PHASE I ENVIRONMENTAL SITE ASSESSMENT

PARKER'S SERVICE STATION 1 SOUTH STREET MIDDLETOWN SPRINGS, VERMONT

RFA 11033 SMS Site #91-1170

Prepared for:

Rutland Regional Planning Commission P.O. Box 965 Rutland, VT 05702 Contact: Ed Bove

September 17, 2012

Prepared by:

LEGGETTE, BRASHEARS & GRAHAM, INC.
Professional Groundwater &
Environmental Consulting Services
76 Pearl Street, Suite 203
Essex Junction, VT 05452
(802) 288-9600

TABLE OF CONTENTS

2 Detailed Scope of Services	1.1 Purpose41.2 Detailed Scope of Services41.3 Significant Assumptions51.4 Limitations and Conditions61.5 Special Terms and Conditions71.6 User Reliance72.0 SITE DESCRIPTION72.1 Location and Legal Description72.2 Site and Vicinity General Characteristics72.3 Current Use of the Property82.4 Descriptions of Site Structures and Utilities82.5 Current Uses of Adjacent Properties83.0 USER PROVIDED INFORMATION93.1 Owner, Property Manager, and Occupant Information93.2 Reasons for Performing Phase I9	EXECUTIVE SUMMARY	l
2 Detailed Scope of Services	1.2 Detailed Scope of Services	1.0 INTRODUCTION	4
3 Significant Assumptions 5 4 Limitations and Conditions 6 5 Special Terms and Conditions 7 6 User Reliance 7 SITE DESCRIPTION 7 1 Location and Legal Description 7 2 Site and Vicinity General Characteristics 7 3 Current Use of the Property 8 4 Descriptions of Site Structures and Utilities 8 5 Current Uses of Adjacent Properties 8 USER PROVIDED INFORMATION 9 1 Owner, Property Manager, and Occupant Information 9 2 Reasons for Performing Phase I 9 RECORDS REVIEW 9	1.3 Significant Assumptions 5 1.4 Limitations and Conditions 6 1.5 Special Terms and Conditions 7 1.6 User Reliance 7 2.0 SITE DESCRIPTION 7 2.1 Location and Legal Description 7 2.2 Site and Vicinity General Characteristics 7 2.3 Current Use of the Property 8 2.4 Descriptions of Site Structures and Utilities 8 2.5 Current Uses of Adjacent Properties 8 3.0 USER PROVIDED INFORMATION 9 3.1 Owner, Property Manager, and Occupant Information 9 3.2 Reasons for Performing Phase I 9	1.1 Purpose	4
4 Limitations and Conditions 6 5 Special Terms and Conditions 7 6 User Reliance 7 SITE DESCRIPTION 7 1 Location and Legal Description 7 2 Site and Vicinity General Characteristics 7 3 Current Use of the Property 8 4 Descriptions of Site Structures and Utilities 8 5 Current Uses of Adjacent Properties 8 USER PROVIDED INFORMATION 9 1 Owner, Property Manager, and Occupant Information 9 2 Reasons for Performing Phase I 9 RECORDS REVIEW 9	1.4 Limitations and Conditions 6 1.5 Special Terms and Conditions 7 1.6 User Reliance 7 2.0 SITE DESCRIPTION 7 2.1 Location and Legal Description 7 2.2 Site and Vicinity General Characteristics 7 2.3 Current Use of the Property 8 2.4 Descriptions of Site Structures and Utilities 8 2.5 Current Uses of Adjacent Properties 8 3.0 USER PROVIDED INFORMATION 9 3.1 Owner, Property Manager, and Occupant Information 9 3.2 Reasons for Performing Phase I 9	1.2 Detailed Scope of Services	4
5 Special Terms and Conditions 7 6 User Reliance 7 SITE DESCRIPTION 7 1 Location and Legal Description 7 2 Site and Vicinity General Characteristics 7 3 Current Use of the Property 8 4 Descriptions of Site Structures and Utilities 8 5 Current Uses of Adjacent Properties 8 USER PROVIDED INFORMATION 9 1 Owner, Property Manager, and Occupant Information 9 2 Reasons for Performing Phase I 9 RECORDS REVIEW 9	1.5 Special Terms and Conditions71.6 User Reliance72.0 SITE DESCRIPTION72.1 Location and Legal Description72.2 Site and Vicinity General Characteristics72.3 Current Use of the Property82.4 Descriptions of Site Structures and Utilities82.5 Current Uses of Adjacent Properties83.0 USER PROVIDED INFORMATION93.1 Owner, Property Manager, and Occupant Information93.2 Reasons for Performing Phase I9	1.3 Significant Assumptions	5
.6 User Reliance7SITE DESCRIPTION7.1 Location and Legal Description7.2 Site and Vicinity General Characteristics7.3 Current Use of the Property8.4 Descriptions of Site Structures and Utilities8.5 Current Uses of Adjacent Properties8USER PROVIDED INFORMATION9.1 Owner, Property Manager, and Occupant Information9.2 Reasons for Performing Phase I9RECORDS REVIEW9	1.6 User Reliance72.0 SITE DESCRIPTION72.1 Location and Legal Description72.2 Site and Vicinity General Characteristics72.3 Current Use of the Property82.4 Descriptions of Site Structures and Utilities82.5 Current Uses of Adjacent Properties83.0 USER PROVIDED INFORMATION93.1 Owner, Property Manager, and Occupant Information93.2 Reasons for Performing Phase I9	1.4 Limitations and Conditions	6
SITE DESCRIPTION	2.0SITE DESCRIPTION72.1 Location and Legal Description72.2 Site and Vicinity General Characteristics72.3 Current Use of the Property82.4 Descriptions of Site Structures and Utilities82.5 Current Uses of Adjacent Properties83.0USER PROVIDED INFORMATION93.1 Owner, Property Manager, and Occupant Information93.2 Reasons for Performing Phase I9	1.5 Special Terms and Conditions	7
1 Location and Legal Description	2.1 Location and Legal Description72.2 Site and Vicinity General Characteristics72.3 Current Use of the Property82.4 Descriptions of Site Structures and Utilities82.5 Current Uses of Adjacent Properties83.0 USER PROVIDED INFORMATION93.1 Owner, Property Manager, and Occupant Information93.2 Reasons for Performing Phase I9	1.6 User Reliance	7
2 Site and Vicinity General Characteristics	2.2 Site and Vicinity General Characteristics72.3 Current Use of the Property82.4 Descriptions of Site Structures and Utilities82.5 Current Uses of Adjacent Properties83.0 USER PROVIDED INFORMATION93.1 Owner, Property Manager, and Occupant Information93.2 Reasons for Performing Phase I9	2.0 SITE DESCRIPTION	7
3 Current Use of the Property	2.3 Current Use of the Property 8 2.4 Descriptions of Site Structures and Utilities 8 2.5 Current Uses of Adjacent Properties 8 3.0 USER PROVIDED INFORMATION 9 3.1 Owner, Property Manager, and Occupant Information 9 3.2 Reasons for Performing Phase I 9	2.1 Location and Legal Description	7
4 Descriptions of Site Structures and Utilities 8 5 Current Uses of Adjacent Properties 8 USER PROVIDED INFORMATION 9 1 Owner, Property Manager, and Occupant Information 9 2 Reasons for Performing Phase I 9 RECORDS REVIEW 9	2.4 Descriptions of Site Structures and Utilities 8 2.5 Current Uses of Adjacent Properties 8 3.0 USER PROVIDED INFORMATION 9 3.1 Owner, Property Manager, and Occupant Information 9 3.2 Reasons for Performing Phase I 9	2.2 Site and Vicinity General Characteristics	7
5 Current Uses of Adjacent Properties 8 USER PROVIDED INFORMATION 9 1 Owner, Property Manager, and Occupant Information 9 2 Reasons for Performing Phase I 9 RECORDS REVIEW 9	2.5 Current Uses of Adjacent Properties 8 3.0 USER PROVIDED INFORMATION 9 3.1 Owner, Property Manager, and Occupant Information 9 3.2 Reasons for Performing Phase I 9	2.3 Current Use of the Property	8
5 Current Uses of Adjacent Properties 8 USER PROVIDED INFORMATION 9 1 Owner, Property Manager, and Occupant Information 9 2 Reasons for Performing Phase I 9 RECORDS REVIEW 9	2.5 Current Uses of Adjacent Properties 8 3.0 USER PROVIDED INFORMATION 9 3.1 Owner, Property Manager, and Occupant Information 9 3.2 Reasons for Performing Phase I 9	2.4 Descriptions of Site Structures and Utilities	8
.1 Owner, Property Manager, and Occupant Information 9 .2 Reasons for Performing Phase I 9 RECORDS REVIEW 9	3.1 Owner, Property Manager, and Occupant Information 9 3.2 Reasons for Performing Phase I 9		
.2 Reasons for Performing Phase I	3.2 Reasons for Performing Phase I	3.0 USER PROVIDED INFORMATION	9
.2 Reasons for Performing Phase I	3.2 Reasons for Performing Phase I	3.1 Owner, Property Manager, and Occupant Information	9
RECORDS REVIEW9			
1 Standard Environmental Record Sources 9	4.0 RECORDS REVIEW		
	4.1 Standard Environmental Record Sources 9	4.1 Standard Environmental Record Sources	9
.2 Additional Environmental Record Sources		4.2 Additional Environmental Record Sources	11
.3 Physical Setting Source(s)	4.2 Additional Environmental Record Sources	4.3 Physical Setting Source(s)	14
	4.3 Physical Setting Source(s)		
	4.3 Physical Setting Source(s)		
	4.3 Physical Setting Source(s)144.4 Historical Use Information on the Property144.5 Historical Use Information on Adjacent Properties16		
1 Methodology and Limiting Conditions	4.3 Physical Setting Source(s)		
	4.3 Physical Setting Source(s)144.4 Historical Use Information on the Property144.5 Historical Use Information on Adjacent Properties165.0 SITE RECONNAISSANCE175.1 Methodology and Limiting Conditions17		
.2 General Site Setting	4.3 Physical Setting Source(s)		
.2 General Site Setting	4.3 Physical Setting Source(s)		
.2 General Site Setting	4.3 Physical Setting Source(s)144.4 Historical Use Information on the Property144.5 Historical Use Information on Adjacent Properties165.0 SITE RECONNAISSANCE175.1 Methodology and Limiting Conditions175.2 General Site Setting185.3 Surface Conditions - Stains - Corrosion - Stressed Vegetation185.4 Pools of Liquid - Pits, Ponds and Lagoons19		
2 General Site Setting	4.3 Physical Setting Source(s)		
2 General Site Setting	4.3 Physical Setting Source(s)		
.2 General Site Setting	4.3 Physical Setting Source(s)		
2 General Site Setting	4.3 Physical Setting Source(s)		
2 General Site Setting	4.3 Physical Setting Source(s) 14 4.4 Historical Use Information on the Property 14 4.5 Historical Use Information on Adjacent Properties 16 5.0 SITE RECONNAISSANCE 17 5.1 Methodology and Limiting Conditions 17 5.2 General Site Setting 18 5.3 Surface Conditions - Stains - Corrosion - Stressed Vegetation 18 5.4 Pools of Liquid - Pits, Ponds and Lagoons 19 5.5 Oil and Hazardous Substances 19 5.6 Storage Tanks 19 5.7 Polychlorinated Biphenyls 21 5.8 Sanitary Waste Disposal 21 5.9 Rail Lines 21		
2 General Site Setting	4.3 Physical Setting Source(s)		
2 General Site Setting	4.3 Physical Setting Source(s) 14 4.4 Historical Use Information on the Property 14 4.5 Historical Use Information on Adjacent Properties 16 5.0 SITE RECONNAISSANCE 17 5.1 Methodology and Limiting Conditions 17 5.2 General Site Setting 18 5.3 Surface Conditions - Stains - Corrosion - Stressed Vegetation 18 5.4 Pools of Liquid - Pits, Ponds and Lagoons 19 5.5 Oil and Hazardous Substances 19 5.6 Storage Tanks 19 5.7 Polychlorinated Biphenyls 21 5.8 Sanitary Waste Disposal 21 5.9 Rail Lines 21 5.10 Solid Waste Disposal 21 5.11 Wetlands - Pools of Liquid 22		
2 General Site Setting	4.3 Physical Setting Source(s) 14 4.4 Historical Use Information on the Property 14 4.5 Historical Use Information on Adjacent Properties 16 5.0 SITE RECONNAISSANCE 17 5.1 Methodology and Limiting Conditions 17 5.2 General Site Setting 18 5.3 Surface Conditions - Stains - Corrosion - Stressed Vegetation 18 5.4 Pools of Liquid - Pits, Ponds and Lagoons 19 5.5 Oil and Hazardous Substances 19 5.6 Storage Tanks 19 5.7 Polychlorinated Biphenyls 21 5.8 Sanitary Waste Disposal 21 5.9 Rail Lines 21 5.10 Solid Waste Disposal 21 5.11 Wetlands - Pools of Liquid 22 5.12 High Voltage Power Transmission 22		
