
White's Pool 21 Avenue B Rutland, Vermont

**VTDEC #2013-4420
KAS #408130498**

APRIL 2015 GROUNDWATER MONITORING REPORT

Report Date:
July 8, 2015; Revised July 13, 2015

Prepared for:

Rutland Parks and Recreation Department
16 North Extension Street
Rutland, Vermont 05701



368 Avenue D, Suite 15
PO Box 787
Williston, VT 05495

www.kas-consulting.com

802 383.0486 p
802 383.0490 f



Table of Contents

1.0	Introduction	1
2.0	Site Background	1
3.0	Groundwater Monitoring	1
3.1	<i>Determination of Groundwater Flow Direction and Gradient</i>	1
3.2	<i>Groundwater Sample Collection and Analysis</i>	1
3.3	<i>Contaminant Trend Analysis</i>	2
3.4	<i>Quality Assurance and Quality Control</i>	2
4.0	Sensitive Receptor Risk Assessment	2
4.1	<i>Buildings in the Vicinity</i>	2
4.2	<i>Water Supplies</i>	2
4.3	<i>Utility Corridors</i>	2
4.4	<i>Surface Waters</i>	3
5.0	Conclusions	3
6.0	Recommendations	3

Appendices

Appendix A	1) Site Location Map
	2) Site Map
	3) Groundwater Contour Map
	4) Contaminant Concentration Map
Appendix B	Liquid Level Monitoring Data
Appendix C	Groundwater Quality Summary
Appendix D	Analytical Laboratory Report

1.0 Introduction

This report summarizes the April 2015 monitoring of subsurface petroleum contamination at the White's Pool property (VTDEC Site #2013-4420; Site) located at 21 Avenue B in Rutland, Vermont (See Site Location Map, Appendix A). This work has been conducted for the Rutland Parks and Recreation Department (responsible party) of Rutland, Vermont. The scope of the monitoring event included obtaining liquid level measurements from accessible Site monitoring wells, and the collection and analysis of groundwater samples from select Site monitoring wells.

This work was conducted in accordance with the recommendation presented in KAS' *Work Plan and Cost Estimate - Groundwater Monitoring* which was approved by Mr. James Donaldson of the Vermont Department of Environmental Conservation (VTDEC) on March 6, 2015.

2.0 Site Background

Contamination was first encountered in soils beneath the Site during the UST Closure Assessment of one 1,100 gallon #2 fuel oil UST on August 14, 2013. The UST was discovered during the demolition of an on-site building used for storage. An Initial Site Investigation included the installation of five groundwater monitoring wells on July 14, 2014 and groundwater monitoring on July 22, 2014.

Copies of previous reports are on file at the VTDEC office in Montpelier, VT.

3.0 Groundwater Monitoring

3.1 Determination of Groundwater Flow Direction and Gradient

On April 28, 2015, the depth to water was measured in the five Site monitoring wells (MW14-1 through MW14-5), relative to the top of the casing, using a Keck interface probe. The depth to water in each well was subtracted from the top of casing elevation to obtain the relative water table elevation.

Groundwater level data is recorded in Appendix B (Liquid Level Monitoring Data). Light non-aqueous phase liquid (LNAPL) was not detected in any of the monitoring wells. Depth to groundwater ranged from 0.05 to 6.55 feet below grade (bg). Groundwater elevations were the highest recorded to date.

As displayed on the Groundwater Contour Map included in Appendix A, the groundwater flow direction was directed generally towards the southwest. The groundwater was measured to flow at a hydraulic gradient of 8.1% across the monitoring well network. The measured flow direction and gradient are similar to past results.

3.2 Groundwater Sample Collection and Analysis

Groundwater samples were collected from four of the five monitoring wells (MW14-1 and MW14-3 through MW14-5) immediately following well gauging on April 28, 2015. Monitoring well MW14-2 was removed from the sampling schedule. The samples were chilled and delivered under proper chain-of-custody procedures to Endyne, Inc. of Plattsburgh, Vermont. One duplicate sample (MW14-1) and one trip blank sample were collected for quality assurance/quality control (QA/QC) analyses. The samples were submitted and analyzed for volatile organic compounds (VOCs) by EPA Method 8021B. Results of the laboratory analyses are summarized in Appendix C. The laboratory report and chain-of-custody form are presented in Appendix D.

The laboratory report indicated that groundwater collected from monitoring well MW14-1 contained 1,2,4-Trimethylbenzene (TMB) above laboratory detection limits but below its respective Vermont Groundwater Enforcement Standard (VGES). Samples obtained from monitoring wells MW14-3 through MW14-5 contained non-detectable VOC contaminant levels. A tabulation presentation of analytical data for the groundwater monitoring wells is provided in Appendix C. Reported concentrations of total targeted VOCs per Method 8021B were plotted on the Site Map to create the Contaminant Concentration Map in Appendix A.



3.3 Contaminant Trend Analysis

The total targeted VOC concentration level in monitoring well MW14-1 has significantly decreased since the November 2014 sampling event to the lowest level since sampling began. The decrease may be attributed to the increased water table level. VOC levels have remained below applicable standards in monitoring wells MW14-3 through MW14-5.

Contaminant Plume

The contaminant plume is concentrated in the vicinity of monitoring well MW14-1 which is installed within the former UST pit. The current monitoring well network appears to adequately characterize the contaminant plume associated with the former UST. Based on the three rounds of groundwater sampling it does not appear that the contaminant plume is migrating significantly at this time.

