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Free Product Recovery Report

A. Site Information

1. Site Identification: Auto Supply Co./Viad Corp
Date of Report: February 27, 2014
Facility ID: N/A **Incident No:** 6506
Site Risk: Intermediate **Site Rank:** I 165 D **Free Product Risk Assessment Rank:** 226
Site Name: Auto Supply Co., Inc./Viad Corp
Site Street Address: 1007 South Marshall Street, Winston-Salem, NC
Description of Geographical Data Point: UST area
Location Method: USGS Topographic Map
Latitude: 36.0819281° N **Longitude:** 80.2423568° W

2. Contact information:

UST Owner: Viad Corp (successor to Transportation Leasing Company)
1850 N, Central Avenue, Suite 1900, Phoenix, AZ 85004-4565
Contact: Mr. Ken Ries **Telephone:** (480) 946-0770

UST Operator: Viad Corp (successor to Transportation Leasing Company)

Property Owners: Tuwella, LLC
197 Haywood Drive, Advance, NC 27006 **Telephone:** (336) 661-6100

Property Occupant: Auto Supply Company, Inc.

Consultant: Geoscience & Technology, P.A.
2050 North Point Drive, Winston-Salem, NC 27106 **Telephone:** (336) 896-1300

3. Release information:

Date Discovered: December 1990 UST removal

Estimated Quantity of Release: Unknown

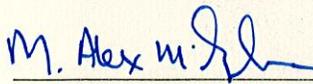
Cause of Release: Unknown

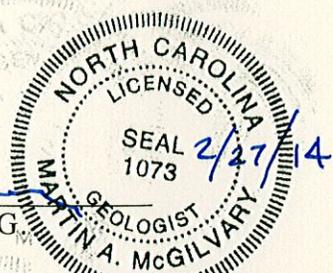
Source of Release: UST or UST system

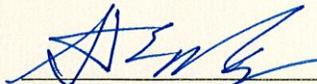
Size and Contents of UST System from which release occurred: 1 – 6,000-g Diesel UST
1 – 12,000-g Diesel UST
2 – 1,000-g Used Oil UST

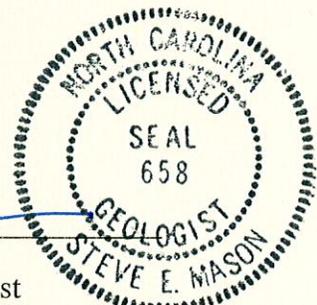
Criteria Used to Classify Risk: Presence of free phase product

We, M. Alex McGilvary, P.G. and Steve E. Mason, P.G., Licensed Geologists for Geoscience and Technology, P.A. do certify that the information contained in this report is correct and accurate to the best of our knowledge.


M. Alex McGilvary, P.G.
Senior Geologist




Steve E. Mason, P.G.
Principal Hydrogeologist



Geoscience and Technology, P.A. is licensed to practice geology in North Carolina. The certification number of the company is: C-185

B. Executive Summary

The Auto Supply Company site is located at 1007 South Marshall Street in Winston-Salem, NC (Figure 1). The site is named after the business that currently operates at this location. Prior to its use by Auto Supply Company, this site was the Greyhound Bus Station and the Winston-Salem Public Bus Service Garage. The last operator of the USTs was determined to be Transportation Leasing Company of Phoenix, Arizona (now Viad Corp).

In late 1990, two (2) diesel underground storage tanks (USTs), a 12,000 gallon and a 6,000 gallon and two (2) used oil USTs (1,000 gallon USTs) were excavated and removed from this site. Field observations and tank closure soil samples indicated that a release of petroleum had occurred associated with these USTs. Due to the discovery of impacted soils, additional soil and groundwater assessment was performed leading to the discovery of free product plumes. A Comprehensive Site Assessment (CSA) performed by Engineering Tectonics, P.A. (ETPA) was completed in September 1992 to define the extent of the impacted soil and groundwater at the site. A total of 21 groundwater-monitoring wells were installed on the site and surrounding property to monitor the release area. Currently, eighteen (18) monitoring wells are present on this site (Figure 2). ETPA performed work on this project from 1990 to October-November 2001.

The accumulation of free product is concentrated in two distinct areas of the Auto Supply site. An accumulation of diesel fuel is currently and has been historically present in an area in the center of the property apparently near the former UST dispenser island area. A mixture of used oil and diesel fuel is present and has historically been present in the northeastern portion of the site.

Following the completion of the CSA, groundwater monitoring was performed for several years. A "Site Investigation Report" was completed in October 1995 and a "Soil Assessment Report" was completed in April 1996. Beginning in August 1998, free product recovery was initiated and Free Product Recovery Reports were completed and submitted on a quarterly basis. The method of product recovery used during this time was Aggressive Fluid Vapor Recovery (AFVR). Eleven (11) AFVR events were performed by ETPA between June 1998 and February 2000. Free Product Recovery Reports were prepared and submitted to the NCDENR-UST Section on a quarterly basis. An "Evaluation of Free Product Recovery Methods Report" was completed on February 5, 2000.

In June 2000, four (4) passive skimmers were installed at this site and the product recovery method changed from AFVR to passive skimming and hand bailing. The passive skimming and hand bailing recovery method continued until October 2001. No additional site work was performed by ETPA.

In January 2002, Geoscience and Technology, P.A. (GeoSci) was hired by Viad Corp to continue work on this project. Since 2002, GeoSci personnel have performed several different methods of free product recovery on this project. Since August 2002, product at this site has been recovered using; 1) a combination of passive skimmer maintenance and hand bailing, 2) AFVR events, and 3) Mobile Multi-Product Extraction (MMPE) events.

The cumulative amount of free product recovered at this site through February 2013 is a little more than 915 gallons. More than half of the product recovered, 588 gallons, has been the result of the two (2) MMPE events.

A groundwater monitoring event was performed in May 2011 and reported in an October 2011 Groundwater Monitoring Report (GWMR). A second groundwater monitoring event was performed in January 2013 and reported in a May 2013 GWMR.

The groundwater monitoring data indicates that the product recovery efforts at this site have reduced the extent of the free product and shrunk the plume of the affected groundwater, but have not been able to completely remove the free product from the site.

In an effort to completely remove the free product from the site and to continue to reduce the extent of the groundwater plume, GeoSci and subcontract personnel conducted a third MMPE event at the Auto Supply site in September 2013. This Free Product Recovery Report summarizes the MMPE event along with free product accumulations prior to, and after the MMPE event.

The MMPE event performed in September 2013 removed a total of 15,473 gallons of highly-impacted groundwater from the site. Visual inspections of the recovered fluids in the storage tankers during the event revealed a heavy sheen of petroleum present on the recovered water, but no discrete layer of recovered product. Periodic measurements of the air emissions collected from the exhaust stack of the MMPE pumping equipment were used to calculate the volume of free product lost to vaporization. A total of 130.35 gallons of product was recovered as vapor during the September 2013 MMPE event.

The third MMPE event did not recover the volume of free product as previously recovered during similar MMPE events. These findings are interpreted as the previous MMPE events were successful in removing the product from the site and there is now less free product remaining on-site to capture.

The cumulative amount of free product recovered at this site through November 2013 is slightly more than 1,046 gallons. The costs per gallon of the recovered product from the September 2013 MMPE are about \$86 per gallon of recovered product. The post-MMPE "Product Level Check" site visit performed on November 18, 2013 indicated product has begun to re-accumulate on the water table in the central plume areas.

Given the nature of the site soils, the type of released product, the site history and the re-accumulation of product, some method of regular and periodic product recovery is necessary to completely remove the free product from this site and attenuate the groundwater plume to concentrations less than the NCDENR Gross Contamination Levels (GCLs).

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D. Site History and Characterization

1. Ownership History

a. UST Owner/ Operator:

Viad Corp (successor to Transportation Leasing Company)
1850 N, Central Avenue, Suite 1900,
Phoenix, AZ 85004-4565
Contact: Mr. Ken Ries **Telephone:** (480) 946-0770

b. Landowner:

Tuwella, LLC
197 Haywood Drive,
Advance, NC 27006
Telephone: (336) 661-6100

2. UST Information

The specific information about the USTs previously located on this site is as follows:

Date: February 2011 Incident No. 6506 Inc. Name: Auto Supply Co. Site /Viad Corp Facility ID# N/A				
Tank ID	1	2	3	4
Last contents	Diesel	Diesel	Used Oil	Used Oil
Previous contents	Same	Same	Same	Same
UST Capacity	12,000	6,000	1,000	1,000
Type of UST Construction	Unknown, likely bare steel			
UST Dimensions	Not recorded	Not recorded	Not recorded	Not recorded
Installation date	Unknown	Unknown	Unknown	Unknown
Date last used	Prior to 1974	Prior to 1974	Prior to 1974	Prior to 1974
Description of Piping and Pump	Unknown	Unknown	Unknown	Unknown
UST Status	Removed – 12/1990	Removed – 12/1990	Removed –12/1990	Removed-12/1990
Release associated with UST System	Yes	Yes	Yes	Yes
Date release discovered	At UST Removal	At UST Removal	At UST Removal	At UST Removal

* - Information gathered from ETPA CSA Report of September 1992

3. Non-UST Information

To our knowledge, no aboveground storage tanks are located on this property.

4. Release description

Environmental Contractors, Inc removed the four (4) UST systems from this site in late 1990. Upon removal, diesel and used-oil impacted soils were found associated with these tanks. Subsequent assessment found petroleum-impacted groundwater and two (2) areas with accumulations of free product on the water table.

