

## Fourth Quarter 2013 Groundwater Monitoring and Sampling Report

Maryland Square PCE Site  
3661 South Maryland Parkway  
Las Vegas, Nevada  
Facility ID: H-000086

Cardno ATC Project No. 085.42620.0001



Prepared for  
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January 28, 2014

# Executive Summary

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Herman Kishner Trust  
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707 Wilshire Boulevard, 45th Floor  
Los Angeles, California 90017

**Re: Fourth Quarter 2013 Groundwater Monitoring and Sampling Report**  
Maryland Square PCE Site  
3661 South Maryland Parkway  
Las Vegas, Nevada  
NDEP Facility ID No. H-000086

Dear Mr. Vandenberg:

Cardno ATC is submitting this report documenting the results of a recent quarterly groundwater monitoring event conducted at the Maryland Square PCE Site (site). The groundwater monitoring was conducted to evaluate dissolved chlorinated ethenes, specifically tetrachloroethene (PCE), detected in the soil and groundwater in the vicinity of the above referenced site in accordance with requests from the Nevada Division of Environmental Protection (NDEP).

## **Work Performed Fourth Quarter 2013**

Cardno ATC is currently performing quarterly monitoring and sampled 49 of the 60 site groundwater monitoring wells.

Current Phase of Project:	<u>Monitoring and Sampling</u>
Frequency of Sampling:	<u>Groundwater: Select Wells Quarterly (Semi-annual or Annual for 2013)</u>
Frequency of Monitoring:	<u>Groundwater: Select Wells Quarterly (Semi-annual or Annual for 2013)</u>
Purge Water Removed This Quarter:	<u>91.75 gallons</u>
Approximate Depth to Groundwater:	<u>20.39 ft btoc</u>
Groundwater Gradient:	<u>Site Monitoring Network: 0.013 feet/foot</u>
Groundwater Flow Direction:	<u>Site Monitoring Network: East</u>
Groundwater Analytical Methods:	<u>Select VOCs by EPA 8260B, metals by EPA 6020, and hexavalent chromium (Cr(VI)) by EPA 218.6</u>
Monitoring Wells Sampled with PCE Concentrations Greater than 5.0 µg/L:	<u>37 of 49 monitoring points</u>
Maximum PCE Concentration (µg/L):	<u>10,000 (MW-14I)</u>
Monitoring Wells Sampled with PCE Concentrations Greater than 5.0 µg/L Previous Quarter:	<u>29 of 36 monitoring points</u>
Maximum PCE Concentration Previous Quarter (µg/L):	<u>3,700 (MW-14I)</u>

Historical groundwater elevation data and analytical results are summarized in Table A-1. Current groundwater elevation data and analytical results are summarized in Table A-2. Site figures and groundwater analytical isoconcentration maps, are included as Figures 1 and 2. Groundwater field sampling forms and laboratory analytical reports are included in Appendix A and B, respectively. Mann-Kendall Trend Tests for Plume Stability are included in Appendix C.

# Table of Contents

<b>Executive Summary</b>	<b>ii</b>
<b>1 Background</b>	<b>4</b>
<b>2 Groundwater Monitoring and Sampling</b>	<b>5</b>
2.1 Deviations	6
2.2 Groundwater Conditions	6
2.2.1 Vertical Gradient Assessment	7
2.3 Groundwater Analytical Results	8
<b>3 Summary</b>	<b>14</b>
3.1 Recommendations	15
3.2 Limitations	16
<b>4 Environmental Certification Jurat</b>	<b>17</b>

## **Tables**

Current Groundwater Gauging and Analytical Data  
Historical Groundwater Gauging and Analytical Data

## **Figures**

Site Vicinity Map  
Groundwater Potentiometric Map  
PCE Isoconcentration Map

## **Appendix A**

Field Sheets

## **Appendix B**

Laboratory Analytical Reports

## **Appendix C**

Mann-Kendall Trend Test for Plume Stability

# 1 Background

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The Maryland Square PCE Site (site) is located at 3661 South Maryland Parkway in Las Vegas, Nevada. The site is located within a retail shopping center (parent parcel) located at the northwest corner of Maryland Parkway and Twain Avenue and within the Southeast  $\frac{1}{4}$  of the Northeast  $\frac{1}{4}$  of Section 15, Township 21 South, Range 61 East. The parent parcel is designated as assessor's parcel number (APN) 162-15-602-009 and is a 6.57-acre tract of land. The shopping center previously included a dry cleaning facility, Al Phillips the Cleaner. Al Phillips the Cleaner operated at the site from 1969 through 2000.

Surrounding properties consist primarily of commercial and residential developments. The Boulevard Mall lies directly to the east of the site across South Maryland Parkway. Beyond the mall is a residential neighbourhood and a golf course. South Maryland Parkway is located to the east of the site and East Twain Avenue is located south of the site.

Subsurface soil and groundwater conditions were investigated along the eastern boundary of the property as a result of a property transaction, in November of 2000, by advancing one soil boring and converting it into a monitoring well (MW-1). Analysis of water samples collected from MW-1 confirmed PCE concentrations in groundwater at the property exceeded the established U.S. Environmental protection Agency (EPA) primary maximum contamination level (MCL) for PCE in drinking water of 5.0 micrograms per liter ( $\mu\text{g/L}$ ) or parts per billion (ppb).

Multiple soil and groundwater samples were taken from 2000 to 2004 after the initial discovery. Monitoring wells were installed both at the site and extending on to the Boulevard Mall property in a failed attempt to determine the eastern extent of the PCE plume.

Al Phillips the Cleaner (APTC) accepted responsibility for the release in February 2004 and assumed control of assessment activities from the Trust after which all site characterization and monitoring work was conducted by URS Corporation (URS). Converse was retained to review documents prepared by URS on behalf of the Trust.

Monitoring wells were installed in the residential neighbourhood starting in March 2005 east of the Boulevard Mall property. PCE concentrations in these wells were above the MCL levels of 5  $\mu\text{g/L}$ , suggesting the eastern extent of the PCE plume was not defined. The discovery of the plume migration into the residential area raised concerns of possible vapor intrusion affecting residents in the neighbourhood. URS conducted an off-site soil vapor study in the Boulevard Mall parking lot in March 2007 at select locations in the residential area east of the mall. Soil vapor concentrations measured at total depth ranged from below method detection limits at Soil Vapor Boring (SVB)-2, and 11 to 170,000 micrograms per cubic meter ( $\mu\text{g/m}^3$ ) at SVB-14.

APTC declared bankruptcy in July 2008 and URS discontinued work at the site. Converse, on behalf of the Trust, resumed quarterly monitoring, supported the litigation work and prepared a remediation scope of work. Converse continued with monitoring until July 2010, when field activities and responsibilities were transferred from Converse to Tetra Tech EM Inc. (Tetra Tech) during the second quarter of 2010. Groundwater monitoring protocol and procedures used by Converse and accepted by NDEP were continued to maintain data consistency.

A permanent injunction was issued on December 27, 2010 by the U.S District Court that dictated the schedule for remediation of the source area and groundwater at the site. It also decreed that groundwater monitoring should continue based on the previously defined NDEP schedule.

Groundwater monitoring and sampling responsibilities transferred from Tetra Tech to Cardno ATC for the fourth quarter of 2011.

Additional information, including the full administrative record detailing correspondence with NDEP can be found at [http://ndep.nv.gov/pce/maryland\\_square.htm](http://ndep.nv.gov/pce/maryland_square.htm) and clicking on The Administrative Record tab.

## 2 Groundwater Monitoring and Sampling

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NDEP has directed monitoring of the site-related groundwater monitoring well network as outlined in its response letter to the Converse report titled "Groundwater Monitoring Report, 3<sup>rd</sup> Quarter 2009, Maryland Square Shopping Center," dated December 22, 2009.

The revised schedule for the Fourth Quarter 2013 sampling event prescribes sampling at 49 of the 60 site-related active monitoring wells. Each well was sampled to record groundwater characteristics and quantify volatile organic compound (VOC) concentrations. Depth to groundwater measurements were collected at monitoring well locations.

Select monitoring wells are sampled in 2013 on a quarterly, semi-annual, or annual basis as per agreement with NDEP. The sampling schedule is based on the relative PCE concentrations detected in individual monitoring wells in addition to the proximity of a monitoring well to the ascertained plume area. The 2013 sampling schedule has been modified and approved by NDEP.

The NDEP modified the sampling schedule in response to Cardno ATC's "Letter Request to Adjust Sampling Schedule for Fourth Quarter 2012 and First Quarter 2013," dated October 26, 2012. The letter proposed that the 2012 monitoring be revised to only include wells MW-34 through MW-40 and the sampling event for First Quarter 2013 be revised to include all site wells.

The NDEP approved 2013 annual sampling schedule for monitoring wells in the groundwater monitoring program is as follows:

- First Quarter – MW-1 through MW-3, MW-5 through MW-40, MW-14I, and MW-19I (plus newly installed wells MW-6D1, MW-6D2, MW-6D3, MW-19D1, MW-19D2, MW-19D3, MW-20D1, MW-20D2, and MW-20D3)
- Second Quarter – MW-1, MW-5, MW-6, MW-9, MW-14, MW-17, MW-27, MW-34 through MW-40, MW-14I, MW-19I, MW-6D1, MW-6D2, MW-6D3, MW-19D1, MW-19D2, MW-19D3, MW-20D1, MW-20D2, and MW-20D3 (plus any newly installed wells)
- Third Quarter – MW-1, MW-5, MW-6, MW-9, MW-14, MW-17, MW-34 through MW-40, MW-14I, MW-19I, MW-6D1, MW-6D2, MW-6D3, MW-19D1, MW-19D2, MW-19D3, MW-20D1, MW-20D2, and MW-20D3 (plus any newly installed wells)
- Fourth Quarter – MW-1, MW-2, MW-5 through MW-9, MW-12, MW-13, MW-14, MW-17 through MW-20, MW-23, MW-25, MW-26, MW-27, MW-30, MW-31 through MW-40, MW-41, MW-42, MW-43, MW-14I, MW-19I, MW-6D1, MW-6D2, MW-6D3, MW-19D1, MW-19D2, MW-19D3, MW-20D1, MW-20D2, and MW-20D3 (plus any newly installed wells)

The groundwater monitoring procedures are consistent with the protocol presented by URS in its August 2007 letter and accepted by NDEP in its September 10, 2007 letter. The prescribed groundwater monitoring protocol used at the site was revised to employ the ASTM D6771-02 method in the fourth quarter of 2007. This sampling method relies on low flow pumping that moderates the velocity of water entering the pump intake from the formation pore water surrounding the well. Minimized stress and turbulence within the water-bearing unit during pumping allows collection of groundwater samples generally considered more representative of water quality in the formation than the conventional method, which calls for excavation of three well volumes of groundwater using downhole pumps or bailers.

Groundwater parameters (i.e., pH, temperature, dissolved oxygen (DO), oxidation reduction potential (ORP), and electrical conductivity) were measured to evaluate the entrance of actual formation water into the well. Cardno ATC placed the inlet of the pump in the middle of the saturated zone for each well (between top of groundwater and bottom of well) for consistency with previous events. Groundwater was pumped at a flow rate of 0.25 L/min. The pump rate was lowered following the stabilization of groundwater parameters to minimize turbulence, and

groundwater was transferred to clean laboratory-supplied 40-milliliter glass volatile organic analysis vials (VOAs), sealed, labeled, and placed in a cool environment for transport to an NDEP-certified laboratory for analysis.

The groundwater monitoring procedure for MW-40 CMT wells had to be modified due to the well construction of MW-40 CMT. CMT is a product manufactured by Solinst that stands for continuous multichannel tubing, meaning that there are multiple tubings set at different depths in one borehole. The benefits of a CMT well is that each channel of tubing allows for discrete sampling at a particular depth which in turn gives a three dimensional view of contamination through the entire range of sampling depths, rather than an average of the entire well length. The method used for groundwater sampling all depths of MW-40 CMT was a 3/8 inch Model 408M Micro Double Valve Pump. The double-valve pump is a pneumatic pump which was set to the bottom of each well depth, and pumped at each depth until groundwater parameters stabilized, and then groundwater was transferred to clean laboratory-supplied 40-milliliter glass volatile organic analysis vials (VOAs), sealed, labeled, and placed in a cool environment for transport to an NDEP-certified laboratory for analysis.

Decontamination procedures were performed throughout sampling. The pump, water level meter, and field meter probe were decontaminated after sampling each well. Purge water generated during the sampling of the monitoring wells was containerized in properly labeled steel 55-gallon drums and stored onsite pending off-site disposal.

Cardno ATC submitted the collected groundwater samples to an NDEP-certified analytical laboratory for the analysis of volatile organic compounds (VOCs) using U.S. Environmental Protection Agency (EPA) Method 8260B. The analysis of metals (arsenic, chromium, and manganese) using EPA method 6020 for wells MW-19, MW-19I, MW-20, and all depths of MW-40 CMT, and the analysis of hexavalent chromium using EPA method 218.6 for wells MW-19, MW-20, and all depths of MW-40 CMT was also performed.

Groundwater data collected during this sampling event are summarized in Table 1 and Table A-1. Monitoring and sampling field sheets are included in Appendix A.

## 2.1 Deviations

Trip, field, and equipment blanks were sent to the lab along with the groundwater samples collected at each monitoring well in order to insure quality control. Cardno ATC also collected duplicate groundwater samples from monitoring wells MW-5, MW-6D1, MW-9, MW-19D2, MW-32, MW-38, and MW-40 CMT-60.

Laboratory analysis of each groundwater sample produced quantitative data within quality assurance standards, with the exception of the analysis for hexavalent chromium from MW-19I. The sample for MW-19I was purple, most likely due to saturation from the prior nearby potassium permanganate pilot test, and therefore the analysis could not be performed. Surrogate compound recoveries associated with each field sample consistently verified proper analytical technique. No laboratory quality control data were flagged outside of established tolerances. The analytical data on water quality for the fourth quarter were accepted as representative of actual site conditions.

Laboratory analysis also produced inconsistent results between MW-40 CMT-60 and the duplicate sample taken at MW-40 CMT-60 (190 µg/L and 410 µg/L). The difference in concentration between the MW-40 CMT-60 samples is assumed to be due to the lack of mixing in the composite sample. Sample water was deposited into a 1 liter amber jar that was then poured into the 40-milliliter VOAs. The lab analyzed each VOA (three total) from each sample and the results were similar indicating that the lab concentrations were accurate. During future events the mixing of the composite sample will be ensured.

## 2.2 Groundwater Conditions

Groundwater elevations for this sampling event are summarized in Table 1, while historical groundwater data are summarized in Table A-1. Depths to groundwater in the wells sampled during this quarterly event ranged from 14.97 feet bgs (MW-38) to 27.71 feet bgs (MW-19D2). The average groundwater elevation of monitored wells (excluding MW-40 CMT-35 through CMT-60) was 20.38 feet bgs. There was a 0.63 foot increase when comparing similar monitoring wells that had groundwater measurements for both the Third Quarter 2013 and Fourth Quarter 2013. Based on the fourth quarter results, the local hydraulic gradient across the site is generally toward the east.

DO readings for across the site ranged from 0.42 to 5.74 milligrams per liter (mg/L). ORP readings from across the site ranged from -78.4 to 579.4 millivolts (mV).

### 2.2.1 Vertical Gradient Assessment

Cardno ATC utilized measured groundwater elevations to determine vertical gradients within the five sets of clustered wells at the site (MW-1/MW-9, MW-6D, MW-19D, MW-20D, and MW-40 CMT). Vertical gradients are measured to determine the upward or downward flow of groundwater. Clustered wells measured will have a deep and shallow well that are screened at different lengths which shows the vertical movement of the water within the adjacent geologic units. The EPA On-Line Vertical Gradient Calculator (<http://www.epa.gov/athens/learn2model/part-two/onsite/vgradient.html>) was used to determine the vertical gradient at the various well clusters.

Clustered Well	Surface Elevation (feet asml)	Depth to Well Screen (feet bgs)	Screen Length (feet)	Depth to Water (feet bgs)	Magnitude (Screen mid-point value)	Flow Direction
MW-1 MW-9	MW-1: 1992.01 MW-9: 1992.25	MW-1: 10 MW-9: 48.5	MW-1: 20 MW-9: 1.5	MW-1: 20.31 MW-9: 20.53	0.0008384	Up
MW-6D1 MW-6D2	MW-6D1: 1988.72 MW-6D2: 1988.72	MW-6D1: 50 MW-6D2: 80	MW-6D1: 10 MW-6D2: 10	MW-6D1: 19.24 MW-6D2: 18.94	0.01000	Up
MW-6D2 MW-6D3	MW-6D2: 1988.72 MW-6D3: 1988.72	MW-6D2: 80 MW-6D3: 100	MW-6D2: 10 MW-6D3: 10	MW-6D2: 18.94 MW-6D3: 22.16	0.1610	Down
MW-19D1 MW-19D2	MW-19D1: 1979.25 MW-19D2: 1979.28	MW-19D1: 31 MW-19D2: 60	MW-19D1: 20 MW-19D2: 10	MW-19D1: 26.70 MW-6D3: 27.71	0.04088	Down
MW-19D2 MW-19D3	MW-19D2: 1979.28 MW-19D3: 1979.32	MW-19D1: 60 MW-19D2: 92	MW-19D1: 10 MW-19D2: 10	MW-19D1: 27.71 MW-6D3: 25.42	0.07290	Up
MW-20D1 MW-20D2	MW-20D1: 1978.81 MW-20D2: 1978.66	MW-20D1: 25 MW-20D2: 55	MW-20D1: 20 MW-20D2: 10	MW-20D1: 26.60 MW-20D2: 26.92	0.1930	Down
MW-20D2 MW-20D3	MW-20D2: 1978.66 MW-20D3: 1978.69	MW-20D2: 55 MW-20D3: 90	MW-20D2: 10 MW-20D3: 10	MW-20D2: 26.92 MW-20D3: 26.57	0.01087	Up
MW-40 CMT-30 MW-40 CMT-45	MW-40 CMT-30: 1978.48 MW-40 CMT-45: 1978.48	MW-40 CMT-30: 30 MW-40 CMT-45: 45	MW-40 CMT-30: 0.6 MW-40 CMT-45: 0.6	MW-40 CMT-30: 26.35 MW-40 CMT-45: 26.16	0.05067	Up
MW-40 CMT-45 MW-40 CMT-55	MW-40 CMT-45: 1978.48 MW-40 CMT-55: 1978.48	MW-40 CMT-45: 45 MW-40 CMT-55: 55	MW-40 CMT-45: 0.6 MW-40 CMT-55: 0.6	MW-40 CMT-45: 26.16 MW-40 CMT-55: 26.15	0.001000	Up

## 2.3 Groundwater Analytical Results

Cardno ATC collected groundwater samples on November 4<sup>th</sup>, 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup>, 11<sup>th</sup>, and 12<sup>th</sup>, 2013 from the existing groundwater monitoring wells (MW-1, MW-2, MW-5, MW-6, MW-7, MW-8, MW-9, MW-12, MW-13, MW-14, MW-17, MW-18, MW-19, MW-20, MW-23, MW-25, MW-26, MW-27, MW-31 through MW-43, MW-14I, MW-19I, MW-6D1, MW-6D2, MW-6D3, MW-19D1, MW-19D2, MW-19D3, MW-20D1, MW-20D2, and MW-20D3) over the vicinity of the site (Figure 2).

Groundwater samples were submitted to Advanced Technologies Laboratory (ATL) of Las Vegas, Nevada, an NDEP-certified laboratory, for the analysis of VOCs using EPA method 8260B for samples collected, the analysis of metals (arsenic, chromium, and manganese) using EPA method 6020 for wells MW-19, MW-19I, MW-20, and all depths of MW-40 CMT, and the analysis of hexavalent chromium using EPA method 218.6 for wells MW-19, MW-20, and the depths of MW-40 CMT.

The laboratory analytical results compared with qualitative changes in groundwater elevation and concentrations are summarized in Table 1. Laboratory analytical reports are provided in Appendix B.

**Table 2: Groundwater Elevations, Current PCE/TCE Concentrations, and PCE Plume Stability Test**

Well ID	Depth to GW Level (feet)	Groundwater Elevation (feet amsl)	PCE (µg/L)	TCE (µg/L)	Mann-Kendall Trend (Since Well Installation)
MW-1	20.31	1971.70	270	<0.50	Decreasing
MW-2	19.27	1964.26	720	2.3	Decreasing
MW-3	NM	NM	NS	NS	No Trend
MW-5	19.62	1969.17	690	2.8	Increasing
MW-6	20.14	1967.98	3,100	12	Increasing
MW-6D1	19.24	1969.48	3.2	<0.50	No Trend
MW-6D2	18.94	1969.78	3.3	<0.50	No Trend
MW-6D3	22.16	1966.56	3.0	<0.50	No Trend
MW-7	18.40	1972.38	8.4	<0.50	Increasing
MW-8	20.60	1971.11	2.2	<0.50	Decreasing
MW-9	20.53	1971.72	11	<0.50	Decreasing
MW-10	NM	NM	NS	NS	No Trend
MW-11	NM	NM	NS	NS	N/A <sup>2</sup>
MW-12	16.66	1979.29	0.86	<0.50	No Trend
MW-13	18.50	1964.81	1,800	3.5	Decreasing
MW-14	18.96	1968.37	1,500	2.7	Decreasing
MW-14I	19.53	1968.01	10,000	38	Stable
MW-15	NM	NM	NS	NS	Stable
MW-16	NM	NM	NS	NS	N/A <sup>2</sup>
MW-17	19.90	1971.14	120	<0.50	Decreasing
MW-18	13.62	1949.28	780	<0.50	Decreasing
MW-19	27.48	1952.65	440	3.2	<b>Decreasing</b> (Probably Decreasing 3 <sup>rd</sup> Quarter 2013)



Well ID	Depth to GW Level (feet)	Groundwater Elevation (feet amsl)	PCE (µg/L)	TCE (µg/L)	Mann-Kendall Trend (Since Well Installation)
MW-19I	26.47	1951.90	<0.50	<0.50	No Trend
MW-19D1	26.70	1952.55	620	3.5	No Trend
MW-19D2	27.71	1951.57	<0.50	<0.50	No Trend
MW-19D3	26.05	1953.27	160	0.75	No Trend
MW-20	27.28	1952.54	530	1.4	Decreasing
MW-20D1	26.60	1952.21	260	0.86	No Trend
MW-20D2	26.92	1951.74	160	1.0	No Trend
MW-20D3	26.57	1952.12	62	<0.50	No Trend
MW-21	NM	NM	NS	NS	Decreasing
MW-22	NM	NM	NS	NS	N/A <sup>2</sup>
MW-23	17.57	1944.88	900	1.8	Decreasing
MW-24	NM	NM	NS	NS	Probably Decreasing
MW-25	20.87	1938.42	700	0.88	Decreasing
MW-26	19.02	1934.43	770	0.62	Decreasing
MW-27	17.49	1926.66	420	0.94	No Trend
MW-28	NM	NM	NS	NS	Decreasing
MW-29	NM	NM	NS	NS	Decreasing
MW-30	19.89	1920.70	96	0.58	<b>Probably Decreasing</b> (Decreasing 3 <sup>rd</sup> Quarter 2013)
MW-31	18.55	1919.11	54	<0.50	No Trend
MW-32	20.68	1932.22	610	2.0	Decreasing
MW-33	19.40	1931.58	<0.50	<0.50	Decreasing
MW-34	19.14	1974.74	500	0.86	Decreasing
MW-35	19.93	1971.44	310	<0.50	Decreasing
MW-36	21.22	1934.08	130	<0.50	Stable
MW-37	19.79	1910.19	33	<0.50	No Trend
MW-38	14.97	1893.41	7.0	<0.50	Probably Increasing
MW-39	26.01	1941.54	260	0.81	<b>No Trend</b> (Stable 3 <sup>rd</sup> Quarter 2013)
MW-40 CMT-30	26.35	1952.14	1.3	<0.50	<b>Decreasing</b> (No Trend 3 <sup>rd</sup> Quarter 2013)
MW-40 CMT-35	26.20	1952.29	12	2.4	No Trend
MW-40 CMT-40	26.19	1952.30	51	0.64	Decreasing
MW-40 CMT-45	26.16	1952.33	77	1.1	Stable
MW-40 CMT-50	26.15	1952.34	120	1.8	<b>Stable</b> (Decreasing 3 <sup>rd</sup> Quarter 2013)
MW-40 CMT-55	26.15	1952.34	110	0.86	Decreasing
MW-40 CMT-60	26.16	1952.33	190	3.6	Decreasing

Well ID	Depth to GW Level (feet)	Groundwater Elevation (feet amsl)	PCE (µg/L)	TCE (µg/L)	Mann-Kendall Trend (Since Well Installation)
MW-41	15.05	1893.84	2.6	<0.50	N/A <sup>1</sup>
MW-42	16.32	1893.99	0.60	<0.50	N/A <sup>1</sup>
MW-43	16.96	1941.37	<0.50	<0.50	N/A <sup>1</sup>

Notes: <sup>1</sup>Unable to evaluate trend without at least four sampling events of data

Notes: <sup>2</sup>Mann-Kendall Trend Test was not utilized on MW-11, MW-16, and MW-22 because they had historically been reported under laboratory detection limits

NM = Not sampled and dtw measurements not taken

Amsl: Above Mean Sea Level

**Bold:** Trend change from previous quarter

The groundwater locations selected for quarterly monitoring represent the most recently installed wells and wells that cover the groundwater conditions at the Maryland Square site. The range of groundwater elevations spanned from 1893.41 feet above mean sea level (amsl) (MW-38) to 1979.29 feet amsl (MW-12). Groundwater elevations are summarized in Tables 1, 1-A, and 2-A.

Groundwater elevations increased across groundwater monitoring wells located on the Maryland Square property by 0.21 feet compared with the same wells from the Third Quarter 2013 data. Groundwater elevations across the Boulevard Mall property increased by an average of 0.86 feet. Groundwater elevations increased across groundwater monitoring wells located on the surrounding streets and golf course area by 0.26 feet when compared with the Third Quarter 2013 data. Application of a large volume of irrigation water at the golf course, especially during summer months, may influence water elevation in shallow groundwater measured in the monitoring wells. This influence is historically observed in MW-27, MW-28, MW-30, MW-31, MW-32, and MW-33.

PCE was detected in the groundwater samples collected from monitoring wells except MW-19D2, MW-19I, MW-33, and MW-43. PCE was detected at concentrations ranging from 0.60 µg/L (MW-42) to 10,000 µg/L (MW-14I). PCE concentrations identified by the laboratory in the groundwater samples collected from wells MW-1, MW-2, MW-5, MW-6, MW-7, MW-9, MW-13, MW-14, MW-14I, MW-17, MW-18, MW-19, MW-19D1, MW-19D3, MW-20, MW-20D1, MW-20D2, MW-20D3, MW-23, MW-25, MW-26, MW-27, MW-30, MW-31, MW-32, MW-34 through MW-39, and MW-40 CMT-35 through MW-40 CMT-60 exceeded the maximum contaminant levels (MCL) for PCE in groundwater of 5 µg/L.

The groundwater sample collected from monitoring well MW-19D3 had a reported PCE concentration of 160 µg/L, which was a decrease from Third Quarter 2013 where a concentration of 710 µg/L was detected. However, First and Second Quarter 2013 showed PCE concentrations of 0.50 µg/L and 0.68 µg/L, respectively. An additional sample was taken during the Fourth Quarter 2013 sampling event while utilizing a high volume pump. The high volume pump was used to purge 36 gallons of water from the well which resulted in a drawdown of greater than 60 feet within the well casing. The sample obtained after purging was also 160 µg/L, which shows that the sample obtained through low-flow sampling was valid.

Duplicate samples were collected from MW-5, MW-6D1, MW-9, MW-19D2, MW-32, MW-38, and MW-40 CMT-60. MW-5 PCE concentrations were measured at 690 µg/L and 690 µg/L, a relative percent difference (RPD) of 0.0%. MW-6D1 PCE concentrations were measured at 3.2 µg/L and 3.5 µg/L, a RPD of 9.0%. MW-9 PCE concentrations were measured at 11 µg/L and 11 µg/L, a RPD of 0.0%. MW-19D2 PCE concentrations were measured at <0.50 µg/L and <0.50 µg/L, a RPD of 0.0%. MW-32 PCE concentrations were measured at 610 µg/L and 660 µg/L, a RPD of 7.9%. MW-38 PCE concentrations were measured at 7.0 µg/L and 6.8 µg/L, a RPD of 2.9%. MW-42 PCE concentrations were measured at 130 µg/L and 110 µg/L, a RPD of 16.7%. MW-40 CMT-60 PCE concentrations were measured at 190 µg/L and 410 µg/L, a RPD of 73.3%. The duplicate sample results do not show significant statistical variation based on the levels of the concentrations, except for MW-40 CMT-60. The difference in concentration between the MW-40 CMT-60 samples is assumed to be due to the lack of mixing

in the composite sample. Sample water was deposited into a 1 liter amber jar that was then poured into the 40-milliliter VOAs. The lab analyzed each VOA (three total) from each sample and the results were similar indicating that the lab concentrations were accurate. During future events the mixing of the composite sample will be ensured.

The Mann-Kendall Trend Test for Plume Stability was used to determine whether the plume is increasing, probably increasing, decreasing, probably decreasing, stable, or showing no trend at each particular well. At least four quarters of sampling data is needed for the test to determine whether the plume is increasing or decreasing at a well, so the wells installed this year were not included in the analysis. A confidence factor greater than 95% was needed to state whether PCE concentrations at a given well are increasing or decreasing. A confidence factor between 90% and 95% was needed to state PCE concentrations at a given well are increasing or decreasing. Past sample data was gathered for each well. Results of the Mann-Kendall Test indicated that the PCE plume was decreasing at twenty four wells and increasing at three wells. The Mann-Kendall Test also showed that the plume was probably decreasing at two wells, probably increasing at one well, stable at five wells, and showed no trend at eighteen wells (twenty-one including MW-11, MW-16, and MW-22 which weren't analysed due to historically low readings).

There are currently three approximate vertical zones that monitoring wells are grouped in at the site. PCE concentrations and plume size varied significantly based on its location among the three zones. The upper zone contains the majority of monitoring wells, and covers the wells sampled from 25 feet bgs to 40 feet bgs. The intermediate zone is considered to be wells with screen intervals and pump inlet levels from 40 feet bgs to 55 feet bgs, and the lower zone is considered to be wells with screen intervals and pump inlet levels greater than 55 feet bgs.

Trichloroethene (TCE) was detected at concentrations ranging from 0.58 µg/L to 38 µg/L in the groundwater samples collected from wells MW-2, MW-5, MW-6, MW-13, MW-14, MW-14I, MW-19, MW-19D1, MW-19D3, MW-20, MW-20D1, MW-20D2, MW-23, MW-25, MW-26, MW-27, MW-30, MW-32, MW-34, MW-39, and MW-40 CMT-35 through MW-40 CMT-60. The detected concentrations were below the MCL for TCE in groundwater of 5 µg/L, with the exception of MW-6 (12 µg/L) and MW-14I (38 µg/L).

Cis-1,2-dichloroethene (DCE) was detected in monitoring wells MW-5 (1.2 µg/L), MW-6 (3.5 µg/L), and MW-14I (17 µg/L), MW-20D2 (0.81 µg/L), and MW-40 CMT-60 (2.5 µg/L). The detected concentrations were below the MCL for DCE in groundwater of 70 µg/L.

Vinyl chloride (VC) was not detected at concentrations in excess of laboratory detection levels (0.50 µg/L). The presence of small amounts of TCE and cis-1,2 DCE suggests that reductive dechlorination is not significant at the site.

Metals and Hexavalent Chromium were also analyzed this quarter, to compare with concentrations obtained by Tetra Tech after recent pilot tests were conducted using potassium permanganate (KMnO<sub>4</sub>) and PulseOx. The following table shows Tetra Tech data along with concentrations detected during Cardno ATC's successive sampling events.

**Table 3: Summary of Metals Concentrations in Select Wells, 4<sup>th</sup> Quarter 2013**

Well ID	Date	PCE (µg/L)	Arsenic (µg/L)	Manganese (µg/L)	Chromium (µg/L)	Hexavalent Chromium (µg/L)
MW-19 (KMnO <sub>4</sub> Pilot Test, upgradient)	03/08/13	520	7.4	170	17	NA
	03/12/13	390	2	120,000	25	NA
	03/27/13	14	0.33	43,000	130	NA
	04/04/13	110	2	7,100	79	NA
	04/11/13	220	1.8	5,400	44	NA
	05/02/13	810	2.7	460	9.7	NA
	06/14/13	530	2.3	68	4.6	2.5
	09/09/13	840	4.0	<0.50	1.8	1.9
	11/07/13	440	3.3	<0.50	1.3	1.7
MW-19I	03/08/13	710	2.0	ND	1.6	NA

Well ID	Date	PCE (µg/L)	Arsenic (µg/L)	Manganese (µg/L)	Chromium (µg/L)	Hexavalent Chromium (µg/L)
(KMnO <sub>4</sub> Pilot Test, downgradient)	03/12/13	280	1.7	2,700	14	NA
	03/26/13	9.4	0.93	27,000	44	NA
	04/04/13	3.5	3	4,700	170	NA
	04/11/13	1.7	0.19	9,400	52	NA
	05/02/13	0.61	1.2	20,000	43	NA
	06/12/13	<0.50	0.34	62,000	87	NA*
	09/09/13	<0.50	0.24	26,000	12	NA*
	11/08/13	<0.50	1.1	48,000	290	NA*
MW-20 (PulseOx Pilot Test, upgradient)	03/26/13	290	4.7	NA	4.3	NA
	04/10/13	480	5.6	NA	9.7	NA
	04/23/13	850	6.1	NA	8.8	NA
	05/02/13	470	4	NA	2.7	NA
	06/12/13	660	2.4	<0.50	1.6	1.1
	09/09/13	570	3.2	<0.50	1.1	1.2
	11/07/13	530	2.6	<0.50	<1.0	1.3
MW-40 CMT-30 (PulseOx Pilot Test, downgradient)	03/25/13	4.7	4	NA	ND	NA
	04/10/13	0.86	7.2	NA	65	NA
	04/23/13	8.8	4.6	NA	180	NA
	05/01/13	1.2	5.9	NA	210	NA
	06/14/13	10	3.9	<0.50	140	140
	09/04/13	2.1	2.3	43	55	120
	11/06/13	1.3	3.6	77	110	110
MW-40 CMT-35 (PulseOx Pilot Test, downgradient)	03/25/13	14	14	NA	ND	NA
	04/10/13	6.9	6.9	NA	ND	NA
	04/23/13	2.6	2.6	NA	5.7	NA
	05/01/13	3.5	3.5	NA	25	NA
	06/14/13	3.6	4	250	2.9	1.1
	09/04/13	9.6	9.6	450	<1.0	0.23
	11/06/13	12	7.8	430	<1.0	<0.20
MW-40 CMT-40 (PulseOx Pilot Test, downgradient)	03/25/13	270	2.5	NA	3.2	NA
	04/10/13	94	2.5	NA	6.6	NA
	04/23/13	150	2.4	NA	20	NA
	05/01/13	96	3.3	NA	38	NA
	06/14/13	53	3.0	26	9.8	22
	09/04/13	37	2.7	100	22	25
	11/06/13	51	1.9	61	14	15
MW-40 CMT-45 (PulseOx Pilot Test, downgradient)	03/25/13	310	2.4	NA	ND	NA
	04/10/13	120	2.0	NA	15	NA
	04/23/13	100	1.8	NA	41	NA
	05/01/13	78	2.7	NA	47	NA
	06/17/13	47	1.6	<0.50	39	43
	09/04/13	110	2.4	100	7.6	8.3
	11/06/13	77	1.5	110	6.0	6.1
MW-40 CMT-50 (PulseOx Pilot Test, downgradient)	03/25/13	280	4.1	NA	ND	NA
	04/10/13	110	2.2	NA	14	NA
	04/23/13	120	2	NA	38	NA
	05/01/13	79	3.1	NA	41	NA
	06/17/13	64	2.2	<0.50	8.2	8.9
	09/11/13	24	4.3	43	<1.0	0.39
	11/06/13	120	1.9	250	<1.0	0.35
MW-40 CMT-55 (PulseOx Pilot Test, downgradient)	03/25/13	390	1.5	NA	ND	NA
	04/10/13	570	1.6	NA	3.9	NA
	04/23/13	510	1.5	NA	10	NA
	05/01/13	430	2.7	NA	12	NA

Well ID	Date	PCE (µg/L)	Arsenic (µg/L)	Manganese (µg/L)	Chromium (µg/L)	Hexavalent Chromium (µg/L)
	06/17/13	200	1.6	<0.50	26	27
	09/11/13	38	3.4	38	<1.0	0.49
	11/06/13	110	2.4	69	20	11
MW-40 CMT-60 (PulseOx Pilot Test, downgradient)	03/25/13	1,200	1.8	NA	ND	NA
	04/10/13	1,200	1.7	NA	ND	NA
	04/23/13	1,400	1.5	NA	1.1	NA
	05/01/13	1,200	2.7	NA	2	NA
	06/17/13	1,000	1.4	<0.50	5.7	6.6
	09/11/13	20	2.5	18	<1.0	0.92
	11/06/13	190	0.96	43	3.2	3.7

Notes: NA=Not Analyzed  
 ND=Non Detect  
 Shaded row represents baseline test  
 \*=Sample could not be analysed for Cr(VI) because sample was saturated with potassium permanganate

The primary metal of concern was the effects of the oxidant on trivalent and hexavalent chromium concentrations in groundwater. Cardno ATC performed groundwater testing after the completion of the pilot testing and found elevated levels of chromium in the tested wells, except for MW-19 and MW-20, compared to before pilot testing. Both MW-19 and MW-20 are located upgradient from the pilot testing. Cardno ATC also performed analysis of hexavalent chromium (Cr(VI)), because the oxidizing effect of the two treatments has the potential to change the non-toxic, non- mobile Cr(III) into the acutely toxic, mobile Cr(VI). Total chromium and hexavalent chromium levels have decreased in three of wells analysed compared to the previous quarter, but increased in three wells also. Hexavalent chromium levels ranged from 0.35 µg/L to 110 µg/L. Monitoring wells MW-19I (290 µg/L) and MW-40 CMT-30 (110 µg/L) exceeded the MCL of 100 µg/L for total chromium in groundwater. No MCL has been established for CR(VI), but NDEP has set a basic comparison level (BCL) of 110 µg/L in groundwater, which was equivalent to the CR(VI) concentration at MW-40 CMT-30. Literature suggests that the increase of chromium levels may be a temporary condition. This will continue to be monitored until pre-pilot test conditions are identified.

### 3 Summary

Cardno ATC provides the following summary based on the results of the Fourth Quarter 2013 groundwater sampling event:

- Tetrachloroethene (PCE) was detected at concentrations ranging from 0.60 µg/L to 10,000 µg/L. The MCL for PCE in groundwater is 5 µg/L. PCE concentrations are summarized in the following table:

**Table 4: Summary of PCE Concentrations in Monitoring Wells across the Site, 4<sup>th</sup> Quarter 2013**

Non Detect (<0.50 µg/L)	>0.50 µg/L to <5.0 µg/L	5.0 µg/L to 10,000 µg/L	
MW-19I	MW-6D1	MW-1	MW-25
MW-19D2	MW-6D2	MW-2	MW-26
MW-33	MW-6D3	MW-5	MW-27
MW-43	MW-8	MW-6	MW-30
	MW-12	MW-7	MW-31
	MW-40 CMT-30	MW-9	MW-32
	MW-41	MW-13	MW-34
	MW-42	MW-14	MW-35
		MW-14I	MW-36
		MW-17	MW-37
		MW-18	MW-38
		MW-19	MW-39
		MW-19D1	MW-40 CMT-35
		MW-19D3	MW-40 CMT-40
		MW-20	MW-40 CMT-45
		MW-20D1	MW-40 CMT-50
		MW-20D2	MW-40 CMT-55
		MW-20D3	MW-40 CMT-60
		MW-23	

- Trichloroethene (TCE) was detected at concentrations ranging from 0.58 µg/L to 38 µg/L. The MCL for TCE in groundwater is 5 µg/L. TCE concentrations are summarized in the following table:

**Table 5: Summary of TCE Concentrations in Monitoring Wells across the Site, 4<sup>th</sup> Quarter 2013**

Non Detect (<0.50 µg/L)	>0.5 µg/L to <5.0 µg/L	5.0 µg/L to 38 µg/L
MW-1	MW-2	MW-6
MW-6D1	MW-5	MW-14I
MW-6D2	MW-13	
MW-6D3	MW-14	
MW-7	MW-19	
MW-8	MW-19D1	
MW-9	MW-19D3	
MW-12	MW-20	
MW-17	MW-20D1	
MW-18	MW-20D2	
MW-19I	MW-23	
MW-19D2	MW-25	
MW-20D3	MW-26	

Non Detect ( $<0.50 \mu\text{g/L}$ )	$>0.5 \mu\text{g/L}$ to $<5.0 \mu\text{g/L}$	$5.0 \mu\text{g/L}$ to $38 \mu\text{g/L}$
MW-31	MW-27	
MW-33	MW-30	
MW-35	MW-32	
MW-36	MW-34	
MW-37	MW-39	
MW-38	MW-40 CMT-35	
MW-40 CMT-30	MW-40 CMT-40	
MW-41	MW-40 CMT-45	
MW-42	MW-40 CMT-50	
MW-43	MW-40 CMT-55	
	MW-40 CMT-60	

- Cis-1,2-dichloroethene (DCE) was detected in monitoring wells MW-5 ( $1.2 \mu\text{g/L}$ ), MW-6 ( $3.5 \mu\text{g/L}$ ), MW-14I ( $17 \mu\text{g/L}$ ), MW-20D2 ( $0.81 \mu\text{g/L}$ ), and MW-40 CMT-60 ( $2.5 \mu\text{g/L}$ ). The detected concentrations were below the MCL for DCE in groundwater of  $70 \mu\text{g/L}$ .
- Hexavalent Chromium (Cr(VI)) was detected in monitoring wells MW-19 ( $1.7 \mu\text{g/L}$ ), MW-20 ( $1.3 \mu\text{g/L}$ ), MW-40 CMT-30 ( $110 \mu\text{g/L}$ ), MW-40 CMT-40 ( $15 \mu\text{g/L}$ ), MW-40 CMT-45 ( $6.1 \mu\text{g/L}$ ), MW-40-CMT-50 ( $0.35 \mu\text{g/L}$ ), MW-40 CMT-55 ( $11 \mu\text{g/L}$ ), and MW-40 CMT-60 ( $3.7 \mu\text{g/L}$ ). NDEP has set a basic comparison level (BCL) of  $110 \mu\text{g/L}$  in groundwater, which was equivalent to the CR(VI) concentration at MW-40 CMT-30.

### 3.1 Recommendations

Cardno ATC would like to recommend a 2014 monitoring and sampling schedule for site monitoring wells. The original NDEP issued groundwater sampling schedule from December 22, 2009, called for quarterly testing of all wells that did not have at least eight samples of data. Many of the site wells have greater than eight samples of quarterly data collected, and also have shown a decreasing trend of concentrations when ran through the Mann-Kendall Trend Test for Plume Stability. Therefore, Cardno ATC would request that a reduction in quarterly monitoring wells be limited to those wells with less than eight quarters of sampling data, wells showing an increasing or probably increasing trend from the Mann-Kendall Trend Test, and select monitoring wells located across the plume. To limit the number of wells sampled, not all depths of nested wells will be sampled. The proposed 2014 sample schedule would be as follows:

- First Quarter – MW-1 through MW-3, MW-5 through MW-43, MW-14I, MW-19I, MW-6D1, MW-6D2, MW-6D3, MW-19D1, MW-19D2, MW-19D3, MW-20D1, MW-20D2, and MW-20D3.
- Second Quarter – MW-1, MW-5, MW-6, MW-7, MW-9, MW-18, MW-27, MW-38, MW-40 CMT-30, MW-40 CMT-45, MW-40 CMT-60, MW-41, MW-42, MW-43, MW-6D1, MW-14I, MW-19I, MW-19D1, MW-19D2, MW-19D3, and MW-20D2 (plus any newly installed wells).
- Third Quarter – MW-1, MW-5, MW-6, MW-7, MW-9, MW-18, MW-27, MW-38, MW-40 CMT-30, MW-40 CMT-45, MW-40 CMT-60, MW-41, MW-42, MW-43, MW-6D1, MW-14I, MW-19I, MW-19D1, MW-19D2, MW-19D3, and MW-20D2 (plus any newly installed wells).
- Fourth Quarter – MW-1, MW-5, MW-6, MW-7, MW-9, MW-18, MW-27, MW-38, MW-40 CMT-30, MW-40 CMT-45, MW-40 CMT-60, MW-41, MW-42, MW-43, MW-6D1, MW-14I, MW-19I, MW-19D1, MW-19D2, MW-19D3, and MW-20D2 (plus any newly installed wells).

In addition, to limit the number of samples Cardno ATC also requests that the three daily blank samples (trip, field, and equipment) be eliminated because the sampling techniques employed have proven to be effective at preventing

cross-contamination during sampling activities. Cardno ATC recommends discontinuing the daily duplicate sample as well, because the laboratory analysis has also proven to be consistent.

Cardno ATC would also like to note that the proposed monitoring schedule will be altered in the event that active remediation efforts are undertaken at the site during 2014. The consultant responsible for performing the remediation activities and monitoring activities will also be responsible for creating an appropriate monitoring schedule with NDEP.

Cardno ATC is currently assessing possible options and strategies for performing a tracer test at the three nested wells of MW-19D.

A copy of this report has been forwarded to the NDEP case officer for review.

### **3.2 Limitations**

This report has been prepared for the exclusive use of Herman Kishner Trust, as it pertains to Maryland Square PCE Site located at 3661 South Maryland Parkway, in Las Vegas, Nevada. Our professional services have been performed, our findings obtained, and our recommendations prepared in accordance with customary principles and practices in the fields of environmental science and engineering. This warranty is in lieu of all other warranties either expressed or implied. This company is not responsible for the independent conclusions, opinions, or recommendations made by others based on the records review, site inspection, field exploration, and laboratory test data presented in this report.

It should be noted that all surficial environmental assessments are inherently limited in the sense that conclusions are drawn and recommendations developed from information obtained from limited research and site evaluation. For these types of evaluations, it is often necessary to use information prepared by others and Cardno ATC cannot be responsible for the accuracy of such information. In addition, the passage of time may result in a change in the environmental characteristics at this site and surrounding properties. This report does not warrant against future operations or conditions, nor does it warrant operations or conditions present of a type or at a location not investigated. This report is not a regulatory compliance audit and is not intended to satisfy the requirements of any state, federal, or local real estate transfer laws.

It must be noted that no investigation can absolutely rule out the existence of any hazardous materials at a given site. This assessment has been based upon prior site history, observable conditions, and the subsurface soil sampling described in this report. Existing hazardous materials and contaminants can escape detection using these methods



## 4 Environmental Certification Jurat

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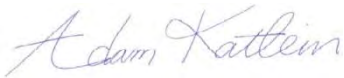
This Fourth Quarter 2013 Groundwater Monitoring Report for Maryland Square PCE Site located at 3661 South Maryland Parkway, Las Vegas, Nevada, has been prepared in accordance with Nevada Administrative Code (NAC), Chapter 459, Section 9717.

I hereby certify that I am responsible for the services described in this document and for the preparation of this document. The services described in this document have been provided in a manner consistent with the current standards of the profession and, to the best of my knowledge, comply with all applicable Federal, State and local statutes, regulations and ordinances.

If you have any questions or require additional information, please feel free to contact the undersigned at (702) 990-9300.

Sincerely,

**Cardno ATC**



Adam Katlein  
Senior Staff Scientist



Andrew D. Stuart  
Senior Project Manager  
Nevada Certified Environmental Manager  
No. EM-1905 (Expires 01/26/15)

cc: Dr. Mary Siders, Nevada Division of Environmental Protection-Carson City, Nevada

Maryland Square PCE Site

TABLES

**Table A-1: Current Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date of Well Installation	Date of Sampling	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	Screen Interval (feet bgs)	Dissolved Oxygen (mg/L)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)
<b>Project Monitoring Wells Located on Maryland Square Property</b>												
MW-1	Aug 00	Nov 13	1992.01	20.31	1971.70	10-30	0.31	2.2	165.9	<b>270</b>	<0.50	<0.50
MW-7	Sep 02	Nov 13	1990.78	18.40	1972.38	10-30	1.64	2.2	165.0	<b>8.4</b>	<0.50	<0.50
MW-8	Sep 02	Nov 13	1991.71	20.60	1971.11	10-30	2.34	2.1	193.5	2.2	<0.50	<0.50
MW-9	Sep 02	Nov 13	1992.25	20.53	1971.72	48.5-50	0.57	0.8	55.7	<b>11</b>	<0.50	<0.50
MW-12	Sep 02	Nov 13	1995.95	16.66	1979.29	13.5-33.5	1.10	2.2	188.8	0.86	<0.50	<0.50
MW-17	Nov 03	Nov 13	1991.04	19.90	1971.14	15-30	0.42	2.1	153.9	<b>120</b>	<0.50	<0.50
MW-34	Dec 11	Nov 13	1993.88	19.14	1974.74	--	0.85	2.3	184.2	<b>500</b>	0.86	<0.50
MW-35	Dec 11	Nov 13	1991.37	19.93	1971.44	--	1.75	2.2	184.3	<b>310</b>	<0.50	<0.50
<b>Project Monitoring Wells Located on Boulevard Mall Property</b>												
MW-2	Oct 00	Nov 13	1983.53	19.27	1964.26	10-32	1.97	2.4	83.2	<b>720</b>	2.3	0.9
MW-3	Oct 00	Nov 13	1983.81	NM	NM	10-31	NM	NM	NM	NS	NS	NS
MW-4	Oct 00	Mar 12	1989.86	NM	NM	10-32	NM	NM	NM	NS	NS	NS
MW-5	Oct 00	Nov 13	1988.69	19.52	1969.17	10-32	4.12	2.3	89.9	<b>690</b>	2.8	1.2
MW-6	Oct 00	Nov 13	1988.12	20.14	1967.98	10-32	3.13	2.3	97.4	<b>3,100</b>	<b>12</b>	3.5
MW-6D1	Jan 13	Nov 13	1988.72	19.24	1969.48	50-60	5.03	0.4	84.4	3.2	<0.50	<0.50
MW-6D2	Jan 13	Nov 13	1988.72	18.94	1969.78	80-90	NM	0.4	23.8	3.3	<0.50	<0.50

**Table A-1: Current Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date of Well Installation	Date of Sampling	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	Screen Interval (feet bgs)	Dissolved Oxygen (mg/L)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)
<b>Project Monitoring Wells Located on Boulevard Mall Property</b>												
MW-6D3	Jan 13	Nov 13	1988.72	22.16	1966.56	100-110	5.74	0.3	78.3	3.0	<0.50	<0.50
MW-10	Sep 02	Nov 13	1983.28	NM	NM	10-30	NM	NM	NM	NS	NS	NS
MW-11	Sep 02	Nov 13	1979.87	NM	NM	13.5-33.5	NM	NM	NM	NS	NS	NS
MW-13	May 03	Nov 13	1983.31	18.50	1964.81	9-29	0.90	2.5	103.7	<b>1,800</b>	3.5	<0.50
MW-14	Nov 03	Nov 13	1987.33	18.96	1968.37	15-40	2.63	3.5	96.4	<b>1,500</b>	2.7	<0.50
MW-14I	Jul 12	Nov 13	1987.54	19.53	1968.01	40-55	3.98	0.9	101.9	<b>10,000</b>	<b>38</b>	17
MW-15	Nov 03	Nov 13	1982.74	NM	NM	15-32	NM	NM	NM	NS	NS	NS
MW-16	Nov 03	Nov 13	1980.53	NM	NM	19-32	NM	NM	NM	NS	NS	NS
MW-19	Nov 03	Nov 13	1980.13	27.48	1952.65	19-35	3.15	2.0	227.5	<b>440</b>	3.2	<0.50
MW-19D1	Jan 13	Nov 13	1979.25	26.70	1952.55	31-51	4.65	1.7	384.6	<b>620</b>	3.5	<0.50
MW-19D2	Jan 13	Nov 13	1979.28	27.71	1951.57	60-70	3.30	1.7	485.2	<0.50	<0.50	<0.50
MW-19D3	Jan 13	Nov 13	1979.32	25.42	1953.90	92-102	4.13	0.7	423.8	<b>160</b>	0.75	<0.50
MW-19I	Jul 12	Nov 13	1978.37	26.47	1951.90	34-54	4.28	2.7	579.4	<0.50	<0.50	<0.50
MW-20	Nov 03	Nov 13	1979.82	27.28	1952.54	19-35	2.48	2.2	245.3	<b>530</b>	1.4	<0.50
MW-20D1	Jan 13	Nov 13	1978.81	26.60	1952.21	25-45	4.51	2.2	57.4	<b>260</b>	0.86	<0.50

**Table A-1: Current Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date of Well Installation	Date of Sampling	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	Screen Interval (feet bgs)	Dissolved Oxygen (mg/L)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)
<b>Project Monitoring Wells Located on Boulevard Mall Property</b>												
MW-20D2	Jan 13	Nov 13	1978.66	26.92	1951.74	55-65	4.29	1.6	75.3	160	1.0	0.81
MW-20D3	Jan 13	Nov 13	1978.69	26.57	1952.12	90-100	4.02	0.9	80.5	62	<0.50	<0.50
MW-21	Nov 03	Nov 13	1979.25	NM	NM	19-36	NM	NM	NM	NS	NS	NS
MW-40 CMT-30	Jul 12	Nov 13	1978.49	26.35	1952.14	30-30.6	2.97	1.9	90.9	1.3	<0.50	<0.50
MW-40 CMT-35	Jul 12	Nov 13	1978.49	26.20	1952.29	35-35.6	1.67	1.6	88.3	12	2.4	<0.50
MW-40 CMT-40	Jul 12	Nov 13	1978.49	26.19	1952.30	40-40.6	3.54	1.5	38.4	51	0.64	<0.50
MW-40 CMT-45	Jul 12	Nov 13	1978.49	26.16	1952.33	45-45.6	3.02	1.6	82.1	77	1.1	<0.50
MW-40 CMT-50	Jul 12	Nov 13	1978.49	26.15	1952.34	50-50.6	1.53	1.6	28.6	120	1.8	<0.50
MW-40 CMT-55	Jul 12	Nov 13	1978.49	26.15	1952.34	55-55.6	3.11	1.4	37.8	110	0.86	<0.50
MW-40 CMT-60	Jul 12	Nov 13	1978.49	26.16	1952.33	60-60.6	1.65	0.7	-78.4	190	3.6	2.5
<b>Project Monitoring Wells Located on Surrounding Streets and Golf Course</b>												
MW-18	Nov 03	Nov 13	1962.90	13.62	1949.28	5-26	3.60	2.4	152.1	780	<0.50	<0.50
MW-22	Mar 05	Nov 13	1975.19	NM	NM	15-36	NM	NM	NM	NS	NS	NS
MW-23	Mar 05	Nov 13	1962.45	17.57	1944.88	5-26	2.13	2.4	152.4	900	1.8	<0.50
MW-24	Mar 05	Nov 13	1960.82	NM	NM	5-26	NM	NM	NM	NS	NS	NS
MW-25	Mar 05	Nov 13	1959.29	20.87	1938.42	5-26	1.37	2.5	113.9	700	0.88	<0.50

**Table A-1: Current Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date of Well Installation	Date of Sampling	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	Screen Interval (feet bgs)	Dissolved Oxygen (mg/L)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)
<b>Project Monitoring Wells Located on Surrounding Streets and Golf Course</b>												
MW-26	Mar 06	Nov 13	1953.45	19.02	1934.43	10-36	2.40	2.6	137.5	<b>770</b>	0.62	<0.50
MW-27	Mar 06	Nov 13	1944.15	17.49	1926.66	10-36	1.74	2.6	119.7	<b>420</b>	0.94	<0.50
MW-28	Oct 07	Nov 13	1943.07	NM	NM	15-36	NM	NM	NM	NS	NS	NS
MW-29	Oct 07	Nov 13	1932.35	NM	NM	15-36	NM	NM	NM	NS	NS	NS
MW-30	Oct 07	Nov 13	1940.59	19.89	1920.70	20-41	3.29	2.1	141.0	<b>96</b>	0.58	<0.50
MW-31	Mar 08	Nov 13	1937.66	18.55	1919.11	13.5-33.6	2.41	2.7	191.5	<b>54</b>	<0.50	<0.50
MW-32	Mar 08	Nov 13	1952.90	20.68	1932.22	13.5-33.7	2.46	2.4	123.5	<b>610</b>	2.0	<0.50
MW-33	Mar 08	Nov 13	1950.98	19.40	1931.58	13.5-33.8	1.36	2.6	146.3	<0.50	<0.50	<0.50
MW-36	Jan 12	Nov 13	1955.30	21.22	1934.08	17-38	1.91	2.5	125.6	<b>130</b>	<0.50	<0.50
MW-37	Jan 12	Nov 13	1929.98	19.79	1910.19	17-38	4.23	2.6	334.8	<b>33</b>	<0.50	<0.50
MW-38	Apr 12	Nov 13	1908.38	14.97	1893.41	15-36	3.34	2.7	356.2	<b>7.0</b>	<0.50	<0.50
MW-39	Apr 12	Nov 13	1967.55	26.01	1941.54	15-36	1.39	2.5	156.8	<b>260</b>	0.81	<0.50
MW-41	Aug 13	Nov 13	1908.89	15.05	1893.84	10-35	1.12	2.2	360.0	2.6	<0.50	<0.50
MW-42	Sep 13	Nov 13	1910.31	16.32	1893.99	10-35	2.13	2.8	326.4	0.60	<0.50	<0.50
MW-43	Sep 13	Nov 13	1958.33	16.96	1941.37	10-35	2.16	2.3	138.2	<0.50	<0.50	<0.50

Notes:

NM = Not Measured  
msl = mean sea level  
ND = Non Detect  
NS = Not Sampled

°C = degrees Celsius  
g/L = gallons per liter  
mg/L = milligrams per liter  
mS/cm = milli Siemens per centimeter

Bold value indicates concentration that exceeds regulatory standard.