3.4 Quality Assurance and Quality Control

Samples were collected according to KAS' groundwater sampling protocol. No VOCs were detected in the trip blank sample prepared on April 28, 2015. Relative percent difference (RPD) is defined as one hundred times the difference between the actual sample and the duplicate sample, divided by the mean of the two samples. RPD values are used to determine if adequate QA/QC were maintained during sample collection and analysis. The duplicate sample was collected from monitoring well MW14-1. The sample and duplicate contaminant constituent detected had a RPD of 18.2%, indicating good precision.

4.0 Sensitive Receptor Risk Assessment

A sensitive receptor risk assessment of the area surrounding the Site is provided below, and a determination of the potential risk to identified receptors has been made based on proximity to the contaminant plume, groundwater flow direction, contaminant mobility and volatility, and contaminant concentration levels in subsurface soils and groundwater. The following sensitive receptors have been identified:

4.1 Buildings in the Vicinity

It is unknown if the on-site building contains a basement; however, it is in a presumed crossgradient location and approximately 330 feet from the source area. Given the location and distance of the building to the source area and the low levels of contamination observed, the immediate and future risk to the building from the migration of petroleum vapors is considered to be low.

The closest off-site building to the source area is a residential home located approximately 175 feet to the north in a presumed upgradient location. Due to the upgradient location of the home and the low levels of contamination observed at the Site, the off-site building is not believed to be at risk of petroleum contamination at this time.

4.2 Water Supplies

The Site and its vicinity are serviced by the City of Rutland water and sewer which is located over a half mile away from the Site. According to the Vermont Agency of Natural Resources Natural Resources Atlas mapping tool (<http://anrmaps.vermont.gov/websites/anra/>), no private drinking water wells and no public water supply wells have been identified within a half mile radius of the Site. The closest well is located approximately 2,700 feet to the northeast of the Site. Based on the data collected to date, it is not believed that drinking water supplies are at potential risk to petroleum contamination.

4.3 Utility Corridors

Overhead electrical and telephone lines run along Avenue B and run underground to the Site. The city underground water and sewer line utility corridors are believed to be located along Avenue B, north of the Site. Based on data gathered to date, the risk for contaminant migration along the aforementioned corridors is considered low at this time.

4.4 Surface Waters

Class II wetlands were observed in the vicinity of the Site to the south across Moon Brook and surrounding the baseball field. The nearest surface water, Moon Brook, is located approximately 250 feet to the south of the source area. Based on the data collected to date, the wetlands and the brook are not believed to be a potential receptor to the subsurface contamination at this time due to the location and distance from the source area, and low levels of contamination observed in the monitoring wells.

5.0 Conclusions

Based on the results of the April 28, 2015 monitoring event, and additional work performed at the Site, the following conclusions are offered:

- On April 28, 2015 all monitoring wells (MW14-1 through MW14-5) were gauged. LNAPL was not detected in any of the monitoring wells. Depth to groundwater ranged from 0.05 to 6.55 feet bg and flowed to the southwest at a hydraulic gradient of 8.1%;
 - Groundwater samples were collected from monitoring wells MW14-1 and MW14-3 through MW14-5) immediately following well gauging on April 28, 2015. Monitoring well MW14-2 had been removed from the sampling schedule;
 - Monitoring well MW14-1 contained 1,2,4-TMB above the laboratory detection limit but below its respective VGES. Monitoring wells MW14-3 through MW14-5 contained non-detectable VOC contaminant levels, and remained below applicable standards for the third consecutive sampling event;
 - The total targeted VOC concentration level in monitoring well MW14-1 has significantly decreased since the November 2014 sampling event to the lowest level since sampling began. The decrease may be attributed to the increased water table level;
 - It appears petroleum contamination is primarily confined to the vicinity of the former UST pit. The current monitoring well network appears to adequately characterize the contaminant plume and the plume does not appear to be migrating significantly at this time; and,
 - No sensitive receptors in the vicinity of the site, other than soil and groundwater, have been identified as being at potential risk of impact from subsurface petroleum contamination based on the data collected to date at the Site.
-