5. Site Characteristics

The Auto Supply Company site is located at 1007 South Marshall Street within an urbanized portion of Winston-Salem, NC (Figure 1). The properties surrounding the subject site are mainly used as commercial, retail, mixed use and residential properties. Since the site is located within the City of Winston-Salem, the source of drinking water for the surrounding properties is the municipal water system. The Auto Supply Company facility is supplied potable water by the City of Winston-Salem, NC.

6. Summary of Work Performed and Listing of Reports Previously Submitted

Soil and groundwater assessment have been performed on this UST project beginning in December 1990.

A listing of the reports submitted to date is summarized in Table 2:

Table 2: Summary of Work Performed to Date

Date: February 2011 Incident No. 6506 Inc. Name: Auto Supply Co. Site /Viad Corp Facility ID# N/A		
Date	Report Title	Consultant
December 1990	Report of Soil Sampling	Law Environmental
January 1992	Field Investigation Report	Eng. Tectonics, P.A.
September 1992	Comp. Site Assessment Report	Eng. Tectonics, P.A.
July 1994	Well Sampling and Site Assessment Activities	Eng. Tectonics, P.A.
December 1994	NOV Response Report	Eng. Tectonics, P.A.
October 1995	Site Investigation Report	Eng. Tectonics, P.A.
April 1996	Soil Assessment Report	Eng. Tectonics, P.A.
July 1998	Free Product Recovery Report	Eng. Tectonics, P.A.
January 1999	Free Product Recovery Report	Eng. Tectonics, P.A.
February 1999	Free Product Recovery Report	Eng. Tectonics, P.A.
May 1999	Free Product Recovery Report	Eng. Tectonics, P.A.
September 1999	Free Product Recovery Report	Eng. Tectonics, P.A.
January 2000	Free Product Recovery Report	Eng. Tectonics, P.A.
February 2000	Evaluation of Free Product Recovery Methods	Eng. Tectonics, P.A.
March 2000	Free Product Recovery Report	Eng. Tectonics, P.A.
September 2001	Free Product Recovery Report	Eng. Tectonics, P.A.
October 2001	Free Product Recovery Report	Eng. Tectonics, P.A.
August 2002	Free Product Recovery Report	Geoscience and Technology, P.A.
February 2003	Free Product Recovery Report	Geoscience and Technology, P.A.
March 2003	Free Product Recovery Report	Geoscience and Technology, P.A.
October 2003	Free Product Recovery Report	Geoscience and Technology, P.A.
February 2004	Free Product Recovery Report	Geoscience and Technology, P.A.
May 2004	Free Product Recovery Report	Geoscience and Technology, P.A.
November 2004	Free Product Recovery Report	Geoscience and Technology, P.A.
June 2009	Free Product Recovery Report	Geoscience and Technology, P.A.
February 2011	Free Product Recovery System Spec. Report	Geoscience and Technology, P.A.
October 2011	Groundwater Monitoring Report	Geoscience and Technology, P.A.
March 2013	Groundwater Monitoring Report	Geoscience and Technology, P.A.

E. Summary of Site Assessment Information

1. Previous Site Assessment Work

In late 1990, two (2) diesel underground storage tanks (USTs), a 12,000 gallon and a 6,000 gallon and two (2) used oil USTs (1,000 gallon USTs) were excavated and removed from this site. Field observations and tank closure soil samples indicated that a release of petroleum had occurred associated with these USTs. Due to the discovery of impacted soils, additional soil and groundwater assessment was performed leading to the discovery of free product plumes.

A Comprehensive Site Assessment (CSA) was completed in September 1992 to define the extent of the impacted soils and groundwater at the site. A total of 21 groundwater-monitoring wells were installed on the site and surrounding property as part of the assessment. Currently, eighteen (18) monitoring wells are present on this site (Figure 2). The site is situated on a southeast

sloping lot with about 6-7 feet of elevation change. The depth to the groundwater across the subject site is approximately 12 to 22 feet below grade and varies approximately 2 to 4 feet seasonally.

Previous soil and groundwater assessment has determined that petroleum-impacted soils remain present in the vadose zone area in and, downgradient of the former tank areas. The site soils are described as clays and silts, overlying saprolite.

The accumulation of free product on the site is concentrated in two distinct areas. An accumulation of diesel fuel is currently and has been historically present in an area in the center of the property apparently near the former UST dispenser island area. Nine (9) monitoring wells, MW2, MW8, MW9, MW13, MW14, MW15, MW19, MW20 and MW21, are located in the central portion of the site and have historically contained accumulations of product. A mixture of used oil and diesel fuel is currently present in the northeastern portion of the site. Wells MW17, MW18, and MW10 are located in the northeastern portion of the site and have historically contained product accumulations.

The data collected in early September 2013, prior to the most recent MMPE event, found accumulations of product present in four (4) wells in the central portion of the site. Of the wells located in the central portion of the site, only wells MW8, MW14, MW15, MW20 contained free product. In the northeastern corner of the site, only well MW18 was found to have free product. These product accumulation measurements confirm that the free product recovery methods have worked to reduce the amount of product present on this site.

2. Site Geology and Hydrogeology Information

The site is located in an urbanized portion of Winston-Salem, NC. It is nearly adjacent to the Old Salem Historical District, which was first settled in 1760's. The site is situated on a southeast sloping lot with about 6-7 feet of elevation change. It is likely that the original site topography has been altered by fill and grading activities. Salem Creek is located to the south of the property. The depth to the groundwater across the subject site is approximately 12 to 22 feet below grade and varies approximately 2 to 4 feet seasonally.

According to the Geologic Map of North Carolina, biotite gneiss and schist underlie the site. A review of the well construction records from the CSA indicate that the site soils are clays and silts, overlying degraded and weathered rock (saprolite).

The fine-grained nature of the clayey and silty soils present produce a low transmissivity with relatively slow groundwater movement and contaminant migration across the site. The AFVR and MMPE events have confirmed the low transmissivity of soils with the water table drawdown in response to pumping limited with the influenced area only extending a short distance away from the pumping well(s).

3. Current Site Conditions and Free Product Recovery

On September 9, 2013, personnel from Geoscience and Technology, P.A. and a subcontract MMPE contractor, ZAVA Industrial, Inc., visited the subject site to perform a MMPE event. Eighteen (18) groundwater-monitoring wells are currently installed at this UST release site (Figure 2). Three (3) wells, MW5, MW6 and MW7 were destroyed by the widening of Salem Avenue and the construction of a new building on the downgradient property.

As part of previous free product recovery efforts, passive product skimmers have been installed in four of the wells at this site. The skimmers were located in wells MW8, MW15, MW18 and MW20. Prior to the September 9, 2013 site visit, the passive skimmers were removed from the wells. The purpose of removing the passive skimmers from the wells was to obtain measurements of the free product accumulations that were unaffected by the presence of the skimmer.

Prior to the initiation of the MMPE event, GeoSci personnel located the monitoring wells, and obtained the water level or free product thickness information for each well. Table 3 summarizes the construction information for all of the existing eighteen (18) wells. Also summarized in Table 3 are the water and free product levels present at the site prior to the initiation of the MMPE event.

On September 9, 2013, six (6) wells were found to contain accumulations of product. Five (5) wells, MW8, MW14, MW15, MW20 and MW21 are located in the central portion of the site. These wells along with the other nearby wells located in the central portion of the site (Nos. 2, 9, 19 and 13) have historically contained product accumulations, mainly consisting of diesel fuel. Of the wells located in the central portion of the site, MW8 has typically contained the thickest product accumulation. On September 9, 2013, the thickest accumulation of product (0.86 feet) was present in MW15.

Product accumulations have also historically been found in monitoring wells 17, 18, and 10. On the September 9, 2013 site visit, product accumulation was only present in MW18 at a thickness of .12 feet. These three (3) wells are located in the northeastern portion of the site and contain accumulations of product that appears to be a mixture of used motor oil and diesel fuel. Of the wells located in the northeastern portion of the property, MW18 typically has contained the thickest accumulation of product.

The September 9, 2013 groundwater elevations data were used to calculate the groundwater flow direction (Figure 2) and provided the basis for Figure 3 a map showing the approximate extent of the groundwater plume.

Table 3: Monitoring Well Construction Information

Well ID	Date Installed	Date Water Level Measured	Well Casing Diameter (in.)	Well Casing Depth (ft.)	Screened Interval (BGS)	Depth of well (BGS)	Top of casing Elevation*	Depth of water from Top of Casing	Free Product Thickness (ft.)	Groundwater Elevation	Comments
MW1	8/5/92	9/9/2013	2	44.5	44.5-49.5	49.5	94.13	16.65	None	77.48	
MW2	8/6/92	9/9/2013	2	13	13-23	23	94.69	14.76	None	79.93	
MW3	8/5/92	9/9/2013	2	15	15-25	25	100.00	20.79	None	79.21	
MW4	8/5/92	9/9/2013	2	13	13-23	23	96.28	17.41	None	78.87	
MW5	8/6/92	Destroyed	-	-	-	-	-	-	-	-	-
MW6	11/13/92	Destroyed	-	-	-	-	-	-	-	-	-
MW7	11/13/92	Destroyed	-	-	-	-	-	-	-	-	-
MW8	3/15/94	9/9/2013	2	8	8-23	23	94.54	15.97P	0.42*	78.93C	Skimmer
MW9	3/15/94	9/9/2013	2	8	8-23	23	94.19	14.41	None	79.78	
MW10	3/15/94	9/9/2013	2	8	8-23	23	93.51	13.50	None	80.01	
MW11	3/15/94	9/9/2013	2	8	8-23	23	91.96	12.33	None	79.63	
MW12	8/29/94	9/9/2013	2	4'-30/2"-	48-53	53	94.77	15.45	None	79.32	
MW13	4/4/95	9/9/2013	2	11	11-21	21	94.83	15.80	None	79.03	
MW14	4/4/95	9/9/2013	2	11	11-21	21	95.04	16.01P	0.12	79.13C	
MW15	4/4/95	9/9/2013	2	11	11-21	21	94.35	15.36	0.86*	79.62C	Skimmer
MW16	4/5/95	9/9/2013	2	12	12-22	22	95.91	16.68	None	79.23	
MW17	4/7/95	9/9/2013	2	10	10-20	20	94.52	14.28	None	80.24	
MW18	4/7/95	9/9/2013	2	11	11-21	21	94.12	14.05P	0.12*	80.17C	Skimmer
MW19	7/16/98	9/9/2013	4	12	12-27	27	94.65	15.24	None	79.41	
MW20	7/16/98	9/9/2013	4	11.5	11.5-26.5	26.5	94.51	15.04P	0.29*	79.71C	Skimmer
MW21	7/16/98	9/9/2013	4	13	13-28	28	94.47	14.88P	0.12	79.69C	