µg/L = micrograms per liter    mV = millivolts  
NTU = Nephelometric Turbidity Units

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-1	Aug 00	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	2,300	ND	ND	ND
	Oct 00	1991.81	17.54	1974.27	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 02	1992.04	17.90	1974.14	NM	NM	NM	NM	NM	NM	NM	2,000	ND	ND	ND
	May 03	1992.04	18.70	1973.34	NM	NM	NM	NM	NM	NM	NM	870	ND	ND	ND
	Sep 03	1992.04	18.97	1973.07	NM	NM	NM	NM	NM	NM	NM	2,300	ND	ND	ND
	Jan 04	1992.04	19.30	1972.74	7.0	3.5	NM	0.9	22.50	NM	NM	1,700	ND	ND	ND
	May 05	1992.04	15.24	1976.8	7.0	4.0	441.0	5.4	26.00	NM	110	3,500	ND	ND	ND
	Sep 05	1992.04	16.74	1975.3	7.1	4.2	64.0	7.0	27.50	2.7	129	1,700	ND	ND	ND
	Dec 05	1992.04	17.61	1974.43	7.0	5.1	290.0	2.0	26.90	3.2	404	820	ND	ND	ND
	Mar 06	1992.04	18.42	1973.62	NM	5.6	>999	NM	23.10	3.7	545	420	ND	ND	ND
	Jun 06	1992.04	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 06	1992.04	18.30	1973.74	6.3	3.7	81.0	4.6	26.70	2.4	129	1,100	ND	ND	ND
	Dec 06	1992.04	18.88	1973.16	6.7	4.4	>999	5.1	26.90	2.8	111	1,300	ND	ND	ND
	Mar 07	1992.04	20.08	1971.96	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1992.04	19.81	1972.23	7.0	2.3	611.0	6.2	25.70	1.4	468	450	ND	ND	ND
	Sep 07	1992.04	18.39	1973.65	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1992.04	19.01	1973.03	6.4	3.9	15.0	5.5	22.20	2.5	223	710	ND	ND	ND
	Mar 08	1992.04	20.03	1972.01	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1992.04	NM	NM	NM	NM	NM	NM	NM	NM	NM	260	ND	ND	ND
	Oct 08	1992.01	19.82	1972.19	6.6	3.7	62.4	1.1	27.10	2.4	130	460	ND	ND	ND
	Feb 09	1992.01	19.65	1972.36	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1992.01	19.88	1972.13	7.1	3.7	39.6	1.6	26.20	2.4	101	NS	NS	NS	NS
	Jul 09	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	590	ND	ND	ND
	Sep 09	1992.01	19.90	1970.11	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1992.01	20.33	1971.68	6.3	3.4	-10.0	1.5	26.90	2.2	126	390	ND	ND	ND
	Feb 10	1992.01	20.04	1971.97	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1992.01	19.98	1972.03	7.0	3.3	0.0	3.2	26.13	NM	NM	400	ND	ND	ND
	Oct 10	1992.01	19.44	1972.57	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1992.01	19.54	1972.47	6.7	3.5	1.2	1.4	27.56	NM	212	430	ND	ND	ND
	Mar 11	1992.01	20.10	1971.91	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1992.01	20.18	1971.83	7.2	3.6	0.0	1.7	25.58	NM	259	460	ND	ND	ND
	Sep 11	1992.01	19.85	1972.16	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
Nov 11	1992.01	19.65	1972.36	7.0	3.4	NM	1.3	25.97	2.2	266	410	ND	ND	ND	
Mar 12	1992.01	20.41	1971.60	7.2	3.5	5.4	1.3	25.48	2.3	-70	370	NS	NS	NS	
* Jun 12	1992.01	19.18	1972.83	7.3	3.5	15.9	3.0	25.97	2.3	90	410	ND	ND	ND	
Sep 12	1992.01	19.97	1972.04	7.6	3.6	NM	1.2	27.28	2.3	98	390	ND	ND	ND	
Nov 12	1992.01	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Mar 13	1992.01	20.35	1971.66	6.97	3.9	NM	0.90	24.80	2.5	59	260	<0.50	<0.50	<0.50	
Jun 13	1992.01	20.69	1971.32	7.16	3.9	NM	1.72	25.43	2.5	78	240	<0.50	<0.50	<0.50	
Sep 13	1992.01	20.52	1971.49	7.06	3.8	NM	0.76	26.95	2.4	-14	240	<0.50	<0.50	<0.50	
Nov 13	1992.01	20.31	1971.70	5.97	3.5	2.9	0.31	25.51	2.2	166	270	<0.50	<0.50	<0.50	

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-2	Oct 00	1983.79	15.52	1968.27	NM	NM	NM	NM	NM	NM	NM	3,000	18.0	18.0	ND
	Sep 02	1983.99	16.62	1967.37	NM	NM	NM	NM	NM	NM	NM	3,000	13.0	13.0	ND
	May 03	1983.99	17.15	1966.84	NM	NM	NM	NM	NM	NM	NM	1,400	ND	ND	ND
	Sep 03	1983.97	17.70	1966.27	NM	NM	NM	NM	NM	NM	NM	1,700	ND	ND	ND
	Jan 04	1983.97	18.25	1965.72	7.1	3.1	NM	1.1	23.20	NM	NM	1,700	ND	ND	ND
	May 05	1983.97	14.65	1969.32	6.9	3.5	698.0	4.8	23.40	NM	193	2,050	17.0	9.7	ND
	Dec 05	1983.97	16.00	1967.97	6.6	4.8	360.0	2.7	25.40	3.1	264	2,900	ND	ND	ND
	Mar 06	1983.97	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 06	1983.97	17.55	1966.42	NM	3.7	728.0	7.0	24.90	2.4	116	1,600	ND	ND	ND
	Oct 06	1983.97	17.25	1966.72	6.1	3.5	20.0	5.1	24.40	2.2	161	1,900	ND	ND	ND
	Dec 06	1983.97	17.60	1966.37	6.8	4.2	28.0	4.9	24.50	2.7	241	1,300	ND	ND	ND
	Mar 07	1983.97	18.84	1965.13	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1983.97	19.01	1964.96	7.0	3.5	539.0	5.7	24.40	2.3	305	1,400	ND	ND	ND
	Sep 07	1983.97	17.94	1966.03	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1983.97	18.04	1965.93	6.3	3.6	144.0	6.9	21.80	2.3	314	1,000	ND	ND	ND
	Mar 08	1983.97	18.82	1965.15	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1983.97	NM	NM	NM	NM	NM	NM	NM	NM	NM	900	ND	ND	ND
	Oct 08	1983.97	18.54	1965.43	6.9	3.5	44.7	3.4	24.80	2.3	103	960	3.4	1.2	ND
	Feb 09	1983.97	18.68	1965.29	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1983.97	18.95	1965.02	7.0	3.7	15.4	1.9	24.50	2.4	116	880	3.2	1.1	ND
	Sep 09	1983.97	18.95	1965.02	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1983.97	19.32	1964.65	5.6	3.3	280.0	1.9	24.40	2.1	155	530	2.4	ND	ND
	Feb 10	1983.97	19.68	1964.29	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1983.97	19.08	1964.89	7.0	3.1	14.8	3.5	24.19	NM	NM	570	2.1	0.8	ND
	Oct 10	1983.97	18.76	1965.21	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1983.97	18.78	1965.19	6.9	3.4	32.8	3.0	24.11	NM	92	560	2.4	0.7	ND
	Mar 11	1983.97	19.19	1964.78	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1983.97	19.50	1964.47	7.2	3.4	25.9	2.6	24.47	NM	273	680	2.2	0.6	ND
	Sep 11	1983.97	19.11	1964.86	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1983.97	19.08	1964.89	7.0	3.3	NM	2.7	23.55	2.1	168	610	2.1	0.66	NS
	Mar 12	1983.97	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	* Jun 12	1983.53	19.11	1964.42	7.2	3.3	57.1	2.6	23.57	2.2	87	490	2	0.6	ND
Sep 12	1983.53	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Nov 12	1983.53	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Mar 13	1983.53	19.29	1964.24	7.1	3.5	NM	2.7	23.24	2.3	205	580	2.5	1.0	<0.50	
Jun 13	1983.53	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Sep 13	1983.53	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Nov 13	1983.53	19.27	1964.26	7.3	3.7	36.9	2.0	24.28	2.4	83	720	2.3	0.9	<0.50	



**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-3	Oct 00	1984.19	15.95	1968.24	NM	NM	NM	NM	NM	NM	NM	98	ND	ND	ND
	Sep 02	1984.46	17.20	1967.26	NM	NM	NM	NM	NM	NM	NM	ND	ND	ND	ND
	May 03	1984.46	17.70	1966.76	NM	NM	NM	NM	NM	NM	NM	6.9	ND	ND	ND
	Sep 03	1984.46	18.35	1966.08	NM	NM	NM	NM	NM	NM	NM	12	ND	ND	ND
	Jan 04	1984.46	19.25	1965.18	6.9	2.9	NM	1.0	22.40	NM	NM	6.7	ND	ND	ND
	May 05	1984.46	15.22	1969.21	7.0	2.9	NM	2.5	26.00	NM	149	ND	ND	ND	ND
	Dec 05	1984.46	16.45	1967.98	6.6	4.7	100.0	0.9	27.30	3.0	33	ND	ND	ND	ND
	Mar 06	1984.46	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 06	1984.46	18.38	1966.05	NM	3.8	285.0	5.6	26.40	2.4	-32	ND	ND	ND	ND
	Oct 06	1984.46	17.88	1966.55	5.9	3.9	26.0	2.0	26.70	2.5	279	ND	ND	ND	ND
	Dec 06	1984.46	18.26	1966.17	6.7	4.8	272.0	2.9	26.70	3.1	9	1.2	ND	ND	ND
	Mar 07	1984.46	19.86	1964.57	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1984.46	20.23	1964.2	7.1	3.7	605.0	3.6	25.90	2.4	43	ND	ND	ND	ND
	Sep 07	1984.46	18.99	1965.44	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1984.46	18.99	1965.44	6.1	3.9	55.1	2.2	21.90	2.5	135	1.4	ND	ND	ND
	Mar 08	1984.46	19.94	1964.49	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1984.46	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 08	1984.41	19.46	1964.95	6.7	3.8	44.2	0.4	27.50	2.4	99	6.5	ND	ND	ND
	Feb 09	1984.41	19.80	1964.61	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1984.41	20.20	1964.21	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 09	1984.41	20.16	1964.25	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1984.41	20.48	1963.93	6.0	3.8	180.0	1.3	26.60	2.4	143	5.1	ND	ND	ND
	Feb 10	1984.41	21.07	1963.34	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1984.41	13.91	1970.50	6.8	3.5	2.2	2.0	27.36	NM	NM	NS	NS	NS	NS
	Oct 10	1984.41	19.95	1964.46	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1984.41	19.91	1964.50	6.7	3.9	12.5	0.6	27.29	NM	106	5.8	ND	ND	ND
	Mar 11	1984.41	20.47	1963.94	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1984.41	20.86	1963.55	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 11	1984.41	20.45	1963.96	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1984.41	20.35	1964.06	6.7	4.5	NM	3.3	26.17	NM	-38	16	ND	ND	NS
	Mar 12	1984.41	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	* Jun 12	1983.81	20.43	1963.38	7.0	4.0	102.0	2.6	25.50	2.6	122	25	ND	ND	ND
Sep 12	1983.81	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Nov 12	1983.81	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Mar 13	1983.81	20.37	1963.44	6.9	4.5	NM	1.7	25.15	2.9	153	12	<0.50	<0.50	<0.50	
Jun 13	1983.81	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Sep 13	1983.81	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Nov 13	1983.81	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-4	Oct 00	1989.68	16.95	1972.73	NM	NM	NM	NM	NM	NM	NM	14	ND	ND	ND
	Sep 02	1989.87	NM	NM	NM	NM	NM	NM	NM	NM	NM	25	ND	ND	ND
	May 03	1989.87	18.71	1971.16	NM	NM	NM	NM	NM	NM	NM	24	ND	ND	ND
	Sep 03	1989.85	19.05	1970.8	NM	NM	NM	NM	NM	NM	NM	100	ND	ND	ND
	Jan 04	1989.85	19.86	1969.99	7.0	2.7	NM	1.2	22.00	NM	NM	220	ND	ND	ND
	May 05	1989.85	15.83	1974.02	6.8	3.7	664.0	3.7	24.20	NM	160	25	ND	ND	ND
	Dec 05	1989.85	17.62	1972.23	6.7	4.9	670.0	3.2	25.90	3.1	219	15	ND	ND	ND
	Mar 06	1989.85	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 06	1989.85	18.36	1971.49	NM	NM	NM	NM	NM	NM	NM	27	ND	ND	ND
	Oct 06	1989.85	18.34	1971.51	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 06	1989.85	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 07	1989.85	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1989.85	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 07	1989.85	18.96	1970.89	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1989.85	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 08	1989.85	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1989.85	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 08	1989.86	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Feb 09	1989.86	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1989.86	Dry	Dry	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 09	1989.86	Dry	Dry	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1989.86	Dry	Dry	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Feb 10	1989.86	Dry	Dry	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1989.86	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 10	1989.86	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1989.86	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 11	1989.86	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1989.86	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 11	1989.86	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1989.86	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 12	1989.86	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
Abandoned June 4, 2012															

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-5	Oct 00	1988.93	16.20	1972.73	NM	NM	NM	NM	NM	NM	NM	100	ND	ND	ND
	Sep 02	1989.18	17.00	1972.18	NM	NM	NM	NM	NM	NM	NM	110	ND	ND	ND
	May 03	1989.18	17.80	1971.38	NM	NM	NM	NM	NM	NM	NM	240	ND	ND	ND
	Sep 03	1989.18	18.07	1971.11	NM	NM	NM	NM	NM	NM	NM	220	ND	ND	ND
	Jan 04	1989.18	18.65	1970.53	6.7	2.6	NM	1.2	22.30	NM	NM	370	ND	ND	ND
	May 05	1989.18	14.87	1974.31	7.1	2.6	NM	4.6	25.40	NM	184	146	ND	ND	ND
	Dec 05	1989.18	16.80	1972.38	6.8	5.3	>999	1.5	26.80	3.3	377	93	ND	ND	ND
	Mar 06	1989.18	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 06	1989.18	17.40	1971.78	NM	3.8	>999	6.9	26.60	2.4	126	220	ND	ND	ND
	Oct 06	1989.18	17.46	1971.72	6.2	3.5	21.0	4.8	26.70	2.2	99	67	ND	ND	ND
	Dec 06	1989.18	18.01	1971.17	6.8	4.5	134.0	5.4	26.50	2.9	93	130	ND	ND	ND
	Mar 07	1989.18	19.30	1969.88	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1989.18	19.12	1970.06	7.0	3.4	375.0	6.5	25.20	2.2	460	550	ND	ND	ND
	Sep 07	1989.18	17.85	1971.33	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1989.18	18.33	1970.85	6.3	3.8	28.3	5.7	24.40	2.4	159	170	ND	ND	ND
	Mar 08	1989.18	19.31	1969.87	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1989.18	NM	NM	NM	NM	NM	NM	NM	NM	NM	400	ND	ND	ND
	Oct 08	1989.15	18.99	1970.16	6.8	3.5	21.4	4.8	27.40	2.3	119	340	2.7	1.2	ND
	Feb 09	1989.15	18.99	1970.16	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1989.15	19.17	1969.98	7.0	3.6	0.0	5.6	26.20	2.3	125	700	4.6	1.3	ND
	Sep 09	1989.15	19.14	1970.01	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1989.15	19.55	1969.6	5.8	3.2	-6.0	3.8	27.10	2.1	132	520	3.9	1.4	ND
	Feb 10	1989.15	19.57	1969.58	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1989.15	19.21	1969.94	7.1	3.1	7.0	6.7	25.60	NM	273	550	2.9	1.3	ND
	Oct 10	1989.15	18.67	1970.48	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1989.15	18.85	1970.30	7.0	5.4	2.0	4.7	25.64	NM	104	360	2.4	1.0	ND
	Mar 11	1989.15	19.41	1969.74	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1989.15	19.50	1969.65	6.9	3.5	14.0	4.9	26.58	NM	412	670	2.7	1.1	ND
	Sep 11	1989.15	19.19	1969.96	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1989.15	19.22	1969.93	6.9	4.0	NM	3.8	25.54	NM	-30	540	2.5	1.1	ND
	Mar 12	1989.15	19.74	1969.41	7.2	3.3	123.0	5.6	23.51	2.4	-38	800	NS	NS	NS
	* Jun 12	1988.69	19.25	1969.44	7.3	3.3	50.1	6.0	25.30	2.1	106	520	2.5	1.2	ND
Sep 12	1988.69	18.25	1970.44	7.3	3.3	NM	5.3	26.25	2.2	129	340	2.2	0.95	ND	
Nov 12	1988.69	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Mar 13	1988.69	19.69	1969.00	7.1	3.6	NM	4.4	25.23	2.3	134	530	2.3	0.67	<0.50	
Jun 13	1988.69	20.00	1968.69	7.2	3.5	NM	4.7	27.60	2.3	126	600	2.9	0.95	<0.50	
Sep 13	1988.69	19.60	1969.09	7.0	3.4	NM	4.3	26.63	2.2	167	830	3.7	1.3	<0.50	
Nov 13	1988.69	19.52	1969.17	7.8	3.6	9.7	4.1	25.37	2.3	90	690	2.8	1.2	<0.50	

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)	
MW-6	Oct 00	1988.72	17.41	1971.31	NM	NM	NM	NM	NM	NM	NM	2,200	13.0	8.1	ND	
	Sep 02	1989.01	18.26	1970.75	NM	NM	NM	NM	NM	nM	NM	1,000	41.0	14.0	ND	
	May 03	1989.01	18.87	1970.14	NM	NM	NM	NM	NM	NM	NM	710	22.0	ND	ND	
	Sep 03	1989.01	19.25	1969.76	NM	NM	NM	NM	NM	NM	NM	1,300	ND	ND	ND	
	Jan 04	1989.01	19.74	1969.27	7.0	2.3	NM	1.2	22.40	NM	NM	2,400	ND	ND	ND	
	May 05	1989.01	16.21	1972.8	6.9	2.4	NM	2.8	25.90	NM	123	2,090	13.0	11.0	ND	
	Sep 05	1989.01	17.26	1971.75	7.0	4.0	34.0	6.2	26.90	2.3	-119	890	13.0	23.0	ND	
	Dec 05	1989.01	17.88	1971.13	6.8	4.9	220.0	1.1	26.50	3.2	163	530	41.0	21.0	ND	
	Mar 06	1989.01	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 06	1989.01	18.80	1970.21	NM	4.0	707.0	6.3	26.70	2.4	172	1,100	ND	ND	ND	
	Oct 06	1989.01	18.73	1970.28	6.3	3.6	7.0	4.1	26.50	2.3	61	1,300	ND	ND	ND	
	Dec 06	1989.01	19.18	1969.83	6.7	4.2	96.0	4.4	26.20	2.7	239	810	9.9	8.9	ND	
	Mar 07	1989.01	20.40	1968.61	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1989.01	20.28	1968.73	7.1	3.5	352.0	5.6	24.90	2.2	241	1,300	ND	ND	ND	
	Sep 07	1989.01	19.00	1970.01	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1989.01	19.29	1969.72	6.2	3.8	4.3	5.4	24.80	2.4	277	1,500	ND	ND	ND	
	Mar 08	1989.01	20.26	1968.75	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1989.01	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	1,900	ND	ND	ND
	Oct 08	1989.03	20.00	1969.03	6.8	3.5	46.3	3.3	26.30	2.3	117	2,000	13.0	3.9	ND	
	Feb 09	1989.03	20.03	1969	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1989.03	20.20	1968.83	7.0	3.5	76.3	2.8	26.70	2.2	121	2,800	14.0	4.1	ND	
	Sep 09	1989.03	20.27	1968.76	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1989.03	20.66	1968.37	5.9	3.1	87.0	2.5	26.30	1.9	132	2,100	14.0	6.4	ND	
	Feb 10	1989.03	20.77	1968.26	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1989.03	20.38	1968.65	7.0	3.0	23.2	4.1	26.32	NM	NM	2,500	13.0	6.2	NS	
	Oct 10	1989.03	19.94	1969.09	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1989.03	20.02	1969.01	6.9	3.3	7.0	3.5	25.26	NM	86	2,300	13.0	8.2	ND	
	Mar 11	1989.03	20.49	1968.54	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1989.03	20.66	1968.37	7.0	3.3	8.2	3.7	26.52	NM	365	2,400	10.0	3.7	ND	
	Sep 11	1989.03	20.30	1968.73	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1989.03	20.30	1968.73	7.0	3.2	NM	3.4	25.16	2.1	113	2,900	12	5.6	ND	
	Mar 12	1989.03	20.84	1968.19	7.3	3.2	107.0	4.4	24.30	2.1	-44	3,500	NS	NS	NS	
Jun 12	1988.12	19.71	1968.41	7.6	3.1	57.1	7.5	27.25	2.0	114	1,700	8.5	5.4	ND		
Sep 12	1988.12	19.23	1968.89	7.3	3.1	NM	3.7	26.27	2.0	122	3,000	17	8.1	ND		
Nov 12	1988.12	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Mar 13	1988.12	20.23	1967.89	7.1	3.4	NM	3.3	24.83	2.2	100	2,600	10	2.2	<0.50		
Jun 13	1988.12	20.58	1967.54	7.3	3.4	NM	3.6	30.62	2.2	130	2,400	7.7	1.3	<0.50		
Sep 13	1988.12	20.25	1967.87	7.0	3.3	NM	3.0	29.86	2.2	90	2,500	11	11	<0.50		
Nov 13	1988.12	20.14	1967.98	7.8	3.5	16.2	3.1	25.27	2.3	97	3,100	12	3.5	<0.50		
*																

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-6D1	Mar 13	1988.72	16.29	1972.43	7.6	0.6	NM	5.7	23.48	0.4	86	<0.50	<0.50	<0.50	<0.50
	Jun 13	1988.72	20.20	1968.52	7.5	0.7	NM	5.2	25.82	0.4	280	<0.50	<0.50	<0.50	<0.50
	Sep 13	1988.72	21.40	1967.32	7.4	0.9	NM	4.4	27.20	0.6	61	58	<0.50	<0.50	<0.50
	Nov 13	1988.72	19.24	1969.48	6.9	0.6	49.3	5.0	23.81	0.4	84	3.2	<0.50	<0.50	<0.50
MW-6D2	Mar 13	1988.72	14.94	1973.78	7.6	0.6	NM	4.3	22.93	0.4	55	<0.50	<0.50	<0.50	<0.50
	Jun 13	1988.72	20.40	1968.32	7.5	0.7	NM	5.9	25.49	0.4	142	<0.50	<0.50	<0.50	<0.50
	Sep 13	1988.72	21.61	1967.11	7.4	0.7	NM	5.0	26.61	0.5	58	33	<0.50	<0.50	<0.50
	Nov 13	1988.72	18.94	1969.78	7.5	0.6	18.0	NM	23.22	0.4	24	3.3	<0.50	<0.50	<0.50
MW-6D3	Mar 13	1988.72	14.04	1974.68	7.6	0.5	NM	0.7	22.18	0.3	29	<0.50	<0.50	<0.50	<0.50
	Jun 13	1988.72	24.40	1964.32	7.7	0.5	NM	2.8	31.09	0.4	155	<0.50	<0.50	<0.50	<0.50
	Sep 13	1988.72	24.89	1963.83	7.2	0.6	NM	2.2	28.92	0.4	112	2.0	<0.50	<0.50	<0.50
	Nov 13	1988.72	22.16	1966.56	6.9	0.5	43.6	5.7	23.58	0.3	78	3.0	<0.50	<0.50	<0.50

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-7	Sep 02	1990.28	18.27	1972.01	NM	NM	NM	NM	NM	NM	NM	ND	ND	ND	ND
	May 03	1990.28	16.60	1973.68	NM	NM	NM	NM	NM	NM	NM	1.7	ND	ND	ND
	Sep 03	1990.25	16.79	1973.46	NM	NM	NM	NM	NM	NM	NM	2.0	ND	ND	ND
	Jan 04	1990.25	17.32	1972.93	7.0	2.2	NM	0.9	22.40	NM	NM	11	ND	ND	ND
	May 05	1990.25	13.86	1976.39	7.1	1.8	NM	4.0	24.80	NM	129	ND	ND	ND	ND
	Sep 05	1990.25	14.97	1975.28	7.0	4.6	140.0	6.2	26.60	3.0	144	3.3	ND	ND	ND
	Dec 05	1990.25	15.45	1974.80	6.7	5.3	5.0	1.8	23.80	3.4	472	1.2	ND	ND	ND
	Mar 06	1990.25	16.41	1973.84	4.7	6.7	428.0	NM	22.40	4.2	634	1.5	ND	ND	ND
	Jun 06	1990.25	16.50	1973.75	NM	4.1	>999	6.6	26.20	2.6	-14	2.2	ND	ND	ND
	Oct 06	1990.25	16.50	1973.75	6.2	3.7	>999	4.4	25.00	2.3	92	2.9	ND	ND	ND
	Dec 06	1990.25	16.87	1973.38	6.9	4.8	>999	5.7	25.10	3.0	65	2.1	ND	ND	ND
	Mar 07	1990.25	18.19	1972.06	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1990.25	18.08	1972.17	7.1	3.6	450.0	6.3	25.10	2.2	129	1.1	ND	ND	ND
	Sep 07	1990.25	16.31	1973.94	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1990.25	16.60	1973.65	6.2	4.0	0.0	2.3	22.50	2.6	161	1.3	ND	ND	ND
	Mar 08	1990.25	17.93	1972.32	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1990.25	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 08	1990.22	17.57	1972.65	6.6	3.8	204.0	3.5	26.70	2.4	134	2.5	ND	ND	ND
	Feb 09	1990.22	17.52	1972.70	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1990.22	17.92	1972.30	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 09	1990.22	18.13	1972.09	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1990.22	18.50	1971.72	5.8	3.4	46.0	3.2	26.70	2.2	160	7.9	ND	ND	ND
	Feb 10	1990.22	18.36	1971.86	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1990.22	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 10	1990.22	17.54	1972.68	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1990.22	17.65	1972.57	6.9	3.7	230.8	4.9	26.17	NM	98	2.0	ND	ND	ND
	Mar 11	1990.22	18.19	1972.03	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1990.22	18.40	1971.82	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 11	1990.22	18.02	1972.20	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1990.22	17.86	1972.36	7.0	3.5	NM	3.7	25.20	2.2	302	8.9	ND	ND	ND
Mar 12	1990.22	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
* Jun 12	1989.78	17.78	1972.00	7.3	3.5	8.0	4.8	27.56	2.3	-42	10	ND	ND	ND	
Sep 12	1989.78	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Nov 12	1989.78	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Mar 13	1989.78	18.47	1971.31	7.0	3.8	NM	3.4	25.22	2.5	70	10	<0.50	<0.50	<0.50	
Jun 13	1989.78	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Sep 13	1989.78	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Nov 13	1990.78	18.40	1972.38	6.06	3.4	53.0	1.64	26.34	2.17	165	8.4	<0.50	<0.50	<0.50	

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-8	Sep 02	1994.25	18.55	1975.70	NM	NM	NM	NM	NM	NM	NM	5.4	ND	ND	ND
	May 03	1994.25	19.50	1974.75	NM	NM	NM	NM	NM	NM	NM	3.2	ND	ND	ND
	Sep 03	1994.23	19.55	1974.68	NM	NM	NM	NM	NM	NM	NM	3.7	ND	ND	ND
	Jan 04	1994.23	19.91	1974.32	7.0	2.2	NM	1.0	22.00	NM	NM	4.7	ND	ND	ND
	May 05	1994.23	15.51	1978.72	7.0	1.8	NM	3.6	27.70	NM	107	5.6	5.6	ND	ND
	Dec 05	1994.23	18.48	1975.75	6.7	4.2	>999	2.1	24.10	2.7	483	3.6	ND	ND	ND
	Mar 06	1994.23	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 06	1994.23	18.89	1975.34	NM	3.7	>999	6.9	27.40	2.3	185	2.6	ND	ND	ND
	Oct 06	1994.23	19.12	1975.11	6.2	3.4	>999	5.9	26.70	2.2	108	3.4	ND	ND	ND
	Dec 06	1994.23	19.60	1974.63	6.2	3.4	>999	5.9	26.70	2.2	108	4.3	ND	ND	ND
	Mar 07	1994.23	20.56	1973.67	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1994.23	20.31	1973.92	7.1	3.5	259.0	7.3	27.30	2.3	287	2.8	ND	ND	ND
	Sep 07	1994.23	19.14	1975.09	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1994.23	19.81	1974.42	6.5	3.7	0.0	3.5	25.50	2.4	158	2.8	ND	ND	ND
	Mar 08	1994.23	20.61	1973.62	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1994.23	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 08	1994.22	20.79	1973.43	6.8	3.5	421.0	5.2	26.90	2.2	154	3.7	ND	ND	ND
	Feb 09	1994.22	20.29	1973.93	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1994.22	20.44	1973.78	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 09	1994.22	20.41	1973.81	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1994.22	20.71	1973.51	6.7	3.2	450.0	5.0	26.80	2.0	133	2.8	ND	ND	ND
	Feb 10	1994.22	20.86	1973.36	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1994.22	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 10	1994.22	19.68	1974.54	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1994.22	19.94	1974.28	7.0	3.5	39.5	5.3	26.65	NM	98	4	ND	ND	ND
	Mar 11	1994.22	20.41	1973.81	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
Jun 11	1994.22	20.50	1973.72	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Sep 11	1994.22	20.27	1973.95	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Mar 12	1994.22	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
*	Jun 12	1991.71	19.32	1972.39	7.4	3.2	93.1	6.6	27.55	2.1	17	3.5	ND	ND	ND
	Sep 12	1991.71	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Nov 12	1991.71	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Mar 13	1991.71	20.65	1971.06	7.0	3.5	NM	5.0	25.97	2.3	78	1.5	<0.50	<0.50	<0.50
	Jun 13	1991.71	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Sep 13	1991.71	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Nov 13	1991.71	20.60	1971.11	6.12	3.2	95.0	2.3	26.12	2.1	194	2.2	<0.50	<0.50	<0.50

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-9	Sep 02	1992.26	18.46	1973.80	NM	NM	NM	NM	NM	NM	NM	670	ND	ND	ND
	May 03	1992.26	19.15	1973.11	NM	NM	NM	NM	NM	NM	NM	59	ND	ND	ND
	Sep 03	1992.26	19.02	1973.24	NM	NM	NM	NM	NM	NM	NM	9.2	ND	ND	ND
	Jan 04	1992.26	19.05	1973.21	7.0	2.5	NM	1.2	22.60	NM	NM	10	ND	ND	ND
	May 05	1992.26	15.36	1976.90	7.1	2.7	296.0	7.6	26.10	NM	130	353	ND	ND	ND
	Sep 05	1992.26	17.85	1974.41	7.2	1.8	4.0	6.6	27.10	1.2	111	64	ND	ND	ND
	Dec 05	1992.26	17.68	1974.58	6.9	2.5	33.0	2.5	26.60	1.6	123	190	ND	ND	ND
	Mar 06	1992.26	18.55	1973.71	5.1	2.1	>999	NM	25.90	1.3	496	ND	ND	ND	ND
	Jun 06	1992.26	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 06	1992.26	18.40	1973.86	6.3	2.4	0.0	4.1	25.70	1.5	86	160	ND	ND	ND
	Dec 06	1992.26	19.00	1973.26	6.8	3.0	0.0	5.1	25.50	1.9	233	45	ND	ND	ND
	Mar 07	1992.26	20.19	1972.07	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1992.26	19.95	1972.31	7.1	2.5	0.0	5.6	26.10	1.6	428	170	ND	ND	ND
	Sep 07	1992.26	18.51	1973.75	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1992.26	19.20	1973.06	NM	NM	NM	NM	NM	NM	NM	110	ND	ND	ND
	Mar 08	1992.26	20.16	1972.10	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1992.26	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 08	1992.25	19.87	1972.38	7.0	1.4	162.0	4.7	26.60	0.9	58	12	ND	ND	ND
	Feb 09	1992.25	19.76	1972.49	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1992.25	20.00	1972.25	7.5	1.4	>-5.0	4.0	26.50	0.8	-9	13	ND	ND	ND
	Sep 09	1992.25	20.20	1972.05	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1992.25	20.45	1971.80	7.0	1.1	-10.0	4.0	26.40	0.7	-157	5.5	ND	ND	ND
	Feb 10	1992.25	20.21	1972.04	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1992.25	20.10	1972.15	7.3	1.2	12.0	5.1	27.67	NM	NM	6.6	ND	ND	ND
	Oct 10	1992.25	19.44	1972.81	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1992.25	19.63	1972.62	7.1	1.2	7.0	3.5	27.31	NM	50	3.7	ND	ND	ND
	Mar 11	1992.25	20.13	1972.12	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1992.25	20.40	1971.85	7.1	1.2	0.4	0.5	31.96	NM	286	2.3	ND	ND	ND
	Sep 11	1992.25	19.99	1972.26	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1992.25	19.91	1972.34	7.3	1.2	NM	2.2	24.70	0.8	265	5.6	ND	ND	ND
	Mar 12	1992.25	20.50	1971.75	7.5	1.2	17.8	1.7	26.86	0.8	-79	5.2	NS	NS	NS
	* Jun 12	1992.25	19.45	1972.80	7.6	1.0	13.4	4.7	30.27	0.8	-8	5.7	ND	ND	ND
	Sep 12	1992.25	19.07	1973.18	7.7	1.2	NM	2.2	27.57	0.8	118	3.7	ND	ND	ND
Nov 12	1992.25	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Mar 13	1992.25	20.56	1971.69	7.2	1.4	NM	0.6	25.53	0.9	-0.1	6.6	<0.50	<0.50	<0.50	
Jun 13	1992.25	20.91	1971.34	7.2	1.4	NM	2.3	25.44	0.9	110	9.8	<0.50	<0.50	<0.50	
Sep 13	1992.25	20.69	1971.56	7.3	1.4	NM	2.4	27.88	0.9	-81	6.6	<0.50	<0.50	<0.50	
Nov 13	1992.25	20.53	1971.72	6.4	1.3	35.3	0.6	25.32	0.8	56	11	<0.50	<0.50	<0.50	



**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-10	Sep 02	1983.81	18.51	1965.30	NM	NM	NM	NM	NM	NM	NM	ND	ND	ND	ND
	May 03	1983.81	18.65	1965.16	NM	NM	NM	NM	NM	NM	NM	ND	ND	ND	ND
	Sep 03	1983.81	19.45	1964.36	NM	NM	NM	NM	NM	NM	NM	15	ND	ND	ND
	Jan 04	1983.81	20.32	1963.49	7.0	3.1	NM	1.0	24.40	NM	NM	ND	ND	ND	ND
	May 05	1983.81	16.76	1967.05	6.8	3.2	25.0	1.5	28.10	NM	-253	ND	ND	ND	ND
	Sep 05	1983.81	16.95	1966.86	7.0	2.9	28.0	3.9	27.90	1.9	-239	ND	ND	ND	ND
	Dec 05	1983.81	17.64	1966.17	6.7	3.7	57.0	1.5	23.90	2.3	-140	ND	ND	ND	ND
	Mar 06	1983.81	19.25	1964.56	5.7	1.8	153.0	NM	21.30	1.2	-154	ND	ND	ND	ND
	Jun 06	1983.81	17.90	1965.91	NM	2.1	>999	3.5	28.10	1.5	-303	ND	ND	ND	ND
	Oct 06	1983.81	19.00	1964.81	6.2	1.4	86.0	1.6	27.10	0.9	-272	ND	ND	ND	ND
	Dec 06	1983.81	19.21	1964.60	6.8	3.9	144.0	3.9	26.60	2.5	-321	1	ND	ND	ND
	Mar 07	1983.81	20.84	1962.97	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1983.81	21.39	1962.42	7.0	3.5	>999	2.7	27.30	2.1	-179	ND	ND	ND	ND
	Sep 07	1983.81	20.38	1963.43	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1983.81	20.26	1963.55	6.9	3.6	0.0	0.6	24.50	2.3	-170	1	ND	ND	ND
	Mar 08	1983.81	21.06	1962.75	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1983.81	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 08	1983.78	20.45	1963.33	6.8	2.9	100.0	0.0	27.70	1.9	-226	ND	ND	ND	ND
	Feb 09	1983.78	20.90	1962.88	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1983.78	21.42	1962.36	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 09	1983.78	21.46	1962.32	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1983.78	21.67	1962.11	6.3	2.6	-10.0	0.2	27.40	1.6	-330	ND	ND	ND	ND
	Feb 10	1983.78	22.47	1961.31	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1983.78	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 10	1983.78	21.23	1962.55	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1983.78	21.10	1962.68	7.1	1.0	1.0	0.1	28.00	NM	-274	ND	ND	ND	ND
	Mar 11	1983.78	21.76	1962.02	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1983.78	22.18	1961.60	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 11	1983.78	21.75	1962.03	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1983.78	21.62	1962.16	6.9	1.3	NM	0.2	26.91	NM	-335	ND	ND	ND	ND
	Mar 12	1983.78	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	* Jun 12	1983.28	21.76	1961.52	7.4	3.0	11.0	1.0	27.50	2.0	-283	0.9	ND	ND	ND
Sep 12	1983.28	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Nov 12	1983.28	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Mar 13	1983.28	21.36	1961.92	7.1	2.7	NM	0.7	26.34	1.7	-238	<0.50	<0.50	<0.50	<0.50	
Jun 13	1983.28	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Sep 13	1983.28	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Nov 13	1983.28	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-11	Sep 02	1980.24	24.22	1956.02	NM	NM	NM	NM	NM	NM	NM	ND	ND	ND	ND
	May 03	1980.24	24.25	1955.99	NM	NM	NM	NM	NM	NM	NM	ND	ND	ND	ND
	Sep 03	1980.24	25.62	1954.62	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jan 04	1980.24	26.22	1954.02	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	May 05	1980.24	22.55	1957.69	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 06	1980.24	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 06	1980.24	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 06	1980.24	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 06	1980.24	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 07	1980.24	25.51	1954.73	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1980.24	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 07	1980.24	26.13	1954.11	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1980.24	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 08	1980.24	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1980.24	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 08	1980.21	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Feb 09	1980.21	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1980.21	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 09	1980.21	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1980.21	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Feb 10	1980.21	27.54	1952.67	6.7	3.3	3.0	5.0	24.30	2.1	-134	ND	ND	ND	ND
	Jun 10	1980.21	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 10	1980.21	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1980.21	26.69	1953.52	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 11	1980.21	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1980.21	27.36	1952.85	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 11	1980.21	27.45	1952.76	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1980.21	27.28	1952.93	6.9	3.3	NM	0.2	24.72	21.3	-94	1.4	ND	ND	ND
	Mar 12	1980.21	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	* Jun 12	1979.87	27.37	1952.50	7.3	3.4	3.9	0.9	26.07	2.2	-194	1.4	ND	ND	ND
Sep 12	1979.87	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Nov 12	1979.87	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Mar 13	1979.87	25.81	1954.06	7.0	3.7	NM	1.2	24.43	2.4	-104	<0.50	<0.50	<0.50	<0.50	
Jun 13	1979.87	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Sep 13	1979.87	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Nov 13	1979.87	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-12	Sep 02	1996.59	14.90	1981.69	NM	NM	NM	NM	NM	NM	NM	ND	ND	ND	ND
	May 03	1996.59	15.07	1981.52	NM	NM	NM	NM	NM	NM	NM	1.3	ND	ND	ND
	Sep 03	1996.59	15.30	1981.29	NM	NM	NM	NM	NM	NM	NM	14	ND	ND	ND
	Jan 04	1996.59	15.40	1981.19	7.0	2.2	NM	NM	22.40	NM	NM	6.1	ND	ND	ND
	May 05	1996.59	12.34	1984.25	6.8	2.6	NM	3.2	24.90	NM	219	ND	ND	ND	ND
	Sep 05	1996.59	13.45	1983.14	7.0	4.2	160.0	5.0	25.60	2.7	95	1.1	ND	ND	ND
	Dec 05	1996.59	14.20	1982.39	6.7	5.0	210.0	2.0	22.50	3.2	523	1.2	ND	ND	ND
	Mar 06	1996.59	15.00	1981.59	NM	6.7	91.0	NM	23.50	4.2	503	1.1	ND	ND	ND
	Jun 06	1996.59	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 06	1996.59	14.71	1981.88	6.3	3.9	>999	3.9	26.10	2.5	112	ND	ND	ND	ND
	Dec 06	1996.59	15.05	1981.54	6.6	4.4	>999	6.2	25.30	2.8	206	1.4	ND	ND	ND
	Mar 07	1996.59	16.55	1980.04	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1996.59	16.31	1980.28	7.1	3.8	>999	3.5	25.50	2.4	-39	ND	ND	ND	ND
	Sep 07	1996.59	14.27	1982.32	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1996.59	15.04	1981.55	6.3	3.9	286.0	2.6	24.70	2.5	207	ND	ND	ND	ND
	Mar 08	1996.59	16.51	1980.08	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1996.59	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 08	1996.48	15.73	1980.75	6.7	3.8	366.0	0.8	26.90	2.4	119	2	ND	ND	ND
	Feb 09	1996.48	15.61	1980.87	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1996.48	16.26	1980.22	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 09	1996.48	16.29	1980.19	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1996.48	16.76	1979.72	6.0	3.5	370.0	1.5	27.60	2.2	54	1.2	ND	ND	ND
	Feb 10	1996.48	16.92	1979.56	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1996.48	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 10	1996.48	15.58	1980.90	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1996.48	15.85	1980.63	6.8	3.6	20.4	1.6	26.18	NM	109	0.76	ND	ND	ND
	Mar 11	1996.48	16.49	1979.99	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1996.48	16.66	1979.82	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 11	1996.48	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1996.48	15.93	1980.55	7.0	3.5	NM	2.0	24.82	2.3	315	0.95	ND	ND	ND
	Mar 12	1996.48	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	* Jun 12	1995.95	15.37	1980.58	7.3	3.5	15.3	2.8	28.24	2.3	-18	1.2	ND	ND	ND
Sep 12	1995.95	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Nov 12	1995.95	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Mar 13	1995.95	16.76	1979.19	7.0	3.8	NM	2.4	25.55	2.5	46	0.65	<0.50	<0.50	<0.50	
Jun 13	1995.95	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Sep 13	1995.95	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Nov 13	1995.95	16.66	1979.29	6.0	3.4	79.0	1.1	24.57	2.2	189	0.86	<0.50	<0.50	<0.50	

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)	
MW-13	May 03	1984.23	17.25	1966.98	NM	NM	NM	NM	NM	NM	NM	2,100	ND	ND	ND	
	Sep 03	1984.23	17.60	1966.63	NM	NM	NM	NM	NM	NM	NM	2,800	ND	ND	ND	
	Jan 04	1984.23	18.00	1966.23	6.6	3.3	NM	1.1	22.20	NM	NM	2,700	ND	ND	ND	
	May 05	1984.23	14.76	1969.47	7.0	2.1	>999	4.2	24.50	NM	118	5,310	ND	ND	ND	
	Sep 05	1984.23	15.60	1968.63	7.1	4.0	270.0	6.9	25.40	2.5	144	2,600	ND	ND	ND	
	Dec 05	1984.23	16.05	1968.18	6.7	5.0	330.0	2.2	24.90	3.2	250	3,400	ND	ND	ND	
	Mar 06	1984.23	17.24	1966.99	5.5	3.6	44.0	NM	22.80	2.3	68	3,700	ND	ND	ND	
	Jun 06	1984.23	17.40	1966.83	NM	3.7	425.0	7.1	24.20	2.4	120	2,900	NS	NS	NS	
	Oct 06	1984.23	17.15	1967.08	6.2	3.6	50.0	3.8	24.60	2.3	169	2,800	ND	ND	ND	
	Dec 06	1984.23	17.47	1966.76	6.8	4.3	94.0	4.2	24.50	2.7	330	3,200	ND	ND	ND	
	Mar 07	1984.23	18.58	1965.65	6.9	3.5	308.0	9.5	24.00	2.3	514	2,500	ND	ND	ND	
	Jun 07	1984.23	18.66	1965.57	7.0	3.5	0.0	6.1	23.60	2.2	411	3,700	ND	ND	ND	
	Sep 07	1984.23	17.41	1966.82	6.7	3.3	3.0	4.7	27.70	2.1	228	2,000	ND	ND	ND	
	Dec 07	1984.23	17.50	1966.73	6.4	3.7	19.7	6.5	21.30	2.4	282	2,500	ND	ND	ND	
	Mar 08	1984.23	18.31	1965.92	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Jun 08	1984.23	NM	NM	NM	NM	NM	NM	NM	NM	NM	2,300	ND	ND	ND	
	Oct 08	1984.18	18.25	1965.93	6.8	3.5	50.3	3.1	24.80	2.2	87	2,600	5.3	ND	ND	
	Feb 09	1984.18	18.28	1965.90	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Jun 09	1984.18	18.41	1965.77	7.0	3.8	15.7	3.0	24.40	2.4	120	2,200	2.9	ND	ND	
	Sep 09	1984.18	18.63	1965.55	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Nov 09	1984.18	19.05	1965.13	6.0	3.4	0.0	2.0	25.20	2.1	135	1,700	3.7	ND	ND	
	Feb 10	1984.18	19.22	1964.96	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Jun 10	1984.18	18.72	1965.46	7.0	3.2	5.2	2.9	25.27	NM	NM	1,600	3.2	ND	ND	
	Oct 10	1984.18	18.44	1965.74	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Nov 10	1984.18	18.45	1965.73	6.9	3.5	2.0	2.3	23.79	NM	90	1,900	3.9	ND	ND	
	Mar 11	1984.18	18.75	1965.43	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Jun 11	1984.18	19.15	1965.03	7.1	3.5	4.0	2.7	24.74	NM	284	1,600	3.2	ND	ND	
	Sep 11	1984.18	18.64	1965.54	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Nov 11	1984.18	18.67	1965.51	6.9	3.7	NM	1.6	23.97	2.4	113	1,700	2.4	ND	ND	
	Mar 12	1984.18	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	*	Jun 12	1983.31	18.45	1964.86	7.2	3.5	19.6	1.9	23.36	2.3	86	1,500	3.7	ND	ND
		Sep 12	1983.31	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
		Nov 12	1983.31	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Mar 13	1983.31	18.53	1964.78	7.0	3.8	NM	1.6	22.69	2.5	159	1,300	2.8	<0.50	<0.50	
	Jun 13	1983.31	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS		
	Sep 13	1983.31	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS		
	Nov 13	1983.31	18.50	1964.81	7.5	3.9	19.7	0.9	23.77	2.5	104	1,800	3.5	<0.50	<0.50	

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-14	Nov 03	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	1,900	ND	ND	ND
	Jan 04	1987.89	18.35	1969.54	7.0	2.3	NM	1.3	22.30	NM	NM	2,100	ND	ND	ND
	May 05	1987.89	15.02	1972.87	7.0	3.2	NM	NM	24.70	NM	140	2,920	5.5	ND	ND
	Dec 05	1987.89	16.50	1971.39	6.8	5.3	>999	2.1	26.10	3.3	206	3,400	ND	ND	ND
	Mar 06	1987.89	17.54	1970.35	5.2	6.8	898.0	NM	24.20	4.3	234	2,500	ND	ND	ND
	Jun 06	1987.89	17.61	1970.28	NM	3.9	>999	6.8	25.40	2.5	119	1,800	NS	NS	NS
	Oct 06	1987.89	17.42	1970.47	6.1	3.6	>999	7.0	24.80	2.3	297	1,900	ND	ND	ND
	Dec 06	1987.89	17.78	1970.11	6.8	4.5	350.0	4.2	25.70	2.9	226	3,500	ND	ND	ND
	Mar 07	1987.89	18.93	1968.96	6.8	3.7	455.0	8.1	25.10	2.4	501	1,900	ND	ND	ND
	Jun 07	1987.89	18.80	1969.09	7.0	3.7	259.0	6.4	24.80	2.4	299	1,700	ND	ND	ND
	Sep 07	1987.89	17.40	1970.49	6.8	3.5	103.0	4.2	32.20	2.2	220	650	ND	ND	ND
	Dec 07	1987.89	17.66	1970.23	6.4	4.0	9.7	5.7	23.30	2.6	147	1,500	ND	ND	ND
	Mar 08	1987.89	18.63	1969.26	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1987.89	NM	NM	NM	NM	NM	NM	NM	NM	NM	1,500	ND	ND	ND
	Oct 08	1987.86	18.60	1969.26	6.8	3.7	249.0	3.1	25.70	2.4	116	1,500	2.9	ND	ND
	Feb 09	1987.86	18.47	1969.39	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1987.86	18.63	1969.23	7.0	4.0	>-5.0	2.9	25.60	2.5	118	1,900	4.4	ND	ND
	Sep 09	1987.86	18.88	1968.98	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1987.86	19.20	1968.66	5.6	3.6	300.0	1.8	26.20	2.3	132	1,200	2.1	ND	ND
	Feb 10	1987.86	19.26	1968.60	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1987.86	18.88	1968.98	7.0	3.3	84.2	3.6	25.49	NM	NM	1,500	2.4	ND	ND
	Oct 10	1987.86	18.50	1969.36	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1987.86	18.56	1969.30	6.9	3.6	25.8	2.9	25.07	NM	101	1,500	2.6	ND	ND
	Mar 11	1987.86	18.97	1968.89	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1987.86	19.15	1968.71	7.3	3.6	11.4	3.2	25.78	NM	259	1,700	2.0	ND	ND
	Sep 11	1987.86	18.74	1969.12	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1987.86	18.72	1969.14	7.0	3.5	NM	2.6	25.40	2.3	111	1,700	2.5	ND	ND
	Mar 12	1987.86	19.33	1968.53	7.2	3.6	87.5	4.3	23.33	2.3	-51	1,600	NS	NS	NS
	Jun 12	1987.33	18.71	1968.62	7.3	3.5	122.0	3.9	25.77	2.3	104	1,400	2.5	ND	ND
	Sep 12	1987.33	18.28	1969.05	7.3	3.5	NM	3.2	25.71	2.3	144	1,300	2.8	ND	ND
Nov 12	1987.33	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Mar 13	1987.33	19.12	1968.21	7.0	3.9	NM	2.6	24.10	2.5	112	1,900	2.9	<0.50	<0.50	
Jun 13	1987.33	19.44	1967.89	7.2	3.1	NM	3.5	28.28	2.5	130	1,300	2.1	<0.50	<0.50	
Sep 13	1987.33	19.16	1968.17	7.0	3.7	NM	2.8	26.13	2.4	91	1,400	2.5	<0.50	<0.50	
Nov 13	1987.33	18.96	1968.37	7.8	3.9	28.9	2.6	25.17	3.5	96	1,500	2.7	<0.50	<0.50	
MW-14I	Mar 13	NM	19.52	NM	7.4	1.3	NM	4.1	24.19	0.9	95	7,200	51	4.9	<0.50
	Jun 13	1987.54	19.95	1967.59	7.5	1.4	NM	4.2	30.76	0.9	101	5,500	27	3.8	<0.50
	Sep 13	1987.54	19.66	1967.88	7.4	1.4	NM	2.9	35.26	0.9	82	3,700	23	1.6	<0.50
	Nov 13	1987.54	19.53	1968.01	7.8	1.4	6.3	4.0	24.38	0.9	102	10,000	38	17	<0.50

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-15	Nov 03	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	5.2	ND	ND	ND
	Jan 04	1983.28	15.60	1967.68	6.4	2.2	NM	1.0	22.40	NM	NM	2.7	ND	ND	ND
	May 05	1983.28	12.59	1970.69	7.0	2.3	NM	2.9	25.10	NM	164	ND	ND	ND	ND
	Sep 05	1983.28	13.45	1969.83	7.0	3.6	36.0	3.5	25.80	2.3	-24	3.6	ND	ND	ND
	Dec 05	1983.28	13.77	1969.51	6.6	4.5	140.0	1.0	25.90	2.8	-38	5	ND	ND	ND
	Mar 06	1983.28	15.00	1968.28	4.7	6.4	20.0	NM	23.90	4.0	613	4.5	ND	ND	ND
	Jun 06	1983.28	15.15	1968.13	NM	3.8	300.0	4.3	26.00	2.5	106	4.4	NS	NS	NS
	Oct 06	1983.28	14.91	1968.37	6.2	3.7	10.0	2.0	25.70	2.3	51	3.3	ND	ND	ND
	Dec 06	1983.28	15.17	1968.11	6.8	4.7	15.0	3.4	25.90	3.0	28	3.7	ND	ND	ND
	Mar 07	1983.28	16.31	1966.97	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1983.28	16.16	1967.12	7.0	3.6	37.0	3.1	25.30	2.3	362	3	ND	ND	ND
	Sep 07	1983.28	14.80	1968.48	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1983.28	14.71	1968.57	6.4	3.7	0.0	1.9	23.30	2.3	170	3	ND	ND	ND
	Mar 08	1983.28	16.62	1966.66	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1983.28	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 08	1983.25	15.80	1967.45	6.8	3.6	132.0	2.1	27.00	2.3	112	7.8	ND	ND	ND
	Feb 09	1983.25	15.76	1967.49	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1983.25	15.89	1967.36	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 09	1983.25	16.34	1966.91	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1983.25	16.68	1966.57	5.8	3.2	44.0	1.8	26.60	2.1	34	3	ND	ND	ND
	Feb 10	1983.25	16.81	1966.44	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1983.25	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 10	1983.25	16.10	1967.15	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1983.25	16.08	1967.17	6.8	3.4	7.6	2.3	27.60	NM	154	2.5	ND	ND	ND
	Mar 11	1983.25	16.29	1966.96	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1983.25	16.64	1966.61	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 11	1983.25	16.18	1967.07	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1983.25	16.17	1967.08	6.8	4.0	NM	2.1	26.75	NM	-42	3.5	ND	ND	ND
	Mar 12	1983.25	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 12	1982.74	16.70	1966.04	7.3	3.1	25.4	4.1	27.82	2.1	-64	4.2	ND	ND	ND
Sep 12	1982.74	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Nov 12	1982.74	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Mar 13	1982.74	16.41	1966.33	7.0	3.6	NM	2.9	26.24	2.3	48	2.7	<0.50	<0.50	<0.50	
Jun 13	1982.74	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Sep 13	1982.74	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Nov 13	1982.74	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)	
MW-16	Nov 03	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	ND	ND	ND	ND	
	Jan 04	1980.63	26.22	1954.41	7.0	2.3	NM	0.7	22.40	NM	NM	ND	ND	ND	ND	
	May 05	1980.63	23.41	1957.22	7.1	2.9	NM	1.1	25.20	NM	-4	ND	ND	ND	ND	
	Sep 05	1980.63	24.12	1956.51	7.0	3.4	520.0	3.5	24.60	2.3	-31	ND	ND	ND	ND	
	Dec 05	1980.63	24.21	1956.42	6.7	3.8	>999	1.3	25.30	2.4	48	ND	ND	ND	ND	
	Mar 06	1980.63	25.06	1955.57	5.2	5.7	199.0	NM	23.80	3.6	162	ND	ND	ND	ND	
	Jun 06	1980.63	26.05	1954.58	NM	3.4	>999	5.6	27.10	2.2	-64	ND	ND	ND	ND	
	Oct 06	1980.63	25.67	1954.96	6.3	3.4	32.0	2.0	24.60	2.2	-145	ND	ND	ND	ND	
	Dec 06	1980.63	25.56	1955.07	6.5	3.6	271.0	2.9	24.40	1.3	-52	ND	ND	ND	ND	
	Mar 07	1980.63	26.33	1954.30	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Jun 07	1980.63	27.28	1953.35	6.7	3.3	282.0	2.2	25.00	2.1	94	ND	ND	ND	ND	
	Sep 07	1980.63	27.03	1953.60	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Dec 07	1980.63	26.46	1954.17	6.5	3.4	0.0	1.9	24.90	2.2	82	ND	ND	ND	ND	
	Mar 08	1980.63	26.33	1954.30	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Jun 08	1980.63	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Oct 08	1980.61	27.19	1953.42	6.9	3.2	68.0	0.0	24.90	2.1	38	ND	2.8	ND	ND	
	Feb 09	1980.61	26.52	1954.09	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Jun 09	1980.61	27.30	1953.31	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Sep 09	1980.61	27.86	1952.75	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Nov 09	1980.61	27.99	1952.62	5.7	3.0	100.0	0.4	26.00	1.9	-96	1.9	ND	ND	ND	
	Feb 09	1980.61	28.43	1952.18	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Jun 10	1980.61	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Oct 10	1980.61	27.95	1952.66	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Nov 10	1980.61	27.68	1952.93	6.6	3.1	2.5	0.2	26.52	NM	140	ND	ND	ND	ND	
	Mar 11	1980.61	27.49	1953.12	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Jun 11	1980.61	28.22	1952.39	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Sep 11	1980.61	28.36	1952.25	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Nov 11	1980.61	28.17	1952.44	6.9	3.5	NM	0.2	24.40	NM	-74	ND	ND	ND	ND	
	Mar 12	1980.61	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	*	Jun 12	1980.53	28.51	1952.02	7.2	2.9	NM	1.2	25.13	1.9	-23	ND	ND	ND	ND
		Sep 12	1980.53	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
		Nov 12	1980.53	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Mar 13	1980.53	26.86	1953.67	7.0	3.3	NM	1.7	25.33	2.2	-111	<0.50	<0.50	<0.50	<0.50	
	Jun 13	1980.53	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS		
	Sep 13	1980.53	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS		
	Nov 13	1980.53	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS		

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-17	May 05	1990.92	15.07	1975.85	6.9	3.5	22.0	5.9	24.10	NM	181	520	ND	ND	ND
	Dec 05	1990.92	17.05	1973.87	6.9	4.7	6.0	2.3	26.80	3.0	240	470	ND	ND	ND
	Mar 06	1990.92	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 06	1990.92	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 06	1990.92	17.91	1973.01	6.2	3.5	2.0	7.4	24.90	2.2	174	1,300	ND	ND	ND
	Dec 06	1990.92	18.41	1972.51	6.9	4.1	25.0	6.8	24.10	2.7	386	710	ND	ND	ND
	Mar 07	1990.92	19.63	1971.29	7.0	3.6	87.0	8.1	24.30	2.3	350	440	ND	ND	ND
	Jun 07	1990.92	19.48	1971.44	7.0	3.7	37.0	7.3	25.00	2.3	471	300	ND	ND	ND
	Sep 07	1990.92	17.91	1973.01	6.7	3.4	0.0	5.0	26.70	2.2	197	380	ND	ND	ND
	Dec 07	1990.92	18.45	1972.47	6.3	3.9	0.0	4.8	19.70	2.5	176	480	ND	ND	ND
	Mar 08	1990.92	19.51	1971.41	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1990.92	NM	NM	NM	NM	NM	NM	NM	NM	NM	360	ND	ND	ND
	Oct 08	1990.89	18.84	1972.05	6.8	3.7	-3.1	4.1	25.00	2.4	136	290	ND	ND	ND
	Feb 09	1990.89	19.12	1971.77	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1990.89	19.44	1971.45	5.6	3.8	0.0	1.3	25.00	2.4	170	270	ND	ND	ND
	Sep 09	1990.89	19.58	1971.31	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1990.89	19.95	1970.94	6.6	3.5	-10.0	3.0	25.20	2.2	131	310	ND	ND	ND
	Feb 10	1990.89	19.71	1971.18	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1990.89	19.62	1971.27	7.0	2.9	-0.7	3.1	25.10	NM	NM	270	ND	ND	ND
	Oct 10	1990.89	19.10	1971.79	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1990.89	19.14	1971.75	6.6	3.7	1.3	1.8	26.48	NM	207	240	ND	ND	ND
	Mar 11	1990.89	19.65	1971.24	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1990.89	19.85	1971.04	6.7	3.7	0.5	1.7	25.89	NM	399	350	ND	ND	ND
	Sep 11	1990.89	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1990.89	19.45	1971.44	7.0	3.5	NM	2.7	24.09	2.6	274	350	ND	ND	ND
	Mar 12	1990.89	20.03	1970.86	7.2	3.6	4.1	1.3	24.72	2.3	-92	320	NS	NS	NS
	*	Jun 12	1991.04	19.09	1971.95	7.2	3.5	4.5	1.6	24.31	2.3	101	260	ND	ND
	Sep 12	1991.04	18.83	1972.21	7.5	3.5	NM	2.0	25.50	2.8	72	250	ND	ND	ND
	Nov 12	1991.04	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Mar 13	1991.04	19.94	1971.10	7.0	3.7	NM	1.0	23.75	2.4	54	190	<0.50	<0.50	<0.50
	Jun 13	1991.04	20.30	1970.74	7.0	3.8	NM	1.1	23.43	2.4	91	150	<0.50	<0.50	<0.50
	Sep 13	1991.04	20.18	1970.86	7.1	3.7	NM	1.4	25.61	2.4	-86	130	<0.50	<0.50	<0.50
	Nov 13	1991.04	19.90	1971.14	6.0	3.2	1.7	0.4	24.10	2.1	154	120	<0.50	<0.50	<0.50



**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)	
MW-18	May 05	1962.87	8.71	1954.16	7.1	3.9	>999	5.6	24.30	NM	139	1,600	ND	ND	ND	
	Sep 05	1962.87	9.69	1953.18	7.1	4.1	3.0	6.2	26.30	2.6	88	1,700	ND	ND	ND	
	Dec 05	1962.87	9.70	1953.17	6.8	4.7	NM	2.0	25.20	3.0	420	2,400	ND	ND	ND	
	Mar 06	1962.87	10.21	1952.66	5.2	6.2	3.0	NM	23.30	3.9	237	1,700	NS	NS	NS	
	Jun 06	1962.87	11.64	1951.23	NM	3.6	304.0	6.2	25.40	2.3	166	1,600	NS	NS	NS	
	Oct 06	1962.87	11.21	1951.66	6.3	3.5	0.0	4.1	25.50	2.2	127	2,100	ND	ND	ND	
	Dec 06	1962.87	10.98	1951.89	6.8	4.2	0.0	4.3	24.70	2.7	297	1,400	ND	ND	ND	
	Mar 07	1962.87	11.36	1951.51	7.0	3.4	23.0	7.5	22.80	2.2	286	1,400	ND	ND	ND	
	Jun 07	1962.87	12.53	1950.34	7.0	3.5	24.0	5.5	23.90	2.2	394	1,300	ND	ND	ND	
	Sep 07	1962.87	12.45	1950.42	6.8	3.3	22.0	5.4	29.30	2.1	210	930	ND	ND	ND	
	Dec 07	1962.87	11.54	1951.33	6.3	3.6	0.0	5.8	21.60	2.3	232	1,400	ND	ND	ND	
	Mar 08	1962.87	11.15	1951.72	6.9	3.5	0.2	4.3	21.20	2.2	212	1,800	ND	ND	ND	
	Jun 08	1962.87	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	1,200	ND	ND	ND
	Oct 08	1962.86	11.96	1950.90	5.5	3.5	14.3	7.8	25.50	2.2	196	950	3.7	ND	ND	
	Feb 09	1962.86	11.48	1951.38	6.7	3.3	0.0	3.8	22.70	2.1	90	1,500	5.2	ND	ND	
	Jun 09	1962.86	12.36	1950.50	7.3	3.5	20.2	3.5	23.90	2.3	131	3,500	5.1	ND	ND	
	Sep 09	1962.86	13.24	1949.62	6.6	3.9	18.9	4.3	28.00	2.5	136	1,200	ND	ND	ND	
	Nov 09	1962.86	13.27	1949.59	5.9	3.3	40.0	3.6	25.80	2.1	132	1,400	4.1	ND	ND	
	Feb 10	1962.86	13.37	1949.49	6.9	3.3	9.0	4.0	23.30	2.1	134	1,600	4.8	ND	ND	
	Jun 10	1962.86	12.90	1949.96	7.1	3.1	-0.9	8.0	25.10	NM	NM	1,100	3.5	ND	ND	
	Oct 10	1962.86	13.43	1949.43	6.7	3.3	-0.7	4.4	26.19	2.2	528	1,300	3.4	ND	ND	
	Nov 10	1962.86	13.20	1949.66	6.8	3.3	0.2	4.0	25.79	NM	192	1,200	3.8	ND	ND	
	Mar 11	1962.86	12.43	1950.43	7.5	3.4	25.7	7.8	22.14	NM	118	1,000	2.7	ND	ND	
	Jun 11	1962.86	13.32	1949.54	7.4	3.4	0.7	4.4	24.99	NM	234	1,300	2.9	ND	ND	
	Sep 11	1962.86	13.61	1949.25	7.0	3.4	39.0	6.2	26.60	2.2	276	1,300	3.2	ND	ND	
	Nov 11	1962.86	13.39	1949.47	7.0	3.2	NM	4.0	24.97	2.1	178	1,100	3.3	ND	ND	
	Mar 12	1962.86	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 12	1962.9	13.80	1949.10	7.3	3.2	6.1	4.8	25.23	2.1	115	1,300	3.4	ND	ND	
	Sep 12	1962.9	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1962.9	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1962.9	12.06	1950.84	7.1	3.6	NM	2.6	23.54	2.3	83	1,200	2.5	<0.50	<0.50	
Jun 13	1962.9	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Sep 13	1962.9	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Nov 13	1962.9	13.62	1949.28	6.8	3.6	8.3	3.6	25.49	2.4	152	780	<0.50	<0.50	<0.50		

