Waite-Heindel
Environmental Management

September 6, 2016

Hugo Martinez Cazon
VT DEC
1 National Life Drive – Davis 1
Montpelier, VT 05620-3704

Sent via email: hugo.martinez.cazon@vermont.gov

RE: Groundwater Monitoring Report: July 2016
Young Residence
28 North Williams Street
Burlington, VT 05401
SMS Site #2013-4436

Dear Hugo:

Waite-Heindel Environmental Management (WHEM) is pleased to present the *Groundwater Monitoring Report* for work conducted during July and August 2016 at the Young property at 28 North Williams Street in Burlington, Vermont. This is the first quarterly monitoring event following CAP approval on May 20, 2016.

Do not hesitate to contact me if you have questions. I can be reached at (802) 860-9400 ext. 101 or by email at mwaite@waiteenv.com

Sincerely,

Miles E. Waite, Ph.D.
Senior Hydrogeologist

Cc: Bill and Sally Young

Enclosure

GROUNDWATER MONITORING REPORT: JULY 2016

Young Residence
28 N. Williams Street
Burlington, Vermont 05401

SMS SITE #2013-4436

September 6, 2016

Prepared for:

Hugo Martinez Cazon
VT DEC
Waste Management & Prevention Division
1 National Life Drive – Davis 1
Montpelier, VT 05620-3704

Prepared by:

Waite - Heindel
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1.0 INTRODUCTION

Waite-Heindel Environmental Management (WHEM) of Burlington, Vermont conducted a round of quarterly groundwater quality monitoring and sump sampling on July 1, 2016, at the Young residence, located at 28 North Williams Street in Burlington, VT (SMS #2013-4436).

The work performed was per WHEM's Corrective Action Plan (CAP) dated August 14, 2015 (revised April 14, 2016), which was approved by VT DEC in an email dated May 20, 2016. The approvals were for the installation of a groundwater treatment system with continued groundwater monitoring; alternative remedial options such as injections of REGENESIS ORC Advanced® were also approved contingent upon the discretion of the VTDEC. Note that the July 1, 2016 round of groundwater sampling was conducted just before the installation of the groundwater treatment system. An As-Built Report on the treatment system installation and initial operation is forthcoming.

2.0 GROUNDWATER SAMPLING

2.1 Sump Sampling

On July 1, 2016, WHEM conducted a sump sampling from Sump South and Sump North for VOC analysis via Method 8021B. Sump locations are shown on the Site Plan in Appendix 1. Neither sump was purged prior to sampling, due to very dry conditions and a low water table leading up to the sampling event. Sump water at Sump North produced a mild petroleum odor, and sump water at Sump South produced a moderate, stale petroleum odor. A light sheen was observed at Sump North, and a more noticeable sheen was observed at Sump South. During the previous two sampling events, no sheen was observed in either sump. Samples were kept on ice and delivered to Endyne Laboratories for analysis on the day of sampling. Results are discussed in Section 2.3.

In addition to sampling of the sump, the electric volt meters are used to record sump pump usage which has been translated to volume of water flow from each sump. Flow data are provided in Table 3 in Appendix A. As these data show, Sump North flows are typically in the range of 120 gallons per day (gpd), whereas Sump South flows are much lower, ranging between 4-9 gpd. Flow data since meter installation (April 21, 2014) shows that a total of approximately 103,174 gallons of water has been collected and discharged to the sanitary sewer system. Average flows from each sump total to about 128.64 gpd (123.61 gpd at Sump N, 5.03 gpd at Sump S). Please note that these flow readings may be an overestimation of flow, as we have come to realize

during August 2016 using an actual water flow meter (refer to Section 3.0). A clearer idea of actual groundwater flow from the sumps will be achieved after several months of monitoring of the groundwater treatment system.

2.2 Groundwater Sampling

On July 1, 2016, WHEM performed groundwater monitoring from the three (3) existing monitoring wells, identified on the Site Plan as MW-1, MW-2, and MW-3. Prior to sampling, wells were gauged for depth to groundwater, which ranged from 3.13 ft below top of casing (BTOC) in MW-1 to 6.43 ft BTOC in MW-2. Groundwater elevations, presented in Table 1 in Appendix 2, ranged from a high of 96.87 ft (MW-1) to a low of 92.77 ft (MW-2). Groundwater elevations in MW-1 and MW-3 are at the upper end of historic values, while groundwater elevation at MW-2 reached a historic high. Groundwater elevations have been mapped and contoured as shown in Figure 2 in Appendix 1. All groundwater elevation data collected to date is included as Table 1.0 in Appendix 2, and a chart showing variation in elevation over time is included in Appendix 2. The presence of the house foundation below the water table makes it unlikely that groundwater flow is linear and underneath the building; the new Groundwater Elevation Map depicts this more likely situation. It should be noted that the water level in MW-2 may be influenced by the home's French drain system, which lowers the groundwater elevation immediately surrounding the house. This theory is supported by the muted change in groundwater elevation at MW-2 between monitoring rounds compared MW-1 and MW-3. As the contours show, groundwater flow most likely splits at the southeast corner of the building's foundation between northward flow towards Sump North and eastward flow towards MW-3 and North Williams Street. The site-wide horizontal hydraulic gradient is calculated at 0.121 ft/ft to the east-northeast, or 12.1% (calculated from MW-1 to MW-2).

All wells were purged of approximately three well volumes and sampled via peristaltic pump. Three well volumes were successfully pumped from MW-3, but both MW-2 and MW-1 went dry. All wells were allowed to recharge prior to sampling. Samples were delivered on ice following chain-of-custody procedures to Endyne Laboratories in Williston, Vermont; samples were submitted for analysis by 8021B.

Purged groundwater from MW-2 had a detectable septic odor, though there is no sign of a leaking sewer line from inside the house. Purged groundwater from MW-1 had a detectable petroleum odor and faint sheen. Groundwater from MW-3 was clear and possessed no odor.

2.3 Groundwater and Sump Results

The groundwater results are presented in Table 2 in Appendix 2. The full laboratory report is provided in Appendix 3. Charts depicting variation in Naphthalene concentrations in Sump North, Sump South, and MW-1 are also included in Appendix 2. All concentrations have been compared to the Vermont Groundwater Enforcement Standards (VGES). These results, shown in micrograms per liter (ug/L), are summarized below:

- Results from the July 2016 Sump sampling event revealed the presence of a suite of petroleum VOCs in both sumps. MTBE and Toluene were non-detected in both sumps. There were no VGES exceedances in the sumps during this round of sampling. Total VOC concentrations in Sump North decreased (35.3 ug/L) from December 2015 (63.2 ug/L); Total VOC concentrations in Sump South decreased (44.6 ug/L) from December 2015 (202.0 ug/L). Total VOC concentrations in both sumps appear to vary considerably from sample event to sample event, likely an influenced by the water table.

- In MW-1, all petroleum VOCs decreased compared to the December 2015 sampling event. Naphthalene (24.5 ug/L) continues to exceed VGES, as it has since November 2004. Benzene (4.6 ug/L) decreased to below VGES for the first time since November 2014. Total petroleum VOCs during July 2016 (166.5 ug/L) decreased modestly from the December 2015 (231.9 ug/L) event. No contaminants were reported in downgradient wells MW-2 or MW-3, which is consistent with historical data.

- Other VOCs were detected well below standards via Method 8021B, including petroleum breakdown products in MW-1 and the Sump wells. Refer to table 3.0 for the full results of the groundwater quality.

- Based on the reported concentrations in groundwater, it continues to be unlikely that VGES is exceeded for any compounds at the downgradient property line.

Quality Assurance/Quality Control (QA/QC) samples included a duplicate and trip blank, which was prepared at Endyne Laboratories. The duplicate sample was collected in conjunction with the sample from MW-1, using the same sampling methodology. Results of the QA/QC sampling, included as Table 4 in Appendix 2 and in the lab report in Appendix 3, indicate that that results for all compounds reported at least twice the practical quantitation limit (PQL) were below 30% relative percent difference (RPD) in the duplicate pair (MW-1 and "Duplicate" sample). This

indicates generally acceptable analytical results and sample parity. No contaminants were detected in the trip blank.