Top of Casing elevations from measurements by GeoSci personnel. Reference Point Elevation: MW 3 TOC. Assumed Elevation: 100.00 ft. If product present, groundwater elevation is calculated by [Top of Casing-Depth to Water]+[FP Thickness x 0.8581]. * - Passive skimmer present.

Table 4: Monitoring Well Construction Information

Well ID	Date Installed	Date Water Level Measured	Well Casing Diameter (in.)	Well Casing Depth (ft.)	Screened Interval (BGS)	Depth of well (BGS)	Top of casing Elevation*	Depth of water from Top of Casing	Free Product Thickness (ft.)	Groundwater Elevation	Comments
MW1	8/5/92	11/18/2013	2	44.5	44.5-49.5	49.5	94.13	No data	None	-	
MW2	8/6/92	11/18/2013	2	13	13-23	23	94.69	15.66	None	79.03	
MW3	8/5/92	11/18/2013	2	15	15-25	25	100.00	21.57	None	78.43	
MW4	8/5/92	11/18/2013	2	13	13-23	23	96.28	18.33	None	77.95	
MW5	8/6/92	Destroyed	-	-	-	-	-	-	-	-	-
MW6	11/13/92	Destroyed	-	-	-	-	-	-	-	-	-
MW7	11/13/92	Destroyed	-	-	-	-	-	-	-	-	-
MW8	3/15/94	11/18/2013	2	8	8-23	23	94.54	15.19P	2.70*	81.67C	Skimmer
MW9	3/15/94	11/18/2013	2	8	8-23	23	94.19	15.12	None	79.07	
MW10	3/15/94	11/18/2013	2	8	8-23	23	93.51	14.51	None	79.00	
MW11	3/15/94	11/18/2013	2	8	8-23	23	91.96	12.69	None	79.27	
MW12	8/29/94	11/18/2013	2	4'-30/2"-	48-53	53	94.77	No data	None	-	
MW13	4/4/95	11/18/2013	2	11	11-21	21	94.83	16.61	None	78.22	
MW14	4/4/95	11/18/2013	2	11	11-21	21	95.04	16.79P	0.17	78.40C	
MW15	4/4/95	11/18/2013	2	11	11-21	21	94.35	15.20	1.54*	80.47C	Skimmer
MW16	4/5/95	11/18/2013	2	12	12-22	22	95.91	No data	None	-	
MW17	4/7/95	11/18/2013	2	10	10-20	20	94.52	15.09	None	79.43	
MW18	4/7/95	11/18/2013	2	11	11-21	21	94.12	14.65P	0.65*	80.03C	Skimmer
MW19	7/16/98	11/18/2013	4	12	12-27	27	94.65	16.15	None	78.50	
MW20	7/16/98	11/18/2013	4	11.5	11.5-26.5	26.5	94.51	15.41P	1.29*	80.21C	Skimmer
MW21	7/16/98	11/18/2013	4	13	13-28	28	94.47	15.52P	0.44	79.33C	

Top of Casing elevations from measurements by GeoSci personnel. Reference Point Elevation: MW 3 TOC Assumed Elevation: 100.00 ft.

If product present, groundwater elevation is calculated by [Top of Casing-Depth to Water]+[FP Thickness x 0.858]. * - Passive skimmer present.

Table 5: Free Product Recovery Information

Date: February 2014 Incident No. 6506 Incident Name: Auto Supply Co. Site /Viad Corp										
Date	Well ID	Product Type	Free Product Recovery Method	Free Product Thickness before Recovery (ft.)	Free Product Thickness after Recovery	Amount of Vaporized Product	Amount of Liquid (Water and Product)	Amount of Liquid Recovered (gal.)	Total Amount of Product Recovered (gal.)	
11/18/2013	MW8	Diesel	Skimmer	2.70	Skim*	None	0.1 gals.	0.1	0.1	
11/18/2013	MW14	Diesel	-	0.17	0.17	None	None	None	None	
11/18/2013	MW15	Diesel	Skimmer	1.54	Skim*	None	0.1 gals.	0.1	0.1	
11/18/2013	MW18	Diesel	Skimmer	0.65	Skim*	None	0.1 gals.	0.1	0.1	
11/18/2013	MW20	Diesel	Skimmer	1.29	Skim*	None	0.5 gals.	0.5	0.5	
11/18/2013	MW21	Diesel	-	0.44	0.44	None	None	None	None	

* - Skim = less than 0.01 ft.

Table 6: Cumulative Volume of Free Product Recovered From Site

Date: February 2014 Incident No. 6506 Incident Name: Auto Supply Co. Site /Viad Corp	
Date of Recovery Event	Total Amount of Product Recovered September 2013 MIMPE Event
9/9-13/2013	130.35 gallons
11/18/2013	0.8
Cumulative Total of Volume Recovered to Date from All Recovery Events	
Approx. 1,045.6 gallons	
Approx. 1,046.4 gallons	

Table 7: Current and Historical Groundwater Elevations

Date: February 2014 **Incident No.** 6506 **Incident Name:** Auto Supply Co. Site /Viad Corp

Well ID	Date Water Level Measured	Screened Interval (BGS)	Depth to water from Top of Casing (ft.)	Free Product Thickness	Top of casing Elevation*	Groundwater Surface Elevation
MW3	4/24/2002	15-25	22.01	No product	100.00	77.99
MW3	6/17/2003	15-25	18.84	No product	100.00	81.16
MW3	7/30/2004	15-25	21.17	No product	100.00	78.83
MW3	6/18/2009	15-25	20.27	No product	100.00	79.73
MW3	11/15/2010	15-25	20.73	No product	100.00	79.27
MW3	5/26/2011	15-25	20.50	No product	100.00	79.50
MW3	1/31/2013	15-25	21.18	No product	100.00	79.82
MW3	9/9/2013	15-25	20.79	No product	100.00	79.21
MW3	11/18/2013	15-25	21.57	No product	100.00	78.43
<hr/>						
MW4	4/24/2002	3-23	18.46	No product	96.28	77.82
MW4	6/17/2003	3-23	15.51	No product	96.28	80.77
MW4	7/30/2004	3-23	17.76	No product	96.28	78.52
MW4	6/18/2009	3-23	16.90	No product	96.28	79.38
MW4	11/15/2010	3-23	17.31	No product	96.28	79.97
MW4	5/26/2011	3-23	17.10	No product	96.28	79.18
MW4	1/31/2013	3-23	17.65	No product	96.28	78.63
MW4	9/9/2013	3-23	17.41	No product	96.28	78.87
MW4	11/18/2013	3-23	18.33	No product	96.28	78.47

Table 7 (Continued): Current and Historical Groundwater Elevations

Date: February 2014 Incident No. 6506 Incident Name: Auto Supply Co. Site /Viad Corp							
Well ID	Date Water Level Measured	Screened Interval (BGS)	Depth to water from Top of Casing (ft.)	Free Product Thickness	Top of casing Elevation*	Groundwater Surface Elevation	
MW11	4/24/2002	8-23	Not recorded				
MW11	6/17/2003	8-23	Not recorded	-	-	-	
MW11	7/30/2004	8-23	Not recorded	-	-	-	
MW11	6/18/2009	8-23	11.76	No product	91.96	80.20	
MW11	11/15/2010	8-23	12.08	No product	91.96	79.88	
MW11	5/26/2011	8-23	11.91	No product	91.96	80.05	
MW11	1/13/2013	8-23	12.34	No product	91.96	79.62	
MW11	9/9/2013	8-23	12.33	No product	91.96	79.63	
MW11	11/18/2013	8-23	12.69	No product	91.96	79.27	

F. Summary of September 2013 MMPE Event

GeoSci personnel have performed three (3) MMPE events at the Auto Supply Company site. The first MMPE event was performed in August 2002. This MMPE event recovered 190 gallons of product at a cost of \$7,846.00. The cost for the 1st MMPE event on a per gallon basis was \$41/per gallon.

A second MMPE was performed in August-September 2004. The 2nd MMPE event recovered 396 gallons of product at a cost of \$13,094.75. The cost for the 2nd MMPE Event on a per gallon basis was about \$33/per gallon. The 2nd MMPE event was the most successful product recovery event at this site to date.

The third MMPE event was performed on September 9 - September 13, 2013. The 3rd MMPE event recovered 130.35 gallons of product at a cost of \$11,175.75. The cost for the 3rd MMPE event on a per gallon basis was about \$86/per gallon.