2 General Site Setting	4.3 Physical Setting Source(s) 14 4.4 Historical Use Information on the Property 14 4.5 Historical Use Information on Adjacent Properties 16 5.0 SITE RECONNAISSANCE 17 5.1 Methodology and Limiting Conditions 17 5.2 General Site Setting 18 5.3 Surface Conditions - Stains - Corrosion - Stressed Vegetation 18 5.4 Pools of Liquid - Pits, Ponds and Lagoons 19 5.5 Oil and Hazardous Substances 19 5.6 Storage Tanks 19 5.7 Polychlorinated Biphenyls 21 5.8 Sanitary Waste Disposal 21 5.9 Rail Lines 21 5.10 Solid Waste Disposal 21 5.11 Wetlands - Pools of Liquid 22 5.12 High Voltage Power Transmission 22 5.13 Lead Based Paint 22		
2 General Site Setting	4.3 Physical Setting Source(s) 14 4.4 Historical Use Information on the Property 14 4.5 Historical Use Information on Adjacent Properties 16 5.0 SITE RECONNAISSANCE 17 5.1 Methodology and Limiting Conditions 17 5.2 General Site Setting 18 5.3 Surface Conditions - Stains - Corrosion - Stressed Vegetation 18 5.4 Pools of Liquid - Pits, Ponds and Lagoons 19 5.5 Oil and Hazardous Substances 19 5.6 Storage Tanks 19 5.7 Polychlorinated Biphenyls 21 5.8 Sanitary Waste Disposal 21 5.9 Rail Lines 21 5.10 Solid Waste Disposal 21 5.11 Wetlands - Pools of Liquid 22 5.12 High Voltage Power Transmission 22 5.13 Lead Based Paint 22 5.14 Asbestos Containing Materials 22	· · · · · · · · · · · · · · · · · · ·	
2 General Site Setting	4.3 Physical Setting Source(s) 14 4.4 Historical Use Information on the Property 14 4.5 Historical Use Information on Adjacent Properties 16 5.0 SITE RECONNAISSANCE 17 5.1 Methodology and Limiting Conditions 17 5.2 General Site Setting 18 5.3 Surface Conditions - Stains - Corrosion - Stressed Vegetation 18 5.4 Pools of Liquid - Pits, Ponds and Lagoons 19 5.5 Oil and Hazardous Substances 19 5.6 Storage Tanks 19 5.7 Polychlorinated Biphenyls 21 5.8 Sanitary Waste Disposal 21 5.9 Rail Lines 21 5.10 Solid Waste Disposal 21 5.11 Wetlands - Pools of Liquid 22 5.12 High Voltage Power Transmission 22 5.13 Lead Based Paint 22 5.14 Asbestos Containing Materials 22 5.15 Waste Water System 22		
2 General Site Setting	4.3 Physical Setting Source(s) 14 4.4 Historical Use Information on the Property 14 4.5 Historical Use Information on Adjacent Properties 16 5.0 SITE RECONNAISSANCE 17 5.1 Methodology and Limiting Conditions 17 5.2 General Site Setting 18 5.3 Surface Conditions - Stains - Corrosion - Stressed Vegetation 18 5.4 Pools of Liquid - Pits, Ponds and Lagoons 19 5.5 Oil and Hazardous Substances 19 5.6 Storage Tanks 19 5.7 Polychlorinated Biphenyls 21 5.8 Sanitary Waste Disposal 21 5.9 Rail Lines 21 5.10 Solid Waste Disposal 21 5.11 Wetlands - Pools of Liquid 22 5.12 High Voltage Power Transmission 22 5.13 Lead Based Paint 22 5.14 Asbestos Containing Materials 22 5.15 Waste Water System 22 6.0 INTERVIEWS 23		
2 General Site Setting	4.3 Physical Setting Source(s) 14 4.4 Historical Use Information on the Property 14 4.5 Historical Use Information on Adjacent Properties 16 5.0 SITE RECONNAISSANCE 17 5.1 Methodology and Limiting Conditions 17 5.2 General Site Setting 18 5.3 Surface Conditions - Stains - Corrosion - Stressed Vegetation 18 5.4 Pools of Liquid - Pits, Ponds and Lagoons 19 5.5 Oil and Hazardous Substances 19 5.6 Storage Tanks 19 5.7 Polychlorinated Biphenyls 21 5.8 Sanitary Waste Disposal 21 5.9 Rail Lines 21 5.10 Solid Waste Disposal 21 5.11 Wetlands - Pools of Liquid 22 5.12 High Voltage Power Transmission 22 5.13 Lead Based Paint 22 5.14 Asbestos Containing Materials 22 5.15 Waste Water System 22 6.0 INTERVIEWS 23 6.1 Interview with Owner/Occupant 23		
2 General Site Setting	4.3 Physical Setting Source(s) 14 4.4 Historical Use Information on the Property 14 4.5 Historical Use Information on Adjacent Properties 16 5.0 SITE RECONNAISSANCE 17 5.1 Methodology and Limiting Conditions 17 5.2 General Site Setting 18 5.3 Surface Conditions - Stains - Corrosion - Stressed Vegetation 18 5.4 Pools of Liquid - Pits, Ponds and Lagoons 19 5.5 Oil and Hazardous Substances 19 5.6 Storage Tanks 19 5.7 Polychlorinated Biphenyls 21 5.8 Sanitary Waste Disposal 21 5.9 Rail Lines 21 5.10 Solid Waste Disposal 21 5.11 Wetlands - Pools of Liquid 22 5.12 High Voltage Power Transmission 22 5.13 Lead Based Paint 22 5.14 Asbestos Containing Materials 22 5.15 Waste Water System 22 6.0 INTERVIEWS 23	7.0 FINDINGS	
5 Historical Use Information on Adjacent Properties	4.3 Physical Setting Source(s)	4.5 Historical Use Information on Adjacent Properties 5.0 SITE RECONNAISSANCE 5.1 Methodology and Limiting Conditions 5.2 General Site Setting 5.3 Surface Conditions - Stains - Corrosion - Stressed Vegetation 5.4 Pools of Liquid - Pits, Ponds and Lagoons 5.5 Oil and Hazardous Substances 5.6 Storage Tanks 5.7 Polychlorinated Biphenyls 5.8 Sanitary Waste Disposal	
RECORDS REVIEW 9			
.2 Reasons for Performing Phase I	3.2 Reasons for Performing Phase I		
.1 Owner, Property Manager, and Occupant Information 9 .2 Reasons for Performing Phase I 9 RECORDS REVIEW 9	3.1 Owner, Property Manager, and Occupant Information 9 3.2 Reasons for Performing Phase I 9		
USER PROVIDED INFORMATION 9 1 Owner, Property Manager, and Occupant Information 9 2 Reasons for Performing Phase I 9 RECORDS REVIEW 9	3.0 USER PROVIDED INFORMATION 9 3.1 Owner, Property Manager, and Occupant Information 9 3.2 Reasons for Performing Phase I 9		
5 Current Uses of Adjacent Properties 8 USER PROVIDED INFORMATION 9 1 Owner, Property Manager, and Occupant Information 9 2 Reasons for Performing Phase I 9 RECORDS REVIEW 9	2.5 Current Uses of Adjacent Properties 8 3.0 USER PROVIDED INFORMATION 9 3.1 Owner, Property Manager, and Occupant Information 9 3.2 Reasons for Performing Phase I 9		
4 Descriptions of Site Structures and Utilities 8 5 Current Uses of Adjacent Properties 8 USER PROVIDED INFORMATION 9 1 Owner, Property Manager, and Occupant Information 9 2 Reasons for Performing Phase I 9 RECORDS REVIEW 9	2.4 Descriptions of Site Structures and Utilities 8 2.5 Current Uses of Adjacent Properties 8 3.0 USER PROVIDED INFORMATION 9 3.1 Owner, Property Manager, and Occupant Information 9 3.2 Reasons for Performing Phase I 9	· · · · · · · · · · · · · · · · · · ·	
3 Current Use of the Property	2.3 Current Use of the Property 8 2.4 Descriptions of Site Structures and Utilities 8 2.5 Current Uses of Adjacent Properties 8 3.0 USER PROVIDED INFORMATION 9 3.1 Owner, Property Manager, and Occupant Information 9 3.2 Reasons for Performing Phase I 9	2.1 Location and Legal Description	7
2 Site and Vicinity General Characteristics	2.2 Site and Vicinity General Characteristics72.3 Current Use of the Property82.4 Descriptions of Site Structures and Utilities82.5 Current Uses of Adjacent Properties83.0 USER PROVIDED INFORMATION93.1 Owner, Property Manager, and Occupant Information93.2 Reasons for Performing Phase I9		
1 Location and Legal Description	2.1 Location and Legal Description72.2 Site and Vicinity General Characteristics72.3 Current Use of the Property82.4 Descriptions of Site Structures and Utilities82.5 Current Uses of Adjacent Properties83.0 USER PROVIDED INFORMATION93.1 Owner, Property Manager, and Occupant Information93.2 Reasons for Performing Phase I9		
SITE DESCRIPTION	2.0SITE DESCRIPTION72.1 Location and Legal Description72.2 Site and Vicinity General Characteristics72.3 Current Use of the Property82.4 Descriptions of Site Structures and Utilities82.5 Current Uses of Adjacent Properties83.0USER PROVIDED INFORMATION93.1 Owner, Property Manager, and Occupant Information93.2 Reasons for Performing Phase I9		
5 Special Terms and Conditions 7 6 User Reliance 7 SITE DESCRIPTION 7 1 Location and Legal Description 7 2 Site and Vicinity General Characteristics 7 3 Current Use of the Property 8 4 Descriptions of Site Structures and Utilities 8 5 Current Uses of Adjacent Properties 8 USER PROVIDED INFORMATION 9 1 Owner, Property Manager, and Occupant Information 9 2 Reasons for Performing Phase I 9 RECORDS REVIEW 9	1.5 Special Terms and Conditions71.6 User Reliance72.0 SITE DESCRIPTION72.1 Location and Legal Description72.2 Site and Vicinity General Characteristics72.3 Current Use of the Property82.4 Descriptions of Site Structures and Utilities82.5 Current Uses of Adjacent Properties83.0 USER PROVIDED INFORMATION93.1 Owner, Property Manager, and Occupant Information93.2 Reasons for Performing Phase I9		
4 Limitations and Conditions 6 5 Special Terms and Conditions 7 6 User Reliance 7 SITE DESCRIPTION 7 1 Location and Legal Description 7 2 Site and Vicinity General Characteristics 7 3 Current Use of the Property 8 4 Descriptions of Site Structures and Utilities 8 5 Current Uses of Adjacent Properties 8 USER PROVIDED INFORMATION 9 1 Owner, Property Manager, and Occupant Information 9 2 Reasons for Performing Phase I 9 RECORDS REVIEW 9	1.4 Limitations and Conditions 6 1.5 Special Terms and Conditions 7 1.6 User Reliance 7 2.0 SITE DESCRIPTION 7 2.1 Location and Legal Description 7 2.2 Site and Vicinity General Characteristics 7 2.3 Current Use of the Property 8 2.4 Descriptions of Site Structures and Utilities 8 2.5 Current Uses of Adjacent Properties 8 3.0 USER PROVIDED INFORMATION 9 3.1 Owner, Property Manager, and Occupant Information 9 3.2 Reasons for Performing Phase I 9		
3 Significant Assumptions 5 4 Limitations and Conditions 6 5 Special Terms and Conditions 7 6 User Reliance 7 SITE DESCRIPTION 7 1 Location and Legal Description 7 2 Site and Vicinity General Characteristics 7 3 Current Use of the Property 8 4 Descriptions of Site Structures and Utilities 8 5 Current Uses of Adjacent Properties 8 USER PROVIDED INFORMATION 9 1 Owner, Property Manager, and Occupant Information 9 2 Reasons for Performing Phase I 9 RECORDS REVIEW 9	1.3 Significant Assumptions 5 1.4 Limitations and Conditions 6 1.5 Special Terms and Conditions 7 1.6 User Reliance 7 2.0 SITE DESCRIPTION 7 2.1 Location and Legal Description 7 2.2 Site and Vicinity General Characteristics 7 2.3 Current Use of the Property 8 2.4 Descriptions of Site Structures and Utilities 8 2.5 Current Uses of Adjacent Properties 8 3.0 USER PROVIDED INFORMATION 9 3.1 Owner, Property Manager, and Occupant Information 9 3.2 Reasons for Performing Phase I 9		
2 Detailed Scope of Services	1.2 Detailed Scope of Services		
1 Purpose	1.1 Purpose41.2 Detailed Scope of Services41.3 Significant Assumptions51.4 Limitations and Conditions61.5 Special Terms and Conditions71.6 User Reliance72.0 SITE DESCRIPTION72.1 Location and Legal Description72.2 Site and Vicinity General Characteristics72.3 Current Use of the Property82.4 Descriptions of Site Structures and Utilities82.5 Current Uses of Adjacent Properties83.0 USER PROVIDED INFORMATION93.1 Owner, Property Manager, and Occupant Information93.2 Reasons for Performing Phase I9		
INTRODUCTION	1.0 INTRODUCTION	EXECUTIVE SUMMARY	I

