009. A total of 12 injection points were used (the proposal specified 10 injection points, however, based on the layout of the site in the field and the actual well locations, the injection line was extended by one point in both directions). The trace of the injection line is provided on Figure 2. It is noted that the points on the northwest side of the injection line were moved slightly north of the initial proposed locations. This was due to the presence of an outside semi-trailer, converted to a storage unit, which is being used by Kohl's for inventory as well as utility lines previously unknown. After inspection of the unit by Kohl's logistics personnel, it was determined that if the trailer was to be moved, it would probably be severely damaged and would at that point be unusable in the future. It was decided to relocate the affected points slightly to the north to preclude incurring substantial costs for replacing the storage unit if damaged. The relocation of the points will not impact the overall effectiveness of the remedy.

The following injection procedures were used:

- A geoprobe unit was used to hydraulically advance a boring to the target depth of 25 feet below ground surface (bgs) at which point the expendable drive point was detached.

- An injection pressure fitting was attached to the geoprobe rods. Approximately 450 gallons of prepared injectate (approximately 3,795 pounds) consisting of HRC and water were injected. As the injection was started, the rods were slowly pulled back to facilitate injecting the total volume over a 10 foot interval ranging from 25 to 15 feet bgs.

- The injectate for the interior 6 points, through the area of highest residual impacts, was mixed at a slightly more concentrated dose than the three exterior points to either side of the injection line. The interior points included approximately 360 pounds (39 gallons) of HRC per approximately 411 gallons of water. The exterior points included approximately 330 pounds (35.75 gallons) of HRC per approximately 414.25 gallons of water.

- The sequence of injection by point number (see Figure 2) was 1, 6, 4, 2, 5, 3, 7, 9, 12, 11, 8 and 10.

- Total injectate mass of approximately 45,485 pounds was introduced into the subsurface.

- Upon completion of injection work, the points were properly abandoned with bentonite chips and patched at the surface with asphalt.

It was noted during individual injections that the adjoining point was being influenced (points were spaced approximately 15 feet apart. This field observation suggests that sufficient radius of injection influence was occurring laterally within the formation. Photodocumentation of the work is provided in Appendix B.

3.0 OPERATION AND MAINTENACE/MONITORING

There are no specific requirements for the operation and maintenance/monitoring of the relined sanitary sewer.

Relative to the HRC injection, the mass of material introduced into the formation should be sufficient for up to one year of bio-enhancement. During that period, a quarterly groundwater sampling program will be implemented starting in mid-August (i.e., approximately 1 month after completion of the injection) to monitor water quality conditions and enhanced natural attenuation over time. One year of quarterly monitoring followed by one additional year of semi-annual monitoring will be performed. Wells to be included in the monitoring program are MW-1 (upgradient control), MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13 and PZ-1. PZ-2 which is clustered adjacent to well MW-5 has been historically dry. This well along with piezometer PZ-3 which has also been historically dry, will be checked for the presence of water during each round of sampling. If water is encountered, these wells will also be sampled. Well MW-2 is not proposed for sampling since it is another upgradient monitoring point in which there have been no detections of VOCs. This data would be duplicative of that obtained from well MW-1.

All wells will have water levels measured and recorded. All samples will be analyzed for VOCs, and field measurements will be recorded for dissolved oxygen (DO), temperature, pH, specific conductivity and oxidation-reduction potential (ORP). In addition, the first and third quarter samples collected during the first year of monitoring and one of the subsequent semi-annual monitoring events will be analyzed for natural attenuation parameters of total organic carbon (TOC), sulfate, sulfide, nitrate, and dissolved gasses of ethene, ethane and methane. One duplicate sample will be analyzed for VOCs per sampling event for quality assurance/quality control purposes.

All monitoring data will be reported to the WDNR on an annual basis (which will include groundwater flow maps per quarter) on a completed WDNR form 4400-194. All supporting figures and documentation will be included in the report. This data will be used to determine whether a second application of HRC may be needed.

