EARTH TECH AECOM

Groundwater Sampling Report August 2008

34 FREEMAN'S BRIDGE ROAD SITE Site 4-47-028

Work Assignment No. D004445-9

Prepared for:

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1.0 INTRODUCTION

This groundwater sampling report has been prepared by Earth Tech Northeast, Inc. for the 34 Freeman's Bridge Road Site (Site), Site Number 4-47-028, located at 34 Freeman's Bridge Road, Town of Glenville, Schenectady County, New York (See Figure 1). This work is being performed under Work Assignment No. D004445-9 of the Superfund Standby Contract between the New York State Department of Environmental Conservation (NYSDEC) and Earth Tech Northeast, Inc (Earth Tech). The purpose of this report is to present the data collected from the August 2008 groundwater sampling event and any conclusions or suggestions drawn from this data. The groundwater sampling event is the first of eight quarterly events required during the first two years of monitoring at the Site as presented in the Site Management Plan (SMP).

1.1 SITE DESCRIPTION AND HISTORY

The Site is located in a commercial and light industrial area in the southeast part of the Town of Glenville, northeast of the Village of Scotia. The Site is on the northeast side of Freeman's Bridge Road approximately 1,000 feet northwest of the reconstructed Freeman's Bridge over the Mohawk River. Across the river lies an industrial and highly urbanized section of the City of Schenectady. The site is currently owned by Lyon's Ventures, Inc.

The site occupies approximately 13 acres, as determined by the estimated limits of impacted fill on the property and adjacent properties. The site is bordered to the east by the Delaware and Hudson Railroad, and Niagara Mohawk power line right of ways; to the north by Warner Creek; to the west by private properties and Freeman's Bridge Road; and to the south by private property. The Site is generally flat, with a rise in the grade approaching the railroad power line and right of ways and a swale centrally located that extends to Warner Creek. The Mohawk River approaches to within 300 feet south of the site. Warner Creek is a Class A designated tributary of the Mohawk River.

The property associated with the 34 Freeman's Bridge Road site was owned and had been used by the Kitchton Cooperage Company as a drum recycling facility since the late 1950's. A 12acre parcel, Town of Glenville Tax Map # 30.19-01-26.1, was purchased in 1978 by Lyon's Ventures, Inc (Lyon's). In addition to operating a commercial used furniture business, Lyon's operations also included storing drummed waste on the site and receiving large quantities of fill and construction and demolition (C&D) debris that were spread across an 11-acre area south of Warner Creek. Drum recycling operations (late 1950's to 1972) by the Kitchton Cooperage Company, and more recent drum storage and unregulated fill operations conducted by Lyon's, contaminated the soils and groundwater to various degrees on the site, in particular the southwest corner, with polychlorinated biphenyls (PCBs).

A Remedial Investigation/Feasibility Study (RI/FS) was conducted by Earth Tech from 2000 through 2004 and a remediation strategy consisting of excavating and treating on-site via low temperature thermal technologies and the collection and treatment of contaminated water was recommended in the NYSDEC ROD (March 31, 2004). Remedial construction of the preferred alternative began in November 2006 and was completed in October 2007. In addition to treating

over 75,000 tons of hazardous and non-hazardous soils, over 9 million gallons of groundwater from the Site operations was treated by the on-site waste water treatment plant and discharged as per the NYSDEC approved site Dewatering Plan to the Warner's Creek.

A SMP (Earth Tech, 2008) was developed for the Site and approved by the NYSDEC in July 2008.

2.0 GROUNDWATER SAMPLING AND ANALYSIS

Earth Tech collected one round of groundwater samples from each of the 20 monitoring wells on August 25 and 26, 2008. All groundwater samples were submitted for the full Target Compound and Target Analysis Lists (VOCs by ASP 95-1, SVOCs by ASP 95-2, TAL Metals by ASP CLP Methodologies and PCBs and pesticides, by ASP 95-3). Monitoring well purging/sampling logs were completed for each monitoring well and are presented in Appendix A.

2.1 METHODOLOGY

A complete round of depth to water reading was collected prior to sampling. In addition, before purging each well, a depth to water measurement was taken using an interface probe, which was decontaminated with a liquinox bath and rinsed with distilled water between each use. Each monitoring well was purged of three well volumes. Purge water was disposed on the ground in the immediate vicinity of each well as per NYSDEC directive. Each pump was decontaminated after purging/sampling each monitoring well by a liquinox bath followed by a distilled water rinse.

After purging, temperature, conductivity, pH, turbidity, color and odor of the water were recorded on the monitoring well purging/sampling logs (Appendix A). Groundwater samples were collected using a Whale pump with dedicated polyethylene tubing and foot valve. All groundwater samples were collected in bottles provided by the laboratory. Samples were packed on ice, and submitted with a completed Chain-of-Custody (COC) to Adirondack Environmental Services, Inc., for analyses.

The groundwater levels were collected to develop a potentiometric map for the shallow groundwater zone and to determine the groundwater flow pathways.

3.0 MONITORING RESULTS

The following section presents the results of the August 2008 groundwater sampling events at the Site.

3.1 GROUNDWATER FLOW

Prior to groundwater sampling, water level measurements were collected and recorded for each well (Table 1). These water level elevations were then used to develop a groundwater flow map for the shallow aquifer (Figure 2). The overall direction of groundwater flow in the shallow portion of the aquifer was to the northwest along the southern boundary of the Site, and to the north-northeast in the northern half of the Site. Groundwater flow appears to be affected by the swale located in the center of the site and Warner creek to the north. The water level data indicates that groundwater flow in the deeper portion of the aquifer follows a northern direction.

3.2 GROUNDWATER ANALYTICAL RESULTS

This is the first of eight quarterly groundwater samplings as presented in the SMP. The groundwater results were evaluated based on comparison with NYS Ambient Water Quality Standards (AWQS) and guidance values, collectively known as Standards, Criteria and Guidelines (SCGs). In addition, the August 2008 results were compared to the March 2008 results (the first round of groundwater samples collected following the completion of the remedial action).

Table 2 through 4 presents the groundwater analysis for the 20 monitoring wells sampled during the August 2008 sampling event, and the prior sampling in March 2008, for VOCs, SVOCs, and metals, respectively. These tables show only those compounds detected above laboratory detection limits. PCB's and pesticides are not presented since none were detected above laboratory detection limits in either the March or August 2008 sampling events.

3.2.1 Volatile Organic Compounds

The results of the VOC analyses are presented in Table 2. Ten of the monitoring wells showed VOCs exceedences. As in the March 2008 sampling event, the primary compound detected in the site wells was cis-1,2-dichloroethene, found in 5 of the 20 Site wells. Concentrations of cis-1,2-dichloroethene were as high as 68 ug/L and at concentrations similar to those measured in March 2008. Other compounds detected include vinyl chloride, acetone, methyl tert-butyl ether (MTBE), trichloroethene, ethylbenzene, xylenes, and isopropylbenzene. The highest concentrations were for ethylbenzene and xylenes at MW-30. This well had a total VOC concentration of 10,520 ug/L, a significant increase in the concentration from the total VOC concentration of 3,437 ug/L in the March 2008 sampling event. MW-30 is located in a section of the former excavation that exhibited some evidence of non-aqueous phase liquid (NAPL) during the excavation process. In addition, high concentrations were detected in shallow monitoring well MW-20, with a total VOC concentration of 1400 ug/L, located along the northwestern boundary of the property. This increased from 797 ug/L total VOCs in the March 2008 sampling event. Total VOC concentrations are shown in Figure 3.

As in the March 2008 sampling event, the only deep wells to show any VOC concentrations above detection limits were MW-19D located off-site to the south east, and MW-16D located in the northeastern edge of the site. Both showed concentrations of cis-1,2 dichoroethene above AWQS standards (5 ug/L) at 9.2 ug/L (MW-16D) and 33 ug/L (MW-19D). These concentrations did not vary significantly from March 2008.

3.2.2 Semivolatile Organic Compounds

Concentrations of SVOCs above laboratory detection limits were found in only three monitoring wells: MW-18, MW-20 and MW-30 (Table 3). There was significant increase in the concentrations of phenol detected in MW-20. Phenol increased from a concentration of 180 ug/L in March 2008 to 1700 ug/L in August 2008. In addition, 2-methylphenol increased from 9.2 ug/L to 200 ug/L and 4-Methylphenol was detected at 1100 ug/L. All of these concentrations are significantly above the AWQS standards. Monitoring wells MW-18 and MW-30 also showed increases in the compounds detected.

3.2.3 PCBs and Pesticides

The groundwater samples from the August 2008 sampling event showed no concentrations of PCBs or pesticides above the laboratory detection limits for any compounds. This is consistent with the March 2008 results for PCBs and pesticides.

3.2.4 Metals

Table 4 presents the results for the metals analysis for the August 2008 sampling event. Several compounds were detected at concentrations over the AWQS and GV for metals in drinking water. These compounds included antimony, iron, lead, magnesium, manganese, sodium, and thallium. Of these compounds, iron, manganese and sodium were detected in more wells at levels above the AWQS than any of the other compounds.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Comparison of the March 2008 groundwater analytical data for the Site with the August 2008 results indicates little change in the concentration of reported analytes with the exceptions noted for wells MW-20 and MW-30. The presence of NAPL during the remedial investigation in the area of MW-30 may be the reason for the increased ethylbenzene and xylene concentrations. Further sampling will help delineate any trends.

Since no Pesticides and PCBs have been detected during the first two rounds of groundwater samples, these target groups should be removed from the list of analytical compounds sampled quarterly. Pesticides and PCBs should only be analyzed annually.

TABLES

Table 1

Groundwater Elevations and Monitoring Well Details 34 Freemans Bridge Road Glenville, New York

August 2008

Date				Aug-08	
Monitoring Well	GROUND Elevation	CASING Elevation	Measuring Point	Depth To Water (ft)	Ground Water Elevation (ft)
MW-11	228.57	231.42	231.23	11.94	219.29
MW-11D	228.61	231.26	231.20	11.48	219.72
MW-12	228.50	231.06	230.68	10.97	219.71
MW-15	FLUSH	224.47	224.14	3.5	220.64
MW-15D	FLUSH	224.49	224.35	3.75	220.60
MW-16	226.09	228.68	228.41	9.57	218.84
MW-16D	225.81	227.67	227.49	8.58	218.91
MW-18	227.29	229.94	229.58	7.11	222.47
MW-19	224.77	227.27	227.12	5.52	221.60
MW-19D	224.89	226.14	226.01	4.65	221.36
MW-20	224.80	226.99	226.89	6.8	220.09
MW-20D	224.72	227.16	227.13	6.93	220.20
MW-21D	224.71	229.56	229.05	8.85	220.20
MW-21	224.52	227.51	227.46	7.43	220.03
MW-23	221.99	224.93	224.86	5.34	219.52
MW-23D	222.36	224.46	224.32	4.36	219.96
MW-30	223.57	226.26	226.19	6.61	219.58
MW-31	223.18	225.55	225.43	5.81	219.62
MW-32	224.92	227.83	227.32	7.3	220.02
MW-33	224.18	227.37	226.99	6.45	220.54

MP = Measuring point established on top of pvc (black marker) All measurements in Feet

Table 2 Groundwater Analytical Summary Volatile Organic Compounds 34 Freemans Bridge Road Glenville, New York August 2008