The MMPE event performed in September 2013 removed a total of 15,473 gallons of petroleum-impacted water from the site. Visual inspections of the recovered fluids in the storage tankers during the MMPE event revealed that a heavy sheen of petroleum present on the recovered water. No discreet layer of product was observed. Periodic measurements of the air emissions collected from the exhaust stack of the MMPE pumping equipment were used to calculate the volume of free product lost to vaporization. A total of 130.35 gallons of product was calculated recovered as vapor.

1.0 Cost Per Unit Recovery – MMPE Event, September 9 - September 13, 2013

Table 8 summarizes the costs related to the September 9 - September 13, 2013 MMPE event. The estimated costs per gallon include the charges from the MMPE subcontractor and main consultant supervision.

Table 8 - MMPE Event Cost per Unit recovery				
Date: February 2014 Incident No. 6506 Incident Name: Auto Supply Co. Site /Viad Corp				
Task Code	Item	Units	Unit Costs	Costs
7.420	280 CFM Unit, Power supply + Mob.	1	\$2,325.00 ea.	\$2,325.00
7.420	Storage Tanker Drop off and Pickup	2	\$187.50 ea.	\$375.00 ea.
7.420	Storage Tanker Rental	5 days	\$ 120/day	\$ 600.00
7.420	Fluid transportation and pump out	6 hrs.	\$ 85/hr.	\$ 510.00
7.420	Fluid disposal	15,473 gal.	\$0.28 gal	\$4,332.44.
	NC Sales Tax			\$0.00
	Total Cost MMPE Subcontractor			\$10,178.25
7.201	Consultant Supervision	10.50 hrs.	\$95.00.	\$997.50
	Total Cost MMPE Event			\$11,175.75
	Total Gallons Water/Product Recovered	15,473 gal.		
	Cost per Gallon of Water/Product Recovered			\$ 0.72
	Total Gallons Product Recovered	130.35		
	Cost per Gallon of Product Recovered			\$85.74

The post-MMPE Product Level Check visit performed on November 18, 2013 indicated product has begun to re-accumulate on the water table (Table 4 and Figure 5). The thickness of the accumulated product appears to be increased compared to the pre-MMPE product thicknesses.

After the November 18, 2013 Free Product Level Check, the passive skimmers area were located in wells MW8, MW15 MW18 and MW20 and positioned to continue to capture free product.

H. Conclusions

GeoSci personnel have performed three (3) MMPE events at the Auto Supply Company site. The first MMPE event was performed in August 2002. This MMPE event recovered 190 gallons of product at a cost of \$7,846.00. The cost for the 1st MMPE event on a per gallon basis was \$41/per gallon.

A second MMPE event was performed in August-September 2004. The 2nd MMPE event recovered 396 gallons of product at a cost of \$13,094.75. The cost for the 2nd MMPE event on a per gallon basis was about \$33/per gallon. The 2nd MMPE event was the most successful product recovery event at this site to date.

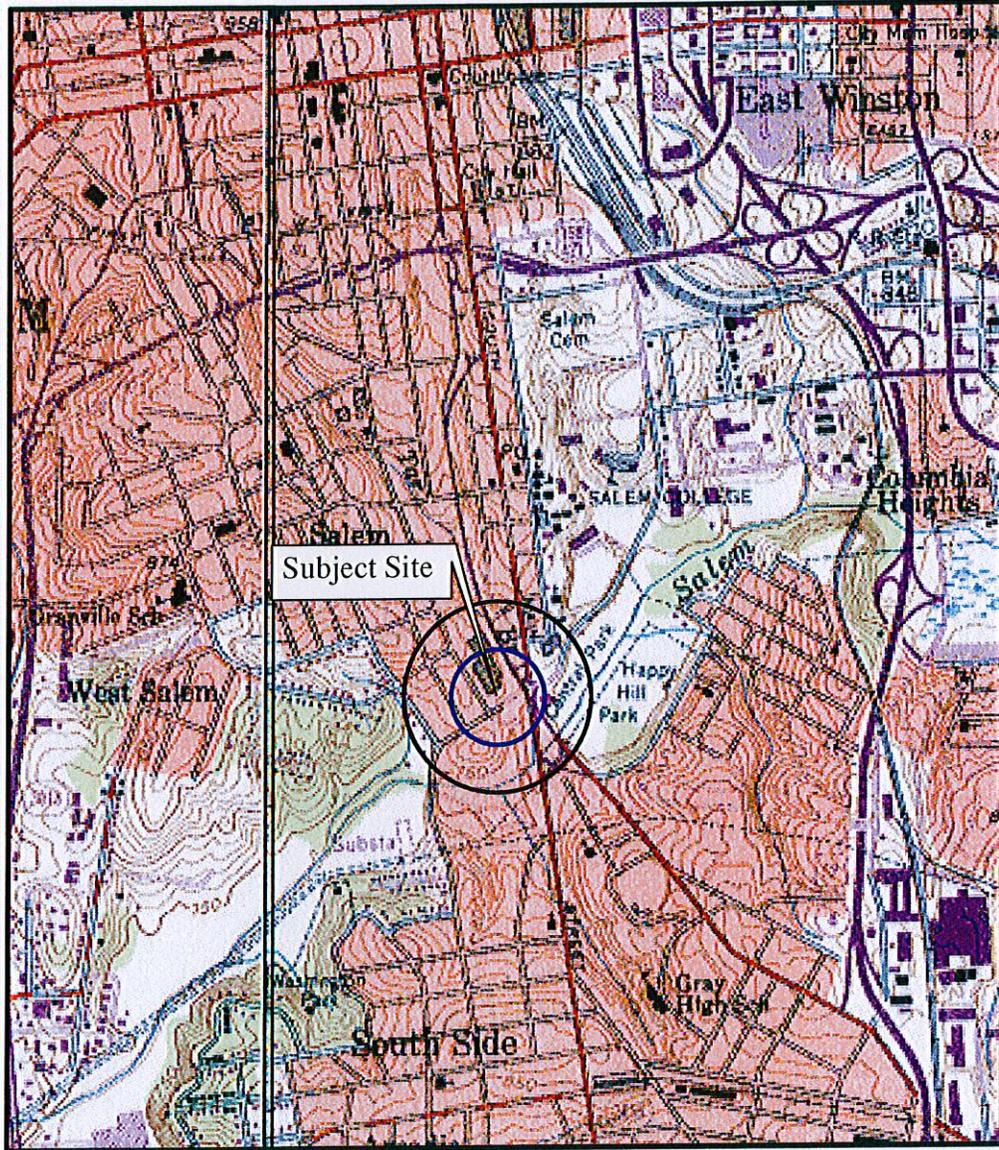
The third MMPE event was performed on September 9 - September 13, 2013. The 3rd MMPE event recovered 130.35 gallons of product at a cost of \$11,175.75. The cost for the 3rd MMPE event on a per gallon basis was about \$86/per gallon.

The third MMPE event performed in September 2013 did not recover the volume of free product as previously recovered during similar MMPE events. A total of 15,435 gallons of highly-impacted groundwater were recovered during the September 2013 MMPE event. A total of 130.35 gallons of product were calculated to have been recovered/converted to vapor emissions during the September 2013 MMPE pumping event. These findings are interpreted as the previous MMPE events were successful in removing the product from the site and there is now less free product remaining to capture.

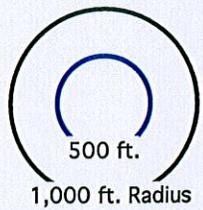
A post-MMPE Product Level Check visit was performed on November 18, 2013 and indicates that free product has begun to re-accumulate on the water table in the central plume area. A comparison of the pre-MMPE product thickness data to that of the Post-MMPE product thickness reveals an apparent increase. The increase in apparent product thickness is likely an artifact related to the MMPE pumping. The MMPE pumping depressed the water table in the product plume area and allowed the free product to drain out of the adjacent dewatered soils and accumulate in the monitoring well piping in a thickness that is not representative of the product thickness at the site. It is well-documented that the apparent product thickness in 2 inch diameter groundwater monitoring wells is not an accurate indicator of the actual product thickness in the adjacent formation.

Based on the product recovery history at the Auto Supply site, that fact that the site is underlain by dense clayey soils that hold and slowly weep product to the groundwater, and that accumulations of free product are still currently present, periodic and consistent product recovery events are suggested to continue to the remove free product and to allow the groundwater plume to attenuate to concentrations less than the NCDENR Gross Contamination Levels (GCLs).