8.0	OPINION	26
9.0	CONCLUSIONS	
10.0	DEVIATIONS	29
11.0	ADDITIONAL SERVICES	
	1 Lead Based Paint	
	2 Asbestos Containing Materials	
	3 Recommendations	
12.0	REFERENCES	30
13.0		
14.0	QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS	

FIGURES

- 1 Site Location Map
- 2 Middletown Springs Tax Map
- 3 Site Plan

APPENDICES

- 1 FirstSearch Radius Search Report
- 2 Vermont State Lists
- 3 Historical Maps, Aerial Photos & Directories
- 4 The Town of Middletown Springs, Vermont, Annual Report of the Town Officers Fiscal Year Ending June 30, 1999, February 2, 2000.
- 5 Site Photographs
- 6 ASTM Questionnaire

EXECUTIVE SUMMARY

Leggette, Brashears and Graham, Inc. (LBG) has performed a Phase I Environmental Site Assessment (ESA) of the Parker's Service Station property at 1 South Street on the southeast corner of the intersection of Routes 133 and 140 in the downtown of Middletown Springs, Rutland County, Vermont, (the Site or Property). The parcel consists of 0.5 acres currently owned by Norman and Sylvia Parker. This Phase I ESA has been conducted on behalf of the Rutland Regional Planning Commission (RRPC), with the understanding that the Town of Middletown Springs is interested in purchasing the Property. LBG conducted this Phase I ESA in conformance with ASTM Practice E 1527-05 and the U.S. Environmental Protection Agency's (EPA's) final All Appropriate Inquiry rule, 40 CFR Part 312. Additionally, the RRPC requested LBG provide additional information as part of this Phase I ESA.

The Site is located in a mixed commercial and residential area Middletown Springs. Routes 133 and 140 (East Street) bound the Site to the north and Route 133 (South Street) borders the Site to the west. The geology of the area consists of Warwick-Quonset complex with 3-8% slopes, and groundwater flow is southeasterly, toward the North Brook and the Poultney River.

In the 1830's, a brick house was constructed on the Property, which was destroyed during the fire of 1920. Clyde Parker operated a service garage and filling station on the Property, reportedly from the early 1920's. Norman and Sylvia Parker inherited the Site in 1987 and continued operations until circa 2004. The Site has used several aboveground storage tanks (ASTs) and underground storage tanks (USTs) to store gasoline, diesel, kerosene, heating oil and used oil while in operation. The two (2) current 6,000-gallon gasoline double walled USTs on-Site passed annual tightness testing in 2006, are reported to contain less than 1-inch of gasoline and as such, the interstitial space of the tanks is no longer monitored by Norman Parker. In 2008, the service garage building on-Site was destroyed by fire.

The past uses of the Site as a service garage and filling station are considered to be a *recognized environmental condition*. The 2011 Phase II ESA and supplemental investigations assessed groundwater and soil quality in several areas of concern on Site. The results of these investigations indicated that the soil and groundwater quality in the majority of the areas investigated were acceptable. However, areas with documented contamination include sediment within the former floor drain system, soil in the former underground hydraulic cylinder area of the former lift, and groundwater in an area south of the current building near the former burn pile (as referenced previously by others). Caution should be taken during any future Site renovations.

Several containers used to store oil and used oil are stored on-Site, although the owner has removed several empty containers and recycled some of the used oil at a nearby garage. A 55-gallon drum used to store used antifreeze and 4 buckets of used oil filters were also observed on-Site. Although the majority of these containers are stored

within the Site storage building, they are not secure, as the Site building is vacant, not locked and reportedly has been previously broken into on occasion. Additionally, it does not appear that the containers within the building are routinely inspected. The reported unauthorized access to the building and lack of regular inspection of the petroleum and potentially hazardous materials within the Site storage building presents a concern, although may not directly represent a *recognized environmental condition*. LBG recommends that the containers on-Site of petroleum products, hazardous materials and potentially hazardous waste be disposed of following appropriate regulations. In the meantime, LBG recommends the storage containers be inspected regularly for evidence of releases and container integrity.

A parts cleaner was also observed within the Site storage building during the Site reconnaissance. Mr. Parker noted that he had previously used kerosene within the parts cleaner. Significant staining was observed around the parts cleaner indicating a release has occurred. This release is considered to be a *recognized environmental condition*. LBG recommends surficial cleanup (including the removal of any free liquids present) of the observed release at the parts cleaner within the Site building and cleanup waste be disposed of properly. It is possible that contaminants have migrated to the filled in basement below. Caution should be taken during any future renovations of the Site building.

The previously reported 1974 release of more than 5,000 gallons of gasoline at the Site, which resulted in the contamination of at least two (2) down-gradient shallow supply wells and the 1991 UST removal resulting in a subsurface investigation including the installation of groundwater monitor wells are considered to be a *historical recognized environmental conditions*. The results of the 2011 subsurface investigations showed no apparent gasoline-related impact to soils or groundwater on Site in the areas assessed. However, the down-gradient neighbor claims that the shallow dug well (Teer well no longer used as a potable water supply) is still showing signs of gasoline impacts from the Site. Although the reported analytical results of samples collected from the Teer shallow dug well from 1994 through 1996 showed no contaminates detected above the laboratory detection limits for the target compounds tested, these historical releases have to be considered *recognized environmental conditions* based on Mr. Teer's recent claim. LBG recommends assessing the water and sediment quality of the adjacent Teer shallow dug well to confirm or refute Mr. Teer's claims.

If future redevelopment is planned requiring excavation and building rubble and debris removal (keeping in mind that the former boiler remains on-Site buried beneath the existing storage building), LBG believes waste stream characterization sampling and testing is warranted in the area of the former service garage and existing Site building prior to moving any materials off-Site.

For future Site redevelopment, ACMs of the Site building must be removed prior to disturbance in accordance with Occupational Safety and Health Administration (OSHA), U.S. Environmental Protection Agency (USEPA), Vermont Department of Health (VTDOH), and Vermont Department of Environmental Conservation (VTDEC)

standards for asbestos abatement/disposal. Prior to demolition of the Site building, LBG recommends identifying the specific components that are coated with lead-based paint by conducting a lead-based paint inspection. Based on the lead-based paint inspection, building materials with high lead content could then be segregated as the lead hazardous waste from the remaining building materials, which could then be tested by TCLP (presumably with success). This process would allow for a more reasonable (cost effective) approach to appropriate disposal of the building materials. Demolition work should be conducted in conformance with the OSHA regulations, utilizing engineering controls and personal protective equipment.

LBG recommends that the 2 out-of-service gasoline USTs be properly closed and removed from the Site in accordance with the Vermont Underground Storage Tank Rules.

In addition, any solid waste present at the Site (tires, metal, etc.) should be managed appropriately and removed.

1.0 INTRODUCTION

Leggette, Brashears and Graham, Inc. (LBG) has performed a Phase I Environmental Site Assessment (ESA) of the Parker's Service Station property at 1 South Street in Middletown Springs, Rutland County, Vermont, (the Site or Property) on behalf of the Rutland Regional Planning Commission and the prospective purchaser, the Town of Middletown Springs. LBG conducted previous Phase I ESAs of this Site in March of 2007 and June of 2010. The Site location is depicted on *Figure 1*.

1.1 Purpose

The purpose of this Phase I ESA is to identify *recognized environmental conditions*, as defined by the American Society for Testing and Materials (ASTM) as "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property" (ASTM 2005), thus satisfying one of the requirements to qualify for *landowner liability protection*.

1.2 Detailed Scope of Services

This Phase I ESA was conducted in accordance with ASTM Standard E1527-05 (Environmental Site Assessments for Commercial Real Estate) and the U.S. Environmental Protection Agency's (EPA's) All Appropriate Inquiry (AAI) rule, 40 CFR Part 312. The assessment was accomplished by completing the following tasks:

- Visual observation of the Site and neighboring properties.
- Direct inquiry to local municipal agencies in reference to ownership, use, and environmental conditions of the Site.
- Indirect inquiry to state and federal agency records through electronic data search in reference to environmental conditions of the Site and nearby properties.
- Direct inquiry to the current owner or occupant in reference to past use and environmental conditions of the Site and neighboring properties.
- For abandoned properties, direct inquiry to current owner or occupant of adjacent or nearby properties in reference to past use and environmental conditions of the Site and neighboring properties.
- Review of previous environmental reports related to environmental conditions at the Site, if available.

The Rutland Regional Planning Commission requested LBG provide additional information as part of this Phase I ESA regarding the following items.

- Asbestos-Containing Materials
- Lead-Based Paint
- Recommendations

This assessment did not include sampling in connection with the following ASTM E1527-05 Non-Scope Considerations:

Asbestos-Containing Materials
Oil or Hazardous Materials
Radon
Lead-Based Paint
Lead in Drinking Water
Indoor Air Quality
Wetlands Delineations

The search for environmental cleanup liens has customarily been a user responsibility. LBG has contracted First Search Technologies to conduct a Federal, State and Tribal database search, which includes the Federal Brownfield Management System, Federal Engineering and Institutional Controls, and the Vermont Agency of Natural Resources Brownfield Site List. These databases are designed to identify sites that may have activity land use restrictions and may aid in identifying environmental cleanup liens. In addition, during LBG's review of the land records for the Site, LBG may come across information that may identify environmental cleanup liens, although LBG's land records review is not meant to be all inclusive. However, the user of this ESA should conduct a search for environmental cleanup liens as part of the AAI rule.

1.3 Significant Assumptions

There were some discrepancies pertaining to data collected during this Phase I ESA.

Mr. Norman Parker, one of the Site owners, and Mr. David Wright of the Middletown Springs Historical Society, both stated that the Site was purchased by Mr. Clyde Parker in the 1920's. However, two (2) warranty deeds reviewed at the Middletown Springs Clerk's Office, suggest that the Property was purchased by Mr. Clyde Parker in 1946. Mr. Clyde Parker was likely operating at the Site since the 1920's.

It is unclear if the 4,000-gallon tank removed from the Site in 1991 was used to store gasoline or diesel based on conflicting reports made by multiple parties.

No significant assumptions were made during this Phase I ESA.