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)	
MW-19	Nov 03	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	1,100	ND	ND	ND	
	Jan 04	1980.26	25.65	1954.61	7.0	1.9	NM	1.0	22.40	NM	NM	1,200	ND	ND	ND	
	May 05	1980.26	22.70	1957.56	7.1	1.9	NM	5.8	25.00	NM	130	873	ND	ND	ND	
	Dec 05	1980.26	23.65	1956.61	6.6	4.7	NM	2.0	24.70	3.0	388	1,300	ND	ND	ND	
	Mar 06	1980.26	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Jun 06	1980.26	25.55	1954.71	NM	3.7	>999	7.9	27.10	2.4	86	910	ND	ND	ND	
	Oct 06	1980.26	25.23	1955.03	6.1	3.7	>999	4.6	23.90	2.4	175	840	ND	ND	ND	
	Dec 06	1980.26	25.01	1955.25	6.8	4.4	>999	5.7	23.90	2.8	595	1,200	ND	ND	ND	
	Mar 07	1980.26	25.77	1954.49	6.9	3.7	>999	9.1	24.30	2.3	284	890	ND	ND	ND	
	Jun 07	1980.26	26.84	1953.42	7.1	3.5	>999	6.7	24.50	2.3	551	870	ND	ND	ND	
	Sep 07	1980.26	26.41	1953.85	6.8	3.4	352.0	5.1	27.40	2.2	201	510	ND	ND	ND	
	Dec 07	1980.26	25.52	1954.74	6.4	3.8	440.0	5.6	24.30	2.4	150	990	ND	ND	ND	
	Mar 08	1980.26	25.35	1954.91	7.0	3.7	7.6	5.2	24.80	2.3	190	1,200	NS	NS	NS	
	Jun 08	1980.26	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	930	ND	ND	ND
	Oct 08	1980.24	26.19	1954.05	6.9	3.5	18.0	4.1	24.40	2.2	135	1,300	5.7	ND	ND	
	Feb 09	1980.24	25.76	1954.48	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Jun 09	1980.24	26.59	1953.65	7.0	3.6	178.0	4.5	25.80	2.3	125	1,400	6.1	ND	ND	
	Sep 09	1980.24	27.34	1952.90	6.4	3.9	999.0	4.7	26.60	2.5	157	880	ND	ND	ND	
	Nov 09	1980.24	27.42	1952.82	5.9	3.4	>990	2.7	25.50	2.2	131	580	3.7	ND	ND	
	Feb 10	1980.24	27.78	1952.46	6.9	3.2	120.0	4.8	23.70	2.1	135	990	5.5	ND	ND	
	Jun 10	1980.24	27.08	1953.16	7.0	3.0	2.7	5.0	25.41	NM	NM	930	4.2	ND	ND	
	Oct 10	1980.24	27.50	1952.74	7.1	3.2	15.3	5.2	25.28	2.1	394	420	3.2	ND	ND	
	Nov 10	1980.24	27.24	1953.00	7.1	3.3	15.5	5.0	25.25	NM	241	840	4.1	ND	ND	
	Mar 11	1980.24	26.73	1953.51	6.9	3.4	71.3	5.4	24.59	NM	258	880	3.7	ND	ND	
	Jun 11	1980.24	27.55	1952.69	7.4	3.3	20.5	5.0	26.19	NM	190	1,000	3.5	ND	ND	
Sep 11	1980.24	27.68	1952.56	7.0	3.4	570.0	6.5	26.90	2.2	250	950	3.6	ND	ND		
Nov 11	1980.24	27.50	1952.74	7.1	3.1	NM	4.6	23.94	2.0	131	1,100	4.2	ND	ND		
Mar 12	1980.24	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS		
*	Jun 12	1980.13	27.88	1952.25	7.5	3.1	27.1	5.3	25.86	2.0	102	1,000	3.5	ND	ND	
	Sep 12	1980.13	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS		
	Nov 12	1980.13	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS		
	Mar 13	1980.13	NM	NM	NM	NM	NM	NM	NM	NM	520	3.2	<0.50	<0.50		
	Jun 13	1980.13	27.46	1952.67	7.2	3.4	NM	4.9	28.16	2.2	119	530	3.4	<0.50	<0.50	
	Sep 13	1980.13	27.94	1952.19	7.2	3.2	NM	4.7	27.22	2.1	255	840	3.2	<0.50	<0.50	
	Nov 13	1980.13	27.48	1952.65	6.3	3.1	65.8	3.2	26.49	2.0	228	440	3.2	<0.50	<0.50	

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-19I	Sep 12	1967.55	26.60	1940.95	7.7	3.0	NM	3.9	26.53	2.0	131	690	4.0	0.8	ND
	Nov 12	1967.55	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1967.55	NM	NM	NM	NM	NM	NM	NM	NM	NM	710	5.2	0.74	<0.50
	Jun 13	1967.55	26.42	1941.13	7.3	3.4	NM	4.4	26.1	2.1	589	<0.50	<0.50	<0.50	<0.50
	Sep 13	1978.37	26.92	1951.45	7.0	3.9	NM	5.2	28.5	2.5	650	<0.50	<0.50	<0.50	<0.50
	Nov 13	1978.37	26.47	1951.90	4.3	4.2	20.8	4.3	25.6	2.7	579	<0.50	<0.50	<0.50	<0.50
MW-19D1	Mar 13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	300	2.9	<0.50	<0.50
	Jun 13	1979.25	27.73	1951.52	7.3	3.0	NM	4.7	27.42	1.9	3	690	4.2	<0.50	<0.50
	Sep 13	1979.25	27.17	1952.08	7.0	3.2	NM	4.3	26.23	2.1	485	990	4.2	<0.50	<0.50
	Nov 13	1979.25	26.70	1952.55	7.3	2.4	28.1	4.7	24.24	1.7	385	620	3.5	<0.50	<0.50
MW-19D2	Mar 13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	170	1.5	<0.50	<0.50
	Jun 13	1979.28	27.85	1951.43	7.4	2.7	NM	2.0	26.09	1.8	607	<0.50	<0.50	<0.50	<0.50
	Sep 13	1979.28	28.50	1950.78	7.2	2.4	NM	2.6	25.10	1.6	565	<0.50	<0.50	<0.50	<0.50
	Nov 13	1979.28	27.71	1951.57	7.5	2.6	18.0	3.3	24.83	1.7	485	<0.50	<0.50	<0.50	<0.50
MW-19D3	Mar 13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	0.50	<0.50	<0.50	<0.50
	Jun 13	1979.32	25.53	1953.79	7.7	0.5	NM	4.0	28.15	0.3	68	0.68	<0.50	<0.50	<0.50
	Sep 13	1979.32	28.80	1950.52	6.9	3.2	NM	4.9	24.91	2.1	133	710	4.8	<0.50	<0.50
	Nov 13	1979.32	25.42	1953.90	7.6	1.0	10.3	4.1	24.27	0.7	424	160	0.75	<0.50	<0.50

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)	
MW-20	Nov 03	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	1,800	ND	ND	ND	
	Jan 04	1979.99	25.50	1954.49	6.9	2.1	NM	1.1	22.60	NM	NM	290	2.8	ND	ND	
	May 05	1979.99	22.58	1957.41	7.2	1.3	NM	5.0	23.60	NM	131	1,460	ND	ND	ND	
	Dec 05	1979.99	23.55	1956.44	6.8	4.4	NM	0.8	20.50	2.8	272	1,800	ND	ND	ND	
	Mar 06	1979.99	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Jun 06	1979.99	25.48	1954.51	NM	3.8	736.0	6.9	28.60	2.1	70	2,100	ND	ND	ND	
	Oct 06	1979.99	25.04	1954.95	6.1	2.6	>999	4.1	23.70	1.8	234	2,000	ND	ND	ND	
	Dec 06	1979.99	24.85	1955.14	6.8	4.1	284.0	4.3	23.90	2.6	245	2,500	ND	ND	ND	
	Mar 07	1979.99	26.63	1953.36	6.9	3.3	999.0	9.8	23.80	2.2	530	1,500	ND	ND	ND	
	Jun 07	1979.99	26.76	1953.23	7.0	3.5	>999	5.4	23.80	2.2	346	1,300	ND	ND	ND	
	Sep 07	1979.99	26.30	1953.69	6.8	3.3	248.0	4.4	32.50	2.1	207	730	ND	ND	ND	
	Dec 07	1979.99	25.38	1954.61	6.3	3.8	24.6	5.4	21.90	2.4	180	1,400	ND	ND	ND	
	Mar 08	1979.99	25.12	1954.87	6.9	3.5	33.0	4.0	23.60	2.3	184	1,600	NS	NS	NS	
	Jun 08	1979.99	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	1,200	ND	ND	ND
	Oct 08	1979.95	26.05	1953.90	7.3	3.5	-5.0	2.3	25.20	NM	181	1,000	3.5	ND	ND	
	Feb 09	1979.95	25.57	1954.38	6.6	3.5	247.0	2.5	23.40	2.2	99	830	ND	ND	ND	
	Jun 09	1979.95	26.45	1953.50	6.9	3.7	>-5.0	2.2	23.90	2.3	140	1,100	3.3	ND	ND	
	Sep 09	1979.95	27.21	1952.74	6.5	4.1	386.0	2.5	25.70	2.6	146	940	ND	ND	ND	
	Nov 09	1979.95	27.30	1952.65	5.8	3.4	380.0	1.9	25.30	2.2	142	640	2.2	ND	ND	
	Feb 10	1979.95	27.54	1952.41	6.9	3.3	38.0	2.5	24.30	2.0	130	990	3.3	ND	ND	
	Jun 10	1979.95	27.86	1952.09	7.0	3.2	1.4	3.5	24.59	NM	NM	780	2.4	ND	ND	
	Oct 10	1979.95	27.35	1952.60	6.4	3.3	39.3	2.9	26.58	2.2	519	340	1.8	ND	ND	
	Nov 10	1979.95	27.12	1952.83	6.6	3.4	0.9	3.0	25.50	NM	194	890	2.6	ND	ND	
	Mar 11	1979.95	26.59	1953.36	6.9	3.5	49.7	3.4	25.69	NM	237	800	2.3	ND	ND	
	Jun 11	1979.95	27.40	1952.55	6.8	3.5	3.1	3.5	31.92	NM	452	740	1.9	ND	ND	
Sep 11	1979.95	27.56	1952.39	6.9	3.6	20.0	3.4	26.50	2.2	182	680	1.8	ND	ND		
Nov 11	1979.95	27.35	1952.60	7.0	3.3	NM	2.8	24.35	2.2	131	800	1.9	ND	ND		
Mar 12	1979.95	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
*	Jun 12	1979.82	27.62	1952.20	7.4	3.3	40.1	3.7	25.17	2.2	87	660	2.1	ND	ND	
	Sep 12	1979.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Nov 12	1979.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Mar 13	1979.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	290	1.8	<0.50	<0.50	
	Jun 13	1979.82	27.20	1952.62	7.2	3.7	NM	4.7	26.67	2.4	192	660	2.1	<0.50	<0.50	
	Sep 13	1979.82	27.70	1952.12	7.0	3.5	NM	4.5	26.41	2.3	428	570	1.8	<0.50	<0.50	
	Nov 13	1979.82	27.28	1952.54	6.1	3.4	21.8	2.5	25.53	2.2	245	530	1.4	<0.50	<0.50	

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-20D1	Mar 13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	69	2.8	3.6	<0.50
	Jun 13	1978.81	26.17	1952.64	7.3	3.0	NM	5.2	27.38	2.0	115	110	<0.50	<0.50	<0.50
	Sep 13	1978.81	27.01	1951.80	7.1	3.4	NM	4.8	27.83	2.2	113	100	0.56	<0.50	<0.50
	Nov 13	1978.81	26.60	1952.21	7.1	3.3	83.3	4.5	25.16	2.2	57	260	0.86	<0.50	<0.50
MW-20D2	Mar 13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	25	<0.50	<0.50	<0.50
	Jun 13	1978.66	26.23	1952.43	7.4	0.8	NM	4.6	25.83	0.5	107	64	<0.50	<0.50	<0.50
	Sep 13	1978.66	26.90	1951.76	7.0	3.5	NM	4.2	27.95	2.3	114	210	0.77	<0.50	<0.50
	Nov 13	1978.66	26.92	1951.74	6.7	2.5	9.0	4.3	24.88	1.6	75	160	1.0	0.81	<0.50
MW-20D3	Mar 13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	0.66	<0.50	<0.50	<0.50
	Jun 13	1978.69	26.17	1952.52	7.1	0.5	NM	3.9	24.81	0.3	119	<0.50	<0.50	<0.50	<0.50
	Sep 13	1978.69	27.28	1951.41	7.1	3.0	NM	4.9	33.54	1.9	100	25	<0.50	0.80	<0.50
	Nov 13	1978.69	26.57	1952.12	6.9	1.4	31.9	4.0	24.89	0.9	81	62	<0.50	<0.50	<0.50

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)	
MW-21	Nov 03	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	51	ND	ND	ND	
	Jan 04	1979.56	24.72	1954.84	6.9	2.0	NM	1.1	22.30	NM	NM	55	ND	ND	ND	
	May 05	1979.56	21.76	1957.80	7.1	2.8	NM	2.9	24.60	NM	131	30	ND	ND	ND	
	Sep 05	1979.56	22.70	1956.86	7.1	4.7	39.0	4.1	25.80	2.6	109	19	2.4	1.5	ND	
	Dec 05	1979.56	22.85	1956.71	6.6	4.6	>999	0.5	24.30	2.9	264	16	1.8	1.3	ND	
	Mar 06	1979.56	23.46	1956.10	5.5	3.6	140.0	NM	23.00	2.3	309	43	ND	ND	ND	
	Jun 06	1979.56	24.68	1954.88	NM	3.5	>999	4.7	28.50	2.3	112	32	ND	ND	ND	
	Oct 06	1979.56	24.35	1955.21	6.2	3.5	>999	2.0	24.10	2.2	79	23	ND	ND	ND	
	Dec 06	1979.56	24.15	1955.41	6.7	4.5	617.0	2.7	24.00	2.9	89	39	ND	ND	ND	
	Mar 07	1979.56	24.87	1954.69	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Jun 07	1979.56	25.95	1953.61	7.0	3.4	>999	4.2	24.20	2.2	373	28	ND	ND	ND	
	Sep 07	1979.56	25.44	1954.12	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Dec 07	1979.56	24.34	1955.22	6.2	3.7	>999	4.4	19.30	2.4	117	83	ND	ND	ND	
	Mar 08	1979.56	24.19	1955.37	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Jun 08	1979.56	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Oct 08	1979.54	24.80	1954.74	7.2	3.4	545.0	0.0	24.50	NM	173	20	ND	ND	ND	
	Feb 09	1979.54	24.73	1954.81	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Jun 09	1979.54	25.53	1954.01	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Sep 09	1979.54	26.39	1953.15	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Nov 09	1979.54	26.40	1953.14	6.0	3.4	90.0	0.9	24.90	2.2	119	11	ND	ND	ND	
	Feb 10	1979.54	26.14	1953.40	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Jun 10	1979.54	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Oct 10	1979.54	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Nov 10	1979.54	26.32	1953.22	6.6	3.5	2.6	0.3	25.18	NM	202	13	ND	ND	ND	
	Mar 11	1979.54	25.68	1953.86	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Jun 11	1979.54	26.57	1952.97	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Sep 11	1979.54	26.67	1952.87	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Nov 11	1979.54	26.47	1953.07	6.8	4.0	NM	0.2	24.75	NM	-38	13	ND	ND	ND	
	Mar 12	1979.54	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	*	Jun 12	1979.25	26.77	1952.48	7.3	3.4	8.6	1.0	26.21	2.2	-127	9.4	ND	ND	ND
		Sep 12	1979.25	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
		Nov 12	1979.25	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Mar 13	1979.25	25.03	1954.22	6.9	3.7	NM	0.2	24.49	2.4	107	8.4	<0.50	<0.50	<0.50	
	Jun 13	1979.25	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS		
	Sep 13	1979.25	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS		
	Nov 13	1979.25	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS		

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-22	May 05	1974.76	23.04	1951.72	6.8	3.9	474.0	1.7	24.10	NM	46	ND	ND	ND	ND
	Sep 05	1974.76	24.18	1950.58	6.9	4.3	10.0	7.2	23.90	2.7	46	ND	ND	ND	ND
	Dec 05	1974.76	24.30	1950.46	6.4	4.2	NM	1.3	24.60	2.7	213	1	ND	ND	ND
	Mar 06	1974.76	24.68	1950.08	4.8	6.1	30.0	NM	24.00	3.8	269	ND	ND	ND	ND
	Jun 06	1974.76	25.91	1948.85	NM	3.4	287.0	6.0	26.40	2.2	376	ND	ND	ND	ND
	Oct 06	1974.76	25.79	1948.97	6.0	3.7	11.0	2.4	23.80	2.4	141	ND	ND	ND	ND
	Dec 06	1974.76	25.49	1949.27	6.5	4.5	0.0	3.5	23.50	2.9	477	ND	ND	ND	ND
	Mar 07	1974.76	24.73	1950.03	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 07	1974.76	26.91	1947.85	6.7	3.8	26.0	3.4	24.30	2.4	137	ND	ND	ND	ND
	Sep 07	1974.76	26.90	1947.86	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1974.76	25.88	1948.88	6.3	4.0	55.6	2.3	23.80	2.5	216	ND	ND	ND	ND
	Mar 08	1974.76	25.17	1949.59	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1974.76	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 08	1974.75	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Feb 09	1974.75	25.60	1949.15	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1974.75	26.59	1948.16	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 09	1974.75	27.58	1947.17	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1974.75	27.38	1947.37	6.0	3.6	31.0	1.4	24.50	2.3	131	1.4	ND	ND	ND
	Feb 10	1974.75	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1974.75	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 10	1974.75	27.82	1946.93	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1974.75	27.55	1947.20	6.7	3.7	0.1	1.6	24.30	NM	129	ND	ND	ND	ND
	Mar 11	1974.75	26.58	1948.17	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
Jun 11	1974.75	27.45	1947.30	7.2	3.4	50.2	5.2	24.89	NM	266	NS	NS	NS	NS	
Sep 11	1974.75	27.87	1946.88	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Nov 11	1974.75	27.57	1947.18	6.9	3.6	NM	1.6	23.70	2.3	88	0.55	ND	ND	ND	
Mar 12	1974.75	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
*	Jun 12	1975.19	28.05	1947.14	6.8	4.1	250.0	4.0	26.20	2.6	102	0.58	ND	ND	ND
	Sep 12	1975.19	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1975.19	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1975.19	26.27	1948.92	6.9	3.9	NM	1.7	23.49	2.5	140	<0.50	<0.50	<0.50	<0.50
	Jun 13	1975.19	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1975.19	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1975.19	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-23	May 05	1962.32	13.06	1949.26	7.0	3.6	NM	2.6	24.50	NM	121	1,430	ND	ND	ND
	Dec 05	1962.32	14.05	1948.27	6.7	4.9	NM	2.1	24.90	3.1	320	1,900	ND	ND	ND
	Mar 06	1962.32	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 06	1962.32	15.60	1946.72	NM	3.7	318.0	5.8	23.80	2.3	238	1,500	ND	ND	ND
	Oct 06	1962.32	15.48	1946.84	6.3	3.5	0.0	2.5	24.00	2.2	107	2,000	ND	ND	ND
	Dec 06	1962.32	15.16	1947.16	6.8	4.2	0.0	3.2	24.20	2.7	2	2,100	ND	ND	ND
	Mar 07	1962.32	15.12	1947.20	NM	NM	NM	NM	NM	NM	NM	2.1	ND	ND	ND
	Jun 07	1962.32	16.40	1945.92	7.0	3.5	31.0	4.2	23.50	2.2	301	1,300	ND	ND	ND
	Sep 07	1962.32	16.61	1945.71	6.8	3.3	1.0	3.8	25.80	2.1	204	750	ND	ND	ND
	Dec 07	1962.32	15.80	1946.52	6.3	3.7	0.0	5.5	22.10	2.4	250	1,200	ND	ND	ND
	Mar 08	1962.32	15.18	1947.14	7.0	6.3	0.4	2.2	24.00	4.1	188	1,400	ND	ND	ND
	Jun 08	1962.32	NM	NM	NM	NM	NM	NM	NM	NM	NM	1,100	ND	ND	ND
	Oct 08	1962.29	16.34	1945.95	6.7	3.5	18.3	2.0	23.40	2.3	170	1,300	4.4	ND	ND
	Feb 09	1962.29	15.41	1946.88	6.7	3.4	0.0	1.1	23.00	2.2	82	1,100	ND	ND	ND
	Jun 09	1962.29	16.40	1945.89	7.2	3.6	7.1	0.6	23.80	2.3	124	1,400	4.6	ND	ND
	Sep 09	1962.29	17.30	1944.99	6.6	4.0	24.5	2.0	25.40	2.5	133	1,200	ND	ND	ND
	Nov 09	1962.29	17.31	1944.98	5.9	3.3	51.0	2.0	24.80	2.1	139	880	3.2	ND	ND
	Feb 10	1962.29	17.18	1945.11	6.8	3.4	9.0	1.8	23.70	2.2	135	1,000	3.8	ND	ND
	Jun 10	1962.29	16.93	1945.36	7.0	3.2	3.8	4.2	26.24	NM	NM	900	2.6	ND	ND
	Oct 10	1962.29	17.53	1944.76	5.7	3.4	-0.1	2.2	23.60	2.2	610	1,100	2.6	ND	ND
	Nov 10	1962.29	17.30	1944.99	7.0	3.4	0.1	2.5	22.72	NM	76	970	2.7	ND	ND
	Mar 11	1962.29	16.30	1945.99	6.9	3.6	2.9	1.9	23.42	NM	202	1,100	2.5	ND	ND
	Jun 11	1962.29	17.22	1945.07	NM	NM	NM	NM	NM	NM	NM	970	2.3	ND	ND
Sep 11	1962.29	17.67	1944.62	6.9	3.5	8.0	3.0	24.50	2.2	229	1,000	2.4	ND	ND	
Nov 11	1962.29	17.41	1944.88	7.0	3.3	NM	2.3	23.58	2.1	170	1,100	2.4	ND	ND	
Mar 12	1962.29	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
*	Jun 12	1962.45	17.83	1944.62	7.3	3.2	5.1	5.8	24.66	2.1	114	950	2.3	ND	ND
	Sep 12	1962.45	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1962.45	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1962.45	15.95	1946.50	7.0	3.6	NM	1.4	23.52	2.4	107	960	2.2	<0.50	<0.50
	Jun 13	1962.45	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1962.45	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1962.45	17.57	1944.88	6.7	3.7	5.1	2.1	24.32	2.4	152	900	1.8	<0.50	<0.50



**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-24	May 05	1960.74	10.72	1950.02	7.0	3.6	>999	1.5	23.10	NM	76	ND	ND	ND	ND
	Sep 05	1960.74	11.75	1948.99	7.0	3.8	25.0	3.6	25.80	2.4	5	4.3	ND	ND	ND
	Dec 05	1960.74	11.65	1949.09	6.6	4.5	29.0	1.0	25.60	2.7	183	6.7	ND	ND	ND
	Mar 06	1960.74	12.10	1948.64	4.7	6.0	1.0	NM	22.60	3.8	503	6.5	ND	ND	ND
	Jun 06	1960.74	13.16	1947.58	NM	3.4	201.0	5.1	25.10	2.2	132	5.6	ND	ND	ND
	Oct 06	1960.74	13.06	1947.68	6.2	3.2	0.0	1.2	25.50	2.0	-23	2.6	ND	ND	ND
	Dec 06	1960.74	12.80	1947.94	6.9	4.1	0.0	2.6	25.10	2.6	62	2.6	ND	ND	ND
	Mar 07	1960.74	12.88	1947.86	NM	NM	NM	NM	NM	NM	NM	1	ND	ND	ND
	Jun 07	1960.74	13.94	1946.80	7.1	3.3	23.0	2.5	23.20	2.1	409	ND	ND	ND	ND
	Sep 07	1960.74	14.24	1946.50	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Dec 07	1960.74	13.58	1947.16	6.2	3.5	0.0	1.7	24.40	2.2	118	NS	NS	NS	NS
	Mar 08	1960.74	12.98	1947.76	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1960.74	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 08	1960.73	14.03	1946.70	6.8	3.4	-2.3	1.1	25.20	2.1	152	6.1	ND	ND	ND
	Feb 09	1960.73	13.20	1947.53	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1960.73	14.10	1946.63	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 09	1960.73	14.93	1945.80	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1960.73	14.99	1945.74	5.9	3.1	45.0	1.4	26.50	1.9	130	2.9	ND	ND	ND
	Feb 10	1960.73	14.23	1946.50	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1960.73	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Oct 10	1960.73	15.16	1945.57	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1960.73	14.90	1945.83	7.0	3.2	-0.8	1.4	25.24	NM	68	0.81	ND	ND	ND
	Mar 11	1960.73	14.06	1946.67	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1960.73	14.89	1945.84	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
Sep 11	1960.73	15.31	1945.42	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Nov 11	1960.73	15.12	1945.61	7.0	3.1	NM	1.3	24.98	2.0	149	0.95	ND	ND	ND	
Mar 12	1960.73	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
*	Jun 12	1960.82	15.49	1945.33	6.9	3.4	110.0	1.8	25.00	2.2	94	1.3	ND	ND	ND
	Sep 12	1960.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1960.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1960.82	13.62	1947.20	7.1	3.6	NM	1.8	22.77	2.3	62	1.3	<0.50	<0.50	<0.50
	Jun 13	1960.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1960.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1960.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-25	May 05	1960.74	16.01	1944.73	7.0	4.0	>999	4.3	23.60	NM	141	993	ND	ND	ND
	Sep 05	1960.74	17.45	1943.29	7.0	4.2	30.0	5.1	26.20	2.7	57	920	ND	ND	ND
	Dec 05	1960.74	16.85	1943.89	6.6	5.3	0.0	1.4	24.70	3.3	417	1,000	ND	ND	ND
	Mar 06	1960.74	17.30	1943.44	5.2	6.7	94.0	NM	23.60	4.2	255	970	ND	ND	ND
	Jun 06	1960.74	18.64	1942.10	NM	3.9	228.0	5.7	23.50	2.5	376	960	ND	ND	ND
	Oct 06	1960.74	18.75	1941.99	6.2	3.7	0.0	3.1	23.60	2.4	106	1,300	ND	ND	ND
	Dec 06	1960.74	18.61	1942.13	6.7	4.5	0.0	3.8	23.90	2.8	429	1,200	ND	ND	ND
	Mar 07	1960.74	17.72	1943.02	7.0	3.7	>999	7.5	23.30	2.4	258	670	ND	ND	ND
	Jun 07	1960.74	19.31	1941.43	7.0	3.7	50.0	4.5	23.00	2.4	485	960	ND	ND	ND
	Sep 07	1960.74	19.96	1940.78	6.7	3.5	15.0	3.6	27.00	2.3	195	560	ND	ND	ND
	Dec 07	1960.74	18.92	1941.82	6.3	3.9	0.0	4.8	19.40	2.5	168	780	ND	ND	ND
	Mar 08	1960.74	17.87	1942.87	6.9	3.7	11.9	2.5	24.40	2.3	170	890	ND	ND	ND
	Jun 08	1960.74	NM	NM	NM	NM	NM	NM	NM	NM	NM	630	ND	ND	ND
	Oct 08	1960.73	19.84	1940.89	6.8	3.7	30.2	2.3	23.50	2.4	-94	730	1.5	ND	ND
	Feb 09	1960.73	18.07	1942.66	6.7	3.5	0.0	2.1	23.70	2.3	66	770	ND	ND	ND
	Jun 09	1960.73	19.35	1941.38	7.2	3.7	6.9	1.2	24.10	2.4	127	880	2.0	ND	ND
	Sep 09	1960.73	18.60	1942.13	6.5	4.2	14.2	2.5	25.90	2.7	136	770	ND	ND	ND
	Nov 09	1960.73	20.65	1940.08	5.8	3.5	66.0	2.2	24.70	2.2	140	570	1.3	ND	ND
	Feb 10	1960.73	19.81	1940.92	6.8	3.5	9.0	2.2	22.50	2.2	122	460	2.3	ND	ND
	Jun 10	1960.73	19.85	1940.88	7.0	3.3	-0.1	5.5	26.26	NM	NM	550	0.9	ND	ND
	Oct 10	1960.73	20.85	1939.88	5.9	3.5	-0.7	2.4	24.21	2.3	603	760	0.9	ND	ND
	Nov 10	1960.73	20.62	1940.11	6.7	3.5	0.5	2.8	25.16	NM	182	550	0.9	ND	ND
	Mar 11	1960.73	18.97	1941.76	7.0	3.4	0.0	4.1	20.24	NM	115	420	0.6	ND	ND
	Jun 11	1960.73	19.83	1940.90	7.3	3.6	-1.2	2.4	24.31	NM	216	700	0.8	ND	ND
	Sep 11	1960.73	20.83	1939.90	6.9	3.7	4.0	2.9	24.00	2.3	257	680	0.8	ND	ND
	Nov 11	1960.73	20.62	1940.11	7.0	3.4	NM	2.3	23.26	2.2	166	740	0.82	ND	ND
	Mar 12	1960.73	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
*	Jun 12	1959.29	21.06	1938.23	6.8	3.9	56.0	2.9	25.20	2.5	89	640	0.88	ND	ND
	Sep 12	1959.29	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Nov 12	1959.29	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Mar 13	1959.29	18.75	1940.54	7.0	3.8	NM	2.3	23.84	2.5	127	660	0.75	<0.50	<0.50
	Jun 13	1959.29	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Sep 13	1959.29	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
	Nov 13	1959.29	20.87	1938.42	6.2	3.9	6.5	1.4	24.38	2.5	114	700	0.88	<0.50	<0.50

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-26	Mar 06	1953.48	15.60	1937.88	6.8	3.8	0.0	2.6	23.80	2.4	158	730	ND	ND	ND
	Jun 06	1953.48	17.00	1936.48	NM	2.3	229.0	4.8	24.10	1.5	305	770	ND	ND	ND
	Oct 06	1953.48	17.17	1936.31	6.2	69.4	0.0	2.9	23.70	2.4	180	1,100	ND	ND	ND
	Dec 06	1953.48	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 07	1953.48	15.66	1937.82	7.0	3.8	>999	7.1	23.50	2.4	422	790	ND	ND	ND
	Jun 07	1953.48	17.50	1935.98	7.0	3.5	41.0	4.8	23.60	2.5	517	960	ND	ND	ND
	Sep 07	1953.48	18.12	1935.36	6.7	3.6	5.0	3.5	27.10	2.3	176	620	ND	ND	ND
	Dec 07	1953.48	17.01	1936.47	6.4	4.0	0.0	5.1	21.70	2.5	212	910	ND	ND	ND
	Mar 08	1953.48	15.91	1937.57	7.0	3.8	0.7	7.9	24.30	2.4	176	1,100	ND	ND	ND
	Jun 08	1953.48	NM	NM	NM	NM	NM	NM	NM	NM	NM	930	ND	ND	ND
	Oct 08	1953.48	18.34	1935.14	6.8	3.9	-7.2	2.7	24.00	2.5	86	900	1.4	ND	ND
	Feb 09	1953.48	16.04	1937.44	6.7	3.7	0.0	3.3	23.90	2.3	82	960	ND	ND	ND
	Jun 09	1953.48	17.57	1935.91	7.2	3.8	49.3	2.2	25.40	2.5	133	970	1.5	ND	ND
	Sep 09	1953.48	18.79	1934.69	6.6	4.3	10.5	2.8	26.40	2.8	137	910	ND	ND	ND
	Nov 09	1953.48	18.85	1934.63	5.8	3.6	210.0	2.8	24.30	2.3	139	690	ND	ND	ND
	Feb 10	1953.48	17.61	1935.87	6.9	3.6	7.0	2.5	22.60	2.3	143	790	1.8	ND	ND
	Jun 10	1953.48	17.95	1935.53	7.0	2.4	0.2	6.6	26.14	NM	NM	680	0.7	ND	ND
	Oct 10	1953.48	19.09	1934.39	6.8	3.7	-0.8	2.0	24.60	2.4	504	450	0.6	ND	ND
	Nov 10	1953.48	18.75	1934.73	6.9	3.7	0.6	2.6	24.91	NM	92	750	0.7	ND	ND
	Mar 11	1953.48	18.83	1934.65	6.9	3.8	0.0	2.7	23.78	NM	141	760	0.6	ND	ND
	Jun 11	1953.48	17.82	1935.66	6.7	3.7	-1.2	2.0	25.86	NM	475	860	0.67	ND	ND
	Sep 11	1953.48	19.04	1934.44	6.9	3.8	7.0	2.9	24.40	2.4	260	780	0.6	ND	ND
	Nov 11	1953.48	18.72	1934.76	7.0	3.6	NM	2.1	23.33	2.3	161	690	0.61	ND	ND
	Mar 12	1953.48	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 12	1953.45	19.24	1934.21	6.8	4.1	72.0	2.8	26.00	2.6	85	740	0.54	ND	ND
	Sep 12	1953.45	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
Nov 12	1953.45	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Mar 13	1953.45	16.81	1936.64	7.0	3.8	NM	2.7	24.35	2.6	118	740	0.51	<0.50	<0.50	
Jun 13	1953.45	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Sep 13	1953.45	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
Nov 13	1953.45	19.02	1934.43	6.4	4.0	7.0	2.4	24.59	2.6	138	770	0.62	<0.50	<0.50	

\*

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)	
MW-27	Mar 06	1944.23	13.48	1930.75	6.8	3.3	0.0	2.4	21.90	2.1	142	220	ND	ND	ND	
	Jun 06	1944.23	18.50	1925.73	NM	3.7	626.0	4.6	26.10	2.3	69	350	ND	ND	ND	
	Oct 06	1944.23	16.16	1928.07	6.2	3.3	0.0	2.8	22.20	2.1	155	380	ND	ND	ND	
	Dec 06	1944.23	13.85	1930.38	6.8	4.0	507.0	4.5	22.20	2.6	444	380	ND	ND	ND	
	Mar 07	1944.23	12.58	1931.65	7.0	3.3	83.0	7.0	21.90	2.1	181	160	ND	ND	ND	
	Jun 07	1944.23	18.43	1925.80	7.0	3.3	238.0	4.1	22.20	2.1	392	340	ND	ND	ND	
	Sep 07	1944.23	17.85	1926.38	6.8	3.4	22.0	3.4	24.20	2.2	198	320	ND	ND	ND	
	Dec 07	1944.23	14.41	1929.82	6.4	3.8	0.0	3.5	20.60	2.5	153	430	ND	ND	ND	
	Mar 08	1944.23	13.65	1930.58	7.0	3.4	1.4	2.5	22.60	2.2	174	580	ND	ND	ND	
	Jun 08	1944.23	NM	NM	NM	NM	NM	NM	NM	NM	NM	320	ND	ND	ND	
	Oct 08	1944.23	18.33	1925.90	6.5	3.8	25.2	1.1	22.59	2.4	105	510	2.6	ND	ND	
	Feb 09	1944.23	13.22	1931.01	6.6	3.6	0.0	0.7	21.90	2.3	108	510	ND	ND	ND	
	Jun 09	1944.23	18.39	1925.84	7.1	3.9	0.0	0.5	24.10	2.5	128	570	3.3	ND	ND	
	Sep 09	1944.23	19.73	1924.50	6.6	4.3	-6.7	0.9	24.20	2.7	131	640	ND	ND	ND	
	Nov 09	1944.23	18.92	1925.31	NM	NM	NM	NM	NM	NM	NM	400	2.0	ND	ND	
	Feb 10	1944.23	13.00	1931.23	NM	NM	NM	NM	NM	NM	NM	770	3.5	ND	ND	
	Jun 10	1944.23	17.77	1926.46	7.1	3.4	10.2	6.8	24.66	NM	NM	330	1.4	ND	ND	
	Oct 10	1944.23	18.87	1925.36	6.9	3.6	0.4	1.4	22.95	2.4	434	420	1.4	ND	ND	
	Nov 10	1944.23	17.19	1927.04	6.8	3.7	2.9	1.5	23.57	NM	115	480	1.8	ND	ND	
	Mar 11	1944.23	12.99	1931.24	7.0	3.7	259.3	6.7	21.37	NM	108	370	1.2	ND	ND	
	Jun 11	1944.23	16.68	1927.55	7.3	3.7	-1.4	1.6	23.61	NM	180	440	1.3	ND	ND	
	Sep 11	1944.23	20.23	1924.00	6.8	3.8	10.0	2.2	23.60	2.4	237	470	1.3	ND	ND	
	Nov 11	1944.23	17.32	1926.91	7.0	3.5	NM	2.1	22.62	2.3	164	380	1.3	ND	ND	
	Mar 12	1944.23	16.22	1928.01	7.2	3.6	5.9	2.5	23.10	2.4	-58	470	NS	NS	NS	
	*	Jun 12	1944.15	14.46	1929.69	6.8	3.9	230.0	2.9	23.80	2.4	108	440	0.97	ND	ND
		Sep 12	1944.15	18.54	1925.61	7.3	3.6	NM	2.1	23.06	2.3	152	430	1.2	ND	ND
		Nov 12	1944.15	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1944.15	15.33	1928.82	7.0	4.0	NM	1.8	23.16	2.6	100	450	1.0	<0.50	<0.50	
	Jun 13	1944.15	20.37	1923.78	7.0	4.0	NM	2.1	25.31	2.6	95	300	1.1	<0.50	<0.50	
	Sep 13	1944.15	19.67	1924.48	7.2	2.0	NM	2.4	27.75	1.3	88	350	0.79	<0.50	<0.50	
	Nov 13	1944.15	17.49	1926.66	7.2	4.0	7.2	1.7	24.27	2.6	120	420	0.94	<0.50	<0.50	

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-28	Nov 07	1942.97	14.02	1928.95	6.8	4.2	196.0	9.6	26.80	2.7	125	3	ND	ND	ND
	Dec 07	1942.97	12.80	1930.17	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 08	1942.97	11.61	1931.36	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1942.97	NM	NM	NM	NM	NM	NM	NM	NM	NM	1	ND	ND	ND
	Oct 08	1942.96	14.60	1928.36	6.8	4.2	165.0	0.6	22.80	2.7	82	2.2	ND	ND	ND
	Feb 09	1942.96	11.66	1931.30	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1942.96	13.91	1929.05	7.2	4.2	63.8	0.0	23.50	2.7	119	3.3	ND	ND	ND
	Sep 09	1942.96	14.96	1928.00	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1942.96	14.83	1928.13	6.0	3.8	180.0	1.1	23.20	2.5	136	1.3	ND	ND	ND
	Feb 10	1942.96	12.78	1930.18	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1942.96	13.91	1929.05	7.0	3.7	3.7	3.3	23.89	NM	NM	0.94	ND	ND	ND
	Oct 10	1942.96	14.93	1928.03	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1942.96	14.31	1928.65	6.7	3.9	0.6	0.9	24.25	NM	162	0.66	ND	ND	ND
	Mar 11	1942.96	12.10	1930.86	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1942.96	13.50	1929.46	7.0	4.0	2.4	0.7	23.71	NM	185	ND	ND	ND	ND
	Sep 11	1942.96	14.93	1928.03	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1942.96	14.42	1928.54	7.0	3.7	NM	1.0	22.10	2.4	157	0.62	ND	ND	ND
Mar 12	1942.96	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	
*	Jun 12	1943.07	15.30	1927.77	6.8	4.1	32.0	1.1	22.70	2.6	133	0.73	ND	ND	ND
	Sep 12	1943.07	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1943.07	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1943.07	12.50	1930.57	7.0	4.1	NM	1.9	24.06	2.7	70	0.50	<0.50	<0.50	<0.50
	Jun 13	1943.07	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1943.07	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1943.07	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-29	Nov 07	1932.27	14.20	1918.07	6.9	4.3	15.1	6.0	21.80	2.7	108	2.5	ND	ND	ND
	Dec 07	1932.27	14.01	1918.26	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 08	1932.27	13.77	1918.50	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 08	1932.27	NM	NM	NM	NM	NM	NM	NM	NM	NM	1	ND	ND	ND
	Oct 08	1932.25	14.44	1917.81	6.8	4.0	500.0	3.9	20.00	2.6	122	2.2	ND	ND	ND
	Feb 09	1932.25	13.81	1918.44	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 09	1932.25	13.98	1918.27	7.2	4.0	212.0	3.3	20.50	2.6	133	1.3	ND	ND	ND
	Sep 09	1932.25	14.38	1917.87	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 09	1932.25	14.37	1917.88	6.1	3.8	200.0	3.9	20.80	2.4	139	ND	ND	ND	ND
	Feb 10	1932.25	14.19	1918.06	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 10	1932.25	13.92	1918.33	6.9	3.5	3.8	4.8	23.43	NM	NM	0.58	ND	ND	ND
	Oct 10	1932.25	14.19	1918.06	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 10	1932.25	13.90	1918.35	6.8	3.9	1.5	4.0	21.09	NM	138	ND	ND	ND	ND
	Mar 11	1932.25	13.52	1918.73	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 11	1932.25	13.65	1918.60	6.9	3.9	-1.4	4.1	20.62	NM	232	ND	ND	ND	ND
	Sep 11	1932.25	13.84	1918.41	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 11	1932.25	13.85	1918.40	7.0	3.7	NM	4.0	19.77	2.4	183	ND	ND	ND	ND
*	Mar 12	1932.25	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 12	1932.35	13.99	1918.36	6.9	3.8	79.0	5.2	20.30	2.4	133	ND	ND	ND	ND
	Sep 12	1932.35	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1932.35	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1932.35	13.30	1919.05	7.0	4.1	NM	4.4	19.43	2.7	85	<0.50	<0.50	<0.50	<0.50
	Jun 13	1932.35	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1932.35	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
Nov 13	1932.35	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS	

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-30	Nov 07	1940.56	20.11	1920.45	6.8	3.7	144.0	3.1	24.20	2.4	135	74	ND	ND	ND
	Dec 07	1940.56	17.12	1923.44	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 08	1940.56	16.32	1924.24	6.9	3.3	7.2	3.7	18.80	2.1	204	86	ND	ND	ND
	Jun 08	1940.56	NM	NM	NM	NM	NM	NM	NM	NM	NM	49	ND	ND	ND
	Oct 08	1940.56	20.91	1919.65	6.7	3.7	221.0	0.9	20.10	2.4	124	100	1.8	ND	ND
	Feb 09	1940.56	16.05	1924.51	6.6	3.3	7.2	3.2	19.60	2.1	97	71	ND	ND	ND
	Jun 09	1940.56	19.88	1920.68	7.1	3.7	34.3	1.2	21.40	2.3	141	110	2.0	ND	ND
	Sep 09	1940.56	21.57	1918.99	6.6	4.2	0.8	2.0	23.40	2.7	127	70	1.1	ND	ND
	Nov 09	1940.56	20.55	1920.01	5.9	3.3	-10.0	2.3	20.40	2.1	167	85	1.4	ND	ND
	Feb 10	1940.56	16.49	1924.07	6.7	3.2	12.0	3.9	19.60	2.1	162	60	ND	ND	ND
	Jun 10	1940.56	18.98	1921.58	6.9	2.9	1.0	5.3	25.04	NM	NM	41	ND	ND	ND
	Oct 10	1940.56	20.63	1919.93	6.0	3.1	0.1	4.2	21.95	2.0	595	62	ND	ND	ND
	Nov 10	1940.56	19.32	1921.24	6.6	3.1	0.7	4.4	22.09	NM	212	54	ND	ND	ND
	Mar 11	1940.56	15.85	1924.71	6.5	3.3	0.0	4.7	19.41	NM	142	50	ND	ND	ND
	Jun 11	1940.56	18.17	1922.39	6.3	3.1	-1.1	4.2	22.48	NM	446	50	ND	ND	ND
*	Sep 11	1940.56	21.28	1919.28	7.1	2.9	16.0	7.9	22.20	1.9	237	25	ND	ND	ND
	Nov 11	1940.56	19.47	1921.09	7.0	2.8	NM	4.7	20.48	1.8	182	38	ND	ND	ND
	Mar 12	1940.56	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 12	1940.59	21.42	1919.17	6.9	3.2	210.0	3.7	21.00	2.0	125	84	0.73	ND	ND
	Sep 12	1940.59	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1940.59	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1940.59	17.38	1923.21	6.9	3.3	NM	4.2	19.45	2.1	144	62	<0.50	<0.50	<0.50
	Jun 13	1940.59	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1940.59	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1940.59	19.89	1920.70	6.6	3.3	7.6	3.3	22.07	2.1	141	96	0.58	<0.50	<0.50

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-31	Mar 08	1937.93	15.23	1922.70	7.0	4.7	125.0	6.0	22.50	2.9	152	49	ND	ND	ND
	Jun 08	1937.93	NM	NM	NM	NM	NM	NM	NM	NM	NM	31	ND	ND	ND
	Oct 08	1937.93	18.94	1918.99	6.7	4.2	265.0	3.6	22.40	2.7	123	39	ND	ND	ND
	Feb 09	1937.93	15.59	1922.34	6.5	4.0	11.0	3.4	21.90	2.6	99	44	ND	ND	ND
	Jun 09	1937.93	17.30	1920.63	7.0	4.3	77.9	4.6	21.10	2.8	137	45	ND	ND	ND
	Sep 09	1937.93	19.08	1918.85	6.6	4.8	45.2	4.9	23.60	3.0	124	38	ND	ND	ND
	Nov 09	1937.93	18.40	1919.53	6.0	4.0	230.0	4.0	22.90	2.5	141	24	ND	ND	ND
	Feb 10	1937.93	16.41	1921.52	6.7	4.0	18.0	3.9	21.10	2.5	148	34	1.2	ND	ND
	Jun 10	1937.93	16.94	1920.99	6.9	3.7	14.8	5.2	23.60	NM	NM	34	ND	ND	ND
	Oct 10	1937.93	18.80	1919.13	5.9	4.0	3.5	3.9	22.86	2.6	582	30	ND	ND	ND
	Nov 10	1937.93	18.33	1919.60	6.5	4.0	10.1	3.9	24.41	NM	225	27	ND	ND	ND
	Mar 11	1937.93	15.70	1922.23	6.9	4.1	22.7	5.0	22.63	NM	145	26	ND	ND	ND
	Jun 11	1937.93	16.76	1921.17	6.2	4.0	9.8	4.2	25.43	NM	480	64	ND	ND	ND
*	Sep 11	1937.93	18.73	1919.20	6.8	4.1	9.5	4.8	24.90	2.6	256	57	ND	ND	ND
	Nov 11	1937.93	17.93	1920.00	6.9	3.8	NM	3.9	21.23	2.5	178	58	ND	ND	ND
	Mar 12	1937.93	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 12	1937.66	18.37	1919.29	6.8	4.1	440.0	3.9	23.20	2.6	121	44	0.52	ND	ND
	Sep 12	1937.66	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1937.66	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1937.66	16.27	1921.39	6.9	4.2	NM	2.9	21.34	2.7	139	61	<0.50	<0.50	<0.50
	Jun 13	1937.66	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1937.66	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1937.66	18.55	1919.11	6.4	4.2	12.7	2.4	24.30	2.7	192	54	<0.50	<0.50	<0.50



**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-32	Mar 08	1952.82	17.25	1935.57	7.4	3.6	5.4	2.4	23.30	2.3	136	720	ND	ND	ND
	Jun 08	1952.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	750	ND	ND	ND
	Oct 08	1952.82	19.95	1932.87	6.9	3.8	23.7	1.0	23.80	2.4	-101	990	6.1	ND	ND
	Feb 09	1952.82	17.22	1935.60	6.7	3.6	22.5	1.0	23.40	2.3	75	1,000	7.2	ND	ND
	Jun 09	1952.82	19.14	1933.68	7.1	3.7	32.7	2.7	23.40	2.4	120	1,000	5.3	ND	ND
	Sep 09	1952.82	20.47	1932.35	6.5	4.2	4.1	1.2	25.30	2.7	157	1,000	ND	ND	ND
	Nov 09	1952.82	20.44	1932.38	5.8	3.4	180.0	2.8	24.10	2.2	145	660	3.7	ND	ND
	Feb 10	1952.82	18.81	1934.01	6.8	3.5	16.0	1.6	22.70	2.2	158	830	5.4	ND	ND
	Jun 10	1952.82	19.46	1933.36	7.0	3.2	1.2	6.3	26.41	NM	NM	480	2.6	ND	ND
	Oct 10	1952.82	20.77	1932.05	6.5	3.5	8.2	2.7	24.89	2.3	585	660	2.7	ND	ND
	Nov 10	1952.82	20.40	1932.42	6.6	3.5	1.9	2.4	24.50	NM	244	740	3.3	ND	ND
	Mar 11	1952.82	18.21	1934.61	7.1	3.5	4.3	6.7	23.41	NM	111	610	2.3	ND	ND
	Jun 11	1952.82	19.40	1933.42	6.8	3.5	-1.3	3.4	24.82	NM	424	790	2.3	ND	ND
*	Sep 11	1952.82	20.91	1931.91	6.9	3.6	10.0	5.1	24.40	2.3	274	610	1.9	ND	ND
	Nov 11	1952.82	20.24	1932.58	7.0	3.3	NM	3.3	23.32	2.2	161	700	2.7	ND	ND
	Mar 12	1952.82	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 12	1952.90	20.94	1931.96	6.9	3.6	240.0	4.7	25.10	2.3	101	640	2.0	ND	ND
	Sep 12	1952.90	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1952.90	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1952.90	18.43	1934.47	7.0	3.7	NM	3.4	23.98	2.4	114	720	1.8	<0.50	<0.50
	Jun 13	1952.90	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1952.90	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1952.90	20.68	1932.22	6.6	3.7	8.3	2.5	24.57	2.4	124	610	2.0	<0.50	<0.50

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-33	Mar 08	1950.92	16.02	1934.90	7.0	3.5	82.4	7.6	20.30	2.2	161	2.4	ND	ND	ND
	Jun 08	1950.92	NM	NM	NM	NM	NM	NM	NM	NM	NM	1	ND	ND	ND
	Oct 08	1950.92	18.00	1932.92	6.7	3.8	6.7	1.0	22.20	2.4	85	3.4	ND	ND	ND
	Feb 09	1950.92	16.11	1934.81	6.4	3.7	0.0	0.0	21.30	2.4	120	ND	ND	ND	ND
	Jun 09	1950.92	17.28	1933.64	7.0	4.0	0.0	0.0	21.40	2.5	138	ND	ND	ND	ND
	Sep 09	1950.92	18.93	1931.99	6.6	4.2	2.2	1.2	23.50	2.7	166	3.3	ND	ND	ND
	Nov 09	1950.92	18.78	1932.14	6.0	3.5	200.0	1.7	22.60	2.2	136	1.4	ND	ND	ND
	Feb 10	1950.92	17.28	1933.64	6.7	3.5	0.0	0.7	21.50	2.2	146	ND	ND	ND	ND
	Jun 10	1950.92	17.71	1933.21	6.9	3.4	1.1	2.1	28.96	NM	NM	ND	ND	ND	ND
	Oct 10	1950.92	19.42	1931.50	6.1	3.6	3.7	1.4	23.04	2.3	558	ND	ND	ND	ND
	Nov 10	1950.92	19.25	1931.67	6.6	3.6	1.7	1.6	23.34	NM	217	ND	ND	ND	ND
	Mar 11	1950.92	17.36	1933.56	6.5	3.8	2.8	1.7	21.27	NM	107	ND	ND	ND	ND
	Jun 11	1950.92	18.00	1932.92	7.3	3.8	-1.2	0.8	22.54	NM	74	ND	ND	ND	ND
	Sep 11	1950.92	19.31	1931.61	6.9	3.8	10.0	4.2	23.10	2.4	191	ND	ND	ND	ND
Nov 11	1950.92	18.72	1932.20	7.0	3.6	NM	2.2	21.62	2.3	181	ND	ND	ND	ND	
*	Mar 12	1950.92	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Jun 12	1950.98	19.03	1931.95	6.8	4.0	130.0	1.3	22.90	2.5	136	ND	ND	ND	ND
	Sep 12	1950.98	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 12	1950.98	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Mar 13	1950.98	17.25	1933.73	6.9	4.2	NM	1.9	21.50	2.7	134	<0.50	<0.50	<0.50	<0.50
	Jun 13	1950.98	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Sep 13	1950.98	NM	NM	NM	NM	NM	NM	NM	NM	NM	NS	NS	NS	NS
	Nov 13	1950.98	19.40	1931.58	6.9	4.0	7.6	1.4	21.58	2.6	146	<0.50	<0.50	<0.50	<0.50

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-34	Dec 11	--		--								910	NS	NS	NS
	Jan 12	--		--								1000	NS	NS	NS
	Mar 12	--		--	7.2	3.7	27.4	2.0	22.63	2.4	-47	1000	NS	NS	NS
	* Jun 12	1993.88	17.74	1976.14	7.3	3.4	16.4	2.4	24.19	2.4	89	860	0.97	ND	ND
	Sep 12	1993.88	18.07	1975.81	7.3	3.6	NM	2.1	24.43	2.4	141	730	1.2	ND	ND
	Nov 12	1993.88	17.75	1976.13	8.0	3.7	NM	2.0	24.86	2.4	45	550	1.1	<0.50	<0.50
	Mar 13	1993.88	19.06	1974.82	7.1	4.0	NM	1.6	22.65	2.6	125	550	0.86	<0.50	<0.50
	Jun 13	1993.88	19.32	1974.56	7.3	4.0	NM	1.9	24.03	2.6	63	380	0.90	<0.50	<0.50
	Sep 13	1993.88	19.36	1974.52	7.0	3.8	NM	1.6	25.41	2.5	71	440	0.78	<0.50	<0.50
Nov 13	1993.88	19.14	1974.74	6.1	3.4	20.0	0.9	23.56	2.3	184	500	0.86	<0.50	<0.50	
MW-35	Dec 11	--		--								410	NS	NS	NS
	Jan 12	--		--								630	NS	NS	NS
	Mar 12	--	20.03	--	7.3	3.4	181.0	3.6	23.81	2.2	-21	580	NS	NS	NS
	* Jun 12	1991.37	18.90	1972.47	7.3	3.4	87.1	4.0	24.30	2.2	100	530	ND	ND	ND
	Sep 12	1991.37	18.77	1972.60	7.2	3.4	NM	3.5	23.19	2.2	150	520	ND	ND	ND
	Nov 12	1991.37	18.55	1972.82	8.0	3.4	NM	3.9	24.06	2.2	70	480	<0.50	<0.50	<0.50
	Mar 13	1991.37	19.99	1971.38	7.1	3.7	NM	3.2	23.20	2.4	129	340	<0.50	<0.50	<0.50
	Jun 13	1991.37	20.30	1971.07	7.2	3.8	NM	3.9	24.12	2.5	84	250	<0.50	<0.50	<0.50
	Sep 13	1991.37	20.21	1971.16	7.2	3.6	NM	3.3	25.54	2.3	50	250	<0.50	<0.50	<0.50
Nov 13	1991.37	19.93	1971.44	6.1	3.8	45.8	1.8	23.47	2.2	184	310	<0.50	<0.50	<0.50	

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-36 *	Mar 12	1955.30	19.51	1935.79	7.1	3.5	15.8	2.3	23.44	2.3	-62	160	NS	NS	NS
	Jun 12	1955.30	21.26	1934.04	6.8	3.8	110.0	2.2	25.30	2.5	74	130	ND	ND	ND
	Sep 12	1955.30	21.55	1933.75	7.5	3.4	NM	1.9	25.53	2.2	128	130	ND	ND	ND
	Nov 12	1955.30	20.62	1934.68	7.8	3.5	NM	2.1	22.87	2.7	71	150	<0.50	<0.50	<0.50
	Mar 13	1955.30	19.03	1936.27	6.9	3.8	NM	1.7	23.48	2.5	121	160	0.52	<0.50	<0.50
	Jun 13	1955.30	20.75	1934.55	7.0	3.8	NM	1.8	25.96	2.5	104	110	0.52	<0.50	<0.50
	Sep 13	1955.30	21.48	1933.82	7.0	3.6	NM	1.7	24.72	2.4	131	140	<0.50	<0.50	<0.50
	Nov 13	1955.30	21.22	1934.08	7.4	3.9	9.4	1.9	23.32	2.5	126	130	<0.50	<0.50	<0.50
MW-37 *	Mar 12	1930.06	18.89	1911.17	7.2	3.7	9.5	5.6	20.42	2.4	-27	36	NS	NS	NS
	Jun 12	1929.98	19.10	1910.88	6.9	3.8	200.0	6.3	20.80	2.4	128	34	ND	ND	ND
	Sep 12	1929.98	20.05	1909.93	7.4	3.7	NM	5.5	21.79	2.4	144	32	ND	ND	ND
	Nov 12	1929.98	19.66	1910.32	7.9	3.8	NM	5.0	20.46	2.5	97	31	<0.50	<0.50	<0.50
	Mar 13	1929.98	18.83	1911.15	7.0	4.1	NM	4.3	19.76	2.7	139	34	<0.50	<0.50	<0.50
	Jun 13	1929.98	19.33	1910.65	7.0	4.1	NM	4.2	21.58	2.6	114	37	<0.50	<0.50	<0.50
	Sep 13	1929.98	19.80	1910.18	7.0	3.8	NM	4.6	21.66	2.5	215	40	<0.50	<0.50	<0.50
	Nov 13	1929.98	19.79	1910.19	6.5	4.0	7.2	4.2	21.71	2.6	335	33	<0.50	<0.50	<0.50
MW-38	Jun 12	1908.38	15.05	1893.33	6.8	3.9	550.0	5.0	22.00	2.5	124	5.8	ND	ND	ND
	Sep 12	1908.38	14.95	1893.43	7.6	3.8	NM	4.2	24.26	2.5	140	5.7	ND	ND	ND
	Nov 12	1908.38	14.69	1893.69	7.9	3.8	NM	3.6	22.20	2.5	89	5.9	<0.50	<0.50	<0.50
	Mar 13	1908.38	14.48	1893.90	7.0	4.2	NM	3.9	20.46	2.7	138	7.3	<0.50	<0.50	<0.50
	Jun 13	1908.38	15.05	1893.33	7.0	4.1	NM	3.9	23.24	2.7	117	7.8	<0.50	<0.50	<0.50
	Sep 13	1908.38	14.75	1893.63	6.8	3.9	NM	3.8	23.26	2.5	380	6.6	<0.50	<0.50	<0.50
	Nov 13	1908.38	14.97	1893.41	6.5	4.2	19.1	3.3	22.33	2.7	356	7.0	<0.50	<0.50	<0.50
MW-39	Jun 12	1967.55	26.15	1941.40	7.3	3.4	252.0	3.3	25.73	2.2	50	250	0.63	ND	ND
	Sep 12	1967.55	26.10	1941.45	7.4	3.5	NM	1.6	25.75	2.2	132	240	0.83	ND	ND
	Nov 12	1967.55	25.51	1942.04	7.7	3.5	NM	2.2	22.11	2.3	61	270	0.91	<0.50	<0.50
	Mar 13	1967.55	24.20	1943.35	7.0	3.8	NM	1.4	22.63	2.4	137	280	0.83	<0.50	<0.50
	Jun 13	1967.55	25.63	1941.92	7.0	3.8	NM	1.7	26.48	2.5	94	210	0.83	<0.50	<0.50
	Sep 13	1967.55	26.34	1941.21	6.9	3.7	NM	2.0	26.67	2.4	122	250	0.76	<0.50	<0.50
	Nov 13	1967.55	26.01	1941.54	6.7	3.9	133.0	1.4	26.36	2.5	157	260	0.81	<0.50	<0.50

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-40 CMT-30	Nov 12	NM	25.28	NM	7.9	3.6	NM	2.6	17.93	2.3	-68	340	1.1	<0.50	<0.50
	Mar 13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	4.7	<0.50	<0.50	<0.50
	Jun 13	1978.49	26.15	1952.34	7.6	3.3	NM	4.7	35.97	2.1	160	10	<0.50	<0.50	<0.50
	Sep 13	1978.49	26.71	1951.78	7.9	2.2	NM	3.0	34.38	1.5	35	2.1	<0.50	<0.50	<0.50
	Nov 13	1978.49	26.35	1952.14	7.6	3.0	9.6	3.0	20.28	1.9	91	1.3	<0.50	<0.50	<0.50
MW-40 CMT-35	Nov 12	NM	25.30	NM	8.1	4.1	NM	1.9	17.84	2.7	-163	260	6.6	<0.50	<0.50
	Mar 13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	48	3.1	<0.50	<0.50
	Jun 13	NM	26.15	NM	7.3	3.3	NM	5.0	36.39	2.2	127	3.6	<0.50	<0.50	<0.50
	Sep 13	1978.49	26.71	1951.78	7.1	2.4	NM	3.0	33.82	1.3	55	7.9	0.93	<0.50	<0.50
	Nov 13	1978.49	26.20	1952.29	6.5	2.4	4.3	1.7	23.26	1.6	88	12	2.4	<0.50	<0.50
MW-40 CMT-40	Nov 12	NM	25.34	NM	8.1	3.1	NM	2.0	20.43	2.0	-132	320	1.7	<0.50	<0.50
	Mar 13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	270	1.6	<0.50	<0.50
	Jun 13	NM	26.18	NM	7.5	3.2	NM	3.5	37.72	2.1	135	53	0.73	<0.50	<0.50
	Sep 13	1978.49	26.69	1951.80	7.7	2.0	NM	4.0	37.45	1.3	-39	37	0.73	<0.50	<0.50
	Nov 13	1978.49	26.19	1952.30	6.4	2.3	238.0	3.5	26.72	1.5	38	51	0.64	<0.50	<0.50

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-40 CMT-45	Nov 12	NM	25.28	NM	8.0	3.3	NM	2.1	20.47	2.1	-159	280	1.9	<0.50	<0.50
	Mar 13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	310	1.6	<0.50	<0.50
	Jun 13	NM	26.14	NM	7.7	3.1	NM	4.2	29.10	2.0	203	47	<0.50	<0.50	<0.50
	Sep 13	1978.49	26.66	1951.83	7.2	2.2	NM	2.9	38.22	1.2	-90	110	1.3	<0.50	<0.50
	Nov 13	1978.49	26.16	1952.33	6.3	2.6	5.0	3.0	26.60	1.6	82	77	1.1	<0.50	<0.50
MW-40 CMT-50	Nov 12	NM	25.28	NM	8.2	3.4	NM	2.0	19.27	2.2	-175	300	2.5	<0.50	<0.50
	Mar 13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	280	2.4	<0.50	<0.50
	Jun 13	NM	26.14	NM	7.7	3.2	NM	5.7	29.51	2.1	165	64	<0.50	<0.50	<0.50
	Sep 13	1978.49	26.63	1951.86	7.2	3.4	NM	5.8	29.36	2.3	243	24	<0.50	<0.50	<0.50
	Nov 13	1978.49	26.15	1952.34	6.5	2.5	12.9	1.5	25.67	1.6	29	120	1.8	<0.50	<0.50
MW-40 CMT-55	Nov 12	NM	25.33	NM	8.0	2.9	NM	3.6	20.60	1.9	-55	930	4.0	1.7	<0.50
	Mar 13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	390	4.1	1.7	<0.50
	Jun 13	NM	26.12	NM	7.5	3.1	NM	4.3	28.93	2.0	178	200	0.57	<0.50	<0.50
	Sep 13	1978.49	26.61	1951.88	7.7	3.2	NM	4.5	31.25	2.4	168	38	1.0	<0.50	<0.50
	Nov 13	1978.49	26.15	1952.34	6.2	2.3	17.2	3.1	26.89	1.4	38	110	0.86	<0.50	<0.50
MW-40 CMT-60	Nov 12	NM	25.38	NM	8.0	3.2	NM	2.6	18.85	2.1	-128	1,400	11	6.3	<0.50
	Mar 13	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	1,200	9.5	6.0	<0.50
	Jun 13	NM	26.16	NM	7.5	3.3	NM	4.9	29.49	2.1	220	1,000	5.9	3.6	<0.50
	Sep 13	1978.49	26.62	1951.87	7.6	3.4	NM	5.0	29.80	2.2	236	20	0.56	<0.50	<0.50
	Nov 13	1978.49	26.16	1952.33	5.9	1.0	619.0	1.7	22.22	0.7	-78	190	3.6	2.5	<0.50