3.0 TREATMENT SYSTEM INSTALLATION

WHEM, with the assistance of Vermont Water Treatment of Lincoln, Vermont, successfully installed a groundwater treatment system in the basement of the Young Residence. This system combines the sump flow from Sump North and Sump South into a single stream, which is pumped through a canister of granular activated carbon, then to a secondary pump, water meter, and backflow preventer, before discharge to the City sanitary sewer system. Refer to the Site Plan for the location of the treatment system. An As-Built Report with more details if forthcoming.

As part of the operation of the groundwater treatment system, we now conduct bi-monthly sump sampling for reporting to the VT DEC as part of the discharge permit. The first discharge report has been submitted, and is included in Appendix 4. The discharge report confirms that the treated water being discharged to the City system is free of petroleum contamination.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results presented in this report, WHEM reaches the following conclusions:

1. Sump North and Sump South continue to intercept petroleum contaminated groundwater and prevent it from surfacing in the Young Basement. As of late July 2016, this petroleum contaminated groundwater is treated using activated carbon before discharge to the City sanitary sewer system. Compared to previous data, Naphthalene concentrations in both Sump South and Sump North were below the VGES standard, with total petroleum VOCs in both sumps decreasing as well. VOC concentrations appear to vary more dramatically in Sump South – this is likely a result of the fluctuating water table and the elevation of Sump South. Measurements taken from the sumps' installed volt-meters indicate that and estimated 103,174 gallons of water have been pumped since the meters were installed on April 21, 2014. However, with a new water meter on the groundwater treatment system, the flow volume may be revised.

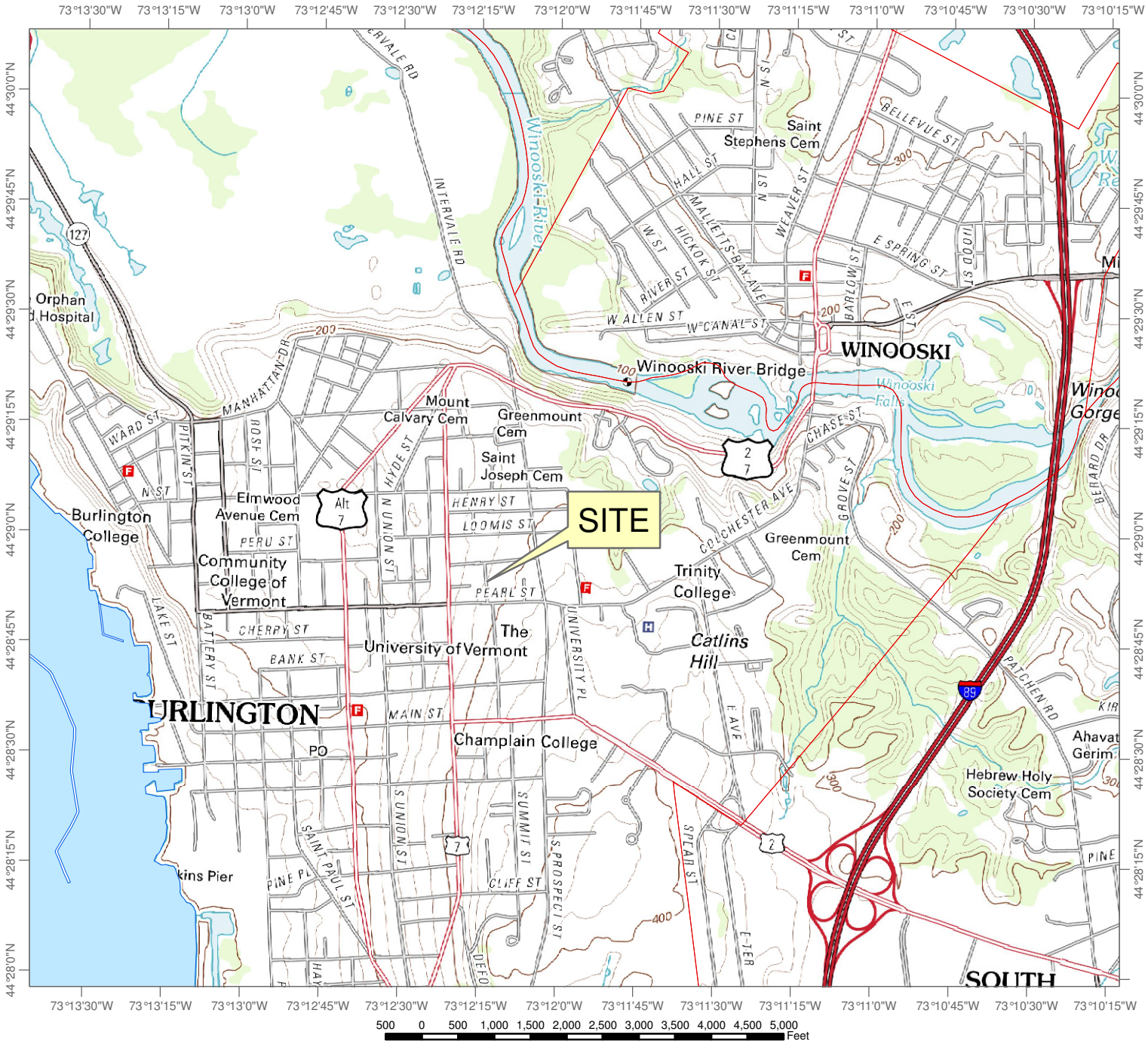
2. In MW-1, Naphthalene concentrations decreased from December 2015 where they had reached a historic high. Benzene decreased to below VGES for the first time since November 2014. Total VOCs decreased moderately after reaching a historic high in December 2015. The cause for these large variations in contaminant concentrations is

unclear, but is likely a result of a fluctuating water table. No petroleum VOCs were detected in MW-2 or MW-3, which is consistent with historical data.

Now that the groundwater treatment system is operational, an As-Built Report will be developed by WHEM. This As-Built Report will contain the Operations & Maintenance (O&M) and sampling requirements of the system. Regular sampling of the system influent and effluent (discharge) will be conducted for monthly reporting to the Watershed Management Division until it may be possible to reduce sampling frequency. Regular groundwater monitoring from MW-1, MW-2, and MW-3 will also proceed on a quarterly basis, with the next event scheduled for October 2016.

APPENDIX 1

FIGURES



USGS

Young Property
28 N. Williams Street
Burlington, Vermont

October 1, 2013
Map produced by:
C:\Users\MILESW~1\AppData\Local\Temp\~DFE51841EF9C75B4E3.TMP

Subject Area
Town Boundary

Site Coordinates:
Geographic (Degrees Minutes Seconds):
Northing: 0
Easting: 0
VT State Plane Meters:

Circle Radius: 0.5 mile(s)

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• Water and Wastewater Design •
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References:

United States Geological Survey xxxx Vermont Quadrangle. Computer file, USGS. Distributed through Vermont Center for Geographic Information, April 2007.
Town boundary, best sources. Computer file, bndhash, Vermont Center for Geographic Information, Waterbury, VT. Distributed through Vermont Center for Geographic Information, Inc. 2007.