FIGURES



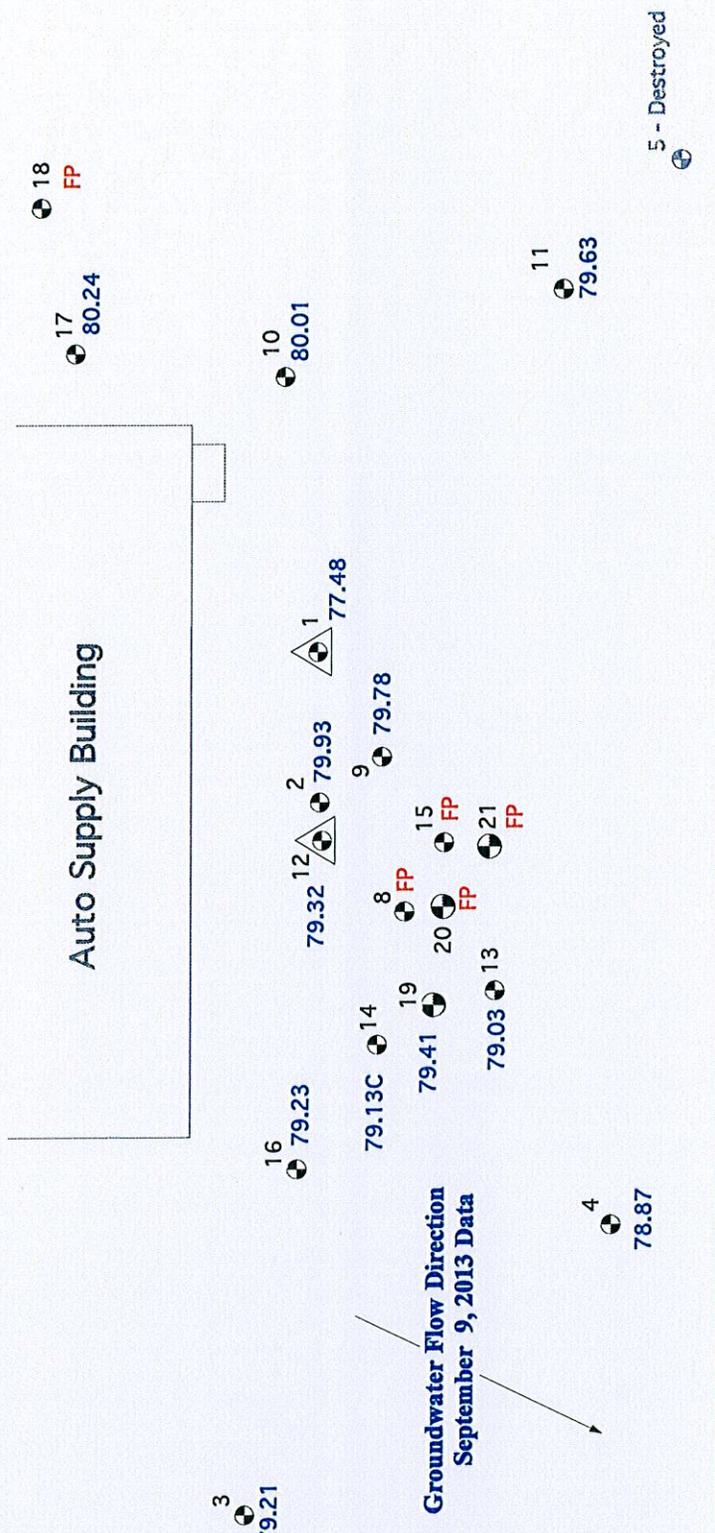
Map Source: Winston-Salem, East, NC U.S.G.S. 7.5' topographic quadrangle map
U.S.G.S. Ref. Code 36080-A2-TF-024



Subject Site:
Latitude: 36.0819281° N
Longitude: 80.2423568° W

Title: Site Location Map Winston-Salem East, NC USGS Quadrangle 1950/1994 PR	Project: Auto Supply Co. Viad Corp	Scale: 1" = 2000'	Figure No.: 1
	Job No.: 02.100	Location: Winston-Salem, NC	

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**Groundwater Flow Direction
September 9, 2013 Data**

Legend

- Type II Groundwater Monitoring Well - 2 in. dia.
- Type II Groundwater Monitoring Well - 4 in. dia.
- ▲ Type III Groundwater Monitoring Well

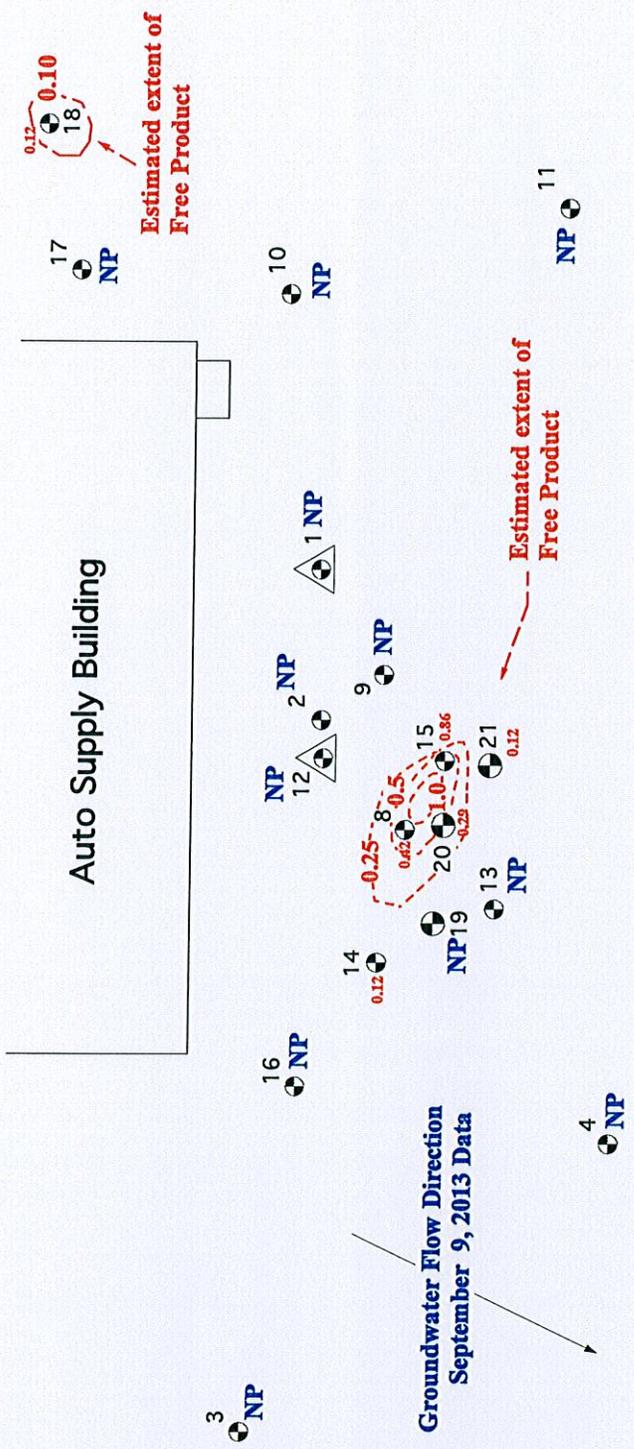
9/9/13 GW data

	TOC Elev.	DTW	WT Elev.
MW3	100.00	20.79	79.21
MW4	96.28	17.41	78.87
MW11	91.96	12.33	79.63

Title: Groundwater Flow Direction
Sept. 9, 2013
Data

Project: Viad UST
Scale: 1"=40'
Job No.: 02.100
Location: Winston-Salem, NC
Figure No.: 2

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9/9/13 Free Product data

Well ID	Free Product thickness (ft)
MW8	0.42
MW14	0.12
MW15	0.86
MW18	0.12
MW20	0.29
MW21	0.12

Legend

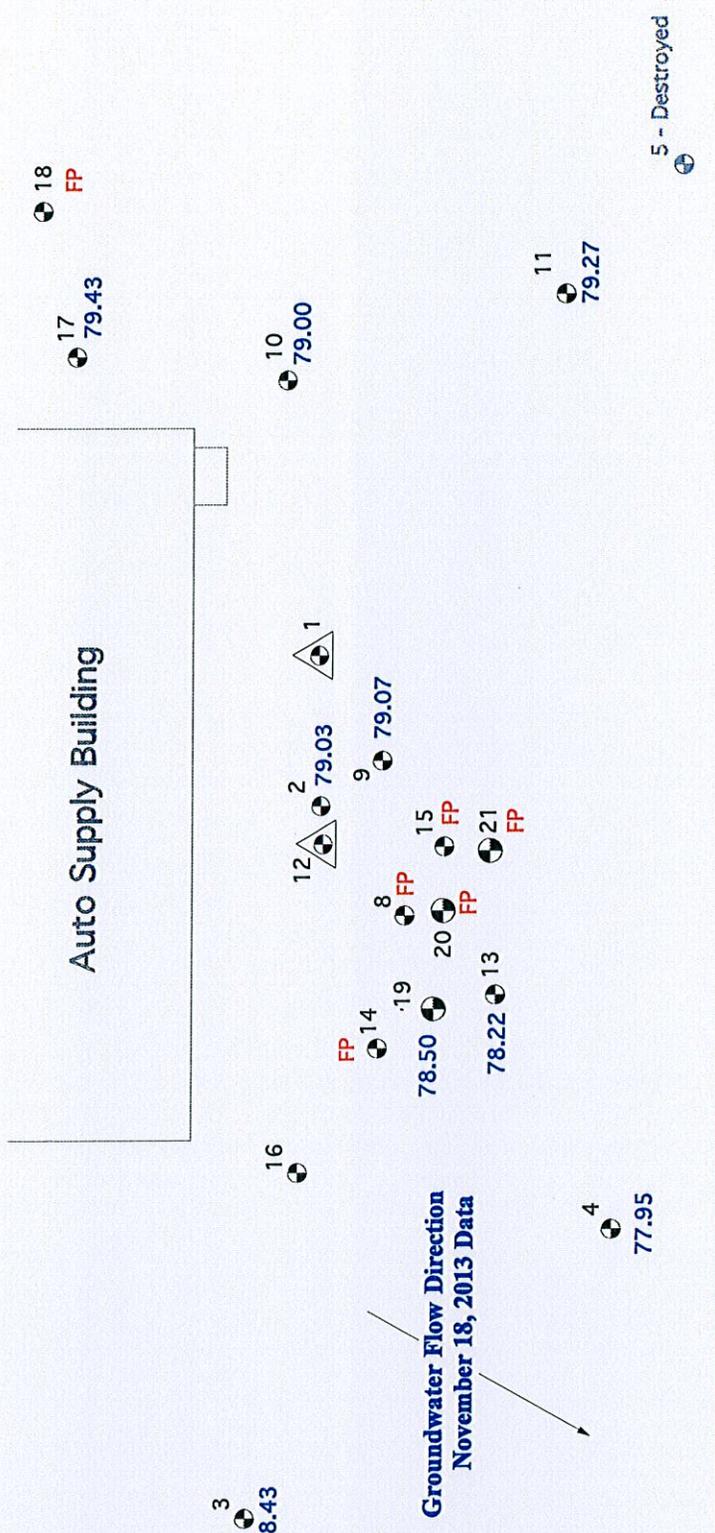
- ² Type II Groundwater Monitoring Well - 2 in. dia.
 - ¹⁹ Type II Groundwater Monitoring Well - 4 in. dia.
 - ▲ Type III Groundwater Monitoring Well
 - ⁷ Well Destroyed
 - ⁵ Well Destroyed
- Measured Product Thickness (Ft.) - Data collected 9.9.13
 NP - No Product 9.9.13 * - Product thickness in well affected by passive product skimmer.
 NR - Not Measured