**Table A-2: Historical Groundwater Gauging and Analytical Data  
Maryland Square Shopping Center**

Well ID	Date	Top of Casing Elevation (feet msl)	Depth to Groundwater Level (feet)	Groundwater Elevation (feet msl)	pH	Specific Conductance (mS/cm)	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp (°C)	TDS (g/L)	ORP (mV)	PCE (µg/L)	TCE (µg/L)	cis-1,2-DCE (µg/L)	Vinyl Chloride (µg/L)
MW-41	Sep 13	1908.89	14.81	1894.08	6.9	3.7	NM	2.7	26.56	2.8	135	1.7	<0.50	<0.50	<0.50
	Nov 13	1908.89	15.05	1893.84	6.7	3.9	239.0	1.1	21.40	2.2	360	2.6	<0.50	<0.50	<0.50
MW-42	Sep 13	1910.31	16.16	1894.15	7.1	4.1	NM	3.0	24.55	2.7	66	0.53	<0.50	<0.50	<0.50
	Nov 13	1910.31	16.32	1893.99	7.0	4.3	29.4	2.1	21.41	2.8	326	0.60	<0.50	<0.50	<0.50
MW-43	Sep 13	1958.33	17.14	1941.19	7.1	3.5	NM	3.1	26.33	2.2	45	<0.50	<0.50	<0.50	<0.50
	Nov 13	1958.33	16.96	1941.37	7.0	3.6	163.0	2.2	22.87	2.3	138	<0.50	<0.50	<0.50	<0.50

Notes:

NM = Not Measured  
 msl = mean sea level  
 ND = Non Detect  
 NS = Not Sampled  
 µg/L = micrograms per liter

°C = degrees Celsius  
 g/L = gallons per liter  
 mg/L = milligrams per liter  
 mS/cm = milli Siemens per centimeter  
 mV = millivolts  
 NTU = Nephelometric Turbidity Units

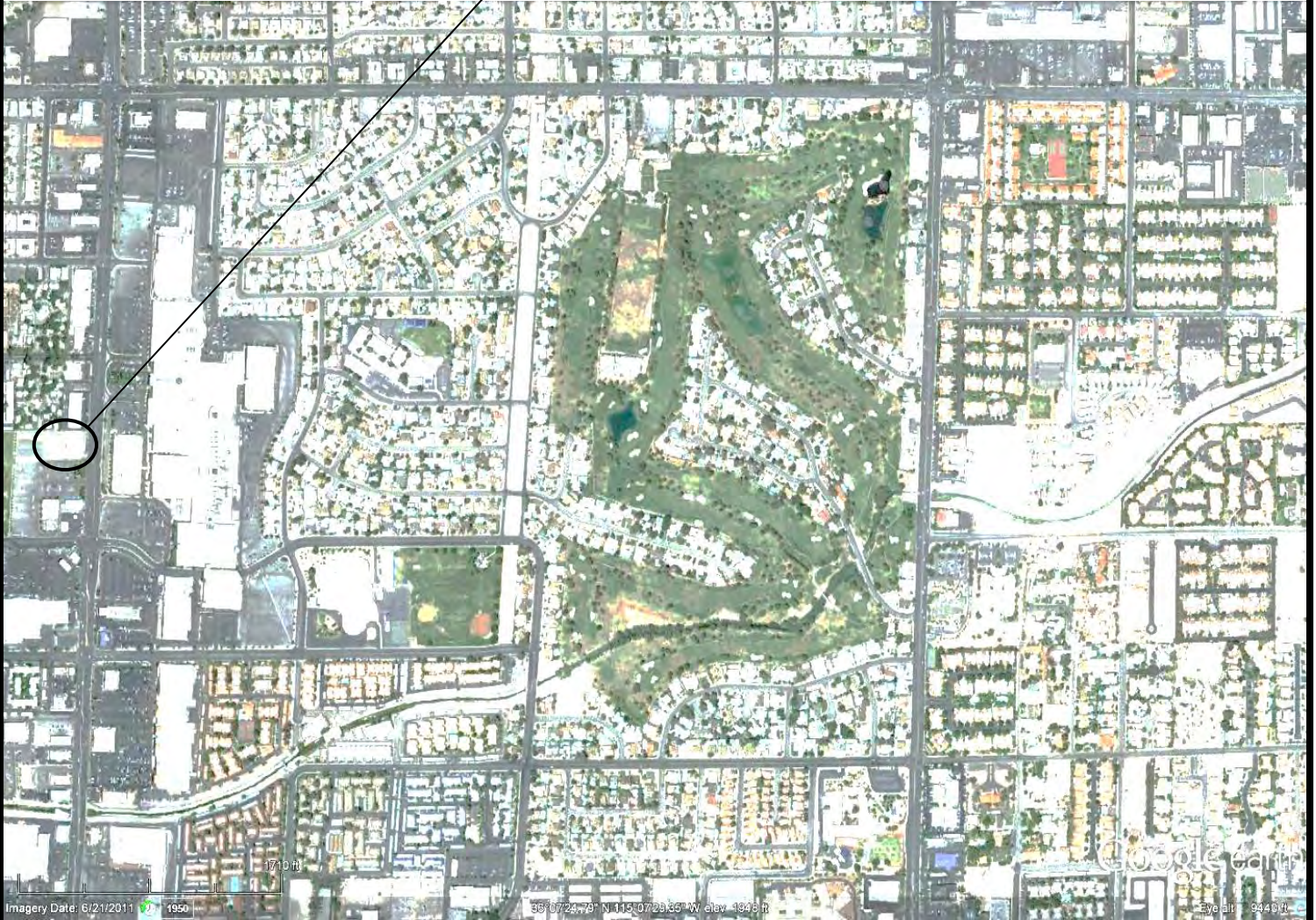
\*: All wells were resurveyed to determine top of casing elevation

Maryland Square PCE Site

FIGURES



SITE LOCATION



1 inch = 1,000 feet


Note: Scale and location are approximate



SOURCE: Google Earth

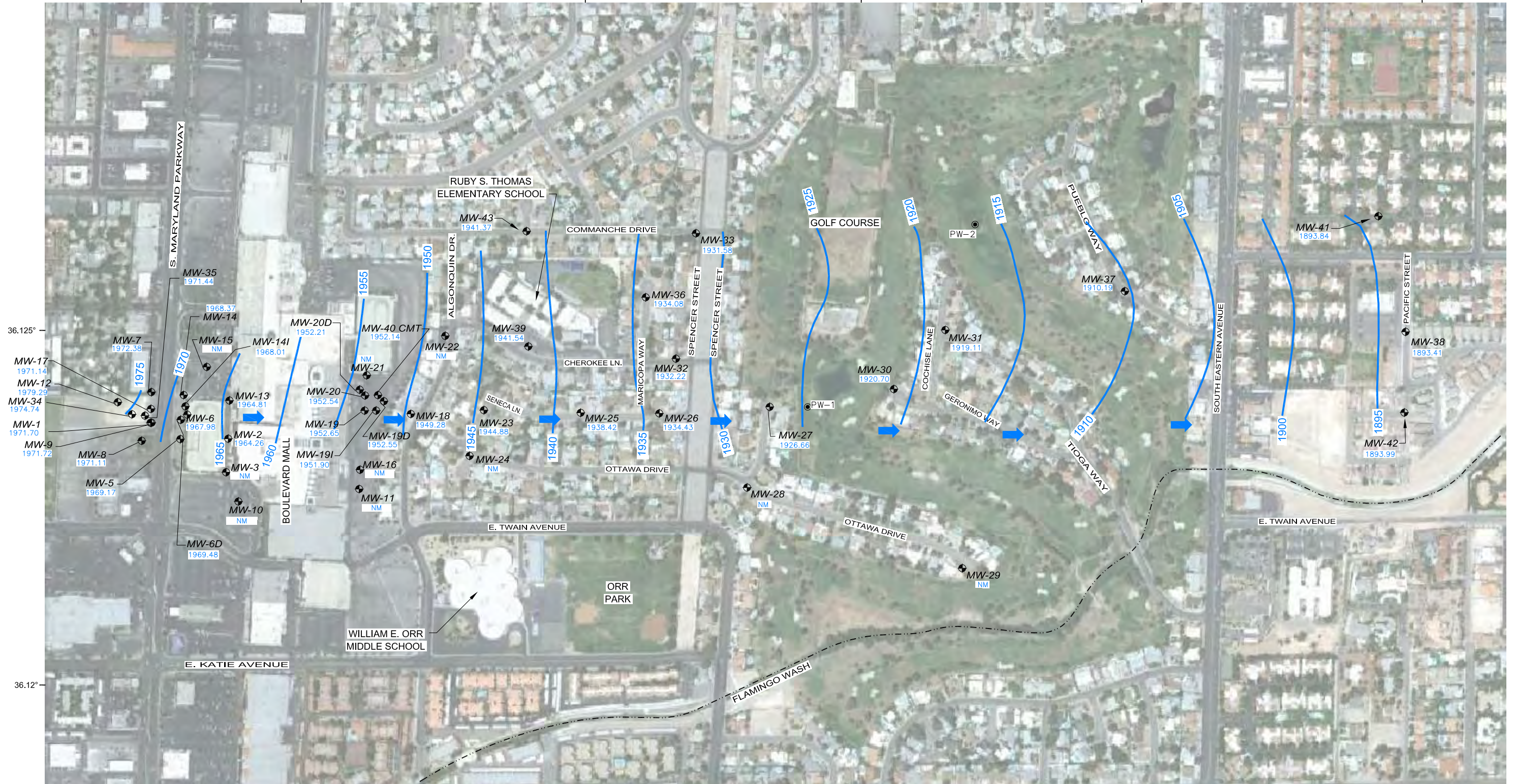
**SITE VICINIY MAP**

MARYLAND SQUARE SHOPPING CENTER  
3661 S. MARYLAND PARKWAY  
LAS VEGAS, NEVADA

PROJECT NUMBER: 085.42620.0001	DATE: 12/12	Figure 1
APPROVED BY: ADS	DRAWN BY: ABK	
 <b>Cardno</b> ATC Shaping the Future		2925 East Patrick Lane, Suite M Las Vegas, Nevada 89120-2457 Ph: (702) 798-5750 *** Fax: (702) 798-5742

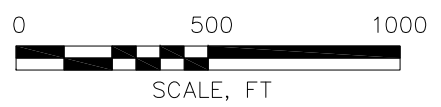


115.135° 115.13° 115.125° 115.12° 115.115°



- LEGEND**
- MW-1 GROUNDWATER MONITOR WELL
  - PW-1 PUMPING WELL
  - 1962.16 GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
  - 1950 GROUNDWATER ELEVATION CONTOUR (5 FT. INTERVALS)
  - GROUNDWATER FLOW DIRECTION
  - NM NOT MEASURED OR NO SURVEY DATA

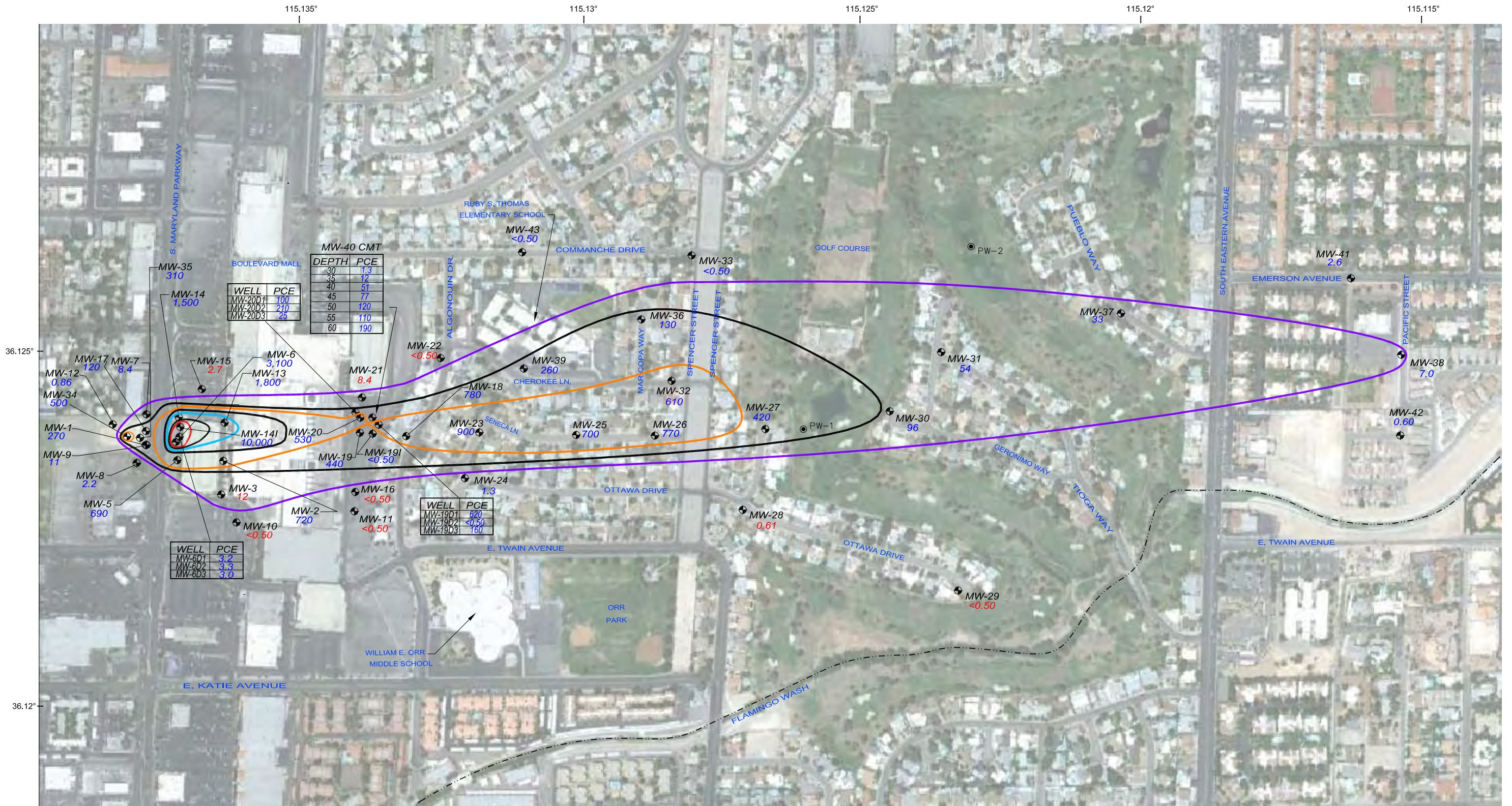
NOTE: SCALE AND LOCATIONS ARE APPROXIMATE



**GROUNDWATER POTENTIOMETRIC MAP**  
**NOVEMBER 04 - NOVEMBER 12, 2013**  
 MARYLAND SQUARE SHOPPING CENTER  
 3661 S. MARYLAND PARKWAY  
 LAS VEGAS, NV

PROJECT NUMBER: 85.42620.0001	DATE: 01/20/14	FIGURE
APPROVED BY: AS	DRAWN BY: DHK	2
<b>Cardno ATC</b> 7115 Amigo Street, Suite 100 Las Vegas, Nevada 89119 Ph: (702) 990-9300 *** Fax: (702) 990-9305		





MW-40 CMT	
DEPTH	PCE
30	1.3
35	1.2
40	5.1
45	7.7
50	12.0
55	11.0
60	19.0

WELL	PCE
MW-20D1	100
MW-20D2	210
MW-20D3	25

WELL	PCE
MW-19D1	620
MW-19D2	<0.50
MW-19D3	160

WELL	PCE
MW-6D1	3.2
MW-6D2	3.3
MW-6D3	3.0

**LEGEND**

- MW-1 + GROUNDWATER MONITOR WELL
- PW-1 ● PUMPING WELL
- 2500 ISOCONTOUR, µg/L
- 2000 ISOCONTOUR, µg/L
- 1500 ISOCONTOUR, µg/L
- 1000 ISOCONTOUR, µg/L
- 500 ISOCONTOUR, µg/L
- 100 ISOCONTOUR, µg/L (DASHED WHERE INFERRED)
- 5 ISOCONTOUR, µg/L (DASHED WHERE INFERRED)
- 540 PCE, µg/L
- NS NOT SAMPLED
- 1,000 March 2013 Data
- 2,000 June 2013 Data
- 1,500 November 2013 Data

NOTE: SCALE AND LOCATIONS ARE APPROXIMATE

0 500 1000  
SCALE, FT

**PCE ISOCONCENTRATION MAP**  
**NOVEMBER 04 - NOVEMBER 12, 2013**  
 MARYLAND SQUARE SHOPPING CENTER  
 3661 S. MARYLAND PARKWAY  
 LAS VEGAS, NV

PROJECT NUMBER: 85.42620.0001	DATE: 01/07/14	FIGURE
APPROVED BY: AS	DRAWN BY: ABK	<b>3</b>
7115 Amigo Street, Suite 100 Las Vegas, Nevada 89119 Ph: (702) 990-9300 *** Fax: (702) 990-9305		



Maryland Square PCE Site

**APPENDIX A**  
FIELD SHEETS



# GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

1337

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: Dlc

Well ID: MW-1  
 Sample ID: MW-1  
 Date: 11/4

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: 2 inch 2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 25.91 feet 3Q13: 25.96 3" = 0.37 gal/lin ft.  
 Depth to Water: 20.31 feet 3Q13: 20.52 4" = 0.67 gal/lin ft.  
 Constructed Screen Interval: 10 feet to 30 feet  
 Approximate Pump Depth: 23.5 Feet bgs 23 Feet btoc

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
0.25	1346	25.34	3.461	2.235	0.31	5.98	172.3	Clean, No odor
0.50	1351	25.54	3.485	2.242	0.22	5.97	166.8	Clean, no odor T: 12
0.75	1356	25.54	3.484	2.242	0.28	5.96	166.4	Clean, No odor
1.0	1401	25.52	3.486	2.241	0.30	5.97	166.1	Clean no odor T: 5.43
1.25	1406	25.51	3.484	2.240	0.31	5.97	165.9	Clean, no odor T: 2.88

Total Water Volume Purged: 1.25 Gallons = N/A Well Volumes  
 Purged Dry (Y/N): N  
 Comments:

Well Security: Locking cap?  yes  no Replaced?  yes  no 2.6 PID  
 Bolts secured?  yes  no Replaced?  yes  no N/A Vacuum  
 Surface Seal?  yes  no Replaced?  yes  no 108 Sample Collection Time







# GROUNDWATER COLLECTION LOG

1107

CARDNO ATC  
7115 AMIGO STREET, SUITE 100  
LAS VEGAS, NEVADA 89119  
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
Project Number: 085.42620.0001  
Sampler's Name: MBA

Well ID: MW-6  
Sample ID: MW-6  
Date: 11/5/13

Purging Equipment: Low Flow Bladder Pump  
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
Casing Diameter: 2 inch 2" = 0.16 gal/lin ft.  
Depth to Well Bottom: 29.10 feet 2Q13: 29.07 3" = 0.37 gal/lin ft.  
Depth to Water: 20.14 feet 3Q13: 20.25 4" = 0.67 gal/lin ft.  
Constructed Screen Interval: 10 feet to 32 feet  
Approximate Pump Depth: 25.0 Feet bgs 24.5 Feet btoc

Comments: Bottom soft when taking TD, silt at bottom

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.25	1113	24.34	3.439	2.237	3.20	7.86	118.1	Clear, No Odor, T18.47.000
.5	1118	25.26	3.453	2.349	3.19	7.83	97.8	" " " T16.53.000
.75	1123	25.23	3.451	2.347	3.15	7.82	94.1	" " " T16.59.000
1.0	1128	25.27	3.451	2.348	3.13	7.82	97.4	" " " T16.13.000

Total Water Volume Purged: 1.0 Gallons = N/A Well Volumes  
Purged Dry (Y/N): N  
Comments: N/A

Well Security: Locking cap? Y yes   no Replaced?   yes Y no 4.1 PID  
Bolts secured? Y yes   no Replaced?   yes Y no   Vacuum  
Surface Seal? Y yes   no Replaced?   yes Y no 10:31 Sample Collection Time





## GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

839

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: N 3A

Well ID: MW-6D1  
 Sample ID: MW-6D1  
 Date: 11/7/13

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: 2 inch 2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 59.73 feet 2Q13: 59.74 3" = 0.37 gal/lin ft.  
 Depth to Water: 19.24 feet 3Q13: 21.40 4" = 0.67 gal/lin ft.  
 Constructed Screen Interval: 50 feet to 60 feet  
 Approximate Pump Depth: 55.5 Feet bgs 55 Feet btoc

Comments: N/A

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.25	953	22.78	0.651	0.423	5.19	6.85	132.3	SP/turned/brady T 1.0 NTC
.5	958	23.76	0.647	0.420	5.03	6.92	85.3	" " 67.7 NTC
.75	1003	23.79	0.647	0.420	5.05	6.91	87.4	" " 51.7 NTC
1.0	1008	23.81	0.647	0.421	5.03	6.92	84.4	" " 47.3 NTC

Total Water Volume Purged: 1.0 Gallons = N/A Well Volumes  
 Purged Dry (Y/N): N  
 Comments: N/A

Well Security: Locking cap? Y yes   no Replaced?   yes X no 0.0 PID  
 Bolts secured? Y yes   no Replaced?   yes Y no   Vacuum  
 Surface Seal? X yes   no Replaced?   yes Y no 10.12 Sample Collection Time



## GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: PHK

Well ID: MW-6D2  
 Sample ID: MW-6D2  
 Date: 11/2/13

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: 2 inch 2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 89.02 feet 1Q13: 89.00 3" = 0.37 gal/lin ft.  
 Depth to Water: 18.94 feet 3Q13: 21.61 4" = 0.67 gal/lin ft.  
 Constructed Screen Interval: 80 feet to 90 feet  
 Approximate Pump Depth: 85.5 Feet bgs 85 Feet btoc

Comments: \_\_\_\_\_

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
<del>0.25</del>	<del>907</del>	<del>23.31</del>	<del>0.554</del>					
0.25	907	23.31	0.554	0.372	—	7.53	21.3	sl. turbid, no odor T: 38.5
.50	912	23.38	0.552	0.370	—	7.82	24.0	sl. turbid, no odor
.75	917	23.35	0.552	0.370	—	7.51	23.6	sl. turbid, no odor T: 22.1
1.0	922	23.22	0.550	0.370	—	7.49	23.0	sl. turbid, no odor T: 18.2

Total Water Volume Purged: 1.0 Gallons = N/A Well Volumes  
 Purged Dry (Y/N): N  
 Comments: \_\_\_\_\_

Well Security: Locking cap? ✓ yes   no      Replaced?   yes ✓ no      0.0 PID  
                   Bolts secured? ✓ yes   no      Replaced?   yes ✓ no        Vacuum  
                   Surface Seal? ✓ yes   no      Replaced?   yes ✓ no      930 Sample Collection Time



# GROUNDWATER COLLECTION LOG

CARDNO ATC  
7115 AMIGO STREET, SUITE 100  
LAS VEGAS, NEVADA 89119  
(702) 990-9300 (702) 990-9305 fax

430

Project Name: Maryland Square  
Project Number: 085.42620.0001  
Sampler's Name: NBA

Well ID: MW-6D3  
Sample ID: MW-6D3  
Date: 11/7/13

Purging Equipment: Low Flow Bladder Pump  
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
Casing Diameter: 2 inch 2" = 0.16 gal/lin ft.  
Depth to Well Bottom: 110 feet 1Q13:110 3" = 0.37 gal/lin ft.  
Depth to Water: 22.16 feet 3Q13:24.89 4" = 0.67 gal/lin ft.  
Constructed Screen Interval: 100 feet to 110 feet  
Approximate Pump Depth: 105.5 Feet bgs 105 Feet btoc

Comments: N/A

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
0.25	920	23.74	0.528	0.343	5.74	6.92	93.9	clear, No color, T 50.4 NTU
5	925	23.73	0.527	0.343	5.73	6.91	78.1	" " T 47.6 NTU
7.5	930	23.47	0.528	0.343	5.70	6.91	76.8	" " T 45.7 NTU
1.0	935	23.58	0.527	0.343	5.74	6.90	78.3	" " T 43.6 NTU

Total Water Volume Purged: 1.0 Gallons = N/A Well Volumes  
Purged Dry (Y/N): N  
Comments: N/A

Well Security: Locking cap?  yes  no Replaced?  yes  no 0.0 PID  
Bolts secured?  yes  no Replaced?  yes  no  Vacuum  
Surface Seal?  yes  no Replaced?  yes  no 935 Sample Collection Time



# GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

1154

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: DK

Well ID: MW-7  
 Sample ID: MW-7  
 Date: 11/4

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: 2 inch  
 Depth to Well Bottom: 29.40 feet 2" = 0.16 gal/lin ft.  
 Depth to Water: 16.40 feet 3" = 0.37 gal/lin ft.  
 Constructed Screen Interval: 10 feet to 30 feet 4" = 0.67 gal/lin ft.  
 Approximate Pump Depth: 24.5 Feet bgs 2.4 Feet btoc

Comments: \_\_\_\_\_

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
0.25	1159	25.14	3.299	2.135	2.84	6.14	172.8	sl. turbid, no odor
0.50	1204	26.22	3.416	2.142	1.84	6.10	164.1	sl. turbid, no odor
0.75	1209	26.23	3.394	2.153	1.77	6.08	163.7	T: 109
1.0	1214	26.35	3.442	2.181	1.63	6.06	164.1	" " T: 63
1.25	12:19	26.34	3.425	2.173	1.64	6.06	165.0	" " T: 53

Total Water Volume Purged: \_\_\_\_\_ Gallons = N/A Well Volumes

Purged Dry (Y/N): \_\_\_\_\_

Comments: \_\_\_\_\_

Well Security: Locking cap? yes  no  Replaced? yes  no  PID 1.3  
 Bolts secured? yes  no  Replaced? yes  no  Vacuum N/A  
 Surface Seal? yes  no  Replaced? yes  no  Sample Collection Time 12:23



# GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

1003

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: DK

Well ID: MW-8  
 Sample ID: MW-8  
 Date: 11/4

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: 2 inch 2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 30.22 feet 3" = 0.37 gal/lin ft.  
 Depth to Water: 20.60 feet 4" = 0.67 gal/lin ft. 1Q13:20.65  
 Constructed Screen Interval: 10 feet to 30 feet  
 Approximate Pump Depth: 25.5 Feet bgs 25.5 Feet btoc

Comments: \_\_\_\_\_

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
0.25	1014	25.33	3.289	2.060	2.34	6.14	191.0	Slightly, No odor
0.50	1019	26.14	3.240	2.060	2.35	6.13	193.0	Sl. Silty, No odor
0.75	1024	26.12	3.234	2.060	2.33	6.11	193.2	Clear, No odor
1.0	1029	26.10	3.237	2.060	2.30	6.11	198.0	clear, No odor
1.25	1034	26.10	3.237	2.061	2.33	6.11	193.1	Clear, No odor
1.5	1039	26.10	3.240	2.059	2.35	6.12	193.3	Clear, No odor
1.75	1044	26.12	3.242	2.059	2.34	6.12	193.5	Clear, No odor

Total Water Volume Purged: 1.25 Gallons = N/A Well Volumes  
 Purged Dry (Y/N): N  
 Comments: \_\_\_\_\_

Well Security: Locking cap? ✓ yes   no      Replaced?   yes   no      0.0 PID  
 Bolts secured? ✓ yes   no      Replaced?   yes   no      N/A Vacuum  
 Surface Seal? ✓ yes   no      Replaced?   yes   no      1040 Sample Collection Time

TU: 95 NTU



# GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

1102

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: DJR

Well ID: MW-9  
 Sample ID: MW-9  
 Date: 11/4

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: 2 inch  
 Depth to Well Bottom: 50 feet  
 Depth to Water: 20.52 feet 3Q13:20.69  
 Constructed Screen Interval: 48.5 feet to 50 feet  
 Approximate Pump Depth: 49.5 Feet bgs 49 Feet btoc

2" = 0.16 gal/lin ft.  
 3" = 0.37 gal/lin ft.  
 4" = 0.67 gal/lin ft.

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
0.25	1110	25.06	1.265	0.822	0.78	6.66	-21.5	Clear, NO odor
0.5	1115	25.29	1.279	0.827	0.49	6.50	55.4	Clear, NO odor
.75	1120	25.31	1.282	0.826	0.50	6.40	55.1	Clear, NO odor
1.0	1125	25.34	1.283	0.843	0.54	6.41	55.2	Clear, NO odor
1.25	1130	25.35	1.285	0.846	0.57	6.41	55.5	Clear, NO odor
1.5	1135	25.32	1.284	0.846	0.57	6.42	55.7	Clear, NO odor

Total Water Volume Purged: 1.5 Gallons = 0.0 Well Volumes  
 Purged Dry (Y/N): \_\_\_\_\_  
 Comments: \_\_\_\_\_

Well Security: Locking cap?  yes  no Replaced?  yes  no  
 Bolts secured?  yes  no Replaced?  yes  no  
 Surface Seal?  yes  no Replaced?  yes  no

0.0 PID  
N/A Vacuum  
1137 Sample Collection Time

35.3 NTU

863



# GROUNDWATER COLLECTION LOG

CARDNO ATC  
7115 AMIGO STREET, SUITE 100  
LAS VEGAS, NEVADA 89119  
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
Project Number: 085.42620.0001  
Sampler's Name: DK

Well ID: MW-12  
Sample ID: MW-12  
Date: 11/24

Purging Equipment: Low Flow Bladder Pump  
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
Casing Diameter: 2 inch  
Depth to Well Bottom: 33.25 feet  
Depth to Water: 16.66 feet 1Q13:16.76  
Constructed Screen Interval: 13.5 feet to 33.5 feet  
Approximate Pump Depth: 25.5 Feet bgs 25 Feet btoc

2" = 0.16 gal/in ft.  
3" = 0.37 gal/in ft.  
4" = 0.67 gal/in ft.

Comments: \_\_\_\_\_

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
0.25	918	23.83	3.422	2.268	2.84	6.88	89.5	Clear, No odor
.50	928	24.05	3.353	2.221	1.70	6.17	190.4	Clear, No odor
.75	933	24.58	3.394	2.225	1.13	6.10	188.3	Clear, No odor
1.0	938	24.59	3.395	2.225	1.10	6.10	188.1	Clear, No odor
1.25	943	24.58	3.401	2.225	1.10	6.04	188.4	Clear, No odor
1.5	948	24.57	3.400	2.225	1.10	6.04	188.8	Clear, No odor

Total Water Volume Purged: 1.5 <sup>DK</sup> Gallons = N/A Well Volumes  
Purged Dry (Y/N): \_\_\_\_\_  
Comments: \_\_\_\_\_

Well Security: Locking cap?  yes  no Replaced?  yes  no 0.2 PID  
Bolts secured?  yes  no Replaced?  yes  no N/A Vacuum  
Surface Seal?  yes  no Replaced?  yes  no 450 Sample Collection Time

79 MTU

863



# GROUNDWATER COLLECTION LOG

CARDNO ATC  
7115 AMIGO STREET, SUITE 100  
LAS VEGAS, NEVADA 89119  
(702) 990-9300 (702) 990-9305 fax

953

Project Name: Maryland Square  
Project Number: 085.42620.0001  
Sampler's Name: NBA

Well ID: MW-13  
Sample ID: MW-13  
Date: 11/5/13

Purging Equipment: Low Flow Bladder Pump  
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC

Casing Diameter: 2 inch 2" = 0.16 gal/lin ft.  
Depth to Well Bottom: 25.12 feet 3" = 0.37 gal/lin ft.  
Depth to Water: 18.50 feet 1Q13:18.53 4" = 0.67 gal/lin ft.  
Constructed Screen Interval: 9 feet to 29 feet  
Approximate Pump Depth: 22.5 Feet bgs 22 Feet btoc

Comments: Bottom soft when taking TD

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
0.25	903	23.15	3.917	2.547	1.24	7.56	122.7	clear, turbid, T 42.3
0.5	904	23.74	3.919	2.547	0.98	7.52	111.1	" " T 38.7
0.75	913	23.83	3.919	2.546	0.89	7.51	105.3	" " T 25.9
1.0	918	23.77	3.920	2.546	0.90	7.51	103.7	" " T 19.7

Total Water Volume Purged: 1.0 Gallons = N/A Well Volumes  
Purged Dry (Y/N): N  
Comments: \_\_\_\_\_

Well Security: Locking cap?  yes  no Replaced?  yes  no 15.9 PID  
Bolts secured?  yes  no Replaced?  yes  no   Vacuum  
Surface Seal?  yes  no Replaced?  yes  no 9:21 Sample Collection Time





# GROUNDWATER COLLECTION LOG

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 (702) 990-9300 (702) 990-9305 fax

1025

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: NJD

Well ID: MW-14  
 Sample ID: MW-14  
 Date: 11/5/13

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: 2 inch  
 Depth to Well Bottom: 29.85 feet 35'  
 Depth to Water: 18.96 feet 3Q13:19.16  
 Constructed Screen Interval: .15 feet to .40 feet  
 Approximate Pump Depth: 27.3 Feet bgs 28.0 Feet bgs 24.6 Feet bfgc 27

2" = 0.16 gal/lin ft.  
 3" = 0.37 gal/lin ft.  
 4" = 0.67 gal/lin ft.

Comments: Bottom soft when taking TD; sediment @ bottom of well, approx. 5'

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.25	1013	25.00	3.898	2.529	2.66	7.89	103.3	Slightly turbid, No Odor, T 12.7 NTU
.5	1014	25.01	3.894	2.531	2.67	7.84	99.7	" " " " " " T 6.7 NTU
.75	1023	25.30	3.895	3.032	2.65	7.83	98.1	Clear, " " " " T 46.4 NTU
1.0	1028	25.32	3.894	3.032	2.61	7.83	96.0	" " " " " " T 39.2 NTU
1.25	1033	25.17	3.894	3.032	2.63	7.82	96.4	" " " " " " T 28.0 NTU

Total Water Volume Purged: 1.25 Gallons = N/A Well Volumes  
 Purged Dry (Y/N): N  
 Comments: Re-verified TD at 29.84

Well Security: Locking cap?  yes  no Replaced?  yes  no 10.7 PID  
 Bolts secured?  yes  no Replaced?  yes  no - Vacuum  
 Surface Seal?  yes  no Replaced?  yes  no 1036 Sample Collection Time



# GROUNDWATER COLLECTION LOG

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 (702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: NBA

Well ID: MW-141  
 Sample ID: MW-141  
 Date: 11/5/13

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: 4 inch      2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 54.64 feet      3" = 0.37 gal/lin ft.  
 Depth to Water: 19.53 feet      4" = 0.67 gal/lin ft.  
 Constructed Screen Interval: 40 feet to 55 feet  
 Approximate Pump Depth: 47.5 Feet bgs      47.0 Feet btoc

Comments: N/A

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.25	1208	24.18	1.381	0.899	4.04	7.54	104.6	Clear, No Odor, T 6.06 N/A
.5	1213	24.34	1.382	0.899	3.96	7.84	126.4	" " T 6.51 N/A
.75	1218	24.39	1.380	0.897	3.96	7.83	107.8	" " T 6.64 N/A
1.0	1223	24.37	1.381	0.898	3.98	7.83	106.9	" " T 6.41 N/A
1.25	1228	24.39	1.381	0.898	3.96	7.83	125.2	" " T 6.27 N/A
1.5	1233	24.38	1.380	0.898	3.98	7.82	101.9	" " T 6.31 N/A

Total Water Volume Purged: 1.5 Gallons = N/A Well Volumes  
 Purged Dry (Y/N): N  
 Comments: N/A

Well Security: Locking cap?  yes  no      Replaced?  yes  no      40.4 PID  
 Bolts secured?  yes  no      Replaced?  yes  no      - Vacuum  
 Surface Seal?  yes  no      Replaced?  yes  no      1237 Sample Collection Time



# GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

1255

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: Dk

Well ID: MW-17  
 Sample ID: MW-17  
 Date: 11/4

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: 4 inch 2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 30.17 feet 3" = 0.37 gal/lin ft.  
 Depth to Water: 19.40 feet 4" = 0.67 gal/lin ft. 3Q13:20.18  
 Constructed Screen Interval: 15 feet to 30 feet  
 Approximate Pump Depth: 25.5 Feet bgs 25 Feet btoc

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
0.25	1305	23.83	3.216	2.137	1.62	6.03	169.6	Clear, No odor
0.50	1310	24.11	3.246	2.146	0.46	5.99	160.0	Clear, No odor T: 6.61
0.75	1315	24.15	3.249	2.146	0.41	5.97	154.2	clear, no odor T: 1.67
1.0	1320	24.11	3.248	2.147	0.40	5.97	153.8	Clear, No odor
1.25	1325	24.10	3.247	2.149	0.42	5.97	153.9	Clear, No odor T: 6.7

Total Water Volume Purged: 1.25 Gallons = N/A Well Volumes  
 Purged Dry (Y/N): N

Well Security: Locking cap?  yes  no Replaced?  yes  no 1.3 PID  
 Bolts secured?  yes  no Replaced?  yes  no N/A Vacuum  
 Surface Seal?  yes  no Replaced?  yes  no 1327 Sample Collection Time



# GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

1402

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: NBP

Well ID: MW-18  
 Sample ID: MW-18  
 Date: 1/12/13

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: 4 inch  
 Depth to Well Bottom: 20.36 feet  
 Depth to Water: 13.62 feet  
 Constructed Screen Interval: 5 feet to 26 feet  
 Approximate Pump Depth: 17.5 Feet bgs 17.0 Feet btoc

2" = 0.16 gal/lin ft.  
 3" = 0.37 gal/lin ft.  
 4" = 0.67 gal/lin ft.

1Q13:12.06 20.36

Comments: Drafted off. verify TD

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.25	1410	25.44	3.624	2.356	3.99	7.02	161.1	clear, No Pdn, T 13.89 NTU
.5	1415	25.47	3.630	2.359	3.61	6.81	150.7	" " T 14.92 NTU
.75	1420	25.46	3.626	2.357	3.67	6.78	151.2	" " T 14.93 NTU
1.0	1425	25.47	3.626	2.357	3.64	6.77	150.3	" " T 13.40 NTU
1.25	1430	25.45	3.626	2.359	3.62	6.77	150.0	" " T 10.11 NTU
1.5	1435	25.49	3.625	2.356	3.60	6.77	152.1	" " T 8.28 NTU

Total Water Volume Purged: 1.5 Gallons = N/A Well Volumes

Purged Dry (Y/N): N

Comments: Change hose place 30' o' hole

Well Security: Locking cap? X yes \_\_\_ no Replaced? \_\_\_ yes X no 5.9 PID  
 Bolts secured? X yes \_\_\_ no Replaced? \_\_\_ yes X no   Vacuum  
 Surface Seal? 7 yes \_\_\_ no Replaced? \_\_\_ yes X no 1438 Sample Collection Time



# GROUNDWATER COLLECTION LOG

CARDNO ATC  
7115 AMIGO STREET, SUITE 100  
LAS VEGAS, NEVADA 89119  
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
Project Number: 085.42620.0001  
Sampler's Name: NQP

Well ID: MW-19  
Sample ID: MW-19  
Date: 11/7/13

Purging Equipment: Low Flow Bladder Pump  
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC

Casing Diameter: 2 inch 2" = 0.16 gal/lin ft.  
Depth to Well Bottom: 30.02 feet 3" = 0.37 gal/lin ft.  
Depth to Water: 27.48 feet 4" = 0.67 gal/lin ft.  
Constructed Screen Interval: 19 feet to 35 feet  
Approximate Pump Depth: 29.5 Feet bgs 29 Feet btoc

Comments: Bottom of casing soft when taking TD

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.25	1354	26.95	2.135	1.966	3.30	6.35	223.4	Slight turbid, No Odor, T 119 uM
.5	1359	26.84	3.150	1.983	3.26	6.31	224.6	" " T 64.2 uM
.75	1404	26.58	3.148	1.982	3.20	6.30	224.8	" " T 67.2 uM
1.0	1409	26.63	3.149	1.982	3.17	6.30	227.1	" " T 66.4 uM
1.25	1414	26.49	3.149	1.982	3.15	6.30	227.5	" " T 65.8 uM

Total Water Volume Purged: 1.25 Gallons = N/A Well Volumes  
Purged Dry (Y/N): N  
Comments: N/A

Well Security: Locking cap?  yes  no Replaced?  yes  no 17.9 PID  
Bolts secured?  yes  no Replaced?  yes  no   Vacuum  
Surface Seal?  yes  no Replaced?  yes  no 14/6 Sample Collection Time

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# GROUNDWATER COLLECTION LOG

CARDNO ATC  
7115 AMIGO STREET, SUITE 100  
LAS VEGAS, NEVADA 89119  
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
Project Number: 085.42620.0001  
Sampler's Name: N/A

Well ID: MW-19I  
Sample ID: MW-19I  
Date: 11/8/13

Purging Equipment: Low Flow Bladder Pump  
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
Casing Diameter: 4 inch      2" = 0.16 gal/lin ft.  
Depth to Well Bottom: 54.23 feet      3" = 0.37 gal/lin ft.  
Depth to Water: 26.47 feet      3Q13:26.92      4" = 0.67 gal/lin ft.  
Constructed Screen Interval: 34 feet to 54 feet  
Approximate Pump Depth: 44.5 Feet bgs      44 Feet btoc

Comments: N/A

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
<u>.25</u>	<u>1134</u>	<u>25.63</u>	<u>4.175</u>	<u>2.713</u>	<u>4.44</u>	<u>7.10</u>	<u>577.8</u>	<u>Purple, No odor, T 35.2</u>
<u>.5</u>	<u>1139</u>	<u>25.62</u>	<u>4.172</u>	<u>2.712</u>	<u>4.40</u>	<u>7.03</u>	<u>578.7</u>	<u>" " T 33.7</u>
<u>.75</u>	<u>1144</u>	<u>25.56</u>	<u>4.168</u>	<u>2.709</u>	<u>4.34</u>	<u>7.00</u>	<u>580.0</u>	<u>" " T 29.6</u>
<u>1.0</u>	<u>1149</u>	<u>25.44</u>	<u>4.168</u>	<u>2.710</u>	<u>4.27</u>	<u>6.99</u>	<u>583.2</u>	<u>" " T 24.3</u>
<u>1.25</u>	<u>1154</u>	<u>25.66</u>	<u>4.167</u>	<u>2.709</u>	<u>4.30</u>	<u>6.99</u>	<u>581.5</u>	<u>" " T 22.6</u>
<u>1.5</u>	<u>1159</u>	<u>25.62</u>	<u>4.167</u>	<u>2.709</u>	<u>4.28</u>	<u>6.99</u>	<u>579.4</u>	<u>" " T 20.8</u>

Total Water Volume Purged: 1.5 Gallons = N/A Well Volumes  
Purged Dry (Y/N): N  
Comments: N/A

Well Security: Locking cap? X yes \_\_\_ no      Replaced? \_\_\_ yes X no      1.0 PID  
Bolts secured? X yes \_\_\_ no      Replaced? \_\_\_ yes X no        Vacuum  
Surface Seal? X yes \_\_\_ no      Replaced? \_\_\_ yes X no      1203 Sample Collection Time

Permanganate 30



## GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: NDA

Well ID: MW-19D1  
 Sample ID: MW-19D1  
 Date: 11/8/13

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: 2 inch      2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 50.74 feet      3" = 0.37 gal/lin ft.  
 Depth to Water: 26.70 feet      4" = 0.67 gal/lin ft.  
 Constructed Screen Interval: 31 feet to 51 feet  
 Approximate Pump Depth: 41.5 Feet bgs      41 Feet btoc

Comments: N/A

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
26.21 .25	1339	24.57	2.429	1.893	4.85	7.38	381.5	clear, No Odor, T 29.1
26.43 .5	1344	24.36	2.435	1.698	4.73	7.29	392.1	" " T 32.4
26.51 .75	1349	24.22	2.424	1.698	4.67	7.29	387.5	" " T 29.7
26.72 1.0	1354	24.24	2.434	1.697	4.65	7.29	384.6	" " T 28.1

Total Water Volume Purged: 1.0 Gallons = N/A Well Volumes  
 Purged Dry (Y/N): N  
 Comments: \_\_\_\_\_

Well Security:    Locking cap?  yes     no      Replaced?  yes     no      DL PID  
                       Bolts secured?  yes     no      Replaced?  yes     no         Vacuum  
                       Surface Seal?  yes     no      Replaced?  yes     no      1400 Sample Collection Time

*Remanded*



# GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: NOA

Well ID: MW-19D2  
 Sample ID: MW-19D2  
 Date: 11/8/13

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC

Casing Diameter: 2 inch 2" = 0.16 gal/lin ft.

Depth to Well Bottom: 70022 feet 3" = 0.37 gal/lin ft.

Depth to Water: 27.71 feet 3Q13:28.50 4" = 0.67 gal/lin ft.

Constructed Screen Interval 60 feet to 70 feet

Approximate Pump Depth 65.5 Feet bgs 65 Feet btoc

Comments: N/A

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
25	1037	25.19	2.607	1.694	3.70	7.58	459.4	Purple, No Color, T 22.9 NTU
5	1042	24.97	2.587	1.681	3.51	7.50	481.8	" , " , T 21.9 NTU
75	1047	24.85	2.586	1.680	3.27	7.51	482.7	" , " , T 18.56 NTU
10	1052	24.83	2.586	1.680	3.30	7.51	485.2	" , " , T 17.96 NTU

Total Water Volume Purged: 1.0 Gallons = N/A Well Volumes

Purged Dry (Y/N): N

Comments: No Water Color - Purple

Well Security: Locking cap?  yes  no     Replaced?  yes  no     11.0 PID  
 Bolts secured?  yes  no     Replaced?  yes  no     Vacuum  
 Surface Seal?  yes  no     Replaced?  yes  no     1055 Sample Collection Time

Permeability 3.0





# GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

1222

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: NLSB

Well ID: MW-19D3  
 Sample ID: MW-19D3  
 Date: 11/8/13

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: 2 inch 2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 102 feet 3" = 0.37 gal/lin ft.  
 Depth to Water: 26.48 feet 4" = 0.67 gal/lin ft.  
 Constructed Screen Interval: 92 feet to 102 feet  
 Approximate Pump Depth: 97.5 Feet bgs 97 Feet btoc

Comments: final DTW

2013 Flows (LF)

DTW	Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
28.97	.75	1305	24.38	1.031	0.670	4.37	7.72	470.6	clear, No Odor, T 12.20 NTU
27.93	.5	1310	24.39	1.033	0.671	4.21	7.64	452.6	" No Odor, T 10.51 NTU
28.02	.75	1315	24.30	1.033	0.671	4.16	7.64	435.5	" " T 10.29 NTU
28.47	1.0	1320	24.27	1.033	0.671	4.13	7.63	423.8	" " T 10.27 NTU
									High Volume (HV)
30.35	2.0	1512	23.68	1.043	0.677	4.73	7.74	490.3	" No Odor, T 36.6 NTU
43.00	5	1528	23.81	1.035	0.673	4.56	7.65	465.8	" " T 29.7 NTU
51.24	8	1531	23.94	1.034	0.673	4.35	7.65	456.7	" " T 27.3 NTU
60.17	12	1537	23.87	1.035	0.673	4.39	7.65	447.8	" " T 25.8 NTU
46.86	20	1652	24.14	1.037	0.674	4.52	7.66	439.7	" " T 28.7 NTU
60.90	26	1657	24.28	1.036	0.674	4.47	7.65	441.8	" " T 36.7 NTU
77.86	30	1702	24.51	1.037	0.675	4.38	7.65	433.1	" " T 23.1 NTU
86.34	33	1707	24.63	1.038	0.675	4.34	7.65	429.7	" " T 24.8 NTU
42.44	36	1712	24.52	1.037	0.675	4.35	7.65	424.3	" " T 22.0 NTU

Total Water Volume Purged: 1.0 Gallons = 0.36 Well Volumes

Purged Dry (Y/N): N  
 Comments: (HV) 26.36 TD 102.0

Well Security: Locking cap?  yes  no Replaced?  yes  no 0.3 PID  
 Bolts secured?  yes  no Replaced?  yes  no - Vacuum  
 Surface Seal?  yes  no Replaced?  yes  no LF 1323 Sample Collection Time

Permanganate 00  
 HV 715 collection time



## GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: DK

Well ID: MW-20  
 Sample ID: MW-20  
 Date: 11/7

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: 2 inch 2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 32.30 feet 3" = 0.37 gal/lin ft.  
 Depth to Water: 27.28 feet 4" = 0.67 gal/lin ft.  
 Constructed Screen Interval: 19 feet to 35 feet  
 Approximate Pump Depth: 30.5 Feet bgs 3.0 Feet btoc

Comments: Replaced Hose 40'

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
0.25	1306	26.42	3.406	2.135	2.90	6.48	257.0	Slightly cloudy, no odor, T 25.4
0.5	1311	26.08	3.383	2.149	2.46	6.14	252.2	" " T 18.4
.75	1316	25.75	3.369	2.152	2.43	6.13	250.0	" " T 35.3
1.0	1321	25.57	3.368	2.152	2.47	6.13	247.5	" " T 21.2
1.25	1326	25.53	3.368	2.152	2.48	6.13	245.8	" " T 21.8

Total Water Volume Purged: 1.25 Gallons = N/A Well Volumes  
 Purged Dry (Y/N): N  
 Comments: \_\_\_\_\_

Well Security: Locking cap?  yes  no Replaced?  yes  no 0.0 PID  
 Bolts secured?  yes  no Replaced?  yes  no   Vacuum  
 Surface Seal?  yes  no Replaced?  yes  no 1230 Sample Collection Time

Permanganate 0.0



## GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: VK

Well ID: MW-20D1  
 Sample ID: MW-20D1  
 Date: 11/7/13

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC

Casing Diameter: 2 inch 2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 45.27 feet 3" = 0.37 gal/lin ft.  
 Depth to Water: 26.60 feet 4" = 0.67 gal/lin ft. 3Q13:27.01  
 Constructed Screen Interval: 25 feet to 45 feet  
 Approximate Pump Depth: 36.5 Feet bgs 36 Feet btoc

Comments: \_\_\_\_\_

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
0.25	1123	24.07	3.313	2.158	4.89	7.24	52.8	Sl. Turbid, No odor T: 73.7
0.5	1128	25.12	3.344	2.168	4.56	7.12	57.2	Sl. Turbid, No odor T: 84.8
.75	1133	25.15	3.348	2.166	4.54	7.10	57.6	Sl. turbid, no odor T: 83.6
1.0	1138	25.16	3.345	2.165	4.52	7.09	57.6	Sl. turbid, No odor T: 83.5
1.25	1142	25.16	3.343	2.163	4.51	7.09	57.4	Sl. turbid, no odor T: 83.3

Total Water Volume Purged: 1.25 Gallons = N/A Well Volumes  
 Purged Dry (Y/N): \_\_\_\_\_  
 Comments: \_\_\_\_\_

Well Security: Locking cap?  yes  no      Replaced?  yes  no       PID  
 Bolts secured?  yes  no      Replaced?  yes  no       Vacuum  
 Surface Seal?  yes  no      Replaced?  yes  no      1147 Sample Collection Time  
 Remaining: 0.0



# GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: NBH

Well ID: MW-20D2  
 Sample ID: MW-20D2  
 Date: 4/7/13

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: 2 inch      2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 65.64 feet      3" = 0.37 gal/lin ft.  
 Depth to Water: 26.92 feet      3Q13:26.90      4" = 0.67 gal/lin ft.  
 Constructed Screen Interval: 55 feet to 65 feet  
 Approximate Pump Depth: 60.5 Feet bgs      60 Feet btoc

Comments: \_\_\_\_\_

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.25	1140	24.99	2.449	1.592	4.76	6.83	78.1	clear, 26.0 deg, T 9.33 NTH
.5	1145	24.81	2.454	1.595	4.28	6.74	73.7	" " " T 9.08 NTH
.75	1150	24.97	2.455	1.596	4.31	6.75	78.5	" " " T 9.12 NTH
1.0	1155	24.88	2.454	1.596	4.29	6.74	75.3	" " " T 9.02 NTH

Total Water Volume Purged: 1.0 Gallons = N/A Well Volumes  
 Purged Dry (Y/N): N  
 Comments: \_\_\_\_\_

Well Security: Locking cap? X yes \_\_\_no      Replaced? \_\_\_yes Xno      5.0 PID  
 Bolts secured? X yes \_\_\_no      Replaced? \_\_\_yes Xno      \_\_\_ Vacuum  
 Surface Seal? X yes \_\_\_no      Replaced? \_\_\_yes Xno      1458 Sample Collection Time

Permanganate 0.0



# GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: NBA

Well ID: MW-20D3  
 Sample ID: MW-20D3  
 Date: 11/7/13

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: 2 inch      2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 100 feet      3" = 0.37 gal/lin ft.  
 Depth to Water: 26.57 feet      3Q13:27.28      4" = 0.67 gal/lin ft.  
 Constructed Screen Interval: 90 feet to 100 feet  
 Approximate Pump Depth: 95.5 Feet bgs      9.5 Feet btoc

Comments: \_\_\_\_\_

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.	
.25	1100	25.25	1.337	0.869	4.56	6.99	92.4	Sl. Turbid, No color, T 1.3	N/A
.5	1105	24.98	1.364	0.887	4.18	6.88	87.7	clear, No color, T 4.7	N/A
.75	1110	24.70	1.265	0.888	4.07	6.87	82.7	" , " T 3.9	N/A
1.0	1115	24.39	1.363	0.887	4.02	6.87	80.5	" , " T 31.9	N/A

Total Water Volume Purged: 1.0 Gallons = N/A Well Volumes  
 Purged Dry (Y/N): N

Comments: \_\_\_\_\_

Well Security: Locking cap?  yes  no      Replaced?  yes  no      0.0 PID  
 Bolts secured?  yes  no      Replaced?  yes  no        Vacuum  
 Surface Seal?  yes  no      Replaced?  yes  no      1115 Sample Collection Time

*Permanganate 0.0*



# GROUNDWATER COLLECTION LOG

1312

CARDNO ATC  
7115 AMIGO STREET, SUITE 100  
LAS VEGAS, NEVADA 89119  
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
Project Number: 085.42620.0001  
Sampler's Name: NBA

Well ID: MW-23  
Sample ID: MW-23  
Date: 11/12/13

Purging Equipment: Low Flow Bladder Pump  
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
Casing Diameter: 4 inch 2" = 0.16 gal/lin ft.  
Depth to Well Bottom: 25.29 feet 3" = 0.37 gal/lin ft.  
Depth to Water: 17.57 feet 4" = 0.67 gal/lin ft.  
Constructed Screen Interval: 5 feet to 26 feet  
Approximate Pump Depth: 22.0 Feet bgs 21.5 Feet btoc

Comments: NA

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.25	1319	24.50	3.660	2.378	2.40	6.88	157.8	clear, No Odor, T 5.17 NTU
.5	1324	24.33	3.658	2.378	2.00	6.73	153.5	" " T 5.66 NTU
.75	1329	24.26	3.659	2.378	2.17	6.70	153.7	" " T 5.28 NTU
1.0	1334	24.24	3.659	2.379	2.10	6.70	149.5	" " T 4.82 NTU
1.25	1339	24.30	3.659	2.379	2.09	6.70	150.3	" " T 5.27 NTU
1.5	1344	24.32	3.658	2.379	2.13	6.69	153.4	" " T 5.73 NTU

Total Water Volume Purged: 1.5 Gallons = N/A Well Volumes  
Purged Dry (Y/N): N  
Comments: change with 20' of H<sub>2</sub>O

Well Security: Locking cap?  yes  no Replaced?  yes  no 2.19 PID  
Bolts secured?  yes  no Replaced?  yes  no   Vacuum  
Surface Seal?  yes  no Replaced?  yes  no 1997 Sample Collection Time



# GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: N/A

Well ID: MW-25  
 Sample ID: MW-25  
 Date: 12/21/05

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: 7 inch      2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 25.97 feet      3" = 0.37 gal/lin ft.  
 Depth to Water: 20.87 feet      4" = 0.67 gal/lin ft.  
 Constructed Screen Interval: 5 feet to 26 feet  
 Approximate Pump Depth: 24 Feet bgs      23.5 Feet btoc

Comments: N/A

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.	
.25	1058	24.56	3.893	2.531	1.78	6.70	113.4	Clear, No color, T 8.57	NTU
.5	1103	24.29	3.897	2.533	1.54	6.23	121.0	" " T 8.57	NTU
.75	1108	24.25	3.897	2.534	1.46	6.23	119.4	" " T 7.12	NTU
1.0	1113	24.40	3.896	2.533	1.43	6.22	114.0	" " T 5.99	NTU
1.25	1118	24.33	3.896	2.533	1.41	6.22	113.4	" " T 6.10	NTU
1.5	1123	24.38	3.896	2.533	1.37	6.23	113.9	" " T 6.47	NTU

Total Water Volume Purged: 1.5 Gallons = N/A Well Volumes  
 Purged Dry (Y/N): N  
 Comments: \_\_\_\_\_

Well Security: Locking cap?  yes  no      Replaced?  yes  no      1.5 PID  
 Bolts secured?  yes  no      Replaced?  yes  no        Vacuum  
 Surface Seal?  yes  no      Replaced?  yes  no      1126 Sample Collection Time



## GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: NB, JT

Well ID: MW-26  
 Sample ID: MW-26  
 Date: 1/12/13

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: 4 inch      2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 35.31 feet      3" = 0.37 gal/lin ft.  
 Depth to Water: 19.02 feet      4" = 0.67 gal/lin ft.  
 Constructed Screen Interval: 10 feet to 36 feet  
 Approximate Pump Depth: 27.5 Feet bgs      27.0 Feet btoc

Comments: N/A

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.	
.25	1236	24.16	4.003	2.602	3.14	6.34	138.7	Clear, No Odor, T 5.18	N/A
.5	1241	24.55	4.005	2.605	2.68	6.43	134.8	" " " T 8.31	N/A
.75	1246	24.70	4.010	2.605	2.47	6.45	139.7	" " " T 7.41	N/A
1.0	1251	24.66	4.010	2.605	2.48	6.37	134.2	" " " T 8.17	N/A
1.25	1256	24.53	4.009	2.604	2.46	6.37	134.6	" " " T 7.59	N/A
1.5	1301	24.59	4.010	2.604	2.40	6.36	137.5	" " " T 7.01	N/A

Total Water Volume Purged: 1.5 Gallons = N/A Well Volumes  
 Purged Dry (Y/N): N  
 Comments: changed hose w/ 40' of hose

Well Security: Locking cap? Y yes   no      Replaced?   yes X no      14.5 PID  
 Bolts secured? Y yes   no      Replaced?   yes   no        Vacuum  
 Surface Seal? Y yes   no      Replaced?   yes   no      1304 Sample Collection Time





# GROUNDWATER COLLECTION LOG

456

CARDNO ATC  
7115 AMIGO STREET, SUITE 100  
LAS VEGAS, NEVADA 89119  
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
Project Number: 085.42620.0001  
Sampler's Name: N/A

Well ID: MW-27  
Sample ID: MW-27  
Date: 11/12/13

Purging Equipment: Low Flow Bladder Pump  
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
Casing Diameter: 4 inch      2" = 0.16 gal/lin ft.  
Depth to Well Bottom: 35.24 feet      3" = 0.37 gal/lin ft.  
Depth to Water: 17.49 feet      3Q13:19.67      4" = 0.67 gal/lin ft.  
Constructed Screen Interval: 10 feet to 36 feet  
Approximate Pump Depth: 26.5 Feet bgs      26 Feet btoc

Comments: N/A

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.25	1010	24.01	4.069	2.607	2.63	7.71	124.5	Clear, No Odor, T 9.63
.5	1015	24.35	4.021	2.614	1.84	7.32	128.0	" " T 12.76
.75	1020	24.12	4.024	2.617	1.83	7.19	117.9	" " T 9.77
1.0	1025	24.28	4.024	2.617	1.76	7.19	123.0	" " T 8.81
1.25	1030	24.29	4.023	2.617	1.78	7.18	120.0	" " T 7.13
1.5	1035	24.27	4.023	2.616	1.74	7.18	119.7	" " T 7.19

Total Water Volume Purged: 1.5 Gallons = N/A Well Volumes  
Purged Dry (Y/N): N  
Comments: change with 45' of hose

Well Security: Locking cap?  yes  no      Replaced?  yes  no      11.6 PID  
Bolts secured?  yes  no      Replaced?  yes  no        Vacuum  
Surface Seal?  yes  no      Replaced?  yes  no      10:38 Sample Collection Time



# GROUNDWATER COLLECTION LOG

CARDNO ATC

7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: N/A

Well ID: MW-30  
 Sample ID: MW-30  
 Date: 7/11/13

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: 4 inch 2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 39.68 feet 3" = 0.37 gal/lin ft.  
 Depth to Water: 19.89 feet 4" = 0.67 gal/lin ft.  
 Constructed Screen Interval: 20 feet to 41 feet  
 Approximate Pump Depth: 13.05 Feet bgs 30 Feet btoc

Comments: N/A

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
0.25	1240	22.46	3.304	2.149	3.72	6.67	147.3	clear, No Odor, T 8.13
0.5	1245	22.06	2.302	2.146	3.11	6.59	142.6	" " T 8.29
0.75	1250	21.99	2.301	2.146	3.09	6.58	146.0	" " T 8.66
1.0	1255	21.99	2.299	2.145	3.29	6.58	144.5	" " T 8.40
1.25	1300	22.05	2.298	2.145	3.28	6.58	142.3	" " T 7.90
1.5	1305	22.07	3.299	2.145	3.29	6.58	141.0	" " T 7.57

Total Water Volume Purged: 1.5 Gallons = N/A Well Volumes  
 Purged Dry (Y/N): N  
 Comments: N/A

Well Security: Locking cap?  yes  no Replaced?  yes  no 0.0 PID  
 Bolts secured?  yes  no Replaced?  yes  no  Vacuum  
 Surface Seal?  yes  no Replaced?  yes  no 1308 Sample Collection Time



# GROUNDWATER COLLECTION LOG

CARDNO ATC  
7115 AMIGO STREET, SUITE 100  
LAS VEGAS, NEVADA 89119  
(702) 990-9300 (702) 990-9305 fax

1129

Project Name: Maryland Square  
Project Number: 085.42620.0001  
Sampler's Name: NBA

Well ID: MW-31  
Sample ID: MW-31  
Date: 11/11/13

Purging Equipment: Low Flow Bladder Pump  
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC

Casing Diameter: 4 inch      2" = 0.16 gal/lin ft.  
Depth to Well Bottom: 33.55 feet      3" = 0.37 gal/lin ft.  
Depth to Water: 18.55 feet      4" = 0.67 gal/lin ft.  
Constructed Screen Interval: 13.5 feet to 33.6 feet  
Approximate Pump Depth: 26.3 Feet bgs      26.0 Feet btoc

Comments: Bottom soft when taking TD

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
0.25	1140	25.21	4.223	2.745	3.13	6.24	226.3	Slight turbid, No odor, T 217 N/A
.5	1145	25.14	4.225	2.748	2.53	6.39	203.5	" " T 86 N/A
.75	1150	24.89	4.231	2.751	2.51	6.38	211.3	" " T 34.3 N/A
1.0	1155	24.36	4.229	2.749	2.48	6.38	208.4	" " T 17.78 N/A
1.25	1200	24.36	4.229	2.749	2.43	6.38	194.6	" " T 13.92 N/A
1.5	1205	24.30	4.228	2.749	2.41	6.38	191.5	" " T 12.72 N/A

Total Water Volume Purged: 1.5 Gallons = N/A Well Volumes  
Purged Dry (Y/N): N  
Comments: N/A

Well Security: Locking cap?  yes  no      Replaced?  yes  no      0.3 PID  
Bolts secured?  yes  no      Replaced?  yes  no         Vacuum  
Surface Seal?  yes  no      Replaced?  yes  no      1208 Sample Collection Time



# GROUNDWATER COLLECTION LOG

1136

CARDNO ATC  
7115 AMIGO STREET, SUITE 100  
LAS VEGAS, NEVADA 89119  
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
Project Number: 085.42620.0001  
Sampler's Name: W.B.A.