GARAGE

NEW (JULY 2016)
GROUNDWATER
TREATMENT SYSTEM

AS
OUTDOOR

JANUARY 2014
EXCAVATION LIMITS

ASPHALT
DRIVEWAY

ADDITION:
SLAB ON GRADE

SIDEWALK

STUDY

RELICT U.S.T. REMOVED
SEPTEMBER 2013

CRAWL SPACE

MW-1

SEPTEMBER 2013 EXCAVATION
LIMITS

FRENCH DRAIN

SUMP SOUTH

KITCHEN (1ST FLOOR)

SUMP NORTH

DISCHARGE TO
SANITARY SEWER

AS
BASEMENT
POOL TABLE
(BASEMENT)

BASEMENT
FLOOR ELEV. APPROX: 92 FT

LIVING ROOM
(1ST FLOOR)

AS
FIRST FLOOR

YOUNG RESIDENCE
28 N. WILLIAMS STREET
SITE #2013-4436

EXISTING CLEANOUT IN
FLOOR HATCH

UNUSED A.S.T. REMOVED
IN JANUARY 2014

HUDDLE RESIDENCE
34 N. WILLIAMS STREET
SITE #2011-4316

20 N. WILLIAMS STREET

MW-2

MW-3

WATER LINE (APPROX)

SEWER LINE (APPROX)

ASPHALT DRIVE

SIDEWALK

N. WILLIAMS STREET

N

LEGEND

- PROPERTY LINE FROM TAX MAP (APPROX)
- SUMP PUMP INSTALLED BY OWNER
- MW-1 MONITORING WELL INSTALLED BY WHEM
- AS AIR SAMPLE LOCATION (NOVEMBER 2014)

0 5 10 20

GRAPHIC SCALE: 1"=10'

NOTES:
1. BASE PLAN IS ORIGINAL BLUEPRINT OF HOUSE PROVIDED BY OWNER.
2. ALL LOCATIONS APPROXIMATE. THIS IS NOT A SURVEYED PLAN.

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1

DATE: 8/31/16
PROJECT NO.
DRAWN BY: D.W.F.
PROJ. MGR: C.P.
APPROVED: M.E.W.

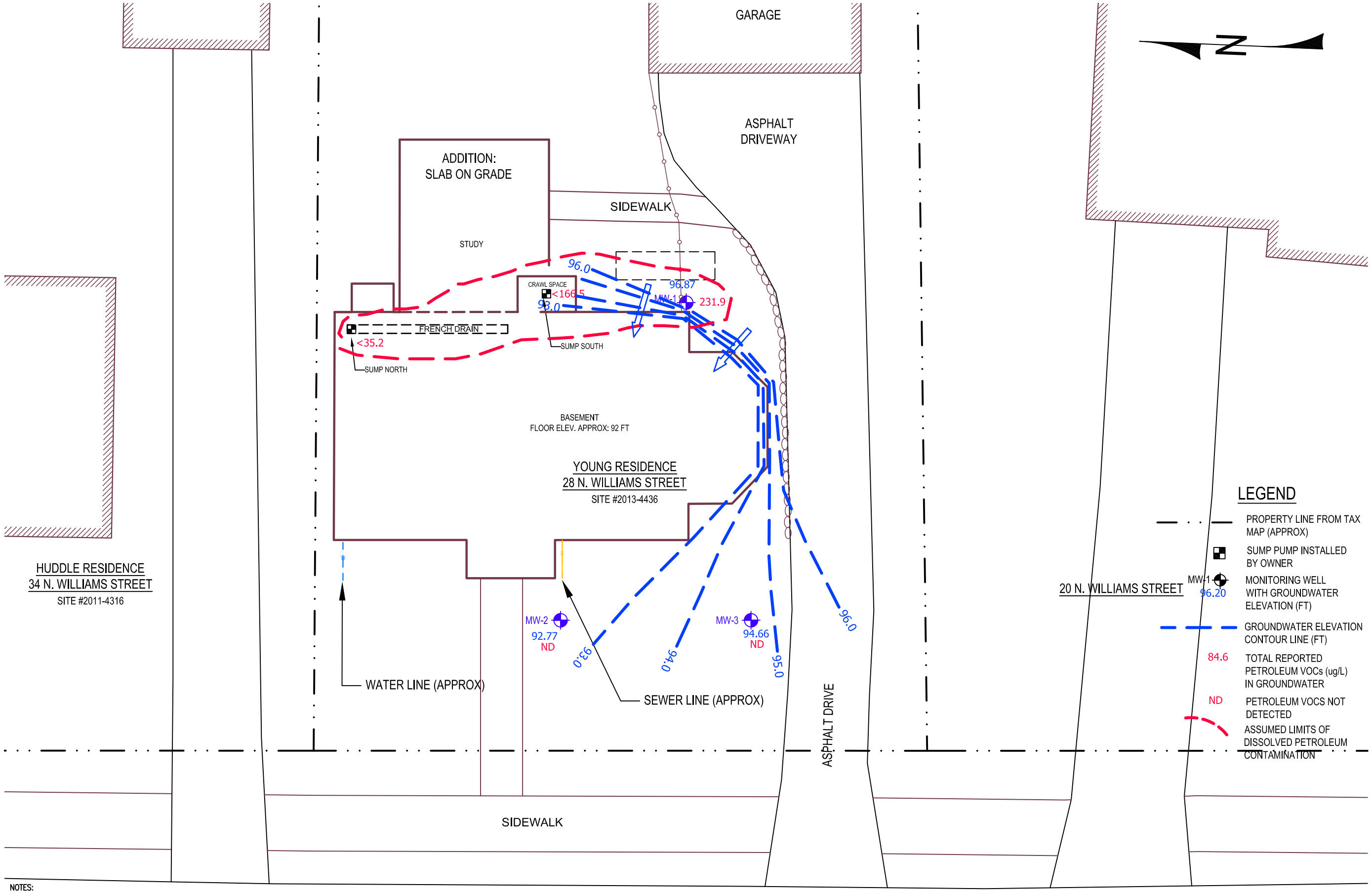
☐ DRAFT ☒ FINAL

YOUNG
28 NORTH WILLIAMS STREET
BURLINGTON, VERMONT

SITE PLAN

FILE: Young Williams Street.dwg

SCALE: 1" = 10'



NOTES:
1. GROUNDWATER ELEVATIONS ARE RELATIVE TO THE ELEVATION OF THE TOP-OF-CASING (TOC) OF WELL MW-1, ABRITRARILY SET AT 100.0 FT. SURVEY CONDUCTED BY WHEM IN DECEMBER 2013.
2. GROUNDWATER ELEVATIONS ARE FROM JULY 1, 2016.
3. TOTAL PETROLEUM VOCS IS CALCULATED AS SUM OF CONCENTRATIONS OF THE COMPOUNDS BENZENE, TOLUENE, ETHYLBENZENE, XYLENES, TRIMETHYLBENZENES, NAPTHALENE, AND MTBE. SAMPLES COLLECTED ON JULY 1, 2016 AND ANALYZED BY METHOD 8021B.

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2

DATE: 8/31/16
PROJECT NO.
DRAWN BY: D.W.F.
PROJ. MGR: C.P.
APPROVED: M.E.W.

☐ DRAFT ☒ FINAL

YOUNG
28 NORTH WILLIAMS STREET
BURLINGTON, VERMONT (SITE #2013-4436)

GROUNDWATER ELEVATION AND CONTAMINANT CONCENTRATION MAP - JULY 2016

FILE: Young Williams Street.dwg

SCALE: 1" = 10'

APPENDIX 2

TABLES AND CHARTS

TABLE 1.0
Groundwater Elevation Measurements:
Young Residence
28 N. Williams Street, Burlington
SMS Site #2013-4436

Well ID	Measuring Point (ft)	Measuring Point Elevation (ft)	Date	Depth to Water (ft btoc)	Groundwater Elevation (ft)
MW-1	TOC	100.00	12/23/13	3.80	96.20
			8/11/14	3.10	96.90
			11/18/14	2.81	97.19
			2/19/15	3.45	96.55
			7/28/15	3.12	96.88
			12/2/15	2.73	97.27
			7/1/16	3.13	96.87
MW-2	TOC	99.20	12/23/13	7.28	91.92
			8/11/14	7.04	92.16
			11/18/14	6.96	92.24
			2/19/15	7.10	92.10
			7/28/15	7.33	91.87
			12/2/15	7.02	92.18
			7/1/16	6.43	92.77
MW-3	TOC	98.54	12/23/13	4.08	94.46
			8/11/14	3.87	94.67
			11/18/14	3.60	94.94
			2/19/15	4.35	94.19
			7/28/15	3.58	94.96
			12/2/15	3.36	95.18
			7/1/16	3.88	94.66

Notes:
-All elevations are in feet, relative to arbitrary benchmark (MW-1 top of casing)
-"<"= less than bottom elevation of well, signifiying that the well dry during monitoring event; "NA" = not available; blank = not sampled.