Sample ID		MW11	MW11	MW11D	MW11D	MW12	MW12	MW15	MW15	MW15D	MW15D	MW16	MW16	MW16D	MW16D	MW18	MW18	MW19	MW19	MW19D	MW19D	MW20	MW20
Sampling Date		3/27/2008	8/26/2008	3/27/2008	8/26/2008	3/24/2008	8/26/2008	3/26/2008	8/26/2008	3/26/2008	8/26/2008	3/25/2008	8/26/2008	3/25/2008	8/26/2008	3/26/2008	8/26/2008	3/26/2008	8/25/2008	3/26/2008	8/25/2008	3/24/2008	8/25/2008
Units		ug/l	ug/l																				
	AWQS/GV																						
VOCs	Values																						
Vinyl chloride	2	5 U	10	U 5 L	J 10	U 5 U	J 10	U 16	76	5 U	10	U 5 U	10	U 5	U 10 L	J 5 L	J 10 U	5 L	10	J 5	U 10	J 5 U	100 U
Acetone	50 (GV)	10 U	10	U 10 L	J 10	U 10 U	J 10	U 10 U	10 L	J 10 U	10	U 10 U	24	10	U 5 L	J 10 L	J 5 U	10 L	10	J 10	U 10	J 720 D	1400 D
Methyl tert-butyl Ether	10(GV)	5 U	5	ป 5 เ	J 5	U 5 U	J 5	U 5 U	5 L	J 5 U	5	U 5 U	5	U 5.9	5 L	J 5 เ	J 5 U	5 L	23	5	U 5	J 5 U	50 U
1,1-Dichloroethane	5	5 U	5	ป 5 เ	J 5	U 5 U	J 5	U 5 U	5 L	J 5 U	5	U 5 U	5	U 5	U 5 L	J 5 เ	J 5 U	5 L	5	J 5	U 5	J 5 U	50 U
cis-1,2-Dichloroethene	5	5 U	5	U 5 L	J 5	U 5 U	J 5	U 8.3	15	5 U	5	U 5 U	5	U 25	9.2	5 l	J 5 U	5 L	5	J 36	33	5 U	50 U
2-Butanone	50(GV)	10 U	10	U 10 L	J 10	U 10 U	J 10	U 10 U	10 L	J 10 U	10	U 10 U	10	U 10	U 10 L	J 10 L	J 10 U	10 L	10	J 10	U 10	J 77	100 U
Benzene	1	5 U	5	U 5 L	J 5	U 5 U	J 5	U 5 U	5 L	J 5 U	5	U 5 U	5	U 5	ป 5 เ) 5 เ	J 5 U	5 L	5	J 5	U 5	J 5 U	50 U
Trichloroethene	5	17	9.9	5 L	5 ل	U 5 U	J 5	U 5 U	5 L	J 5 U	5	U 5 U	5	U 5	ป 5 เ) 5 เ	J 5 U	5 L	5	J 5	U 5	J 5 U	50 U
Methylcyclohexane	NA	5 U	5	U 5 L	J 5	U 5 U	J 5	U 5 U	5 L	J 5 U	5	U 5 U	5	U 5	ป 5 เ) 5 เ	J 5 U	5 L	5	J 5	U 5	J 5 U	50 U
Toluene	5	5 U	5	U 5 L	J 5	U 5 U	J 5	U 5 U	5 L	J 5 U	5	U 5 U	5	U 5	ป 5 เ) 5 เ	J 5 U	5 L	5	J 5	U 5	J 5 U	50 U
Tetrachloroethene	5	7	5	U 5 L	5 ل	U 5 U	J 5	U 5 U	5 L	J 5 U	5	U 5 U	5	U 5	ป 5 เ) 5 เ	J 5 U	5 L	5	J 5	U 5	J 5 U	50 U
Ethylbenzene	5	5 U	5	U 5 L	J 5	U 5 U	J 5	U 5 U	5 L	J 5 U	5	U 5 U	5	U 5	U 5 L	J 5 เ	J 5 U	5 L	5	J 5	U 5	J 5 U	50 U
o-xylene	5	5 U	5	U 5 L	5 ل	U 5 U	J 5	U 5 U	5 L	J 5 U	5	U 5 U	5	U 5	ป 5 เ) 5 เ	J 5 U	5 L	5	J 5	U 5	J 5 U	50 U
m&p-xylenes	5	5 U	5	U 5 L	5 ل	U 5 U	J 5	U 5 U	5 L	J 5 U	5	U 5 U	5	U 5	ป 5 เ) 5 เ	J 5 U	5 L	5	J 5	U 5	J 5 U	50 U
Isopropylbenzene	5	5 U	5	U 5 L	5 ل	U 5 U	J 5	U 5 U	5 L	J 5 U	5	U 5 U	5	U 5	ป 5 เ) 5 เ	J 5 U	5 L	5	J 5	U 5	J 5 U	50 U
		1	1			1		1	1			1	1			1			1	1		1	1
Total VOC's		24	9.9	0	0	0	0	24.3	91	0	0	0	24	30.9	9.2	0	0	0	23	36	33	797	1400

_																			
Sample ID		MW20D	MW20D	MW21	MW21	MW21D	MW21D	MW23	MW23	MW-23D	MW-23D	MW30	MW30	MW31	MW31	MW32	MW32	MW33	MW33
Sampling Date		3/24/2008	8/25/2008	3/24/2008	8/25/2008	3/24/2008	8/25/2008	3/27/2008	8/25/2008	4/4/2008	8/25/2008	3/25/2008	8/26/2008	3/25/2008	8/26/2008	3/27/2008	8/26/2008	3/26/2008	8/26/2008
Units		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l							
	AWQS/GV																		
VOCs	Values																		
Vinyl chloride	2	5 U	10 U	5 U	10 U	5 U	10 U	10	10 U	5 U	10 U	5 U	200 1	J 7.9	13	5	J 10 U	5	U 10 U
Acetone	50 (GV)	10 U	10 U	10 U	10 U	200	J 10 L	I 10 L	J 10 I	J 10 U	36	10 U							
Methyl tert-butyl Ether	10(GV)	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	100 l	J 5 L	J 5 L	J 5 I	J 5 U	5	U 5 U
1,1-Dichloroethane	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	100 l	J 5 L	J 5 L	J 5 I	J 5 U	5	U 5 U
cis-1,2-Dichloroethene	5	5 U	5 U	5 U	5 U	5 U	5 U	49	68	5 U	5 U	50	100 l	J 12	10	5 1	J 5 U	5	U 5 U
2-Butanone	50(GV)	10 U	10 U	10 U	10 U	200	J 10 L	l 10 L	J 10 I	J 10 U	10	U 10 U							
Benzene	1	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	100 l	J 5 L	J 5 L	J 5 I	J 5 U	5	U 6
Trichloroethene	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	100 l	J 5 L	J 5 L	J 5 I	J 5 U	5	U 5 U
Methylcyclohexane	NA	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	26	100 l	J 5 L	J 5 L	J 5 I	J 5 U	5	U 5 U
Toluene	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	69	100 l	J 5 L	J 5 L	J 5 I	J 5 U	5	U 5 U
Tetrachloroethene	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	100 l	J 5 L	J 5 L	J 5 I	J 5 U	5	U 5 U
Ethylbenzene	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	110	1700	D 5 L	J 5 L	J 5 I	J 5 U	5	U 5 U
o-xylene	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	110	140	140	5 L	J 5 I	J 5 U	5	U 5 U
m&p-xylenes	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	3000 D	8500	5.8	5 L	J 5 I	J 5 U	5	U 5 U
Isopropylbenzene	5	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	72	180	D 5 L	۱ <u>5</u> ۱	J5 I	J <u>5</u> U	5	U 5 U
Total VOC's		0	0	0	0	0	0	59	68	0	0	3437	10520	165.7	23	0	0	36	6

Qualifiers

U - The compound was not detected at the indicated concentration.

J - Data indicates the presence of a compound that meets the identification criteria.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

E - Value above quantitation range.

NA - Not analyzed

ND - Non Detect

Table 3 Groundwater Analytical Summary Semi - Volatile Organic Compounds 34 Freemans Bridge Road Glenville, New York August 2008

Sample ID		MW11	MW11	MW11D	MW11D	MW12	MW12	MW15	MW15	MW15D	MW15D	MW16	MW16	MW16D	MW16D	MW18	MW18	MW19	MW19	MW19D	MW19D
Sampling Date		3/27/2008	8/26/2008	3/27/2008	8/26/2008	3/24/2008	8/26/2008	3/26/2008	8/26/2008	3/26/2008	8/26/2008	3/25/2008	8/26/2008	3/25/2008	8/26/2008	3/26/2008	8/26/2008	3/26/2008	8/25/2008	3/26/2008	8/25/2008
Units		ug/l																			
	AWQS/GV																				
SVOCs	Values																				
Phenol	1	5 U	5 U	5	U 5	U 5.1 L	J 5 L	J 5	U 6	U 5 I	J 5 L	J 5.2 L	J 5 I	U 5	ป 5 เ	J 5 U	5 U	5 U	5 U	5 U	5 U
2-Chlorophenol	1	5 U	5 U	5	U 5	U 5.1 L	J 5 L	J 5	U 6	U 5 I	J 5 L	5.2 เ	J 5 I	U 5	ป 5 เ	J 5 U	9	5 U	5 U	5 U	5 U
2-Methylphenol	1	5 U	5 U	5	U 5	U 5.1 L	J 5 L	J 5	U 6	U 5 I	J 5 เ	5.2 l	J 5 I	U 5	ป 5 เ	J 5 U	5 U	5 U	5 U	5 U	5 U
2,2-Oxybis(1-chloropropane)	5	5 U	NA	5	U NA	5.1 L	J NA	5	U NA	5 I	J NA	4.8	J NA	5	U NA	5 U	NA	5 U	NA	5 U	NA
4-Methylphenol	1	NA	5 U	I NA	5	U NA	5 L	J 5	U 6	U 5 I	J 5 เ	NA NA	5 1	U NA	5 L	J 5 U	5 U	5 U	5 U	5 U	5 U
2,4-Dimethylphenol	50(GV)	5 U	5 U	5	U 5	U 5.1 L	J 5 L	J 5	U 6	U 5 I	J 5 เ	l 5.2 l	J 5 I	U 5	U 5 L	J 5 U	5 U	5 U	5 U	5 U	5 U
Naphthalene	10(GV)	5 U	5 U	5	U 5	U 5.1 L	J 5 L	J 5	U 6	U 5 I	J 5 เ	l 5.2 l	J 5 I	U 5	U 5 L	J 5 U	5 U	5 U	5 U	5 U	5 U
Acenaphthylene	NA	5 U	5 U	5	U 5	U 5.1 L	J 5 เ	J 5	U 6	U 5 I	J 5 เ	5.2 เ	ן 5 ו	U 5	U 5 L	J 5 U	5 U	5 U	5 U	5 U	5 U
Phenanthrene	50(GV)	5 U	5 U	5	U 5	U 5.1 L	J 5 L	J 5	U 6	U 5 I	J 5 เ	5.2 l	J 5 I	U 5	U 5 L	J 5 U	5 U	5 U	7	5 U	5 U
Carbazole	NA	5 U	5 U	5	U 5	U 5.1 L	J 5 L	J 5	U 6	U 5 I	J 5 เ	5.2 l	J 5 I	U 5	U 5 L	J 5 U	5 U	5 U	5	5 U	5 U
Fluoranthene	50(GV)	5 U	5 U	5	U 5	U 5.1 L	J 5 L	J 5	U 6	U 5 I	J 5 เ	5.2 l	J 5 I	U 5	U 5 L	J 5 U	5 U	5 U	7	5 U	5 U
Pyrene	50(GV)	5 U	5 U	5	U 5	U 5.1 L	J 5 L	J 5	U 6	U 5 I	J 5 เ	5.2 l	J 5 I	U 5	U 5 L	J 5 U	5 U	5 U	6	5 U	5 U
Total SVOCs		0	0	0	0	0	0	0	0	0	0	4.8	0	0	0	0	9	0	0	0	0