Well ID: MW-32  
Sample ID: MW-32  
Date: 11/12/13

Purging Equipment: Low Flow Bladder Pump  
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
Casing Diameter: 4 inch 2" = 0.16 gal/lin ft.  
Depth to Well Bottom: 33.73 feet 3" = 0.37 gal/lin ft.  
Depth to Water: 20.68 feet 4" = 0.67 gal/lin ft. 1Q13:18.43  
Constructed Screen Interval: 13.5 feet to 33.7 feet  
Approximate Pump Depth: 27.5 Feet bgs 27 Feet btoc

Comments: NA

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.	
.25	1145	24.69	3.796	2.467	2.15	6.65	178.2	clear, no odor, T 28.3	NTM
.5	1150	24.45	3.791	2.437	2.56	6.61	124.1	" " T 11.93	NTM
.75	1155	24.48	3.719	2.419	2.43	6.57	123.8	" " T 12.10	NTM
1.0	1200	24.44	3.718	2.419	2.52	6.57	124.8	" " T 10.16	NTM
1.25	1205	24.49	3.718	2.418	2.50	6.56	126.3	" " T 8.31	NTM
1.5	1210	24.57	3.717	2.418	2.46	6.57	123.5	" " T	

Total Water Volume Purged: 1.5 Gallons = N/A Well Volumes

Purged Dry (Y/N): N

Comments: changed hose w/40' of hose

Well Security: Locking cap? Y yes \_\_\_ no Replaced? \_\_\_ yes N no 3.8 PID  
 Bolts secured? Y yes \_\_\_ no Replaced? \_\_\_ yes Y no \_\_\_ Vacuum  
 Surface Seal? Y yes \_\_\_ no Replaced? \_\_\_ yes Y no 12:13 Sample Collection Time



# GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: NBA

Well ID: MW-33  
 Sample ID: MW-33  
 Date: 1/18/13

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: 4 inch      2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 33.52 feet      3" = 0.37 gal/lin ft.  
 Depth to Water: 19.40 feet      4" = 0.67 gal/lin ft.  
 Constructed Screen Interval: 13.5 feet to 33.8 feet  
 Approximate Pump Depth: 27 Feet bgs      26.5 Feet btoc

Comments: N/A

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.25	820	21.23	3.998	2.599	3.47	7.12	131.6	Clear, No Odor, T 9.49 WTH
.5	825	21.55	4.008	2.605	1.45	7.02	142.8	" " " T 6.55 WTH
.75	830	21.50	4.010	2.607	1.33	6.95	139.6	" " " T 7.29 WTH
1.0	835	21.54	4.010	2.607	1.34	6.94	140.8	" " " T 7.76 WTH
1.25	840	21.73	4.011	2.608	1.37	6.94	146.3	" " " T 7.63 WTH
1.5	845	21.58	4.010	2.608	1.36	6.94	146.3	" " " T 7.59 WTH

Total Water Volume Purged: 1.5 Gallons = N/A Well Volumes  
 Purged Dry (Y/N): N  
 Comments: N/A

Well Security: Locking cap?  yes  no      Replaced?  yes  no      0.0 PID  
 Bolts secured?  yes  no      Replaced?  yes  no      - Vacuum  
 Surface Seal?  yes  no      Replaced?  yes  no      348 Sample Collection Time



# GROUNDWATER COLLECTION LOG

CARDNO ATC  
7115 AMIGO STREET, SUITE 100  
LAS VEGAS, NEVADA 89119  
(702) 990-9300 (702) 990-9305 fax

1500

Project Name: Maryland Square  
Project Number: 085.42620.0001  
Sampler's Name: DK

Well ID: MW-34  
Sample ID: MW-34  
Date: 11/4

Purging Equipment: Low Flow Bladder Pump  
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC

Casing Diameter: 2 inch 2" = 0.16 gal/lin ft.  
Depth to Well Bottom: 29.07 feet 3" = 0.37 gal/lin ft.  
Depth to Water: 19.14 feet 3Q13:19.36 4" = 0.67 gal/lin ft.  
Constructed Screen Interval: 10 feet to 30 feet  
Approximate Pump Depth: 24.5 Feet bgs 24 Feet btoc

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
0.25	1507	23.12	3.347	2.289	0.78	6.17	187.5	clear, NO odor T: 57.3
0.50	1512	23.54	3.434	2.295	0.83	6.14	184.3	clear, NO odor T: 39
0.75	1517	23.55	3.435	2.296	0.84	6.13	184.5	clear, NO odor
1.0	1522	23.56	3.435	2.296	0.85	6.13	184.2	T: 20

Total Water Volume Purged: 1.0 Gallons = N/A Well Volumes  
Purged Dry (Y/N): \_\_\_\_\_  
Comments: \_\_\_\_\_

Well Security: Locking cap?  yes  no      Replaced?  yes  no      135 PID  
Bolts secured?  yes  no      Replaced?  yes  no      N/A Vacuum  
Surface Seal?  yes  no      Replaced?  yes  no      1527 Sample Collection Time



# GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

1418

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: DK

Well ID: MW-35  
 Sample ID: MW-35  
 Date: 11/4

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: 2 inch 2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 27.87 feet 3" = 0.37 gal/lin ft.  
 Depth to Water: 19.43 feet 4" = 0.67 gal/lin ft. 3Q13:20.21  
 Constructed Screen Interval: 10 feet to 30 feet  
 Approximate Pump Depth: 24.5 Feet bgs 24 Feet btoc

Comments:

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
0.25	1425	22.46	3.109	2.107	2.00	6.27	187.0	Sl. turbid, no odor
0.50	1430	23.47	3.253	2.177	1.79	6.19	185.8	Sl. turbid, no odor
0.75	1435	23.46	3.258	2.187	1.76	6.18	185.6	Sl. turbid, no odor <sup>1.87.3</sup>
1.0	1440	23.46	3.256	2.184	1.74	6.14	185.7	Clean no odor T: 68.8
1.25	1445	23.47	3.253	2.178	1.75	6.14	184.3	Clean no odor <sup>45.8</sup>

Total Water Volume Purged: 1.25 Gallons = N/A Well Volumes  
 Purged Dry (Y/N): N

Comments:

Well Security: Locking cap?  yes  no Replaced?  yes  no 5-3 PID  
 Bolts secured?  yes  no Replaced?  yes  no N/A Vacuum  
 Surface Seal?  yes  no Replaced?  yes  no 1448 Sample Collection Time



# GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

910

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: NBA

Well ID: MW-36  
 Sample ID: MW-36  
 Date: 11/17/13

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: 4 inch 2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 37.86 feet 3" = 0.37 gal/lin ft.  
 Depth to Water: 21.22 feet 4" = 0.67 gal/lin ft. 3Q13:21.48  
 Constructed Screen Interval: 17 feet to 38 feet  
 Approximate Pump Depth: 30 Feet bgs 29.5 Feet btoc

Comments: N/A

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.	
.25	925	22.41	3.863	2.511	3.25	7.49	143.2	Clear, No Pb <sub>2</sub> , T13.95	N/A
.5	930	23.34	3.853	2.506	2.06	7.49	137.3	" " T12.68	N/A
.75	935	23.89	3.850	2.504	2.00	7.43	135.9	" " T12.82	N/A
1.0	940	23.82	3.851	2.504	1.90	7.42	133.8	" " T9.35	N/A
1.25	945	23.48	3.850	2.503	1.89	7.42	128.8	" " T9.56	N/A
1.5	950	23.32	3.850	2.503	1.91	7.42	125.6	" " T9.35	N/A

Total Water Volume Purged: 1.5 Gallons = N/A Well Volumes  
 Purged Dry (Y/N): N  
 Comments: Changed Hose 45'

Well Security: Locking cap?  yes  no Replaced?  yes  no 0.2 PID  
 Bolts secured?  yes  no Replaced?  yes  no   Vacuum  
 Surface Seal?  yes  no Replaced?  yes  no 9.53 Sample Collection Time





# GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: NBA

Well ID: MW-37  
 Sample ID: MW-37  
 Date: 11/11/13

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: 4 inch      2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 37.03 feet      3" = 0.37 gal/lin ft.  
 Depth to Water: 19.79 feet      4" = 0.67 gal/lin ft.  
 Constructed Screen Interval: 17 feet to 38 feet  
 Approximate Pump Depth: 29.0 Feet bgs      28.5 Feet bloc

Comments: \_\_\_\_\_

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
0.25	1046	21.51	4.024	2.617	4.59	6.64	354.6	clear, No Odor, T 7.93 NTU
0.5	1051	21.54	4.029	2.619	4.29	6.47	349.5	" , " , T 7.10 NTU
0.75	1056	21.50	4.027	2.618	4.23	6.46	340.6	" , " , T 7.04 NTU
1.0	1101	21.62	4.025	2.616	4.21	6.47	335.7	" , " , T 7.10 NTU
1.25	1106	21.74	4.024	2.617	4.20	6.47	336.4	" , " , T 7.20 NTU
1.5	1111	21.71	4.024	2.617	4.23	6.46	334.8	" , " , T 7.20 NTU

Total Water Volume Purged: 1.5 Gallons = N/A Well Volumes  
 Purged Dry (Y/N): N  
 Comments: N/A

Well Security: Locking cap?  yes  no      Replaced?  yes  no      0.0 PID  
 Bolts secured?  yes  no      Replaced?  yes  no      - Vacuum  
 Surface Seal?  yes  no      Replaced?  yes  no      1114 Sample Collection Time



# GROUNDWATER COLLECTION LOG

751

CARDNO ATC  
7115 AMIGO STREET, SUITE 100  
LAS VEGAS, NEVADA 89119  
(702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
Project Number: 085.42620.0001  
Sampler's Name: UEA

Well ID: MW-38  
Sample ID: MW-38  
Date: 11/11/13

Purging Equipment: Low Flow Bladder Pump  
Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
Casing Diameter: 2 inch 2" = 0.16 gal/lin ft.  
Depth to Well Bottom: 34.93 feet 3" = 0.37 gal/lin ft.  
Depth to Water: 14.97 feet 4" = 0.67 gal/lin ft. 3Q13:14.75  
Constructed Screen Interval: 15 feet to 36 feet  
Approximate Pump Depth: 25.5 Feet bgs 25 Feet btoc

Comments: Bottom soft won't take TD

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.	
<u>0.25</u>	<u>1000</u>	<u>21.83</u>	<u>4.226</u>	<u>2.747</u>	<u>3.86</u>	<u>6.69</u>	<u>378.0</u>	<u>clear, No Odor, T 21.7</u>	<u>N/A</u>
<u>0.5</u>	<u>1005</u>	<u>22.15</u>	<u>4.223</u>	<u>2.745</u>	<u>3.33</u>	<u>6.46</u>	<u>361.4</u>	<u>" , " , T 35.1</u>	<u>N/A</u>
<u>0.75</u>	<u>1010</u>	<u>22.21</u>	<u>4.225</u>	<u>2.746</u>	<u>3.38</u>	<u>6.48</u>	<u>358.0</u>	<u>" , " , T 26.4</u>	<u>N/A</u>
<u>1.0</u>	<u>1015</u>	<u>22.17</u>	<u>4.224</u>	<u>2.745</u>	<u>3.33</u>	<u>6.48</u>	<u>357.5</u>	<u>" , " , T 21.6</u>	<u>N/A</u>
<u>1.25</u>	<u>1020</u>	<u>22.33</u>	<u>4.224</u>	<u>2.746</u>	<u>3.34</u>	<u>6.48</u>	<u>356.2</u>	<u>" , " , T 19.14</u>	<u>N/A</u>

Total Water Volume Purged: 1.25 Gallons = N/A Well Volumes  
Purged Dry (Y/N): N  
Comments: N/A

Well Security: Locking cap?  yes  no Replaced?  yes  no 0.0 PID  
Bolts secured?  yes  no Replaced?  yes  no - Vacuum  
Surface Seal?  yes  no Replaced?  yes  no 1023 Sample Collection Time



## GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

VZ59

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: NBA

Well ID: MW-39  
 Sample ID: MW-39  
 Date: 11/1/13

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC

Casing Diameter: 2 inch 2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 37.95 feet 3" = 0.37 gal/lin ft.  
 Depth to Water: 26.01 feet 4" = 0.67 gal/lin ft.  
 Constructed Screen Interval: 15 feet to 36 feet  
 Approximate Pump Depth: 22.5 Feet bgs 32 Feet btoc

Comments: N/A

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.	
.25	1341	26.94	3.886	2.526	2.47	6.81	154.3	Sl. Turbid, No color, T131	NTU
.5	1346	26.94	3.880	2.522	1.55	6.73	155.3	Sl. Turbid, " T196	NTU
.75	1351	26.47	3.880	2.522	1.50	6.72	157.6	" " T140	NTU
1.0	1356	26.52	3.879	2.522	1.44	6.72	157.1	" " T139	NTU
1.25	1401	26.36	3.879	2.521	1.39	6.72	156.8	" " T133	NTU

Total Water Volume Purged: 1.25 Gallons = N/A Well Volumes  
 Purged Dry (Y/N): N  
 Comments: N/A

Well Security: Locking cap?  yes  no Replaced?  yes  no On S PID  
 Bolts secured?  yes  no Replaced?  yes  no   Vacuum  
 Surface Seal?  yes  no Replaced?  yes  no H04 Sample Collection Time



# GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: DK / PJD

Well ID: MW-40 CMT 30  
 Sample ID: MW-40 CMT 30  
 Date: 11-6-13 9:30A

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: \_\_\_\_\_ inch      2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 29.73 feet      3" = 0.37 gal/lin ft.  
 Depth to Water: 26.35 feet      3Q13:26.71      4" = 0.67 gal/lin ft.  
 Constructed Screen Interval: 30 feet to 30.6 feet  
 Approximate Pump Depth: \_\_\_\_\_ Feet bgs      30.25 Feet btoc

Comments: \_\_\_\_\_

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
—	940	20.26	2.989	1.944	3.60	7.60	91.3	Sl. turbid, No odor
—	950	20.25	2.990	1.947	2.98	7.61	91.2	Sl. turbid, No odor T.4.76
—	1000	20.27	2.990	1.946	2.97	7.61	91.0	Clear, No odor
—	1010	20.27	2.988	1.945	2.96	7.60	91.1	Clear, No odor T.9.63
—	1020	20.28	2.988	1.946	2.97	7.61	90.9	Clear, No odor T.9.60

Total Water Volume Purged: 1 <sup>Liter A.K</sup> Gallons = \_\_\_\_\_ N/A Well Volumes  
 Purged Dry (Y/N): N  
 Comments: \_\_\_\_\_

Well Security:      Locking cap? X yes \_\_\_\_\_no      Replaced? \_\_\_\_\_yes X no      1.1 PID  
                          Bolts secured? X yes \_\_\_\_\_no      Replaced? \_\_\_\_\_yes X no      n/a Vacuum  
                          Surface Seal? X yes \_\_\_\_\_no      Replaced? \_\_\_\_\_yes X no      10/30 Sample Collection Time  
                          Permanganate 0.0



# GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: DK. PJD

Well ID: MW-40 CMT 35  
 Sample ID: MW-40 CMT 35  
 Date: 11-6-13

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: \_\_\_\_\_ inch      2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 34.97 feet      3" = 0.37 gal/lin ft.  
 Depth to Water: 26.20 feet      4" = 0.67 gal/lin ft.  
 Constructed Screen Interval: \_\_\_\_\_ 35 feet to \_\_\_\_\_ 35.6 feet  
 Approximate Pump Depth: \_\_\_\_\_ Feet bgs      \_\_\_\_\_ Feet btoc

Comments: \_\_\_\_\_

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
-	1047	23.23	2.366	1.542	2.11	6.51	98.7	Clear, no odor T.1044
-	1052	23.24	2.367	1.605	1.70	6.44	98.5	Clear, no odor
-	1057	23.24	2.366	1.607	1.68	6.47	98.4	Clear, no odor T.6.83
-	1102	23.26	2.366	1.604	1.69	6.48	98.2	Clear, no odor
-	1107	23.26	2.367	1.611	1.67	6.50	98.3	Clear, no odor T.432

Total Water Volume Purged: 1 <sup>2 Her ml</sup> Gallons = \_\_\_\_\_ N/A Well Volumes  
 Purged Dry (Y/N): N  
 Comments: \_\_\_\_\_

Well Security: Locking cap?  yes  no      Replaced?  yes  no      1.1 PID  
 Bolts secured?  yes  no      Replaced?  yes  no      N/A Vacuum  
 Surface Seal?  yes  no      Replaced?  yes  no      1100 Sample Collection Time  
 Permission: 0.0



# GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: DK-POS

Well ID: MW-40 CMT 40  
 Sample ID: MW-40 CMT 40  
 Date: 11-6-13

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: \_\_\_\_\_ inch 2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 39.45 feet 3" = 0.37 gal/lin ft.  
 Depth to Water: 26.19 feet 4" = 0.67 gal/lin ft.  
 Constructed Screen Interval: 40 feet to 40.6 feet  
 Approximate Pump Depth: \_\_\_\_\_ Feet bgs 40.25 Feet btoc

Comments: \_\_\_\_\_

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
	1250	25.59	2.330	1.497	3.62	6.44	37.5	Sl. turbid, No odor T: 247
	1255	26.07	2.354	1.499	3.51	6.39	37.6	Sl. turbid, No odor
	1300	26.87	2.347	1.503	3.53	6.36	38.1	Sl. turbid, No odor T: 244
	1305	26.74	2.344	1.505	3.56	6.39	38.3	Sl. turbid, no odor T: 236
	1310	26.72	2.348	1.506	3.54	6.39	38.4	Sl. turbid, no odor T: 238

Total Water Volume Purged: \_\_\_\_\_ <sup>Liter</sup> Gallons = \_\_\_\_\_ N/A Well Volumes  
 Purged Dry (Y/N): Y  
 Comments: Turbidity stabilized within 10% over 3 readings.

Well Security: Locking cap?  yes  no Replaced?  yes  no 0.9 PID  
 Bolts secured?  yes  no Replaced?  yes  no N/A Vacuum  
 Surface Seal?  yes  no Replaced?  yes  no 1320 Sample Collection Time  
 Permeability: 0.6



## GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: DK/PSB

Well ID: MW-40 CMT 45  
 Sample ID: MW-40 CMT 45  
 Date: 11.6.13

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: \_\_\_\_\_ inch      2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 44.91 feet      3" = 0.37 gal/lin ft.  
 Depth to Water: 26.16 feet      3Q13:26.66      4" = 0.67 gal/lin ft.  
 Constructed Screen Interval: \_\_\_\_\_ 45 feet to \_\_\_\_\_ 45.6 feet  
 Approximate Pump Depth: \_\_\_\_\_ Feet bgs      45.25 Feet btoc

Comments: \_\_\_\_\_

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
	1424	26.38	2.588	1.638	3.15	6.39	77.6	St. turbidity, no odor T: 18.00
	1429	26.53	2.581	1.630	3.05	6.24	82.0	clear, no odor
	1434	26.54	2.582	1.630	3.04	6.25	82.2	clear, no odor T: 7.31
	1439	26.58	2.583	1.630	3.02	6.23	82.3	clear, no odor
	1444	26.60	2.581	1.633	→	6.26	82.1	clear, no odor T: 5.02

Total Water Volume Purged: 1 Gallons = 1 liter + 1.1 Well Volumes: N/A

Purged Dry (Y/N): N

Comments: \_\_\_\_\_

Well Security: Locking cap?  yes  no      Replaced?  yes  no      LO PID  
 Bolts secured?  yes  no      Replaced?  yes  no      N/A Vacuum  
 Surface Seal?  yes  no      Replaced?  yes  no      1450 Sample Collection Time



## GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: DK - Pops

Well ID: MW-40 CMT 50  
 Sample ID: MW-40 CMT 50  
 Date: 11-6-13

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: \_\_\_\_\_ inch 2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 49.85 feet 3" = 0.37 gal/lin ft.  
 Depth to Water: 26.15 feet 3Q13:26.63 4" = 0.67 gal/lin ft.  
 Constructed Screen Interval: \_\_\_\_\_ 50 feet to \_\_\_\_\_ 50.6 feet  
 Approximate Pump Depth: \_\_\_\_\_ Feet bgs 50.25 Feet btoc

Comments: \_\_\_\_\_

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
-	1205	27.18	2.335	1.457	1.62	6.57	23.6	clear, no odor T: 23.6
-	1210	25.73	2.443	1.566	1.55	6.56	23.5	clear, no odor
-	1215	25.77	2.472	1.569	1.53	6.53	26.4	clear, no odor T: 12.86
-	1220	25.73	2.476	1.571	1.54	6.52	28.3	clear, no odor
-	1225	25.67	2.474	1.572	1.53	6.53	28.6	clear, no odor

Total Water Volume Purged: 1 <sup>liter Air</sup> Gallons = \_\_\_\_\_ Well Volumes N/A

Purged Dry (Y/N): \_\_\_\_\_  
 Comments: \_\_\_\_\_

Well Security: Locking cap?  yes  no      Replaced?  yes  no  
 Bolts secured?  yes  no      Replaced?  yes  no  
 Surface Seal?  yes  no      Replaced?  yes  no

1/3 PID  
N/A Vacuum  
1230 Sample Collection Time  
 Penning: 0-0





## GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: DK-Pop

Well ID: MW-40 CMT 55  
 Sample ID: MW-40 CMT 55  
 Date: 11.6.13

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: \_\_\_\_\_ inch 2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 54.79 feet 3" = 0.37 gal/lin ft.  
 Depth to Water: 26.15 feet 4" = 0.67 gal/lin ft. 3Q13:26.61  
 Constructed Screen Interval: 55 feet to 55.6 feet  
 Approximate Pump Depth: \_\_\_\_\_ Feet bgs 53.25 Feet btoc

Comments: \_\_\_\_\_

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
—	1331	27.12	2.240	1.399	3.14	6.36	35.8	slightly, no odor T: 28.9
—	1336	26.94	2.337	1.402	3.12	6.22	37.3	sl. sltly, no odor
—	1341	26.93	2.334	1.400	3.10	6.19	37.6	clear, no odor T: 24.3
—	1346	26.87	2.333	1.404	3.08	6.22	37.6	clear, no odor
—	1351	26.89	2.335	1.406	3.11	6.23	37.8	clear, no odor T: 17.23

Total Water Volume Purged: 1 Gallons = 1.14 N/A Well Volumes  
 Purged Dry (Y/N): \_\_\_\_\_  
 Comments: \_\_\_\_\_

Well Security: Locking cap?  yes  no      Replaced?  yes  no  
 Bolts secured?  yes  no      Replaced?  yes  no  
 Surface Seal?  yes  no      Replaced?  yes  no

1.4 PID  
 \_\_\_\_\_ Vacuum  
1400 Sample Collection Time  
 Permanganate: 0.0



## GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: DK PD

Well ID: MW-40 CMT 60  
 Sample ID: MW-40 CMT 60  
 Date: 11.6.13

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: \_\_\_\_\_ inch      2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 59.82 feet      3" = 0.37 gal/lin ft.  
 Depth to Water: 26.16 feet      4" = 0.67 gal/lin ft.      3Q13:26.62  
 Constructed Screen Interval: 60 feet to 60.6 feet  
 Approximate Pump Depth: \_\_\_\_\_ Feet bgs      \_\_\_\_\_ Feet btoc

Comments: \_\_\_\_\_

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
—	1105	21.96	0.980	0.676	2.10	6.01	-92.4	Turbid, no odor T-701
—	1110	22.14	0.997	0.663	1.69	5.87	-78.1	Turbid, no odor
—	1115	22.17	0.999	0.659	1.67	5.86	-78.4	Turbid, no odor T-638
—	1120	22.20	1.007	0.655	1.64	5.87	-78.3	Turbid, no odor
—	1125	22.19	1.003	0.654	1.66	5.88	-78.5	Turbid, no odor T-626
—	1130	22.22	1.005	0.653	1.65	5.89	-78.4	Turbid, no odor T-619

Total Water Volume Purged: 1 <sup>liter</sup> Gallons = \_\_\_\_\_ Well Volumes: N/A

Purged Dry (Y/N): \_\_\_\_\_  
 Comments: Very Turbidity was stable w/ 10' w/ 20 min

Well Security: Locking cap?  yes \_\_\_ no      Replaced? \_\_\_ yes \_\_\_ no      16 PID  
 Bolts secured?  yes \_\_\_ no      Replaced? \_\_\_ yes \_\_\_ no      \_\_\_\_\_ Vacuum  
 Surface Seal?  yes \_\_\_ no      Replaced? \_\_\_ yes \_\_\_ no      \_\_\_\_\_ Sample Collection Time



# GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: N/A

Well ID: MW-41  
 Sample ID: MW-41  
 Date: 11/11/13

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: 2 inch 2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 35.27 feet 3" = 0.37 gal/lin ft.  
 Depth to Water: 15.05 feet 4" = 0.67 gal/lin ft. 3Q13:14.81  
 Constructed Screen Interval: 10 feet to 35 feet  
 Approximate Pump Depth: 25.5 Feet bgs 25 Feet btoc

Comments: N/A

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.25	910 21.55	<del>21.55</del> 21.55	<del>3.867</del> 3.867	2.158	2.30	6.65	357.6	sl. Turbid, No Odor, T 213 NTH
.5	915	21.71	3.868	2.157	1.23	6.66	355.5	" " T 207 NTH
.75	920	21.53	3.867	2.157	1.13	6.66	356.5	" " T 220 NTH
1.0	925	21.27	3.867	2.157	1.13	6.65	358.3	" " T 222 NTH
1.25	930	21.52	3.867	2.156	1.12	6.65	360.3	" " T 242 NTH
1.5	935	21.40	3.867	2.156	1.12	6.65	360.0	" " T 239 NTH

Total Water Volume Purged: 1.50 Gallons = N/A Well Volumes  
 Purged Dry (Y/N): N/A  
 Comments: N/A

Well Security: Locking cap?  yes  no      Replaced?  yes  no      0.0 PID  
 Bolts secured?  yes  no      Replaced?  yes  no         Vacuum  
 Surface Seal?  yes  no      Replaced?  yes  no      938 Sample Collection Time



# GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

412

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: NBA

Well ID: MW-42  
 Sample ID: MW-42  
 Date: 11/11/13

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: 2 inch      2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 35.23 feet      3" = 0.37 gal/lin ft.  
 Depth to Water: 16.32 feet      3Q13:16.16      4" = 0.67 gal/lin ft.  
 Constructed Screen Interval: 10 feet to 35 feet  
 Approximate Pump Depth: 26.5 Feet bgs      26.0 Feet btoc

Comments: N/A

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.25	823	20.36	4.272	2.776	2.77	6.95	352.0	siltiness, No odor, T=19.9 NTA
.5	828	21.03	4.292	2.790	2.55	6.99	337.5	S. Turbidity, " T=14.1 NTA
.75	833	21.35	4.293	2.791	2.20	6.98	331.4	clear, " T=47.5 NTA
1.0	838	21.57	4.292	2.790	2.27	6.98	330.6	" " T=31.3 NTA
1.25	843	21.81	4.292	2.790	2.13	6.98	326.4	" " T=29.4 NTA

Total Water Volume Purged: 1.25 Gallons = N/A Well Volumes  
 Purged Dry (Y/N): N  
 Comments: N/A

Well Security: Locking cap?  yes  no      Replaced?  yes  no      0.0 PID  
 Bolts secured?  yes  no      Replaced?  yes  no        Vacuum  
 Surface Seal?  yes  no      Replaced?  yes  no      846 Sample Collection Time



# GROUNDWATER COLLECTION LOG

CARDNO ATC  
 7115 AMIGO STREET, SUITE 100  
 LAS VEGAS, NEVADA 89119  
 (702) 990-9300 (702) 990-9305 fax

Project Name: Maryland Square  
 Project Number: 085.42620.0001  
 Sampler's Name: NBA

Well ID: MW-43  
 Sample ID: MW-43  
 Date: 11/8/13

Purging Equipment: Low Flow Bladder Pump  
 Sampling Equipment: Low Flow Bladder Pump

Casing Type: PVC  
 Casing Diameter: 2 inch 2" = 0.16 gal/lin ft.  
 Depth to Well Bottom: 35.26 feet 3" = 0.37 gal/lin ft.  
 Depth to Water: 16.96 feet 4" = 0.67 gal/lin ft. 3Q13:17.14  
 Constructed Screen Interval: 10 feet to 35 feet  
 Approximate Pump Depth: 26.5 Feet bgs 26 Feet btoc

Comments: N/A

Purged (gal.)	Time	Temp. (°C)	Conductance (mS/cm)	TDS (g/L)	DO (mg/L)	pH (SU)	ORP (mV)	Water Description: Color, Turbidity, Sheen, Etc.
.25	918	21.79	3.546	2.306	2.24	7.06	175.4	Turbid, No odor 222 NTC
.5	923	22.42	3.555	2.310	2.18	7.03	158.5	" " 157 NTC
.75	928	22.67	3.554	2.310	2.19	7.03	145.6	" " 156 NTC
1.0	933	22.56	3.554	2.310	2.14	7.03	141.3	" " 171 NTC
1.25	938	22.74	3.554	2.311	2.17	7.04	135.5	" " 168 NTC
1.5	943	22.87	3.555	2.311	2.16	7.03	138.2	" " 163 NTC

Total Water Volume Purged: 1.5 Gallons = N/A Well Volumes  
 Purged Dry (Y/N): N  
 Comments: N/A

Well Security: Locking cap? Y yes no Replaced? yes Y no 0.0 PID  
 Bolts secured? Y yes no Replaced? yes Y no vacuum  
 Surface Seal? Y yes no Replaced? yes Y no 945 Sample Collection Time

Maryland Square PCE Site

**APPENDIX B**  
LABORATORY ANALYTICAL REPORTS

November 21, 2013

Andrew Stuart  
Cardno ATC  
7115 Amigo Street Suite 100  
Las Vegas, NV 89119  
TEL: (702) 990-9300  
FAX:

CA-ELAP No.:2676  
NV Cert. No.:NV-009222007A

Workorder No.: N011443

RE: Maryland Square, 085.42620.0001

Attention: Andrew Stuart

Enclosed are the results for sample(s) received on November 12, 2013 by Advanced Technology Laboratories, Inc. . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

I hereby certify that all laboratory analysis requested were performed by Nevada Division of Environmental Protection-certified laboratory for the parameters and matrices reported herein.

Thank you for the opportunity to service the needs of your company.Please feel free to call me at (702) 307-2659 if I can be of further assistance to your company.

Sincerely,



Jose Tenorio Jr.  
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories - Las Vegas.



**Advanced Technology  
Laboratories, Inc.**

3151 W. Post Rd Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691

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**CLIENT:** Cardno ATC  
**Project:** Maryland Square, 085.42620.0001  
**Lab Order:** N011443

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**CASE NARRATIVE**

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**SAMPLE RECEIVING/GENERAL COMMENTS:**

Samples were received intact with proper chain of custody documentation.

Cooler temperature and sample preservation were verified upon receipt of samples if applicable.

Information on sample receipt conditions including discrepancies can be found in attached Sample Receipt Checklist Form.

Samples were analyzed within method holding time.

Sample N011443-021C ( MW-19I) was not analyzed for hexavalend chromium due to color of sample that might interfere with the analysis.





**Advanced Technology Laboratories, Inc.**

Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Project:** Maryland Square, 085.42620.0001  
**Lab Order:** N011443  
**Contract No:**

**Work Order Sample Summary**

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N011443-001A	MW-1	Groundwater	11/4/2013 2:48:00 PM	11/12/2013	11/21/2013
N011443-002A	MW-2	Groundwater	11/5/2013 8:47:00 AM	11/12/2013	11/21/2013
N011443-003A	MW-5	Groundwater	11/5/2013 9:53:00 AM	11/12/2013	11/21/2013
N011443-004A	MW-5 Dup	Groundwater	11/5/2013 9:53:00 AM	11/12/2013	11/21/2013
N011443-005A	MW-6	Groundwater	11/5/2013 11:31:00 AM	11/12/2013	11/21/2013
N011443-006A	MW-6D1	Groundwater	11/6/2013 10:12:00 AM	11/12/2013	11/21/2013
N011443-007A	MW-6D1 Dup	Groundwater	11/6/2013 10:12:00 AM	11/12/2013	11/21/2013
N011443-008A	MW-6D2	Groundwater	11/6/2013 9:30:00 AM	11/12/2013	11/21/2013
N011443-009A	MW-6D3	Groundwater	11/6/2013 9:38:00 AM	11/12/2013	11/21/2013
N011443-010A	MW-7	Groundwater	11/4/2013 12:23:00 PM	11/12/2013	11/21/2013
N011443-011A	MW-8	Groundwater	11/4/2013 10:48:00 AM	11/12/2013	11/21/2013
N011443-012A	MW-9	Groundwater	11/4/2013 11:37:00 AM	11/12/2013	11/21/2013
N011443-013A	MW-9 Dup	Groundwater	11/4/2013 11:37:00 AM	11/12/2013	11/21/2013
N011443-014A	MW-12	Groundwater	11/4/2013 9:50:00 AM	11/12/2013	11/21/2013
N011443-015A	MW-13	Groundwater	11/5/2013 9:21:00 AM	11/12/2013	11/21/2013
N011443-016A	MW-14	Groundwater	11/5/2013 10:36:00 AM	11/12/2013	11/21/2013
N011443-017A	MW-14I	Groundwater	11/5/2013 12:37:00 PM	11/12/2013	11/21/2013
N011443-018A	MW-17	Groundwater	11/4/2013 1:27:00 PM	11/12/2013	11/21/2013
N011443-019A	MW-18	Groundwater	11/12/2013 2:38:00 PM	11/12/2013	11/21/2013
N011443-020A	MW-19	Groundwater	11/7/2013 2:16:00 PM	11/12/2013	11/21/2013
N011443-020B	MW-19	Groundwater	11/7/2013 2:16:00 PM	11/12/2013	11/21/2013
N011443-020C	MW-19	Groundwater	11/7/2013 2:16:00 PM	11/12/2013	11/21/2013
N011443-021A	MW-19I	Groundwater	11/8/2013 12:03:00 PM	11/12/2013	11/21/2013
N011443-021B	MW-19I	Groundwater	11/8/2013 12:03:00 PM	11/12/2013	11/21/2013
N011443-021C	MW-19I	Groundwater	11/8/2013 12:03:00 PM	11/12/2013	11/21/2013
N011443-022A	MW-19D1	Groundwater	11/8/2013 2:00:00 PM	11/12/2013	11/21/2013
N011443-023A	MW-19D2	Groundwater	11/8/2013 10:55:00 AM	11/12/2013	11/21/2013
N011443-024A	MW-19D2 Dup	Groundwater	11/8/2013 10:55:00 AM	11/12/2013	11/21/2013
N011443-025A	MW-19D3	Groundwater	11/8/2013 1:23:00 PM	11/12/2013	11/21/2013



**CLIENT:** Cardno ATC  
**Project:** Maryland Square, 085.42620.0001  
**Lab Order:** N011443  
**Contract No:**

## Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N011443-026A	MW-20	Groundwater	11/7/2013 1:30:00 PM	11/12/2013	11/21/2013
N011443-026B	MW-20	Groundwater	11/7/2013 1:30:00 PM	11/12/2013	11/21/2013
N011443-026C	MW-20	Groundwater	11/7/2013 1:32:00 PM	11/12/2013	11/21/2013
N011443-027A	MW-20D1	Groundwater	11/7/2013 11:47:00 AM	11/12/2013	11/21/2013
N011443-028A	MW-20D2	Groundwater	11/7/2013 11:58:00 AM	11/12/2013	11/21/2013
N011443-029A	MW-20D3	Groundwater	11/7/2013 11:18:00 AM	11/12/2013	11/21/2013
N011443-030A	MW-23	Groundwater	11/12/2013 1:47:00 PM	11/12/2013	11/21/2013
N011443-031A	MW-25	Groundwater	11/12/2013 11:23:00 AM	11/12/2013	11/21/2013
N011443-032A	MW-32 Dup	Groundwater	11/12/2013 12:13:00 PM	11/12/2013	11/21/2013
N011443-033A	MW-26	Groundwater	11/12/2013 1:04:00 PM	11/12/2013	11/21/2013
N011443-034A	MW-27	Groundwater	11/12/2013 10:38:00 AM	11/12/2013	11/21/2013
N011443-035A	MW-30	Groundwater	11/11/2013 1:08:00 PM	11/12/2013	11/21/2013
N011443-036A	MW-31	Groundwater	11/11/2013 12:08:00 PM	11/12/2013	11/21/2013
N011443-037A	MW-32	Groundwater	11/12/2013 12:13:00 PM	11/12/2013	11/21/2013
N011443-038A	MW-33	Groundwater	11/8/2013 8:48:00 AM	11/12/2013	11/21/2013
N011443-039A	MW-34	Groundwater	11/4/2013 1:27:00 PM	11/12/2013	11/21/2013
N011443-040A	MW-35	Groundwater	11/4/2013 2:40:00 PM	11/12/2013	11/21/2013
N011443-041A	MW-36	Groundwater	11/12/2013 9:53:00 AM	11/12/2013	11/21/2013
N011443-042A	MW-37	Groundwater	11/11/2013 11:14:00 AM	11/12/2013	11/21/2013
N011443-043A	MW-38	Groundwater	11/11/2013 10:23:00 AM	11/12/2013	11/21/2013
N011443-044A	MW-38 Dup	Groundwater	11/11/2013 10:23:00 AM	11/12/2013	11/21/2013
N011443-045A	MW-39	Groundwater	11/11/2013 2:04:00 PM	11/12/2013	11/21/2013
N011443-046A	MW-40 CMT-30	Groundwater	11/6/2013 10:30:00 AM	11/12/2013	11/21/2013
N011443-046B	MW-40 CMT-30	Groundwater	11/6/2013 10:30:00 AM	11/12/2013	11/21/2013
N011443-046C	MW-40 CMT-30	Groundwater	11/6/2013 10:30:00 AM	11/12/2013	11/21/2013
N011443-047A	MW-40 CMT-35	Groundwater	11/6/2013 11:00:00 AM	11/12/2013	11/21/2013
N011443-047B	MW-40 CMT-35	Groundwater	11/6/2013 11:00:00 AM	11/12/2013	11/21/2013
N011443-047C	MW-40 CMT-35	Groundwater	11/6/2013 11:00:00 AM	11/12/2013	11/21/2013
N011443-048A	MW-40 CMT-40	Groundwater	11/6/2013 1:20:00 PM	11/12/2013	11/21/2013
N011443-048B	MW-40 CMT-40	Groundwater	11/6/2013 1:20:00 PM	11/12/2013	11/21/2013



**CLIENT:** Cardno ATC  
**Project:** Maryland Square, 085.42620.0001  
**Lab Order:** N011443  
**Contract No:**

## Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N011443-048C	MW-40 CMT-40	Groundwater	11/6/2013 1:20:00 PM	11/12/2013	11/21/2013
N011443-049A	MW-40 CMT-45	Groundwater	11/6/2013 2:30:00 PM	11/12/2013	11/21/2013
N011443-049B	MW-40 CMT-45	Groundwater	11/6/2013 2:30:00 PM	11/12/2013	11/21/2013
N011443-049C	MW-40 CMT-45	Groundwater	11/6/2013 2:30:00 PM	11/12/2013	11/21/2013
N011443-050A	MW-40 CMT-50	Groundwater	11/6/2013 12:30:00 PM	11/12/2013	11/21/2013
N011443-050B	MW-40 CMT-50	Groundwater	11/6/2013 12:30:00 PM	11/12/2013	11/21/2013
N011443-050C	MW-40 CMT-50	Groundwater	11/6/2013 12:30:00 PM	11/12/2013	11/21/2013
N011443-051A	MW-40 CMT-55	Groundwater	11/6/2013 2:00:00 PM	11/12/2013	11/21/2013
N011443-051B	MW-40 CMT-55	Groundwater	11/6/2013 2:00:00 PM	11/12/2013	11/21/2013
N011443-051C	MW-40 CMT-55	Groundwater	11/6/2013 2:00:00 PM	11/12/2013	11/21/2013
N011443-052A	MW-40 CMT-60	Groundwater	11/6/2013 11:30:00 AM	11/12/2013	11/21/2013
N011443-052B	MW-40 CMT-60	Groundwater	11/6/2013 11:30:00 AM	11/12/2013	11/21/2013
N011443-052C	MW-40 CMT-60	Groundwater	11/6/2013 11:30:00 AM	11/12/2013	11/21/2013
N011443-053A	MW-40 CMT-60 Dup	Groundwater	11/6/2013 11:30:00 AM	11/12/2013	11/21/2013
N011443-054A	MW-41	Groundwater	11/11/2013 9:38:00 AM	11/12/2013	11/21/2013
N011443-055A	MW-42	Groundwater	11/11/2013 8:46:00 AM	11/12/2013	11/21/2013
N011443-056A	MW-43	Groundwater	11/8/2013 9:45:00 AM	11/12/2013	11/21/2013
N011443-057A	Trip Blank	Groundwater	11/4/2013 7:10:00 AM	11/12/2013	11/21/2013
N011443-058A	Field Blank	Groundwater	11/4/2013 12:25:00 PM	11/12/2013	11/21/2013
N011443-059A	Equip Rinse	Groundwater	11/4/2013 12:49:00 PM	11/12/2013	11/21/2013
N011443-060A	Trip Blank	Groundwater	11/5/2013 6:45:00 AM	11/12/2013	11/21/2013
N011443-061A	Field Blank	Groundwater	11/5/2013 10:30:00 AM	11/12/2013	11/21/2013
N011443-062A	Equip Rinse	Groundwater	11/5/2013 10:50:00 AM	11/12/2013	11/21/2013
N011443-063A	Trip Blank	Groundwater	11/6/2013 7:10:00 AM	11/12/2013	11/21/2013
N011443-064A	Field Blank	Groundwater	11/6/2013 12:35:00 PM	11/12/2013	11/21/2013
N011443-065A	Equip Rinse	Groundwater	11/6/2013 12:35:00 PM	11/12/2013	11/21/2013
N011443-066A	Trip Blank	Groundwater	11/7/2013 6:50:00 AM	11/12/2013	11/21/2013
N011443-067A	Field Blank	Groundwater	11/7/2013 11:00:00 AM	11/12/2013	11/21/2013
N011443-068A	Equip Rinse	Groundwater	11/7/2013 10:55:00 AM	11/12/2013	11/21/2013
N011443-069A	Trip Blank	Groundwater	11/8/2013 6:52:00 AM	11/12/2013	11/21/2013



**CLIENT:** Cardno ATC  
**Project:** Maryland Square, 085.42620.0001  
**Lab Order:** N011443  
**Contract No:**

## Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Date Reported
N011443-070A	Field Blank	Groundwater	11/8/2013 11:30:00 AM	11/12/2013	11/21/2013
N011443-071A	Equip Rinse	Groundwater	11/8/2013 12:10:00 PM	11/12/2013	11/21/2013
N011443-072A	Trip Blank	Groundwater	11/11/2013 7:10:00 AM	11/12/2013	11/21/2013
N011443-073A	Field Blank	Groundwater	11/11/2013 10:45:00 AM	11/12/2013	11/21/2013
N011443-074A	Equip Rinse	Groundwater	11/11/2013 11:25:00 AM	11/12/2013	11/21/2013
N011443-075A	Trip Blank	Groundwater	11/12/2013 7:05:00 AM	11/12/2013	11/21/2013
N011443-076A	Field Blank	Groundwater	11/12/2013 12:05:00 PM	11/12/2013	11/21/2013
N011443-077A	Equip Rinse	Groundwater	11/12/2013 12:20:00 PM	11/12/2013	11/21/2013
N011443-078A	MW-19D3 HV	Groundwater	11/8/2013 5:15:00 PM	11/12/2013	11/21/2013



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-001

**Client Sample ID:** MW-1  
**Collection Date:** 11/4/2013 2:48:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131114A</b>	QC Batch: <b>P13VW180</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/14/2013 08:19 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/14/2013 08:19 PM
Tetrachloroethene	270 1.2	5.0	µg/L 10 11/15/2013 01:30 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/14/2013 08:19 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/14/2013 08:19 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/14/2013 08:19 PM
Surr: 1,2-Dichloroethane-d4	108 0	70-127	%REC 10 11/15/2013 01:30 PM
Surr: 1,2-Dichloroethane-d4	105 0	70-127	%REC 1 11/14/2013 08:19 PM
Surr: 4-Bromofluorobenzene	99.6 0	80-120	%REC 10 11/15/2013 01:30 PM
Surr: 4-Bromofluorobenzene	101 0	80-120	%REC 1 11/14/2013 08:19 PM
Surr: Dibromofluoromethane	110 0	73-128	%REC 10 11/15/2013 01:30 PM
Surr: Dibromofluoromethane	110 0	73-128	%REC 1 11/14/2013 08:19 PM
Surr: Toluene-d8	102 0	80-120	%REC 10 11/15/2013 01:30 PM
Surr: Toluene-d8	102 0	80-120	%REC 1 11/14/2013 08:19 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-002

**Client Sample ID:** MW-2  
**Collection Date:** 11/5/2013 8:47:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116A</b>	QC Batch: <b>P13VW182</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/16/2013 06:31 PM
cis-1,2-Dichloroethene	0.91 0.057	0.50	µg/L 1 11/16/2013 06:31 PM
Tetrachloroethene	720 2.3	10	µg/L 20 11/18/2013 08:05 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/16/2013 06:31 PM
Trichloroethene	2.3 0.075	0.50	µg/L 1 11/16/2013 06:31 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/16/2013 06:31 PM
Surr: 1,2-Dichloroethane-d4	100 0	70-127	%REC 20 11/18/2013 08:05 PM
Surr: 1,2-Dichloroethane-d4	107 0	70-127	%REC 1 11/16/2013 06:31 PM
Surr: 4-Bromofluorobenzene	101 0	80-120	%REC 20 11/18/2013 08:05 PM
Surr: 4-Bromofluorobenzene	101 0	80-120	%REC 1 11/16/2013 06:31 PM
Surr: Dibromofluoromethane	102 0	73-128	%REC 20 11/18/2013 08:05 PM
Surr: Dibromofluoromethane	111 0	73-128	%REC 1 11/16/2013 06:31 PM
Surr: Toluene-d8	102 0	80-120	%REC 20 11/18/2013 08:05 PM
Surr: Toluene-d8	102 0	80-120	%REC 1 11/16/2013 06:31 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-003

**Client Sample ID:** MW-5  
**Collection Date:** 11/5/2013 9:53:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116A</b>	QC Batch: <b>P13VW182</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/16/2013 06:58 PM
cis-1,2-Dichloroethene	1.2 0.057	0.50	µg/L 1 11/16/2013 06:58 PM
Tetrachloroethene	690 2.3	10	µg/L 20 11/17/2013 11:12 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/16/2013 06:58 PM
Trichloroethene	2.8 0.075	0.50	µg/L 1 11/16/2013 06:58 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/16/2013 06:58 PM
Surr: 1,2-Dichloroethane-d4	97.9 0	70-127	%REC 20 11/17/2013 11:12 PM
Surr: 1,2-Dichloroethane-d4	102 0	70-127	%REC 1 11/16/2013 06:58 PM
Surr: 4-Bromofluorobenzene	99.1 0	80-120	%REC 20 11/17/2013 11:12 PM
Surr: 4-Bromofluorobenzene	99.2 0	80-120	%REC 1 11/16/2013 06:58 PM
Surr: Dibromofluoromethane	103 0	73-128	%REC 20 11/17/2013 11:12 PM
Surr: Dibromofluoromethane	108 0	73-128	%REC 1 11/16/2013 06:58 PM
Surr: Toluene-d8	101 0	80-120	%REC 20 11/17/2013 11:12 PM
Surr: Toluene-d8	102 0	80-120	%REC 1 11/16/2013 06:58 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-004

**Client Sample ID:** MW-5 Dup  
**Collection Date:** 11/5/2013 9:53:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116A</b>	QC Batch: <b>P13VW182</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/16/2013 07:25 PM
cis-1,2-Dichloroethene	1.2 0.057	0.50	µg/L 1 11/16/2013 07:25 PM
Tetrachloroethene	690 2.3	10	µg/L 20 11/17/2013 11:39 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/16/2013 07:25 PM
Trichloroethene	3.0 0.075	0.50	µg/L 1 11/16/2013 07:25 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/16/2013 07:25 PM
Surr: 1,2-Dichloroethane-d4	102 0	70-127	%REC 20 11/17/2013 11:39 PM
Surr: 1,2-Dichloroethane-d4	105 0	70-127	%REC 1 11/16/2013 07:25 PM
Surr: 4-Bromofluorobenzene	99.0 0	80-120	%REC 20 11/17/2013 11:39 PM
Surr: 4-Bromofluorobenzene	99.8 0	80-120	%REC 1 11/16/2013 07:25 PM
Surr: Dibromofluoromethane	105 0	73-128	%REC 20 11/17/2013 11:39 PM
Surr: Dibromofluoromethane	107 0	73-128	%REC 1 11/16/2013 07:25 PM
Surr: Toluene-d8	102 0	80-120	%REC 20 11/17/2013 11:39 PM
Surr: Toluene-d8	102 0	80-120	%REC 1 11/16/2013 07:25 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-005

**Client Sample ID:** MW-6  
**Collection Date:** 11/5/2013 11:31:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116B</b>	QC Batch: <b>P13VW183</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/17/2013 07:50 AM
cis-1,2-Dichloroethene	3.5 0.057	0.50	µg/L 1 11/17/2013 07:50 AM
Tetrachloroethene	3100 5.9	25	µg/L 50 11/18/2013 12:06 AM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/17/2013 07:50 AM
Trichloroethene	12 0.075	0.50	µg/L 1 11/17/2013 07:50 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/17/2013 07:50 AM
Surr: 1,2-Dichloroethane-d4	99.8 0	70-127	%REC 50 11/18/2013 12:06 AM
Surr: 1,2-Dichloroethane-d4	101 0	70-127	%REC 1 11/17/2013 07:50 AM
Surr: 4-Bromofluorobenzene	98.3 0	80-120	%REC 50 11/18/2013 12:06 AM
Surr: 4-Bromofluorobenzene	97.6 0	80-120	%REC 1 11/17/2013 07:50 AM
Surr: Dibromofluoromethane	104 0	73-128	%REC 50 11/18/2013 12:06 AM
Surr: Dibromofluoromethane	105 0	73-128	%REC 1 11/17/2013 07:50 AM
Surr: Toluene-d8	103 0	80-120	%REC 50 11/18/2013 12:06 AM
Surr: Toluene-d8	101 0	80-120	%REC 1 11/17/2013 07:50 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-006

**Client Sample ID:** MW-6D1  
**Collection Date:** 11/6/2013 10:12:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116A</b>	QC Batch: <b>P13VW182</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/16/2013 01:02 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/16/2013 01:02 PM
Tetrachloroethene	3.2 0.12	0.50	µg/L 1 11/16/2013 01:02 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/16/2013 01:02 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/16/2013 01:02 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/16/2013 01:02 PM
Surr: 1,2-Dichloroethane-d4	110 0	70-127	%REC 1 11/16/2013 01:02 PM
Surr: 4-Bromofluorobenzene	100 0	80-120	%REC 1 11/16/2013 01:02 PM
Surr: Dibromofluoromethane	111 0	73-128	%REC 1 11/16/2013 01:02 PM
Surr: Toluene-d8	103 0	80-120	%REC 1 11/16/2013 01:02 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-007

**Client Sample ID:** MW-6D1 Dup  
**Collection Date:** 11/6/2013 10:12:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116A</b>	QC Batch: <b>P13VW182</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/16/2013 12:35 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/16/2013 12:35 PM
Tetrachloroethene	3.5 0.12	0.50	µg/L 1 11/16/2013 12:35 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/16/2013 12:35 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/16/2013 12:35 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/16/2013 12:35 PM
Surr: 1,2-Dichloroethane-d4	104 0	70-127	%REC 1 11/16/2013 12:35 PM
Surr: 4-Bromofluorobenzene	97.9 0	80-120	%REC 1 11/16/2013 12:35 PM
Surr: Dibromofluoromethane	108 0	73-128	%REC 1 11/16/2013 12:35 PM
Surr: Toluene-d8	100 0	80-120	%REC 1 11/16/2013 12:35 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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3151 W. Post Rd Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691

**Advanced Technology Laboratories, Inc.**

**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-008

**Client Sample ID:** MW-6D2  
**Collection Date:** 11/6/2013 9:30:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116A</b>	QC Batch: <b>P13VW182</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/16/2013 12:08 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/16/2013 12:08 PM
Tetrachloroethene	3.3 0.12	0.50	µg/L 1 11/16/2013 12:08 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/16/2013 12:08 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/16/2013 12:08 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/16/2013 12:08 PM
Surr: 1,2-Dichloroethane-d4	105 0	70-127	%REC 1 11/16/2013 12:08 PM
Surr: 4-Bromofluorobenzene	99.2 0	80-120	%REC 1 11/16/2013 12:08 PM
Surr: Dibromofluoromethane	109 0	73-128	%REC 1 11/16/2013 12:08 PM
Surr: Toluene-d8	100 0	80-120	%REC 1 11/16/2013 12:08 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-009

**Client Sample ID:** MW-6D3  
**Collection Date:** 11/6/2013 9:38:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116A</b>	QC Batch: <b>P13VW182</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/16/2013 11:40 AM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/16/2013 11:40 AM
Tetrachloroethene	3.0 0.12	0.50	µg/L 1 11/16/2013 11:40 AM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/16/2013 11:40 AM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/16/2013 11:40 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/16/2013 11:40 AM
Surr: 1,2-Dichloroethane-d4	109 0	70-127	%REC 1 11/16/2013 11:40 AM
Surr: 4-Bromofluorobenzene	101 0	80-120	%REC 1 11/16/2013 11:40 AM
Surr: Dibromofluoromethane	109 0	73-128	%REC 1 11/16/2013 11:40 AM
Surr: Toluene-d8	101 0	80-120	%REC 1 11/16/2013 11:40 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
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DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-010

**Client Sample ID:** MW-7  
**Collection Date:** 11/4/2013 12:23:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131114A</b>	QC Batch: <b>P13VW180</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/14/2013 06:56 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/14/2013 06:56 PM
Tetrachloroethene	8.4 0.12	0.50	µg/L 1 11/14/2013 06:56 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/14/2013 06:56 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/14/2013 06:56 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/14/2013 06:56 PM
Surr: 1,2-Dichloroethane-d4	106 0	70-127	%REC 1 11/14/2013 06:56 PM
Surr: 4-Bromofluorobenzene	100 0	80-120	%REC 1 11/14/2013 06:56 PM
Surr: Dibromofluoromethane	110 0	73-128	%REC 1 11/14/2013 06:56 PM
Surr: Toluene-d8	101 0	80-120	%REC 1 11/14/2013 06:56 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-011

**Client Sample ID:** MW-8  
**Collection Date:** 11/4/2013 10:48:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131114A</b>	QC Batch: <b>P13VW180</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/14/2013 05:34 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/14/2013 05:34 PM
Tetrachloroethene	2.2 0.12	0.50	µg/L 1 11/14/2013 05:34 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/14/2013 05:34 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/14/2013 05:34 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/14/2013 05:34 PM
Surr: 1,2-Dichloroethane-d4	105 0	70-127	%REC 1 11/14/2013 05:34 PM
Surr: 4-Bromofluorobenzene	101 0	80-120	%REC 1 11/14/2013 05:34 PM
Surr: Dibromofluoromethane	109 0	73-128	%REC 1 11/14/2013 05:34 PM
Surr: Toluene-d8	102 0	80-120	%REC 1 11/14/2013 05:34 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-012

**Client Sample ID:** MW-9  
**Collection Date:** 11/4/2013 11:37:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131114A</b>	QC Batch: <b>P13VW180</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/14/2013 06:02 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/14/2013 06:02 PM
Tetrachloroethene	11 0.12	0.50	µg/L 1 11/14/2013 06:02 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/14/2013 06:02 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/14/2013 06:02 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/14/2013 06:02 PM
Surr: 1,2-Dichloroethane-d4	110 0	70-127	%REC 1 11/14/2013 06:02 PM
Surr: 4-Bromofluorobenzene	101 0	80-120	%REC 1 11/14/2013 06:02 PM
Surr: Dibromofluoromethane	110 0	73-128	%REC 1 11/14/2013 06:02 PM
Surr: Toluene-d8	102 0	80-120	%REC 1 11/14/2013 06:02 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-013

**Client Sample ID:** MW-9 Dup  
**Collection Date:** 11/4/2013 11:37:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131114A</b>	QC Batch: <b>P13VW180</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/14/2013 06:29 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/14/2013 06:29 PM
Tetrachloroethene	11 0.12	0.50	µg/L 1 11/14/2013 06:29 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/14/2013 06:29 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/14/2013 06:29 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/14/2013 06:29 PM
Surr: 1,2-Dichloroethane-d4	103 0	70-127	%REC 1 11/14/2013 06:29 PM
Surr: 4-Bromofluorobenzene	98.7 0	80-120	%REC 1 11/14/2013 06:29 PM
Surr: Dibromofluoromethane	108 0	73-128	%REC 1 11/14/2013 06:29 PM
Surr: Toluene-d8	99.8 0	80-120	%REC 1 11/14/2013 06:29 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
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DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-014

**Client Sample ID:** MW-12  
**Collection Date:** 11/4/2013 9:50:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131114A</b>	QC Batch: <b>P13VW180</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/14/2013 12:16 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/14/2013 12:16 PM
Tetrachloroethene	0.86 0.12	0.50	µg/L 1 11/14/2013 12:16 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/14/2013 12:16 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/14/2013 12:16 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/14/2013 12:16 PM
Surr: 1,2-Dichloroethane-d4	105 0	70-127	%REC 1 11/14/2013 12:16 PM
Surr: 4-Bromofluorobenzene	99.6 0	80-120	%REC 1 11/14/2013 12:16 PM
Surr: Dibromofluoromethane	110 0	73-128	%REC 1 11/14/2013 12:16 PM
Surr: Toluene-d8	101 0	80-120	%REC 1 11/14/2013 12:16 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-015

**Client Sample ID:** MW-13  
**Collection Date:** 11/5/2013 9:21:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116B</b>	QC Batch: <b>P13VW183</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/17/2013 07:22 AM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/17/2013 07:22 AM
Tetrachloroethene	1800 5.9	25	µg/L 50 11/18/2013 12:34 AM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/17/2013 07:22 AM
Trichloroethene	3.5 0.075	0.50	µg/L 1 11/17/2013 07:22 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/17/2013 07:22 AM
Surr: 1,2-Dichloroethane-d4	103 0	70-127	%REC 50 11/18/2013 12:34 AM
Surr: 1,2-Dichloroethane-d4	105 0	70-127	%REC 1 11/17/2013 07:22 AM
Surr: 4-Bromofluorobenzene	100 0	80-120	%REC 50 11/18/2013 12:34 AM
Surr: 4-Bromofluorobenzene	99.3 0	80-120	%REC 1 11/17/2013 07:22 AM
Surr: Dibromofluoromethane	106 0	73-128	%REC 50 11/18/2013 12:34 AM
Surr: Dibromofluoromethane	109 0	73-128	%REC 1 11/17/2013 07:22 AM
Surr: Toluene-d8	101 0	80-120	%REC 50 11/18/2013 12:34 AM
Surr: Toluene-d8	104 0	80-120	%REC 1 11/17/2013 07:22 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-016

**Client Sample ID:** MW-14  
**Collection Date:** 11/5/2013 10:36:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116B</b>	QC Batch: <b>P13VW183</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/17/2013 06:55 AM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/17/2013 06:55 AM
Tetrachloroethene	1500 5.9	25	µg/L 50 11/18/2013 01:01 AM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/17/2013 06:55 AM
Trichloroethene	2.7 0.075	0.50	µg/L 1 11/17/2013 06:55 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/17/2013 06:55 AM
Surr: 1,2-Dichloroethane-d4	101 0	70-127	%REC 50 11/18/2013 01:01 AM
Surr: 1,2-Dichloroethane-d4	102 0	70-127	%REC 1 11/17/2013 06:55 AM
Surr: 4-Bromofluorobenzene	98.4 0	80-120	%REC 50 11/18/2013 01:01 AM
Surr: 4-Bromofluorobenzene	101 0	80-120	%REC 1 11/17/2013 06:55 AM
Surr: Dibromofluoromethane	105 0	73-128	%REC 50 11/18/2013 01:01 AM
Surr: Dibromofluoromethane	106 0	73-128	%REC 1 11/17/2013 06:55 AM
Surr: Toluene-d8	103 0	80-120	%REC 50 11/18/2013 01:01 AM
Surr: Toluene-d8	103 0	80-120	%REC 1 11/17/2013 06:55 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-017

