

DeeAar Holdings, LLC

Current Projects Using AgroRemed[®] /VaporRemed[®]

Dinkar Ganti

Email: dinkar.ganti@gmail.com

February 17, 2021

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- ▶ Current, active projects
- ▶ Past projects
- ▶ Appendix - Reports

Abandoned Gas Station in Mays Landing, NJ

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Site location

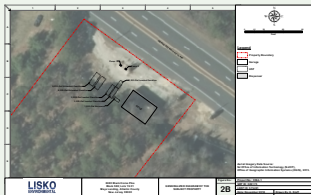


Figure: Site: An Abandoned Gas Station

Background

Tank

2 x 8000 gallon UST
1 x 2000 gallon leaded gasoline UST
1 x 1000 gallon kerosene UST
2 x 3000 gallon leaded gasoline

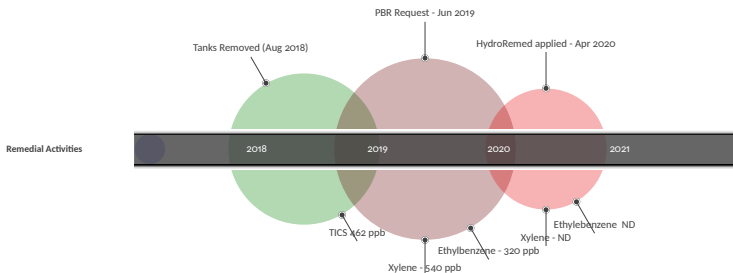
- ▶ The gas station has been abandoned for over ten (10) years.
- ▶ At the time of cleanup, the team could arrive at an estimated gas tanks.
- ▶ Tanks were removed in 2018.
- ▶ Contamination baselines were established in 2019.
- ▶ HydroRemed was added to site in April 2020.
- ▶ The hydrocarbon contamination levels have been non-detect (ND) for two samples.
- ▶ Secondary contamination has been detected and is being addressed.

Current State : The monitoring for levels of secondary contamination is continuing.

Mays Landing - Remediation Timeline contd.

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Site location



Figure: Figure: Sitemap of monitoring wells

Background

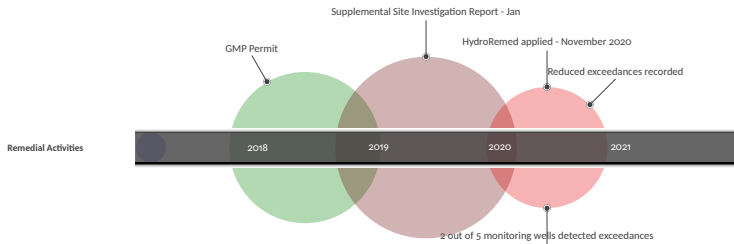
- ▶ The site is a former retail gasoline and fueling facility, reportedly since 1970s;
- ▶ In 1988, several underground storage tanks were removed.
- ▶ Previous remedial efforts at the site were conducted by prior consultants and included the use of an in-situ submerged oxygen curtain (ISOC) in 2002 and bio-augmentation via the addition of live bacterial cultures in 2004 to remediate residual petroleum contaminant levels in groundwater at the site.
- ▶ Our group acquired the property in July 2018;
- ▶ The project is currently 70 % complete. There are exceedances recorded near two monitoring wells;
- ▶ Groundwater from MW-101 contained concentrations of 11 VOCs and 3 PAHs, including concentrations of benzene (32 parts per billion [ppb]) and naphthalene (160 ppb) that exceeded the New Hampshire Ambient Groundwater Quality Standards (AGQS);
- ▶ Groundwater from MW-102 contained concentrations of eight VOCs and 3 PAHs, none of which exceeded the AGQS; and
- ▶ * Details are in the attached report.

Current State : Active. We are reaching out to the DES to discuss our protocol to address the remaining 30% of contamination.

Antrim NH - Remediation Timeline contd.

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Past Projects using AgroRemed/HydroRemed



- ▶ UST decommissioning and complex soil-only risk-based cleanup, Portland OR

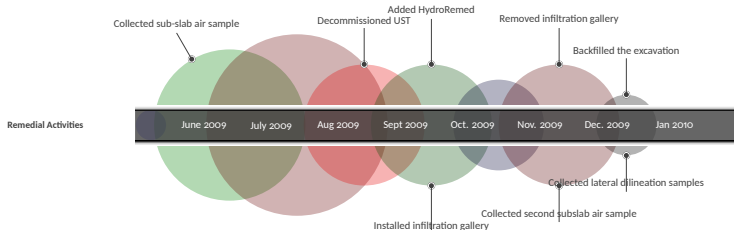
UST Decommissioning and Complex Soil-only Risk-based Cleanup

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... As suggested by the results of the second sub-slab air sample, the microbes were particularly successful in degrading the plume beneath the basement slab.

[Please click on this link for details.](#)



References from [Sarva Bio Remed's online shop](#), with their permission.

- ▶ Cleanup of contaminated soil at ANA Shipyard, 2006
- ▶ Corrective Action Plan VDEQ PC#911427
- ▶ Corrective Action Plan - VDEQ PC#972073
- ▶ Corrective Action Plan VDEQ PC# 055074
- ▶ PADEP closure report documenting removal of one 500-gallon tank and two 1000-gallon tanks

Our group specializes in bioremediation of contaminated properties such as,

- ▶ abandoned gas stations;
- ▶ and properties contaminated with TCE/PCE.