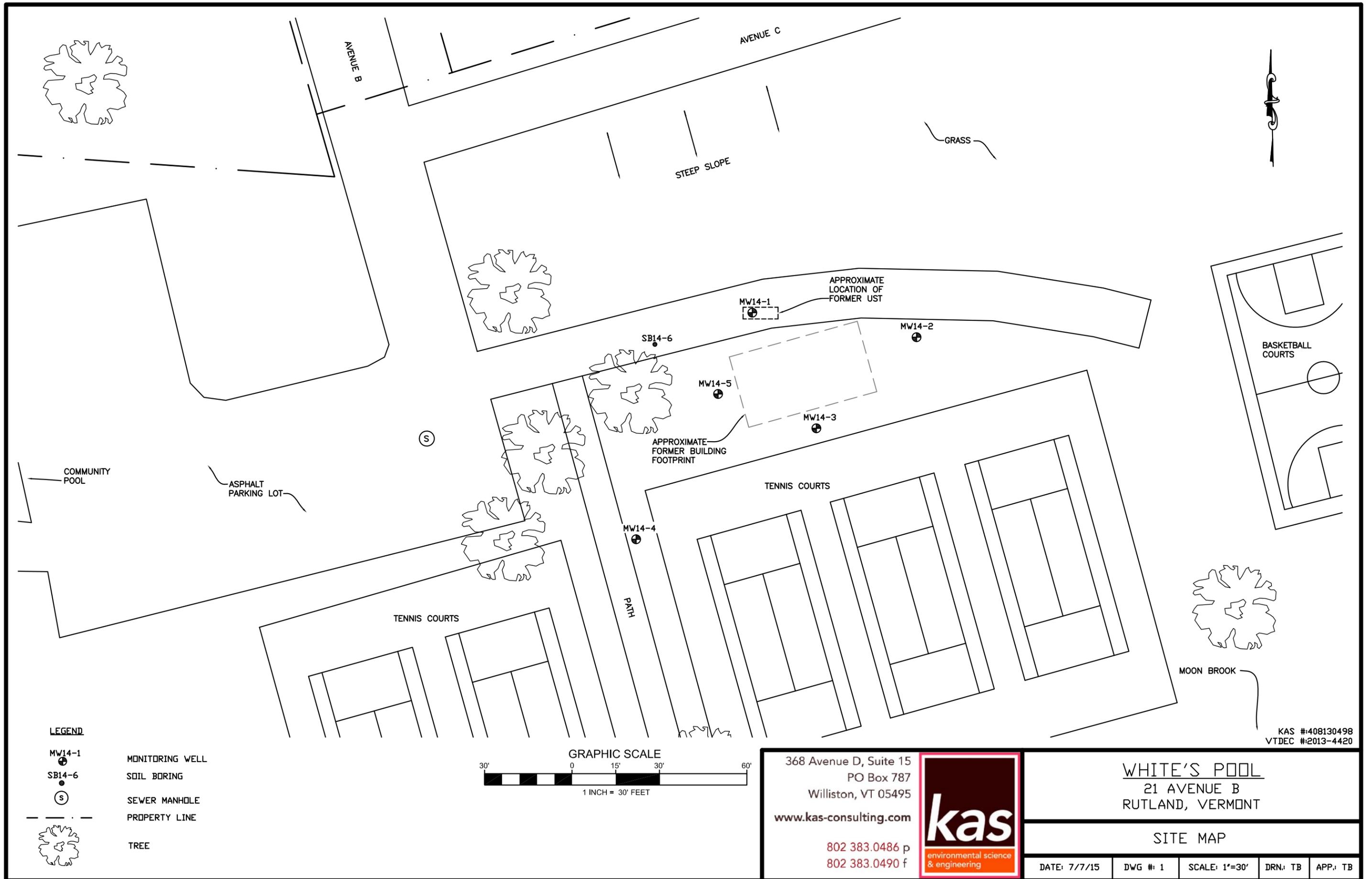
6.0 Recommendations

Based on the results of the April 2015 groundwater monitoring event conducted at White's Pool, KAS recommends "Sites Management Activity Completed" designation due to the VOC contaminant levels in all groundwater monitoring wells being reported below applicable VGES. A work plan and cost estimate for well abandonment and site restoration may be prepared at the request of the VTDEC.



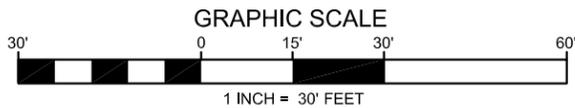
Appendix A

- 1) Site Location Map**
- 2) Site Map**
- 3) Groundwater Contour Map**
- 4) Contaminant Concentration Map**