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TABLE 2.0
Groundwater Quality Data
Young Residence
28 N. Williams St, Burlington, Vermont

Sump South											
Sample Date	Units	VGES	9/12/2013	12/23/2013	4/29/2014	8/11/2014	11/18/2014	2/19/2015	7/28/2015	12/2/2015	7/1/2016
PETROLEUM VOLATILE ORGANIC COMPOUNDS (VOCs) (EPA Method 8260/8021B)											
MTBE	ug/L (ppb)	40	ND / < 10.0	ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 4.0	ND / < 2.0	ND / < 2.0
Benzene	ug/L (ppb)	5.0	ND / < 5.0	ND / < 1.0	**2.5**	ND / < 5.0	ND / < 1.0	ND / < 1.0	ND / < 2.0	**2.3**	**1.2**
Toluene	ug/L (ppb)	1,000	ND / < 5.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 2.0	**1.1**	ND / < 1.0
Ethylbenzene	ug/L (ppb)	700	ND / < 5.0	**2.5**	**13.6**	**16.9**	**3.4**	**11.8**	**10.3**	**21.4**	**8.5**
Xylenes	ug/L (ppb)	10,000	**18.9**	**2.5**	**22.9**	**14.0**	**3.3**	**13.2**	**30.8**	**67.1**	**12.8**
1,3,5-Trimethylbenzene	ug/L (ppb)	350	**5.3**	ND / < 1.0	**22.8**	**8.0**	**1.4**	**3.9**	**5.4**	**19.3**	**3.3**
1,2,4-Trimethylbenzene	ug/L (ppb)		**8.7**	**1.7**	**27.0**	**26.4**	**4.1**	**16.1**	**16.2**	**46.4**	**5.7**
Naphthalene	ug/L (ppb)	20	**15.8**	**4.9**	**70.1**	**38.3**	**7.0**	**13.9**	**24.6**	**47.8**	**10.1**
TOTAL PETROLEM VOCS	*ug/L (ppb)*	--	***48.7***	***11.6***	***156.4***	***103.6***	***19.2***	***58.9***	***87.3***	***202.0***	***44.6***
Unidentified Peaks	#	--	>10	>10	>10	>10	>10	>10	>10	>10	>10
NON-PETROLEUM VOLATILE ORGANIC COMPOUNDS (VOCs) (EPA Method 8260)											
Acetone	ug/L (ppb)	700		ND / < 10.0				ND / < 10.0			
Bromodichloromethane	ug/L (ppb)	80		ND / < 0.5				ND / < 0.5			
Chloroform	ug/L (ppb)			ND / < 1.0				ND / < 1.0			
2-Butanone	ug/L (ppb)	4200		ND / < 10.0				ND / < 10.0			
Tetrachloroethene	ug/L (ppb)	5.0		ND / < 1.0				ND / < 1.0			
TOTAL PETROLEUM HYDROCARBONS - DIESEL RANGE ORGANICS (EPA Method 8015B)											
TPH-DRO	mg/L (ppm)		**15.8**								

Sump North											
Sample Date	Units	VGES	9/12/2013	12/23/2013	4/29/2014	8/11/2014	11/18/2014	2/19/2015	7/28/2015	12/2/2015	7/1/2016
PETROLEUM VOLATILE ORGANIC COMPOUNDS (VOCs) (EPA Method 8260/8021B)											
MTBE	ug/L (ppb)	40	ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 2.0
Benzene	ug/L (ppb)	5.0	ND / < 1.0	**1.4**	**1.6**	**2.1**	**1.3**	ND / < 1.0	**1.3**	**1.6**	**1.4**
Toluene	ug/L (ppb)	1,000	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0
Ethylbenzene	ug/L (ppb)	700	ND / < 1.0	**4.2**	**8.6**	**11.2**	**6.7**	**7.2**	**4.9**	**9.3**	**3.0**
Xylenes	ug/L (ppb)	10,000	**9.3**	**14.4**	**25.3**	**26.4**	**10.3**	**6.3**	**7.3**	**14.2**	**7.8**
1,3,5-Trimethylbenzene	ug/L (ppb)	350	**6.3**	**8.4**	**11.6**	**9.8**	**5.3**	**3.5**	**3.6**	**7.4**	**3.0**
1,2,4-Trimethylbenzene	ug/L (ppb)		**8.6**	**17.5**	**20.0**	**28.1**	**25.8**	**12.8**	**10.5**	**17.0**	**8.3**
Naphthalene	ug/L (ppb)	20	**22.7**	**23.3**	**29.6**	**24.5**	**23.4**	**3.9**	**7.4**	**13.7**	**8.8**
TOTAL PETROLEM VOCS	*ug/L (ppb)*	--	***46.9***	***69.2***	***96.7***	***102.1***	***72.8***	***33.7***	***35.0***	***63.2***	***35.3***
Unidentified Peaks	#	--	>10	>10	>10	>10	>10	>10	>10	>10	>10
NON-PETROLEUM VOLATILE ORGANIC COMPOUNDS (VOCs) (EPA Method 8260)											
Acetone	ug/L (ppb)	700		ND / < 10.0				ND / < 10.0			
Bromodichloromethane	ug/L (ppb)	80		ND / < 0.5				ND / < 0.5			
Chloroform	ug/L (ppb)			ND / < 1.0				ND / < 1.0			
2-Butanone	ug/L (ppb)	4200		ND / < 10.0				ND / < 10.0			
Tetrachloroethene	ug/L (ppb)	5.0		ND / < 1.0				ND / < 1.0			
TOTAL PETROLEUM HYDROCARBONS - DIESEL RANGE ORGANICS (EPA Method 8015B)											
TPH-DRO	mg/L (ppm)		**10.8**								

MW-1											
Sample Date	Units	VGES	9/12/2013	12/23/2013	4/29/2014	8/11/2014	11/18/2014	2/19/2015	7/28/2015	12/2/2015	7/1/2016
PETROLEUM VOLATILE ORGANIC COMPOUNDS (VOCs) (EPA Method 8260/8021B)											
MTBE	ug/L (ppb)	40		ND / < 4.0		ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 10.0	ND / < 10.0	ND / < 2.0
Benzene	ug/L (ppb)	5.0		**3.7**		ND / < 5.0	**4.6**	**5.1**	**5.1**	**7.5**	**4.6**
Toluene	ug/L (ppb)	1,000		**5.4**		**5.4**	**1.8**	**1.0**	ND / < 5.0	ND / < 5.0	ND / < 1.0
Ethylbenzene	ug/L (ppb)	700		**7.1**		**10.6**	**13.2**	**16.8**	**25.6**	**28.5**	**22.3**
Xylenes	ug/L (ppb)	10,000		**26.4**		**34.7**	**40.5**	**42.1**	**70.7**	**93**	**65.8**
1,3,5-Trimethylbenzene	ug/L (ppb)	350		**8.9**		**7.9**	**8.6**	**9.7**	**12.1**	**19.1**	**11.6**
1,2,4-Trimethylbenzene	ug/L (ppb)			**19.0**		**15.9**	**23.2**	**26.5**	**33.4**	**48.5**	**34.7**
Naphthalene	ug/L (ppb)	20		**16.2**		**10.3**	**24.3**	**30.1**	**27.5**	**35.3**	**24.5**
TOTAL PETROLEM VOCS	*ug/L (ppb)*	--		***86.7***		***84.8***	***116.2***	***131.3***	***174.4***	***231.9***	***166.5***
Unidentified Peaks	#	--		>10		>10	>10	>10	>10	>10	>10
NON-PETROLEUM VOLATILE ORGANIC COMPOUNDS (VOCs) (EPA Method 8260)											
Acetone	ug/L (ppb)	700		**268**				**11.3**			
Bromodichloromethane	ug/L (ppb)	80		ND / < 1.0				ND / < 0.5			
Chloroform	ug/L (ppb)			ND / < 2.0				ND / < 1.0			
2-Butanone	ug/L (ppb)	4200		**812**				ND / < 10.0			
Tetrachloroethene	ug/L (ppb)	5.0		ND / < 1.0				ND / < 1.0			
TOTAL PETROLEUM HYDROCARBONS - DIESEL RANGE ORGANICS (EPA Method 8015B)											
TPH-DRO	mg/L (ppm)										