Committee ID		1000	1000	MIMOOD	MMOOD	MIMON	10000	MIMOND	10000 D	1000	1000			1000	1000	NUM Of	10000	1000	1000	1000	10000
Sample ID		WW20	MW20	MW20D	MW20D	MW21	MW21	MW21D	MW21D	MW23	MW23	MW-23D	WW-23D	MW30	MW30	MW31	MW31	MW32	MW32	MW33	MW33
Sampling Date		3/24/2008	8/25/2008	3/24/2008	8/25/2008	3/24/2008	8/25/2008	3/24/2008	8/25/2008	3/27/2008	8/25/2008	4/4/2008	8/25/2008	3/25/2008	8/26/2008	3/25/2008	8/26/2008	3/27/2008	8/26/2008	3/26/2008	8/26/2008
Units		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
	AWQS/GV																				
SVOCs	Values																				
Phenol	1	180	1700	5 5	U 5 I	U 5.2	ป 5 เ	J 5.1 I	J 5 U	5 L	J 5 U	5 U) 5 เ	J 5	U 11 L	5 L	J 5 L	J 5 เ	J 5 U	5 U	I 6 U
2-Chlorophenol	1	5.1 L	J 110 L	J 5	ป 5 เ	U 5.2	ป 5 เ	J 5.1 I	J 5 U	5 L	J 5 U	5 U) 5 เ	J 5	U 11 L	5 L	J 5 L	J 5 เ	J 5 U	5 U	I 6 U
2-Methylphenol	1	9.2	200	5	U 5 I	U 5.2	ป 5 เ	J 5.1 I	J 5 U	5 L	J 5 U	5 U) 5 เ	J 5	U 11 L	5 L	J 5 L	J 5 เ	J 5 U	5 U	I 6 U
2,2-Oxybis(1-chloropropane)	5	5.1 L	J NA	5	U NA	5.2	U NA	5.1	J NA	5 L	J NA	5 U	I NA	5	U NA	5 L	J NA	5 L	J NA	5 U	I NA
4-Methylphenol	1	NA	1100	D NA	5 (U NA	5 l	J NA	5 U	NA	5 U	5 U) 5 เ	J NA	11 L	NA NA	5 L	J NA	5 U	5 L	I 6 U
2,4-Dimethylphenol	50(GV)	5.1 L	J 110 L	J 5	U 5 I	U 5.2	ป 5 เ	J 5.1 I	J 5 U	5 L	J 5 U	5 U) 5 เ	J 21	110	5 L	J 5 L	J 5 ไ	J 5 U	5 U	I 6 U
Naphthalene	10(GV)	4.8	J 110 L	J 5	U 5 I	U 5.2	ป 5 เ	J 5.1 I	J 5 U	5 L	J 5 U	5 U) 5 เ	J 2.3	J 15 C	5 L	J 5 L	J 5 ไ	J 5 U	5 U	I 6 U
Acenaphthylene	NA	3.2	J 110 L	J 5	U 5 I	U 5.2	บ 5 เ	J 5.1 I	J 5 U	5 L	J 5 U	5 U	ม 5 เ	J 5	U 11 L	5 L	ม 5 เ	ม 5 เ	J 5 U	5 U	6 U
Phenanthrene	50(GV)	5.1 L	J 110 L	J 5	U 5 I	U 5.2	ป 5 เ	J 5.1 I	J 5 U	5 L	J 5 U	5 U) 5 เ	J 5	U 11 L	5 L	J 5 L	J 5 ไ	J 5 U	5 U	I 6 U
Carbazole	NA	5.1 L	J 110 L	J 5	U 5 I	U 5.2	ป 5 เ	J 5.1 I	J 5 U	5 L	J 5 U	5 U) 5 เ	J 5	U 11 L	5 L	J 5 L) 5 เ	J 5 U	5 U	I 6 U
Fluoranthene	50(GV)	5.1 L	J 110 L	J 5	U 5 I	U 5.2	ป 5 เ	J 5.1 I	J 5 U	5 L	J 5 U	5 U) 5 เ	J 5	U 11 L	5 L	J 5 L	J 5 ไ	J 5 U	5 L	I 6 U
Pyrene	50(GV)	5.1 L	J 110 L	J 5	U 5 I	U 5.2	ป 5 เ	J 5.1	J 5 U	5 L	J 5 U	5 U) 5 เ	J 5	U 11 L	5 L	J 5 L	J 5 เ	J 5 U	5 U	I 6 U
Total SVOCs		197.2	3000	0	0	0	0	0	0	0	0	0	0	23.3	125	0	0	0	0	0	0

Qualifiers

U - The compound was not detected at the indicated concentration.

J - Data indicates the presence of a compound that meets the identification criteria.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

E - Value above quantitation range.

NA - Not analyzed

ND - Non Detect

Table 4 Groundwater Analytical Summary Metals 34 Freemans Bridge Road Glenville, New York August 2008

Sample ID		MW11	MW11	MW11D	MW11D	MW12	MW12	MW15	MW15	MW15D	MW15D	MW16	MW16	MW16D	MW16D	MW18	MW18	MW19	MW19	MW19D	MW19D
Sampling Date		3/27/2008	8/26/2008	3/27/2008	8/26/2008	3/24/2008	8/26/2008	3/26/2008	8/26/2008	3/26/2008	8/26/2008	3/25/2008	8/26/2008	3/25/2008	8/26/2008	3/26/2008	8/26/2008	3/26/2008	8/25/2008	3/26/2008	8/25/2008
Units		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Metals	AWQS/GV Values																				
Aluminum	NA	4190	521	60.4 J	100 L	J 830	14100	1840	6660	45.8 U	430	45.8 U	100 U	103 、	J 100 U	930	970	458	990	694	1390
Antimony	3	6.8 U	60 L	J 6.8 U	60 L	J 6.8 U	60 U	6.8 U	60 U	6.8 U	60 U	6.8 U	60 U	6.8 L	J 60 U	6.8 U	60 l	J 6.8 U	60 L	15.1 J	60 U
Arsenic	25	5.99 J	5 L	J 3.9 U	5 L	J 3.9 U	I 5 U	3.9 U	5 U	3.9 U	5 U	3.9 U	7	3.9 l	J 5 U	3.9 U	5 l	J 3.9 U	7	3.9 U	5
Barium	1000	79.4 J	67	153 J	187	40.5 J	181	29.3 J	66	13.2 J	21	247	160	35.5	J 54	19.6 J	51	29.1 J	109	42.3 J	60
Beryllium	3	0.59 J	5 เ	J 0.3 U	5 L	J 0.5 J	I 5 U	0.38 J	5 U	0.3 U	5 U	0.3 U	5 U	0.3 L	J 5 U	0.3 U	5 เ	J 0.3 U	5 L	0.3 U	5 U
Calcium	NA	117000	161000	178000	311000	95100	149000	65600	115000	61100	111000	347000	254000	69200	121000	58400	141000	67700	162000	120000	156000
Chromium	50	10.4	5 เ	J 1.2 U	5 L	J 1.5 J	20	3.27 J	6	2.32 J	5 U	1.31 J	5 U	1.37	J 5 U	4.33 J	5 l	J 4.65 J	5 L	7.04 J	5 U
Cobalt	NA	6.78 J	50 l	J 2.4 U	50 L	J 2.4 U	50 U	3.05 J	50 U	2.4 U	50 U	2.4 U	50 U	7.93	J 50 U	2.56 J	50 l	J 2.4 U	50 L	7.29 J	50 U
Copper	200	11.4 J	5 l	J 1.7 U	5 L	J 1.7 U	35	4.06 J	15	1.7 U	5 U	1.7 U	5 U	1.7 l	J 5 U	1.7 U	5 l	J 2.86 J	10	1.93 J	5 U
Iron	300	11500	1640	3100	6310	2160	26500	4080	1110	37 U	864	19200	14500	1640	1200	2530	2080	1520	4570	8990	9350
Lead	25	11.7	5 เ	J 4.6 U	12 ι	J 4.6 U	I 5 U	4.6 U	5 U	4.6 U	5 U	4.6 U	5 U	4.6 L	J 5 U	4.6 U	5 l	J 4.6 U	5 L	4.6 U	5 U
Magnesium	35000 (GV)	18800	22800	31200	34500	10300	20000	11400	20000	10300	17900	47900	48200	11100	19500	9290	20600	7680	19400	17300	22200
Manganese	300	1180	2200	269	540	49	242	224	474	38.7	108	2430	3000	841	803	62.7	218	116	1820	429	594
Mercury	0.7	0.08 U	0.2 l	J 0.08 U	0.2 l	J 0.08 U	0.2 U	0.08 U	0.2 U	0.08 U	0.2 U	0.08 U	0.2 U	0.08 L	J 0.2 U	0.08 U	0.2 l	J 0.09 J	0.2 L	0.08 U	0.2 U
Nickel	100	10.9 J	20 l	J 4.7 U	20 L	J 4.7 U	21	4.7 U	20 U	4.7 U	20 U	4.7 U	20 U	4.7 l	J 20 U	4.7 U	20 l	J 4.7 U	20 L	4.7 U	20 U
Potassium	NA	1590 J	2130	2490 J	2990	1170 J	6180	1540 J	5120	1480 J	3340	7790	6040	1100 、	J 2680	615 J	1690	1560 J	6280	883 J	1670
Selenium	10	5 U	5 l	J 5 U	5 L	J 5 U	I 5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 L	J 5 U	5 U	5 l	J 5 U	5 L	5 U	5 U
Sodium	20000	23600	27300	69200	40200	6500	11500	22000	26600	30500	34600	31300	22800	35800	42000	3570 J	10000	8400	15100	5960	5610
Thallium	0.5 (GV)	8 U	10 l	J 8 U	10 L	J 8 U	I 10 U	8 U	10 U	8 U	10 U	8 U	10 U	8 L	J 10 U	8 U	10 l	J 8 U	10 L	8 U	10 U
Vanadium	NA	12.6 J	20 l	J 3.1 U	20 L	J 3.1 U	31	4.9 J	20 U	3.1 U	20 U	3.1 U	20 U	3.1 l	J 20 U	3.1 U	20 l	J 3.1 U	20 L	3.1 U	20 U
Zinc	2000 (GV)	51.5 J	10 l	J 9.89 J	10 L	J 19.2 J	136	18.8 J	34	10.6 J	10 U	16.7 J	10 U	16 、	J 10 U	26.6 J	10 l	J 17.3 J	38	21.1 J	10 U
Cyanide	200	28.1	10 l	J 4.5	10 L	J 2.9	10 U	1.9	10 U	1.9	10 U	7.6	10 U	5.1	20	2.3	10 l	J 2.3	10 L	4.8	10