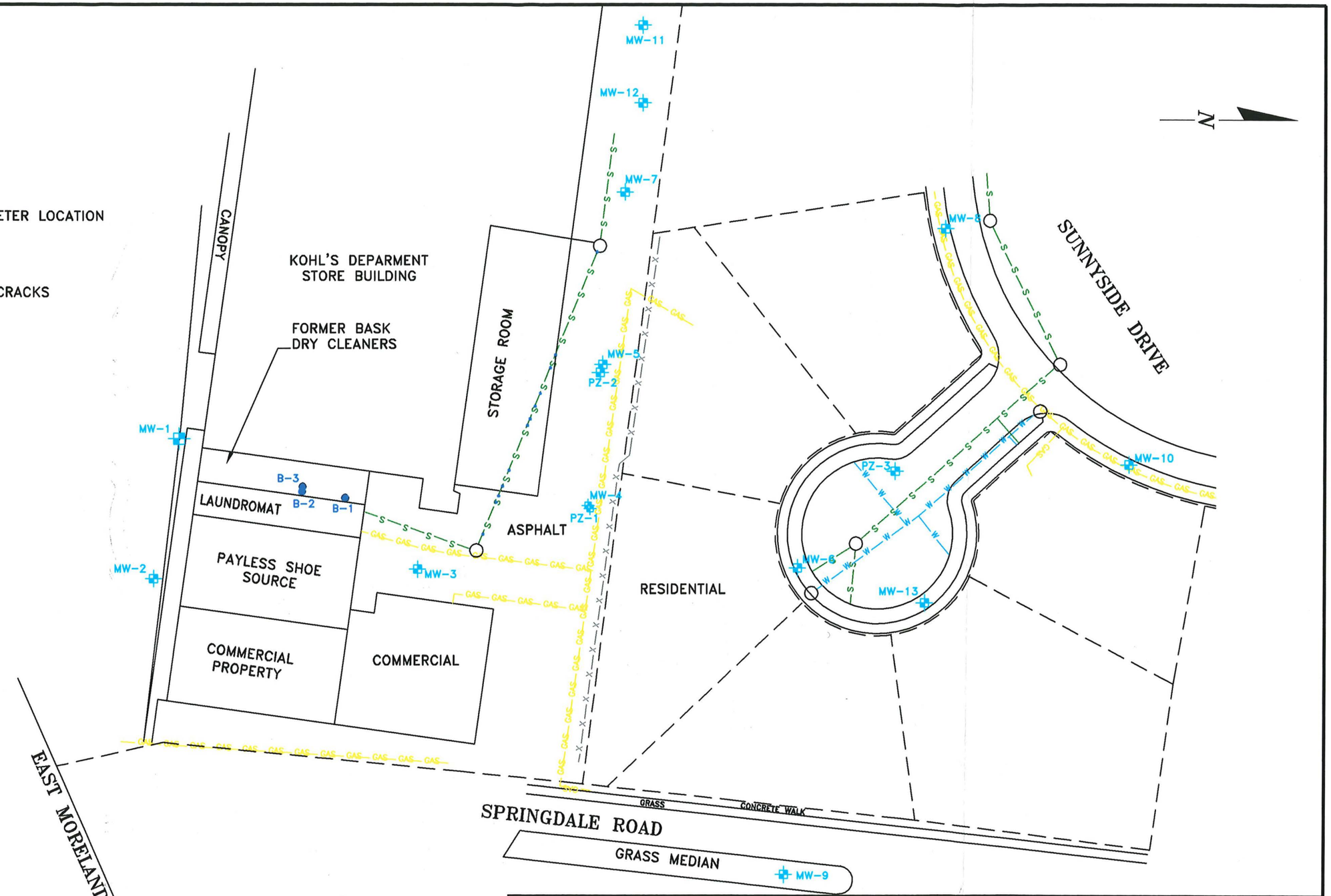
FIGURES

LEGEND

MW-12 MONITORING WELL, PIEZOMETER LOCATION

B-3 SOIL BORING LOCATION

S S WIDE SEWER JOINTS AND CRACKS



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APPROXIMATE SCALE

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FORMER BASK CLEANERS

Wide Joints/Cracks in Sewer Line
Westbrook Shopping Center

Scale: SEE BARSCALE | Date: August 17, 2009

KPRG Project No. 10009 | FIGURE 1

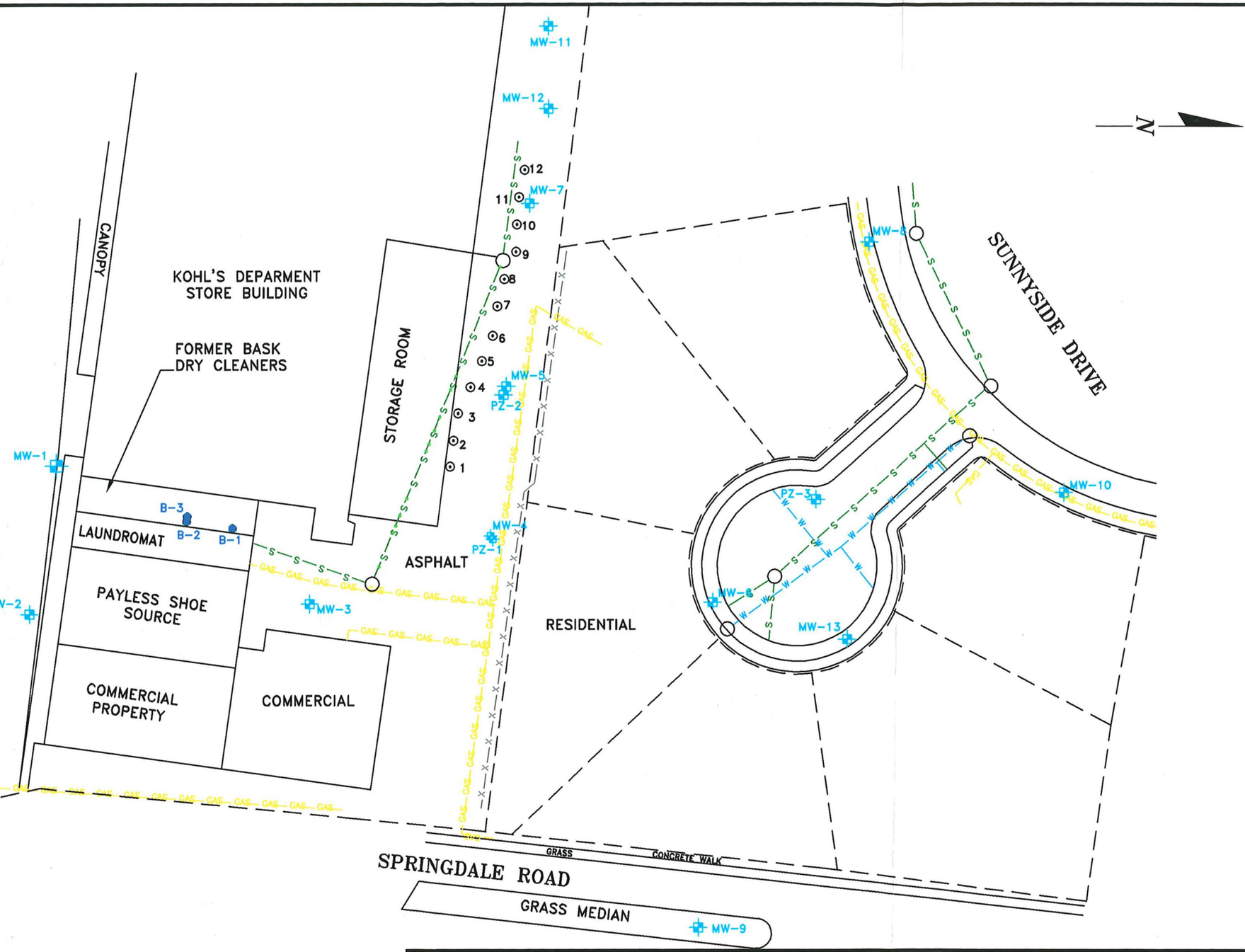
LEGEND

MW-12 MONITORING WELL, PIEZOMETER LOCATION

B-3 SOIL BORING LOCATION

2⊙ FINAL LOCATION – INJECTION POINT

WIDE SEWER JOINTS AND CRACKS



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APPROXIMATE SCALE

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FORMER BASK CLEANERS

Final Location of Injection Points
Westbrook Shopping Center

Scale: SEE BARSCALE | Date: August 17, 2009

KPRG Project No. 10009 | FIGURE 2

APPENDIX A
Sewer Repair Documentation

APPENDIX B
Injection Photodocumentation


PROBE
TECHNOLOGIES, INC


KOHLS
PROBE