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TABLE 2.0
Groundwater Quality Data
Young Residence
28 N. Williams St, Burlington, Vermont

MW-2											
Sample Date	Units	VGES		12/23/2013		8/11/2014	11/18/2014	2/19/2015	7/28/2015	12/2/2015	7/1/2016
PETROLEUM VOLATILE ORGANIC COMPOUNDS (VOCs) (EPA Method 8260/8021B)											
MTBE	ug/L (ppb)	40		ND / < 2.0		ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 2.0
Benzene	ug/L (ppb)	5.0		ND / < 1.0		ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0
Toluene	ug/L (ppb)	1,000		ND / < 1.0		ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0
Ethylbenzene	ug/L (ppb)	700		ND / < 1.0		ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0
Xylenes	ug/L (ppb)	10,000		ND / < 2.0		ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 2.0
1,3,5-Trimethylbenzene	ug/L (ppb)	350		ND / < 1.0		ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0
1,2,4-Trimethylbenzene	ug/L (ppb)			ND / < 1.0		ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0
Naphthalene	ug/L (ppb)	20		ND / < 2.0		ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 2.0
TOTAL PETROLEM VOCS	*ug/L (ppb)*	--		*ND / < 11.0*		*ND / < 11.0*	*ND / < 11.0*	*ND / < 11.0*	*ND / < 11.0*	*ND / < 11.0*	*ND / < 11.0*
Unidentified Peaks	#	--		0		1	0	2	1	>10	0
NON-PETROLEUM VOLATILE ORGANIC COMPOUNDS (VOCs) (EPA Method 8260)											
Acetone	ug/L (ppb)	700		**67.3**				**22.5**			
Bromodichloromethane	ug/L (ppb)	80		**1.4**				ND / < 0.5			
Chloroform	ug/L (ppb)			**18.2**				ND / < 1.0			
2-Butanone	ug/L (ppb)	4200		ND / < 10.0				ND / < 10.0			
Tetrachloroethene	ug/L (ppb)	5.0		ND / < 1.0				ND / < 1.0			
TOTAL PETROLEUM HYDROCARBONS - DIESEL RANGE ORGANICS (EPA Method 8015B)											
TPH-DRO	mg/L (ppm)										

MW-3											
Sample Date	Units	VGES		12/23/2013		8/11/2014	11/18/2014	2/19/2015	7/28/2015	12/2/2015	7/1/2016
PETROLEUM VOLATILE ORGANIC COMPOUNDS (VOCs) (EPA Method 8260/8021B)											
MTBE	ug/L (ppb)	40		ND / < 2.0		ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 2.0
Benzene	ug/L (ppb)	5.0		ND / < 1.0		ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0
Toluene	ug/L (ppb)	1,000		ND / < 1.0		ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0
Ethylbenzene	ug/L (ppb)	700		ND / < 1.0		ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0
Xylenes	ug/L (ppb)	10,000		ND / < 2.0		ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 2.0
1,3,5-Trimethylbenzene	ug/L (ppb)	350		ND / < 1.0		ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0
1,2,4-Trimethylbenzene	ug/L (ppb)			ND / < 1.0		ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0	ND / < 1.0
Naphthalene	ug/L (ppb)	20		ND / < 2.0		ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 2.0	ND / < 2.0
TOTAL PETROLEM VOCS	*ug/L (ppb)*	--		*ND / < 11.0*		*ND / < 11.0*	*ND / < 11.0*	*ND / < 11.0*	*ND / < 11.0*	*ND / < 11.0*	*ND / < 11.0*
Unidentified Peaks	#	--		0		1	0	0	0	0	0
NON-PETROLEUM VOLATILE ORGANIC COMPOUNDS (VOCs) (EPA Method 8260)											
Acetone	ug/L (ppb)	700		ND / < 10.0				ND / < 10.0			
Bromodichloromethane	ug/L (ppb)	80		ND / < 0.5				ND / < 0.5			
Chloroform	ug/L (ppb)			ND / < 1.0				ND / < 1.0			
2-Butanone	ug/L (ppb)	4200		ND / < 10.0				ND / < 10.0			
Tetrachloroethene	ug/L (ppb)	5.0		ND / < 1.0				ND / < 1.0			
TOTAL PETROLEUM HYDROCARBONS - DIESEL RANGE ORGANICS (EPA Method 8015B)											
TPH-DRO	mg/L (ppm)										

NOTES:
1. ND = not detected above any of the estimated reporting limits.
2. VGES = Vermont Groundwater Enforcement Standards, February 2005.
3. Results reported above the method detection limit are indicated in bold.
5. Shaded results are above guideline.
6. NA = Compound not analyzed

TABLE 3.0
Sump Flow Data
Young Residence
28 N. William Street, Burlington, VT

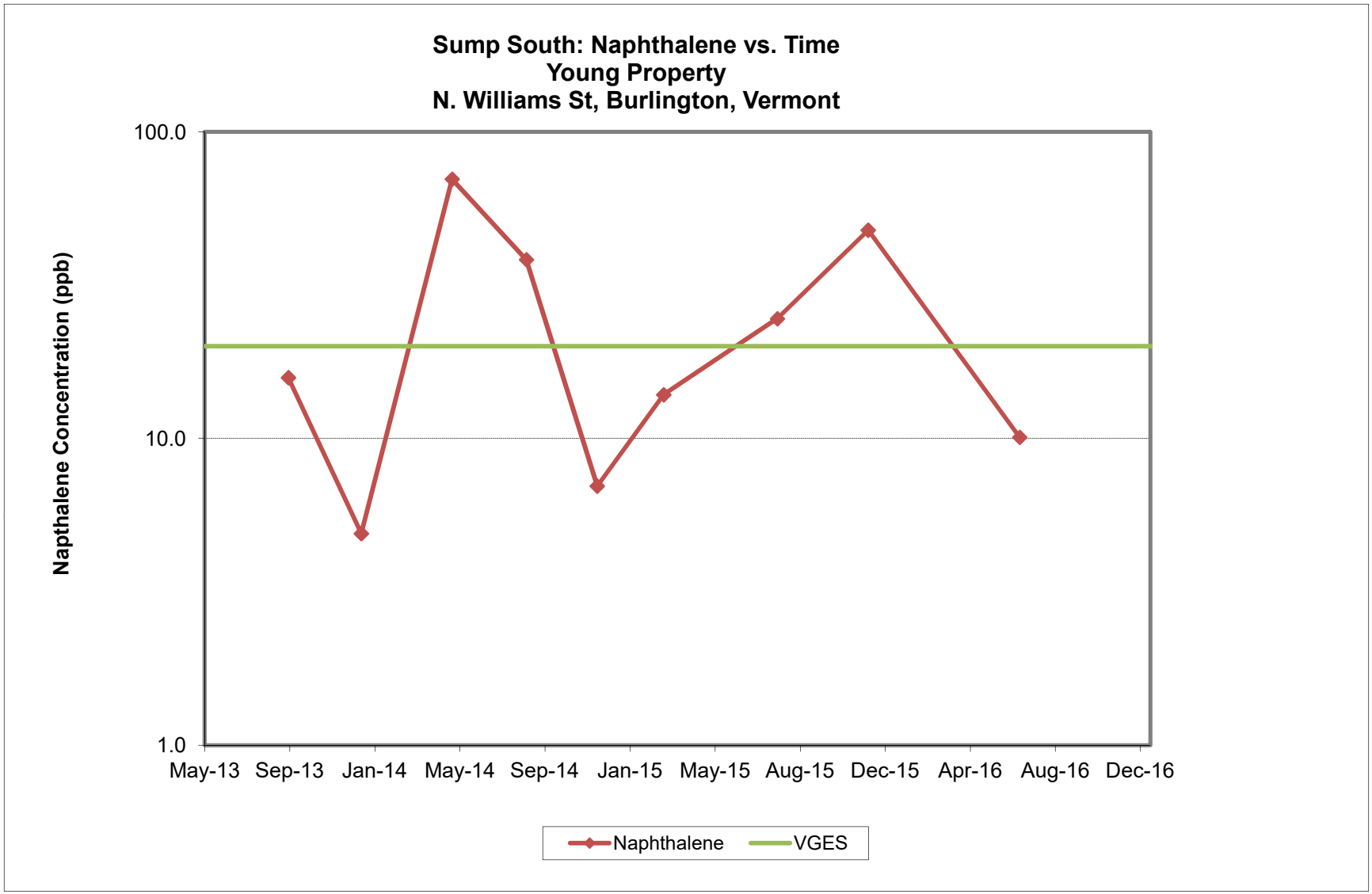
Gallons per kW-h (approximate):
Sump N: **1900**
Sump S: **1800**