1.4 Limitations and Conditions

Inherent limitations relative to this practice are contained in this report in accordance with ASTM Standard E1527-05. Information obtained from public agencies and the Site inspections were used to characterize environmental conditions at the Site. The accuracy of the conclusions derived from this information is based solely on the accuracy of the information reported except as specifically noted events occurring on the Site after September 10, 2012 which are beyond the scope of this report. If information becomes available concerning the Site, which is not included in this report, it should be made available to LBG so that conclusions and/or recommendations can be re-examined and modified where applicable.

The following data gaps were identified during the review of readily available historical records for the Site and vicinity.

- 1. $50\pm$ year span between 1830's-1887
- 2. 7 year span between 1887-1894
- 3. 17 year span between 1903-1920
- 4. 10± year span between 1920's-1936
- 5. 6 year span between 1936-1942
- 6. 9 year span between 1946-1955
- 7. 9 year span between 1956-1965
- 8. 7 year span between 1967-1974
- 9. 7 year span between 1974-1981

The data gaps presented above, following the Site's reported development as a residence and later as a service garage and filling station, are not considered to be significant, since land records, topographic maps, aerial photographs and interviews consistently depict the Property as originally a residence and later as a service garage and filling station. No evidence was revealed during the course of this Phase I ESA to suggest that the Site was anything other than a residence and later as a service garage and filling station.

No attempts were made to determine the compliance of former owners or operators of the Site with federal, state, or municipal environmental and/or land use laws or regulations.

Due to the fact that geological and soil formations are inherently random, variable and indeterminate (heterogeneous) in nature, the professional services and opinions provided by LBG under this agreement are not guaranteed to be a representation of complete site conditions, which are subject to change with time as a result of natural or man-made processes. Although the services are extensive, findings and conclusions are limited to and by the information obtained. LBG makes no expressed or implied representations or warranties regarding any changes in condition of the premises after the

date of the on-site inspection(s). In addition, further subsurface investigatory methods are available that could further define the soil and ground-water conditions at the Site. Any qualitative or quantitative information regarding the Site that was not available to LBG at the time of this assessment may result in a modification of the representations made in this report.

At the time of the Site reconnaissance, the southern side of the Site storage building was surrounded by dense vegetation making it difficult to observe the ground surface for evidence of staining, debris, or buried objects that may be present on-Site.

1.5 Special Terms and Conditions

This assessment was performed by LBG with the knowledge that the Town of Middletown Springs is interested in purchasing the Property.

1.6 User Reliance

This report may be relied upon by the Town of Middletown Springs and the Rutland Regional Planning Commission (RRPC), any affiliates, or third parties with prior permission from the Town of Middletown Springs, RRPC and LBG. Making use of this report indicates an accord that any reliance on this report is confined to and by the information obtained at the time of this assessment. LBG makes no expressed or implied representations or warranties regarding any changes in condition of the premises after the date of the on-Site inspection(s).

2.0 SITE DESCRIPTION

2.1 Location and Legal Description

The Site consists of a 0.5 acre parcel which is located at the intersection of Routes 133 and 140 in Middletown Springs, Vermont. The location of the Site is shown on the "United States Geological Survey (USGS) 7.5 Minute Topographic Map for the Middletown Springs, VT Quadrangle" (*Figure 1*). The Site is on Town Tax Map 3 as Lot 02-001 (*Figure 2*).

2.2 Site and Vicinity General Characteristics

The Site is located downtown in a mixed commercial and residential area. Routes 133 and 140 (East Street) bound the Site to the north and Route 133 (South Street) bounds the Site to the west. The Site gently slopes to the south with an east-west embankment dropping down steeply to the south dividing the northern and southern sides of the Site. The general Site plan is depicted on *Figure 3*, which was prepared by LBG and references maps prepared by others.

A cemetery, residential properties, the town green, a general store, municipal building and historical society are in the immediate vicinity. North Brook is located approximately 350 feet to the east of the Site and is a tributary to the Poultney River. The Poultney River is located approximately 700 feet to the southeast of the Site. South Brook is located more than ½ mile to the southwest. Coy Brook and Vail Brook are located more than ¾ mile to the southwest and northwest, respectively. South, Coy and Vail brooks are all tributaries to the Poultney River.

Based on the 1984 U.S. Department of Agriculture, Soil Conservation Service soil survey, the geology of the Property and immediate vicinity appear to be made up of Warwick-Quonset complex (50% Warwick, 30% Quonset, 20% other) with 3-8% slopes. The Warwick component tends to be very deep and somewhat excessively drained. The Quonset component tends to be very deep and excessively drained. The permeability of these soils tends to be moderately rapid to very rapid (USDA 1984). Bedrock appears to be the slate phyllite member of the West Castleton formation based on the Geologic Map of Vermont (Ratcliffe 2011).

2.3 Current Use of the Property

The Site is currently owned by Norman and Sylvia Parker and is currently vacant. A storage building with gasoline underground storage tanks and former pump island occupy the Site. The former garage on-Site was destroyed by fire in March of 2008.

2.4 Descriptions of Site Structures and Utilities

Reportedly, the single story storage building, with two garage bay doors, was built in the early 1920's. This building had a partial basement, which has been filled in with gravel according to the owner, and the top floor is concrete. This building is not currently heated, although in the past the building utilized a steam heating system fueled by wood and coal. The former boiler remains within the filled in basement. Based on interviews, this building is not connected to any kind of wastewater disposal system or water supply. The Site building was connected to electricity by an overhead power line; however, a power connection was not observed during the Site reconnaissance.

Remnants of the concrete slab of the former service garage building, destroyed by fire in 2008, were observed. The former service garage was heated with a used oil burning furnace and was connected to a septic system with a leach field located on the southern end of the Site. The building was also served by an on-Site shallow well located to the west of the former building. The septic system and shallow well are still in place, although no longer utilized.

2.5 Current Uses of Adjacent Properties

Routes 133 and 140 (East Street) bound the Site to the north. Further north of the Site, across East Street, is the Town green. Further north of the green are the historical society, municipal offices, and church. East of the Site is a general store and south of the

Site is a residential lot. Route 133 (South Street) bounds the Site to the west and across South Street is a cemetery. Northwest of the intersection are more residential properties.

3.0 USER PROVIDED INFORMATION

3.1 Owner, Property Manager, and Occupant Information

Mr. Ed Bove of RRPC provided LBG with contact information of the Site owner.

LBG provided Mr. Bove with Section 6.0 User Responsibilities of the ASTM E 1527-05 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process and the ASTM User Questionnaire.

3.2 Reasons for Performing Phase I

This assessment was performed by LBG with the knowledge that the Town of Middletown Springs is interested in purchasing the Property.

4.0 RECORDS REVIEW

4.1 Standard Environmental Record Sources

LBG contracted the services of FirstSearch Technology Corporation (FirstSearch) to conduct a search of federal and state databases. The standard federal databases reviewed by FirstSearch provided the description and location of US EPA National Priorities List (NPL) or Superfund sites (listed and delisted); US EPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) sites; CERCLIS No Further Remedial Action Planned (NFRAP) sites; US EPA Resource Conservation and Recovery Act (RCRA) permitted Treatment, Storage, and Disposal (TSD) sites; US EPA Corrective Action Report (RCRA COR ACT) sites; US EPA RCRA registered large generators (LGN) of hazardous waste (generating at least 1,000 kilograms/month of non-acutely hazardous waste); US EPA RCRA registered small generators (SGN) of hazardous waste (generating less than 1,000 kilograms/month of non-acutely hazardous waste); US EPA RCRA registered conditionally exempt generators (VGN) of hazardous waste (generating at least 100 kilograms/month of non-acutely hazardous waste); RCRA No Longer Reporting (NLR) sites; Federal Lands of the US; Indian Lands of the US; Endangered Species Protection Program Database; Federal institutional control/engineering control (IC/EC) registries; US EPA Brownfields; and US EPA Emergency Response Notification System of spills (ERNS) sites.

The State Vermont databases reviewed by FirstSearch provided the description and location of State Hazardous Waste Sites (State Sites); State permitted Solid Waste Landfills or Transfer Stations (SWL); Leaking/Underground Storage Tanks (LUSTs); registered storage tanks (REG UST/AST); Brownfields/Institutional Controls List

(BROWNFIELD); Hazardous Waste (HW) Manifests; and State Spills (SPILLS). It should be noted that sites listed as LUST sites within the database report are sites on "the Vermont Department of Environmental Conservation Pulled Underground Storage Tanks database and may or may not be considered a leaking underground storage tank" as reported by FirstSearch.

The federal and state sites were identified and compared to the Property location when mapped. The FirstSearch report is provided as *Appendix 1*.

The following is a table of the databases searched and the respective focus distances from the subject Site as identified by the ASTM E1527-05 standard and AAI rule:

Database	Search Distance (Miles)	Total Sites Plotted		
Federal Databases Sea	arched			
NPL	1 Mile	0		
CERCLIS	0.5 Mile	0		
NFRAP	0.5 Mile	0		
RCRA COR	1 Mile	0		
RCRA TSD	0.5 Mile	0		
RCRA GEN	0.25 Mile	0		
RCRA NLR	0.25 Mile	0		
ERNS	0.15 Mile	0		
Federal Brownfields	0.5 Mile	2 (including the Property)		
Federal IC / EC	0.5 Mile	0		
State/Tribal Databases Searched				
State/Tribal Sites	1 Mile	5 (including the Property)		
State Spills	0.25 Mile	3 (including the Property)		
State/Tribal SWL	0.5 Mile	0		
State/Tribal LUST	0.5 Mile	4		
State/Tribal UST/AST	0.25 Mile	3 (including the Property)		
State/Tribal EC	0.5 Mile	0		
State/Tribal IC	0.25 Mile	0		
State/Tribal VCP	0.5 Mile	0		
State/Tribal Brownfields	0.5 Mile	2 (including the Property)		
HW Manifest	0.25 Mile	0		

NOTE: The sites listed as LUST sites within the database report are sites on "the Vermont Department of Environmental Conservation Pulled Underground Storage Tanks database and may or may not be considered a leaking underground storage tank" as reported by FirstSearch. The Property is identified in the State databases as an active hazardous waste site (#911170), a spills site, a facility (#1145) with registered USTs, and a Vermont and federal Brownfields site.

Of the off-Site facilities identified by the respective addresses, one is located immediately adjacent to the Property – Grant's Village Store. Of the off-Site facilities identified by the respective addresses, the following are located within approximately ¼ mile of the Site.

- Grant's Village Store (closed State site #97-2258 and LUST site) located at 8 East Street;
- Middletown Springs Inn (closed State site #94-1695 and LUST site) located approximately 0.04 miles northeast of the Site;
- A Spill (Spill #93-112) at 20 East Street, approximately 0.07 miles northeast of the Site;
- T&K Milk Hauling, C&B Milk Hauling, and Charles Rouse (closed State site #90-0581, LUST site, and UST facility #2352317) located approximately 0.15 miles south of the site;
- Middletown Springs Elementary School (UST facility #2759 and temporary generator ID #VTD988369443) located approximately 0.18 miles southwest of the target Site;
- D. Wright Residence (closed Spill # 94-WMD134) located approximately 0.19 miles southeast of the Site; and,
- St. Anne's Parish Rectory (active State site #2011-4238 and LUST site) located at 11 Pleasant View Road, approximately 0.26 miles southwest of the subject Property.

4.2 Additional Environmental Record Sources

The National Radon Database reviewed by FirstSearch provided radon data from 1990-1991.

Previously, on March 15, 2007, LBG personnel conducted a file review of the target Site at the Vermont Department of Environmental Conservation. Based on the information reviewed, in 1974/1975 a release of more than 5,000 gallons of gasoline occurred at the Site. As a result, down-gradient water supplies were impacted. In 1975, two (2) shallow supply wells were replaced with drilled wells by Mobil Oil, the owner of the LUST.

In 1987, an abandoned 850-gallon kerosene UST, installed in 1936, was removed from the Site. In addition, a 4,000-gallon gasoline UST was also removed from the Site, which had been installed in 1974. The gasoline UST was replaced with two (2) 6,000-gallon gasoline USTs.