LEGEND

- MW14-1 MONITORING WELL
- SB14-6 SOIL BORING
- S SEWER MANHOLE
- - - - - PROPERTY LINE
- TREE



368 Avenue D, Suite 15
 PO Box 787
 Williston, VT 05495
www.kas-consulting.com

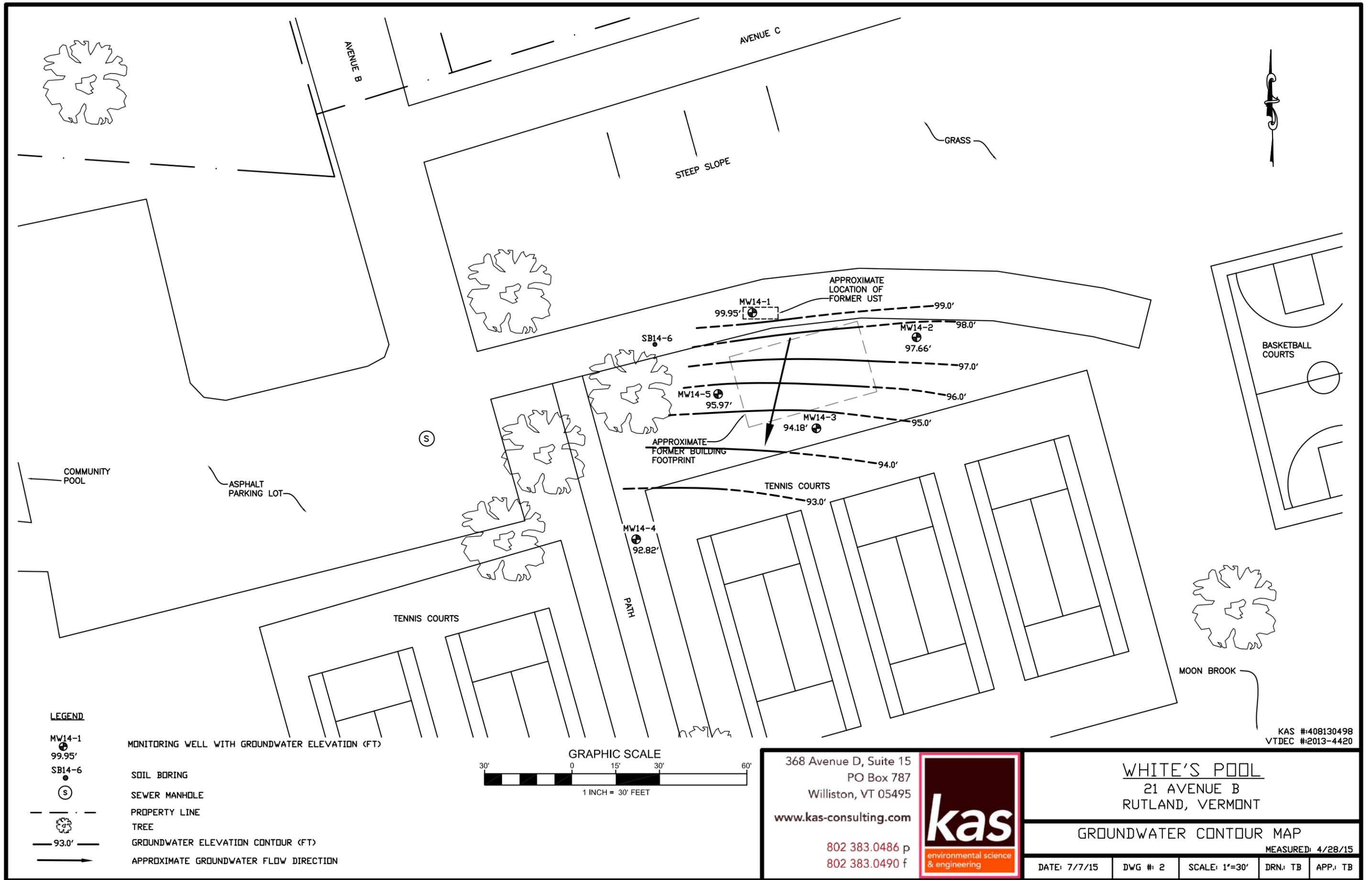
802.383.0486 p
 802.383.0490 f

WHITE'S POOL
 21 AVENUE B
 RUTLAND, VERMONT

SITE MAP

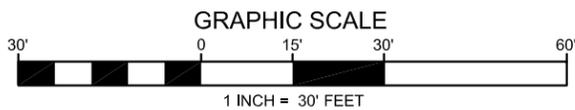
DATE: 7/7/15	DWG #: 1	SCALE: 1"=30'	DRN: TB	APP: TB
--------------	----------	---------------	---------	---------

KAS #408130498
 VTDEC #2013-4420



LEGEND

- MW14-1
99.95'
SB14-6
- MONITORING WELL WITH GROUNDWATER ELEVATION (FT)
- SOIL BORING
- SEWER MANHOLE
- PROPERTY LINE
- TREE
- GROUNDWATER ELEVATION CONTOUR (FT)
- APPROXIMATE GROUNDWATER FLOW DIRECTION