Sample ID		MW20	MW20	MW20D	MW20D	MW21	MW21	MW21D	MW21D	MW23	MW23	MW-23D	MW-23D	MW30	MW30	MW31	MW31	MW32	MW32	MW33	MW33
Sampling Date		3/24/2008	8/25/2008	3/24/2008	8/25/2008	3/24/2008	8/25/2008	3/24/2008	8/25/2008	3/27/2008	8/25/2008	4/4/2008	8/25/2008	3/25/2008	8/26/2008	3/25/2008	8/26/2008	3/27/2008	8/26/2008	3/26/2008	8/26/2008
Units		ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Matala	AWQS/GV																				
Metals	values	1 4 4	2000	0.47	C 40	441	0010	15.0.11		000	0050	1400	544	401	707	005	000	1500	0700	15.0.11	1700
Aluminum	NA	141 J	3090	347	649	441	3310	45.8 U	100 U	386	3050	1400	544	401	707	205	820	1590	2/30	45.8 U	1/80
Antimony	3	6.8 U	60 L	J 6.8 U	60 L	10.2	60 U	6.8 U	60 U	6.8 U	60 U	6.8	0 60 0	15.1 J	60 U						
Arsenic	25	4.77 J	21	3.9 U	5 L	3.9 U	5 0	3.9 U	5 U	3.9 U	5 0	3.9 U	5 0	6.66 J	9	3.9 U	5 0	3.9	U 5 U	3.9 U	18
Barium	1000	64.2 J	240	56 J	115	67 .	153	80.3 J	113	44.1 J	132	101 J	88	132 J	113	41.7 J	96	89.2	J 142	39.8 J	98
Beryllium	3	0.3 U	5 L	J 0.3 U	5 L	J 0.3 L	5 U	0.3 U	5 U	0.3 U	5 U	0.3 U	5 U	0.31 J	5 U	0.36 J	5 U	0.41	J 5 U	0.3 U	5 U
Calcium	NA	168000	460000	61100	114000	186000	351000	82200	114000	88800	136000	123000	110000	126000	126000	115000	183000	99200	156000	128000	415000
Chromium	50	1.2 U	5 L	J 1.2 U	5 L	8.49	5 U	1.2 U	5 U	1.73 J	5 U	2.67 J	5 U	J 1.2 U	5 U	1.2 U	5 U	4.85	J 5 U	4.94 J	5 U
Cobalt	NA	2.4 U	50 L	J 2.4 U	50 L	J 6.67 J	J 50 U	2.4 U	50 U	2.4 U	50 U	2.4 U	50 U	J 2.4 U	50 U	2.4 U	50 U	3.3	J 50 U	5.84 J	50 U
Copper	200	12.9 J	29	2.1 J	5 L	J 1.7 U	5	1.7 U	5 U	1.7 U	8	4.17 J	5 U	J 1.7 U	5 U	1.7 U	5 U	1.97	J 5 U	1.7 U	8
Iron	300	37 U	3660	1630	2480	9160	20400	1050	1650	3890	18000	5560	2630	6430	5410	1800	6050	7900	14800	2480	6190
Lead	25	4.6 U	5 L	J 4.6 U	5 L	J 4.6 L	I 5 U	4.6 U	5 U	30.5	130	4.96 J	5 U	J 4.6 U	5 U	4.6 U	5 U	5.73	J 5 U	4.6 U	7
Magnesium	35000 (GV)	3950 J	5510	9700	18600	28800	50500	13900	19400	13800	23100	19400	16900	20900	16500	17400	39500	17800	29100	12800	20700
Manganese	300	14.4 J	71	52.3	71	6730	10300	107	163	449	904	226	159	626	792	359	455	714	1530	232	413
Mercury	0.7	0.08 U	0.2 L	J 0.08 U	0.2 L	J 0.08 U	0.2 U	0.08 U	0.2 U	0.08 U	0.2 U	0.02 U	0.2 U	J 0.08 U	0.2 U	0.08 U	0.2	0.08	U 0.2 U	0.08 U	0.2 U
Nickel	100	8.81 J	39	4.7 U	20 L	J 4.7 U	1 20 U	4.7 U	20 U	4.7 U	20 U	4.7 U	20 U	J 4.7 U	20 U	4.7 U	20 U	4.7	U 20 U	4.7 U	20 U
Potassium	NA	15100	92600	2000 J	5560	898 .	3000	1640 J	3420	1630 J	4540	15300	2890	1590 J	7060	1590 J	5750	1520	J 2880	4780 J	33600
Selenium	10	6.18 J	9	5 U	5 L	J 5 U	I 5 U	5 U	5 U	5 U	5 U	5 U	5 U	J 5 U	5 U	5 U	5 U	J 5	U 5 U	5 U	5 U
Sodium	20000	69800	122000	32000	35400	12500	19400	52000	43500	30900	33900	80200	36300	124000	135000	29300	45300	13900	19400	130000	166000
Thallium	0.5 (GV)	8 U	69 U	J 8 U	10 L	J 8 L	I 10 U	8 U	10 U	8 U	10 U	8 U	10 U	J 8 U	10 U	8 U	10 U	J 8	U 10	8 U	10 U
Vanadium	NA	3.67 J	20 L	J 3.1 U	20 L	J 5.96	1 20 U	3.1 U	20 U	3.1 U	20 U	3.59 J	20 U	J 3.1 U	20 U	3.1 U	20 U	3.4	J 20 U	3.1 U	20 U
Zinc	2000 (GV)	10.9 J	20	11.8 J	10 L	J 20.8	21	9.18 J	10 U	18.8 J	54	43.2 J	10 U	J 19.5 J	11	8.35 J	10 U	21.1	J 20	14.2 J	26
Cyanide	200	11.2	10 L	22.4	10 L	J 21.2	10 U	2.7	10 U	8.5	10 U	0.96 J	10	4.3	10 U	8.4	20	79.9	190	3.7	20

Qualifiers

U - The compound was not detected at the indicated concentration.

J - Data indicates the presence of a compound that meets the identification criteria.

B - The analyte was found in the laboratory blank as well as the sample. This indicates possible laboratory contamination of the environmental sample.

D - The reported value is from a secondary analysis with a dilution factor. The original analysis exceeded the calibration range.

NA - Not analyzed

ND - Non Detect

FIGURES







Appendix A Monitoring Well Purging/Sampling Forms

Monitori	ng Well	Purging /	Sampling	Form					
Project Na	me and Nu	mber:	Freemans B	ridge Road				105886.02	
Monitoring	Well Numb	ber:	MW- 11		Date:	08/26/200	8		
Samplers:			Tyler Brown	and Cristine V	<i>'inciguerra</i>				
Sample Nu	mber:		MW-11		QA/QC	Collected?	None		
Purging / S	ampling M	ethod:	Whale Pump)		3			
1. L = Tota 2. D = Rise 3. W = Sta 4. C = Colu 5. V = Volu	I Well Dept r Diameter tic Depth to mn of Wat me of Wate	h: (I.D.): v Water (TO er in Casing er in Well =	C): : C(3.14159)(0	.5D) ² (7.48)	19.35 0.17 11.94 7.41 1.20	feet feet feet gal	D (inches) 1-inch 2-inch 3-inch 4-inch 6-inch	D (feet) 0.08 0.17 0.25 0.33 0.50	
				Conversion fa	actors to dete	ermine V gi	ven C		
			D (inches) V (gal / ft)	1-inch 0.041	2-inch 0.163	3-inch 0.37	4-inch 0.65	6-inch 1.5	
Water Qua	lity Reading	s Collected	Using						1
Parameter	Stabilizati	Units			R	Readings	-		-
Time		24 hr	820	822					
Water Leve	0.33	feet	12.01	15.50					
Volume Pu	N/A	gal	0.50	1.50					
Flow Rate	N/A	mL/min		-	×				
Turbidity	(+/-) 10%	NTU	349.0	694.0					
Dissolved	(+/-) 10%	mg/l		-					
Fh / ORP	(+/-) 10	MeV	35	31					
Conductivit	(+/-) 3%	umho / cm	0.836	0.853					
ĎН	(+/-) 0 1	nH unit	7 71	7 07					
Temn	()0.1	C	17.27	16.39					
Color		Visual	cloudy	cloudy					
Odor		Olfactory	none	none					
Comments Started purg	: ge at 820	al							
* Three con	825 secutive re	adings withi	n range indica	ates stabilizati	on of that pa	rameter.			
								Page 1 of	1

Monitor	ing Well	Purging /	Sampling	Form				
Project Na	ame and Nu	imber:	Freemans B	ridge Road				105886.02
Monitoring	Well Num	ber:	MW- 11 D		_ Date:	08/26/200	8	
Samplers:			Tyler Brown	and Cristine V	inciguerra			
Sample N	umber:		MW-11 D		QA/QC	Collected?	MS/MSD	
Purging / S	Sampling M	ethod:	Whale Pump)	·····			
1. L = Tota 2. D = Rise 3. W = Sta 4. C = Colu 5. V = Volu	al Well Dept er Diameter tic Depth to umn of Wat ume of Wat	th: • (I.D.): • Water (TO er in Casing er in Well =	C): :: C(3.14159)(0.	5D) ² (7.48) Conversion fa	53.5 0.17 11.48 42.02 6.84	_feet _feet _feet _feet _gal ermine V gi	D (inches) 1-inch 2-inch 3-inch 4-inch 6-inch	D (feet) 0.08 0.17 0.25 0.33 0.50
			D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
			V (gal / ft)	0.041	0.163	0.37	0.65	1.5
Parameter	Stabilizati				F	Readings	-	
Time	0.00	24 hr	751	755	800			
/vater Leve	0.33	teet	11.68	11.69	11.69			
Journe Pu		gal	5.00	11.00	20.00			
urbidity	N/A (+/_) 100/		- 61 5	-	110			
) issolved ((+/-) 10%	ma / L	01.5	41.2	11.0			
h / ORP	(+/-) 10	MeV	90					
onductivi	(+/-) 3%	umho / cm	1.37	1 66	0.999			
H	(+/-) 0.1	pH unit	8.35	8.12	7.82			
emp	× / /	C	12.28	12.09	12.05			
olor		Visual	clear	clear	clear			
)dor		Olfactory	none	none	none			
Comments Started pur Purged a to Sampled 80	:: ge at 745 tal of 20.54 00	gal	5					
Three con	secutive re	adings withi	n range indica	ites stabilizatio	on of that pa	rameter.	F	Page 1 of 1