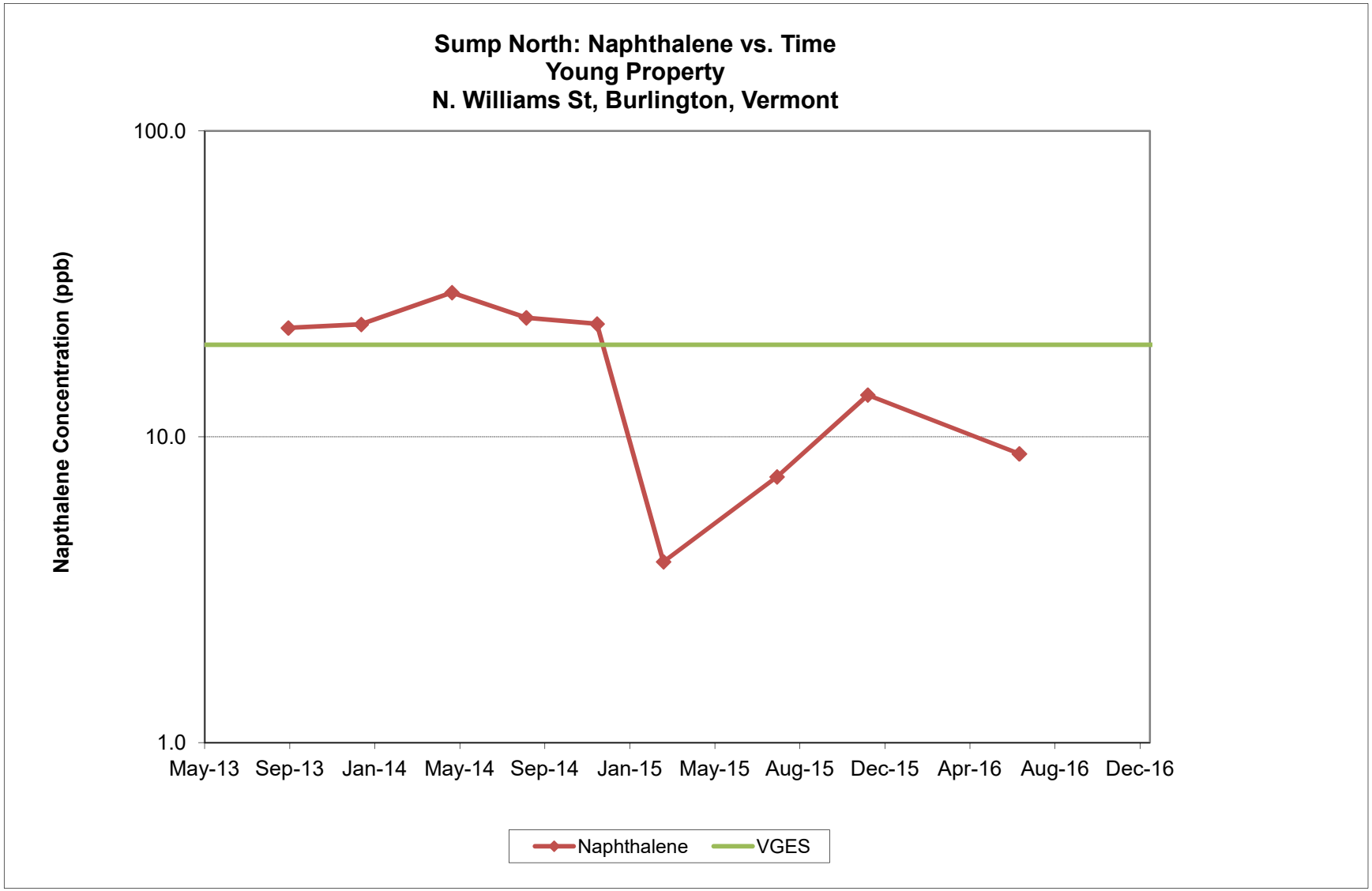
Location	Date	Time	Meter reading kW-h	Gallons Pumped Since Previous Reading	Gallons Pumped Cumulative	Hours elapsed		GPD		Sample Collected?
						Since Previous Reading	Since Meter Installation	Since Previous Reading	Since Meter Installation	
Meter installed	4/21/2014	12:00	0.00	0	0	0	0			no
Sump N	4/29/2014	10:00	0.52	988	988	190	190	124.80	124.80	yes
Sump N	5/8/2014	17:30	1.14	1,178	2,166	224	413	126.50	125.72	no
Sump N	8/11/2014	12:00	7.20	11,514	13,680	2,275	2,688	121.49	122.14	yes
Sump N	11/18/2014	9:30	13.53	12,027	25,707	2,374	5,062	121.61	121.89	yes
Sump N	2/19/2015	16:05	19.59	11,514	37,221	2,239	7,300	123.44	122.37	yes
Sump N	7/28/2015	11:12	30.04	19,855	57,076	3,811	11,111	125.03	123.28	yes
Sump N	12/2/2015	11:35	NA	NA	NA	NA	NA	NA	NA	yes
Sump N	7/1/2016	13:34	52.18	42,066	99,142	8,138	19,250	124.05	123.61	yes
Meter installed	4/21/2014	12:00	0.00	0	0	0	0			no
Sump S	4/29/2014	10:00	0.04	72	72	190	190	9.09	9.09	yes
Sump S	5/8/2014	17:30	0.09	90	162	224	413	9.66	9.40	no
Sump S	8/11/2014	12:00	0.33	432	594	2,275	2,688	4.56	5.30	yes
Sump S	11/18/2014	9:30	0.46	234	828	2,374	5,062	2.37	3.93	yes
Sump S	2/19/2015	16:10	0.67	378	1,206	2,239	7,300	4.05	3.96	yes
Sump S	7/28/2015	10:59	1.47	1,440	2,646	3,811	11,111	9.07	5.72	yes
Sump S	12/2/2015	11:40	NA	NA	NA	NA	NA	NA	NA	yes
Sump S	7/1/2016	13:36	2.24	1,386	4,032	8,139	19,250	4.09	5.03	yes
				TOTAL	103,174				128.64	