368 Avenue D, Suite 15
 PO Box 787
 Williston, VT 05495
www.kas-consulting.com
 802 383.0486 p
 802 383.0490 f



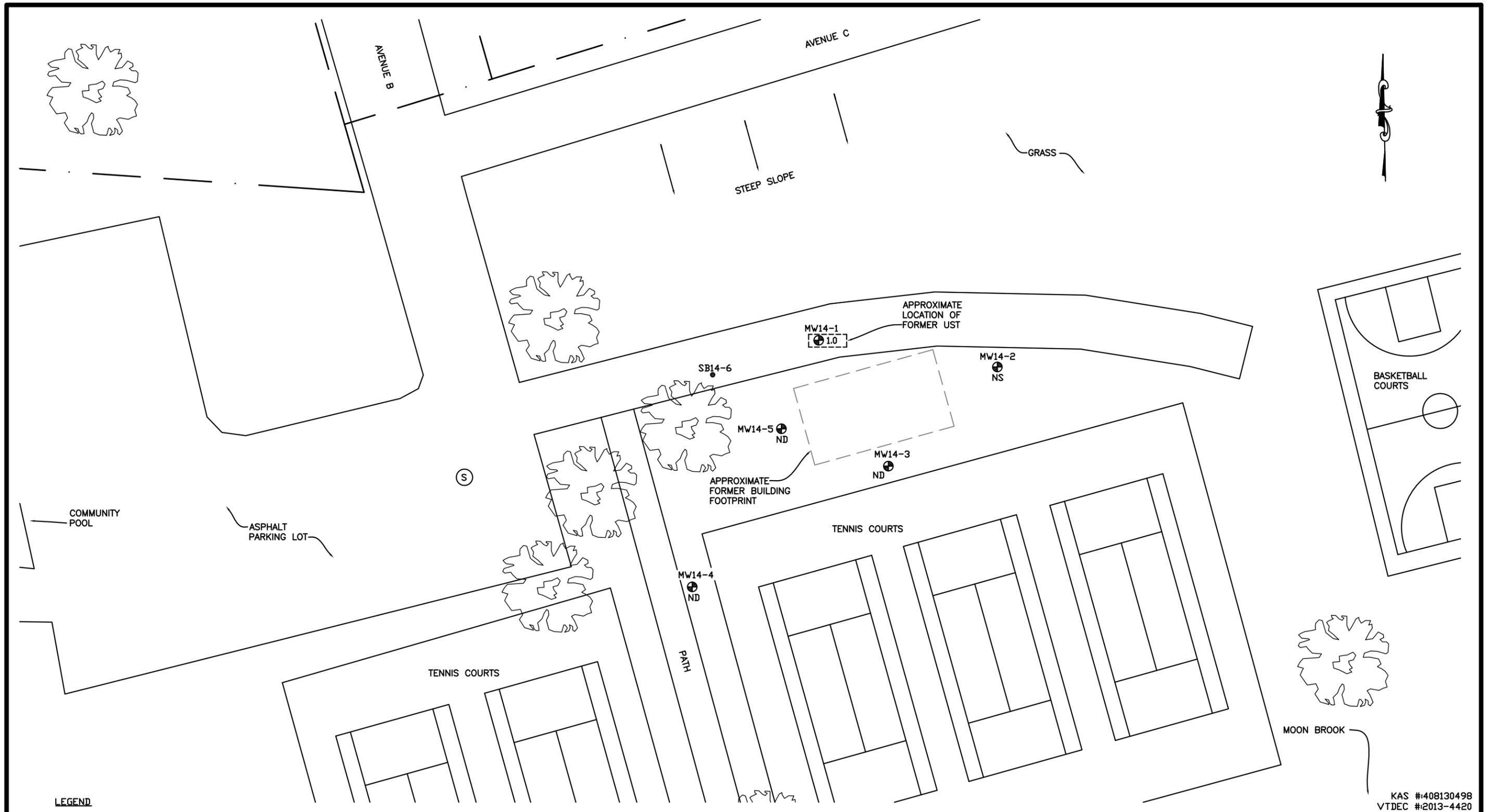
KAS #408130498
VTDEC #2013-4420

WHITE'S POOL
 21 AVENUE B
 RUTLAND, VERMONT

GROUNDWATER CONTOUR MAP

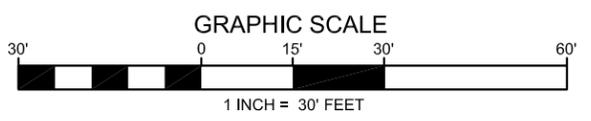
MEASURED: 4/28/15

DATE: 7/7/15	DWG #: 2	SCALE: 1"=30'	DRN: TB	APP: TB
--------------	----------	---------------	---------	---------



LEGEND

- MW14-1
1.0
MONITORING WELL WITH TOTAL VOC CONCENTRATION (ppb, M=8021B)
- SB14-6
SOIL BORING
- (S)
SEWER MANHOLE
- PROPERTY LINE
- (Tree symbol)
TREE
- ND
NONE DETECTED
- NS
NOT SAMPLED



368 Avenue D, Suite 15
PO Box 787
Williston, VT 05495
www.kas-consulting.com

802.383.0486 p
802.383.0490 f

WHITE'S POOL
21 AVENUE B
RUTLAND, VERMONT

CONTAMINANT CONCENTRATION MAP
SAMPLED: 4/28/15

DATE: 7/7/15	DWG #: 3	SCALE: 1"=30'	DRN: TB	APP: TB
--------------	----------	---------------	---------	---------

KAS #408130498
VTDEC #2013-4420



Appendix B

Liquid Level Monitoring Data



Liquid Level Monitoring Data

White's Pool
Rutland, Vermont

Measurement Date: April 28, 2015

Well I.D.	Well Depth btoc	Top of Casing Elevation	Depth To Product btoc	Depth To Water btoc	Product Thickness	Specific Gravity Of Product	Water Equivalent	Corrected Depth To Water	Corrected Water Table Elevation
MW14-1	6.71	100.00	-	0.05	-	-	-	-	99.95
MW14-2	9.00	99.72	-	2.06	-	-	-	-	97.66
MW14-3	9.00	99.92	-	5.74	-	-	-	-	94.18
MW14-4	12.00	99.37	-	6.55	-	-	-	-	92.82
MW14-5	9.00	99.79	-	3.82	-	-	-	-	95.97

Historic Liquid Level Monitoring Data

Well I.D.	7/22/2014	11/11/2014	4/28/2015						
MW14-1	96.57	95.08	99.95						
MW14-2	94.68	95.76	97.66						
MW14-3	92.35	91.68	94.18						
MW14-4	91.57	91.28	92.82						
MW14-5	93.36	92.86	95.97						

All Values Reported in Feet

btoc - Below Top of Casing

Elevations determined relative to top of casing at MW14-1, which was arbitrarily set at 100.00'

Site surveyed by KAS, Inc. on July 14, 2014



Appendix C

Groundwater Quality Summary



Groundwater Quality Summary

White's Pool
Rutland, Vermont

MW14-1

PARAMETER	Sample Date Method	7/22/2014 8021B	11/11/2014 8260B	4/28/2015 8021B					VGES
Benzene		ND<1.0	ND<5.0	ND<1.0					5
Toluene		ND<1.0	ND<5.0	ND<1.0					1,000
Ethylbenzene		1.7	ND<5.0	ND<1.0					700
Xylenes		2.7	ND<10.0	ND<2.0					10,000
Total BTEX		4.4	ND	ND					-
MTBE		ND<2.0	ND<10.0	ND<2.0					40
1,3,5-Trimethylbenzene		1.6	14.2	ND<1.0					350
1,2,4-Trimethylbenzene		5.3	40.3	1.0					
Naphthalene		9.2	49.4	ND<2.0					20
Total Targeted VOCs		20.5	103.9	1.0					-
GW Elevation (ft bg)		96.57	95.08	99.95					-

All Values Reported in ug/L (ppb)

VGES - Vermont Groundwater Enforcement Standard (February 14, 2005)

ND - None detected above sample-specific compound detection limit

Bold font indicates a detected concentration.