In 1991, a 4,000-gallon diesel UST, 10 years in age, was removed from the Site. Reportedly, this UST was initially used to store diesel, then later was used to store gasoline. During this removal, petroleum contaminated soil and groundwater were detected. In 1993, as a result of the contamination, four (4) groundwater monitor wells were installed in addition to the monitor well already located on-Site. Groundwater contamination above the Vermont Groundwater Enforcement Standard (VGES) was confirmed by laboratory analysis.

In June 1993, the four (4) on-Site monitor wells contained contaminant concentrations exceeding the VGES. By the end of 1993, contaminants in only two (2) monitor wells were at concentrations above the standard and in September 1995, only one monitor well exhibited contaminant concentrations above the standard. Sampling of the monitor wells was discontinued in 1996, with contaminant concentrations continuing to decline.

In addition, several down-gradient supply wells were sampled and analyzed for petroleum contaminants. It appears that three (3) supply wells were impacted, including the Site shallow well (not in use), the adjacent Teer shallow well (not in use as a potable water supply), and the nearby U.S. Post Office shallow well (in use). In February 1993, the Teer shallow well and the U.S. Post Office shallow well had levels of petroleum contaminants below the drinking water standard, while the Site well exhibited concentrations above the standard. In June 1993, the Teer shallow well and the U.S. Post Office shallow well did not exhibit detectable concentrations of petroleum contaminants, while the Site well continued to exhibit concentrations above the standard. The samples collected from the North Brook, Poultney River, and Mineral Springs did not contain detectable concentrations of petroleum contaminants.

Several down-gradient supply wells were continually monitored from 1993 through 1995. The Site shallow supply well was the only supply well exhibiting petroleum impact following the first few sampling events in 1993. The sampling results of the Site shallow supply well collected in March and December of 1997 and March of 1998 showed no petroleum contamination above the detection limits. In January 1999, a Sites Management Activities Complete (SMAC) designation for the Site was requested.

More recently, LBG completed a Phase I ESA in 2010, which identified several recognized environmental conditions, generally relating to the past land use as a service garage and filling station operating from the early 1920s until circa 2004.

To investigate the identified recognized environmental conditions a Phase II ESA was conducted in early 2011, which included advancing several soil borings and the installation of 6 groundwater monitor wells in or down-gradient of areas of concern. The subsurface conditions encountered at the Site included building rubble (brick, slate, concrete, etc.) and charred metal debris including many relic automobile parts. The analytical results of the Phase II ESA indicated limited polycyclic aromatic hydrocarbon (PAH) and polychlorinated biphenyl (PCB) contamination of soil beneath the hydraulic cylinder (now removed) of the former vehicle lift within the former service garage.

Groundwater samples collected from the monitor wells immediately down-gradient of the former service garage, storage building and in the area of the former leachfield indicated elevated concentrations of metals, suggesting that the groundwater beneath the Site has been impacted by past Site uses.

As part of the Phase II ESA, bulk samples of suspected asbestos containing materials (ACMs) from the existing Site storage building confirmed the presence of chrysotile asbestos. Additionally, the analytical results of the composite sample from the Site building as a demolition waste stream sample failed the toxicity characteristic leaching procedure (TCLP) for lead.

In the fall of 2011, LBG completed a supplemental investigation, in which the analytical results for soil samples collected from the location of the former underground hydraulic cylinder showed PAH and low level PCB contamination present at the bottom of the former cylinder excavation at the 5-6 foot interval. A single PAH, benzo(a)pyrene, was detected above the U.S. Environmental Protection Agency Regional Screening Levels (RSL) for industrial properties. Lead contamination in groundwater, with the likely source being a former burn pile, was confirmed at a concentration exceeding the VGES, suggesting the groundwater beneath the Site has been impacted by past Site operations. Based on the results of the supplemental investigation, the groundwater at the Site does not appear to have been impacted by tetraethyl lead or tetramethyl lead from the past use of leaded gasoline on the Site. In March of 2012 all groundwater monitoring wells on-Site were permanently closed.

In addition, LBG reviewed information on the Waste Management Interactive Database (WM-ID) from the State of Vermont, Agency of Natural Resources website. Copies of the *Vermont Hazardous Sites List, Permitted Underground Storage Tanks List, Brownfield Site List, Spill Site List* and *Hazardous Waste Generators List* reviewed are provided as *Appendix 2*.

The Waste Management Interactive Database (WM-ID) from the State of Vermont, Agency of Natural Resources website provided additional information regarding the target Site, adjacent closed site Grant's Village Store, nearby closed site Middletown Springs Inn, and nearby closed site Charles Rouse (T&K Milk Hauling / C&B Milk Hauling).

Grant's Village Store

Based on the information reviewed on the Waste Management Interactive Database (WM-ID) from the State of Vermont, Agency of Natural Resources website, in August of 1997 two (2) gasoline USTs were removed from the Grant's Village Store property. During the UST closure work, approximately 10 cubic yards of contaminated soil were stockpiled at the store property. It was reported that groundwater was not encountered. In 1998, the petroleum contaminated soil was disposed of off-site and the Grant's Village Store received a Site Management Activity Completed (SMAC) designation from the State of Vermont.

Middletown Springs Inn

Based on the information reviewed on the Waste Management Interactive Database (WM-ID) from the State of Vermont, Agency of Natural Resources website, petroleum contaminated soils were discovered in 1994 during tank removal activities at the Middletown Springs Inn. Approximately 5 cubic yards of contaminated soil were stockpiled at the Inn property. The Middletown Springs Inn received a SMAC designation in 1996 when the contaminants within the soil pile had degraded.

Charles Rouse (T&K Milk Hauling / C&B Milk Hauling)

Based on the letter reviewed, a 2,000-gallon gasoline UST was removed from the facility in 1990 and 7-10 cubic yards of contaminated soil was removed from the tank excavation. The soil was stockpiled at the facility and reported to have been spread on the property following treatment. Groundwater was encountered; however, no evidence of petroleum impact was noted. The VTDEC closed the site in 1996 (Desch 1996).

The reports and letters reviewed at the Vermont Department of Environmental Conservation are cited in *Section 12.0*.

4.3 Physical Setting Source(s)

The FirstSearch mapping source is listed as 2002 U.S. Census TIGER files. In addition, see *Figure 1*, Site Location Map, for LBG's setting source (Maptech®).

4.4 Historical Use Information on the Property

In an effort to develop a complete historical profile of the Site, deeds (ranging from 1887 to 1987) and liens were reviewed at the Middletown Springs Clerk's office, and FirstSearch provided aerial photographs (dated 1942, 1956, 1965, 1986, 1994, and 2011), historical topographic maps (dated 1894; 1897; a 1901 reprint of the 1897 map; 1903; and 1967) and city directories ranging from 1992 to 2007. Copies of the topographic maps, aerials and city directories provided by FirstSearch are presented as *Appendix 3*. In addition, the Vermont Department of Environmental Conservation files were previously reviewed and LBG personnel previously interviewed Mr. David Wright of the Middletown Springs Historical Society.

FirstSearch previously provided a "No Maps Available" report in response to LBG's request for Sanborn fire insurance maps coverage information.

The following summary presents an overview of significant historical features for the Site developed from the historical data reviews:

- 1830's A brick house is built on-Site.
- 1887 Dyar Leffingwell sold a portion of the Site, known as the *Brick Store Lot*, to Louisa Vail.
- 1894 A topographic map shows the Routes 133 and 140 intersection (including the Site) as densely populated.

- 1897 A topographic map shows the intersection of Route 133 and 140 as densely populated with structures shown along the intersection.
- 1901 A topographic map, very similar to the 1897 map, shows the intersection of Route 133 and 140 as densely populated with structures shown along the intersection.
- 1903 A topographic map, very similar to the 1901 map, shows the intersection of Route 133 and 140 as densely populated with structures shown along the intersection.
- 1920 Reportedly, a downtown fire destroys the brick house on-Site.
- 1920's Reportedly, the on-Site storage building is built in the old brick house foundation as a machine shop/garage. A SOCONY gasoline sign hangs from the building and a gasoline pump appears off the front of the building toward the east adjacent to East Street as depicted in the Middletown Springs 1999 Annual Report provided as *Appendix 4*.
- 1936 An 850-gallon kerosene tank is installed at the Site.
- 1942 Although difficult to see, an aerial photograph depicts two (2) buildings at the Site.
- 1946 Based on warranty deeds, Clyde Parker purchases the Site from Hazel Grover & Lucy Blakely and Thomas & Leona Traverse.
- 1955/1956 Reportedly, Clyde Parker removes original garage and builds a single story service garage, with two garage bays and an office, which is located further east than the original. This service garage had a concrete floor and was connected to a septic system with a leach field located on the southern end of the Site. The building was also served by an on-Site shallow well located to the west of the former building.
- 1956 An aerial photograph depicts the former garage and current storage buildings at the Site.
- 1965 An aerial photograph depicts the garage and storage buildings at the Site. Other structures may be shown in the aerial photo on the southern side of the Site.
- 1967 A topographic map shows the Site garage and storage buildings.
- 1974 A leaking gasoline UST releases more than 5,000 gallons at the Site. A 4,000-gallon gasoline UST is installed at the Site.
- 1981 A 4,000-gallon diesel UST is installed at the Site.
- 1985 Approximate time the used oil begins to be recycled on-Site; fueling the service garage's heating system.
- 1986 Although difficult to see, an aerial photograph depicts two (2) buildings at the Site.
- 1987 Norman and Sylvia Parker inherit the Site and remove the kerosene and gasoline tanks and replace them with two (2) 6,000-gallon gasoline USTs.
- 1991 The diesel UST is removed from the Site and petroleum contamination is found.
- 1993-1998 Groundwater, impacted by petroleum, beneath the Site and down-gradient is monitored. Impacted supply wells, on and off-Site, are also monitored. A 1994 aerial photograph shows the garage and storage buildings at the Site.
- 1998 UST system piping is upgraded to comply with State requirements.
- 1999 Based on the latest monitoring results, petroleum contaminants in supply wells appear to be less than lab detection limits and the contaminant concentrations in the monitor wells appear to continue to decline. A SMAC designation for the Site is requested.

- 2004 Approximate time when gasoline ceased being sold at the Site.
- 2006 UST system passes tightness testing.
- 2007 LBG conducts a Phase I ESA of the Site, which indicates recognized environmental conditions exist.
- 2007-2008 According to the owner, the remaining 4-inches of gasoline in each UST are removed and placed in a 55-gallon drum, leaving less than 1-inch of gasoline in each tank. The five "grenade" type fire extinguishers filled with carbon tetrachloride, a known toxin, previously observed on-Site were relocated off-Site by the owner.
- 2008 The service garage on-Site (including the 55-gallon drum of gasoline) is destroyed by fire. The former service garage building remains are removed from the Site by the owner.
- 2010 LBG conducts a Phase I ESA of the Site, which indicates recognized environmental conditions exist.
- 2011 LBG completes a Phase II ESA and supplemental investigation at the Site, which confirms limited soil contamination at the former underground hydraulic cylinder of the vehicle lift, lead impact to groundwater, contaminated sediment exists within the floor drain system, lead-based paint on building materials and the presence of asbestos-containing materials (ACMs).
- 2012 According to Norman Parker, used oil stored on-Site is taken to a facility that recycles the used oil in a used oil fired furnace and several empty drums are taken to the junkyard.

4.5 Historical Use Information on Adjacent Properties

Based on the references cited above in **Section 4.4**, the following significant findings are summarized:

- 1830's A brick store is built adjacent to the Site on the *Brick Store Lot*.
- 1887 The Brick Store Lot was occupied by D. Leffingwell & Son.
- 1894 A topographic map shows the intersection of Routes 133 and 140 as densely populated.
- 1897 A topographic map, similar to the 1894 map, shows the intersection of Routes 133 and 140 as densely populated.
- 1901 A topographic map, similar to the 1897 map, shows the intersection of Routes 133 and 140 as densely populated.
- 1903 A topographic map, similar to the 1901 map, shows the intersection of Routes 133 and 140 as densely populated.
- 1920 A downtown fire burns the Valley Hotel, the brick store, and the brick house.
- 1920's The *Brick Store Lot* is a filling station as depicted in the Middletown Springs 1999 Annual Report provided as *Appendix 4*.
- 1942 An aerial photograph depicts several buildings downtown. The store building on the *Brick Store Lot* is present. The majority of development remains along the roads, while the remainder of the area generally appears in agricultural use. A forested area appears to the southeast of the Poultney River and an orchard appears to the southwest.