**Client Sample ID:** MW-14I  
**Collection Date:** 11/5/2013 12:37:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116B</b>	QC Batch: <b>P13VW183</b>	PrepDate:	Analyst: <b>QBM</b>			
1,1-Dichloroethene	ND	0.16	0.50	µg/L	1	11/17/2013 08:17 AM
cis-1,2-Dichloroethene	17	0.057	0.50	µg/L	1	11/17/2013 08:17 AM
Tetrachloroethene	10000	23	100	µg/L	200	11/18/2013 10:49 PM
trans-1,2-Dichloroethene	ND	0.11	0.50	µg/L	1	11/17/2013 08:17 AM
Trichloroethene	38	0.075	0.50	µg/L	1	11/17/2013 08:17 AM
Vinyl chloride	ND	0.082	0.50	µg/L	1	11/17/2013 08:17 AM
Surr: 1,2-Dichloroethane-d4	102	0	70-127	%REC	200	11/18/2013 10:49 PM
Surr: 1,2-Dichloroethane-d4	98.2	0	70-127	%REC	1	11/17/2013 08:17 AM
Surr: 4-Bromofluorobenzene	101	0	80-120	%REC	200	11/18/2013 10:49 PM
Surr: 4-Bromofluorobenzene	98.3	0	80-120	%REC	1	11/17/2013 08:17 AM
Surr: Dibromofluoromethane	103	0	73-128	%REC	200	11/18/2013 10:49 PM
Surr: Dibromofluoromethane	103	0	73-128	%REC	1	11/17/2013 08:17 AM
Surr: Toluene-d8	101	0	80-120	%REC	200	11/18/2013 10:49 PM
Surr: Toluene-d8	104	0	80-120	%REC	1	11/17/2013 08:17 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-018

**Client Sample ID:** MW-17  
**Collection Date:** 11/4/2013 1:27:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131114A</b>	QC Batch: <b>P13VW180</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/14/2013 07:51 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/14/2013 07:51 PM
Tetrachloroethene	120 0.59	2.5	µg/L 5 11/15/2013 01:57 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/14/2013 07:51 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/14/2013 07:51 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/14/2013 07:51 PM
Surr: 1,2-Dichloroethane-d4	104 0	70-127	%REC 5 11/15/2013 01:57 PM
Surr: 1,2-Dichloroethane-d4	111 0	70-127	%REC 1 11/14/2013 07:51 PM
Surr: 4-Bromofluorobenzene	99.3 0	80-120	%REC 5 11/15/2013 01:57 PM
Surr: 4-Bromofluorobenzene	101 0	80-120	%REC 1 11/14/2013 07:51 PM
Surr: Dibromofluoromethane	108 0	73-128	%REC 5 11/15/2013 01:57 PM
Surr: Dibromofluoromethane	111 0	73-128	%REC 1 11/14/2013 07:51 PM
Surr: Toluene-d8	100 0	80-120	%REC 5 11/15/2013 01:57 PM
Surr: Toluene-d8	102 0	80-120	%REC 1 11/14/2013 07:51 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**Advanced Technology Laboratories, Inc.**

**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-019

**Client Sample ID:** MW-18  
**Collection Date:** 11/12/2013 2:38:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131120A</b>	QC Batch: <b>P13VW187</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/20/2013 07:31 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/20/2013 07:31 PM
Tetrachloroethene	780 5.9	25	µg/L 50 11/20/2013 02:01 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/20/2013 07:31 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/20/2013 07:31 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/20/2013 07:31 PM
Surr: 1,2-Dichloroethane-d4	106 0	70-127	%REC 1 11/20/2013 07:31 PM
Surr: 1,2-Dichloroethane-d4	106 0	70-127	%REC 50 11/20/2013 02:01 PM
Surr: 4-Bromofluorobenzene	98.6 0	80-120	%REC 1 11/20/2013 07:31 PM
Surr: 4-Bromofluorobenzene	97.1 0	80-120	%REC 50 11/20/2013 02:01 PM
Surr: Dibromofluoromethane	107 0	73-128	%REC 1 11/20/2013 07:31 PM
Surr: Dibromofluoromethane	104 0	73-128	%REC 50 11/20/2013 02:01 PM
Surr: Toluene-d8	102 0	80-120	%REC 1 11/20/2013 07:31 PM
Surr: Toluene-d8	99.6 0	80-120	%REC 50 11/20/2013 02:01 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**Advanced Technology Laboratories, Inc.**

**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-020

**Client Sample ID:** MW-19  
**Collection Date:** 11/7/2013 2:16:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: MS5_131116B	QC Batch: P13VW183	PrepDate:	Analyst: QBM			
1,1-Dichloroethene	ND	0.16	0.50	µg/L	1	11/17/2013 06:01 AM
cis-1,2-Dichloroethene	ND	0.057	0.50	µg/L	1	11/17/2013 06:01 AM
Tetrachloroethene	440	1.2	5.0	µg/L	10	11/18/2013 01:55 AM
trans-1,2-Dichloroethene	ND	0.11	0.50	µg/L	1	11/17/2013 06:01 AM
Trichloroethene	3.2	0.075	0.50	µg/L	1	11/17/2013 06:01 AM
Vinyl chloride	ND	0.082	0.50	µg/L	1	11/17/2013 06:01 AM
Surr: 1,2-Dichloroethane-d4	103	0	70-127	%REC	1	11/17/2013 06:01 AM
Surr: 1,2-Dichloroethane-d4	98.4	0	70-127	%REC	10	11/18/2013 01:55 AM
Surr: 4-Bromofluorobenzene	99.2	0	80-120	%REC	10	11/18/2013 01:55 AM
Surr: 4-Bromofluorobenzene	97.9	0	80-120	%REC	1	11/17/2013 06:01 AM
Surr: Dibromofluoromethane	103	0	73-128	%REC	10	11/18/2013 01:55 AM
Surr: Dibromofluoromethane	106	0	73-128	%REC	1	11/17/2013 06:01 AM
Surr: Toluene-d8	101	0	80-120	%REC	10	11/18/2013 01:55 AM
Surr: Toluene-d8	102	0	80-120	%REC	1	11/17/2013 06:01 AM

**HEXAVALENT CHROMIUM BY IC**

**EPA 218.6**

RunID: IC6_131114A	QC Batch: R91206	PrepDate:	Analyst: PN			
Hexavalent Chromium	1.7	0.024	0.20	µg/L	1	11/14/2013 03:45 PM

**DISSOLVED METALS BY ICP-MS**

**EPA 3010A**

**EPA 6020**

RunID: ICP7_131115A	QC Batch: 44365	PrepDate: 11/13/2013	Analyst: CEI			
Arsenic	3.3	0.027	0.10	µg/L	1	11/15/2013 01:59 PM
Chromium	1.3	0.030	1.0	µg/L	1	11/15/2013 01:59 PM
Manganese	ND	0.026	0.50	µg/L	1	11/19/2013 05:18 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-021

**Client Sample ID:** MW-19I  
**Collection Date:** 11/8/2013 12:03:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116B</b>	QC Batch: <b>P13VW183</b>				PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1 11/17/2013 01:28 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1 11/17/2013 01:28 AM
Tetrachloroethene	ND	0.12	0.50		µg/L	1 11/17/2013 01:28 AM
trans-1,2-Dichloroethene	ND	0.11	0.50		µg/L	1 11/17/2013 01:28 AM
Trichloroethene	ND	0.075	0.50		µg/L	1 11/17/2013 01:28 AM
Vinyl chloride	ND	0.082	0.50		µg/L	1 11/17/2013 01:28 AM
Surr: 1,2-Dichloroethane-d4	107	0	70-127		%REC	1 11/17/2013 01:28 AM
Surr: 4-Bromofluorobenzene	99.1	0	80-120		%REC	1 11/17/2013 01:28 AM
Surr: Dibromofluoromethane	108	0	73-128		%REC	1 11/17/2013 01:28 AM
Surr: Toluene-d8	68.3	0	80-120	S	%REC	1 11/17/2013 01:28 AM

**DISSOLVED METALS BY ICP-MS**

**EPA 3010A**

**EPA 6020**

RunID: <b>ICP7_131115A</b>	QC Batch: <b>44365</b>				PrepDate: <b>11/13/2013</b>	Analyst: <b>CEI</b>
Arsenic	1.1	0.027	0.10		µg/L	1 11/15/2013 03:05 PM
Chromium	290	0.15	5.0		µg/L	5 11/15/2013 03:33 PM
Manganese	48000	13	250		µg/L	500 11/19/2013 06:35 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-022

**Client Sample ID:** MW-19D1  
**Collection Date:** 11/8/2013 2:00:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116B</b>	QC Batch: <b>P13VW183</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/17/2013 06:28 AM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/17/2013 06:28 AM
Tetrachloroethene	620 1.2	5.0	µg/L 10 11/18/2013 02:23 AM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/17/2013 06:28 AM
Trichloroethene	3.5 0.075	0.50	µg/L 1 11/17/2013 06:28 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/17/2013 06:28 AM
Surr: 1,2-Dichloroethane-d4	97.4 0	70-127	%REC 10 11/18/2013 02:23 AM
Surr: 1,2-Dichloroethane-d4	100 0	70-127	%REC 1 11/17/2013 06:28 AM
Surr: 4-Bromofluorobenzene	98.5 0	80-120	%REC 10 11/18/2013 02:23 AM
Surr: 4-Bromofluorobenzene	98.6 0	80-120	%REC 1 11/17/2013 06:28 AM
Surr: Dibromofluoromethane	102 0	73-128	%REC 10 11/18/2013 02:23 AM
Surr: Dibromofluoromethane	107 0	73-128	%REC 1 11/17/2013 06:28 AM
Surr: Toluene-d8	101 0	80-120	%REC 10 11/18/2013 02:23 AM
Surr: Toluene-d8	101 0	80-120	%REC 1 11/17/2013 06:28 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-023

**Client Sample ID:** MW-19D2  
**Collection Date:** 11/8/2013 10:55:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116B</b>	QC Batch: <b>P13VW183</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/17/2013 01:01 AM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/17/2013 01:01 AM
Tetrachloroethene	ND 0.12	0.50	µg/L 1 11/17/2013 01:01 AM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/17/2013 01:01 AM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/17/2013 01:01 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/17/2013 01:01 AM
Surr: 1,2-Dichloroethane-d4	103 0	70-127	%REC 1 11/17/2013 01:01 AM
Surr: 4-Bromofluorobenzene	100 0	80-120	%REC 1 11/17/2013 01:01 AM
Surr: Dibromofluoromethane	107 0	73-128	%REC 1 11/17/2013 01:01 AM
Surr: Toluene-d8	93.5 0	80-120	%REC 1 11/17/2013 01:01 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-024

**Client Sample ID:** MW-19D2 Dup  
**Collection Date:** 11/8/2013 10:55:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116B</b>	QC Batch: <b>P13VW183</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/17/2013 12:33 AM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/17/2013 12:33 AM
Tetrachloroethene	ND 0.12	0.50	µg/L 1 11/17/2013 12:33 AM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/17/2013 12:33 AM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/17/2013 12:33 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/17/2013 12:33 AM
Surr: 1,2-Dichloroethane-d4	103 0	70-127	%REC 1 11/17/2013 12:33 AM
Surr: 4-Bromofluorobenzene	99.1 0	80-120	%REC 1 11/17/2013 12:33 AM
Surr: Dibromofluoromethane	106 0	73-128	%REC 1 11/17/2013 12:33 AM
Surr: Toluene-d8	96.3 0	80-120	%REC 1 11/17/2013 12:33 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-025

**Client Sample ID:** MW-19D3  
**Collection Date:** 11/8/2013 1:23:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131114A</b>	QC Batch: <b>P13VW180</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/14/2013 07:24 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/14/2013 07:24 PM
Tetrachloroethene	160 0.59	2.5	µg/L 5 11/15/2013 02:24 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/14/2013 07:24 PM
Trichloroethene	0.75 0.075	0.50	µg/L 1 11/14/2013 07:24 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/14/2013 07:24 PM
Surr: 1,2-Dichloroethane-d4	107 0	70-127	%REC 5 11/15/2013 02:24 PM
Surr: 1,2-Dichloroethane-d4	106 0	70-127	%REC 1 11/14/2013 07:24 PM
Surr: 4-Bromofluorobenzene	100 0	80-120	%REC 5 11/15/2013 02:24 PM
Surr: 4-Bromofluorobenzene	100 0	80-120	%REC 1 11/14/2013 07:24 PM
Surr: Dibromofluoromethane	111 0	73-128	%REC 5 11/15/2013 02:24 PM
Surr: Dibromofluoromethane	108 0	73-128	%REC 1 11/14/2013 07:24 PM
Surr: Toluene-d8	103 0	80-120	%REC 5 11/15/2013 02:24 PM
Surr: Toluene-d8	102 0	80-120	%REC 1 11/14/2013 07:24 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-026

**Client Sample ID:** MW-20  
**Collection Date:** 11/7/2013 1:30:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID:	MS5_131116B	QC Batch:	P13VW183	PrepDate:	Analyst:	QBM
1,1-Dichloroethene	ND	0.16	0.50	µg/L	1	11/17/2013 05:33 AM
cis-1,2-Dichloroethene	ND	0.057	0.50	µg/L	1	11/17/2013 05:33 AM
Tetrachloroethene	530	1.2	5.0	µg/L	10	11/18/2013 02:50 AM
trans-1,2-Dichloroethene	ND	0.11	0.50	µg/L	1	11/17/2013 05:33 AM
Trichloroethene	1.4	0.075	0.50	µg/L	1	11/17/2013 05:33 AM
Vinyl chloride	ND	0.082	0.50	µg/L	1	11/17/2013 05:33 AM
Surr: 1,2-Dichloroethane-d4	103	0	70-127	%REC	1	11/17/2013 05:33 AM
Surr: 1,2-Dichloroethane-d4	99.0	0	70-127	%REC	10	11/18/2013 02:50 AM
Surr: 4-Bromofluorobenzene	98.0	0	80-120	%REC	10	11/18/2013 02:50 AM
Surr: 4-Bromofluorobenzene	98.5	0	80-120	%REC	1	11/17/2013 05:33 AM
Surr: Dibromofluoromethane	104	0	73-128	%REC	10	11/18/2013 02:50 AM
Surr: Dibromofluoromethane	106	0	73-128	%REC	1	11/17/2013 05:33 AM
Surr: Toluene-d8	100	0	80-120	%REC	10	11/18/2013 02:50 AM
Surr: Toluene-d8	102	0	80-120	%REC	1	11/17/2013 05:33 AM

**HEXAVALENT CHROMIUM BY IC**

**EPA 218.6**

RunID:	IC6_131114A	QC Batch:	R91206	PrepDate:	Analyst:	PN
Hexavalent Chromium	1.3	0.024	0.20	µg/L	1	11/14/2013 04:04 PM

**DISSOLVED METALS BY ICP-MS**

**EPA 3010A**

**EPA 6020**

RunID:	ICP7_131115A	QC Batch:	44365	PrepDate:	11/13/2013	Analyst:	CEI
Arsenic	2.6	0.027	0.10	µg/L	1	11/15/2013 02:04 PM	
Chromium	ND	0.030	1.0	µg/L	1	11/15/2013 02:04 PM	
Manganese	ND	0.026	0.50	µg/L	1	11/19/2013 05:23 AM	

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-027

**Client Sample ID:** MW-20D1  
**Collection Date:** 11/7/2013 11:47:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116B</b>	QC Batch: <b>P13VW183</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/17/2013 05:06 AM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/17/2013 05:06 AM
Tetrachloroethene	260 1.2	5.0	µg/L 10 11/18/2013 03:17 AM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/17/2013 05:06 AM
Trichloroethene	0.86 0.075	0.50	µg/L 1 11/17/2013 05:06 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/17/2013 05:06 AM
Surr: 1,2-Dichloroethane-d4	100 0	70-127	%REC 10 11/18/2013 03:17 AM
Surr: 1,2-Dichloroethane-d4	106 0	70-127	%REC 1 11/17/2013 05:06 AM
Surr: 4-Bromofluorobenzene	97.1 0	80-120	%REC 10 11/18/2013 03:17 AM
Surr: 4-Bromofluorobenzene	100 0	80-120	%REC 1 11/17/2013 05:06 AM
Surr: Dibromofluoromethane	104 0	73-128	%REC 10 11/18/2013 03:17 AM
Surr: Dibromofluoromethane	108 0	73-128	%REC 1 11/17/2013 05:06 AM
Surr: Toluene-d8	101 0	80-120	%REC 10 11/18/2013 03:17 AM
Surr: Toluene-d8	103 0	80-120	%REC 1 11/17/2013 05:06 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-028

**Client Sample ID:** MW-20D2  
**Collection Date:** 11/7/2013 11:58:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116B</b>	QC Batch: <b>P13VW183</b>	PrepDate:	Analyst: <b>QBM</b>			
1,1-Dichloroethene	ND	0.16	0.50	µg/L	1	11/17/2013 04:39 AM
cis-1,2-Dichloroethene	0.81	0.057	0.50	µg/L	1	11/17/2013 04:39 AM
Tetrachloroethene	160	0.59	2.5	µg/L	5	11/18/2013 03:44 AM
trans-1,2-Dichloroethene	ND	0.11	0.50	µg/L	1	11/17/2013 04:39 AM
Trichloroethene	1.0	0.075	0.50	µg/L	1	11/17/2013 04:39 AM
Vinyl chloride	ND	0.082	0.50	µg/L	1	11/17/2013 04:39 AM
Surr: 1,2-Dichloroethane-d4	98.1	0	70-127	%REC	5	11/18/2013 03:44 AM
Surr: 1,2-Dichloroethane-d4	105	0	70-127	%REC	1	11/17/2013 04:39 AM
Surr: 4-Bromofluorobenzene	97.7	0	80-120	%REC	5	11/18/2013 03:44 AM
Surr: 4-Bromofluorobenzene	101	0	80-120	%REC	1	11/17/2013 04:39 AM
Surr: Dibromofluoromethane	104	0	73-128	%REC	5	11/18/2013 03:44 AM
Surr: Dibromofluoromethane	108	0	73-128	%REC	1	11/17/2013 04:39 AM
Surr: Toluene-d8	101	0	80-120	%REC	5	11/18/2013 03:44 AM
Surr: Toluene-d8	102	0	80-120	%REC	1	11/17/2013 04:39 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-029

**Client Sample ID:** MW-20D3  
**Collection Date:** 11/7/2013 11:18:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116B</b>	QC Batch: <b>P13VW183</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/17/2013 01:55 AM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/17/2013 01:55 AM
Tetrachloroethene	62 0.12	0.50	µg/L 1 11/17/2013 01:55 AM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/17/2013 01:55 AM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/17/2013 01:55 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/17/2013 01:55 AM
Surr: 1,2-Dichloroethane-d4	101 0	70-127	%REC 1 11/17/2013 01:55 AM
Surr: 4-Bromofluorobenzene	99.2 0	80-120	%REC 1 11/17/2013 01:55 AM
Surr: Dibromofluoromethane	105 0	73-128	%REC 1 11/17/2013 01:55 AM
Surr: Toluene-d8	101 0	80-120	%REC 1 11/17/2013 01:55 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-030

**Client Sample ID:** MW-23  
**Collection Date:** 11/12/2013 1:47:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131120A</b>	QC Batch: <b>P13VW187</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/20/2013 07:59 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/20/2013 07:59 PM
Tetrachloroethene	900 2.3	10	µg/L 20 11/20/2013 02:28 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/20/2013 07:59 PM
Trichloroethene	1.8 0.075	0.50	µg/L 1 11/20/2013 07:59 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/20/2013 07:59 PM
Surr: 1,2-Dichloroethane-d4	102 0	70-127	%REC 1 11/20/2013 07:59 PM
Surr: 1,2-Dichloroethane-d4	101 0	70-127	%REC 20 11/20/2013 02:28 PM
Surr: 4-Bromofluorobenzene	98.3 0	80-120	%REC 1 11/20/2013 07:59 PM
Surr: 4-Bromofluorobenzene	98.3 0	80-120	%REC 20 11/20/2013 02:28 PM
Surr: Dibromofluoromethane	103 0	73-128	%REC 1 11/20/2013 07:59 PM
Surr: Dibromofluoromethane	102 0	73-128	%REC 20 11/20/2013 02:28 PM
Surr: Toluene-d8	100 0	80-120	%REC 1 11/20/2013 07:59 PM
Surr: Toluene-d8	102 0	80-120	%REC 20 11/20/2013 02:28 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-031

**Client Sample ID:** MW-25  
**Collection Date:** 11/12/2013 11:23:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131119A</b>	QC Batch: <b>P13VW186</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/20/2013 05:11 AM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/20/2013 05:11 AM
Tetrachloroethene	700 2.3	10	µg/L 20 11/20/2013 12:11 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/20/2013 05:11 AM
Trichloroethene	0.88 0.075	0.50	µg/L 1 11/20/2013 05:11 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/20/2013 05:11 AM
Surr: 1,2-Dichloroethane-d4	101 0	70-127	%REC 1 11/20/2013 05:11 AM
Surr: 1,2-Dichloroethane-d4	106 0	70-127	%REC 20 11/20/2013 12:11 PM
Surr: 4-Bromofluorobenzene	97.2 0	80-120	%REC 1 11/20/2013 05:11 AM
Surr: 4-Bromofluorobenzene	99.0 0	80-120	%REC 20 11/20/2013 12:11 PM
Surr: Dibromofluoromethane	104 0	73-128	%REC 1 11/20/2013 05:11 AM
Surr: Dibromofluoromethane	105 0	73-128	%REC 20 11/20/2013 12:11 PM
Surr: Toluene-d8	101 0	80-120	%REC 1 11/20/2013 05:11 AM
Surr: Toluene-d8	102 0	80-120	%REC 20 11/20/2013 12:11 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-032

**Client Sample ID:** MW-32 Dup  
**Collection Date:** 11/12/2013 12:13:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131119A</b>	QC Batch: <b>P13VW186</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/20/2013 05:38 AM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/20/2013 05:38 AM
Tetrachloroethene	660 1.2	5.0	µg/L 10 11/20/2013 11:16 AM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/20/2013 05:38 AM
Trichloroethene	1.9 0.075	0.50	µg/L 1 11/20/2013 05:38 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/20/2013 05:38 AM
Surr: 1,2-Dichloroethane-d4	102 0	70-127	%REC 1 11/20/2013 05:38 AM
Surr: 1,2-Dichloroethane-d4	100 0	70-127	%REC 10 11/20/2013 11:16 AM
Surr: 4-Bromofluorobenzene	99.0 0	80-120	%REC 1 11/20/2013 05:38 AM
Surr: 4-Bromofluorobenzene	101 0	80-120	%REC 10 11/20/2013 11:16 AM
Surr: Dibromofluoromethane	104 0	73-128	%REC 1 11/20/2013 05:38 AM
Surr: Dibromofluoromethane	102 0	73-128	%REC 10 11/20/2013 11:16 AM
Surr: Toluene-d8	101 0	80-120	%REC 1 11/20/2013 05:38 AM
Surr: Toluene-d8	102 0	80-120	%REC 10 11/20/2013 11:16 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
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DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-033

**Client Sample ID:** MW-26  
**Collection Date:** 11/12/2013 1:04:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131119A</b>	QC Batch: <b>P13VW186</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/20/2013 06:05 AM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/20/2013 06:05 AM
Tetrachloroethene	770 2.3	10	µg/L 20 11/20/2013 12:39 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/20/2013 06:05 AM
Trichloroethene	0.62 0.075	0.50	µg/L 1 11/20/2013 06:05 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/20/2013 06:05 AM
Surr: 1,2-Dichloroethane-d4	102 0	70-127	%REC 1 11/20/2013 06:05 AM
Surr: 1,2-Dichloroethane-d4	104 0	70-127	%REC 20 11/20/2013 12:39 PM
Surr: 4-Bromofluorobenzene	98.3 0	80-120	%REC 1 11/20/2013 06:05 AM
Surr: 4-Bromofluorobenzene	98.5 0	80-120	%REC 20 11/20/2013 12:39 PM
Surr: Dibromofluoromethane	105 0	73-128	%REC 1 11/20/2013 06:05 AM
Surr: Dibromofluoromethane	105 0	73-128	%REC 20 11/20/2013 12:39 PM
Surr: Toluene-d8	102 0	80-120	%REC 1 11/20/2013 06:05 AM
Surr: Toluene-d8	101 0	80-120	%REC 20 11/20/2013 12:39 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-034

**Client Sample ID:** MW-27  
**Collection Date:** 11/12/2013 10:38:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: MS5_131117A	QC Batch: P13VW184	PrepDate:	Analyst: QBM			
1,1-Dichloroethene	ND	0.16	0.50	µg/L	1	11/18/2013 07:22 AM
cis-1,2-Dichloroethene	ND	0.057	0.50	µg/L	1	11/18/2013 07:22 AM
Tetrachloroethene	420	1.2	5.0	µg/L	10	11/18/2013 11:16 PM
trans-1,2-Dichloroethene	ND	0.11	0.50	µg/L	1	11/18/2013 07:22 AM
Trichloroethene	0.94	0.075	0.50	µg/L	1	11/18/2013 07:22 AM
Vinyl chloride	ND	0.082	0.50	µg/L	1	11/18/2013 07:22 AM
Surr: 1,2-Dichloroethane-d4	98.7	0	70-127	%REC	10	11/18/2013 11:16 PM
Surr: 1,2-Dichloroethane-d4	98.8	0	70-127	%REC	1	11/18/2013 07:22 AM
Surr: 4-Bromofluorobenzene	100	0	80-120	%REC	10	11/18/2013 11:16 PM
Surr: 4-Bromofluorobenzene	98.2	0	80-120	%REC	1	11/18/2013 07:22 AM
Surr: Dibromofluoromethane	102	0	73-128	%REC	10	11/18/2013 11:16 PM
Surr: Dibromofluoromethane	103	0	73-128	%REC	1	11/18/2013 07:22 AM
Surr: Toluene-d8	100	0	80-120	%REC	10	11/18/2013 11:16 PM
Surr: Toluene-d8	102	0	80-120	%REC	1	11/18/2013 07:22 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-035

**Client Sample ID:** MW-30  
**Collection Date:** 11/11/2013 1:08:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131117A</b>	QC Batch: <b>P13VW184</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/18/2013 06:55 AM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/18/2013 06:55 AM
Tetrachloroethene	96 0.12	0.50	µg/L 1 11/18/2013 06:55 AM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/18/2013 06:55 AM
Trichloroethene	0.58 0.075	0.50	µg/L 1 11/18/2013 06:55 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/18/2013 06:55 AM
Surr: 1,2-Dichloroethane-d4	99.4 0	70-127	%REC 1 11/18/2013 06:55 AM
Surr: 4-Bromofluorobenzene	98.9 0	80-120	%REC 1 11/18/2013 06:55 AM
Surr: Dibromofluoromethane	106 0	73-128	%REC 1 11/18/2013 06:55 AM
Surr: Toluene-d8	103 0	80-120	%REC 1 11/18/2013 06:55 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



**Advanced Technology Laboratories, Inc.**

**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-036

**Client Sample ID:** MW-31  
**Collection Date:** 11/11/2013 12:08:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: MS5_131117A	QC Batch: P13VW184	PrepDate:	Analyst: QBM			
1,1-Dichloroethene	ND	0.16	0.50	µg/L	1	11/18/2013 06:27 AM
cis-1,2-Dichloroethene	ND	0.057	0.50	µg/L	1	11/18/2013 06:27 AM
Tetrachloroethene	54	0.12	0.50	µg/L	1	11/18/2013 06:27 AM
trans-1,2-Dichloroethene	ND	0.11	0.50	µg/L	1	11/18/2013 06:27 AM
Trichloroethene	ND	0.075	0.50	µg/L	1	11/18/2013 06:27 AM
Vinyl chloride	ND	0.082	0.50	µg/L	1	11/18/2013 06:27 AM
Surr: 1,2-Dichloroethane-d4	98.9	0	70-127	%REC	1	11/18/2013 06:27 AM
Surr: 4-Bromofluorobenzene	97.9	0	80-120	%REC	1	11/18/2013 06:27 AM
Surr: Dibromofluoromethane	105	0	73-128	%REC	1	11/18/2013 06:27 AM
Surr: Toluene-d8	102	0	80-120	%REC	1	11/18/2013 06:27 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-037

**Client Sample ID:** MW-32  
**Collection Date:** 11/12/2013 12:13:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: MS5_131119A	QC Batch: P13VW186	PrepDate:	Analyst: QBM
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/20/2013 06:32 AM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/20/2013 06:32 AM
Tetrachloroethene	610 1.2	5.0	µg/L 10 11/20/2013 11:44 AM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/20/2013 06:32 AM
Trichloroethene	2.0 0.075	0.50	µg/L 1 11/20/2013 06:32 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/20/2013 06:32 AM
Surr: 1,2-Dichloroethane-d4	100 0	70-127	%REC 1 11/20/2013 06:32 AM
Surr: 1,2-Dichloroethane-d4	100 0	70-127	%REC 10 11/20/2013 11:44 AM
Surr: 4-Bromofluorobenzene	97.2 0	80-120	%REC 1 11/20/2013 06:32 AM
Surr: 4-Bromofluorobenzene	97.5 0	80-120	%REC 10 11/20/2013 11:44 AM
Surr: Dibromofluoromethane	103 0	73-128	%REC 1 11/20/2013 06:32 AM
Surr: Dibromofluoromethane	102 0	73-128	%REC 10 11/20/2013 11:44 AM
Surr: Toluene-d8	101 0	80-120	%REC 1 11/20/2013 06:32 AM
Surr: Toluene-d8	99.3 0	80-120	%REC 10 11/20/2013 11:44 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-038

**Client Sample ID:** MW-33  
**Collection Date:** 11/8/2013 8:48:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131119A</b>	QC Batch: <b>P13VW186</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/19/2013 10:21 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/19/2013 10:21 PM
Tetrachloroethene	ND 0.12	0.50	µg/L 1 11/19/2013 10:21 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/19/2013 10:21 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/19/2013 10:21 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/19/2013 10:21 PM
Surr: 1,2-Dichloroethane-d4	105 0	70-127	%REC 1 11/19/2013 10:21 PM
Surr: 4-Bromofluorobenzene	99.0 0	80-120	%REC 1 11/19/2013 10:21 PM
Surr: Dibromofluoromethane	104 0	73-128	%REC 1 11/19/2013 10:21 PM
Surr: Toluene-d8	100 0	80-120	%REC 1 11/19/2013 10:21 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-039

**Client Sample ID:** MW-34  
**Collection Date:** 11/4/2013 1:27:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116A</b>	QC Batch: <b>P13VW182</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/16/2013 06:03 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/16/2013 06:03 PM
Tetrachloroethene	500 1.2	5.0	µg/L 10 11/18/2013 04:12 AM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/16/2013 06:03 PM
Trichloroethene	0.86 0.075	0.50	µg/L 1 11/16/2013 06:03 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/16/2013 06:03 PM
Surr: 1,2-Dichloroethane-d4	101 0	70-127	%REC 10 11/18/2013 04:12 AM
Surr: 1,2-Dichloroethane-d4	104 0	70-127	%REC 1 11/16/2013 06:03 PM
Surr: 4-Bromofluorobenzene	99.2 0	80-120	%REC 10 11/18/2013 04:12 AM
Surr: 4-Bromofluorobenzene	97.7 0	80-120	%REC 1 11/16/2013 06:03 PM
Surr: Dibromofluoromethane	103 0	73-128	%REC 10 11/18/2013 04:12 AM
Surr: Dibromofluoromethane	107 0	73-128	%REC 1 11/16/2013 06:03 PM
Surr: Toluene-d8	103 0	80-120	%REC 10 11/18/2013 04:12 AM
Surr: Toluene-d8	100 0	80-120	%REC 1 11/16/2013 06:03 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-040

**Client Sample ID:** MW-35  
**Collection Date:** 11/4/2013 2:40:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131114A</b>	QC Batch: <b>P13VW180</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/14/2013 08:46 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/14/2013 08:46 PM
Tetrachloroethene	310 1.2	5.0	µg/L 10 11/15/2013 02:52 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/14/2013 08:46 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/14/2013 08:46 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/14/2013 08:46 PM
Surr: 1,2-Dichloroethane-d4	102 0	70-127	%REC 10 11/15/2013 02:52 PM
Surr: 1,2-Dichloroethane-d4	106 0	70-127	%REC 1 11/14/2013 08:46 PM
Surr: 4-Bromofluorobenzene	100 0	80-120	%REC 10 11/15/2013 02:52 PM
Surr: 4-Bromofluorobenzene	102 0	80-120	%REC 1 11/14/2013 08:46 PM
Surr: Dibromofluoromethane	107 0	73-128	%REC 10 11/15/2013 02:52 PM
Surr: Dibromofluoromethane	110 0	73-128	%REC 1 11/14/2013 08:46 PM
Surr: Toluene-d8	101 0	80-120	%REC 10 11/15/2013 02:52 PM
Surr: Toluene-d8	102 0	80-120	%REC 1 11/14/2013 08:46 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-041

**Client Sample ID:** MW-36  
**Collection Date:** 11/12/2013 9:53:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: MS5_131119A	QC Batch: P13VW186	PrepDate:	Analyst: QBM
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/20/2013 04:16 AM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/20/2013 04:16 AM
Tetrachloroethene	130 0.59	2.5	µg/L 5 11/20/2013 01:06 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/20/2013 04:16 AM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/20/2013 04:16 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/20/2013 04:16 AM
Surr: 1,2-Dichloroethane-d4	101 0	70-127	%REC 1 11/20/2013 04:16 AM
Surr: 1,2-Dichloroethane-d4	104 0	70-127	%REC 5 11/20/2013 01:06 PM
Surr: 4-Bromofluorobenzene	99.3 0	80-120	%REC 1 11/20/2013 04:16 AM
Surr: 4-Bromofluorobenzene	97.3 0	80-120	%REC 5 11/20/2013 01:06 PM
Surr: Dibromofluoromethane	104 0	73-128	%REC 1 11/20/2013 04:16 AM
Surr: Dibromofluoromethane	104 0	73-128	%REC 5 11/20/2013 01:06 PM
Surr: Toluene-d8	100 0	80-120	%REC 1 11/20/2013 04:16 AM
Surr: Toluene-d8	100 0	80-120	%REC 5 11/20/2013 01:06 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-042

**Client Sample ID:** MW-37  
**Collection Date:** 11/11/2013 11:14:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: MS5_131119A	QC Batch: P13VW186	PrepDate:	Analyst: QBM			
1,1-Dichloroethene	ND	0.16	0.50	µg/L	1	11/20/2013 03:49 AM
cis-1,2-Dichloroethene	ND	0.057	0.50	µg/L	1	11/20/2013 03:49 AM
Tetrachloroethene	33	0.12	0.50	µg/L	1	11/20/2013 03:49 AM
trans-1,2-Dichloroethene	ND	0.11	0.50	µg/L	1	11/20/2013 03:49 AM
Trichloroethene	ND	0.075	0.50	µg/L	1	11/20/2013 03:49 AM
Vinyl chloride	ND	0.082	0.50	µg/L	1	11/20/2013 03:49 AM
Surr: 1,2-Dichloroethane-d4	103	0	70-127	%REC	1	11/20/2013 03:49 AM
Surr: 4-Bromofluorobenzene	99.0	0	80-120	%REC	1	11/20/2013 03:49 AM
Surr: Dibromofluoromethane	105	0	73-128	%REC	1	11/20/2013 03:49 AM
Surr: Toluene-d8	99.8	0	80-120	%REC	1	11/20/2013 03:49 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-043

**Client Sample ID:** MW-38  
**Collection Date:** 11/11/2013 10:23:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: MS5_131119A	QC Batch: P13VW186	PrepDate:	Analyst: QBM			
1,1-Dichloroethene	ND	0.16	0.50	µg/L	1	11/20/2013 02:54 AM
cis-1,2-Dichloroethene	ND	0.057	0.50	µg/L	1	11/20/2013 02:54 AM
Tetrachloroethene	7.0	0.12	0.50	µg/L	1	11/20/2013 02:54 AM
trans-1,2-Dichloroethene	ND	0.11	0.50	µg/L	1	11/20/2013 02:54 AM
Trichloroethene	ND	0.075	0.50	µg/L	1	11/20/2013 02:54 AM
Vinyl chloride	ND	0.082	0.50	µg/L	1	11/20/2013 02:54 AM
Surr: 1,2-Dichloroethane-d4	105	0	70-127	%REC	1	11/20/2013 02:54 AM
Surr: 4-Bromofluorobenzene	97.0	0	80-120	%REC	1	11/20/2013 02:54 AM
Surr: Dibromofluoromethane	103	0	73-128	%REC	1	11/20/2013 02:54 AM
Surr: Toluene-d8	99.5	0	80-120	%REC	1	11/20/2013 02:54 AM

**Qualifiers:** B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 S Spike/Surrogate outside of limits due to matrix interference  
 DO Surrogate Diluted Out  
 E Value above quantitation range  
 ND Not Detected at the Reporting Limit  
 Results are wet unless otherwise specified



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-044

**Client Sample ID:** MW-38 Dup  
**Collection Date:** 11/11/2013 10:23:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: MS5_131119A	QC Batch: P13VW186	PrepDate:	Analyst: QBM
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/20/2013 03:21 AM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/20/2013 03:21 AM
Tetrachloroethene	6.8 0.12	0.50	µg/L 1 11/20/2013 03:21 AM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/20/2013 03:21 AM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/20/2013 03:21 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/20/2013 03:21 AM
Surr: 1,2-Dichloroethane-d4	104 0	70-127	%REC 1 11/20/2013 03:21 AM
Surr: 4-Bromofluorobenzene	100 0	80-120	%REC 1 11/20/2013 03:21 AM
Surr: Dibromofluoromethane	105 0	73-128	%REC 1 11/20/2013 03:21 AM
Surr: Toluene-d8	101 0	80-120	%REC 1 11/20/2013 03:21 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-045

**Client Sample ID:** MW-39  
**Collection Date:** 11/11/2013 2:04:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131119A</b>	QC Batch: <b>P13VW186</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/20/2013 04:43 AM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/20/2013 04:43 AM
Tetrachloroethene	260 1.2	5.0	µg/L 10 11/20/2013 01:33 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/20/2013 04:43 AM
Trichloroethene	0.81 0.075	0.50	µg/L 1 11/20/2013 04:43 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/20/2013 04:43 AM
Surr: 1,2-Dichloroethane-d4	102 0	70-127	%REC 1 11/20/2013 04:43 AM
Surr: 1,2-Dichloroethane-d4	105 0	70-127	%REC 10 11/20/2013 01:33 PM
Surr: 4-Bromofluorobenzene	96.2 0	80-120	%REC 1 11/20/2013 04:43 AM
Surr: 4-Bromofluorobenzene	98.0 0	80-120	%REC 10 11/20/2013 01:33 PM
Surr: Dibromofluoromethane	104 0	73-128	%REC 1 11/20/2013 04:43 AM
Surr: Dibromofluoromethane	106 0	73-128	%REC 10 11/20/2013 01:33 PM
Surr: Toluene-d8	99.5 0	80-120	%REC 1 11/20/2013 04:43 AM
Surr: Toluene-d8	101 0	80-120	%REC 10 11/20/2013 01:33 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-046

**Client Sample ID:** MW-40 CMT-30  
**Collection Date:** 11/6/2013 10:30:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID:	MS5_131116A	QC Batch:	P13VW182	PrepDate:	Analyst:	QBM
1,1-Dichloroethene	ND	0.16	0.50	µg/L	1	11/16/2013 10:18 AM
cis-1,2-Dichloroethene	ND	0.057	0.50	µg/L	1	11/16/2013 10:18 AM
Tetrachloroethene	1.3	0.12	0.50	µg/L	1	11/16/2013 10:18 AM
trans-1,2-Dichloroethene	ND	0.11	0.50	µg/L	1	11/16/2013 10:18 AM
Trichloroethene	ND	0.075	0.50	µg/L	1	11/16/2013 10:18 AM
Vinyl chloride	ND	0.082	0.50	µg/L	1	11/16/2013 10:18 AM
Surr: 1,2-Dichloroethane-d4	105	0	70-127	%REC	1	11/16/2013 10:18 AM
Surr: 4-Bromofluorobenzene	100	0	80-120	%REC	1	11/16/2013 10:18 AM
Surr: Dibromofluoromethane	110	0	73-128	%REC	1	11/16/2013 10:18 AM
Surr: Toluene-d8	102	0	80-120	%REC	1	11/16/2013 10:18 AM

**HEXAVALENT CHROMIUM BY IC**

**EPA 218.6**

RunID:	IC6_131114A	QC Batch:	R91206	PrepDate:	Analyst:	PN
Hexavalent Chromium	110	0.24	2.0	µg/L	10	11/14/2013 03:24 PM

**DISSOLVED METALS BY ICP-MS**

**EPA 3010A**

**EPA 6020**

RunID:	ICP7_131115A	QC Batch:	44365	PrepDate:	11/13/2013	Analyst:	CEI
Arsenic	3.6	0.027	0.10	µg/L	1	11/15/2013 02:10 PM	
Chromium	110	0.030	1.0	µg/L	1	11/15/2013 02:10 PM	
Manganese	77	0.026	0.50	µg/L	1	11/19/2013 05:29 AM	

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-047

**Client Sample ID:** MW-40 CMT-35  
**Collection Date:** 11/6/2013 11:00:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: MS5_131116A	QC Batch: P13VW182	PrepDate:	Analyst: QBM
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/16/2013 10:45 AM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/16/2013 10:45 AM
Tetrachloroethene	12 0.12	0.50	µg/L 1 11/16/2013 10:45 AM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/16/2013 10:45 AM
Trichloroethene	2.4 0.075	0.50	µg/L 1 11/16/2013 10:45 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/16/2013 10:45 AM
Surr: 1,2-Dichloroethane-d4	101 0	70-127	%REC 1 11/16/2013 10:45 AM
Surr: 4-Bromofluorobenzene	97.5 0	80-120	%REC 1 11/16/2013 10:45 AM
Surr: Dibromofluoromethane	109 0	73-128	%REC 1 11/16/2013 10:45 AM
Surr: Toluene-d8	102 0	80-120	%REC 1 11/16/2013 10:45 AM

**HEXAVALENT CHROMIUM BY IC**

**EPA 218.6**

RunID: IC6_131114A	QC Batch: R91206	PrepDate:	Analyst: PN
Hexavalent Chromium	ND 0.024	0.20	µg/L 1 11/14/2013 07:02 PM

**DISSOLVED METALS BY ICP-MS**

**EPA 3010A**

**EPA 6020**

RunID: ICP7_131115A	QC Batch: 44365	PrepDate: 11/13/2013	Analyst: CEI
Arsenic	7.8 0.027	0.10	µg/L 1 11/15/2013 02:15 PM
Chromium	ND 0.030	1.0	µg/L 1 11/15/2013 02:15 PM
Manganese	430 0.13	2.5	µg/L 5 11/19/2013 06:30 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-048

**Client Sample ID:** MW-40 CMT-40  
**Collection Date:** 11/6/2013 1:20:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116A</b>	QC Batch: <b>P13VW182</b>				PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND	0.16	0.50		µg/L	1 11/16/2013 11:13 AM
cis-1,2-Dichloroethene	ND	0.057	0.50		µg/L	1 11/16/2013 11:13 AM
Tetrachloroethene	51	0.12	0.50		µg/L	1 11/16/2013 11:13 AM
trans-1,2-Dichloroethene	ND	0.11	0.50		µg/L	1 11/16/2013 11:13 AM
Trichloroethene	0.64	0.075	0.50		µg/L	1 11/16/2013 11:13 AM
Vinyl chloride	ND	0.082	0.50		µg/L	1 11/16/2013 11:13 AM
Surr: 1,2-Dichloroethane-d4	105	0	70-127		%REC	1 11/16/2013 11:13 AM
Surr: 4-Bromofluorobenzene	102	0	80-120		%REC	1 11/16/2013 11:13 AM
Surr: Dibromofluoromethane	109	0	73-128		%REC	1 11/16/2013 11:13 AM
Surr: Toluene-d8	102	0	80-120		%REC	1 11/16/2013 11:13 AM

**HEXAVALENT CHROMIUM BY IC**

**EPA 218.6**

RunID: <b>IC6_131114A</b>	QC Batch: <b>R91206</b>				PrepDate:	Analyst: <b>PN</b>
Hexavalent Chromium	15	0.024	0.20		µg/L	1 11/14/2013 06:52 PM

**DISSOLVED METALS BY ICP-MS**

**EPA 3010A**

**EPA 6020**

RunID: <b>ICP7_131115A</b>	QC Batch: <b>44365</b>				PrepDate: <b>11/13/2013</b>	Analyst: <b>CEI</b>
Arsenic	1.9	0.027	0.10		µg/L	1 11/15/2013 02:21 PM
Chromium	14	0.030	1.0		µg/L	1 11/15/2013 02:21 PM
Manganese	61	0.026	0.50		µg/L	1 11/19/2013 05:34 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**Advanced Technology Laboratories, Inc.**

**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-049

**Client Sample ID:** MW-40 CMT-45  
**Collection Date:** 11/6/2013 2:30:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID:	MS5_131116B	QC Batch:	P13VW183	PrepDate:	Analyst:	QBM
1,1-Dichloroethene	ND	0.16	0.50	µg/L	1	11/17/2013 04:12 AM
cis-1,2-Dichloroethene	ND	0.057	0.50	µg/L	1	11/17/2013 04:12 AM
Tetrachloroethene	77	0.12	0.50	µg/L	1	11/17/2013 04:12 AM
trans-1,2-Dichloroethene	ND	0.11	0.50	µg/L	1	11/17/2013 04:12 AM
Trichloroethene	1.1	0.075	0.50	µg/L	1	11/17/2013 04:12 AM
Vinyl chloride	ND	0.082	0.50	µg/L	1	11/17/2013 04:12 AM
Surr: 1,2-Dichloroethane-d4	108	0	70-127	%REC	1	11/17/2013 04:12 AM
Surr: 4-Bromofluorobenzene	103	0	80-120	%REC	1	11/17/2013 04:12 AM
Surr: Dibromofluoromethane	110	0	73-128	%REC	1	11/17/2013 04:12 AM
Surr: Toluene-d8	103	0	80-120	%REC	1	11/17/2013 04:12 AM

**HEXAVALENT CHROMIUM BY IC**

**EPA 218.6**

RunID:	IC6_131114A	QC Batch:	R91206	PrepDate:	Analyst:	PN
Hexavalent Chromium	6.1	0.024	0.20	µg/L	1	11/14/2013 05:04 PM

**DISSOLVED METALS BY ICP-MS**

**EPA 3010A**

**EPA 6020**

RunID:	ICP7_131115A	QC Batch:	44365	PrepDate:	11/13/2013	Analyst:	CEI
Arsenic	1.5	0.027	0.10	µg/L	1	11/15/2013 02:26 PM	
Chromium	6.0	0.030	1.0	µg/L	1	11/15/2013 02:26 PM	
Manganese	110	0.026	0.50	µg/L	1	11/19/2013 05:40 AM	

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-050

**Client Sample ID:** MW-40 CMT-50  
**Collection Date:** 11/6/2013 12:30:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: MS5_131116B	QC Batch: P13VW183	PrepDate:	Analyst: QBM
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/17/2013 03:45 AM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/17/2013 03:45 AM
Tetrachloroethene	120 0.59	2.5	µg/L 5 11/18/2013 04:39 AM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/17/2013 03:45 AM
Trichloroethene	1.8 0.075	0.50	µg/L 1 11/17/2013 03:45 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/17/2013 03:45 AM
Surr: 1,2-Dichloroethane-d4	104 0	70-127	%REC 1 11/17/2013 03:45 AM
Surr: 1,2-Dichloroethane-d4	100 0	70-127	%REC 5 11/18/2013 04:39 AM
Surr: 4-Bromofluorobenzene	96.9 0	80-120	%REC 5 11/18/2013 04:39 AM
Surr: 4-Bromofluorobenzene	98.6 0	80-120	%REC 1 11/17/2013 03:45 AM
Surr: Dibromofluoromethane	104 0	73-128	%REC 5 11/18/2013 04:39 AM
Surr: Dibromofluoromethane	108 0	73-128	%REC 1 11/17/2013 03:45 AM
Surr: Toluene-d8	101 0	80-120	%REC 5 11/18/2013 04:39 AM
Surr: Toluene-d8	101 0	80-120	%REC 1 11/17/2013 03:45 AM

**HEXAVALENT CHROMIUM BY IC**

**EPA 218.6**

RunID: IC6_131114A	QC Batch: R91206	PrepDate:	Analyst: PN
Hexavalent Chromium	0.35 0.024	0.20	µg/L 1 11/14/2013 05:24 PM

**DISSOLVED METALS BY ICP-MS**

**EPA 3010A**

**EPA 6020**

RunID: ICP7_131115A	QC Batch: 44365	PrepDate: 11/13/2013	Analyst: CEI
Arsenic	1.9 0.027	0.10	µg/L 1 11/15/2013 02:32 PM
Chromium	ND 0.030	1.0	µg/L 1 11/15/2013 02:32 PM
Manganese	250 0.13	2.5	µg/L 5 11/19/2013 06:41 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-051

**Client Sample ID:** MW-40 CMT-55  
**Collection Date:** 11/6/2013 2:00:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: MS5_131116B	QC Batch: P13VW183	PrepDate:	Analyst: QBM			
1,1-Dichloroethene	ND	0.16	0.50	µg/L	1	11/17/2013 03:17 AM
cis-1,2-Dichloroethene	ND	0.057	0.50	µg/L	1	11/17/2013 03:17 AM
Tetrachloroethene	110	0.59	2.5	µg/L	5	11/18/2013 05:06 AM
trans-1,2-Dichloroethene	ND	0.11	0.50	µg/L	1	11/17/2013 03:17 AM
Trichloroethene	0.86	0.075	0.50	µg/L	1	11/17/2013 03:17 AM
Vinyl chloride	ND	0.082	0.50	µg/L	1	11/17/2013 03:17 AM
Surr: 1,2-Dichloroethane-d4	103	0	70-127	%REC	1	11/17/2013 03:17 AM
Surr: 1,2-Dichloroethane-d4	103	0	70-127	%REC	5	11/18/2013 05:06 AM
Surr: 4-Bromofluorobenzene	99.2	0	80-120	%REC	5	11/18/2013 05:06 AM
Surr: 4-Bromofluorobenzene	100	0	80-120	%REC	1	11/17/2013 03:17 AM
Surr: Dibromofluoromethane	104	0	73-128	%REC	5	11/18/2013 05:06 AM
Surr: Dibromofluoromethane	105	0	73-128	%REC	1	11/17/2013 03:17 AM
Surr: Toluene-d8	103	0	80-120	%REC	5	11/18/2013 05:06 AM
Surr: Toluene-d8	100	0	80-120	%REC	1	11/17/2013 03:17 AM

**HEXAVALENT CHROMIUM BY IC**

**EPA 218.6**

RunID: IC6_131114A	QC Batch: R91206	PrepDate:	Analyst: PN			
Hexavalent Chromium	11	0.024	0.20	µg/L	1	11/14/2013 07:12 PM

**DISSOLVED METALS BY ICP-MS**

**EPA 3010A**

**EPA 6020**

RunID: ICP7_131115A	QC Batch: 44365	PrepDate: 11/13/2013	Analyst: CEI			
Arsenic	2.4	0.027	0.10	µg/L	1	11/15/2013 02:37 PM
Chromium	20	0.030	1.0	µg/L	1	11/15/2013 02:37 PM
Manganese	69	0.026	0.50	µg/L	1	11/19/2013 05:45 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-052

**Client Sample ID:** MW-40 CMT-60  
**Collection Date:** 11/6/2013 11:30:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116B</b>	QC Batch: <b>P13VW183</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/17/2013 02:50 AM
cis-1,2-Dichloroethene	2.5 0.057	0.50	µg/L 1 11/17/2013 02:50 AM
Tetrachloroethene	190 0.59	2.5	µg/L 5 11/18/2013 05:33 AM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/17/2013 02:50 AM
Trichloroethene	3.6 0.075	0.50	µg/L 1 11/17/2013 02:50 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/17/2013 02:50 AM
Surr: 1,2-Dichloroethane-d4	106 0	70-127	%REC 1 11/17/2013 02:50 AM
Surr: 1,2-Dichloroethane-d4	99.4 0	70-127	%REC 5 11/18/2013 05:33 AM
Surr: 4-Bromofluorobenzene	98.1 0	80-120	%REC 5 11/18/2013 05:33 AM
Surr: 4-Bromofluorobenzene	101 0	80-120	%REC 1 11/17/2013 02:50 AM
Surr: Dibromofluoromethane	105 0	73-128	%REC 5 11/18/2013 05:33 AM
Surr: Dibromofluoromethane	107 0	73-128	%REC 1 11/17/2013 02:50 AM
Surr: Toluene-d8	101 0	80-120	%REC 5 11/18/2013 05:33 AM
Surr: Toluene-d8	101 0	80-120	%REC 1 11/17/2013 02:50 AM

**HEXAVALENT CHROMIUM BY IC**

**EPA 218.6**

RunID: <b>IC6_131114A</b>	QC Batch: <b>R91206</b>	PrepDate:	Analyst: <b>PN</b>
Hexavalent Chromium	3.7 0.024	0.20	µg/L 1 11/14/2013 05:52 PM

**DISSOLVED METALS BY ICP-MS**

**EPA 3010A**

**EPA 6020**

RunID: <b>ICP7_131115A</b>	QC Batch: <b>44365</b>	PrepDate: <b>11/13/2013</b>	Analyst: <b>CEI</b>
Arsenic	0.96 0.027	0.10	µg/L 1 11/15/2013 02:54 PM
Chromium	3.2 0.030	1.0	µg/L 1 11/15/2013 02:54 PM
Manganese	43 0.026	0.50	µg/L 1 11/19/2013 05:51 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-053

**Client Sample ID:** MW-40 CMT-60 Dup  
**Collection Date:** 11/6/2013 11:30:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116B</b>	QC Batch: <b>P13VW183</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/17/2013 02:23 AM
cis-1,2-Dichloroethene	3.1 0.057	0.50	µg/L 1 11/17/2013 02:23 AM
Tetrachloroethene	410 1.2	5.0	µg/L 10 11/18/2013 06:00 AM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/17/2013 02:23 AM
Trichloroethene	3.7 0.075	0.50	µg/L 1 11/17/2013 02:23 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/17/2013 02:23 AM
Surr: 1,2-Dichloroethane-d4	98.6 0	70-127	%REC 10 11/18/2013 06:00 AM
Surr: 1,2-Dichloroethane-d4	103 0	70-127	%REC 1 11/17/2013 02:23 AM
Surr: 4-Bromofluorobenzene	99.1 0	80-120	%REC 10 11/18/2013 06:00 AM
Surr: 4-Bromofluorobenzene	99.4 0	80-120	%REC 1 11/17/2013 02:23 AM
Surr: Dibromofluoromethane	103 0	73-128	%REC 10 11/18/2013 06:00 AM
Surr: Dibromofluoromethane	106 0	73-128	%REC 1 11/17/2013 02:23 AM
Surr: Toluene-d8	101 0	80-120	%REC 10 11/18/2013 06:00 AM
Surr: Toluene-d8	102 0	80-120	%REC 1 11/17/2013 02:23 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-054

**Client Sample ID:** MW-41  
**Collection Date:** 11/11/2013 9:38:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131119A</b>	QC Batch: <b>P13VW186</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/20/2013 02:27 AM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/20/2013 02:27 AM
Tetrachloroethene	2.6 0.12	0.50	µg/L 1 11/20/2013 02:27 AM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/20/2013 02:27 AM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/20/2013 02:27 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/20/2013 02:27 AM
Surr: 1,2-Dichloroethane-d4	105 0	70-127	%REC 1 11/20/2013 02:27 AM
Surr: 4-Bromofluorobenzene	99.0 0	80-120	%REC 1 11/20/2013 02:27 AM
Surr: Dibromofluoromethane	105 0	73-128	%REC 1 11/20/2013 02:27 AM
Surr: Toluene-d8	102 0	80-120	%REC 1 11/20/2013 02:27 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-055

**Client Sample ID:** MW-42  
**Collection Date:** 11/11/2013 8:46:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131119A</b>	QC Batch: <b>P13VW186</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/20/2013 01:59 AM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/20/2013 01:59 AM
Tetrachloroethene	0.60 0.12	0.50	µg/L 1 11/20/2013 01:59 AM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/20/2013 01:59 AM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/20/2013 01:59 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/20/2013 01:59 AM
Surr: 1,2-Dichloroethane-d4	102 0	70-127	%REC 1 11/20/2013 01:59 AM
Surr: 4-Bromofluorobenzene	98.8 0	80-120	%REC 1 11/20/2013 01:59 AM
Surr: Dibromofluoromethane	104 0	73-128	%REC 1 11/20/2013 01:59 AM
Surr: Toluene-d8	99.5 0	80-120	%REC 1 11/20/2013 01:59 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-056

**Client Sample ID:** MW-43  
**Collection Date:** 11/8/2013 9:45:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131119A</b>	QC Batch: <b>P13VW186</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/19/2013 10:48 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/19/2013 10:48 PM
Tetrachloroethene	ND 0.12	0.50	µg/L 1 11/19/2013 10:48 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/19/2013 10:48 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/19/2013 10:48 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/19/2013 10:48 PM
Surr: 1,2-Dichloroethane-d4	104 0	70-127	%REC 1 11/19/2013 10:48 PM
Surr: 4-Bromofluorobenzene	98.4 0	80-120	%REC 1 11/19/2013 10:48 PM
Surr: Dibromofluoromethane	104 0	73-128	%REC 1 11/19/2013 10:48 PM
Surr: Toluene-d8	100 0	80-120	%REC 1 11/19/2013 10:48 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-057

**Client Sample ID:** Trip Blank  
**Collection Date:** 11/4/2013 7:10:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: MS5_131114A	QC Batch: P13VW180	PrepDate:	Analyst: QBM			
1,1-Dichloroethene	ND	0.16	0.50	µg/L	1	11/14/2013 11:21 AM
cis-1,2-Dichloroethene	ND	0.057	0.50	µg/L	1	11/14/2013 11:21 AM
Tetrachloroethene	ND	0.12	0.50	µg/L	1	11/14/2013 11:21 AM
trans-1,2-Dichloroethene	ND	0.11	0.50	µg/L	1	11/14/2013 11:21 AM
Trichloroethene	ND	0.075	0.50	µg/L	1	11/14/2013 11:21 AM
Vinyl chloride	ND	0.082	0.50	µg/L	1	11/14/2013 11:21 AM
Surr: 1,2-Dichloroethane-d4	105	0	70-127	%REC	1	11/14/2013 11:21 AM
Surr: 4-Bromofluorobenzene	99.8	0	80-120	%REC	1	11/14/2013 11:21 AM
Surr: Dibromofluoromethane	108	0	73-128	%REC	1	11/14/2013 11:21 AM
Surr: Toluene-d8	100	0	80-120	%REC	1	11/14/2013 11:21 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-058

**Client Sample ID:** Field Blank  
**Collection Date:** 11/4/2013 12:25:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131114A</b>	QC Batch: <b>P13VW180</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/14/2013 11:49 AM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/14/2013 11:49 AM
Tetrachloroethene	ND 0.12	0.50	µg/L 1 11/14/2013 11:49 AM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/14/2013 11:49 AM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/14/2013 11:49 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/14/2013 11:49 AM
Surr: 1,2-Dichloroethane-d4	106 0	70-127	%REC 1 11/14/2013 11:49 AM
Surr: 4-Bromofluorobenzene	99.5 0	80-120	%REC 1 11/14/2013 11:49 AM
Surr: Dibromofluoromethane	109 0	73-128	%REC 1 11/14/2013 11:49 AM
Surr: Toluene-d8	100 0	80-120	%REC 1 11/14/2013 11:49 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-059

**Client Sample ID:** Equip Rinse  
**Collection Date:** 11/4/2013 12:49:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131114A</b>	QC Batch: <b>P13VW180</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/14/2013 12:43 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/14/2013 12:43 PM
Tetrachloroethene	ND 0.12	0.50	µg/L 1 11/14/2013 12:43 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/14/2013 12:43 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/14/2013 12:43 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/14/2013 12:43 PM
Surr: 1,2-Dichloroethane-d4	105 0	70-127	%REC 1 11/14/2013 12:43 PM
Surr: 4-Bromofluorobenzene	97.8 0	80-120	%REC 1 11/14/2013 12:43 PM
Surr: Dibromofluoromethane	110 0	73-128	%REC 1 11/14/2013 12:43 PM
Surr: Toluene-d8	100 0	80-120	%REC 1 11/14/2013 12:43 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-060

**Client Sample ID:** Trip Blank  
**Collection Date:** 11/5/2013 6:45:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131114A</b>	QC Batch: <b>P13VW180</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/14/2013 01:50 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/14/2013 01:50 PM
Tetrachloroethene	ND 0.12	0.50	µg/L 1 11/14/2013 01:50 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/14/2013 01:50 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/14/2013 01:50 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/14/2013 01:50 PM
Surr: 1,2-Dichloroethane-d4	103 0	70-127	%REC 1 11/14/2013 01:50 PM
Surr: 4-Bromofluorobenzene	99.4 0	80-120	%REC 1 11/14/2013 01:50 PM
Surr: Dibromofluoromethane	108 0	73-128	%REC 1 11/14/2013 01:50 PM
Surr: Toluene-d8	101 0	80-120	%REC 1 11/14/2013 01:50 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-061

**Client Sample ID:** Field Blank  
**Collection Date:** 11/5/2013 10:30:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131114A</b>	QC Batch: <b>P13VW180</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/14/2013 02:18 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/14/2013 02:18 PM
Tetrachloroethene	ND 0.12	0.50	µg/L 1 11/14/2013 02:18 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/14/2013 02:18 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/14/2013 02:18 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/14/2013 02:18 PM
Surr: 1,2-Dichloroethane-d4	106 0	70-127	%REC 1 11/14/2013 02:18 PM
Surr: 4-Bromofluorobenzene	99.4 0	80-120	%REC 1 11/14/2013 02:18 PM
Surr: Dibromofluoromethane	109 0	73-128	%REC 1 11/14/2013 02:18 PM
Surr: Toluene-d8	101 0	80-120	%REC 1 11/14/2013 02:18 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-062

**Client Sample ID:** Equip Rinse  
**Collection Date:** 11/5/2013 10:50:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131114A</b>	QC Batch: <b>P13VW180</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/14/2013 02:45 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/14/2013 02:45 PM
Tetrachloroethene	ND 0.12	0.50	µg/L 1 11/14/2013 02:45 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/14/2013 02:45 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/14/2013 02:45 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/14/2013 02:45 PM
Surr: 1,2-Dichloroethane-d4	105 0	70-127	%REC 1 11/14/2013 02:45 PM
Surr: 4-Bromofluorobenzene	100 0	80-120	%REC 1 11/14/2013 02:45 PM
Surr: Dibromofluoromethane	107 0	73-128	%REC 1 11/14/2013 02:45 PM
Surr: Toluene-d8	101 0	80-120	%REC 1 11/14/2013 02:45 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-063