Shaded values meet or exceed VGES



Groundwater Quality Summary

White's Pool
Rutland, Vermont

MW14-2

PARAMETER	Sample Date Method	7/22/2014 8021B	11/11/2014 8260B	4/28/2015 8021B					VGES
Benzene		ND<1.0	ND<1.0	No Sample Removed From Schedule					5
Toluene		ND<1.0	ND<1.0						1,000
Ethylbenzene		ND<1.0	ND<1.0						700
Xylenes		ND<2.0	ND<2.0						10,000
Total BTEX		ND	ND						-
MTBE		ND<2.0	ND<2.0						40
1,3,5-Trimethylbenzene		ND<1.0	ND<1.0						350
1,2,4-Trimethylbenzene		ND<1.0	ND<1.0						
Naphthalene		ND<2.0	ND<2.0						20
Total Targeted VOCs		ND	ND						-
GW Elevation (ft bg)		94.68	95.76	97.66					-

All Values Reported in ug/L (ppb)

VGES - Vermont Groundwater Enforcement Standard (February 14, 2005)

ND - None detected above sample-specific compound detection limit

Bold font indicates a detected concentration.

Shaded values meet or exceed VGES



Groundwater Quality Summary

White's Pool
Rutland, Vermont

MW14-3

PARAMETER	Sample Date Method	7/22/2014 8021B	11/11/2014 8260B	4/28/2015 8021B					VGES
Benzene		ND<1.0	ND<1.0	ND<1.0					5
Toluene		ND<1.0	ND<1.0	ND<1.0					1,000
Ethylbenzene		ND<1.0	ND<1.0	ND<1.0					700
Xylenes		ND<2.0	ND<2.0	ND<2.0					10,000
Total BTEX		ND	ND	ND					-
MTBE		ND<2.0	ND<2.0	ND<2.0					40
1,3,5-Trimethylbenzene		ND<1.0	ND<1.0	ND<1.0					350
1,2,4-Trimethylbenzene		ND<1.0	ND<1.0	ND<1.0					
Naphthalene		ND<2.0	ND<2.0	ND<2.0					20
Total Targeted VOCs		ND	ND	ND					-
GW Elevation (ft bg)		92.35	91.68	94.18					-

All Values Reported in ug/L (ppb)

VGES - Vermont Groundwater Enforcement Standard (February 14, 2005)

ND - None detected above sample-specific compound detection limit

Bold font indicates a detected concentration.

Shaded values meet or exceed VGES



Groundwater Quality Summary

White's Pool
Rutland, Vermont

MW14-4

PARAMETER	Sample Date Method	7/22/2014 8021B	11/11/2014 8260B	4/28/2015 8021B					VGES
Benzene		ND<1.0	ND<1.0	ND<1.0					5
Toluene		ND<1.0	ND<1.0	ND<1.0					1,000
Ethylbenzene		ND<1.0	ND<1.0	ND<1.0					700
Xylenes		ND<2.0	ND<2.0	ND<2.0					10,000
Total BTEX		ND	ND	ND					-
MTBE		ND<2.0	ND<2.0	ND<2.0					40
1,3,5-Trimethylbenzene		ND<1.0	ND<1.0	ND<1.0					350
1,2,4-Trimethylbenzene		ND<1.0	ND<1.0	ND<1.0					
Naphthalene		4.8	ND<2.0	ND<2.0					20
Total Targeted VOCs		4.8	ND	ND					-
GW Elevation (ft bg)		91.57	91.28	92.82					-

All Values Reported in ug/L (ppb)

VGES - Vermont Groundwater Enforcement Standard (February 14, 2005)

ND - None detected above sample-specific compound detection limit

Bold font indicates a detected concentration.

Shaded values meet or exceed VGES



Groundwater Quality Summary

White's Pool
Rutland, Vermont

MW14-5

PARAMETER	Sample Date Method	7/22/2014 8021B	11/11/2014 8260B	4/28/2015 8021B					VGES
Benzene		ND<5.0	ND<1.0	ND<1.0					5
Toluene		ND<5.0	ND<1.0	ND<1.0					1,000
Ethylbenzene		ND<5.0	ND<1.0	ND<1.0					700
Xylenes		ND<10.0	ND<2.0	ND<2.0					10,000
Total BTEX		ND	ND	ND					-
MTBE		ND<10.0	ND<2.0	ND<2.0					40
1,3,5-Trimethylbenzene		ND<10.0	ND<1.0	ND<1.0					350
1,2,4-Trimethylbenzene		ND<10.0	ND<1.0	ND<1.0					
Naphthalene		ND<10.0	ND<2.0	ND<2.0					20
Total Targeted VOCs		ND	ND	ND					-
GW Elevation (ft bg)		93.36	92.86	95.97					-

All Values Reported in ug/L (ppb)

VGES - Vermont Groundwater Enforcement Standard (February 14, 2005)

ND - None detected above sample-specific compound detection limit

Bold font indicates a detected concentration.