Project Na	ame and Nu	imber:	Freemans B	idge Road				105886.02
Monitoring	g Well Num	ber:	MW- 12		_ Date:	08/26/200	8	
Samplers:			Tyler Brown	and Cristine V	inciguerra			
Sample N	umber:		MW-12		QA/QC	Collected?	None	
Purging / S	Sampling M	ethod:	Whale Pump					
1. L = Tota 2. D = Rise 3. W = Sta 4. C = Colu 5. V = Volu	al Well Depi er Diameter atic Depth to umn of Wat ume of Wat	:h: · (I.D.): › Water (TO :er in Casing er in Well =	C): j: C(3.14159)(0.	5D) ² (7.48)	17.29 0.17 10.97 6.32 1.03	feet feet feet gal	D (inches) 1-inch 2-inch 3-inch 4-inch 6-inch	D (feet) 0.08 0.17 0.25 0.33 0.50
				Conversion fa	ictors to dete	ermine V gi	ven C	
			D (inches) V (gal / ft)	1-inch 0.041	2-inch 0 163	3-inch	4-inch	6-inch
Parameter Time	Stabilizati	Units	1256	1258	R	teadings	1	
Nater Leve	0.33	feet	12.15	12.82				
Volume Pu	N/A	gal	0.50	1.75				
Flow Rate	N/A	mL / min	-	-				
Furbidity	(+/-) 10%	NTU	141.0	703.0				
Jissolved ((+/-) 10%	mg / L	14	7				
	(+/-) 10	MeV	-19	-1				
Eh / ORP	(+/-) 3%	pt1	0.685	0.687				
Eh / ORP Conductivit		pri unit	0.37	1.38				
Eh / ORP Conductivit oH	(+/-) 0.1	C	16 20	15.00				
Eh / ORP Conductivit DH Femp Color	(+/-) 0.1	C	16.39	15.83				
Eh / ORP Conductivil oH Temp Color Odor	(+/-) 0.1	C Visual Olfactory	16.39 cloudy none	15.83 cloudy none				
Eh / ORP Conductivit DH Temp Color Ddor Comments Started pur Purged a to Sampled at	(+/-) 0.1 s: ge at 1255 otal of 3 gal : 1300	C Visual Olfactory	16.39 cloudy none	15.83 cloudy none				

Monitor	ing Well	Purging /	Sampling	Form					
Project Na	me and Nu	imber:	Freemans B	ridge Road				105886.0	2
Monitoring	Well Numl	ber:	MW- 15		Date:	08/26/200	8		
Samplers:			Tyler Brown	and Cristine V	/inciguerra				
Sample Nu	umber:		MW-15		QA/QC	Collected?	None		
Purging / S	Sampling M	ethod:	Whale Pump	o					
1. L = Tota 2. D = Rise 3. W = Sta 4. C = Colu 5. V = Volu	I Well Dept er Diameter tic Depth to umn of Wat ume of Wate	th: (I.D.): Water (TO er in Casing er in Well =	C): : C(3.14159)(0	.5D) ² (7.48)	14.25 0.17 3.5 10.75 1.75	feet feet feet gal	D (inches) 1-inch 2-inch 3-inch 4-inch 6-inch	D (feet) 0.08 0.17 0.25 0.33 0.50	
				Conversion fa	ictors to dete	ermine V gi	ven C		
			D (inches) V (gal / ft)	1-inch 0.041	2-inch 0.163	3-inch 0.37	4-inch 0.65	6-inch 1.5	-
Water Qua	lity Reading	s Collected	Using				-		_
Parameter	Stabilizati	Units			R	eadings			
Time		24 hr	847	850					
Water Leve	0.33	feet	3.60	6.55					
Volume Pu	N/A	gal	0.75	3.00					
Flow Rate	N/A	mL / min	-	-					
Turbidity	(+/-) 10%	NTU	767.0	326.0					
Dissolved ((+/-) 10%	mg / L	-	(-)					
Eh / ORP	(+/-) 10	MeV	-77	-54					
Conductivi	(+/-) 3%	µmho / cm	0.587	0.585					
pН	(+/-) 0.1	pH unit	7.35	7.45					
Temp		С	16.83	16.73					
Color		Visual	cloudy	cloudy					
Odor		Olfactory	none	none					
Comments Started purg Purged a to Sampled at	: ge at 845 tal of 5.25 g 855	gal							
Three con	secutive re	adings withi	n range indica	ates stabilizatio	on of that par	ameter.	F	Page 1 of	1

Monitor	ing Well	Purging /	Sampling	Form					-
Project Na	me and Nu	mber:	Freemans B	ridge Road				105886.02	
Monitoring	Well Numb	per:	MW-16		_ Date:	08/26/200	8		
Samplers:			Tyler Brown	and Cristine V	ínciguerra				
Sample Nu	umber:		MW-16		QA/QC	Collected?	None		
Purging / S	Sampling M	ethod:	Whale Pum	o	<u> </u>				
1. L = Tota 2. D = Rise 3. W = Sta 4. C = Colu 5. V = Volu	l Well Dept er Diameter tic Depth to umn of Wat ume of Wate	h: (I.D.): o Water (TO er in Casing er in Well =	C): ;: C(3.14159)(0	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$					
				Conversion la		ermine v gr	ven C		
			D (inches) V (gal / ft)	1-inch 0.041	2-inch 0.163	3-inch 0.37	4-inch 0.65	6-inch 1.5	
Water Qua	lity Reading	s Collected	Using						,
Parameter	Stabilizati	Units			R	eadings			
Time		24 hr	940	941					
Water Leve	0.33	feet	9.60	11.90					
Volume Pu	N/A	gal	0.25	1.00					
Flow Rate	N/A	mL / min	-	-					
Turbidity	(+/-) 10%	NTU	371.0	248.0					
Dissolved ((+/-) 10%	mg / L	-	-					
Eh / ORP	(+/-) 10	MeV	0.94	-102				11.	
Conductivi	(+/-) 3%	µmho / cm	1.47	0.999					
pН	(+/-) 0.1	pH unit	7.66	7.32					
Temp		C	15.72	14.88					
Color		Visual	cloudy	cloudy					
Odor		Olfactory	none	none					-
Comments	:								
Started pure	ge at 940								
Purged a to	- tal of 1.7 qa	al							
Sampled at	945								
Some odor	during sam	pling							
* Three con	Three consecutive readings within range indicates stabilization of that parameter. Page 1 of 1								

5 N - N

Monitor	ing Well	Purging /	Sampling	Form					
Project Na	me and Nu	mber:	Freemans B	ridge Road				105886.0	2
Monitoring	Well Numl	ber:	MW- 16 D		_ Date:	08/26/200	8		
Samplers:			Tyler Brown	and Cristine V	inciguerra				
Sample Nu	ımber:		MW-16 D		QA/QC	Collected?	None		
Purging / S	ampling M	ethod:	Whale Pump)					
1. L = Tota 2. D = Rise 3. W = Sta 4. C = Colu 5. V = Volu	I Well Dept er Diameter tic Depth to imn of Wat me of Wate	th: (I.D.): Water (TO(er in Casing er in Well = (C): : C(3.14159)(0	5D) ² (7.48)	28.64 0.17 8.58 20.06 3.27	_feet _feet _feet _feet _gal	D (inches) 1-inch 2-inch 3-inch 4-inch 6-inch	D (feet) 0.08 0.17 0.25 0.33 0.50	
Conversion factors to determine V given C									
			V (gal / ft)	0.041	0.163	0.37	0.65	1.5	-
Parameter	Stabilizati	Units	055	057	R	Readings	r		-1
Mater Leve	0.33	feet	8 00	957	959				
/olume Pu	N / A	nal	1.50	5.00	8.90				
Jow Poto		yai ml/min	1.50	5.00	0.00				
	(+/) 100/		204.0	-	-				
Dissolved	(+/-) 10%	mall	204.0	159.0	100.0				
h / ORP	$(+/_{-})$ 10 / $(+/_{-})$ 10	MoV	- 25	-	-		·		
Conductivit	(+/_) 3%	umbo / cm	0.826	0.852	-30				
H	(+/-) 0 1	nH unit	7 25	7 32	7 34				
Temp	(17)0.1	C	12.43	11 91	11.84				
Color		Visual	cloudy	clear	clear				
Ddor		Olfactory	none	none	none			10000	
Comments: Started purge at 954 Purged a total of 9.8 Sampled at 1000									
					on of that par	rameter.		Page 1 of	1

Monitor	ing Well	Purging /	Sampling	Form						
Project Na	ame and Nu	imber:	Freemans B	ridge Road	·			105886.02	2	
Monitoring	Well Num	ber:	MW- 18		Date:	08/26/200	8			
Samplers:			Tyler Brown	and Cristine \	/inciguerra			· · · · · · · · · · · · · · · · · · ·		
Sample Nu	umber:		MW-18		QA/QC	Collected?	None	7 15 5 5 15 15		
Purging / S	Sampling M	ethod:	Whale Pump	0						
1. L = Tota 2. D = Rise 3. W = Sta 4. C = Colu 5. V = Volu	al Well Dept er Diameter tic Depth to umn of Wat ume of Wat	th: • (I.D.): • Water (TO er in Casing er in Well =	C): j: C(3.14159)(0	.5D) ² (7.48)	14.7 0.17 7.11 7.46 1.21	feet feet feet gal	D (inches) 1-inch 2-inch 3-inch 4-inch 6-inch	D (feet) 0.08 0.17 0.25 0.33 0.50		
Conversion factors to determine V given C										
			V (gal / ft)	0.041	0.163	0.37	4-inch 0.65	6-inch 1.5	-	
Water Qua	lity Reading	gs Collected	Using				_			
Parameter	Stabilizati	Units			R	leadings				
Time		24 hr	1202	1203						
Water Leve	0.33	feet	7.10	7.70						
Volume Pu	N/A	gal	0.50	2.00						
Flow Rate	N/A	mL / min	H.							
Turbidity	(+/-) 10%	NTU	376.0	155.0						
Dissolved	(+/-) 10%	mg / L	-	-						
Eh / ORP	(+/-) 10	MeV	60	83						
Conductivi	(+/-) 3%	µmho / cm	0.892	0.931						
ъН	(+/-) 0.1	pH unit	7.28	6.79						
Гетр		С	17.82	17.64						
Color		Visual	cloudy	cloudy						
Odor		Olfactory	none	none						
Comments Started purged a to Sampled at	: ge at 1201 tal of 3.5 ga 1205	al								
Three con	Three consecutive readings within range indicates stabilization of that parameter. Page 1 of 1									