Title: **Pre-MMPE Free Product Thickness September 9, 2013**

Project: **Auto Supply Co. Viad Corp**
 Location: **Winston-Salem, NC**

Scale: **1"=40'**
 Figure No.: **3**

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- Legend**
- ² Type II Groundwater Monitoring Well - 2 in. dia.
 - ¹⁹ Type II Groundwater Monitoring Well - 4 in. dia.
 - ▲ Type III Groundwater Monitoring Well

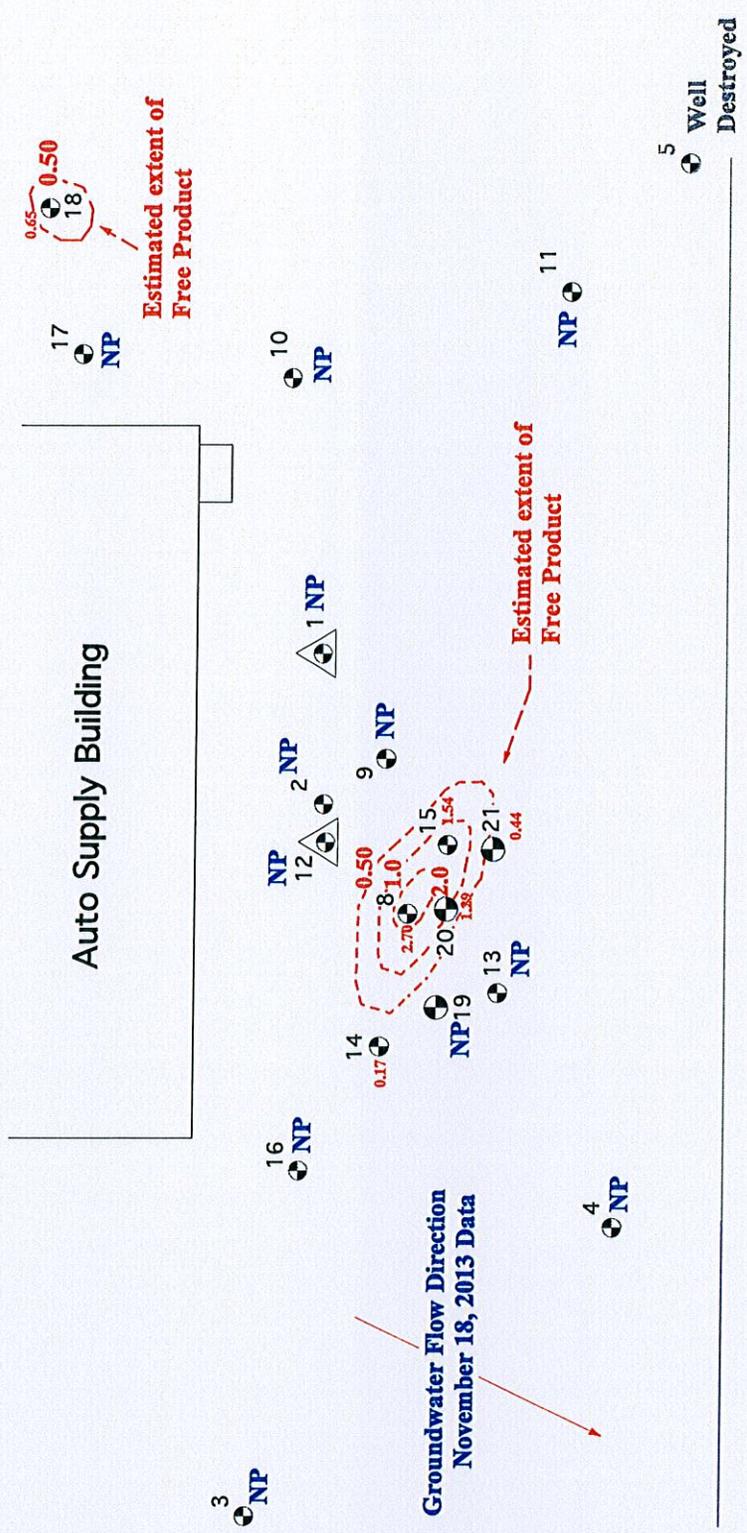
11/18/13 GW data

TOC Elev.	DTW	WT Elev.
MW3 100.00	21.57	78.43
MW4 96.28	18.33	77.95
MW11 91.96	12.69	79.27

Title:
Groundwater Flow
Direction
November, 18, 2013
Data

Project: Viad UST
Scale: 1"=40'
Job No.: 02.100
Location: Winston-Salem, NC
Figure No.: 4

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Legend

- 2 Type II Groundwater Monitoring Well - 2 in. dia.
- 19 Type II Groundwater Monitoring Well - 4 in. dia.
- Type III Groundwater Monitoring Well
- Well Destroyed
- 7 Well Destroyed
- 5 Well Destroyed

Salem Street

11/18/13 Free Product data

Free Product thickness (ft)	
MW8	2.70
MW14	0.17
MW15	1.54
MW18	0.65
MW20	1.29
MW21	0.44

Title: Post-MMPE Free Product Thickness November 18, 2013

Project: Auto Supply Co. Viad Corp
 Job No.: 02.100
 Location: Winston-Salem, NC

Scale: 1"=40'
 Figure No.: 5

TABLES

Table A1: UST System Information*				
Date: February 2014 Incident No. 6506 Inc. Name: Auto Supply Co. Site /Viad Corp Facility ID# N/A				
Tank ID	1	2	3	4
Last contents	Diesel	Diesel	Used Oil	Used Oil
Previous contents	Same	Same	Same	Same
UST Capacity	12,000	6,000	1,000	1,000
Type of UST Construction	Unknown, likely bare steel			
UST Dimensions	Not recorded	Not recorded	Not recorded	Not recorded
Installation date	Unknown	Unknown	Unknown	Unknown
Date last used	Prior to 1974	Prior to 1974	Prior to 1974	Prior to 1974
Description of Piping and Pump	Unknown	Unknown	Unknown	Unknown
UST Status	Removed – 12/1990	Removed – 12/1990	Removed –12/1990	Removed-12/1990
Release associated with UST System	Yes	Yes	Yes	Yes
Date release discovered	At UST Removal	At UST Removal	At UST Removal	At UST Removal

- - Information gathered from ETPA CSA Report of September 1992

Table A2: Summary of Work Performed to Date

Date: February 2014 Incident No. 6506 Incident Name: Auto Supply Co. Site /Viad Corp		
Date	Report Title	Consultant
December 1990	Report of Soil Sampling	Law Environmental
January 1992	Field Investigation Report	Eng. Tectonics, P.A.
September 1992	Comp. Site Assessment Report	Eng. Tectonics, P.A.
July 1994	Well Sampling and Site Assessment Activities	Eng. Tectonics, P.A.
December 1994	NOV Response Report	Eng. Tectonics, P.A.
October 1995	Site Investigation Report	Eng. Tectonics, P.A.
April 1996	Soil Assessment Report	Eng. Tectonics, P.A.
July 1998	Free Product Recovery Report	Eng. Tectonics, P.A.
January 1999	Free Product Recovery Report	Eng. Tectonics, P.A.
February 1999	Free Product Recovery Report	Eng. Tectonics, P.A.
May 1999	Free Product Recovery Report	Eng. Tectonics, P.A.
September 1999	Free Product Recovery Report	Eng. Tectonics, P.A.
January 2000	Free Product Recovery Report	Eng. Tectonics, P.A.
February 2000	Evaluation of Free Product Recovery Methods	Eng. Tectonics, P.A.
March 2000	Free Product Recovery Report	Eng. Tectonics, P.A.
September 2001	Free Product Recovery Report	Eng. Tectonics, P.A.
October 2001	Free Product Recovery Report	Eng. Tectonics, P.A.
August 2002	Free Product Recovery Report	Geoscience and Technology, P.A.
February 2003	Free Product Recovery Report	Geoscience and Technology, P.A.
March 2003	Free Product Recovery Report	Geoscience and Technology, P.A.
October 2003	Free Product Recovery Report	Geoscience and Technology, P.A.
February 2004	Free Product Recovery Report	Geoscience and Technology, P.A.
May 2004	Free Product Recovery Report	Geoscience and Technology, P.A.
November 2004	Free Product Recovery Report	Geoscience and Technology, P.A.
June 2009	Free Product Recovery Report	Geoscience and Technology, P.A.
February 2011	Free Product Recovery System Spec. Report	Geoscience and Technology, P.A.
October 2011	Groundwater Monitoring Report	Geoscience and Technology, P.A.
March 2013	Groundwater Monitoring Report	Geoscience and Technology, P.A.