Shaded values meet or exceed VGES



Groundwater Quality Summary

White's Pool
Rutland, Vermont

Quality Assurance and Control Summary

PARAMETER	Date of Sample Collection April 28, 2015				
	Trip Blank	MW14-1	Duplicate	RPD %	VGES
Benzene	ND<1.0	ND<1.0	ND<1.0	-	5
Toluene	ND<1.0	ND<1.0	ND<1.0	-	1,000
Ethylbenzene	ND<1.0	ND<1.0	ND<1.0	-	700
Xylenes	ND<2.0	ND<2.0	ND<2.0	-	10,000
Total BTEX	ND	ND	ND	-	-
MTBE	ND<2.0	ND<2.0	ND<2.0	-	40
1,3,5-Trimethylbenzene	ND<1.0	ND<1.0	ND<1.0	-	350
1,2,4-Trimethylbenzene	ND<1.0	1.0	1.2	-18.2	
Naphthalene	ND<2.0	ND<2.0	2.2	-	20
Total Targeted VOCs M8021B	ND	1.0	3.4	-109.1	-

The results of the laboratory analysis of the duplicate sample were analyzed using a relative percent difference (RPD) analysis. The RPD is defined as 100 times the difference in reported concentration between sample and duplicate, divided by the mean of the two samples. A small RPD indicates

NOTES

All values reported in ug/l (ppb) unless otherwise noted

ND<X - Not Detected (Detection Limit)

Bold font indicates a detected concentration.

Shaded values meet or exceed VGES



Appendix D

Analytical Laboratory Report



Laboratory Report

KAS, Inc.	100306
PO Box 787	
Williston, VT 05495	
Atten: Toni Baitz	

PROJECT: White's Pool 21 Ave B, Rutland
WORK ORDER: **1504-07629**
DATE RECEIVED: April 29, 2015
DATE REPORTED: May 07, 2015
SAMPLER: Josh Douglass

Enclosed please find the results of the analyses performed for the samples referenced on the attached chain of custody. All required method quality control elements including instrument calibration were performed in accordance with method requirements and determined to be acceptable unless otherwise noted.

The column labeled Lab/Tech in the accompanying report denotes the laboratory facility where the testing was performed and the technician who conducted the assay. A "W" designates the Williston, VT lab under NELAC certification ELAP 11263; "R" designates the Lebanon, NH facility under certification NH 2037 and "N" the Plattsburgh, NY lab under certification ELAP 11892. "Sub" indicates the testing was performed by a subcontracted laboratory. The accreditation status of the subcontracted lab is referenced in the corresponding NELAC and Qual fields.

The NELAC column also denotes the accreditation status of each laboratory for each reported parameter. "A" indicates the referenced laboratory is NELAC accredited for the parameter reported. "N" indicates the laboratory is not accredited. "U" indicates that NELAC does not offer accreditation for that parameter in that specific matrix. Test results denoted with an "A" meet all National Environmental Laboratory Accreditation Program requirements except where denoted by pertinent data qualifiers. Test results are representative of the samples as they were received at the laboratory

Endyne, Inc. warrants, to the best of its knowledge and belief, the accuracy of the analytical test results contained in this report, but makes no other warranty, expressed or implied, especially no warranties of merchantability or fitness for a particular purpose.

Reviewed by:

Harry B. Locker, Ph.D.
Laboratory Director

www.endynelabs.com



160 James Brown Dr., Williston, VT 05495
Ph 802-879-4333 Fax 802-879-7103

56 Etna Road, Lebanon, NH 03766
Ph 603-678-4891 Fax 603-678-4893



CLIENT: KAS, Inc.
 PROJECT: White's Pool 21 Ave B, Rutland
 REPORT DATE: 5/7/2015

WORK ORDER: 1504-07629
 DATE RECEIVED: 04/29/2015

TEST METHOD: EPA 8021B

001 Site: MW 14-1 Date Sampled: 4/28/15 12:00 Analysis Date: 5/1/15 W RGT

Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Methyl-t-butyl ether (MTBE)	< 2.0	ug/L	N		Benzene	< 1.0	ug/L	N	
Toluene	< 1.0	ug/L	N		Ethylbenzene	< 1.0	ug/L	N	
Xylenes, Total	< 2.0	ug/L	N		1,3,5-Trimethylbenzene	< 1.0	ug/L	N	
1,2,4-Trimethylbenzene	1.0	ug/L	N		Naphthalene	< 2.0	ug/L	N	
Surr. 1 (Bromobenzene)	88	%	N		Unidentified Peaks	>10		N	

TEST METHOD: EPA 8021B

002 Site: Duplicate MW 14-1 Date Sampled: 4/28/15 12:00 Analysis Date: 5/1/15 W RGT

Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Methyl-t-butyl ether (MTBE)	< 2.0	ug/L	N		Benzene	< 1.0	ug/L	N	
Toluene	< 1.0	ug/L	N		Ethylbenzene	< 1.0	ug/L	N	
Xylenes, Total	< 2.0	ug/L	N		1,3,5-Trimethylbenzene	< 1.0	ug/L	N	
1,2,4-Trimethylbenzene	1.2	ug/L	N		Naphthalene	2.2	ug/L	N	
Surr. 1 (Bromobenzene)	87	%	N		Unidentified Peaks	>10		N	

TEST METHOD: EPA 8021B

003 Site: MW 14-3 Date Sampled: 4/28/15 10:55 Analysis Date: 5/1/15 W RGT

Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Methyl-t-butyl ether (MTBE)	< 2.0	ug/L	N		Benzene	< 1.0	ug/L	N	
Toluene	< 1.0	ug/L	N		Ethylbenzene	< 1.0	ug/L	N	
Xylenes, Total	< 2.0	ug/L	N		1,3,5-Trimethylbenzene	< 1.0	ug/L	N	
1,2,4-Trimethylbenzene	< 1.0	ug/L	N		Naphthalene	< 2.0	ug/L	N	
Surr. 1 (Bromobenzene)	87	%	N		Unidentified Peaks	0		N	