Monitoring Samplers: Sample Nu Purging / Sa 1. L = Total	Well Numl mber:	per:	MW- 19	MW 10 Date: 00/05/0000				
Samplers: Sample Nu Purging / Sa 1. L = Total	mber:		T 1 D		Date:	08/25/200	8	
Sample Nu Purging / Sa 1. L = Total	mber: ampling M		Tyler Brown	and Cristine V	inciguerra			
Purging / Sa 1. L = Total	amoling M		MW-19		QA/QC	Collected?	None	
1. L = Total		ethod:	Whale Pump)				
2. D = Riser 3. W = Stati 4. C = Colur 5. V = Volur	Well Dept r Diameter ic Depth to mn of Wat me of Wat	h: (I.D.): Water (TO) er in Casing er in Well = (C): : C(3.14159)(0.	5D) ² (7.48)	9.72 0.17 5.52 4.2 0.68	feet feet feet gal	D (inches) 1-inch 2-inch 3-inch 4-inch 6-inch	D (feet) 0.08 0.17 0.25 0.33 0.50
				Conversion ta	ictors to dete	ermine v gi	ven C	
			D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch
							1	
Water Quali	ity Reading	s Collected	Using				_	
vvater Quali Parameter S Fime	ity Reading Stabilizati	Units	Using	1335	R	eadings	-	
Water Quali Parameter S Fime Nater Leve	Stabilizati 0.33	Units	1332 7.60	1335	R	eadings	-	-
Vater Quali Parameter S Fime Vater Leve Volume Pu	Stabilizati 0.33 N / A	s Collected Units 24 hr feet gal	1332 7.60 0.50	1335 7.92 1.50	R	eadings	-	
Vvater Quali Parameter S Time Vater Leve Volume Pu Flow Rate	Stabilizati 0.33 N / A N / A	gs Collected Units 24 hr feet gal mL / min	1332 7.60 0.50	1335 7.92 1.50	R	eadings	-	
Vater Quali Parameter S Fime Nater Leve Volume Pu Flow Rate Furbidity	0.33 0.33 N / A N / A (+/-) 10%	s Collected Units 24 hr feet gal mL / min NTU	Using 1332 7.60 0.50 - 127.0	1335 7.92 1.50 - 49.0	R	eadings		
Vater Quali Parameter S Fime Vater Leve Volume Pu Flow Rate Furbidity Dissolved (0.33 N / A N / A N / A (+/-) 10% (+/-) 10%	s Collected Units 24 hr feet gal mL / min NTU mg / L	Using 1332 7.60 0.50 - 127.0 -	1335 7.92 1.50 - 49.0	R	eadings		
Vater Quali Parameter S Fime Nater Leve /olume Pu -low Rate Furbidity Dissolved (-h / ORP	0.33 N / A N / A N / A (+/-) 10% (+/-) 10	s Collected Units 24 hr feet gal mL / min NTU mg / L MeV	Using 1332 7.60 0.50 - 127.0 - 40	1335 7.92 1.50 - 49.0 - -10	R	eadings		
Vater Quali Parameter S Fime Vater Leve /olume Pu Flow Rate Furbidity Dissolved (Eh / ORP Conductivi	0.33 N / A N / A (+/-) 10% (+/-) 10% (+/-) 10 (+/-) 3%	gs Collected Units 24 hr feet gal mL / min NTU mg / L MeV µmho / cm	Using 1332 7.60 0.50 - 127.0 - 40 0.711	1335 7.92 1.50 - 49.0 - - 10 0.71	R	eadings		
Vater Quali Parameter S Fime Vater Leve Volume Pu Flow Rate Furbidity Dissolved (Eh / ORP Conductivit DH	0.33 N / A N / A (+/-) 10% (+/-) 10% (+/-) 3% (+/-) 0.1	s Collected Units 24 hr feet gal mL / min NTU mg / L MeV µmho / cm pH unit	Using 1332 7.60 0.50 - 127.0 - 40 0.711 6.97	1335 7.92 1.50 - 49.0 - -10 0.71 7.46	R	eadings		
Vvater Quali Parameter S Time Vater Leve Volume Pu Flow Rate Furbidity Dissolved (Eh / ORP Conductivit DH Femp	N / A 0.33 N / A (+/-) 10% (+/-) 10 (+/-) 3% (+/-) 0.1	s Collected Units 24 hr feet gal mL / min NTU mg / L MeV µmho / cm pH unit C	Using 1332 7.60 0.50 - 127.0 - 40 0.711 6.97 18.37	1335 7.92 1.50 - 49.0 - - 10 0.71 7.46 17.77	R	eadings		
Vater Quali Parameter S Time Vater Leve Volume Pu Flow Rate Turbidity Dissolved (Eh / ORP Conductivil DH Femp Color	0.33 N / A N / A (+/-) 10% (+/-) 10% (+/-) 3% (+/-) 0.1	gs Collected Units 24 hr feet gal mL / min NTU mg / L MeV µmho / cm pH unit C Visual	Using 1332 7.60 0.50 - 127.0 - 40 0.711 6.97 18.37 cloudy	1335 7.92 1.50 - 49.0 - - 10 0.71 7.46 17.77 cloudy	R	eadings		

Monitor	ing Well	Purging /	Sampling	Form						
Project Na	ime and Nu	Imber:	Freemans E	ridge Road				105886.0	2	
Monitoring	Well Num	ber:	MW- 19 D		Date:	08/25/200	8			
Samplers:			Tyler Brown	and Cristine V	(inciguerra					
Sample Nu	umber:		MW-19 D		QA/QC	Collected?	None			
Purging / S	Sampling M	ethod:	Whale Pum	0						
1. L = Tota 2. D = Rise 3. W = Sta 4. C = Colu 5. V = Volu	I Well Dept er Diameter tic Depth to umn of Wat ume of Wat	th: (I.D.): Water (TO er in Casing er in Well =	C): ;: C(3.14159)(0	.5D) ² (7.48)	22.31 0.17 4.65 17.6 2.87	feet feet feet gal	D (inches) 1-inch 2-inch 3-inch 4-inch 6-inch	D (feet) 0.08 0.17 0.25 0.33 0.50		
	Conversion factors to determine V given C									
			D (inches) V (gal / ft)	1-inch 0.041	2-inch 0.163	3-inch 0.37	4-inch 0.65	6-inch 1,5]	
Water Qua	lity Reading	gs Collected	Using							
Parameter	Stabilizati	Units			R	eadings	-			
Time		24 hr	1320	1322		_				
Water Leve	0.33	feet	7.00	7.11					1.000	
Volume Pu	N/A	gal	1.00	5.00						
Flow Rate	N/A	mL / min	-	1.7						
Turbidity	(+/-) 10%	NTU	999.0	430.0						
Dissolved ((+/-) 10%	mg / L	-	2. 						
Eh / ORP	(+/-) 10	MeV	-97	-107						
Conductivit	(+/-) 3%	µmho / cm	0.738	0.704						
pН	(+/-) 0.1	pH unit	7.27	7.47						
Temp		С	14.42	12.78						
Color		Visual	cloudy	cloudy						
Odor		Olfactory	none	none						
Comments Started purg Purged a to Sampled at	: ge at 1319 tal 8.5 gal 1325					-				
Three consecutive readings within range indicates stabilization of that parameter. Page 1 of 1										

Monito	ring Well	Purging	Sampling Fo	orm					
Project N	ame and N	umber:	Freemans Brid	ge Road			··· ·	105886.02	
Monitoring	g Well Num	iber:	MW- 20		Date:	08/25/200)8	-	
Samplers			Tyler Brown an	d Cristine Vincig	uerra				
Sample N	umber:		MW-20		QA/QC	Collected?	None		
Purging / S	Sampling N	lethod:	Whale Pump						-
1. L = Tota 2. D = Rise 3. W = Sta 4. C = Colu 5. V = Volu	al Well Dep er Diamete atic Depth to umn of Wat ume of Wat	th: r (I.D.): o Water (TO ter in Casing er in Well = 0	C): : C(3.14159)(0.5D) ² (7.48)	12.41 0.17 6.8 5.6 0.91	feet feet feet gal	D (inches) 1-inch 2-inch 3-inch 4-inch 6-inch	D (feet) 0.08 0.17 0.25 0.33 0.50	
			1294	Conversion fac	ctors to dete	ermine V gi	ven C		
			D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch	
			V (gal / ft)	0.041	0.163	0.37	0.65	1.5	
Parameter Time	Stabilizati	Units	1125	1129	Rea	dings			
Vater Leve	0.33	feet	9.01	9.25					
olume Pu	N/A	gal	1.00	1.50					
ow Rate	N/A	mL / min	-						
urbidity	(+/-) 10%	NTU	765.0	409.0					
ssolved ((+/-) 10%	mg / L	-	-					
n/ORP	(+/-) 10	MeV	-352	-354					
onductivi	(+/-) 3%	µmho / cm	4.18	466					
1	(+/-) 0.1	pH unit	10.50	17.98					
emp		С	18.15	17.36					
		Visual	yellow/cloudy	cloudy					
dor		Olfactory	strong smell	strong smell					
omments arted purg urged dry eturned to	: ge at 1123 at 1131 sample at	1255							
Three con:	secutive rea	adings withir	n range indicates	stabilization of t	hat parame	ter.	F	Page 1 of 1	

Monitor	ing Well	Purging /	Sampling	Form					
Project Na	ame and Nu	imber:	Freemans B	ridge Road				105886.02	
Monitoring	g Well Num	ber:	MW- 20 D		Date:	08/25/200	8		
Samplers:			Tyler Brown	and Cristine V	'inciguerra				
Sample N	umber:		MW-20 D		QA/QC	Collected?	None		
Purging / S	Sampling M	ethod:	Whale Pum	o					
1. L = Tota 2. D = Rise 3. W = Sta 4. C = Coli 5. V = Volu	al Well Dept er Diameter atic Depth to umn of Wat ume of Wat	th: (I.D.): Water (TO er in Casing er in Well =	C): j: C(3.14159)(0	.5D) ² (7.48) Conversion fa	31.9 0.17 6.93 24.97 4.07	feet feet feet gal	D (inches) 1-inch 2-inch 3-inch 4-inch 6-inch	D (feet) 0.08 0.17 0.25 0.33 0.50	
						ennine v gr	Venic		
			D (inches) V (gal / ft)	1-inch 0.041	2-inch 0.163	3-inch 0.37	4-inch 0.65	6-inch 1.5	
Water Qua	lity Reading	gs Collected	Using				_		
Parameter	Stabilizati	Units			R	eadings			
Time		24 hr	1110	1113	1117				
Water Leve	0.33	feet	7.10	7.08	6.85				
Volume Pu	N/A	gal	1.25	6.00	12.00				
Flow Rate	N/A	mL / min	-	8	-				
Discoluted	(+/-) 10%	NIU	446.0	110.0	59.3				
UISSOIVED	(+/-) 10%	mg / L	····		-				
	(+/-) 10	IVIEV	-81	-80	-75				
	(+/-) 5%	µmno / cm	0.793	0.769	0.76				
pri Tome	(+/-) 0.1	pH unit	1.29	/.43	1.22				
Celer			15.27	13.50	13.33				
Odor		Visual	cioudy	cloudy	cloudy				
		Ollactory	slight odor	slight odor	slight odor				
Comments Started pur Purged a to Sampled at	ge at 1107 tal of 12.21 1120	gal							
* Three con	secutive rea	adings withi	n range indica	ates stabilizatio	on of that par	ameter.	F	Page 1 of 1	