- 1956 An aerial photograph depicts several buildings downtown. The store building on the *Brick Store Lot* is present. The majority of development remains along the roads, while the remainder of the area generally appears in agricultural use. A forested area appears to the southeast of the Poultney River and an orchard appears to the southwest.
- 1965 An aerial photograph depicts several buildings downtown. The store building on the *Brick Store Lot* is present. The majority of development remains along the roads, while the remainder of the area generally appears in agricultural use. A forested area appears to the southeast of the Poultney River and an orchard appears to the southwest.
- 1967 A topographic map shows several buildings downtown. It is unclear if the store building is still present on the *Brick Store Lot*.
- 1975 Mobil Oil drills bedrock supply wells for two residential properties (now Stone residence and Chesnut-Tangerman residence) due to gasoline impact to shallow supply wells.
- 1986 An aerial photograph depicts several buildings downtown. The store building on the *Brick Store Lot* is no longer present. The majority of development remains along the roads, while the remainder of the area generally appears in agricultural use, although agricultural fields are not a numerous as in previous photos. A forested area appears to the southeast of the Poultney River.
- 1994 An aerial photograph depicts several buildings downtown. The majority of development remains along the roads, while the remainder of the area generally appears in agricultural use, although agricultural use is diminishing. A forested area appears to the southeast of the Poultney River. Petroleum impacted soils are discovered at the nearby Middletown Springs Inn property when a heating oil tank is removed.
- 1997 Reportedly, two USTs were removed from the Grant's Village Store (located east of the Site).
- 1998 It appears that petroleum impacted soil was removed from the adjacent Grant's Village Store and this site received a SMAC designation from the VTDEC.
- 2011 An aerial photograph depicts several buildings downtown. The majority of development remains along the roads, while the remainder of the area generally appears in agricultural use, although agricultural use is diminishing. A forested area appears to the southeast of the Poultney River.

5.0 SITE RECONNAISSANCE

5.1 Methodology and Limiting Conditions

LBG personnel conducted a visual inspection of the Site and vicinity on September 10, 2012. The inspection focused on identifying *recognized environmental conditions*, such as stained soil or pavement; pits, ponds or lagoons used for waste disposal; surface water sheens; stressed vegetation; the presence of hazardous materials or waste; and on-Site solid waste disposal. The inspection focused on the Site and the land bordering the perimeter of its boundaries. The surrounding area was reconnoitered

on foot and by car in an effort to identify the use and condition of properties surrounding the Site, and to identify any related environmental concerns. Mr. Norman Parker, one of the Site owners, conducted the Site tour. A summary of observations is provided in **Sections 5.2** through **5.16**, below. Photo documentation is provided as **Appendix 5**.

At the time of the Site reconnaissance, the southern edge of the Site building was obscured by dense vegetation making it difficult to observe the ground surface for evidence of staining, debris, or buried objects that may be present on-Site.

5.2 General Site Setting

The Site is located on the southeastern side of the VT Routes 140 and 133 intersection in downtown Middletown Springs, Vermont. The Site is located in an area of mixed residential and commercial use. The Site is accessed by both East Street and South Street. The Site is relatively flat, sloping gently to the southeast with an east-west embankment dropping down steeply to the south dividing the northern and southern sides of the Site.

The Site presently includes a storage building, formerly used as a garage. Mr. Parker described the storage building as having a partial cellar formerly used to store wood and the furnace (no longer used) for the building. The cellar was accessible from the East Street side of the building and has been filled in with gravel by Mr. Parker. As such, LBG personnel did not observe the cellar.

The concrete pad is the only obvious remains of the former service garage, destroyed by fire, located to the west of the current storage building on-Site. The former pump island and gasoline UST concrete pad are also on-Site.

5.3 Surface Conditions - Stains - Corrosion - Stressed Vegetation

During the Site reconnaissance, no obvious stained areas were observed in the asphalt and gravel parking areas or driveways on-Site. Staining of the concrete floor of the storage building and the former concrete flooring of the former service garage, likely with petroleum products, was observed. A large stained area on the floor within the storage building was observed and appeared to be originating from the parts cleaner (photographs #8 and #9 of *Appendix 5*).

Some of the steel drums located within the storage building exhibited corrosion. Various metal debris located along the southern portion of the Property also showed signs of corrosion.

No stressed vegetation on-Site was observed during the Site reconnaissance.

5.4 Pools of Liquid - Pits, Ponds and Lagoons

LBG personnel observed no pits, ponds, or lagoons on-Site.

5.5 Oil and Hazardous Substances

Approximately ten (10) 15-gallon plastic carboys and small drums of used oil, fifteen (15) 5-gallon buckets of used oil, a plastic 55-gallon drum of used antifreeze, and four (4) steel 55-gallon drums were observed in the storage building during the Site reconnaissance. 4 open buckets contained used oil filters. Mr. Parker pointed out one steel drum in the storage building contains used oil, another drum is empty, and the contents of a third drum are not known, but likely to contain some petroleum mix. Mr. Parker stated that many of these containers store used oil. According to Mr. Parker, he has recycled much of the used oil previously stored on-Site at the nearby Westcott's garage and he has recently removed 4 or 5 empty drums from the building and brought them to a local junkyard.

A parts cleaner was observed within the Site storage building. Mr. Parker noted that he used kerosene in the parts cleaner. Staining observed surrounding the parts cleaner indicated a release has occurred (photographs #8 and #9 of *Appendix 5*); however, no obvious kerosene odors were observed.

A portable fuel tank and dispenser were noted in the storage building. Mr. Parker stated that the tank was empty and he was storing the tank for a friend.

An empty plastic 55-gallon drum was observed on the northern exterior of the storage building. Additionally, two 35-gallon plastic drums were observed in the driveway near the former pump island.

During the Site reconnaissance, no evidence of the former furnace, various used oil storage containers or the used oil AST that were previously in the former service garage was observed. Reportedly, Mr. Parker had all the remains from the 2008 fire salvaged and removed from the Site. The concrete pad of the former service garage is all that remains. Two (2) hydraulic lifts were previously within the former service garage. One lift had an underground cylinder of which components, which were removed during the Phase II ESA so that the soil beneath could be assessed. The former location of the lift area was observed during the Site reconnaissance (photograph #14 of *Appendix 5*).

5.6 Storage Tanks

Just north of the former service garage location, LBG personnel observed the tops of the manholes of the two (2) out-of-service 6,000-gallon gasoline USTs on-Site. Reportedly, the USTs are both double walled tanks with reinforced fiberglass piping. The vent for these tanks is located on the northwest corner of the storage building as depicted in photographs #2 and #18 of *Appendix 5*. The pumps former associated with

these tanks have been removed and according to Mr. Parker the piping from the tanks to the former pumps have been capped. Mr. Parker stated that less than an inch of gasoline remains in each tank.

Previously, a 275-gallon used oil AST was observed nearby the used oil burning furnace within the former service garage. This AST was destroyed in the fire in 2008.

In 2007, LBG personnel observed a 1,000-gallon kerosene AST within the storage building. Mr. Parker stated that this tank is now owned by someone else and has been removed from the Site.

No other tanks were observed on-Site during the reconnaissance; however, two vent pipes, previously observed on the southwestern corner of the former service garage by LBG were no longer present. Mr. Parker stated that these were the vent pipes associated with the former kerosene UST and the former 4,000-gallon gasoline UST, both Based on the Vermont Department of Environmental tanks removed in 1987. Conservation file review and the FirstSearch report, an abandoned 850-gallon kerosene UST, installed in 1936, and a 4,000-gallon gasoline UST, installed in 1974, were removed from the Site in 1987. Norman Parker stated that the kerosene UST had been located between the buildings and the pump island (the current location of the UST piping) and the 4,000-gallon gasoline UST had been located where the current gas tanks are, northwest of the storage building. Mr. Parker also stated that the 4,000-gallon gasoline UST was the tank owned by Mobil Oil, which leaked in 1974. The 4,000-gallon gasoline UST was replaced with two (2) 6,000-gallon gasoline USTs in 1987. The gasoline pump island is still present on the northwest portion of the Site, although the pumps have been removed. The vent pipes of the former gasoline tank and kerosene tank were destroyed by the fire and remains of them were removed; however, Mr. Parker pointed out that the underground portion of the vent pipes are still buried beneath the concrete.

In 1991, a 4,000-gallon diesel UST, previously installed in 1981, was removed from the Site. Reportedly, this UST may have been initially used to store diesel, then later used to store gasoline; however, there seem to be inconsistencies regarding the contents of this tank.

A 500-gallon diesel AST was present on-Site from at least 1993 to at least 1995. The diesel AST was located southwest of the former service garage and south of the gasoline pump island.

A photograph in the Middletown Springs 1999 Annual Report (see *Appendix 4*) may shows gasoline pumps present north or northeast of the building now used for storage, adjacent to East Street. Based on this photograph it is difficult to ascertain if these pumps are located on-Site or to the east of the Site.

No evidence of other tanks on-Site was observed during this Phase I ESA.

5.7 Polychlorinated Biphenyls

One of the more common sources of polychlorinated biphenyl (PCB) contamination is old electric transformers. At the time of LBG's Site inspection, no transformers were located on-Site.

Another common source of PCBs is old hydraulic oil. PCBs were first manufactured in 1929 and widely used until the U.S. Congress banned the manufacturing of PCBs in 1977. The former hydraulic lift with an underground cylinder was installed in 1955 when the former service garage was constructed. Mr. Parker did not know if another hydraulic lift was present in the original single-bay service garage building on-Site previous to the one installed in 1955. The former service garage(s), reportedly, operated during the 1940's through 2004, and the current Site storage building was previously used as a garage beginning in the 1920's, so it is possible that PCB laden hydraulic oil was used in the hydraulic vehicle lifts.

In 2011, the underground hydraulic cylinder of the former vehicle lift (installed in 1955) in the former service garage building was removed. The oil removed from the cylinder was analyzed for PCBs and was found to be PCB-free. The soil beneath the cylinder was analyzed and results indicated PCB and polycyclic aromatic hydrocarbon (PAH) contamination, although limited to the immediate vicinity of the former cylinder location.

5.8 Sanitary Waste Disposal

The Site is not connected to the municipal sewer. A septic system with a leach field, located on-Site and south of the building, served the former service garage. The storage building does not produce any sanitary waste as it is currently vacant.

5.9 Rail Lines

There are no rail lines on-Site.

5.10 Solid Waste Disposal

LBG personnel observed various metal debris, south of the Site building as depicted in photographs #22 - #24 of *Appendix 5*. Used tires were also observed on the southern portion of the Site. Maps found within reports cited in *Section 12.0*, show the presence of a former tire pile on the southwestern side of the Site and a former burn pile on the southeastern side of the Site.

5.11 Wetlands - Pools of Liquid

No evidence of wetlands on-Site was observed during the Site reconnaissance. Reportedly, there are no wetlands on-Site.

Based on the U.S. Fish and Wildlife Service, *Wetlands Online Mapper*, the nearest wetlands are forested/shrub wetlands located approximately a ½ mile northwest and southwest of the Site.

5.12 High Voltage Power Transmission

Overhead electric lines are present in the area. No substations were observed in the immediate area of the Site during the Site visit.

5.13 Lead Based Paint

Based on the age of the building at the Site, it is likely that the building surfaces were painted with lead-based paint. The presence of lead-base paint was confirmed during the Phase II ESA in 2011 when the analytical results of the composite sample from the Site building as a demolition waste stream sample failed the toxicity characteristic leaching procedure (TCLP) for lead.

5.14 Asbestos Containing Materials

Based on the age of the existing building at the Site, asbestos containing materials (ACMs) may be present on the premises. In 2011, bulk samples of suspected ACMs from the existing Site storage building confirmed the presence of chrysotile asbestos. Of the numerous items stored within the Site building, multiple suspect ACMs (brake pads, loose gaskets, etc.) were also identified.