TEST METHOD: EPA 8021B

004 Site: MW 14-4 Date Sampled: 4/28/15 11:18 Analysis Date: 5/1/15 W RGT

Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Methyl-t-butyl ether (MTBE)	< 2.0	ug/L	N		Benzene	< 1.0	ug/L	N	
Toluene	< 1.0	ug/L	N		Ethylbenzene	< 1.0	ug/L	N	
Xylenes, Total	< 2.0	ug/L	N		1,3,5-Trimethylbenzene	< 1.0	ug/L	N	
1,2,4-Trimethylbenzene	< 1.0	ug/L	N		Naphthalene	< 2.0	ug/L	N	
Surr. 1 (Bromobenzene)	84	%	N		Unidentified Peaks	0		N	

TEST METHOD: EPA 8021B

005 Site: MW 14-5 Date Sampled: 4/28/15 11:40 Analysis Date: 5/1/15 W RGT

Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Methyl-t-butyl ether (MTBE)	< 2.0	ug/L	N		Benzene	< 1.0	ug/L	N	
Toluene	< 1.0	ug/L	N		Ethylbenzene	< 1.0	ug/L	N	
Xylenes, Total	< 2.0	ug/L	N	M-	1,3,5-Trimethylbenzene	< 1.0	ug/L	N	M-
1,2,4-Trimethylbenzene	< 1.0	ug/L	N	M-	Naphthalene	< 2.0	ug/L	N	
Surr. 1 (Bromobenzene)	87	%	N		Unidentified Peaks	0		N	

CLIENT: KAS, Inc.
 PROJECT: White's Pool 21 Ave B, Rutland
 REPORT DATE: 5/7/2015

WORK ORDER: **1504-07629**
 DATE RECEIVED: 04/29/2015

TEST METHOD: EPA 8021B

006	Site: Trip Blank	Date Sampled: 4/28/15	07:45	Analysis Date: 5/1/15	W RGT
-----	------------------	-----------------------	-------	-----------------------	-------

<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>Nelac</u>	<u>Qual</u>	<u>Parameter</u>	<u>Result</u>	<u>Unit</u>	<u>Nelac</u>	<u>Qual</u>
Methyl-t-butyl ether (MTBE)	< 2.0	ug/L	N		Benzene	< 1.0	ug/L	N	
Toluene	< 1.0	ug/L	N		Ethylbenzene	< 1.0	ug/L	N	
Xylenes, Total	< 2.0	ug/L	N		1,3,5-Trimethylbenzene	< 1.0	ug/L	N	
1,2,4-Trimethylbenzene	< 1.0	ug/L	N		Naphthalene	< 2.0	ug/L	N	
Surr. 1 (Bromobenzene)	88	%	N		Unidentified Peaks	0		N	

Report Summary of Qualifiers and Notes

M-: The Laboratory Fortified Matrix (LFM) analysis had a recovery lower than defined acceptance limits. This indicates a potential negative bias in the reported value or a difficult sample matrix that resulted in poor reproducibility between sample aliquots selected for analysis.

315 New York Road
 Suite 85
 Plattsburgh, NY 12903
 Phone (518)563-1720
 Fax (518)563-0052
 info@endynelabs.com

ENDYNE INC. Plattsburgh

LAB USE ONLY **MAY 13 2015**
 Due Date:

ELAP #11892
 Client Kas, inc
 Mailing Address 368 Ave. D, Suite 15 P.O. Box 787
Williston VT 05495
 Contact Person toni Baitz
 Phone 802-353-0486
 Email Address tonib@kas-consulting.com
 Account # 100749
 Project Name White's Pool
 Quote #
 PO # 408130198
 Water Source Monitoring well
 PWS #
 SPDES #
 Collection Address 21 Ave B, Rutland VT
 State VT
 Collector's Name Josh Douglas

SAMPLE MATRIX CODES		Compliance Monitoring? Y (N)	Repeat Samples? Y N	Check Samples? Y N	Chlorine Residual by Client at Collection	Sample Matrix	Grab or Composite Sample	Bottle Type / Vol	Preservation	802113	Lab Use Only
DW=drinking water	SW=Surface Water										
TURNAROUND TIME REQUESTED											
Standard	Lab Manager										
RUSH Due Date (Charges Apply)	RUSH Approval										
Special	Date/Time										
CLIENT'S SAMPLE IDENTIFICATION											Sample #
MW14-1	4/28/15-1200	NA				MW	G	40mL HCL	X		001
Duplicate - MW14-1	- 1200					TB					002
MW14-3	- 1055					MW					003
MW14-4	- 1118										004
MW14-5	- 1140										005
Trip Blank	28Apr15e0745								X		006

Client Instructions/Comments/Special Requirements:
Email results to tonib@kas-consulting.com

Samples that the Endyne, Inc Labs are not ELAP accredited for will be subcontracted to a NYS accredited lab. Initials

SAMPLE RECEIPT (Lab Use Only)	Date	Time	Sample Relinquished By (SIGN HERE)	Samples Received By
On Ice <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	4/29/15	1040	<i>[Signature]</i>	<i>[Signature]</i>
Temperature <u>7.10C</u>				
Seal Intact <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> N/A				
No. of Containers <u>12</u>				
Lab Custody Notes				
			Work Order Id Nos <u>1504-07629</u>	



OFFICE USE ONLY
 Analysis Fee \$ X or A/R
 Terms are net 15 days with an open, up to date account
 Payment Method Cash Check MC/Visa Money Order Check, MO, Receipt # _____