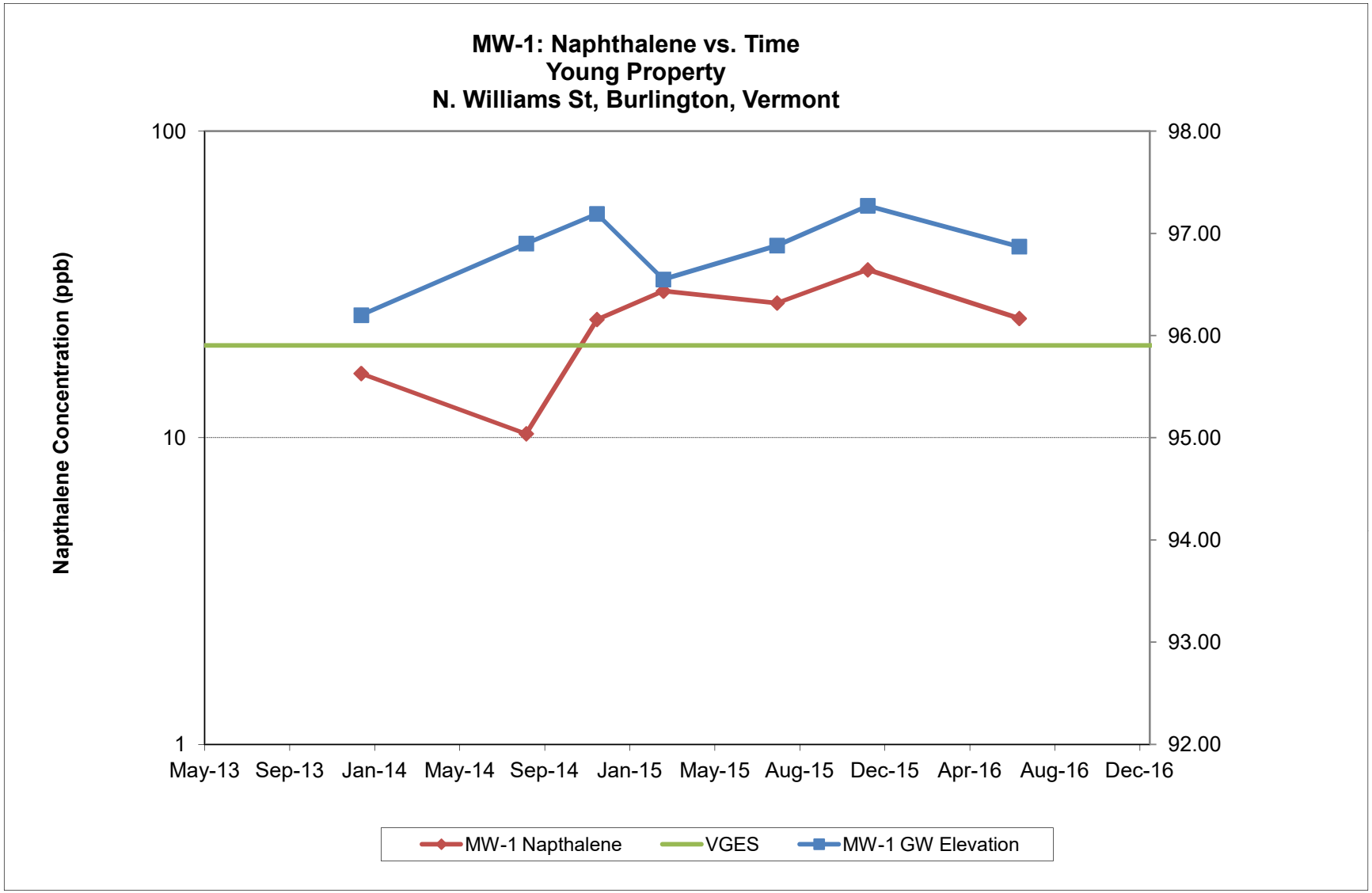
TABLE 4.0
Quality Assurance / Quality Control Data
Young Residence
28 N. Williams Street, Burlington, Vermont

Sample Location		Trip Blank	MW-1	Duplicate	RPD
Sample Date		7/1/2016	7/1/2016	7/1/2016	
Benzene	ug/L (ppb)	ND / 1.0	**4.6**	**4.4**	4.4
Toluene	ug/L (ppb)	ND / 1.0	ND / 1.0	ND / 1.0	NA
Ethylbenzene	ug/L (ppb)	ND / 1.0	**22.3**	**21.8**	2.3
Xylenes	ug/L (ppb)	ND / 2.0	**65.8**	**64.8**	1.5
1,3,5-Trimethylbenzene	ug/L (ppb)	ND / 1.0	**11.6**	**11.4**	1.7
1,2,4-Trimethylbenzene	ug/L (ppb)	ND / 1.0	**34.7**	**34.1**	1.7
Naphthalene	ug/L (ppb)	ND / 2.0	**24.5**	**23.9**	2.5
MTBE	ug/L (ppb)	ND / 2.0	ND / 2.0	ND / 2.0	NA

Notes:
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 good correlation between sample and duplicate. RPD values cannot be calculated ("na") for undetected compounds.


Sump South: Naphthalene vs. Time
Young Property
N. Williams St, Burlington, Vermont
Napthalene Concentration (ppb)
100.0
10.0
1.0
May-13
Sep-13
Jan-14
May-14
Sep-14
Jan-15
May-15
Aug-15
Dec-15
Apr-16
Aug-16
Dec-16
Naphthalene
VGES


Sump North: Naphthalene vs. Time
Young Property
N. Williams St, Burlington, Vermont
Napthalene Concentration (ppb)
100.0
10.0
1.0
May-13
Sep-13
Jan-14
May-14
Sep-14
Jan-15
May-15
Aug-15
Dec-15
Apr-16
Aug-16
Dec-16
Naphthalene
VGES


MW-1: Naphthalene vs. Time
Young Property
N. Williams St, Burlington, Vermont
Napthalene Concentration (ppb)
100
10
1
98.00
97.00
96.00
95.00
94.00
93.00
92.00
May-13
Sep-13
Jan-14
May-14
Sep-14
Jan-15
May-15
Aug-15
Dec-15
Apr-16
Aug-16
Dec-16
MW-1 Napthalene
VGES
MW-1 GW Elevation

APPENDIX 3

LABORATORY REPORTS

ENDYNE Inc.
Environmental Laboratories

Laboratory Report

WaiteHeindel Environmental Mgt	100675
7 Kilburn Street	
Suite 301	
Burlington, VT 05406	
Atten: Miles Waite	

PROJECT: Young
WORK ORDER: **1607-13849**
DATE RECEIVED: July 01, 2016
DATE REPORTED: July 13, 2016
SAMPLER: Chris, Chandler

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

CLIENT: WaiteHeindel Environmental Mgt
PROJECT: Young
REPORT DATE: 7/13/2016

WORK ORDER: **1607-13849**
DATE RECEIVED: 07/01/2016

TEST METHOD: EPA 8021B

001 Site: Trip Blank Date Sampled: 7/1/16 Analysis Date: 7/7/16 W MHM

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)	106	%	N		Unidentified Peaks	0		N	

TEST METHOD: EPA 8021B

002 Site: MW-1 Date Sampled: 7/1/16 14:40 Analysis Date: 7/11/16 W MHM

Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Methyl-t-butyl ether (MTBE)	< 2.0	ug/L	N		Benzene	4.6	ug/L	N	
Toluene	< 1.0	ug/L	N		Ethylbenzene	22.3	ug/L	N	
Xylenes, Total	65.8	ug/L	N		1,3,5-Trimethylbenzene	11.6	ug/L	N	
1,2,4-Trimethylbenzene	34.7	ug/L	N		Naphthalene	24.5	ug/L	N	
Surr. 1 (Bromobenzene)	93	%	N		Unidentified Peaks	> 10		N	

TEST METHOD: EPA 8021B

003 Site: MW-2 Date Sampled: 7/1/16 13:37 Analysis Date: 7/7/16 W MHM

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)	104	%	N		Unidentified Peaks	0		N	

TEST METHOD: EPA 8021B

004 Site: MW-3 Date Sampled: 7/1/16 13:06 Analysis Date: 7/11/16 W MHM

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)	98	%	N		Unidentified Peaks	0		N	

TEST METHOD: EPA 8021B

005 Site: Duplicate Date Sampled: 7/1/16 Analysis Date: 7/11/16 W MHM

Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Methyl-t-butyl ether (MTBE)	< 2.0	ug/L	N		Benzene	4.4	ug/L	N	
Toluene	< 1.0	ug/L	N		Ethylbenzene	21.8	ug/L	N	
Xylenes, Total	64.8	ug/L	N		1,3,5-Trimethylbenzene	11.4	ug/L	N	
1,2,4-Trimethylbenzene	34.1	ug/L	N		Naphthalene	23.9	ug/L	N	
Surr. 1 (Bromobenzene)	94	%	N		Unidentified Peaks	> 10		N	