5.15 Waste Water System

The Site is not connected to the municipal sewer. A septic system with a leach field, located south of the Site storage building, served the former service garage. There were two (2) floor drains within the former service garage (one per bay) which lead to the septic system; however, Mr. Parker explained that these drains were plugged in 1986. During the Phase II ESA, analytical results of the sediment sample from the floor drain system exhibited PAH and metal contamination. Results indicate a release to the former floor drain system occurred.

Storm-water runoff likely travels to the south and southeast.

6.0 INTERVIEWS

6.1 Interview with Owner/Occupant

On September 10, 2012, LBG personnel interviewed Mr. Norman Parker, as he conducted a tour of the Property. An Environmental Questionnaire completed by Mr. Parker is provided in *Appendix 6*. Previously, LBG personal interviewed Mr. Parker in March of 2007 and June of 2010.

Norman Parker stated that his father, Clyde Parker, bought the Property in the 1920's following the fire of 1920, which destroyed the brick house on-Site. Clyde Parker built the Site buildings as a garage and small machine shop and began operating an auto repair and gasoline filling station on-Site in the early 1920's. Circa 1955, Norman Parker states that the smaller garage (adjacent to South Street) was replaced with another garage built further east, which was destroyed by fire in 2008.

Previously, a used oil burning furnace was used to heat the former service garage and prior to that, the former service garage was heated with No. 2 heating oil while the used oil generated on-Site was given to farmers, as stated by Mr. Norman Parker. The former service garage did contain a 275-gallon used oil AST, a 55-gallon used oil drum, and several 5-gallon used oil pails. Several additional 55-gallon steel drums and several more pails were observed within the former service garage in March of 2007. According to Mr. Parker, these containers were used to store oil and used oil and were all empty, since the former garage was closed and no longer accumulating used oil. Mr. Parker stated that NOCO had been picking up the used oil filters and used antifreeze from the Site for the past ten (10) to thirteen (13) years or business operations. Prior to that, he had retained the services of Safety Kleen and Clean Solutions. During the Site reconnaissance, no evidence of the former furnace, various used oil storage containers or the used oil AST was observed. Reportedly, Mr. Parker had all the remains from the fire salvaged and removed from the Site.

Norman Parker mentioned the gasoline spill at the Property in the mid-1970's. Then during a tank removal, gasoline contamination was detected and monitor wells were installed and tested for a number of years.

According to Norman Parker, the five (5) "grenade" fire extinguishers filled with carbon tetrachloride previously observed in a pan on the floor of the storage Site building, have been relocated and are now stored off-Site. He also noted that the former boiler is still located within the basement of the Site storage building, which has been filled in.

6.2 Interviews with Local Government Officials

LBG personnel contacted the Middletown Springs Fire Chief, Joseph Castle, on September 14, 2012. Chief Castle stated that he was not aware of any incidents, spills or environmental concerns on-Site or in the area of the Site. Chief Castle did mention that

the fire department responded to the fire on-Site in March of 2008 when the service garage burned down. He previously noted that during that fire, a drum of gasoline within the service garage exploded. Chief Castle has been a part of the fire department since 1993.

On September 12, 2012 (and previously in March of 2007 and June of 2010), LBG personnel spoke with the Town Clerk who provided the Middletown Springs 1999 Annual Report with the photograph of the Site and adjacent *Brick Store Lot* filling station (see *Appendix 4*). The Town Clerk stated that there have been no liens attached to the Property since 2010.

On September 13, 2012, LBG personnel interviewed Ms. Rita Hanson, who has been the Middletown Springs Health Officer of approximately 6+ years. As Health Officer, Ms. Hanson was unaware of any environmental incidents or health hazards pertaining to the Site or Site vicinity, although she did note that she has heard from various town residents that they believed the water supplied by wells along South Street was previously contaminated, but now believes they are no longer contaminated.

6.3 Other Interviews

In an effort to gather additional historical information about the Site, LBG personnel previously contacted Mr. David Wright of the Middletown Springs Historical Society in March of 2007.

Mr. Wright stated that in the 1830's a brick house was built on-Site by Henry Gray, which later burned in the fire of 1920. In the 1920's a garage and filling station were reportedly built and then operated by Clyde Parker. Mr. Wright described the photograph in the Middletown Springs 1999 Annual Report (see *Appendix 4*) and pointed out that the gasoline pumps used to be adjacent to East Street. He recalled that the Site has been operated as a garage and filling station since the 1920's and in the 1970's there was a large gasoline spill. This spill impacted shallow supply wells along the eastern side of South Street.

In May of 2012, the down-gradient neighbor, Joseph Teer, contacted LBG personnel to discuss the status of the Site. During this conversation Mr. Teer claimed that his shallow dug well still showed signs of gasoline impacts from the Site. The Teer shallow dug well is not used as a potable water supply, although Mr. Teer indicated that he still utilizes the well for watering his garden and such.

7.0 FINDINGS

Based on the FirstSearch Report, Site reconnaissance, interviews, and review of historical data, LBG provides the following findings:

- The Site is located in a mixed commercial and residential area of downtown Middletown Springs at the intersection of Routes 133 and 140. The soils of the area consist of Warwick-Quonset complex. Groundwater flow based on previous Site work has been calculated to be southeasterly toward North Brook and the Poultney River.
- Originally the Site was residential until the fire of 1920, and then operated as a service garage and filling station in the 1920's through circa 2004. The Site has utilized several ASTs and USTs to store gasoline, diesel, kerosene, No. 2 heating oil and used oil while in operation. The 2 currently out-of-service 6,000-gallon double walled gasoline USTs on-Site passed annual tightness testing in 2006, are reported to contain less than 1-inch of gasoline. The interstitial space of the tanks is no longer monitored by Norman Parker.
- Six 55-gallon drums are located at the Site, two of which are empty. The majority of the drums and containers were used to store oil and used oil. A 55-gallon drum storing used antifreeze and 4 buckets of used oil filters were also observed on-Site. In addition several carboys and pails for storing used oil were noted on the Property. The former service garage had utilized a used oil burning furnace for heating purposes from circa 1992 to 2008.
- During the Site reconnaissance, evidence of a release within the Site storage building was observed. A parts cleaner was observed within the building and significant staining was noted around the parts cleaner.
- A gasoline spill of more than 5,000 gallons occurred at the Site in 1974. As a result of this release, down-gradient shallow supply wells were contaminated with gasoline. Mobil Oil Company, the owner of the tank at the time, replaced two shallow supply wells with drilled wells.
- Four (4) groundwater monitor wells were installed on-Site to monitor groundwater contamination discovered during the 1991 removal of a diesel/gasoline UST. In addition, several down-gradient supply wells were also monitored. The on-Site supply well was the only supply well with contaminant concentrations above the Vermont standards. Reported analytical results of samples collected from the Teer shallow dug well from 1994 through 1996 showed no contaminates detected above the laboratory detection limits for the target compounds tested. Monitoring of the Teer shallow dug well was discontinued in 1996, while monitoring of the Site was discontinued in 1999.
- Two (2) hydraulic vehicle lifts were located within the former service garage built in 1955, which was destroyed by fire in 2008. The older lift, installed when the building was built circa 1955, had an underground cylinder, which was removed in 2011 during an assessment of the soil beneath. Laboratory analysis confirmed PCB and PAH impacts to soils limited to the former lift area.

- In 2011, subsurface investigations, including the installation of 7 additional groundwater monitoring wells, indicated lead impact to groundwater exceeding the Vermont Groundwater Enforcement Standard on-Site located south of the storage building.
- In 2011, during the Phase II ESA, analytical results of the sediment sample from the floor drain system exhibited PAH and metal contamination, indicating a release to the former floor drain system of the former service garage occurred. The results indicated no apparent gasoline impacts to the soil or groundwater beneath the Site.
- The presence of lead-based paint was confirmed when the analytical results of the composite sample from the Site building as a demolition waste stream sample failed the toxicity characteristic leaching procedure (TCLP) for lead.
- In 2011, bulk samples of suspected ACMs from the existing Site storage building confirmed the presence of chrysotile asbestos. Of the numerous items stored within the Site building, multiple suspect ACMs (brake pads, loose gaskets, etc.) were also identified.
- The former furnace (which may or may not include ACMs) used to heat the Site storage building is still located within the basement of the building which has been filled in.
- Five (5) "grenade" fire extinguishers filled with carbon tetrachloride previously observed in a pan on the floor of the storage Site building, have been relocated and are now stored off-Site by the owner.
- Two (2) gasoline USTs were removed from the adjacent property, Grant's Village Store, at 8 East Street in 1997. Based on the information reviewed, soil beneath the store property was impacted and groundwater was not encountered. The contaminated soil was reportedly removed and disposed of at a facility in New Hampshire.
- A nearby property, Middletown Springs Inn, on Route 133 had 2 fuel oil USTs removed in 1994. Based on the information reviewed, soil beneath the Inn property was impacted and groundwater was not encountered. The contaminated soil was reportedly stockpiled at the Inn, remediated, and spread at the Inn.
- The remaining facilities listed in either the Federal or State/Tribal databases appear to be farther down or cross gradient of the Site.

8.0 OPINION

Originally the Site was residential, later operated as a service garage and filling station in the 1920's until about 2004. An early 1920's photograph shows a gasoline

pump north or northeast of the Site building now used for storage, although it is difficult to determine if the pump was located on-Site or east of the Site. Two building were constructed on-Site in the early 1920's. The smaller one-bay service garage, west of the larger storage building, was replaced in 1955 with a two-bay service garage that was destroyed by fire in 2008.

At least six (6) USTs and at least three (3) ASTs have been utilized on-Site to store gasoline, diesel, kerosene, No. 2 heating oil, and used oil. The 2 currently out-of-service gasoline double walled USTs on-Site passed annual tightness testing in 2006, are reported to contain less than 1-inche of gasoline. As such, the interstitial space of the tanks is no longer monitored by Norman Parker. Reportedly, the kerosene AST formerly stored within the storage building has been removed from the Site.

The past uses of the Site as a service garage and filling station are considered to be a *recognized environmental condition*. The 2011 Phase II and supplemental investigations assessed groundwater and soil quality in several areas of concern on Site. The results of these investigations indicated that the soil and groundwater quality in the majority of the areas investigated were acceptable. However, areas with documented contamination include sediment within the former floor drain system, soil in the former underground hydraulic cylinder area of the former lift, and groundwater in an area south of the current building near the former burn pile (as referenced previously by others).

Several 55-gallon drums, carboys, and pails used to store oil and used oil are stored on-Site, although the owner has removed several empty containers and recycled some of the used oil at a nearby garage. A 55-gallon drum used to store used antifreeze and 4 buckets of used oil filters were also observed on-Site. Although the majority of these containers are stored within the Site storage building, they are not secure, as the Site building is not locked and reportedly has been previously broken into on occasion. Additionally, it does not appear that the containers within the building are routinely inspected. The reported unauthorized access to the building and lack of regular inspection of the petroleum and potentially hazardous materials within the Site storage building presents a concern, although may not directly represent a *recognized environmental condition*.

A parts cleaner was also observed within the Site storage building during the Site reconnaissance. Mr. Parker noted that he had previously used kerosene within the parts cleaner. Significant staining was observed around the parts cleaner indicating a release has occurred. This release is considered to be a *recognized environmental condition*.

The reported 1974 release of more than 5,000 gallons of gasoline at the Site, which resulted in the contamination of at least two (2) down-gradient shallow supply wells and the 1991 UST removal resulting in a subsurface investigation including the installation of groundwater monitor wells are considered to be a *historical recognized environmental conditions*. The results of the 2011 subsurface investigations showed no significant gasoline-related impact to soils or groundwater on Site in the areas assessed. However, the down-gradient neighbor claims that the shallow dug well (Teer well no

longer used as a potable water supply) is still showing signs of gasoline impacts from the Site. Although the reported analytical results of samples collected from the Teer shallow dug well from 1994 through 1996 showed no contaminates detected above the laboratory detection limits for the target compounds tested, these historical releases have to be considered *recognized environmental conditions* based on Mr. Teer's recent claim.