**Table A3: Monitoring Well Construction Data
and Sept. 9, 2013 Water Levels and Groundwater Elevations**

Date: February 2014 Incident No. 6506 Incident Name: Auto Supply Co. Site /Viad Corp											
Well ID	Date Installed	Date Water Level Measured	Well Casing Diameter (in.)	Well Casing Depth (ft.)	Screened Interval (BGS)	Depth of well (BGS)	Top of casing Elevation*	Depth of water from Top of Casing	Free Product Thickness (ft.)	Groundwater Elevation	Comments
MW1	8/5/92	9/9/2013	2	44.5	44.5-49.5	49.5	94.13	16.65	None	77.48	
MW2	8/6/92	9/9/2013	2	13	13-23	23	94.69	14.76	None	79.93	
MW3	8/5/92	9/9/2013	2	15	15-25	25	100.00	20.79	None	79.21	
MW4	8/5/92	9/9/2013	2	13	13-23	23	96.28	17.41	None	78.87	
MW5	8/6/92	Destroyed	-	-	-	-	-	-	-	-	-
MW6	11/13/92	Destroyed	-	-	-	-	-	-	-	-	-
MW7	11/13/92	Destroyed	-	-	-	-	-	-	-	-	-
MW8	3/15/94	9/9/2013	2	8	8-23	23	94.54	15.97P	0.42	78.93C	Skimmer
MW9	3/15/94	9/9/2013	2	8	8-23	23	94.19	14.41	None	79.78	
MW10	3/15/94	9/9/2013	2	8	8-23	23	93.51	13.50	None	80.01	
MW11	3/15/94	9/9/2013	2	8	8-23	23	91.96	12.33	None	79.63	
MW12	8/29/94	9/9/2013	2	4"-30/2"	48-53	53	94.77	15.45	None	79.32	
MW13	4/4/95	9/9/2013	2	11	11-21	21	94.83	15.80	None	79.03	
MW14	4/4/95	9/9/2013	2	11	11-21	21	95.04	16.01P	0.12	79.13C	
MW15	4/4/95	9/9/2013	2	11	11-21	21	94.35	15.36	0.86*	79.62C	Skimmer
MW16	4/5/95	9/9/2013	2	12	12-22	22	95.91	16.68	None	79.23	
MW17	4/7/95	9/9/2013	2	10	10-20	20	94.52	14.28	None	80.24	
MW18	4/7/95	9/9/2013	2	11	11-21	21	94.12	14.05P	0.12*	80.17C	Skimmer
MW19	7/16/98	9/9/2013	4	12	12-27	27	94.65	15.24	None	79.41	
MW20	7/16/98	9/9/2013	4	11.5	11.5-26.5	26.5	94.51	15.04P	0.29*	79.71C	Skimmer
MW21	7/16/98	9/9/2013	4	13	13-28	28	94.47	14.88P	0.12	79.69C	

Top of Casing elevations from measurements by GeoSci personnel. Reference Point Elevation: MW 3 TOC Assumed Elevation: 100.00 ft.
If product present, groundwater elevation is calculated by [Top of Casing-Depth to Water]+[FP Thickness x 0.858]. * - Passive skimmer present.

Table A4: Monitoring Well Construction Data and November 18, 2013 Water Levels and Groundwater Elevations

Well ID	Date Installed	Date Water Level Measured	Well Casing Diameter (in.)	Well Casing Depth (ft.)	Screened Interval (BGS)	Depth of well (BGS)	Top of casing Elevation*	Depth of water from Top of Casing	Free Product Thickness (ft.)	Groundwater Elevation	Comments
MW1	8/5/92	11/18/2013	2	44.5	44.5-49.5	49.5	94.13	No data	None	-	
MW2	8/6/92	11/18/2013	2	13	13-23	23	94.69	15.66	None	79.03	
MW3	8/5/92	11/18/2013	2	15	15-25	25	100.00	21.57	None	78.43	
MW4	8/5/92	11/18/2013	2	13	13-23	23	96.28	18.33	None	77.95	
MW5	8/6/92	Destroyed	-	-	-	-	-	-	-	-	-
MW6	11/13/92	Destroyed	-	-	-	-	-	-	-	-	-
MW7	11/13/92	Destroyed	-	-	-	-	-	-	-	-	-
MW8	3/15/94	11/18/2013	2	8	8-23	23	94.54	15.19P	2.70*	81.67C	Skimmer
MW9	3/15/94	11/18/2013	2	8	8-23	23	94.19	15.12	None	79.07	
MW10	3/15/94	11/18/2013	2	8	8-23	23	93.51	14.51	None	79.00	
MW11	3/15/94	11/18/2013	2	8	8-23	23	91.96	12.69	None	79.27	
MW12	8/29/94	11/18/2013	2	4"-30/2"-	48-53	53	94.77	No data	None	-	
MW13	4/4/95	11/18/2013	2	11	11-21	21	94.83	16.61	None	78.22	
MW14	4/4/95	11/18/2013	2	11	11-21	21	95.04	16.79P	0.17	78.40C	
MW15	4/4/95	11/18/2013	2	11	11-21	21	94.35	15.20	1.54*	80.47C	Skimmer
MW16	4/5/95	11/18/2013	2	12	12-22	22	95.91	No data	None	-	
MW17	4/7/95	11/18/2013	2	10	10-20	20	94.52	15.09	None	79.43	
MW18	4/7/95	11/18/2013	2	11	11-21	21	94.12	14.65P	0.65*	80.03C	Skimmer
MW19	7/16/98	11/18/2013	4	12	12-27	27	94.65	16.15	None	78.50	
MW20	7/16/98	11/18/2013	4	11.5	11.5-26.5	26.5	94.51	15.41P	1.29*	80.21C	Skimmer
MW21	7/16/98	11/18/2013	4	13	13-28	28	94.47	15.52P	0.44	79.33C	

Top of Casing elevations from measurements by GeoSci personnel. Reference Point Elevation: MW 3 TOC Assumed Elevation: 100.00 ft. If product present, groundwater elevation is calculated by [Top of Casing-Depth to Water]+[FP Thickness x 0.8581]. * - Passive skimmer present.

Table A5: Free Product Recovery Information

Date: February 2014 Incident No. 6506 Incident Name: Auto Supply Co. Site /Viad Corp										
Date	Well ID	Product Type	Free Product Recovery Method	Free Product Thickness before Recovery (ft.)	Free Product Thickness after Recovery	Amount of Vaporized Product	Amount of Liquid (Water and Product)	Amount of Liquid Recovered (gal.)	Total Amount of Product Recovered (gal.)	
11/18/2013	MW8	Diesel	Skimmer	2.70	Skim*	None	0.1 gals.	0.1	0.1	
11/18/2013	MW14	Diesel	-	0.17	0.17	None	None	None	None	
11/18/2013	MW15	Diesel	Skimmer	1.54	Skim*	None	0.1 gals.	0.1	0.1	
11/18/2013	MW18	Diesel	Skimmer	0.65	Skim*	None	0.1 gals.	0.1	0.1	
11/18/2013	MW20	Diesel	Skimmer	1.29	Skim*	None	0.5 gals.	0.5	0.5	
11/18/2013	MW21	Diesel	-	0.44	0.44	None	None	None	None	

* - Skim = less than 0.01 ft.

Table A6: Cumulative Volume of Free Product Recovered From Site

Date: February 2014 Incident No. 6506 Incident Name: Auto Supply Co. Site /Viad Corp	
Date of Recovery Event	Total Amount of Product Recovered September 2013 MMPE Event
9/9-13/2013	130.35 gallons
11/18/2013	0.8
Cumulative Total of Volume Recovered to Date from All Recovery Events	
	Approx. 1,045.6 gallons
	Approx. 1,046.4 gallons

Table A7: Current and Historical Groundwater Elevations

Date: February 2014 Incident No. 6506 Incident Name: Auto Supply Co. Site /Viad Corp							
Well ID	Date Water Level Measured	Screened Interval (BGS)	Depth to water from Top of Casing (ft.)	Free Product Thickness	Top of casing Elevation*	Groundwater Surface Elevation	
MW3	4/24/2002	15-25	22.01	No product	100.00	77.99	
MW3	6/17/2003	15-25	18.84	No product	100.00	81.16	
MW3	7/30/2004	15-25	21.17	No product	100.00	78.83	
MW3	6/18/2009	15-25	20.27	No product	100.00	79.73	
MW3	11/15/2010	15-25	20.73	No product	100.00	79.27	
MW3	5/26/2011	15-25	20.50	No product	100.00	79.50	
MW3	1/31/2013	15-25	21.18	No product	100.00	79.82	
MW3	9/9/2013	15-25	20.79	No product	100.00	79.21	
MW3	11/18/2013	15-25	21.57	No product	100.00	78.43	
<hr/>							
MW4	4/24/2002	3-23	18.46	No product	96.28	77.82	
MW4	6/17/2003	3-23	15.51	No product	96.28	80.77	
MW4	7/30/2004	3-23	17.76	No product	96.28	78.52	
MW4	6/18/2009	3-23	16.90	No product	96.28	79.38	
MW4	11/15/2010	3-23	17.31	No product	96.28	79.97	
MW4	5/26/2011	3-23	17.10	No product	96.28	79.18	
MW4	1/31/2013	3-23	17.65	No product	96.28	78.63	
MW4	9/9/2013	3-23	17.41	No product	96.28	78.87	
MW4	11/18/2013	3-23	18.33	No product	96.28	78.47	