**Client Sample ID:** Trip Blank  
**Collection Date:** 11/6/2013 7:10:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116A</b>	QC Batch: <b>P13VW182</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/16/2013 02:52 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/16/2013 02:52 PM
Tetrachloroethene	ND 0.12	0.50	µg/L 1 11/16/2013 02:52 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/16/2013 02:52 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/16/2013 02:52 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/16/2013 02:52 PM
Surr: 1,2-Dichloroethane-d4	104 0	70-127	%REC 1 11/16/2013 02:52 PM
Surr: 4-Bromofluorobenzene	100 0	80-120	%REC 1 11/16/2013 02:52 PM
Surr: Dibromofluoromethane	108 0	73-128	%REC 1 11/16/2013 02:52 PM
Surr: Toluene-d8	102 0	80-120	%REC 1 11/16/2013 02:52 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-064

**Client Sample ID:** Field Blank  
**Collection Date:** 11/6/2013 12:35:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116A</b>	QC Batch: <b>P13VW182</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/16/2013 03:19 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/16/2013 03:19 PM
Tetrachloroethene	ND 0.12	0.50	µg/L 1 11/16/2013 03:19 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/16/2013 03:19 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/16/2013 03:19 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/16/2013 03:19 PM
Surr: 1,2-Dichloroethane-d4	103 0	70-127	%REC 1 11/16/2013 03:19 PM
Surr: 4-Bromofluorobenzene	99.0 0	80-120	%REC 1 11/16/2013 03:19 PM
Surr: Dibromofluoromethane	107 0	73-128	%REC 1 11/16/2013 03:19 PM
Surr: Toluene-d8	101 0	80-120	%REC 1 11/16/2013 03:19 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-065

**Client Sample ID:** Equip Rinse  
**Collection Date:** 11/6/2013 12:35:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116A</b>	QC Batch: <b>P13VW182</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/16/2013 03:47 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/16/2013 03:47 PM
Tetrachloroethene	ND 0.12	0.50	µg/L 1 11/16/2013 03:47 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/16/2013 03:47 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/16/2013 03:47 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/16/2013 03:47 PM
Surr: 1,2-Dichloroethane-d4	105 0	70-127	%REC 1 11/16/2013 03:47 PM
Surr: 4-Bromofluorobenzene	99.2 0	80-120	%REC 1 11/16/2013 03:47 PM
Surr: Dibromofluoromethane	107 0	73-128	%REC 1 11/16/2013 03:47 PM
Surr: Toluene-d8	101 0	80-120	%REC 1 11/16/2013 03:47 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-066

**Client Sample ID:** Trip Blank  
**Collection Date:** 11/7/2013 6:50:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116A</b>	QC Batch: <b>P13VW182</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/16/2013 04:14 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/16/2013 04:14 PM
Tetrachloroethene	ND 0.12	0.50	µg/L 1 11/16/2013 04:14 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/16/2013 04:14 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/16/2013 04:14 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/16/2013 04:14 PM
Surr: 1,2-Dichloroethane-d4	105 0	70-127	%REC 1 11/16/2013 04:14 PM
Surr: 4-Bromofluorobenzene	98.0 0	80-120	%REC 1 11/16/2013 04:14 PM
Surr: Dibromofluoromethane	108 0	73-128	%REC 1 11/16/2013 04:14 PM
Surr: Toluene-d8	99.7 0	80-120	%REC 1 11/16/2013 04:14 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-067

**Client Sample ID:** Field Blank  
**Collection Date:** 11/7/2013 11:00:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116A</b>	QC Batch: <b>P13VW182</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/16/2013 04:41 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/16/2013 04:41 PM
Tetrachloroethene	ND 0.12	0.50	µg/L 1 11/16/2013 04:41 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/16/2013 04:41 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/16/2013 04:41 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/16/2013 04:41 PM
Surr: 1,2-Dichloroethane-d4	105 0	70-127	%REC 1 11/16/2013 04:41 PM
Surr: 4-Bromofluorobenzene	99.7 0	80-120	%REC 1 11/16/2013 04:41 PM
Surr: Dibromofluoromethane	107 0	73-128	%REC 1 11/16/2013 04:41 PM
Surr: Toluene-d8	102 0	80-120	%REC 1 11/16/2013 04:41 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-068

**Client Sample ID:** Equip Rinse  
**Collection Date:** 11/7/2013 10:55:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116A</b>	QC Batch: <b>P13VW182</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/16/2013 05:09 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/16/2013 05:09 PM
Tetrachloroethene	ND 0.12	0.50	µg/L 1 11/16/2013 05:09 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/16/2013 05:09 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/16/2013 05:09 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/16/2013 05:09 PM
Surr: 1,2-Dichloroethane-d4	103 0	70-127	%REC 1 11/16/2013 05:09 PM
Surr: 4-Bromofluorobenzene	98.0 0	80-120	%REC 1 11/16/2013 05:09 PM
Surr: Dibromofluoromethane	107 0	73-128	%REC 1 11/16/2013 05:09 PM
Surr: Toluene-d8	101 0	80-120	%REC 1 11/16/2013 05:09 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-069

**Client Sample ID:** Trip Blank  
**Collection Date:** 11/8/2013 6:52:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116B</b>	QC Batch: <b>P13VW183</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/16/2013 11:39 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/16/2013 11:39 PM
Tetrachloroethene	ND 0.12	0.50	µg/L 1 11/16/2013 11:39 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/16/2013 11:39 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/16/2013 11:39 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/16/2013 11:39 PM
Surr: 1,2-Dichloroethane-d4	104 0	70-127	%REC 1 11/16/2013 11:39 PM
Surr: 4-Bromofluorobenzene	99.6 0	80-120	%REC 1 11/16/2013 11:39 PM
Surr: Dibromofluoromethane	105 0	73-128	%REC 1 11/16/2013 11:39 PM
Surr: Toluene-d8	101 0	80-120	%REC 1 11/16/2013 11:39 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-070

**Client Sample ID:** Field Blank  
**Collection Date:** 11/8/2013 11:30:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131116B</b>	QC Batch: <b>P13VW183</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/17/2013 12:06 AM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/17/2013 12:06 AM
Tetrachloroethene	ND 0.12	0.50	µg/L 1 11/17/2013 12:06 AM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/17/2013 12:06 AM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/17/2013 12:06 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/17/2013 12:06 AM
Surr: 1,2-Dichloroethane-d4	101 0	70-127	%REC 1 11/17/2013 12:06 AM
Surr: 4-Bromofluorobenzene	100 0	80-120	%REC 1 11/17/2013 12:06 AM
Surr: Dibromofluoromethane	105 0	73-128	%REC 1 11/17/2013 12:06 AM
Surr: Toluene-d8	101 0	80-120	%REC 1 11/17/2013 12:06 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



**Advanced Technology  
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3151 W. Post Rd Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691

**Advanced Technology Laboratories, Inc.**

**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-071

**Client Sample ID:** Equip Rinse  
**Collection Date:** 11/8/2013 12:10:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131119A</b>	QC Batch: <b>P13VW186</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/19/2013 09:54 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/19/2013 09:54 PM
Tetrachloroethene	ND 0.12	0.50	µg/L 1 11/19/2013 09:54 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/19/2013 09:54 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/19/2013 09:54 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/19/2013 09:54 PM
Surr: 1,2-Dichloroethane-d4	109 0	70-127	%REC 1 11/19/2013 09:54 PM
Surr: 4-Bromofluorobenzene	104 0	80-120	%REC 1 11/19/2013 09:54 PM
Surr: Dibromofluoromethane	108 0	73-128	%REC 1 11/19/2013 09:54 PM
Surr: Toluene-d8	102 0	80-120	%REC 1 11/19/2013 09:54 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-072

**Client Sample ID:** Trip Blank  
**Collection Date:** 11/11/2013 7:10:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131119A</b>	QC Batch: <b>P13VW186</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/19/2013 11:16 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/19/2013 11:16 PM
Tetrachloroethene	ND 0.12	0.50	µg/L 1 11/19/2013 11:16 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/19/2013 11:16 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/19/2013 11:16 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/19/2013 11:16 PM
Surr: 1,2-Dichloroethane-d4	100 0	70-127	%REC 1 11/19/2013 11:16 PM
Surr: 4-Bromofluorobenzene	99.7 0	80-120	%REC 1 11/19/2013 11:16 PM
Surr: Dibromofluoromethane	102 0	73-128	%REC 1 11/19/2013 11:16 PM
Surr: Toluene-d8	100 0	80-120	%REC 1 11/19/2013 11:16 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-073

**Client Sample ID:** Field Blank  
**Collection Date:** 11/11/2013 10:45:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131119A</b>	QC Batch: <b>P13VW186</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/19/2013 11:43 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/19/2013 11:43 PM
Tetrachloroethene	ND 0.12	0.50	µg/L 1 11/19/2013 11:43 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/19/2013 11:43 PM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/19/2013 11:43 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/19/2013 11:43 PM
Surr: 1,2-Dichloroethane-d4	99.6 0	70-127	%REC 1 11/19/2013 11:43 PM
Surr: 4-Bromofluorobenzene	98.2 0	80-120	%REC 1 11/19/2013 11:43 PM
Surr: Dibromofluoromethane	101 0	73-128	%REC 1 11/19/2013 11:43 PM
Surr: Toluene-d8	99.8 0	80-120	%REC 1 11/19/2013 11:43 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-074

**Client Sample ID:** Equip Rinse  
**Collection Date:** 11/11/2013 11:25:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131119A</b>	QC Batch: <b>P13VW186</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/20/2013 12:10 AM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/20/2013 12:10 AM
Tetrachloroethene	ND 0.12	0.50	µg/L 1 11/20/2013 12:10 AM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/20/2013 12:10 AM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/20/2013 12:10 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/20/2013 12:10 AM
Surr: 1,2-Dichloroethane-d4	101 0	70-127	%REC 1 11/20/2013 12:10 AM
Surr: 4-Bromofluorobenzene	101 0	80-120	%REC 1 11/20/2013 12:10 AM
Surr: Dibromofluoromethane	102 0	73-128	%REC 1 11/20/2013 12:10 AM
Surr: Toluene-d8	103 0	80-120	%REC 1 11/20/2013 12:10 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-075

**Client Sample ID:** Trip Blank  
**Collection Date:** 11/12/2013 7:05:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131119A</b>	QC Batch: <b>P13VW186</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/20/2013 12:38 AM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/20/2013 12:38 AM
Tetrachloroethene	ND 0.12	0.50	µg/L 1 11/20/2013 12:38 AM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/20/2013 12:38 AM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/20/2013 12:38 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/20/2013 12:38 AM
Surr: 1,2-Dichloroethane-d4	100 0	70-127	%REC 1 11/20/2013 12:38 AM
Surr: 4-Bromofluorobenzene	100 0	80-120	%REC 1 11/20/2013 12:38 AM
Surr: Dibromofluoromethane	103 0	73-128	%REC 1 11/20/2013 12:38 AM
Surr: Toluene-d8	101 0	80-120	%REC 1 11/20/2013 12:38 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-076

**Client Sample ID:** Field Blank  
**Collection Date:** 11/12/2013 12:05:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131119A</b>	QC Batch: <b>P13VW186</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/20/2013 01:05 AM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/20/2013 01:05 AM
Tetrachloroethene	ND 0.12	0.50	µg/L 1 11/20/2013 01:05 AM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/20/2013 01:05 AM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/20/2013 01:05 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/20/2013 01:05 AM
Surr: 1,2-Dichloroethane-d4	104 0	70-127	%REC 1 11/20/2013 01:05 AM
Surr: 4-Bromofluorobenzene	100 0	80-120	%REC 1 11/20/2013 01:05 AM
Surr: Dibromofluoromethane	103 0	73-128	%REC 1 11/20/2013 01:05 AM
Surr: Toluene-d8	100 0	80-120	%REC 1 11/20/2013 01:05 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-077

**Client Sample ID:** Equip Rinse  
**Collection Date:** 11/12/2013 12:20:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: MS5_131119A	QC Batch: P13VW186	PrepDate:	Analyst: QBM
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/20/2013 01:32 AM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/20/2013 01:32 AM
Tetrachloroethene	ND 0.12	0.50	µg/L 1 11/20/2013 01:32 AM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/20/2013 01:32 AM
Trichloroethene	ND 0.075	0.50	µg/L 1 11/20/2013 01:32 AM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/20/2013 01:32 AM
Surr: 1,2-Dichloroethane-d4	101 0	70-127	%REC 1 11/20/2013 01:32 AM
Surr: 4-Bromofluorobenzene	101 0	80-120	%REC 1 11/20/2013 01:32 AM
Surr: Dibromofluoromethane	103 0	73-128	%REC 1 11/20/2013 01:32 AM
Surr: Toluene-d8	101 0	80-120	%REC 1 11/20/2013 01:32 AM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**ANALYTICAL RESULTS**

Print Date: 21-Nov-13

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-078

**Client Sample ID:** MW-19D3 HV  
**Collection Date:** 11/8/2013 5:15:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: <b>MS5_131115A</b>	QC Batch: <b>P13VW181</b>	PrepDate:	Analyst: <b>QBM</b>
1,1-Dichloroethene	ND 0.16	0.50	µg/L 1 11/15/2013 06:58 PM
cis-1,2-Dichloroethene	ND 0.057	0.50	µg/L 1 11/15/2013 06:58 PM
Tetrachloroethene	160 0.59	2.5	µg/L 5 11/16/2013 05:36 PM
trans-1,2-Dichloroethene	ND 0.11	0.50	µg/L 1 11/15/2013 06:58 PM
Trichloroethene	1.0 0.075	0.50	µg/L 1 11/15/2013 06:58 PM
Vinyl chloride	ND 0.082	0.50	µg/L 1 11/15/2013 06:58 PM
Surr: 1,2-Dichloroethane-d4	105 0	70-127	%REC 5 11/16/2013 05:36 PM
Surr: 1,2-Dichloroethane-d4	103 0	70-127	%REC 1 11/15/2013 06:58 PM
Surr: 4-Bromofluorobenzene	97.6 0	80-120	%REC 5 11/16/2013 05:36 PM
Surr: 4-Bromofluorobenzene	99.0 0	80-120	%REC 1 11/15/2013 06:58 PM
Surr: Dibromofluoromethane	109 0	73-128	%REC 5 11/16/2013 05:36 PM
Surr: Dibromofluoromethane	109 0	73-128	%REC 1 11/15/2013 06:58 PM
Surr: Toluene-d8	101 0	80-120	%REC 5 11/16/2013 05:36 PM
Surr: Toluene-d8	102 0	80-120	%REC 1 11/15/2013 06:58 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



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**CLIENT:** Cardno ATC  
**Work Order:** N011443  
**Project:** Maryland Square, 085.42620.0001

**ANALYTICAL QC SUMMARY REPORT**

**TestCode: 218.6\_W**

Sample ID: <b>MB-R91206</b>	SampType: <b>MBLK</b>	TestCode: <b>218.6_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>91206</b>
Client ID: <b>PBW</b>	Batch ID: <b>R91206</b>	TestNo: <b>EPA 218.6</b>	Analysis Date: <b>11/14/2013</b>	SeqNo: <b>1685682</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Hexavalent Chromium	ND	0.20			
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Sample ID: <b>LCS-R91206</b>	SampType: <b>LCS</b>	TestCode: <b>218.6_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>91206</b>
Client ID: <b>LCSW</b>	Batch ID: <b>R91206</b>	TestNo: <b>EPA 218.6</b>	Analysis Date: <b>11/14/2013</b>	SeqNo: <b>1685683</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Hexavalent Chromium	5.035	0.20	5.000	0	101 90 110
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Sample ID: <b>N011392-006ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>218.6_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>91206</b>
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>R91206</b>	TestNo: <b>EPA 218.6</b>	Analysis Date: <b>11/14/2013</b>	SeqNo: <b>1685685</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Hexavalent Chromium	1.110	0.20			1.122 1.04 20
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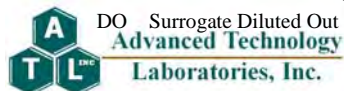
Sample ID: <b>N011393-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>218.6_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>91206</b>
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>R91206</b>	TestNo: <b>EPA 218.6</b>	Analysis Date: <b>11/14/2013</b>	SeqNo: <b>1685688</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Hexavalent Chromium	10.964	0.20	5.000	5.958	100 90 110
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Sample ID: <b>N011393-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>218.6_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>91206</b>
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>R91206</b>	TestNo: <b>EPA 218.6</b>	Analysis Date: <b>11/14/2013</b>	SeqNo: <b>1685689</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Hexavalent Chromium	10.997	0.20	5.000	5.958	101 90 110 10.96 0.301 20
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**Qualifiers:**  
 B Analyte detected in the associated Method Blank  
 ND Not Detected at the Reporting Limit  
 DO Surrogate Diluted Out  
 E Value above quantitation range  
 R RPD outside accepted recovery limits  
 H Holding times for preparation or analysis exceeded  
 S Spike/Surrogate outside of limits due to matrix interference



**CLIENT:** Cardno ATC  
**Work Order:** N011443  
**Project:** Maryland Square, 085.42620.0001

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 6020\_DIS**

Sample ID: <b>MB-44365</b>	SampType: <b>MBLK</b>	TestCode: <b>6020_DIS</b>	Units: <b>µg/L</b>	Prep Date: <b>11/13/2013</b>	RunNo: <b>91256</b>						
Client ID: <b>PBW</b>	Batch ID: <b>44365</b>	TestNo: <b>EPA 6020</b>	<b>EPA 3010A</b>	Analysis Date: <b>11/15/2013</b>	SeqNo: <b>1687706</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	ND	0.10									
Chromium	ND	1.0									

Sample ID: <b>LCS-44365</b>	SampType: <b>LCS</b>	TestCode: <b>6020_DIS</b>	Units: <b>µg/L</b>	Prep Date: <b>11/13/2013</b>	RunNo: <b>91256</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>44365</b>	TestNo: <b>EPA 6020</b>	<b>EPA 3010A</b>	Analysis Date: <b>11/15/2013</b>	SeqNo: <b>1687707</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	9.599	0.10	10.00	0	96.0	85	115				
Chromium	9.710	1.0	10.00	0	97.1	85	115				

Sample ID: <b>N011443-052B-MS</b>	SampType: <b>MS</b>	TestCode: <b>6020_DIS</b>	Units: <b>µg/L</b>	Prep Date: <b>11/13/2013</b>	RunNo: <b>91256</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>44365</b>	TestNo: <b>EPA 6020</b>	<b>EPA 3010A</b>	Analysis Date: <b>11/15/2013</b>	SeqNo: <b>1687722</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.591	0.10	10.00	0.9555	96.4	75	125				
Chromium	12.396	1.0	10.00	3.159	92.4	75	125				

Sample ID: <b>N011443-052B-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>6020_DIS</b>	Units: <b>µg/L</b>	Prep Date: <b>11/13/2013</b>	RunNo: <b>91256</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>44365</b>	TestNo: <b>EPA 6020</b>	<b>EPA 3010A</b>	Analysis Date: <b>11/15/2013</b>	SeqNo: <b>1687723</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	10.940	0.10	10.00	0.9555	99.8	75	125	10.59	3.23	20	
Chromium	12.431	1.0	10.00	3.159	92.7	75	125	12.40	0.283	20	

Sample ID: <b>MB-44365</b>	SampType: <b>MBLK</b>	TestCode: <b>6020_DIS</b>	Units: <b>µg/L</b>	Prep Date: <b>11/13/2013</b>	RunNo: <b>91260</b>						
Client ID: <b>PBW</b>	Batch ID: <b>44365</b>	TestNo: <b>EPA 6020</b>	<b>EPA 3010A</b>	Analysis Date: <b>11/19/2013</b>	SeqNo: <b>1688032</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	0.145	0.50									

**Qualifiers:**  
 B Analyte detected in the associated Method Blank      E Value above quantitation range      H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit      R RPD outside accepted recovery limits      S Spike/Surrogate outside of limits due to matrix interference



DO Surrogate Diluted Out  
 3151 W. Post Rd Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691

**CLIENT:** Cardno ATC  
**Work Order:** N011443  
**Project:** Maryland Square, 085.42620.0001

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 6020\_DIS**

Sample ID: <b>LCS-44365</b>	SampType: <b>LCS</b>	TestCode: <b>6020_DIS</b>	Units: <b>µg/L</b>	Prep Date: <b>11/13/2013</b>	RunNo: <b>91260</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>44365</b>	TestNo: <b>EPA 6020</b>	<b>EPA 3010A</b>	Analysis Date: <b>11/19/2013</b>	SeqNo: <b>1688033</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Manganese	94.934	0.50	100.0	0	94.9	85	115				
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Sample ID: <b>N011443-052B-MS</b>	SampType: <b>MS</b>	TestCode: <b>6020_DIS</b>	Units: <b>µg/L</b>	Prep Date: <b>11/13/2013</b>	RunNo: <b>91260</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>44365</b>	TestNo: <b>EPA 6020</b>	<b>EPA 3010A</b>	Analysis Date: <b>11/19/2013</b>	SeqNo: <b>1688045</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Manganese	135.398	0.50	100.0	42.91	92.5	75	125				
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Sample ID: <b>N011443-052B-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>6020_DIS</b>	Units: <b>µg/L</b>	Prep Date: <b>11/13/2013</b>	RunNo: <b>91260</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>44365</b>	TestNo: <b>EPA 6020</b>	<b>EPA 3010A</b>	Analysis Date: <b>11/19/2013</b>	SeqNo: <b>1688046</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Manganese	136.622	0.50	100.0	42.91	93.7	75	125	135.4	0.900	20	
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**Qualifiers:**

- |   |  |  |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range       | H Holding times for preparation or analysis exceeded           |
| ND Not Detected at the Reporting Limit            | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |



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**CLIENT:** Cardno ATC  
**Work Order:** N011443  
**Project:** Maryland Square, 085.42620.0001

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260WATERP**

Sample ID: <b>P131114LCS</b>	SampType: <b>LCS</b>	TestCode: <b>8260WATERP</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>91186</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>P13VW180</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/14/2013</b>	SeqNo: <b>1684701</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1-Dichloroethene	22.370	0.50	20.00	0	112	69	125				
cis-1,2-Dichloroethene	20.240	0.50	20.00	0	101	74	120				
Tetrachloroethene	20.010	0.50	20.00	0	100	80	120				
trans-1,2-Dichloroethene	20.740	0.50	20.00	0	104	74	120				
Trichloroethene	20.070	0.50	20.00	0	100	80	120				
Vinyl chloride	20.710	0.50	20.00	0	104	72	120				
Surr: 1,2-Dichloroethane-d4	26.110		25.00		104	70	127				
Surr: 4-Bromofluorobenzene	25.840		25.00		103	80	120				
Surr: Dibromofluoromethane	26.970		25.00		108	73	128				
Surr: Toluene-d8	25.960		25.00		104	80	120				

Sample ID: <b>P131114MB2</b>	SampType: <b>MBLK</b>	TestCode: <b>8260WATERP</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>91186</b>						
Client ID: <b>PBW</b>	Batch ID: <b>P13VW180</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/14/2013</b>	SeqNo: <b>1684702</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1-Dichloroethene	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
Tetrachloroethene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	26.030		25.00		104	70	127				
Surr: 4-Bromofluorobenzene	25.040		25.00		100	80	120				
Surr: Dibromofluoromethane	27.070		25.00		108	73	128				
Surr: Toluene-d8	25.060		25.00		100	80	120				

Sample ID: <b>N011443-014AMS</b>	SampType: <b>MS</b>	TestCode: <b>8260WATERP</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>91186</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>P13VW180</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/14/2013</b>	SeqNo: <b>1684705</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**Qualifiers:**

B Analyte detected in the associated Method Blank	E Value above quantitation range	H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit	R RPD outside accepted recovery limits	S Spike/Surrogate outside of limits due to matrix interference



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**CLIENT:** Cardno ATC  
**Work Order:** N011443  
**Project:** Maryland Square, 085.42620.0001

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260WATERP**

Sample ID: <b>N011443-014AMS</b>		SampType: <b>MS</b>		TestCode: <b>8260WATERP</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>91186</b>	
Client ID: <b>ZZZZZ</b>		Batch ID: <b>P13VW180</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/14/2013</b>		SeqNo: <b>1684706</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21.880	0.50	20.00	0	109	65	128				
cis-1,2-Dichloroethene	19.920	0.50	20.00	0	99.6	73	120				
Tetrachloroethene	19.950	0.50	20.00	0.8600	95.4	76	120				
trans-1,2-Dichloroethene	20.210	0.50	20.00	0	101	72	122				
Trichloroethene	19.710	0.50	20.00	0	98.6	76	120				
Vinyl chloride	19.790	0.50	20.00	0	99.0	67	120				
Surr: 1,2-Dichloroethane-d4	25.910		25.00		104	70	127				
Surr: 4-Bromofluorobenzene	25.750		25.00		103	80	120				
Surr: Dibromofluoromethane	27.090		25.00		108	73	128				
Surr: Toluene-d8	25.900		25.00		104	80	120				

Sample ID: <b>N011443-014AMSD</b>		SampType: <b>MSD</b>		TestCode: <b>8260WATERP</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>91186</b>	
Client ID: <b>ZZZZZ</b>		Batch ID: <b>P13VW180</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/14/2013</b>		SeqNo: <b>1684706</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21.290	0.50	20.00	0	106	65	128	21.88	2.73	20	
cis-1,2-Dichloroethene	19.610	0.50	20.00	0	98.0	73	120	19.92	1.57	20	
Tetrachloroethene	20.050	0.50	20.00	0.8600	96.0	76	120	19.95	0.500	20	
trans-1,2-Dichloroethene	19.980	0.50	20.00	0	99.9	72	122	20.21	1.14	20	
Trichloroethene	19.810	0.50	20.00	0	99.0	76	120	19.71	0.506	20	
Vinyl chloride	19.790	0.50	20.00	0	99.0	67	120	19.79	0	20	
Surr: 1,2-Dichloroethane-d4	26.150		25.00		105	70	127		0		
Surr: 4-Bromofluorobenzene	25.740		25.00		103	80	120		0		
Surr: Dibromofluoromethane	27.290		25.00		109	73	128		0		
Surr: Toluene-d8	26.010		25.00		104	80	120		0		

**Qualifiers:**

B Analyte detected in the associated Method Blank	E Value above quantitation range	H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit	R RPD outside accepted recovery limits	S Spike/Surrogate outside of limits due to matrix interference



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**CLIENT:** Cardno ATC  
**Work Order:** N011443  
**Project:** Maryland Square, 085.42620.0001

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260WATERP**

Sample ID: <b>P131115LCS</b>	SampType: <b>LCS</b>	TestCode: <b>8260WATERP</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>91222</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>P13VW181</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/15/2013</b>	SeqNo: <b>1686623</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1-Dichloroethene	21.190	0.50	20.00	0	106	69	125				
cis-1,2-Dichloroethene	19.290	0.50	20.00	0	96.5	74	120				
Tetrachloroethene	19.810	0.50	20.00	0	99.0	80	120				
trans-1,2-Dichloroethene	19.900	0.50	20.00	0	99.5	74	120				
Trichloroethene	19.900	0.50	20.00	0	99.5	80	120				
Vinyl chloride	19.570	0.50	20.00	0	97.9	72	120				
Surr: 1,2-Dichloroethane-d4	25.210		25.00		101	70	127				
Surr: 4-Bromofluorobenzene	25.800		25.00		103	80	120				
Surr: Dibromofluoromethane	26.460		25.00		106	73	128				
Surr: Toluene-d8	25.730		25.00		103	80	120				

Sample ID: <b>P131115MB2</b>	SampType: <b>MBLK</b>	TestCode: <b>8260WATERP</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>91222</b>						
Client ID: <b>PBW</b>	Batch ID: <b>P13VW181</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/15/2013</b>	SeqNo: <b>1686623</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1-Dichloroethene	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
Tetrachloroethene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	26.300		25.00		105	70	127				
Surr: 4-Bromofluorobenzene	24.780		25.00		99.1	80	120				
Surr: Dibromofluoromethane	27.080		25.00		108	73	128				
Surr: Toluene-d8	25.230		25.00		101	80	120				

Sample ID: <b>N011443-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>8260WATERP</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>91222</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>P13VW181</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/15/2013</b>	SeqNo: <b>1686623</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**Qualifiers:**

B Analyte detected in the associated Method Blank	E Value above quantitation range	H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit	R RPD outside accepted recovery limits	S Spike/Surrogate outside of limits due to matrix interference



DO Surrogate Diluted Out  
**Advanced Technology Laboratories, Inc.**  
 3151 W. Post Rd Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691



**CLIENT:** Cardno ATC  
**Work Order:** N011443  
**Project:** Maryland Square, 085.42620.0001

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260WATERP**

Sample ID: <b>N011443-001AMS</b>		SampType: <b>MS</b>		TestCode: <b>8260WATERP</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>91222</b>	
Client ID: <b>ZZZZZ</b>		Batch ID: <b>P13VW181</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/15/2013</b>				SeqNo: <b>1686628</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	214.900	5.0	200.0	0	107	65	128				
cis-1,2-Dichloroethene	191.900	5.0	200.0	0	96.0	73	120				
Tetrachloroethene	459.900	5.0	200.0	273.0	93.5	76	120				
trans-1,2-Dichloroethene	196.700	5.0	200.0	0	98.4	72	122				
Trichloroethene	195.700	5.0	200.0	0	97.8	76	120				
Vinyl chloride	194.600	5.0	200.0	0	97.3	67	120				
Surr: 1,2-Dichloroethane-d4	258.600		250.0		103	70	127				
Surr: 4-Bromofluorobenzene	257.500		250.0		103	80	120				
Surr: Dibromofluoromethane	267.100		250.0		107	73	128				
Surr: Toluene-d8	257.200		250.0		103	80	120				

Sample ID: <b>N011443-001AMSD</b>		SampType: <b>MSD</b>		TestCode: <b>8260WATERP</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>91222</b>	
Client ID: <b>ZZZZZ</b>		Batch ID: <b>P13VW181</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/15/2013</b>				SeqNo: <b>1686629</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	218.900	5.0	200.0	0	109	65	128	214.9	1.84	20	
cis-1,2-Dichloroethene	195.300	5.0	200.0	0	97.6	73	120	191.9	1.76	20	
Tetrachloroethene	444.100	5.0	200.0	273.0	85.6	76	120	459.9	3.50	20	
trans-1,2-Dichloroethene	199.500	5.0	200.0	0	99.8	72	122	196.7	1.41	20	
Trichloroethene	192.700	5.0	200.0	0	96.4	76	120	195.7	1.54	20	
Vinyl chloride	195.900	5.0	200.0	0	98.0	67	120	194.6	0.666	20	
Surr: 1,2-Dichloroethane-d4	259.500		250.0		104	70	127		0		
Surr: 4-Bromofluorobenzene	261.000		250.0		104	80	120		0		
Surr: Dibromofluoromethane	269.300		250.0		108	73	128		0		
Surr: Toluene-d8	260.200		250.0		104	80	120		0		

**Qualifiers:**

B Analyte detected in the associated Method Blank	E Value above quantitation range	H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit	R RPD outside accepted recovery limits	S Spike/Surrogate outside of limits due to matrix interference



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**CLIENT:** Cardno ATC  
**Work Order:** N011443  
**Project:** Maryland Square, 085.42620.0001

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260WATERP**

Sample ID: <b>P131116LCS</b>	SampType: <b>LCS</b>	TestCode: <b>8260WATERP</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>91224</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>P13VW182</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/16/2013</b>	SeqNo: <b>1686652</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1-Dichloroethene	22.490	0.50	20.00	0	112	69	125				
cis-1,2-Dichloroethene	19.710	0.50	20.00	0	98.6	74	120				
Tetrachloroethene	19.580	0.50	20.00	0	97.9	80	120				
trans-1,2-Dichloroethene	19.670	0.50	20.00	0	98.4	74	120				
Trichloroethene	19.770	0.50	20.00	0	98.8	80	120				
Vinyl chloride	19.690	0.50	20.00	0	98.4	72	120				
Surr: 1,2-Dichloroethane-d4	26.130		25.00		105	70	127				
Surr: 4-Bromofluorobenzene	25.710		25.00		103	80	120				
Surr: Dibromofluoromethane	26.540		25.00		106	73	128				
Surr: Toluene-d8	26.100		25.00		104	80	120				

Sample ID: <b>P131116MB2</b>	SampType: <b>MBLK</b>	TestCode: <b>8260WATERP</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>91224</b>						
Client ID: <b>PBW</b>	Batch ID: <b>P13VW182</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/16/2013</b>	SeqNo: <b>1686653</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1-Dichloroethene	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
Tetrachloroethene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	26.360		25.00		105	70	127				
Surr: 4-Bromofluorobenzene	25.060		25.00		100	80	120				
Surr: Dibromofluoromethane	27.090		25.00		108	73	128				
Surr: Toluene-d8	25.320		25.00		101	80	120				

Sample ID: <b>N011443-046AMS</b>	SampType: <b>MS</b>	TestCode: <b>8260WATERP</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>91224</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>P13VW182</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/16/2013</b>	SeqNo: <b>1686661</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**Qualifiers:**

- |   |  |  |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range       | H Holding times for preparation or analysis exceeded           |
| ND Not Detected at the Reporting Limit            | R RPD outside accepted recovery limits | S Spike/Surrogate outside of limits due to matrix interference |



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**CLIENT:** Cardno ATC  
**Work Order:** N011443  
**Project:** Maryland Square, 085.42620.0001

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260WATERP**

Sample ID: <b>N011443-046AMS</b>		SampType: <b>MS</b>		TestCode: <b>8260WATERP</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>91224</b>	
Client ID: <b>ZZZZZZ</b>		Batch ID: <b>P13VW182</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/16/2013</b>				SeqNo: <b>1686661</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21.780	0.50	20.00	0	109	65	128				
cis-1,2-Dichloroethene	19.510	0.50	20.00	0	97.6	73	120				
Tetrachloroethene	20.730	0.50	20.00	1.340	97.0	76	120				
trans-1,2-Dichloroethene	19.590	0.50	20.00	0	98.0	72	122				
Trichloroethene	19.430	0.50	20.00	0	97.2	76	120				
Vinyl chloride	19.180	0.50	20.00	0	95.9	67	120				
Surr: 1,2-Dichloroethane-d4	25.590		25.00		102	70	127				
Surr: 4-Bromofluorobenzene	25.190		25.00		101	80	120				
Surr: Dibromofluoromethane	26.310		25.00		105	73	128				
Surr: Toluene-d8	25.570		25.00		102	80	120				

Sample ID: <b>N011443-046AMSD</b>		SampType: <b>MSD</b>		TestCode: <b>8260WATERP</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>91224</b>	
Client ID: <b>ZZZZZZ</b>		Batch ID: <b>P13VW182</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/16/2013</b>				SeqNo: <b>1686662</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	22.470	0.50	20.00	0	112	65	128	21.78	3.12	20	
cis-1,2-Dichloroethene	20.100	0.50	20.00	0	101	73	120	19.51	2.98	20	
Tetrachloroethene	20.940	0.50	20.00	1.340	98.0	76	120	20.73	1.01	20	
trans-1,2-Dichloroethene	20.150	0.50	20.00	0	101	72	122	19.59	2.82	20	
Trichloroethene	19.630	0.50	20.00	0	98.2	76	120	19.43	1.02	20	
Vinyl chloride	20.200	0.50	20.00	0	101	67	120	19.18	5.18	20	
Surr: 1,2-Dichloroethane-d4	26.400		25.00		106	70	127		0		
Surr: 4-Bromofluorobenzene	25.550		25.00		102	80	120		0		
Surr: Dibromofluoromethane	26.630		25.00		107	73	128		0		
Surr: Toluene-d8	25.570		25.00		102	80	120		0		

**Qualifiers:**

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference



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**CLIENT:** Cardno ATC  
**Work Order:** N011443  
**Project:** Maryland Square, 085.42620.0001

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260WATERP**

Sample ID: <b>P131116LCS2</b>		SampType: <b>LCS</b>		TestCode: <b>8260WATERP</b> Units: <b>µg/L</b>		Prep Date:		RunNo: <b>91233</b>			
Client ID: <b>LCSW</b>		Batch ID: <b>P13VW183</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/16/2013</b>		SeqNo: <b>1686983</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	22.320	0.50	20.00	0	112	69	125				
cis-1,2-Dichloroethene	19.450	0.50	20.00	0	97.3	74	120				
Tetrachloroethene	20.010	0.50	20.00	0	100	80	120				
trans-1,2-Dichloroethene	19.680	0.50	20.00	0	98.4	74	120				
Trichloroethene	19.950	0.50	20.00	0	99.8	80	120				
Vinyl chloride	19.380	0.50	20.00	0	96.9	72	120				
Surr: 1,2-Dichloroethane-d4	25.620		25.00		102	70	127				
Surr: 4-Bromofluorobenzene	25.380		25.00		102	80	120				
Surr: Dibromofluoromethane	26.090		25.00		104	73	128				
Surr: Toluene-d8	25.980		25.00		104	80	120				

Sample ID: <b>P131116LCS2</b>		SampType: <b>LCS2</b>		TestCode: <b>8260WATERP</b> Units: <b>µg/L</b>		Prep Date:		RunNo: <b>91233</b>			
Client ID: <b>LCSS02</b>		Batch ID: <b>P13VW183</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/16/2013</b>		SeqNo: <b>1686984</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	22.410	0.50	20.00	0	112	69	125	22.32	0.402	20	
cis-1,2-Dichloroethene	19.680	0.50	20.00	0	98.4	74	120	19.45	1.18	20	
Tetrachloroethene	19.760	0.50	20.00	0	98.8	80	120	20.01	1.26	20	
trans-1,2-Dichloroethene	19.550	0.50	20.00	0	97.8	74	120	19.68	0.663	20	
Trichloroethene	19.640	0.50	20.00	0	98.2	80	120	19.95	1.57	20	
Vinyl chloride	19.500	0.50	20.00	0	97.5	72	120	19.38	0.617	20	
Surr: 1,2-Dichloroethane-d4	26.280		25.00		105	70	127		0	20	
Surr: 4-Bromofluorobenzene	25.730		25.00		103	80	120		0	20	
Surr: Dibromofluoromethane	26.810		25.00		107	73	128		0	20	
Surr: Toluene-d8	25.930		25.00		104	80	120		0	20	

Sample ID: <b>P131116MB4</b>		SampType: <b>MBLK</b>		TestCode: <b>8260WATERP</b> Units: <b>µg/L</b>		Prep Date:		RunNo: <b>91233</b>			
Client ID: <b>PBW</b>		Batch ID: <b>P13VW183</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/16/2013</b>		SeqNo: <b>1686985</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**Qualifiers:**

B Analyte detected in the associated Method Blank	E Value above quantitation range	H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit	R RPD outside accepted recovery limits	S Spike/Surrogate outside of limits due to matrix interference



**CLIENT:** Cardno ATC  
**Work Order:** N011443  
**Project:** Maryland Square, 085.42620.0001

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260WATERP**

Sample ID: <b>P131116MB4</b>	SampType: <b>MBLK</b>	TestCode: <b>8260WATERP</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>91233</b>						
Client ID: <b>PBW</b>	Batch ID: <b>P13VW183</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/16/2013</b>	SeqNo: <b>1686985</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
Tetrachloroethene	0.360	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	25.530		25.00		102	70	127				
Surr: 4-Bromofluorobenzene	24.760		25.00		99.0	80	120				
Surr: Dibromofluoromethane	26.570		25.00		106	73	128				
Surr: Toluene-d8	25.440		25.00		102	80	120				

**Qualifiers:**  
 B Analyte detected in the associated Method Blank      E Value above quantitation range      H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit      R RPD outside accepted recovery limits      S Spike/Surrogate outside of limits due to matrix interference



DO Surrogate Diluted Out  
 Calculations are based on raw values  
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**CLIENT:** Cardno ATC  
**Work Order:** N011443  
**Project:** Maryland Square, 085.42620.0001

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260WATERP**

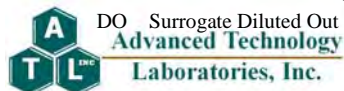
Sample ID: <b>P131117LCS</b>		SampType: <b>LCS</b>		TestCode: <b>8260WATERP</b> Units: <b>µg/L</b>		Prep Date:		RunNo: <b>91242</b>			
Client ID: <b>LCSW</b>		Batch ID: <b>P13VW184</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/17/2013</b>		SeqNo: <b>1687158</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21.670	0.50	20.00	0	108	69	125				
cis-1,2-Dichloroethene	18.200	0.50	20.00	0	91.0	74	120				
Tetrachloroethene	19.620	0.50	20.00	0	98.1	80	120				
trans-1,2-Dichloroethene	18.160	0.50	20.00	0	90.8	74	120				
Trichloroethene	19.450	0.50	20.00	0	97.3	80	120				
Vinyl chloride	17.900	0.50	20.00	0	89.5	72	120				
Surr: 1,2-Dichloroethane-d4	24.240		25.00		97.0	70	127				
Surr: 4-Bromofluorobenzene	25.610		25.00		102	80	120				
Surr: Dibromofluoromethane	25.050		25.00		100	73	128				
Surr: Toluene-d8	25.570		25.00		102	80	120				

Sample ID: <b>P131117LCS D</b>		SampType: <b>LCS D</b>		TestCode: <b>8260WATERP</b> Units: <b>µg/L</b>		Prep Date:		RunNo: <b>91242</b>			
Client ID: <b>LCSS02</b>		Batch ID: <b>P13VW184</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/17/2013</b>		SeqNo: <b>1687158</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	21.920	0.50	20.00	0	110	69	125	21.67	1.15	20	
cis-1,2-Dichloroethene	18.290	0.50	20.00	0	91.4	74	120	18.20	0.493	20	
Tetrachloroethene	19.870	0.50	20.00	0	99.4	80	120	19.62	1.27	20	
trans-1,2-Dichloroethene	18.340	0.50	20.00	0	91.7	74	120	18.16	0.986	20	
Trichloroethene	19.500	0.50	20.00	0	97.5	80	120	19.45	0.257	20	
Vinyl chloride	18.230	0.50	20.00	0	91.2	72	120	17.90	1.83	20	
Surr: 1,2-Dichloroethane-d4	24.660		25.00		98.6	70	127		0	20	
Surr: 4-Bromofluorobenzene	25.610		25.00		102	80	120		0	20	
Surr: Dibromofluoromethane	25.450		25.00		102	73	128		0	20	
Surr: Toluene-d8	25.690		25.00		103	80	120		0	20	

Sample ID: <b>P131117MB3</b>		SampType: <b>MBLK</b>		TestCode: <b>8260WATERP</b> Units: <b>µg/L</b>		Prep Date:		RunNo: <b>91242</b>			
Client ID: <b>PBW</b>		Batch ID: <b>P13VW184</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/17/2013</b>		SeqNo: <b>1687158</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**Qualifiers:**

B Analyte detected in the associated Method Blank	E Value above quantitation range	H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit	R RPD outside accepted recovery limits	S Spike/Surrogate outside of limits due to matrix interference



DO Surrogate Diluted Out  
**Advanced Technology Laboratories, Inc.**  
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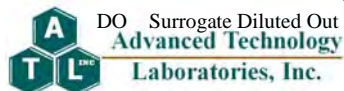
**CLIENT:** Cardno ATC  
**Work Order:** N011443  
**Project:** Maryland Square, 085.42620.0001

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260WATERP**

Sample ID: <b>P131117MB3</b>	SampType: <b>MBLK</b>	TestCode: <b>8260WATERP</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>91242</b>						
Client ID: <b>PBW</b>	Batch ID: <b>P13VW184</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/17/2013</b>	SeqNo: <b>1687159</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
Tetrachloroethene	0.360	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	24.710		25.00		98.8	70	127				
Surr: 4-Bromofluorobenzene	24.790		25.00		99.2	80	120				
Surr: Dibromofluoromethane	26.140		25.00		105	73	128				
Surr: Toluene-d8	25.430		25.00		102	80	120				

**Qualifiers:**  
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 ND Not Detected at the Reporting Limit      R RPD outside accepted recovery limits      S Spike/Surrogate outside of limits due to matrix interference



DO Surrogate Diluted Out  
 Calculations are based on raw values  
 3151 W. Post Rd Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691

**CLIENT:** Cardno ATC  
**Work Order:** N011443  
**Project:** Maryland Square, 085.42620.0001

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260WATERP**

Sample ID: <b>P131118LCS</b>	SampType: <b>LCS</b>	TestCode: <b>8260WATERP</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>91263</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>P13VW185</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/18/2013</b>	SeqNo: <b>1688164</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1-Dichloroethene	19.540	0.50	20.00	0	97.7	69	125				
cis-1,2-Dichloroethene	19.670	0.50	20.00	0	98.4	74	120				
Tetrachloroethene	21.320	0.50	20.00	0	107	80	120				
trans-1,2-Dichloroethene	20.240	0.50	20.00	0	101	74	120				
Trichloroethene	20.480	0.50	20.00	0	102	80	120				
Vinyl chloride	21.910	0.50	20.00	0	110	72	120				
Surr: 1,2-Dichloroethane-d4	24.460		25.00		97.8	70	127				
Surr: 4-Bromofluorobenzene	25.900		25.00		104	80	120				
Surr: Dibromofluoromethane	25.330		25.00		101	73	128				
Surr: Toluene-d8	25.350		25.00		101	80	120				

Sample ID: <b>P131118MB2</b>	SampType: <b>MBLK</b>	TestCode: <b>8260WATERP</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>91263</b>						
Client ID: <b>PBW</b>	Batch ID: <b>P13VW185</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/18/2013</b>	SeqNo: <b>1688164</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1-Dichloroethene	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
Tetrachloroethene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	24.900		25.00		99.6	70	127				
Surr: 4-Bromofluorobenzene	24.870		25.00		99.5	80	120				
Surr: Dibromofluoromethane	25.670		25.00		103	73	128				
Surr: Toluene-d8	25.100		25.00		100	80	120				

Sample ID: <b>N011455-001FMS</b>	SampType: <b>MS</b>	TestCode: <b>8260WATERP</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>91263</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>P13VW185</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/18/2013</b>	SeqNo: <b>1688164</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**Qualifiers:**  
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 ND Not Detected at the Reporting Limit      R RPD outside accepted recovery limits      S Spike/Surrogate outside of limits due to matrix interference



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**CLIENT:** Cardno ATC  
**Work Order:** N011443  
**Project:** Maryland Square, 085.42620.0001

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260WATERP**

Sample ID: <b>N011455-001FMS</b>		SampType: <b>MS</b>		TestCode: <b>8260WATERP</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>91263</b>	
Client ID: <b>ZZZZZ</b>		Batch ID: <b>P13VW185</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/18/2013</b>				SeqNo: <b>1688168</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	19.710	0.50	20.00	0	98.6	65	128				
cis-1,2-Dichloroethene	19.420	0.50	20.00	0	97.1	73	120				
Tetrachloroethene	18.370	0.50	20.00	0	91.9	76	120				
trans-1,2-Dichloroethene	19.270	0.50	20.00	0	96.4	72	122				
Trichloroethene	18.620	0.50	20.00	0	93.1	76	120				
Vinyl chloride	20.360	0.50	20.00	0	102	67	120				
Surr: 1,2-Dichloroethane-d4	25.240		25.00		101	70	127				
Surr: 4-Bromofluorobenzene	25.770		25.00		103	80	120				
Surr: Dibromofluoromethane	25.500		25.00		102	73	128				
Surr: Toluene-d8	25.320		25.00		101	80	120				

Sample ID: <b>N011455-001FMSD</b>		SampType: <b>MSD</b>		TestCode: <b>8260WATERP</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>91263</b>	
Client ID: <b>ZZZZZ</b>		Batch ID: <b>P13VW185</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/18/2013</b>				SeqNo: <b>1688169</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	19.950	0.50	20.00	0	99.8	65	128	19.71	1.21	20	
cis-1,2-Dichloroethene	19.240	0.50	20.00	0	96.2	73	120	19.42	0.931	20	
Tetrachloroethene	17.330	0.50	20.00	0	86.7	76	120	18.37	5.83	20	
trans-1,2-Dichloroethene	19.390	0.50	20.00	0	97.0	72	122	19.27	0.621	20	
Trichloroethene	18.650	0.50	20.00	0	93.3	76	120	18.62	0.161	20	
Vinyl chloride	20.240	0.50	20.00	0	101	67	120	20.36	0.591	20	
Surr: 1,2-Dichloroethane-d4	24.870		25.00		99.5	70	127		0		
Surr: 4-Bromofluorobenzene	25.250		25.00		101	80	120		0		
Surr: Dibromofluoromethane	25.150		25.00		101	73	128		0		
Surr: Toluene-d8	25.340		25.00		101	80	120		0		

**Qualifiers:**

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike/Surrogate outside of limits due to matrix interference



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**CLIENT:** Cardno ATC  
**Work Order:** N011443  
**Project:** Maryland Square, 085.42620.0001

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260WATERP**

Sample ID: <b>P131119LCS</b>		SampType: <b>LCS</b>		TestCode: <b>8260WATERP</b> Units: <b>µg/L</b>		Prep Date:		RunNo: <b>91339</b>			
Client ID: <b>LCSW</b>		Batch ID: <b>P13VW186</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/19/2013</b>		SeqNo: <b>1689414</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1-Dichloroethene	20.920	0.50	20.00	0	105	69	125				
cis-1,2-Dichloroethene	19.970	0.50	20.00	0	99.8	74	120				
Tetrachloroethene	19.370	0.50	20.00	0	96.9	80	120				
trans-1,2-Dichloroethene	20.420	0.50	20.00	0	102	74	120				
Trichloroethene	19.740	0.50	20.00	0	98.7	80	120				
Vinyl chloride	20.130	0.50	20.00	0	101	72	120				
Surr: 1,2-Dichloroethane-d4	25.560		25.00		102	70	127				
Surr: 4-Bromofluorobenzene	25.720		25.00		103	80	120				
Surr: Dibromofluoromethane	25.350		25.00		101	73	128				
Surr: Toluene-d8	25.630		25.00		103	80	120				

Sample ID: <b>P131119LCS D</b>		SampType: <b>LCS D</b>		TestCode: <b>8260WATERP</b> Units: <b>µg/L</b>		Prep Date:		RunNo: <b>91339</b>			
Client ID: <b>LCSS02</b>		Batch ID: <b>P13VW186</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/19/2013</b>		SeqNo: <b>1689415</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1-Dichloroethene	19.710	0.50	20.00	0	98.6	69	125	20.92	5.96	20	
cis-1,2-Dichloroethene	19.740	0.50	20.00	0	98.7	74	120	19.97	1.16	20	
Tetrachloroethene	19.410	0.50	20.00	0	97.0	80	120	19.37	0.206	20	
trans-1,2-Dichloroethene	19.800	0.50	20.00	0	99.0	74	120	20.42	3.08	20	
Trichloroethene	19.790	0.50	20.00	0	99.0	80	120	19.74	0.253	20	
Vinyl chloride	20.100	0.50	20.00	0	101	72	120	20.13	0.149	20	
Surr: 1,2-Dichloroethane-d4	25.530		25.00		102	70	127		0	20	
Surr: 4-Bromofluorobenzene	25.700		25.00		103	80	120		0	20	
Surr: Dibromofluoromethane	25.270		25.00		101	73	128		0	20	
Surr: Toluene-d8	25.680		25.00		103	80	120		0	20	

Sample ID: <b>P131119MB2</b>		SampType: <b>MBLK</b>		TestCode: <b>8260WATERP</b> Units: <b>µg/L</b>		Prep Date:		RunNo: <b>91339</b>			
Client ID: <b>PBW</b>		Batch ID: <b>P13VW186</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/19/2013</b>		SeqNo: <b>1689416</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

**Qualifiers:**

B Analyte detected in the associated Method Blank	E Value above quantitation range	H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit	R RPD outside accepted recovery limits	S Spike/Surrogate outside of limits due to matrix interference



3151 W. Post Rd Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691

**CLIENT:** Cardno ATC  
**Work Order:** N011443  
**Project:** Maryland Square, 085.42620.0001

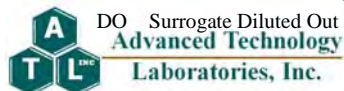
## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260WATERP**

Sample ID: <b>P131119MB2</b>	SampType: <b>MBLK</b>	TestCode: <b>8260WATERP</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>91339</b>						
Client ID: <b>PBW</b>	Batch ID: <b>P13VW186</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/19/2013</b>	SeqNo: <b>1689416</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
Tetrachloroethene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	26.240		25.00		105	70	127				
Surr: 4-Bromofluorobenzene	25.300		25.00		101	80	120				
Surr: Dibromofluoromethane	25.920		25.00		104	73	128				
Surr: Toluene-d8	25.540		25.00		102	80	120				

**Qualifiers:**

B Analyte detected in the associated Method Blank	E Value above quantitation range	H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit	R RPD outside accepted recovery limits	S Spike/Surrogate outside of limits due to matrix interference



DO Surrogate Diluted Out  
 Calculations are based on raw values  
 3151 W. Post Rd Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691

**CLIENT:** Cardno ATC  
**Work Order:** N011443  
**Project:** Maryland Square, 085.42620.0001

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260WATERP**

Sample ID: <b>P131120LCS</b>	SampType: <b>LCS</b>	TestCode: <b>8260WATERP</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>91337</b>
Client ID: <b>LCSW</b>	Batch ID: <b>P13VW187</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/20/2013</b>	SeqNo: <b>1689254</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	19.540	0.50	20.00	0	97.7	69	125				
cis-1,2-Dichloroethene	19.820	0.50	20.00	0	99.1	74	120				
Tetrachloroethene	20.220	0.50	20.00	0	101	80	120				
trans-1,2-Dichloroethene	20.070	0.50	20.00	0	100	74	120				
Trichloroethene	19.970	0.50	20.00	0	99.8	80	120				
Vinyl chloride	17.250	0.50	20.00	0	86.2	72	120				
Surr: 1,2-Dichloroethane-d4	25.000		25.00		100	70	127				
Surr: 4-Bromofluorobenzene	25.810		25.00		103	80	120				
Surr: Dibromofluoromethane	25.390		25.00		102	73	128				
Surr: Toluene-d8	25.840		25.00		103	80	120				

Sample ID: <b>P131120LCSD</b>	SampType: <b>LCSD</b>	TestCode: <b>8260WATERP</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>91337</b>
Client ID: <b>LCSS02</b>	Batch ID: <b>P13VW187</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/20/2013</b>	SeqNo: <b>1689255</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	19.050	0.50	20.00	0	95.2	69	125	19.54	2.54	20	
cis-1,2-Dichloroethene	19.480	0.50	20.00	0	97.4	74	120	19.82	1.73	20	
Tetrachloroethene	19.990	0.50	20.00	0	100	80	120	20.22	1.14	20	
trans-1,2-Dichloroethene	19.420	0.50	20.00	0	97.1	74	120	20.07	3.29	20	
Trichloroethene	19.640	0.50	20.00	0	98.2	80	120	19.97	1.67	20	
Vinyl chloride	16.530	0.50	20.00	0	82.6	72	120	17.25	4.26	20	
Surr: 1,2-Dichloroethane-d4	24.270		25.00		97.1	70	127		0	20	
Surr: 4-Bromofluorobenzene	25.740		25.00		103	80	120		0	20	
Surr: Dibromofluoromethane	25.260		25.00		101	73	128		0	20	
Surr: Toluene-d8	25.220		25.00		101	80	120		0	20	

Sample ID: <b>P131120MB2</b>	SampType: <b>MBLK</b>	TestCode: <b>8260WATERP</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>91337</b>
Client ID: <b>PBW</b>	Batch ID: <b>P13VW187</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/20/2013</b>	SeqNo: <b>1689256</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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**Qualifiers:**

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- E Value above quantitation range
- R RPD outside accepted recovery limits
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference



3151 W. Post Rd Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691

**CLIENT:** Cardno ATC  
**Work Order:** N011443  
**Project:** Maryland Square, 085.42620.0001

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260WATERP**

Sample ID: <b>P131120MB2</b>	SampType: <b>MBLK</b>	TestCode: <b>8260WATERP</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>91337</b>						
Client ID: <b>PBW</b>	Batch ID: <b>P13VW187</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>11/20/2013</b>	SeqNo: <b>1689256</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
Tetrachloroethene	0.430	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Vinyl chloride	ND	0.50									
Surr: 1,2-Dichloroethane-d4	25.440		25.00		102	70	127				
Surr: 4-Bromofluorobenzene	24.370		25.00		97.5	80	120				
Surr: Dibromofluoromethane	25.730		25.00		103	73	128				
Surr: Toluene-d8	25.090		25.00		100	80	120				

**Qualifiers:**  
 B Analyte detected in the associated Method Blank      E Value above quantitation range      H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit      R RPD outside accepted recovery limits      S Spike/Surrogate outside of limits due to matrix interference



DO Surrogate Diluted Out  
 Calculations are based on raw values  
 3151 W. Post Rd Las Vegas, NV 89118 Tel: 702-307-2659 Fax: 702-307-2691

# CHAIN OF CUSTODY RECORD

**Advanced Technology Laboratories INC.**  
 3151-3153 W. Post Rd.  
 Las Vegas, NV 89118  
 Tel: (702) 307-2659 • Fax: (702) 307-2691

**FOR LABORATORY USE ONLY**

Method of Transport: 3.1°C  
 1. CHILLED  2. SEALED  3. UNCHILLED  4. SEALED   
 5. HEADSPACE (VOA)  6. # OF SPLS MATCH COC  7. N   
 8. CONTAINER INTACT  9. N  10. PRESERVED  11. Y  12. N

Sample Condition Upon Receipt  
 Y  N  4. SEALED  Y  N   
 5. # OF SPLS MATCH COC  Y  N   
 6. PRESERVED  Y  N

P.O. #: \_\_\_\_\_ Date: 11/12/13

Logged By: ASE

Client: Cardno ATC Address: 7115 Amigo Street, Suite 100 Tel: 702-990-9300  
 Attention: Andrew Stuart City: Las Vegas State: Nevada Zip Code: 89119 Fax: 702-990-9305

Project Name: \_\_\_\_\_ Project #: \_\_\_\_\_

Relinquished by: (Signature and Printed Name) Norman Brown Date: 11/12/13 Time: 16:00  
 Relinquished by: (Signature and Printed Name) Norman Brown Date: 11/12/13 Time: 16:00  
 Relinquished by: (Signature and Printed Name) \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

I hereby authorize ATL to perform the work indicated below:  
 Project Mgr / Submitter: Norman Brown Date: 11/20/13  
 Print Name: \_\_\_\_\_ Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Sample/Records - Archival & Disposal**  
 Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.  
 Storage Fees (applies when storage is requested):  
 ■ Sample: \$2.00 / sample / mo (after 45 days)  
 ■ Records: \$1 / ATL workorder / mo (after 1 year)

Send Report To: \_\_\_\_\_  
 Attn: Andrew Stuart  
 Co: Cardno ATC  
 Addr: 7115 Amigo Street, Suite 100  
 City: Las Vegas State: NV Zip: 89119

Bill To: \_\_\_\_\_  
 Attn: (same)  
 Co: \_\_\_\_\_  
 Addr: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Circle or Add Analysis(es) Requested:  
 8200 (Voliles)  8015M - GRO  8013B - DROORO  8020 (metals)  218 & Hexavalent Chromium

Special Instructions/Comments: \_\_\_\_\_

LAB USE ONLY: LAB No.	Sample ID / Location	Sample Description	Date	Time	SPECIFY APPROPRIATE MATRIX		CONTAINER(S)		TAT #	Type	REMARKS	
					SOIL	GROUND WATER	WATER	WASTEWATER				Container(s)
1	N01443-1	MW-1	11/4	1449	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	E	3	V	H
2		MW-2	11/5	847	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	E	3	V	H
3		MW-5	11/5	953	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	E	3	V	H
4		MW-5 Dup	11/5	953	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	E	3	V	H
5		MW-6	11/5	131	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	E	3	V	H
6		MW-6D1	11/6	1012	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	E	3	V	H
7		MW-6D1 Dup	11/6	1012	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	E	3	V	H
8		MW-6D2	11/6	930	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	E	3	V	H
9		MW-6D3	11/6	938	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	E	3	V	H
10		MW-7	11/4	12:23	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	E	3	V	H

QA/QC: RTNE  CT  SWRCB Logcode  OTHER \_\_\_\_\_

Preservatives: H=HCl N=HNO<sub>3</sub> S=H<sub>2</sub>SO<sub>4</sub> C=4°C  
 O=NaOH Z=Zn(AC)<sub>2</sub> M=Metal

TAT:  A = Overnight ≤ 24 hrs  B = Emergency Next Workday  C = Critical 2 Workdays  D = Urgent 3 Workdays  E = Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

# CHAIN OF CUSTODY RECORD

**Advanced Technology Laboratories INC.**  
 3151-3153 W. Post Rd.  
 Las Vegas, NV 89118  
 Tel: (702) 307-2659 • Fax: (702) 307-2691

**FOR LABORATORY USE ONLY**

Method of Transport: 3. 10C  
 1. CHILLED  Y  N  4. SEALED  Y  N   
 2. HEADSPACE (VOA)  Y  N  5. # OF SPLS MATCH COC  Y  N   
 3. CONTAINER INTACT  Y  N  6. PRESERVED  Y  N

Sample Condition Upon Receipt  
 Y  N  4. SEALED  Y  N   
 2. HEADSPACE (VOA)  Y  N  5. # OF SPLS MATCH COC  Y  N   
 3. CONTAINER INTACT  Y  N  6. PRESERVED  Y  N

P.O. #: \_\_\_\_\_ Date: 11/12/13  
 Logged By: AKC

Client: **Cardno ATC**  
 Attention: **Andrew Stuart**  
 Project Name: **Maryland Square**  
 Address: **7115 Amigo Street, Suite 100**  
 City: **Las Vegas** State: **Nevada** Zip Code: **89119**  
 Project #: \_\_\_\_\_ State: **Nevada** Zip Code: **89119**  
 City: **Las Vegas** State: **Nevada** Zip Code: **89119**

Relinquished by: Norman Beato Date: 11/24/13 Time: 1530  
 Received by: Ameyc Biron Date: 11/24/13 Time: 16:50  
 Relinquished by: Ameyc Biron Date: 11/24/13 Time: 16:50  
 Received by: Ameyc Biron Date: 11/24/13 Time: 16:50  
 Relinquished by: Ameyc Biron Date: 11/24/13 Time: 16:50  
 Received by: Ameyc Biron Date: 11/24/13 Time: 16:50

I hereby authorize ATL to perform the work indicated below:  
 Project Mgr (Submitter): Norman Beato Date: 11/24/13  
 Print Name: \_\_\_\_\_ Date: \_\_\_\_\_  
 Signature: \_\_\_\_\_

Send Report To:  
 Attn: **Andrew Stuart**  
 Co: **Cardno ATC**  
 Address: **7115 Amigo Street, Suite 100**  
 City: **Las Vegas** State: **NV** Zip: **89119**

**Special Instructions/Comments:**

**Sample/Records - Archival & Disposal**  
 Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.  
**Storage Fees (applies when storage is requested):**  
 ■ Sample: \$2.00 / sample /mo (after 45 days)  
 ■ Records: \$1 /ATL workorder /mo (after 1 year)