We strive reduce the time-to-market for contaminated properties to realize value to our clients.

- ▶ - Dinkar Ganti, Lead Developer, DeeAar Holdings, LLC.



► **Sarva Bio Remed, LLC.**

Sarva Bio Remed, LLC is a leader in providing and developing innovative environmental solutions for remediation of contaminants including gasoline, number 2 heating oil, asphalt, PCE/TCE.

ANALYTE	CAS	SAMPLE ID		TIME-1		
		LAB ID		L180100-01		
		COLLECTION DATE		12/17/2018		
		SAMPLE DEPTH		WATER		
		SAMPLE METHOD		N11 PL (PQL)		
		(g/g)	Cont	Q	ML	ML
MICROEXTRACTABLES BY GC						
VOLATILE ORGANICS BY GC/MS						
Acetone	71-43-3	1	ND	0.5	0.16	
Butane	108-98-3	1	ND	0.16	0.2	
Chloroform	67-68-1	2	ND	0.5	0.17	
Diethyl ether	109-89-6	1	ND	1	0.13	
Hexane	110-52-3	2	ND	1	0.55	
Isobutane	109-64-6	1	2.05	3	0.15	
Octane	114-74-2	10	3.5	3	1.5	
Carbon disulfide	75-13-2	1	ND	1	0.2	
Trichloroethene	79-06-1	2	ND	1	1.9	
VOLATILE ORGANICS BY GC/MS-TIC						
Total VOC Compounds		-	-	-	-	-
BASE/NEUTRAL EXTRACTABLES BY GC/MS- WESTBROOK LAB						
Acetone	67-58-3	10	ND	2	0.65	
Acetophenone	101-85-0	2	1.9	3	0.68	
Diethylbenzylphosphine	117-85-7	2	2.6	2	1.5	
Phenol	108-95-2	1	ND	2	0.63	
Phenylacetylene	95-01-6	ND	2	0.55		
Styrene	100-42-5	ND	2	0.5		
2-Methyl-2-butene	111-74-4	ND	2	0.65		
1-octene	111-76-6	ND	2	0.68		
BASE/NEUTRAL EXTRACTABLES BY GC/MS- WESTBROOK LAB-TIC						
Total VOC Compounds		160	3	0	0	
BASE/NEUTRAL EXTRACTABLES BY GC/MS-SM						
Benzo[a]anthracene	125-28-5	0.1	0.1	0.1	0.02	
Benzo[a]pyrene	125-28-5	0.1	0.09	2	0.02	
Benzo[b]fluoranthene	205-99-2	0.1	0.18	0.1	0.02	
Benzo[k]fluoranthene	207-08-6	0.1	0.08	2	0.02	
Indeno[1,2,3-cd]pyrene	193-39-9	0.1	0.1	1	0.02	
Indeno[1,2,3-cd]pyrene	193-39-9	0.2	0.09	2	0.02	

* Comparison is not performed on parameters with non-routine criteria.

Eight Wastepipe Clinic, Westbrook, ME 01581-0151
 207-896-4200 • fax: 207-896-4241 • 800-824-4200
 www.eightwastepipe.com

Figure: Concentration Levels, ML : Dec 2018

Figure: Concentration Levels, ML : Jun 2019

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Eight Walkup Drive, Westborough, MA 01581-1019
508-898-6220 (Fax) 508-898-9293 800-624-6220 -
www.globalab.com

Dinkar Ganti | Bioremediation of Abandoned Gas Stations



June 24, 2020

Permits Coordinator
OS Remediation and Compliance Bureau
New Hampshire Department of Environmental Services
28 Hazen Drive, P.O. Box 95
Concord, NH 03302-0095

**Subject: April 2020 Groundwater Management Permit Data Submit, Dissolved
Contaminant Plume Delineation Report, and 2019 Periodic Summary Report: Mr. Mike's
Arrest, 74 Main Street, Arden, New Hampshire (NHDES #18060414, LUST Project
#0006764)**

Dear Coordinator:

Groundwater sampling was completed at the Mr. Mike's Arrest site on April 6, 2020, following the expansion of the groundwater monitoring well network on March 11 & 18, 2020. This report contains the following three parts:

1. An April 2020 Groundwater Management Permit (GMP) Data Submit, which summarizes sampling results for three pre-existing and one newly-installed onsite monitoring wells (MWs) and three newly-installed offsite MWs, located at adjacent properties to the north and south of the site;
2. A Dissolved Contaminant Plume Delineation Report, which includes a summary of recent monitoring well installations, as requested by NHDES in the April 23, 2019 reply letter to WGA's Supplemental Site Investigation Report, submitted January 26, 2019; and
3. A Periodic Summary Report, which includes a presentation of groundwater quality data for the period 2017-2020, groundwater data trends, groundwater gradients, petroleum contaminant distributions, human exposure information, an updated conceptual site model, and recommendations for further site activities.

Figure: Snapshot of the report submitted in June 2020, AN

This document presents a high-level overview. Details are available for review.



Thank you for your time!