Ionitoring Well Number: MW- 21 Date: 08/25/2008 amplers: Tyler Brown and Cristine Vinciguerra ample Number: MW-21 QA/QC Collected? None urging / Sampling Method: Whale Pump L = Total Well Depth: 18.3 feet D = Riser Diameter (I.D.): 0.17 feet X = Static Depth to Water (TOC): 7.43 feet C = Column of Water in Casing: 10.87 feet V = Volume of Water in Well = C(3.14159)(0.5D) ² (7.48) 1.77 gal Conversion factors to determine V given C Conversion factors to determine V given C D (inches) 1-inch 2-inch 1.5 ater Quality Readings Collected Using readings no 1.5 ater Quality Readings Collected Using readings no no me 24 hr 1241 1244 no ater Quality Readings Collected Using no no no no manuer Stabilizati Units Readings no no no nume Pu N / A	Monitoring Samplers: Sample Nu Purging / S 1. L = Tota	Well Numl mber: ampling M I Well Dept	ber: ethod: th:	MW- 21 Tyler Brown MW-21 Whale Pump	and Cristine Vir	Date: nciguerra	08/25/200	8						
amplers: Tyler Brown and Cristine Vinciguerra ample Number: MW-21 QA/QC Collected? None urging / Sampling Method: Whale Pump L = Total Well Depth: 18.3 feet D (inches) D (feet) D = Riser Diameter (I.D.): 0.17 feet 1-inch 0.08 W = Static Depth to Water (TOC): 7.43 feet 2-inch 0.17 C = Column of Water in Casing: 10.87 feet 3-inch 0.25 V = Volume of Water in Well = C(3.14159)(0.5D) ² (7.48) 1.77 gal 4-inch 0.33 6-inch 0.50 Conversion factors to determine V given C Conversion factors to determine V given C trameter Stabilizatir Units me 24 hr 1241 1244 ater Leve 0.33 feet 10.40 11.90 1.40 utume Pt N / A gal 1.00 1.40 1.40 1.40 wrate N / A mL / min - - - - - ture Pt N / A gal 1.00 1.40 1.40 1.40 1.40 urgin (+/-) 10% NTU 125.0 643.0 1 1 1 1	Samplers: Sample Nu Purging / S 1. L = Tota	mber: ampling M I Well Dept	ethod: th:	Tyler Brown MW-21 Whale Pump	and Cristine Vir	nciguerra			Tyler Brown and Cristine Vinciguerra					
Ample Number: MW-21 QA/QC Collected? None urging / Sampling Method: Whale Pump Whale Pump L = Total Well Depth: 18.3 feet D (inches) D (feet) D = Riser Diameter (I.D.): 0.17 feet 1-inch 0.08 W = Static Depth to Water (TOC): 7.43 feet 2-inch 0.17 C = Column of Water in Casing: 10.87 feet 3-inch 0.25 V = Volume of Water in Well = C(3.14159)(0.5D) ² (7.48) 1.77 gal 4-inch 0.33 G-inch 0.50 Conversion factors to determine V given C Conversion factors to determine V given C mameter Stabilizati< Units	Sample Nu Purging / S 1. L = Tota	mber: ampling M I Well Dept	ethod: th:	MW-21 Whale Pum	MW-21 QA/QC Collecte									
urging / Sampling Method:Whale PumpL = Total Well Depth: D = Riser Diameter (I.D.):18.3 0.17 feetfeetD = Riser Diameter (I.D.):7.43 0.17 feetD (inches) 0.17 feetW = Static Depth to Water (TOC): C = Column of Water in Casing: V = Volume of Water in Well = C(3.14159)(0.5D)^2(7.48)7.43 1.77 galfeetV = Volume of Water in Well = C(3.14159)(0.5D)^2(7.48)1.77 1.77 galgal4-inch 0.33 6-inch0.33 6-inchConversion factors to determine V given CImage: D (inches) V = Volume of Water in Well = C(3.14159)(0.5D)^2(7.48)Conversion factors to determine V given CImage: D (inches) V = Volume of Water in Well = C(3.14159)(0.5D)^2(7.48)Image: D (inches) V = Volume of Water in Well = C(3.14159)(0.5D)^2(7.48)Image: D (inches) V = Volume of Water in Well = C(3.14159)(0.5D)^2(7.48)Image: D (inches) V (gal / ft)O (inches) V (gal / ft)<td colspan="4</td> <td>Purging / S 1. L = Tota</td> <td>ampling M Well Dept</td> <td>ethod: th:</td> <td colspan="6">Whale Pump</td>	Purging / S 1. L = Tota	ampling M Well Dept	ethod: th:	Whale Pump										
L = Total Well Depth: D = Riser Diameter (I.D.):18.3 0.17 feetfeet 2-inchD (inches) 1-inchD (feet) 1-inchW = Static Depth to Water (TOC): C = Column of Water in Casing: V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$ $\overline{1.77}$ galfeet 	1. L = Tota	Well Dept	etnoa: th:	vvnale Pumi										
L = Total Well Depth:18.3feetD (inches)D (feet)D = Riser Diameter (I.D.): 0.17 feet1-inch 0.08 W = Static Depth to Water (TOC): 7.43 feet2-inch 0.17 C = Column of Water in Casing: 10.87 feet3-inch 0.25 V = Volume of Water in Well = $C(3.14159)(0.5D)^2(7.48)$ 1.77 gal4-inch 0.33 Conversion factors to determine V given C Conversion factors to determine V given CTameter StabilizatiUnitsReadingsReadingsReadingsReadingsMeter StabilizatiUnitsReadingsReadingsMeter N / A gal 1.003.00 Meter N / A mL / minMeter N / A mL / minMeter N / A mL / minO (Inches)D (inches) <td col<="" td=""><td>1. L = Tota</td><td>Well Dept</td><td>th:</td><td></td><td></td><td></td><td></td><td></td><td></td></td>	<td>1. L = Tota</td> <td>Well Dept</td> <td>th:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	1. L = Tota	Well Dept	th:										
D (inches) 1-inch 2-inch 3-inch 4-inch 6-inch V (gal / ft) 0.041 0.163 0.37 0.65 1.5 ater Quality Readings Collected Using Image: Image of the second s	2. D = Rise 3. W = Sta 4. C = Colu 5. V = Volu	r Diameter ic Depth to mn of Wat me of Wat	· (I.D.): o Water (TO er in Casing er in Well =	C): :: C(3.14159)(0	.5D) ² (7.48)	18.3 0.17 7.43 10.87 1.77	feet feet feet gal	D (inches) 1-inch 2-inch 3-inch 4-inch 6-inch	D (feet) 0.08 0.17 0.25 0.33 0.50					
D (inches) 1-inch 2-inch 3-inch 4-inch 6-inch V (gal / ft) 0.041 0.163 0.37 0.65 1.5 ater Quality Readings Collected Using me 24 hr 1241 1244 Readings ater Leve 0.33 feet 10.40 11.90 100 Jume Pu N / A gal 1.00 3.00 100 100 w Rate N / A mL / min - - 100 <td></td> <td></td> <td></td> <td></td> <td>Conversion fac</td> <td>ctors to dete</td> <td>ermine v giv</td> <td>/en C</td> <td></td>					Conversion fac	ctors to dete	ermine v giv	/en C						
V (gal / ft) 0.041 0.163 0.37 0.65 1.5 ater Quality Readings Collected Using trameter Stabilizati Units Readings me 24 hr 1241 1244 ater Leve 0.33 feet 10.40 11.90				D (inches)	1-inch	2-inch	3-inch	4-inch	6-inch					
Readings Collected Using Readings me 24 hr 1241 1244 Readings ater Leve 0.33 feet 10.40 11.90 Image: Collected Using hume Pu N / A gal 1.00 3.00 Image: Collected Using blume Pu N / A gal 1.00 3.00 Image: Collected Using blume Pu N / A gal 1.00 3.00 Image: Collected Using blume Pu N / A mL / min - - Image: Collected Using blume Pu N / A mL / min - - Image: Collected Using blume Pu N / A mL / min - - Image: Collected Using blue Pu N / A mL / min - - Image: Collected Using Image: Collected Using blue Pu N / A mL / min - - Image: Collected Using Image: Collected Using blue Pu N / A ML / min - - Image: Collected Using Image: Collected Using blue Pu N / A Image:				V (gal / ft)	0.041	0.163	0.37	0.65	1.5					
ater Leve 0.33 feet 10.40 11.90 blume Pu N / A gal 1.00 3.00 bw Rate N / A mL / min - - rbidity (+/-) 10% NTU 125.0 643.0 -	water Qua	ity Reading	gs Collected	leter Stabilizatic Units Readings										
Dume Pu N / A gal 1.00 3.00 </td <td>vvater Qua Parameter Time</td> <td>ity Reading Stabilizati</td> <td>gs Collected Units 24 hr</td> <td>1241</td> <td>1244</td> <td>R</td> <td>eadings</td> <td></td> <td></td>	vvater Qua Parameter Time	ity Reading Stabilizati	gs Collected Units 24 hr	1241	1244	R	eadings							
Dw Rate N / A mL / min -	vvater Qua Parameter Time Water Leve	ity Reading Stabilizati 0.33	Units 24 hr feet	1241 10.40	1244 11.90	R	eadings							
rbidity (+/-) 10% NTU 125.0 643.0	vvater Qua Parameter Time Water Leve Volume Pu	ity Reading Stabilization 0.33 N / A	units 24 hr feet gal	1241 10.40 1.00	1244 11.90 3.00	R	eadings							
	Vvater Qua Parameter Time Water Leve Volume Pu Flow Rate	ity Reading Stabilizati 0.33 N / A N / A	s Collected Units 24 hr feet gal mL / min	1241 10.40 1.00	1244 11.90 3.00	R	eadings							
ssolved (+/-) 10% mg / L	vvater Qua Parameter Time Water Leve Volume Pu Flow Rate Furbidity	ity Reading Stabilizati 0.33 N / A N / A (+/-) 10%	gs Collected Units 24 hr feet gal mL / min NTU	1241 10.40 1.00 - 125.0	1244 11.90 3.00 - 643.0	R	eadings							
	Vvater Qua Parameter Time Water Leve Volume Pu Flow Rate Furbidity Dissolved (ity Reading Stabilizati 0.33 N / A N / A (+/-) 10% (+/-) 10%	s Collected Units 24 hr feet gal mL / min NTU mg / L	1241 10.40 1.00 - 125.0 -	1244 11.90 3.00 - 643.0 -	R	eadings							
/ ORP (+/-) 10 MeV -96 -92	Vater Qua Parameter Time Water Leve Volume Pu Flow Rate Furbidity Dissolved (Eh / ORP	ity Reading Stabilization 0.33 N / A N / A (+/-) 10% (+/-) 10 (+/-) 10	gs Collected Units 24 hr feet gal mL / min NTU mg / L MeV	1241 10.40 1.00 - 125.0 - 96	1244 11.90 3.00 - 643.0 - - -92	R	eadings							
/ ORP (+/-) 10 MeV -96 -92 inductivit (+/-) 3% μmho / cm 1.31 1.44	Vvater Qua Parameter Time Water Leve Volume Pu Flow Rate Furbidity Dissolved (Eh / ORP Conductivil	ity Reading Stabilizati 0.33 N / A N / A (+/-) 10% (+/-) 10% (+/-) 10 (+/-) 3%	gs Collected Units 24 hr feet gal mL / min NTU mg / L MeV µmho / cm	1241 10.40 1.00 - 125.0 - - -96 1.31	1244 11.90 3.00 - 643.0 - - -92 1.44	R	eadings							
I/ORP (+/-) 10 MeV -96 -92 onductivit (+/-) 3% μmho / cm 1.31 1.44 (+/-) 0.1 pH unit 7.41 7.13 1	Vvater Qua Parameter Time Water Leve Volume Pu Flow Rate Furbidity Dissolved (Eh / ORP Conductivit DH	ity Reading Stabilizati 0.33 N / A N / A (+/-) 10% (+/-) 10% (+/-) 3% (+/-) 0.1	gs Collected Units 24 hr feet gal mL / min NTU mg / L MeV µmho / cm pH unit	1241 10.40 1.00 - 125.0 - - - 96 1.31 7.41	1244 11.90 3.00 - 643.0 - - 92 1.44 7.13	R	eadings							
I / ORP (+/-) 10 MeV -96 -92 Inductivit (+/-) 3% μmho / cm 1.31 1.44 I (+/-) 0.1 pH unit 7.41 7.13 mp C 18.72 16.26 0	Vvater Qua Parameter Time Water Leve Volume Pu Flow Rate Furbidity Dissolved (Eh / ORP Conductivit DH Femp	ity Reading Stabilizati 0.33 N / A N / A (+/-) 10% (+/-) 10 (+/-) 3% (+/-) 0.1	gs Collected 24 hr feet gal mL / min NTU mg / L MeV µmho / cm pH unit C	1241 10.40 1.00 - 125.0 - - - 96 1.31 7.41 18.72	1244 11.90 3.00 - 643.0 - - 92 1.44 7.13 16.26	R	eadings							
I / ORP (+/-) 10 MeV -96 -92 onductivit (+/-) 3% μmho / cm 1.31 1.44 I (+/-) 0.1 pH unit 7.41 7.13 mp C 18.72 16.26 16.26 lor Visual cloudy very cloudy 1	Vater Qua Parameter Time Water Leve Volume Pu Flow Rate Turbidity Dissolved (Eh / ORP Conductivit oH Femp Color	ity Reading Stabilization 0.33 N / A N / A (+/-) 10% (+/-) 10% (+/-) 3% (+/-) 0.1	gs Collected Units 24 hr feet gal mL / min NTU mg / L MeV µmho / cm pH unit C Visual	1241 10.40 1.00 - 125.0 - - - 96 1.31 7.41 18.72 cloudy	1244 11.90 3.00 - 643.0 - - 92 1.44 7.13 16.26 very cloudy	R	eadings							
ssolved (+/-) 10% mg / L	vvater Qua	ity Reading	gs Collected											
	Vater Qua Vater Qua Vater Leve Vater Le	ity Reading Stabilization 0.33 N / A N / A (+/-) 10% (+/-) 10%	gs Collected Units 24 hr feet gal mL / min NTU mg / L	1241 10.40 1.00 - 125.0	1244 11.90 3.00 - 643.0 -	R	eadings							
/ ORP (+/-) 10 MeV -96 -92	Vater Qua Parameter Fime Nater Leve Jolume Pu Flow Rate Furbidity Dissolved (Eh / ORP	ity Reading Stabilization 0.33 N / A N / A (+/-) 10% (+/-) 10 (+/-) 10	gs Collected Units 24 hr feet gal mL / min NTU mg / L MeV	1241 10.40 1.00 - 125.0 - - 96	1244 11.90 3.00 - 643.0 - - -92	R	eadings							
1 / ORP (+/-) 10 MeV -96 -92 nductivil (+/-) 3% μmho / cm 1.31 1.44	Vater Qua Parameter Fime Vater Leve Jolume Pu Flow Rate Furbidity Dissolved (Eh / ORP Conductivit	ity Reading Stabilization 0.33 N / A N / A (+/-) 10% (+/-) 10 (+/-) 3%	gs Collected Units 24 hr feet gal mL / min NTU mg / L MeV µmho / cm	1241 10.40 1.00 - 125.0 - - -96 1.31	1244 11.90 3.00 - 643.0 - - - - 92 1.44	R	eadings							
/ ORP (+/-) 10 MeV -96 -92 onductivil (+/-) 3% μmho / cm 1.31 1.44 (+/-) 0.1 pH unit 7.41 7.13	Vater Qua Parameter Fime Vater Leve /olume Pu Flow Rate Furbidity Dissolved (Eh / ORP Conductivil H	ity Reading Stabilizati 0.33 N / A N / A (+/-) 10% (+/-) 10 (+/-) 3% (+/-) 0 1	gs Collected Units 24 hr feet gal mL / min NTU mg / L MeV µmho / cm	1241 10.40 1.00 - 125.0 - - - 96 1.31 7.41	1244 11.90 3.00 - 643.0 - - - 92 1.44 7.13	R	eadings							
I/ORP (+/-) 10 MeV -96 -92 unductivit (+/-) 3% µmho / cm 1.31 1.44 (+/-) 0.1 pH unit 7.41 7.13	Vater Qua Parameter Fime Vater Leve Volume Pu Flow Rate Turbidity Dissolved (Th / ORP Conductivil H	ity Reading Stabilization 0.33 N / A N / A (+/-) 10% (+/-) 10 (+/-) 3% (+/-) 0.1	gs Collected Units 24 hr feet gal mL / min NTU mg / L MeV µmho / cm pH unit	1241 10.40 1.00 - 125.0 - - - 96 1.31 7.41	1244 11.90 3.00 - 643.0 - - 92 1.44 7.13	R	eadings							
I/ORP (+/-) 10 MeV -96 -92 Inductivit (+/-) 3% μmho / cm 1.31 1.44 I (+/-) 0.1 pH unit 7.41 7.13 mp C 18.72 16.26	Vater Qua Parameter Fime Vater Leve Volume Pu Flow Rate Turbidity Dissolved (Th / ORP Conductivit H Temp	ity Reading Stabilization 0.33 N / A N / A (+/-) 10% (+/-) 10 (+/-) 3% (+/-) 0.1	gs Collected Units 24 hr feet gal mL / min NTU mg / L MeV µmho / cm pH unit C	1241 10.40 1.00 - 125.0 - - - 96 1.31 7.41 18.72	1244 11.90 3.00 - 643.0 - - - 92 1.44 7.13 16.26	R	eadings							
I / ORP (+/-) 10 MeV -96 -92 Image: Constraint of the state of the	Vater Qua Parameter Fime Vater Leve Volume Pu Flow Rate Furbidity Dissolved (Eh / ORP Conductivit H Femp Color	ity Reading Stabilizati 0.33 N / A N / A (+/-) 10% (+/-) 10 (+/-) 3% (+/-) 0.1	gs Collected Units 24 hr feet gal mL / min NTU mg / L MeV µmho / cm pH unit C Visual	1241 10.40 1.00 - 125.0 - - - 96 1.31 7.41 18.72 cloudy	1244 11.90 3.00 - 643.0 - - - 92 1.44 7.13 16.26 very cloudy	R	eadings							