LAB USE ONLY:	Sample ID / Location	Date	Time	Circle or Add Analyst(s) Requested	Matrix	Container(s)	TAT #	Type	REMARKS	
1	N011443-11	11/4	1048	X	SOIL		E	3	V	H
2	12	11/4	1137	X	GROUND WATER		E	3	V	H
3	13	11/4	1137	X	GROUND WATER		E	3	V	H
4	14	11/4	980	X	GROUND WATER		E	3	V	H
5	15	11/5	921	X	GROUND WATER		E	3	V	H
6	16	11/5	1036	X	GROUND WATER		E	3	V	H
7	17	11/5	1237	X	GROUND WATER		E	3	V	H
8	18	11/4	1228	X	GROUND WATER		E	3	V	H
9	19	11/12	1438	X	GROUND WATER		E	3	V	H
10	20	11/7	1416	X	GROUND WATER		E	3	V	H


**QA/QC**  
 RTNE  CT   
 SWRCB Logcode   
 OTHER

**Preservatives:**  
 H=HCl N=HNO<sub>3</sub> S=H<sub>2</sub>SO<sub>4</sub> C=4°C  
 Z=Zn(Ac)<sub>2</sub> O=NaOH M=Metal

**Container Types:** T=Tube V=VOA L=Liter P=Pint J=Jar B=Bedlar G=Glass P=Plastic M=Metal  
 Routine 7 Workdays  E =  
 Urgent 3 Workdays  D =  
 Critical 2 Workdays  C =  
 Emergency Next Workday  B =  
 Overnight 5-24 hrs  A =



# CHAIN OF CUSTODY RECORD



**Advanced Technology Laboratories INC.**  
 3151-3153 W. Post Rd.  
 Las Vegas, NV 89118  
 Tel: (702) 307-2659 • Fax: (702) 307-2691

**FOR LABORATORY USE ONLY**

Method of Transport: 310C  
 1. CHILLED  2. SEALED  3. CONTAINER INTACT  4. PRESERVED  5. # OF SPLS MATCH COC  6. PRESERVED

Client: Cardno ATC State: Nevada Zip Code: 89119 Tel: 702-990-9300  
 Attention: Andrew Stuart City: Las Vegas Fax: 702-990-9305

Project #: \_\_\_\_\_  
 Address: 7115 Amigo Street, Suite 100

Sampler: \_\_\_\_\_  
 I attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Relinquished by: Nevada Assoc Date: 11/12/13 Time: 1530 Received by: Phon Amore Borr Date: 11/22/13 Time: 16:30  
 Relinquished by: Andrew Stuart Date: 11/12/13 Time: 16:30 Received by: MBCARVIN Date: 11/12/13 Time: 17:05  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Special Instructions/Comments: \_\_\_\_\_

Send Report To: \_\_\_\_\_  
 Attn: Andrew Stuart  
 Co: Cardno ATC  
 Address: 7115 Amigo Street, Suite 100  
 City: Las Vegas State: NV Zip: 89119

Circle or Add Analysis(es) Requested:  
 8208 (Voliles)  
 8015M - GRO  
 8015B - DRO/DRO  
 PCET/CE/CE/C 8260  
 8020 (Metals)  
 218.6 Hexavalent Chromium

LAB USE ONLY:	Sample ID / Location	Date	Time	Container(s)	TAT #	Type	REMARKS
NO1443-2j	MW-191	11/8	1203	WATER	E 3	V	
22	MW-19D1	11/8	1400	GROUND WATER	E 3	V	
23	MW-19D2	11/8	1055	SOIL	E 3	V	
24	MW-19D2 Dup	11/8	1055	SOIL	E 3	V	
25	MW-19D3	11/8	1323	SOIL	E 3	V	
26	MW-20	11/7	1330	SOIL	E 3	V	
27	MW-20D1	11/7	1147	SOIL	E 3	V	
28	MW-20D2	11/7	1158	SOIL	E 3	V	
29	MW-20D3	11/7	1118	SOIL	E 3	V	
30	MW-29			SOIL	E 3	V	

**Sample/Records - Archival & Disposal**  
 Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.

**Storage Fees (applies when storage is requested):**  
 Sample: \$2.00 / sample /mo (after 45 days)  
 Records: \$17 / ATL workorder / mo (after 1 year)


**TAT:**  A = Overnight ≤ 24 hrs  B = Emergency Next Workday  C = Critical 2 Workdays  D = Urgent 3 Workdays  E = Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Plastic M=Metal

Preservatives: H=HCl N=HNO<sub>3</sub> S=H<sub>2</sub>SO<sub>4</sub> C=4°C  
 Z=Zn(AC)<sub>2</sub> O=NaOH T=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>



# CHAIN OF CUSTODY RECORD



**Advanced Technology Laboratories INC.**  
3151-3153 W. Post Rd.  
Las Vegas, NV 89118  
Tel: (702) 307-2659 • Fax: (702) 307-2691

**FOR LABORATORY USE ONLY**

Method of Transport: 3.1°C  
 1. CHILLED     2. SEALED     3. PRESERVED  
 4. ATL     5. HEADSPACE (VOA)     6. SPLS MATCH COC     7. OF SPLS MATCH COC     8. PRESERVED

Client: Cardno ATC    Address: 7115 Amigo Street, Suite 100    City: Las Vegas    State: Nevada    Zip Code: 89119    Tel: 702-990-9300  
 Attention: Andrew Stuart    Project #: 085.42620.0001    Sampler: Norman Acosta    (Printed Name)    Signature: [Signature]    Date: 11/24/13    Time: 16:50

Relinquished by: [Signature]    Date: 11/24/13    Time: 16:50  
 Relinquished by: [Signature]    Date: 11/24/13    Time: 16:50  
 Relinquished by: [Signature]    Date: 11/24/13    Time: 16:50

I hereby authorize ATL to perform the work indicated below:  
 Project Mgr (Submitter): Norman Acosta    Date: 11/24/13  
 Print Name: [Signature]    Signature: [Signature]

**Sample/Records - Archival & Disposal**  
 Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.  
**Storage Fees (applies when storage is requested):**  
 Sample: \$2.00 / sample / mo (after 45 days)  
 Records: \$1 / ATL workorder / mo (after 1 year)

Bill To: Cardno ATC    Attn: (same)    Co: Cardno ATC    Address: 7115 Amigo Street, Suite 100    City: Las Vegas    State: NV    Zip: 89119

Circle or Add Analysts(es) Requested: 8208 (Volatiles) 8015B - DRO/RO 8015B - DRO/RO PCE/TCE/DCE/C 8260 218.6 Hexavalent Chromium

LAB USE ONLY: LAB No.	Sample ID / Location	Sample Description	Date	Time	SPECIFY APPROPRIATE MATRIX			CONTAINER(S) Type	TAT #	REMARKS
					SOIL	GROUND WATER	WASTEWATER			
N01443-30	MW-23		11/12	13:17	X			E 3	V	H
31	MW-25		11/12	12:26	X			E 3	V	H
32	<del>MW-25</del> MW-28	Deep	11/12	13:04	X			E 3	V	H
33	MW-26		11/12	10:38	X			E 3	V	H
34	MW-27		11/12	17:08	X			E 3	V	H
35	MW-30		11/11	17:08	X			E 3	V	H
36	MW-31		11/11	17:08	X			E 3	V	H
37	MW-32		11/12	12:13	X			E 3	V	H
38	MW-33		11/18	8:48	X			E 3	V	H
39	MW-34		11/14	15:27	X			E 3	V	H


Special Instructions/Comments:

Preservatives: H=HCl N=HNO<sub>3</sub> S=H<sub>2</sub>SO<sub>4</sub> C=4°C  
 Z=Zn(Ac)<sub>2</sub> O=NaOH M=Metal

TAT:  A = Overnight ≤ 24 hrs     B = Emergency Next Workday     C = Critical 2 Workdays     D = Urgent 3 Workdays     E = Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Bedlar G=Glass P=Plastic M=Metal

# CHAIN OF CUSTODY RECORD



**Advanced Technology Laboratories Inc.**  
3151-3153 W. Post Rd.  
Las Vegas, NV 89118  
Tel: (702) 307-2659 • Fax: (702) 307-2691

**FOR LABORATORY USE ONLY**

Method of Transport: 31°C  
 1. CHILLED     2. SEALED  
 3. HEADSPACE (VOA)     4. # OF SPLS MATCH COC     5. # OF SPLS MATCH COC     6. PRESERVED     7. PRESERVED     8. PRESERVED

Client: Cardno ATC    State: Nevada    Zip Code: 89119    Tel: 702-990-9300  
 Attention: Andrew Stuart    City: Las Vegas    Project #: 085.42620.0001    Fax: 702-990-9305

Project Name: Maryland Square    Sampler: [Signature]    (Printed Name) Norman [Signature]    (Printed Name) Norman [Signature]  
 Relinquished by: [Signature]    Date: 11/21/13    Time: 1530    Received by: [Signature]    Date: 11/21/13    Time: 1650  
 Relinquished by: [Signature]    Date: 11/21/13    Time: 1650    Received by: [Signature]    Date: 11/21/13    Time: 1705  
 Relinquished by: [Signature]    Date: 11/21/13    Time: 1650    Received by: [Signature]    Date: 11/21/13    Time: 1705

Special Instructions/Comments: \_\_\_\_\_

Bill To: Attn: (same)    City: Las Vegas    State: NV    Zip: 89119  
 Co: Cardno ATC  
 Addr: 7115 Amigo Street, Suite 100  
 City: Las Vegas    State: NV    Zip: 89119

LAB USE ONLY:	Lab No.	Sample ID / Location	Sample Description	Date	Time	SPECIFY APPROPRIATE MATRIX			TAT #	Type	REMARKS	
						SOIL	GROUND WATER	WASTEWATER				
	1011443-40	MW-35		11/14	1440	X			E	3	V	H
	41	MW-36		11/12	953	X			E	3	V	H
	42	MW-37		11/11	1114	X			E	3	V	H
	43	MW-38		11/11	1023	X			E	3	V	H
	44	MW-38 Dup		11/11	1023	X			E	3	V	H
	45	MW-39		11/11	1404	X			E	3	V	H
	46	MW-40 CMT-30		11/6	1030	X	X		E	3	V	H
	47	MW-40 CMT-35		11/6	1100	X	X		E	3	V	H
	48	MW-40 CMT-40		11/6	1320	X	X		E	3	V	H
	49	MW-40 CMT-45		11/6	1450	X	X		E	3	V	H

Circle or Add Analysis(es) Requested:  
 8015M - GRO     8015B - DRO/ORO     6020 (metals)     218 & Hexavalent Chromium

QA/QC:  RTNE     CT     SWRCB Logcode     OTHER

Preservatives:  H=HCl     N=HNO<sub>3</sub>     S=H<sub>2</sub>SO<sub>4</sub>     C=4°C  
 Z=Zn(AC)<sub>2</sub>     O=NaOH     M=Metal


I hereby authorize ATL to perform the work indicated below:  
 Project Mgr / Submitter: [Signature]    Date: 11/21/13  
 Print Name: [Signature]    Date: 11/21/13  
 Signature: [Signature]

**Sample/Records - Archival & Disposal**  
 Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.  
**Storage Fees (applies when storage is requested):**  
 Sample: \$2.00 / sample / mo (after 45 days)  
 Records: \$1 / ATL workorder / mo (after 1 year)

TAT:  A = Overnight ≤ 24 hrs     B = Emergency Next Workday     C = Critical 2 Workdays     D = Urgent 3 Workdays     E = Routine 7 Workdays

Container Types: T=Tube    V=VOA    L=Liter    P=Jar    J=Jar    B=Tedlar    G=Glass    P=Plastic    M=Metal

# CHAIN OF CUSTODY RECORD



**Advanced Technology Laboratories Inc.**  
 3151-3153 W. Post Rd.  
 Las Vegas, NV 89118  
 Tel: (702) 307-2659 • Fax: (702) 307-2691

**FOR LABORATORY USE ONLY**

Method of Transport: 31°C  
 1. CHILLED  Y  N  4. SEALED  Y  N   
 2. HEADSPACE (VOA) 102 MATCH  Y  N  5. # OF SPLS MATCH COC  Y  N   
 3. CONTAINER INTACT  Y  N  6. PRESERVED  Y  N

Client: Cardno ATC Address: 7115 Amigo Street, Suite 100 Tel: 702-990-9300  
 Attention: Andrew Stuart City: Las Vegas State: Nevada Zip Code: 89119 Fax: 702-990-9305

Project Name: \_\_\_\_\_ Project #: \_\_\_\_\_  
 Relinquished by: Norman Beards (Signature and Printed Name) Date: 11/10/13 Time: \_\_\_\_\_  
 Relinquished by: Andrew Bion (Signature and Printed Name) Date: 11/21/13 Time: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ (Signature and Printed Name) Date: \_\_\_\_\_ Time: \_\_\_\_\_

I hereby authorize ATL to perform the work indicated below:  
 Project Mgr./Submitter: Norman Beards Date: 11/21/13  
 Print Name: \_\_\_\_\_ Signature: \_\_\_\_\_  
 Co: Cardno ATC Address: 7115 Amigo Street, Suite 100 City: Las Vegas State: NV Zip: 89119

**Sample/Records - Archival & Disposal**  
 Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.  
**Storage Fees (applies when storage is requested):**  
 ■ Sample: \$2.00 / sample /mo (after 45 days)  
 ■ Records: \$1 /ATL workorder /mo (after 1 year)

Special Instructions/Comments: \_\_\_\_\_

Bill To: \_\_\_\_\_ Attn: (same)  
 Co: \_\_\_\_\_  
 Addr: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Circle or Add Analysis(es) Requested:  
 826B (Volatiles)  
 8015M - GRO  
 8015B - PRO/ORO  
 PE/TC/DC/ENC 8260  
 6020 (metals)  
 218.6 Hexavalent Chromium

LAB USE ONLY: Lab No.	Sample ID / Location	Date	Time	SPECIFY APPROPRIATE MATRIX			PRESERVATION		QA/QC RTNE <input type="checkbox"/> CT <input type="checkbox"/> SWRCB <input type="checkbox"/> Logcode <input type="checkbox"/> OTHER _____	REMARKS
				SOIL	GROUND WATER	WASTEWATER	TAT #	Type		
1011443-50	MW-40 CMT-50	11/6	12:30	X	X	X	E	3	V	H
51	MW-40 CMT-55	11/6	1400	X	X	X	E	3	V	H
52	MW-40 CMT-60	11/6	1130	X	X	X	E	3	V	H
53	MW-40 CMT-60 Dup	11/6	1130	X	X	X	E	3	V	H
54	MW-41	11/11	9:38	X	X	X	E	3	V	H
55	MW-42	11/11	8:46	X	X	X	E	3	V	H
56	MW-43	11/8	9:45	X	X	X	E	3	V	H
57	Trip Blank	11/4	7:00	X	X	X	E	3	V	H
58	Field Blank	11/4	12:25	X	X	X	E	3	V	H
59	Equip Rinse	11/4	12:49	X	X	X	E	3	V	H

Preservatives: \_\_\_\_\_  
 H=HCl N=HNO<sub>3</sub> S=H<sub>2</sub>SO<sub>4</sub> C=4°C  
 Z=Zn(Ac)<sub>2</sub> O=NaOH T=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>

TAT:  A = Overnight ≤ 24 hrs  B = Emergency Next Workday  C = Critical 2 Workdays  D = Urgent 3 Workdays  E = Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pin W=Jar B=Tealr G=Glass P=Plastic M=Metal

■ TAT starts 8AM the following day if samples received after 3 PM

# CHAIN OF CUSTODY RECORD

**Advanced Technology Laboratories, Inc.**  
 3151-3153 W. Post Rd.  
 Las Vegas, NV 89118  
 Tel: (702) 307-2659 • Fax: (702) 307-2691

**FOR LABORATORY USE ONLY**

Method of Transport: 3.1°C  
 1. CHILLED  Y  N  4. SEALED  Y  N   
 2. HEADSPACE (VOA)  Y  N  5. # OF SPLS MATCH COC  Y  N   
 3. CONTAINER INTACT  Y  N  6. PRESERVED  Y  N

Sample Condition Upon Receipt

P.O. #: \_\_\_\_\_ Date: 11/2/13  
 Logged By: ASG

Client: Cardno ATC  
 Attention: Andrew Stuart  
 Project Name: \_\_\_\_\_  
 Address: 7115 Amigo Street, Suite 100  
 City: Las Vegas State: Nevada Zip Code: 89119 Fax: 702-990-9305

Project #: \_\_\_\_\_  
 085-42620-0001  
 Date: 11/2/13  
 Relinquished by: *Norman Berman* (Signature and Printed Name)  
 Date: 11/2/13  
 Relinquished by: *Norman Berman* (Signature and Printed Name)  
 Date: 11/2/13  
 Relinquished by: *Norman Berman* (Signature and Printed Name)  
 Date: 11/2/13

Send Report To:  
 Attn: Andrew Stuart  
 Co: Cardno ATC  
 Addr: 7115 Amigo Street, Suite 100  
 City: Las Vegas State: NV Zip: 89119

I hereby authorize ATL to perform the work indicated below:  
 Project Mgr/Submitter: *Norman Berman* (Signature and Printed Name)  
 Date: 11/2/13  
 Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_

**Sample/Records - Archival & Disposal**  
 Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.  
**Storage Fees (applies when storage is requested):**  
 ■ Sample: \$2.00 / sample / mo (after 45 days)  
 ■ Records: \$1 /ATL workorder /mo (after 1 year)

LAB USE ONLY:	Lab No.	Sample ID / Location	Date	Time	Sample Description	SPECIFY APPROPRIATE MATRIX		TAT	Type	CONTAINER(S)	PRESERVATION	QA/QC	REMARKS
						SOIL	WATER						
	1011443-65	Trip Blank	11/5	645		X							
	61	Field Blank	11/5	1030		X							
	62	Equip Rinse	11/5	1050		X							
	63	Trip Blank	11/6	710		X							
	64	Field Blank	11/6	1235		X							
	65	Equip Rinse	11/6	1235		X							
	66	Trip Blank	11/7	650		X							
	67	Field Blank	11/7	1000		X							
	68	Equip Rinse	11/7	1055		X							
	69	Trip Blank	11/8	652		X							

Special Instructions/Comments: \_\_\_\_\_

Circle or Add Analysis(es) Requested:  
 8200 (Voliles)  
 8013M - GRO  
 8019B - DROJORO  
 6020 (metals)  
 218, 6 Hexavalent Chromium

Preservatives:  
 H=HCl N=HNO<sub>3</sub> S=H<sub>2</sub>SO<sub>4</sub> C=4°C  
 Z=Zn(Ac)<sub>2</sub> O=NaOH T=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>

TAT:  A = Overnight ≤ 24 hrs  B = Emergency Next Workday  C = Critical 2 Workdays  D = Urgent 3 Workdays  E = Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

# CHAIN OF CUSTODY RECORD



**Advanced Technology Laboratories, Inc.**

3151-3153 W. Post Rd.  
Las Vegas, NV 89118

Tel: (702) 307-2659 • Fax: (702) 307-2691

## FOR LABORATORY USE ONLY

Method of Transport

- Client
- ATL
- CA OverN
- FedEx
- Other:

Sample Condition Upon Receipt

- 1. CHILLED Y  N  4. SEALED Y  N
- 2. HEADSPACE (VOA) Y  N  5. # OF SPLS MATCH COC Y  N
- 3. CONTAINER INTACT Y  N  6. PRESERVED Y  N

P.O. #:

Logged By: HSG Date: 11/12/13

Client: Cardno ATC  
Attention: Andrew Stuart

Address: 7115 Amigo Street, Suite 100

City: Las Vegas

State: Nevada

Zip Code: 89119

Tel: 702-990-9300

Fax: 702-990-9305

Project #:

Sampler:

(Printed Name)  
(Signature)

Mayland Square

085-42620-0001

Received by: (Signature and Printed Name)

Date: 11/12/13

Time: 1530

Received by: (Signature and Printed Name)

Date: 11/12/13

Time: 1650

Received by: (Signature and Printed Name)

Date: 11/12/13

Time: 1705

I hereby authorize ATL to perform the work indicated below:

Project Mgr./Submitter:

Norman Ascare 11/12/13

Print Name Date

(Signature)

Send Report To:

Attn: Andrew Stuart

Co: Cardno ATC

Addr: 7115 Amigo Street, Suite 100

City: Las Vegas

State: NV

Zip: 89119

Bill To:

Attn: (same)

Co:

Addr:

City:

State:

Zip:

Special Instructions/Comments:

**Sample/Records - Archival & Disposal**  
Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.

**Storage Fees (applies when storage is requested):**

- Sample: \$2.00 / sample / mo (after 45 days)
- Records: \$1 / ATL workorder / mo (after 1 year)

LAB USE ONLY:	Sample ID / Location	Date	Time	Sample Description
601443-70	Field Blank	11/8	1130	
71	Equip Rinse	11/8	1210	
72	Trip Blank	11/11	710	
73	Field Blank	11/11	1045	
74	Equip Rinse	11/11	1125	
75	Trip Blank	11/12	705	
76	Field Blank	11/12	1205	
77	Equip Rinse	11/12	1220	
78	MW-NDZ-HV	11/8	1715	

TAT:  A = Overnight ≤ 24 hrs  
 B = Emergency Next Workday  
 C = Critical 2 Workdays  
 D = Urgent 3 Workdays  
 E = Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Bedlar G=Glass P=Plastic M=Metal

Preservatives: H=HCl N=HNO<sub>3</sub> S=H<sub>2</sub>SO<sub>4</sub> C=4°C  
 Z=Zn(Ac)<sub>2</sub> O=NaOH T=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>

SPECIFY APPROPRIATE MATRIX	Container(s)		REMARKS
	TAT #	Type	
SOIL	E 3	V	H
GROUND WATER	E 3	V	H
WATER	E 3	V	H
WASTEWATER	E 3	V	H
820B (Voliles)	E 3	V	H
8013M - GRO	E 3	V	H
8013B - DRO/ORO	E 3	V	H
PC/TC/D/C/VC 8260	E 3	V	H
6020 (Metals)	E 3	V	H
218 & Hexavalent Chromium	E 3	V	H

QA/QC  
 RTNE  CT   
 SWRCB Logcode   
 OTHER

# Advanced Technology Laboratories, Inc.

Please review the checklist below. Any NO signifies non-compliance. Any non-compliance will be noted and must be understood as having an impact on the quality of the data. All tests will be performed as requested regardless of any compliance issues.

If you have any questions or further instruction, please contact our Project Coordinator at (702) 307-2659.

Cooler Received/Opened On: 11/12/2013 Workorder: N011443  
 Rep sample Temp (Deg C): 3.1 IR Gun ID: 2  
 Temp Blank:  Yes  No  
 Carrier name: ATL  
 Last 4 digits of Tracking No.: NA Packing Material Used: None  
 Cooling process:  Ice  Ice Pack  Dry Ice  Other  None

## Sample Receipt Checklist

- |   |   |                             |   |
|---|---|-----------------------------|---|
| 1. Shipping container/cooler in good condition?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | Not Present <input type="checkbox"/>            |
| 2. Custody seals intact, signed, dated on shipping container/cooler?                    | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| 3. Custody seals intact on sample bottles?  | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | Not Present <input checked="" type="checkbox"/> |
| 4. Chain of custody present?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 5. Sampler's name present in COC?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 6. Chain of custody signed when relinquished and received?                              | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 7. Chain of custody agrees with sample labels?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 8. Samples in proper container/bottle?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 9. Sample containers intact?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 10. Sufficient sample volume for indicated test?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 11. All samples received within holding time?   | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> |   |
| 12. Temperature of rep sample or Temp Blank within acceptable limit?                    | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/>                     |
| 13. Water - VOA vials have zero headspace?  | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/>                     |
| 14. Water - pH acceptable upon receipt?<br>Example: pH > 12 for (CN,S); pH<2 for Metals | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/>                     |
| 15. Did the bottle labels indicate correct preservatives used?                          | Yes <input checked="" type="checkbox"/> | No <input type="checkbox"/> | NA <input type="checkbox"/>                     |
| 16. Were there Non-Conformance issues at login?<br>Was Client notified?                 | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/>          |
|   | Yes <input type="checkbox"/>            | No <input type="checkbox"/> | NA <input checked="" type="checkbox"/>          |

Comments:

Checklist Completed By: MBC for:  11/13/2013

Reviewed By: 



## Hanah Glodoviza

---

**From:** Andrew Stuart [[andrew.stuart@cardno.com](mailto:andrew.stuart@cardno.com)]  
**Sent:** Wednesday, November 13, 2013 4:32 PM  
**To:** Hanah Glodoviza  
**Cc:** 'Marlon B. Cartin'; 'Sample Control'  
**Subject:** RE: Maryland Square, 085.42620.0001

Correct on both. Thanks

### Andrew Stuart, CEM, LEED AP

BRANCH MANAGER  
CARDNO ATC

#### NOTE NEW ADDRESS AND PHONE NUMBERS

Phone (+1) 702-990-9300 Fax (+1) 702-990-9305 Direct (+1) 702-990-7540 Mobile (+1) 702-524-1454  
Address 7115 Amigo Street, Suite 100, Las Vegas, NV 89119  
Email [andrew.stuart@cardno.com](mailto:andrew.stuart@cardno.com) Web [www.cardnoatc.com](http://www.cardnoatc.com) - [www.cardno.com](http://www.cardno.com)

---

**From:** Hanah Glodoviza [<mailto:hanah.glodoviza@atl-labs.com>]  
**Sent:** Wednesday, November 13, 2013 4:34 PM  
**To:** Andrew Stuart  
**Cc:** 'Marlon B. Cartin'; 'Sample Control'  
**Subject:** Maryland Square, 085.42620.0001

Hi Andrew,

I got 7 set of TRIP BLANK samples, one of them is sampled **11/5 0650** (per sample label) but what I have on COC is **11/5 0645**. I am assuming that this is the same sample because all 6 TRIP BLANK samples have matched the COC.

I also got a set of VOA labeled **RINSE BLANK** (1 VOA has sampling date/time **11/6 1230** and the other 2 is **11/6 1235**) which is not written on COC. Again I assumed that is the **EQUIP RINSE** with sampling date/time **11/6 1235** on COC.

Please confirm if my assumption is correct and kindly advice if not.

Thanks,  
Hanah



3151 W. Post Road Las Vegas, NV 89118

[www.atl-labs.com](http://www.atl-labs.com)

Tel: (702) 307-2659

Fax: (702) 307-2691

*Advanced Technology Laboratories, Inc.* is a full-service woman owned environmental laboratory providing organic and inorganic analyses of soil, water, wastewater, storm water and hazardous waste samples. *ATL Inc* is certified by the State of California, NELAP, and the State of Nevada. It is also a certified UDBE, SBE and DBE. *ATL Inc* takes pride in providing our customers with quick turnaround time, excellent customer service and defensible data while offering very competitive rates.

This message is intended for the use of the individual or entity to which it is addressed. This may contain information that is privileged, confidential, and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient, or the employee or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone and delete the original message. Thank you.



**From:** [Adam Katlein](mailto:adam.katlein@atl-labs.com)  
**To:** [Adam Katlein](mailto:adam.katlein@atl-labs.com)  
**Subject:** FW: Maryland Square  
**Date:** Thursday, January 23, 2014 9:57:38 AM

---

---

**From:** Marlon B. Cartin [<mailto:marlon@atl-labs.com>]  
**Sent:** Tuesday, January 21, 2014 5:21 PM  
**To:** Andrew Stuart; Adam Katlein  
**Cc:** [glen@atl-labs.com](mailto:glen@atl-labs.com)  
**Subject:** RE: Maryland Square

Hi Andrew!

I check with the analyst on this and she said she actually ran two vials on this to confirm the results, and it looks like the figures are accurate. We also check the label of the vials to check for error in labeling and they are labeled properly. Below are the results of two different runs;

MW-40 CMT 60 – Vial 1 @ 1X, result for TCE is 160 ppb. Not reported.  
- Vial 2 @ 5X, result for TCE is 190 ppb. Reported.

MW-40 CMT 60 Dup - Vial 1 @ 1X, result for TCE is 340 ppb. Not reported.  
- Vial 2 @ 5X, result for TCE is 410 ppb. Reported.

Please let me know if you want us to run the remaining Vial.

Thanks,

Marlon

---

**From:** Andrew Stuart [<mailto:andrew.stuart@cardno.com>]  
**Sent:** Tuesday, January 21, 2014 4:35 PM  
**To:** Marlon Cartin ([marlon@atl-labs.com](mailto:marlon@atl-labs.com)); Adam Katlein  
**Subject:** FW: Maryland Square

Marlon can you look at duplicate of MW-CMT 60 it was a big difference.

Might need to look at the other voas.

**Andrew Stuart, CEM, LEED AP**  
BRANCH MANAGER  
CARDNO ATC

**NOTE NEW ADDRESS AND PHONE NUMBERS**

Phone (+1) 702-990-9300 Fax (+1) 702-990-9305 Direct (+1) 702-990-7540 Mobile (+1) 702-524-1454

**Advanced Technology Laboratories, Inc.**

**ANALYTICAL RESULTS**  
 Print Date: 27-Jan-14

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-052D

**Client Sample ID:** MW-40 CMT-60  
**Collection Date:** 11/6/2013 11:30:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: MS5_140124A	QC Batch: P14VW014				PrepDate:	Analyst: PN
1,1-Dichloroethene	ND	0.33	1.0		µg/L	2 1/24/2014 02:10 PM
cis-1,2-Dichloroethene	2.4	0.11	1.0		µg/L	2 1/24/2014 02:10 PM
Tetrachloroethene	130	0.23	1.0		µg/L	2 1/24/2014 02:10 PM
trans-1,2-Dichloroethene	ND	0.23	1.0		µg/L	2 1/24/2014 02:10 PM
Trichloroethene	3.1	0.15	1.0		µg/L	2 1/24/2014 02:10 PM
Vinyl chloride	ND	0.16	1.0		µg/L	2 1/24/2014 02:10 PM
Surr: 1,2-Dichloroethane-d4	106	0	70-127		%REC	2 1/24/2014 02:10 PM
Surr: 4-Bromofluorobenzene	105	0	80-120		%REC	2 1/24/2014 02:10 PM
Surr: Dibromofluoromethane	104	0	73-128		%REC	2 1/24/2014 02:10 PM
Surr: Toluene-d8	103	0	80-120		%REC	2 1/24/2014 02:10 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
 H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
 S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
 DO Surrogate Diluted Out



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**Advanced Technology Laboratories, Inc.**

**ANALYTICAL RESULTS**

Print Date: 27-Jan-14

**CLIENT:** Cardno ATC  
**Lab Order:** N011443  
**Project:** Maryland Square, 085.42620.0001  
**Lab ID:** N011443-053B

**Client Sample ID:** MW-40 CMT-60 Dup  
**Collection Date:** 11/6/2013 11:30:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID: MS5_140124A	QC Batch: P14VW014	PrepDate:			Analyst: PN	
1,1-Dichloroethene	ND	0.16	0.50	µg/L	1	1/24/2014 09:50 PM
cis-1,2-Dichloroethene	3.4	0.057	0.50	µg/L	1	1/24/2014 09:50 PM
Tetrachloroethene	360	1.2	5.0	µg/L	10	1/24/2014 02:34 PM
trans-1,2-Dichloroethene	ND	0.11	0.50	µg/L	1	1/24/2014 09:50 PM
Trichloroethene	3.9	0.075	0.50	µg/L	1	1/24/2014 09:50 PM
Vinyl chloride	ND	0.082	0.50	µg/L	1	1/24/2014 09:50 PM
Surr: 1,2-Dichloroethane-d4	104	0	70-127	%REC	1	1/24/2014 09:50 PM
Surr: 1,2-Dichloroethane-d4	106	0	70-127	%REC	10	1/24/2014 02:34 PM
Surr: 4-Bromofluorobenzene	107	0	80-120	%REC	1	1/24/2014 09:50 PM
Surr: 4-Bromofluorobenzene	107	0	80-120	%REC	10	1/24/2014 02:34 PM
Surr: Dibromofluoromethane	103	0	73-128	%REC	1	1/24/2014 09:50 PM
Surr: Dibromofluoromethane	105	0	73-128	%REC	10	1/24/2014 02:34 PM
Surr: Toluene-d8	103	0	80-120	%REC	1	1/24/2014 09:50 PM
Surr: Toluene-d8	103	0	80-120	%REC	10	1/24/2014 02:34 PM

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out



**Advanced Technology  
Laboratories, Inc.**

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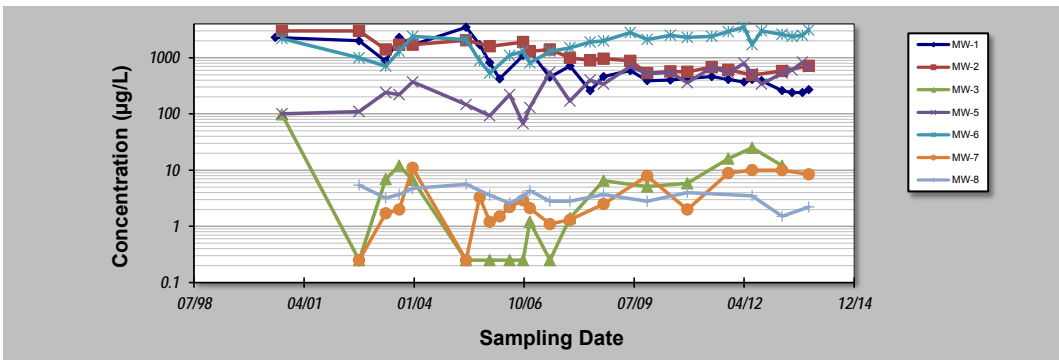
Maryland Square PCE Site

**APPENDIX C**  
MANN-KENDALL TREND TEST FOR  
PLUME STABILITY

## GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date: <b>15-Jan-14</b>	Job ID: <b>085.42620.0001</b>
Facility Name: <b>Maryland Square PCE Site</b>	Constituent: <b>PCE</b>
Conducted By: <b>Cardno ATC</b>	Concentration Units: <b>µg/L</b>

Sampling Point ID:		MW-1	MW-2	MW-3	MW-5	MW-6	MW-7	MW-8	
Sampling Event	Sampling Date	PCE CONCENTRATION (µg/L)							
1	Aug 00	2,300							
2	Oct 00		3,000	98	100	2,200			
3	Sep 02	2,000	3,000	0.25	110	1,000	0.25	5.4	
4	May 03	870	1,400	6.9	240	710	1.7	3.2	
5	Sep 03	2,300	1,700	12	220	1,300	2	3.7	
6	Jan 04	1,700	1,700	6.7	370	2,400	11	4.7	
7	May 05	3,500	2,050	0.25	146	2,090	0.25	5.6	
8	Sep 05	1,700				890	3.3		
9	Dec 05	820	1,600	0.25	93	530	1.2	3.6	
10	Mar 06	420					1.5		
11	Jun 06			0.25	220	1,100	2.2	2.6	
12	Oct 06	1,100	1,900	0.25	67	1,300	2.9	3.4	
13	Dec 06	1,300	1,300	1.2	130	810	2.1	4.3	
14	Mar 07								
15	Jun 07	450	1,400	0.25	550	1,300	1.1	2.8	
16	Sep 07								
17	Dec 07	710	1,000	1.4	170	1,500	1.3	2.8	
18	Mar 08								
19	Jun 08	260	900		400	1,900			
20	Oct 08	460	960	6.5	340	2,000	2.5	3.7	
21	Feb 09								
22	Jun 09	590	880		700	2,800			
23	Sep 09								
24	Nov 09	390	530	5.1	520	2,100	7.9	2.8	
25	Feb 10								
26	Jun 10	400	570		550	2,500			
27	Oct 10								
28	Nov 10	430	560	5.8	360	2,300	2	4	
29	Mar 11								
30	Jun 11	460	680		670	2,400			
31	Sep 11								
32	Nov 11	410	610	16	540	2,900	8.9		
33	Mar 12	370			800	3,500			
34	Jun 12	410	490	25	520	1,700	10	3.5	
35	Sep 12	390			340	3,000			
36	Nov 12								
37	Mar 13	260	580	12	530	2,600	10	1.5	
38	Jun 13	240			600	2,400			
39	Sep 13	240			830	2,500			
40	Nov-13	270	720		690	3,100	8.4	2.2	
Coefficient of Variation:		0.93	0.60	2.07	0.58	0.41	0.92	0.31	
Mann-Kendall Statistic (S):		-265	-166	29	193	205	77	-52	
Confidence Factor:		>99.9%	>99.9%	85.3%	>99.9%	>99.9%	99.4%	98.3%	
Concentration Trend:		Decreasing	Decreasing	No Trend	Increasing	Increasing	Increasing	Decreasing	



- Notes:**
- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
  - Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S=0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
  - Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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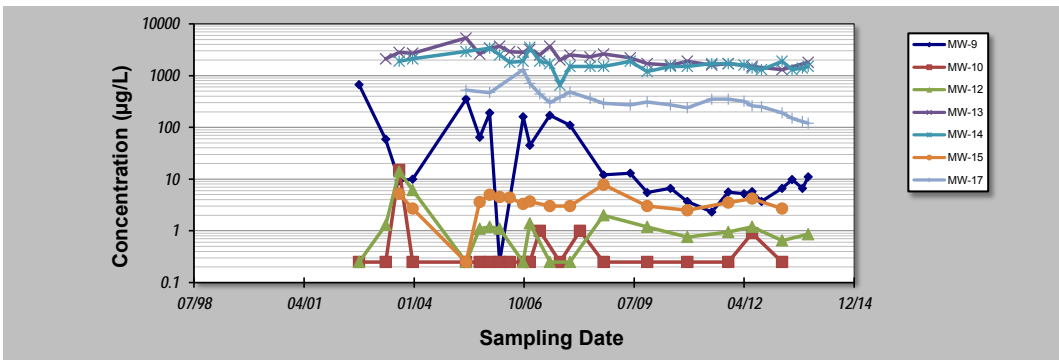
# GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date: <b>15-Jan-14</b>	Job ID: <b>085.42620.0001</b>
Facility Name: <b>Maryland Square PCE Site</b>	Constituent: <b>PCE</b>
Conducted By: <b>Cardno ATC</b>	Concentration Units: <b>µg/L</b>

Sampling Point ID:	<b>MW-9</b>	<b>MW-10</b>	<b>MW-12</b>	<b>MW-13</b>	<b>MW-14</b>	<b>MW-15</b>	<b>MW-17</b>
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Sampling Event	Sampling Date	PCE CONCENTRATION (µg/L)						
		MW-9	MW-10	MW-12	MW-13	MW-14	MW-15	MW-17
1	Aug 00							
2	Oct 00							
3	Sep 02	670	0.25	0.25				
4	May 03	59	0.25	1.3	2,100			
5	Sep 03	9.2	15	14	2,800	1,900	5.2	
6	Jan 04	10	0.25	6.1	2,700	2,100	2.7	
7	May 05	353	0.25	0.25	5,310	2,920	0.25	520
8	Sep 05	64	0.25	1.1	2,600		3.6	
9	Dec 05	190	0.25	1.2	3,400	3,400	5	470
10	Mar 06	0.25	0.25	1.1	3,700	2,500	4.5	
11	Jun 06		0.25		2,900	1,800	4.4	
12	Oct 06	160	0.25	0.25	2,800	1,900	3.3	1,300
13	Dec 06	45	0.25	1.4	3,200	3,500	3.7	710
14	Mar 07		1		2,500	1,900		440
15	Jun 07	170		0.25	3,700	1,700	3	300
16	Sep 07		0.25		2,000	650		380
17	Dec 07	110		0.25	2,500	1,500	3	480
18	Mar 08		1					
19	Jun 08				2,300	1,500		360
20	Oct 08	12	0.25	2	2,600	1,500	7.8	290
21	Feb 09							
22	Jun 09	13			2,200	1,900		270
23	Sep 09							
24	Nov 09	5.5	0.25	1.2	1,700	1,200	3	310
25	Feb 10							
26	Jun 10	6.6			1,600	1,500		270
27	Oct 10							
28	Nov 10	3.7	0.25	0.76	1,900	1,500	2.5	240
29	Mar 11							
30	Jun 11	2.3			1,600	1,700		350
31	Sep 11							
32	Nov 11	5.6	0.25	0.95	1,700	1,700	3.5	350
33	Mar 12	5.2				1,600		320
34	Jun 12	5.7	0.9	1.2	1,500	1,400	4.2	260
35	Sep 12	3.7				1,300		250
36	Nov 12							
37	Mar 13	6.6	0.25	0.65	1,300	1,900	2.7	190
38	Jun 13	9.8				1,300		150
39	Sep 13	6.6				1,400		130
40	Nov-13	11		0.86	1,800	1,500		120

Coefficient of Variation:	1.98	3.00	1.74	0.36	0.35	0.43	0.66
Mann-Kendall Statistic (S):	-121	7	-21	-176	-157	-24	-185
Confidence Factor:	99.6%	57.7%	75.5%	>99.9%	>99.9%	82.6%	>99.9%
Concentration Trend:	Decreasing	No Trend	No Trend	Decreasing	Decreasing	Stable	Decreasing



- Notes:**
- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
  - Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S=0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
  - Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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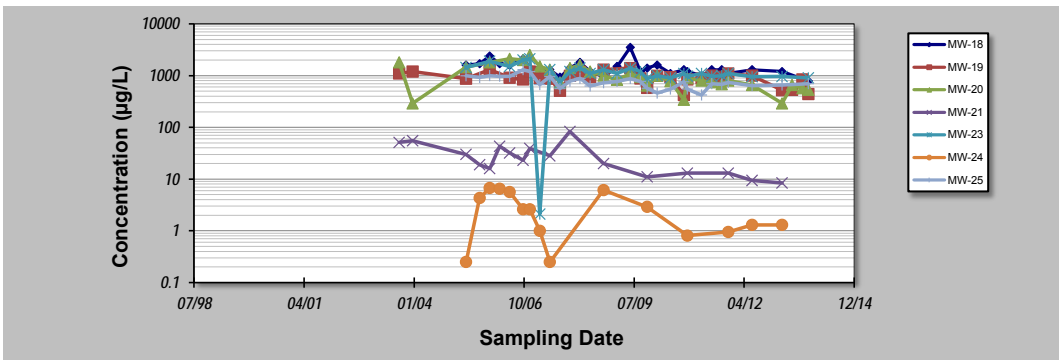
## GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date: <b>15-Jan-14</b>	Job ID: <b>085.42620.0001</b>
Facility Name: <b>Maryland Square PCE Site</b>	Constituent: <b>PCE</b>
Conducted By: <b>Cardno ATC</b>	Concentration Units: <b>µg/L</b>

Sampling Point ID:	<b>MW-18</b>	<b>MW-19</b>	<b>MW-20</b>	<b>MW-21</b>	<b>MW-23</b>	<b>MW-24</b>	<b>MW-25</b>
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Sampling Event	Sampling Date	PCE CONCENTRATION (µg/L)						
		MW-18	MW-19	MW-20	MW-21	MW-23	MW-24	MW-25
1	Aug 00							
2	Oct 00							
3	Sep 02							
4	May 03							
5	Sep 03		1,100	1,800	51			
6	Jan 04		1,200	290	55			
7	May 05	1,600	873	1,460	30	1,430	0.25	993
8	Sep 05	1,700			19		4.3	920
9	Dec 05	2,400	1,300	1,800	16	1,900	6.7	1,000
10	Mar 06	1,700			43		6.5	970
11	Jun 06	1,600	910	2,100	32	1,500	5.6	960
12	Oct 06	2,100	840	2,000	23	2,000	2.6	1,300
13	Dec 06	1,400	1,200	2,500	39	2,100	2.6	1,200
14	Mar 07	1,400	890	1,500		2.1	1	670
15	Jun 07	1,300	870	1,300	28	1,300	0.25	960
16	Sep 07	930	510	730		750		560
17	Dec 07	1,400	990	1,400	83	1,200		780
18	Mar 08	1,800	1,200	1,600		1,400		890
19	Jun 08	1,200	930	1,200		1,100		630
20	Oct 08	950	1,300	1,000	20	1,300	6.1	730
21	Feb 09	1,500		830		1,100		770
22	Jun 09	3,500	1,400	1,100		1,400		880
23	Sep 09	1,200	880	940		1,200		770
24	Nov 09	1,400	580	640	11	880	2.9	570
25	Feb 10	1,600	990	990		1,000		460
26	Jun 10	1,100	930	780		900		550
27	Oct 10	1,300	420	340		1,100		760
28	Nov 10	1,200	840	890	13	970	0.81	550
29	Mar 11	1,000	880	800		1,100		420
30	Jun 11	1,300	1,000	740		970		700
31	Sep 11	1,300	950	680		1,000		680
32	Nov 11	1,100	1,100	800	13	1,100	0.95	740
33	Mar 12							
34	Jun 12	1,300	1,000	660	9.4	950	1.3	640
35	Sep 12							
36	Nov 12							
37	Mar 13	1,200	520	290	8.4	960	1.3	660
38	Jun 13		530	660				
39	Sep 13		840	570				
40	Nov-13	780	440	530		900		700

Coefficient of Variation:	0.36	0.28	0.53	0.69	0.35	0.82	0.27
Mann-Kendall Statistic (S):	-175	-99	-279	-73	-157	-28	-198
Confidence Factor:	>99.9%	96.0%	>99.9%	99.9%	>99.9%	90.8%	>99.9%
Concentration Trend:	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Prob. Decreasing	Decreasing



- Notes:**
- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
  - Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S=0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
  - Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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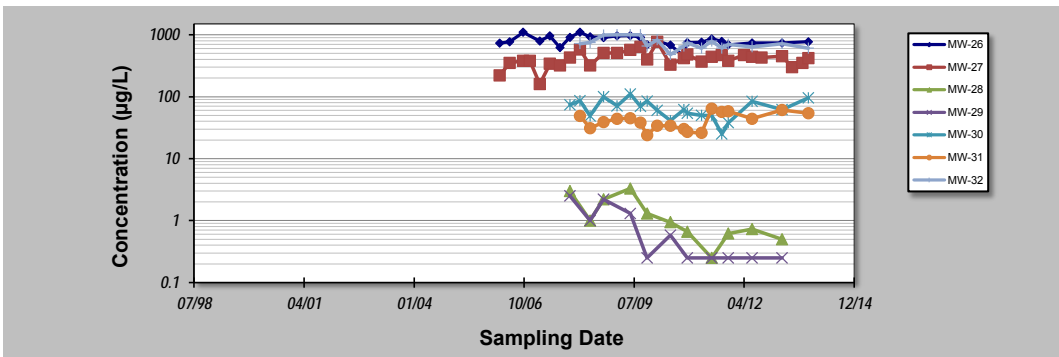
## GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date: <b>15-Jan-14</b>	Job ID: <b>085.42620.0001</b>
Facility Name: <b>Maryland Square PCE Site</b>	Constituent: <b>PCE</b>
Conducted By: <b>Cardno ATC</b>	Concentration Units: <b>µg/L</b>

Sampling Point ID:	<b>MW-26</b>	<b>MW-27</b>	<b>MW-28</b>	<b>MW-29</b>	<b>MW-30</b>	<b>MW-31</b>	<b>MW-32</b>
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Sampling Event	Sampling Date	PCE CONCENTRATION (µg/L)						
		MW-26	MW-27	MW-28	MW-29	MW-30	MW-31	MW-32
1	Aug 00							
2	Oct 00							
3	Sep 02							
4	May 03							
5	Sep 03							
6	Jan 04							
7	May 05							
8	Sep 05							
9	Dec 05							
10	Mar 06	730	220					
11	Jun 06	770	350					
12	Oct 06	1,100	380					
13	Dec 06		380					
14	Mar 07	790	160					
15	Jun 07	960	340					
16	Sep 07	620	320					
17	Dec 07	910	430	3	3	74		
18	Mar 08	1,100	580			86	49	720
19	Jun 08	930	320	1	1.0	49	31	750
20	Oct 08	900	510	2.2	2.2	100	39	990
21	Feb 09	960	510			71	44	1,000
22	Jun 09	970	570	3.3	1.3	110	45	1,000
23	Sep 09	910	640			70	38	1,000
24	Nov 09	690	400	1.3	0.25	85	24	660
25	Feb 10	790	770			60	34	830
26	Jun 10	680	330	0.94	0.58	41	34	480
27	Oct 10	450	420			62	30	660
28	Nov 10	750	480	0.66	0.25	54	27	740
29	Mar 11	760	370			50	26	610
30	Jun 11	860	440	0.25	0.25	50	64	790
31	Sep 11	780	470			25	57	610
32	Nov 11	690	380	0.62	0.25	38	58	700
33	Mar 12		470					
34	Jun 12	740	440	0.73	0.25	84	44	640
35	Sep 12		430					
36	Nov 12							
37	Mar 13	740	450	0.50	0.25	62	61	720
38	Jun 13		300					
39	Sep 13		350					
40	Nov-13	770	420			96	54	610

Coefficient of Variation:	0.18	0.29	0.79	1.01	0.34	0.30	0.21
Mann-Kendall Statistic (S):	-77	-57	-35	-34	-45	25	-55
Confidence Factor:	96.2%	84.0%	99.7%	99.6%	93.8%	81.6%	98.0%
Concentration Trend:	Decreasing	No Trend	Decreasing	Decreasing	Prob. Decreasing	No Trend	Decreasing



**Notes:**

- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
- Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
- Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

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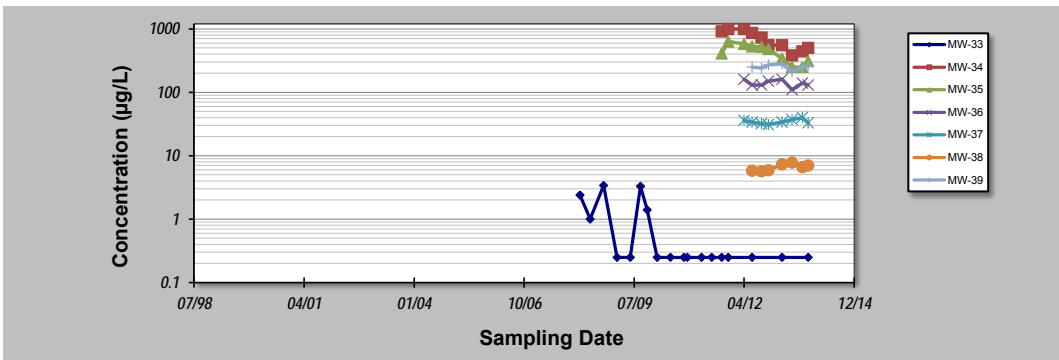


# GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date: <b>15-Jan-14</b>	Job ID: <b>085.42620.0001</b>
Facility Name: <b>Maryland Square PCE Site</b>	Constituent: <b>PCE</b>
Conducted By: <b>Cardno ATC</b>	Concentration Units: <b>µg/L</b>

Sampling Point ID:	<b>MW-33</b>	<b>MW-34</b>	<b>MW-35</b>	<b>MW-36</b>	<b>MW-37</b>	<b>MW-38</b>	<b>MW-39</b>
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Sampling Event	Sampling Date	PCE CONCENTRATION (µg/L)						
		MW-33	MW-34	MW-35	MW-36	MW-37	MW-38	MW-39
1	Aug 00							
2	Oct 00							
3	Sep 02							
4	May 03							
5	Sep 03							
6	Jan 04							
7	May 05							
8	Sep 05							
9	Dec 05							
10	Mar 06							
11	Jun 06							
12	Oct 06							
13	Dec 06							
14	Mar 07							
15	Jun 07							
16	Sep 07							
17	Dec 07							
18	Mar 08	2.4						
19	Jun 08	1.0						
20	Oct 08	3.4						
21	Feb 09	0.25						
22	Jun 09	0.25						
23	Sep 09	3.3						
24	Nov 09	1.4						
25	Feb 10	0.25						
26	Jun 10	0.25						
27	Oct 10	0.25						
28	Nov 10	0.25						
29	Mar 11	0.25						
30	Jun 11	0.25						
31	Sep 11	0.25	910	410				
32	Nov 11	0.25	1,000	630				
33	Mar 12	0.25	1,000	580	160	36		
34	Jun 12	0.25	860	530	130	34	5.8	250
35	Sep 12	0.25	730	520	130	32	5.7	240
36	Nov 12	0.25	550	480	150	31	5.9	270
37	Mar 13	0.25	550	340	160	34	7.3	280
38	Jun 13	0.25	380	250	110	37	7.8	210
39	Sep 13	0.25	440	250	140	40	6.6	250
40	Nov-13	0.25	500	310	130	33	7.0	260
Coefficient of Variation:	1.32	0.34	0.32	0.12	0.08	0.12	0.09	
Mann-Kendall Statistic (S):	-57	-33	-30	-6	3	11	2	
Confidence Factor:	98.4%	99.9%	99.7%	72.6%	59.4%	93.2%	55.7%	
Concentration Trend:	Decreasing	Decreasing	Decreasing	Stable	No Trend	Prob. Increasing	No Trend	



- Notes:**
- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
  - Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
  - Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

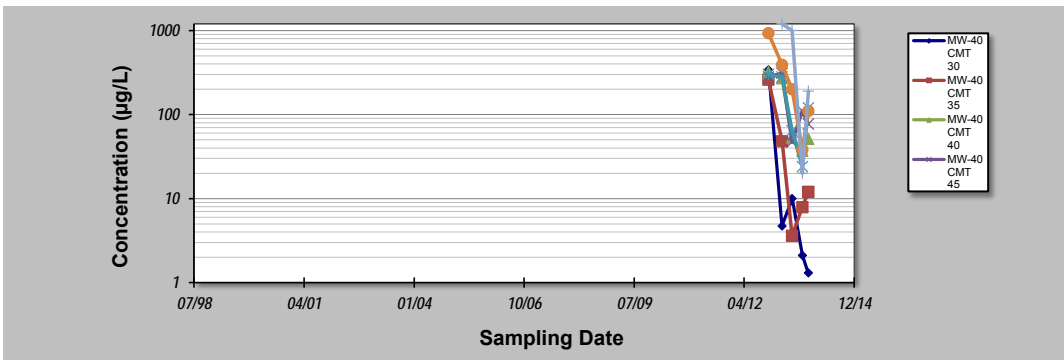
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## GSI MANN-KENDALL TOOLKIT for Constituent Trend Analysis

Evaluation Date: <b>15-Jan-14</b>	Job ID: <b>085.42620.0001</b>
Facility Name: <b>Maryland Square PCE Site</b>	Constituent: <b>PCE</b>
Conducted By: <b>Cardno ATC</b>	Concentration Units: <b>µg/L</b>

Sampling Point ID: **MW-40 CMT 30 | MW-40 CMT 35 | MW-40 CMT 40 | MW-40 CMT 45 | MW-40 CMT50 | MW-40 CMT 55 | MW-40 CMT 60**

Sampling Event	Sampling Date	PCE CONCENTRATION (µg/L)						
		MW-40 CMT 30	MW-40 CMT 35	MW-40 CMT 40	MW-40 CMT 45	MW-40 CMT50	MW-40 CMT 55	MW-40 CMT 60
1	Aug 00							
2	Oct 00							
3	Sep 02							
4	May 03							
5	Sep 03							
6	Jan 04							
7	May 05							
8	Sep 05							
9	Dec 05							
10	Mar 06							
11	Jun 06							
12	Oct 06							
13	Dec 06							
14	Mar 07							
15	Jun 07							
16	Sep 07							
17	Dec 07							
18	Mar 08							
19	Jun 08							
20	Oct 08							
21	Feb 09							
22	Jun 09							
23	Sep 09							
24	Nov 09							
25	Feb 10							
26	Jun 10							
27	Oct 10							
28	Nov 10							
29	Mar 11							
30	Jun 11							
31	Sep 11							
32	Nov 11							
33	Mar 12							
34	Jun 12							
35	Sep 12							
36	Nov 12	340	260	320	280	300	930	1,400
37	Mar 13	4.7	48	270	310	280	390	1,200
38	Jun 13	10	3.6	53	47	64	200	1,000
39	Sep 13	2.1	7.9	37	110	24	38	20
40	Nov-13	1.3	12	51	77	120	110	190
Coefficient of Variation:	2.10	1.65	0.94	0.74	0.80	1.07	0.81	
Mann-Kendall Statistic (S):	-8	-4	-8	-4	-6	-8	-8	
Confidence Factor:	95.8%	75.8%	95.8%	75.8%	88.3%	95.8%	95.8%	
Concentration Trend:	Decreasing	No Trend	Decreasing	Stable	Stable	Decreasing	Decreasing	



- Notes:**
- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
  - Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
  - Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

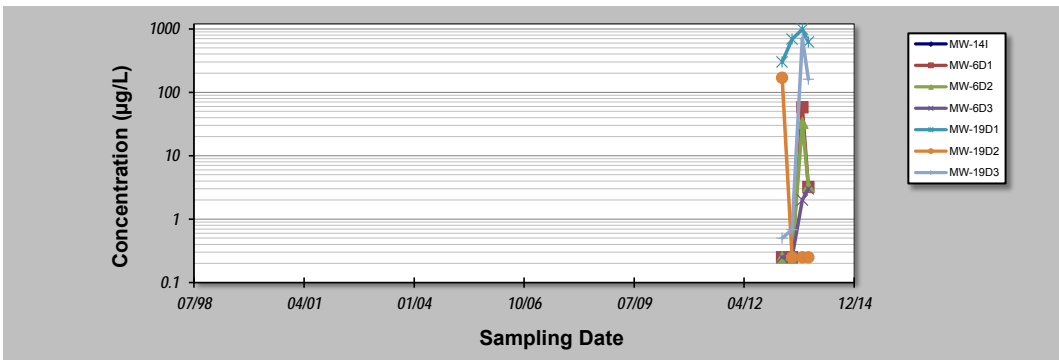
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Facility Name: <b>Maryland Square PCE Site</b>	Constituent: <b>PCE</b>
Conducted By: <b>Cardno ATC</b>	Concentration Units: <b>µg/L</b>

Sampling Point ID:	<b>MW-14I</b>	<b>MW-6D1</b>	<b>MW-6D2</b>	<b>MW-6D3</b>	<b>MW-19D1</b>	<b>MW-19D2</b>	<b>MW-19D3</b>
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Sampling Event	Sampling Date	PCE CONCENTRATION (µg/L)						
		MW-14I	MW-6D1	MW-6D2	MW-6D3	MW-19D1	MW-19D2	MW-19D3
1	Aug 00							
2	Oct 00							
3	Sep 02							
4	May 03							
5	Sep 03							
6	Jan 04							
7	May 05							
8	Sep 05							
9	Dec 05							
10	Mar 06							
11	Jun 06							
12	Oct 06							
13	Dec 06							
14	Mar 07							
15	Jun 07							
16	Sep 07							
17	Dec 07							
18	Mar 08							
19	Jun 08							
20	Oct 08							
21	Feb 09							
22	Jun 09							
23	Sep 09							
24	Nov 09							
25	Feb 10							
26	Jun 10							
27	Oct 10							
28	Nov 10							
29	Mar 11							
30	Jun 11							
31	Sep 11							
32	Nov 11							
33	Mar 12							
34	Jun 12							
35	Sep 12							
36	Nov 12							
37	Mar 13	7,200	0.25	0.25	0.25	300	170	0.50
38	Jun 13	5,500	0.25	0.25	0.25	690	0.25	0.68
39	Sep 13	3,700	58	33	2.0	990	0.25	710
40	Nov-13	10,000	3.2	3.3	3.0	620	0.25	160
Coefficient of Variation:	0.41	1.84	1.73	0.99	0.44	1.99	1.55	
Mann-Kendall Statistic (S):	0	3	3	5	2	-3	4	
Confidence Factor:	37.5%	72.9%	72.9%	89.6%	62.5%	72.9%	83.3%	
Concentration Trend:	Stable	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend	



- Notes:**
- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
  - Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
  - Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

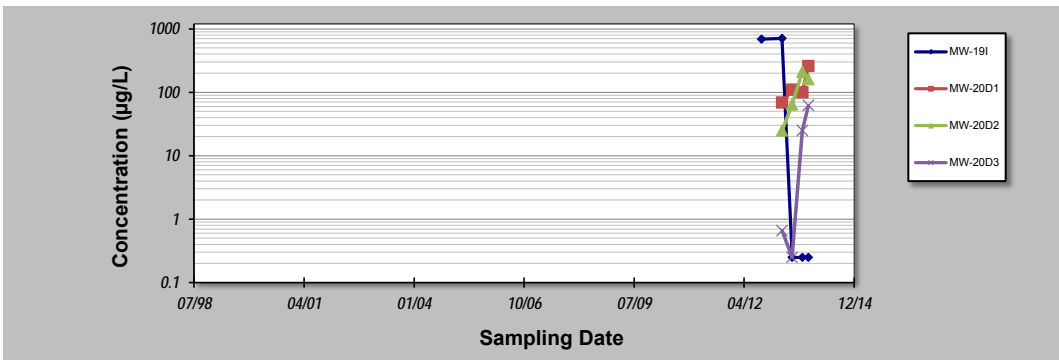
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Evaluation Date: <b>15-Jan-14</b>	Job ID: <b>085.42620.0001</b>
Facility Name: <b>Maryland Square PCE Site</b>	Constituent: <b>PCE</b>
Conducted By: <b>Cardno ATC</b>	Concentration Units: <b>µg/L</b>

Sampling Point ID:	<b>MW-19I</b>	<b>MW-20D1</b>	<b>MW-20D2</b>	<b>MW-20D3</b>		
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Sampling Event	Sampling Date	PCE CONCENTRATION (µg/L)			
1	Aug 00				
2	Oct 00				
3	Sep 02				
4	May 03				
5	Sep 03				
6	Jan 04				
7	May 05				
8	Sep 05				
9	Dec 05				
10	Mar 06				
11	Jun 06				
12	Oct 06				
13	Dec 06				
14	Mar 07				
15	Jun 07				
16	Sep 07				
17	Dec 07				
18	Mar 08				
19	Jun 08				
20	Oct 08				
21	Feb 09				
22	Jun 09				
23	Sep 09				
24	Nov 09				
25	Feb 10				
26	Jun 10				
27	Oct 10				
28	Nov 10				
29	Mar 11				
30	Jun 11				
31	Sep 11				
32	Nov 11				
33	Mar 12				
34	Jun 12				
35	Sep 12	690			
36	Nov 12				
37	Mar 13	710	69	25	0.66
38	Jun 13	0.25	110	64	0.25
39	Sep 13	0.25	100	210	25
40	Nov-13	0.25	260	160	62
Coefficient of Variation:		1.37	0.63	0.74	1.32
Mann-Kendall Statistic (S):		-5	4	4	4
Confidence Factor:		82.1%	83.3%	83.3%	83.3%
Concentration Trend:		No Trend	No Trend	No Trend	No Trend



- Notes:**
- At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
  - Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
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