CLIENT: WaiteHeindel Environmental Mgt
PROJECT: Young
REPORT DATE: 7/13/2016

WORK ORDER: **1607-13849**
DATE RECEIVED: 07/01/2016

TEST METHOD: EPA 8021B

006 Site: Sump North Date Sampled: 7/1/16 13:34 Analysis Date: 7/7/16 W MHM

Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Methyl-t-butyl ether (MTBE)	< 2.0	ug/L	N		Benzene	1.4	ug/L	N	
Toluene	< 1.0	ug/L	N		Ethylbenzene	3.0	ug/L	N	
Xylenes, Total	7.8	ug/L	N		1,3,5-Trimethylbenzene	3.0	ug/L	N	
1,2,4-Trimethylbenzene	8.3	ug/L	N		Naphthalene	8.8	ug/L	N	
Surr. 1 (Bromobenzene)	104	%	N		Unidentified Peaks	> 10		N	

TEST METHOD: EPA 8021B

007 Site: Sump South Date Sampled: 7/1/16 13:36 Analysis Date: 7/11/16 W MHM

Parameter	Result	Unit	Nelac	Qual	Parameter	Result	Unit	Nelac	Qual
Methyl-t-butyl ether (MTBE)	< 2.0	ug/L	N		Benzene	1.2	ug/L	N	
Toluene	< 1.0	ug/L	N		Ethylbenzene	8.5	ug/L	N	
Xylenes, Total	12.8	ug/L	N		1,3,5-Trimethylbenzene	3.3	ug/L	N	
1,2,4-Trimethylbenzene	5.7	ug/L	N		Naphthalene	10.1	ug/L	N	
Surr. 1 (Bromobenzene)	105	%	N		Unidentified Peaks	> 10		N	

ENDYNE, INC.
160 James Brown Drive
Williston, Vermont 05495
(802) 879-4333

CHAIN-OF-CUSTODY-RECORD

Special Reporting Instructions/PO#: _____

76075

Project Name: Young	Client/Contact Name: WHEM	Sampler Name: Chandler, Chris
State of Origin: VT ~~NY~~ NY __ NH __ Other __	Phone #: WHEM	Phone #: 862-9400
Endyne WO #	Mailing Address:	Billing Address: WHEM

Sample Location	Matrix	GRAB	COMP	Date/Time Sampled	Sample Containers No.	Sample Containers Type/Size	Sample Preservation	Analysis Required	FieldResults/Remarks	Due Date
Trip Blank	H_2O	✓		7-1-16	2	40 mL VOA	Ice, HCl	8021		
MW-1				1440	2					
MW-2				1337 ~~1447~~	1				only 1 VOA	
MW-3				1306	2					
Duplicate				—	2					
Sump North				1334	2					
Sump South	↓	↓		↓ 1336	2	↓	↓			

1607-13849

WaiteHeindel Environmental Mgt
Young

Relinquished by:	Date/Time	Received by:	Date/Time	Received by:	Date/Time
	7-1-16 @ 1545				7/1/16 1545

1	pH	6	TKN	11	Total Solids	16	Sulfate	21	1664 TPH/FOG	26	8270 PAH Only
2	Chloride	7	Total P	12	TSS	17	Coliform (Specify)	22	8015 GRO	27	8081 Pest
3	Ammonia N	8	Total Diss. P	13	TDS	18	COD	23	8015 DRO	28	8082 PCB
4	Nitrite N	9	BOD	14	Turbidity	19	VT PCF	24	8260B	29	PP13 Metals
5	Nitrate N	10	Alkalinity	15	Conductivity	20	VOC Halocarbons	25	8270 B/N or Acid	30	Total RCRA8
31	Metals (Total, Diss.) Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Mg, Mn, Mo, Na, Ni, Pb, Sb, Se, Sn, Tl, U, V, Zn										
32	TCLP (volatiles, semi-volatiles, metals, pesticides, herbicides)					33	Other				
34	Corrosivity	35	Ignitability	36	Reactivity	37	Other				
38	Other										

LAB USE ONLY
Delivery: Client
Temp: 4.5
Comment:

(White - Laboratory / Yellow - Client)

Page ____ of ____

APPENDIX 4

DISCHARGE REPORT

Waite - Heindel
Environmental Management

September 2, 2016

Data Clerk
Watershed Management Division
One National Life Drive
Montpelier, VT 05620-3522

Re: Monitoring Report Form for NOI #3-4220 – August 2016
Young Residence, 22 N Williams Street, Burlington, VT (SMS Site #2013-4436)

Dear Data Clerk:

Enclosed please find the August 2016 monitoring report for the Young Residence (NOI #3-4220) located in Burlington, VT.

August 2016 was the first month of metered discharge, with the fully constructed sump treatment system in place. The treatment system was completed at the end of July, and discharge began on August 2, 2016. A total of 80.27 gallons was discharged as of August 16, which is below the anticipated flow rate for the system; August was a very dry month, however, so we anticipate that the flow rate will increase going forward. At no point has the treatment system malfunctioned, allowing the discharge of contaminated water above discharge limits.

Please do not hesitate to contact me at 802-860-9400 x104 or cpage@waiteenv.com with any questions you may have.

Sincerely,

Chris Page
Christopher Page
Project Scientist

Enclosures
cc: Bill Young
Steve Roy - City of Burlington
Hugo Martinez-Cazón-Waste Management and Prevention Division (via email)

\\SERVER\DATA\PROJECTS - WHEM\YOUNG WILLIAMS STREET\DISCHARGE PERMIT\MONTHLY REPORTS\YOUNG DISCHARGE MONITORING AUGUST 2016.DOCX

ATTACHMENT

MONITORING REPORT FOR DISCHARGES FROM PETROLEUM RELATED REMEDIATION ACTIVITIES AUTHORIZED BY GENERAL PERMIT 3-9004 and 3-9016

PERMITTEE: Bill Young
ADDRESS: 28 N. Williams Street
Burlington VT 05401
PHONE: 802-862-8018

NOI# 3-4220.1605
Discharge Point Burlington POTW_LaValley Ln
Monitoring Period 8/2016
Month/Year

NOIs authorized by both General Permits must monitor the influent at least once per month.

PARAMETERS	FLOW	BENZENE	TOTAL BTEX	MTBE	TPH *
UNITS OF MEASURE:	GALLONS	ppb	ppb	ppb	ppb
FREQUENCY OF MEASURE:	1x per month	2x per month	2x per month	2x per month	2x per month
SAMPLE TYPE:	MEASURED TOTAL	GRAB	GRAB	GRAB	GRAB
LIMIT:	Not to exceed pump capacity	5 ppb	50 ppb	monitor only	1000 ppb
SAMPLE DATE:	INFLUENT SAMPLE RESULTS				
8/16/16		1.2	<17.2	ND/<2.0	3,400
SAMPLE DATE:	INDIVIDUAL EFFLUENT SAMPLE RESULTS				
8/2/16	0	ND/<0.5	ND/<6.5	ND/<2.0	ND/<400
8/16/16	80.27	ND/<0.5	ND/<6.5	ND/<2.0	ND/<400
FLOW TOTAL:	80.27				
AVERAGE:	Averaged 40.1	ND/<0.5	ND/<6.5	ND/<2.0	ND/<400

- General Permit 3-9004 **and** General Permit 3-9016 = Effluent discharges lasting less than two weeks in duration shall be sampled a minimum of two times for those parameters listed above. Influent shall be sampled a minimum of one time.
- If sample results indicate that the effluent does not meet limits, take an additional effluent sample within 3 business days of receiving the results.
- Flow shall be measured as the total gallons discharged since the last meter reading. Flows may be measured or estimated by use of integrating timers on pumps, or by use of a weir or flume and a continuous recording flow meter.
- *** TPH monitoring is required if the source is diesel, heating oil, kerosene, and or jet fuel.**

COMMENT AND EXPLANATION OF ANY VIOLATIONS: *(Reference all attachments here)*

Prepared by: _____ PRINT: Chris Page, WHEM Phone: 802 860 9400 x104

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein. Based on my inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Approved by: _____
(Authorized Agent)

Mail report form to:

Data Clerk
Watershed Management Division
One National Life Drive
Montpelier VT 05620-3522

Do not attach lab sheets. Retain them as required in Part III.H.