Table A7 (Continued): Current and Historical Groundwater Elevations

Date: February 2014 Incident No. 6506 Incident Name: Auto Supply Co. Site /Viad Corp							
Well ID	Date Water Level Measured	Screened Interval (BGS)	Depth to water from Top of Casing (ft.)	Free Product Thickness	Top of casing Elevation*	Groundwater Surface Elevation	
MW11	4/24/2002	8-23	Not recorded				
MW11	6/17/2003	8-23	Not recorded	-	-	-	
MW11	7/30/2004	8-23	Not recorded	-	-	-	
MW11	6/18/2009	8-23	11.76	No product	91.96	80.20	
MW11	11/15/2010	8-23	12.08	No product	91.96	79.88	
MW11	5/26/2011	8-23	11.91	No product	91.96	80.05	
MW11	1/13/2013	8-23	12.34	No product	91.96	79.62	
MW11	9/9/2013	8-23	12.33	No product	91.96	79.63	
MW11	11/18/2013	8-23	12.69	No product	91.96	79.27	

APPENDICES

APPENDIX A

**Transportation Manifests for the
Disposal of Water
Recovered by September 2013
MMPE Event**

MATERIAL MANIFEST



EMERGENCY PHONE NO.
(336) 841-5276

POST OFFICE BOX 357
HIGH POINT, NC 27261

TEL (336) 841-5276
FAX (336) 841-5509

Manifest Document No. 0001
Page 1 of 1
Zebra Job No. 31355

GENERATOR INFORMATION

Name <i>Zava</i>	US EPA ID No.
Street Address <i>1007 S Marshal St Winston-Salem NC</i>	Mailing Address
Phone No. <i>7196308419</i>	Contact <i>Win</i>

DESCRIPTION OF MATERIALS

HM	USDOT Proper Shipping Name (Complete All Items for Hazardous Materials)	Hazard Class or Div	UN / NA ID No.	Packing Group	Containers Qty.	Containers Type	Total Quantity	Unit Wt./Vol.
a.	<i>Non Haz Liquides</i>	<i>/</i>	<i>/</i>	<i>/</i>	<i>1</i>	<i>TT</i>	<i>5712</i>	<i>G</i>
b.								
c.								

ADDITIONAL INFORMATION

a.	ERG No.	Zebra Profile Code	Facility Use
b.			
c.			

GENERATOR'S CERTIFICATION

This is to certify that the above-described materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. I further certify that none of the materials described above are a hazardous waste as defined by EPA 40 CFR Part 261 or any applicable state law, and unless specifically identified above, the materials contain less than 1,000 ppm total halogens and do not contain quantifiable levels (2 ppm) of PCBs as defined by EPA 40 CFR Parts 279 and 761.

Printed / Typed Name <i>Maximus</i>	Signature <i>Win</i>	No. / Day / Yr. <i>9-12-13</i>
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TRANSPORTER INFORMATION

Transporter Zebra Environmental & Industrial Services Inc	I hereby acknowledge receipt of the above-described materials for transport from the generator site listed above.	
Address 901 East Springfield Road High Point, NC 27263	Signature <i>[Signature]</i>	Shipment Date <i>9-12-13</i>
Transporter or EPA ID No. NCO991302669	Unit No. <i>AT-3 T-3</i>	I hereby acknowledge receipt of the above-described materials were received from the generator site and were transported to the facility listed below.
Phone (336) 841-5276	Signature <i>[Signature]</i>	Delivery Date <i>9-12-13</i>

FACILITY INFORMATION

Facility Zebra Environmental & Industrial Services, Inc.	I hereby acknowledge receipt of the materials covered by this manifest except for any discrepancy noted below.	
Address 901 East Springfield Road High Point, NC 27263	Signature <i>[Signature]</i>	Receipt Date <i>9/12/13</i>
Facility or EPA ID No. NCO991302669	Discrepancies / Routing Codes / Handling Methods	
Phone (336) 841-5276	a.	
Contact David Tedder	b.	
	c.	

MATERIAL MANIFEST



EMERGENCY PHONE NO.
(336) 841-5276

POST OFFICE BOX 357
HIGH POINT, NC 27261

TEL (336) 841-5276
FAX (336) 841-5509

Manifest Document No. 6001
Page 1 of 1
Zebra Job No. 21355

GENERATOR INFORMATION

Name <i>Zava</i>	US EPA ID No.
Street Address <i>1007 S Marshall St</i>	Phone No.
Mailing Address <i>Winston-Salem, NC</i>	Contact

DESCRIPTION OF MATERIALS

HM	USDOT Proper Shipping Name (Complete All Items for Hazardous Materials)	Hazard Class or Div	UN / NA ID No.	Packing Group	Containers Qty.	Containers Type	Total Quantity	Unit Wt./Vol.
a.	<i>Non Hazardous liquids</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>TT</i>	<i>6046</i>	<i>G</i>
b.								
c.								

ADDITIONAL INFORMATION

	ERG No.	Zebra Profile Code	Facility Use
a.			
b.			
c.			

GENERATOR'S CERTIFICATION

This is to certify that the above-described materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. I further certify that none of the materials described above are a hazardous waste as defined by EPA 40 CFR Part 261 or any applicable state law, and unless specifically identified above, the materials contain less than 1,000 ppm total halogens and do not contain quantifiable levels (2 ppm) of PCBs as defined by EPA 40 CFR Parts 279 and 761.

Printed / Typed Name <i>MANIFEST</i>	Signature <i>[Signature]</i>	Mo. / Day / Yr. <i>9-13-12</i>
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TRANSPORTER INFORMATION

Transporter Zebra Environmental & Industrial Services Inc	I hereby acknowledge receipt of the above-described materials for transport from the generator site listed above.	
Address 901 East Springfield Road High Point, NC 27263	Signature <i>[Signature]</i>	Shipment Date <i>9-13-12</i>
Transporter or EPA ID No. NCO991302669	I hereby acknowledge receipt of the above-described materials were received from the generator site and were transported to the facility listed below.	
Unit No. <i>HS T-6</i>	Signature <i>[Signature]</i>	Delivery Date <i>9-17-12</i>
Phone (336) 841-5276		

FACILITY INFORMATION

Facility Zebra Environmental & Industrial Services, Inc.	I hereby acknowledge receipt of the materials covered by this manifest except for any discrepancy noted below.	
Address 901 East Springfield Road High Point, NC 27263	Signature <i>[Signature]</i>	Receipt Date <i>9/12/13</i>
Facility or EPA ID No. NCO991302669	Discrepancies / Routing Codes / Handling Methods	
Phone (336) 841-5276	a.	
Contact David Tedder	b.	
	c.	

MATERIAL MANIFEST



EMERGENCY PHONE NO.
(336) 841-5276

POST OFFICE BOX 357
HIGH POINT, NC 27261

TEL (336) 841-5276
FAX (336) 841-5509

Manifest Document No.	
Page <u>1</u>	of <u>1</u>
Zebra Job No. <u>31355</u>	

GENERATOR INFORMATION

Name <u>ZAVA</u>	US EPA ID No.
Street Address <u>1007 Marshall St, Winston Salem, NC</u>	Mailing Address
	Phone No.
	Contact

DESCRIPTION OF MATERIALS

HM	USDOT Proper Shipping Name (Complete All Items for Hazardous Materials)	Hazard Class or Div	UN/NA ID No.	Packing Group	Containers Qty.	Containers Type	Total Quantity	Unit W./Vol.
a.	<u>Non Hazardous Liquid</u>	<u>/</u>	<u>/</u>	<u>/</u>	<u>1</u>	<u>TT</u>	<u>3715</u>	<u>Gal</u>
b.								
c.								

ADDITIONAL INFORMATION

a.	ERG No.	Zebra Profile Code	Facility Use
<u>Cont Groundwater (MMP)</u>			
b.			
c.			

GENERATOR'S CERTIFICATION

This is to certify that the above-described materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. I further certify that none of the materials described above are a hazardous waste as defined by EPA 40 CFR Part 261 or any applicable state law, and unless specifically identified above, the materials contain less than 1,000 ppm total halogens and do not contain quantifiable levels (2 ppm) of PCBs as defined by EPA 40 CFR Parts 279 and 761.

Printed / Typed Name <u>Sam Barker</u>	Signature <u>Sam Barker</u>	Mo./Day/Yr. <u>9-13-13</u>
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TRANSPORTER INFORMATION

Transporter <u>Zebra Environmental & Industrial Services Inc</u>	I hereby acknowledge receipt of the above-described materials for transport from the generator site listed above.	
Address <u>901 East Springfield Road High Point, NC 27263</u>	Signature <u>Michael Alton</u>	Shipment Date <u>9-17-13</u>
Transporter or EPA ID No. <u>NCO991302669</u>	Unit No. <u>V-7-8</u>	I hereby acknowledge receipt of the above-described materials were received from the generator site and were transported to the facility listed below.
Phone <u>(336) 841-5276</u>	Signature <u>Michael Alton</u>	Delivery Date <u>9-13-13</u>

FACILITY INFORMATION

Facility <u>Zebra Environmental & Industrial Services, Inc.</u>	I hereby acknowledge receipt of the materials covered by this manifest except for any discrepancy noted below.	
Address <u>901 East Springfield Road High Point, NC 27263</u>	Signature <u>Sam Barker</u>	Receipt Date <u>9/13/13</u>
Facility or EPA ID No. <u>NCO991302669</u>	Discrepancies / Routing Codes / Handling Methods	
Phone <u>(336) 841-5276</u>	a.	
Contact <u>David Tedder</u>	b.	
	c.	