The five (5) "grenade" fire extinguishers observed in a pan on the floor of the building now used for storage are no longer considered to be a *recognized environmental* condition, since they have been removed from the Site.

The adjacent Grant's Village Store at 8 East Street, which had a 2 gasoline USTs removed in 1997, is not considered to be a *recognized environmental condition*. Based on the information reviewed, the contaminated soil beneath the store property was removed and disposed of at a facility in New Hampshire.

The nearby Middletown Springs Inn, which had 2 fuel oil USTs removed in 1994, is not considered to be a *recognized environmental condition*. Based on the information reviewed, soil beneath the Inn property was impacted, reportedly stockpiled at the Inn, remediated, and spread at the Inn.

9.0 CONCLUSIONS

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-05 of the Parker's Service Station at 1 South Street on the southeast corner of the intersection of Route 133 and 140 in downtown Middletown Springs, Rutland County, Vermont, the Property. Any exceptions to, or deletions from, this practice are described in *Sections 1.4* and *10.0* of this report. This assessment has revealed no evidence of *recognized environmental conditions* in connection with the Property, except for the following:

- > Documented PCB and PAH impacts to soils limited to the former lift area;
- ➤ Documented lead impact to groundwater exceeding the Vermont Groundwater Enforcement Standard on-Site located south of the storage building;
- ➤ Documented PAH and metal contamination of the sediment sample from the floor drain system indicating a release to the former floor drain system of the former service garage occurred;
- Significant staining observed around the parts cleaner indicating a release has occurred; and,
- ➤ The historical recognized environmental conditions 1974 spill of more than 5,000 gallons of gasoline at the Site, which resulted in the

contamination of at least 2 down-gradient shallow supply wells and the 1991 UST removal resulting in a subsurface investigation including the installation of groundwater monitor wells. Although the 2011 subsurface investigations indicate no apparent gasoline contamination on-Site, the down-gradient neighbor claims his shallow dug well is still showing signs of gasoline impact from the Site.

10.0 DEVIATIONS

No deviations from the scope of ASTM Practice E 1527-05 were made during the course of this Phase I ESA.

11.0 ADDITIONAL SERVICES

11.1 Lead Based Paint

Based on the age of the building at the Site, it is likely that the building surfaces were painted with lead-based paint. The presence of lead-based paint was confirmed during the Phase II ESA in 2011 when the analytical results of the composite sample from the Site building as a demolition waste stream sample failed the toxicity characteristic leaching procedure (TCLP) for lead.

11.2 Asbestos Containing Materials

Based on the age of the existing building at the Site, ACMs may be present on the premises. In 2011, bulk samples of suspected ACMs from the existing Site storage building confirmed the presence of chrysotile asbestos. Of the numerous items stored within the Site building, multiple suspect ACMs (brake pads, loose gaskets, etc.) were also identified.

The former furnace (which may or may not include ACMs) used to heat the Site storage building is still located within the basement of the building which has been filled in.

11.3 Recommendations

Based on the 2011 Phase II and supplemental investigations, areas with documented contamination include sediment within the former floor drain system, soil in the former underground hydraulic cylinder area of the former lift, and groundwater in an area south of the current building near the former burn pile (as referenced previously by others). Caution should be taken during any future Site renovations.

LBG recommends surficial cleanup (including the removal of any free liquids present) of the observed release at the parts cleaner within the Site building and cleanup-

related waste be disposed of properly. It is possible that contaminants have migrated to the filled in basement below. Caution should be taken during any future renovations of the Site building.

If future redevelopment is planned requiring excavation and building rubble and debris removal (keeping in mind that the former boiler remains on-Site buried beneath the existing storage building), LBG believes waste stream characterization sampling and testing is warranted in the area of the former service garage and existing Site building prior to moving any materials off-Site.

For future Site redevelopment, ACMs of the Site building must be removed prior to disturbance in accordance with Occupational Safety and Health Administration (OSHA), U.S. Environmental Protection Agency (USEPA), Vermont Department of Health (VTDOH), and Vermont Department of Environmental Conservation (VTDEC) standards for asbestos abatement/disposal. Prior to demolition of the Site building, LBG recommends identifying the specific components that are coated with lead-based paint by conducting a lead-based paint inspection. Based on the lead-based paint inspection, building materials with high lead content could then be segregated as the lead hazardous waste from the remaining building materials, which could then be tested by TCLP (presumably with success). This process would allow for a more reasonable (cost effective) approach to appropriate disposal of the building materials. Demolition work should be conducted in conformance with the OSHA regulations, utilizing engineering controls and personal protective equipment.

LBG recommends assessing the water and sediment quality of the adjacent Teer shallow dug well to confirm or refute Mr. Teer's claims.

LBG recommends that the 2 out-of-service gasoline USTs be properly closed and removed from the Site in accordance with the Vermont Underground Storage Tank Rules.

LBG recommends that the containers on-Site of petroleum products, hazardous materials and potentially hazardous waste be disposed of following appropriate regulations. In the meantime, LBG recommends the storage containers be inspected regularly for evidence of releases and container integrity.

In addition, any solid waste present at the Site (tires, metal, etc.) should be managed appropriately and removed.

12.0 REFERENCES

Amadon, John F. Letter to Robert Haslam. Parker's Service Station. SMS #91-1170. January 28, 1994.

- Amadon, John F. Letter to Robert Haslam. Parker's Service Station. SMS #91-1170. November 17, 1994.
- Amadon, John F. Letter to Robert Haslam. Parker's Service Station. SMS #91-1170. April 24, 1995.
- ASTM Practice E 1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. 2005.
- Bove, Ed. Rutland Regional Planning Commission. June 2010.
- Boyden Library. Digital Sanborn Maps 1879-1925. March 2007. http://www.boydenlibrary.org/>
- Castle, Joseph. Middletown Springs Fire Department. September 14, 2012, June 23, 2010 and March 27, 2007.
- Castle, Laura. Middletown Springs Town Clerk. September 12, 2012.
- Ratcliffe et al. Bedrock Geologic Map of Vermont. 2011.
- FirstSearch Technology Corporation, August 29, 2012.
- Griffin International, Inc. *Tank Pull Inspection*. Parker's Service Station. SMS #91-1170. December 9, 1991.
- Hanson, Rita. Middletown Springs Health Officer. Personal Interview. July 1, 2010 and September 13, 2012.
- Haslam, Bob. Letter to Gail Faller. Parker's Service Station. SMS #91-1170. June 8, 1993.
- Haslam, Bob. Letter to John Amadon. Parker's Service Station. SMS #91-1170. June 14, 1993.
- Leggette, Brashears & Graham, Inc. *Phase I Environmental Site Assessment, Parker's Service Station*. April 2, 2007.
- Leggette, Brashears & Graham, Inc. *Phase I Environmental Site Assessment, Parker's Service Station*. July 2, 2010.
- Leggette, Brashears & Graham, Inc. *Phase II Environmental Site Assessment Report, Parker's Service Station*. April 22, 2011.
- Leggette, Brashears & Graham, Inc. Supplemental Site Investigation Report, Parker's Service Station. January 3, 2012.

- Middletown Springs Clerks Office. June 23, 2010 and March 19, 2007.
- Moore, Alan. Letter to Robert Haslam. Parker's Service Station. SMS #91-1170. October 18, 1995.
- Norland, William D. Letter to Bob Haslam. Parker's Service Station. SMS #91-1170. July 29, 1993.
- Norland, William D. Letter to Charles B. Schwer. Parker's Service Station. SMS #91-1170. March 25, 1993.
- Norland, William D. Letter to Robert Haslam. Parker's Service Station. SMS #91-1170. January 7, 1999.
- Norland, William D. Letter to Robert Haslam. Parker's Service Station. SMS #91-1170. January 14, 1998.
- Norland, William D. Letter to Robert Haslam. Parker's Service Station. SMS #91-1170. May 1, 1997.
- Parker, Norman. Personal Interview. September 10, 2012, June 23, 2010 and March 19 & 30, 2007.
- Schwer, Charles B. Letter to Norman and Sylvia Parker. Parker's Service Station. SMS #91-1170. December 19, 1991.
- State of Vermont, Agency of Natural Resources Environmental Research Tool, *Hazardous Waste Generators List.* September 2012. < http://www.anr.state.vt.us/WMID/Manifests.aspx >
- State of Vermont, Agency of Natural Resources Environmental Research Tool, *Spills Site List*. September 2012. < http://www.anr.state.vt.us/WMID/Spills.aspx >
- State of Vermont, Agency of Natural Resources Environmental Research Tool, *Vermont Brownfields Site List*. September 2012. < http://www.anr.state.vt.us/WMID/Brownfields.aspx>
- State of Vermont, Agency of Natural Resources Environmental Research Tool, *Vermont Hazardous Sites List.* September 2012. < http://www.anr.state.vt.us/WMID/HazSites.aspx >
- State of Vermont, Agency of Natural Resources Environmental Research Tool, *Vermont Permitted Underground Storage Tanks List*. September 2012. < http://www.anr.state.vt.us/WMID/UST.aspx>

- State of Vermont, Agency of Natural Resources, *Interactive Mapping Waste Management Site Locator*. September 2012. http://www.anr.state.vt.us/site/html/maps.htm>
- Terrain Navigator of Maptech®. USGS 7.5' Minute Topographic Series Essex Junction, VT Quadrangle. © 2006.
- The Town of Middletown Springs, Vermont, Annual Report of the Town Officers Fiscal Year Ending June 30, 1999. February 2, 2000.
- Underground Storage Tank Permit. Parker's Service Station. Facility ID 1145. December 28, 1999.
- Underground Storage Tank Piping Installation Checklist. Completed by Sherman V. Allen, Inc. Parker's Service Station. Facility ID 1145. January 8, 1999.
- United States Department of Agriculture, Natural Resources Conservation Service, *Web Soil Survey*. 2010. http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>
- United States Environmental Protection Agency, Standards and Practices for All Appropriate Inquiries, 40 CFR Part 312, November 1, 2005.
- United States Fish and Wildlife Service, *Wetlands Online Mapper*. September 2012. http://wetlandsfws.er.usgs.gov/wtlnds/launch.html>
- University of New Hampshire, Dimond Library, Documents Department and Data Center. 1893, reprinted 1912 USGS Topographic Map. March 2007. http://docs.unh.edu/towns/VermontTownList.htm
- University of Vermont, Bailey-Howe Library, Special Collections Department. March 2007.
- Vermont Notification For Underground Storage Tanks. Parker's Service Station. Facility ID 1145. December 17, 1987.
- Vermont Underground Storage Tank Removal Form. Parker's Service Station. Facility ID 1145. December 9, 1991.
- Woods, Cindy. Letter to Norman and Sylvia Parker. Parker's Service Station. SMS #91-1170. May 21, 1993.
- Wright, David. Middletown Springs Historical Society. March 29, 2007.

13.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in § 312.10 of this part.

We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries and practices set forth in 40 CFR Part 312.

Prepared by:

Reviewed by:

Deirdra D. Ritzer, Environmental Scientist

Deudin D. Rizer

John R. Diego, Senior Associate

14.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

Deirdra Ritzer has been conducting ESAs for over 10 years. Ms. Ritzer has completed ASTM training seminars on Phase I and II Environmental Site Assessments for Commercial Real Estate in Phoenix, Arizona (October 2001 and March 2004) and possesses a BS degree in Environmental Science. In addition, Ms. Ritzer has attended seminars on the U.S. EPA All Appropriate Inquiry rule and has been conducting assessment in conformance with this rule for some time.

John R. Diego has been conducting ESAs for over 30 years. Mr. Diego has completed ASTM seminars on Technical and Professional Training on Environmental Risk Management and Commercial Real Estate Transactions in Chicago, Illinois (September 1997). Mr. Diego has also completed the ASTM course Risk-Based Corrective Action Applied at Petroleum Release Sites in Phoenix, Arizona (April 2000) and attended seminars on the U.S. EPA All Appropriate Inquiry rule. Mr. Diego possesses a BS degree in Environmental Engineering.

FIGURES