Monitor	ing Well	Purging /	Sampling	Form							
Project Na	ame and Nu	imber:	Freemans B	ridge Road				105886.02			
Monitoring	Well Numl	ber:	MW- 21 D		_ Date:	08/25/200	8				
Samplers:			Tyler Brown	and Cristine V	inciguerra						
Sample N	umber:		MW-21 D		QA/QC	Collected?	None		lille - Til.		
Purging / S	Sampling M	ethod:	Whale Pump)							
1. L = Total Well Depth: 50.2 feetD (inches)D (feet)2. D = Riser Diameter (I.D.): 0.17 feet $1-inch$ 0.08 3. W = Static Depth to Water (TOC): 8.85 feet $2-inch$ 0.17 4. C = Column of Water in Casing: 41.4 feet $3-inch$ 0.25 5. V = Volume of Water in Well = C(3.14159)($0.5D$) ² (7.48) 6.74 gal $4-inch$ 0.33 Conversion factors to determine V given C											
	Conversion factors to determine V given C										
			D (inches) V (gal / ft)	1-inch 0.041	2-inch 0.163	3-inch 0.37	4-inch 0.65	6-inch 1.5			
Water Qua Parameter	ility Reading Stabilizati	s Collected	Using		R	Peadings	- 7	8			
Time		24 hr	1148	1153	1158	1203	1				
Water Leve	0.33	feet	9.07	9.07	9.05	9.07					
Volume Pu	N/A	gal	2.50	7.50	12.50	20.00					
Flow Rate	N/A	mL/min	_	-	-	-					
Turbidity	(+/-) 10%	NTU	128.0	517	66.0	40.0					
Dissolved ((+/-) 10%	ma/L	-	340	-	-					
Eh / ORP	(+/-) 10	MeV	-119	-95	-90	-86					
Conductivit	(+/-) 3%	µmho / cm	0.895	0.829	0.85	0.842					
pН	(+/-) 0.1	pH unit	9.44	8.62	8.12	7.91					
Temp		С	14.42	14.37	13.83	14.06					
Color		Visual	clear	clear	clear	clear					
Odor		Olfactory	none	none	none	none					
Comments Started pur Purged a to Sampled 12	Stor Visual clear clear clear clear ior Olfactory none none none none none omments: arted purge at 1145 arted purge at 1145 arted purge at 120 gal arted purge at 120 gal arted purge at 120 gal Impled 1205 Three consecutive readings within range indicates stabilization of that parameter. The parameter The parameter										

Monitor	ing Well	Purging /	Sampling	Form					
Project Na	me and Nu	imber:	Freemans B	ridge Road				105886.02	
Monitoring	Well Numl	ber:	MW- 23		_ Date:	08/25/200	8		
Samplers:			Tyler Brown	and Cristine V	inciguerra				
Sample Nu	ımber:		MW-23		QA/QC	Collected?	None		
Purging / S	ampling M	ethod:	Whale Pump	l					
1. L = Tota 2. D = Rise 3. W = Sta 4. C = Colu 5. V = Volu	I Well Dept er Diameter tic Depth to imn of Wat me of Wate	h: (I.D.):) Water (TO er in Casing er in Well =	C): ;: C(3.14159)(0.	5D) ² (7.48)	11.3 0.17 5.34 10.96 1.78	feet feet feet gal	D (inches) 1-inch 2-inch 3-inch 4-inch 6-inch	D (feet) 0.08 0.17 0.25 0.33 0.50	
Conversion factors to determine V given C									
			D (inches) V (gal / ft)	1-inch 0.041	2-inch 0.163	3-inch 0.37	4-inch 0.65	6-inch 1.5	
Nater Qua	lity Reading	s Collected	Using				0		
Parameter	Stabilizati	Units			R	eadinos			
Гime		24 hr	1040	1050		3	1		
Vater Leve	0.33	feet	6.30	8,50					
olume Pu	N/A	gal	1.00	2 50					
low Rate	N/A	ml / min	-	2.00					
urbidity	$(+/_{-})$ 10%	NTU	70.7	106.0					
issolved ((+/-) 10%	ma/l	10.1	190.0					
h/ORP	(+/-) 10	MeV	-128	_110					
onductivit	(+/-) 3%	umho / cm	0.795	0.764					
H	(+/-) 0 1	pH unit	7.52	7 09					
emp	(,,)0.1	C	16.81	17.09					
olor		Visual	cloudy	cloudy					
dor		Olfactory	odor	odor					
omments tarted purg urged a to ampled at	: ge at 10:39 tal of 5 gal 1100								
Three con	secutive rea	adings withi	n range indica	tes stabilizatio	n of that par	ameter.	ŀ	Page 1 of 1	

Monitor	ing Well	Purging /	Sampling	Form					
Project Na	me and Nu	mber:	Freemans Br	idge Road				105886.02	
Monitoring	Well Numb	ber:	MW- 23 D		_ Date:	08/25/200	8		
Samplers:			Tyler Brown	and Cristine V	inciguerra			·····	
Sample No	umber:		MW-23 D		QA/QC	Collected?	None		
Purging / S	Sampling M	ethod:	Whale Pump						
1. L = Tota 2. D = Rise 3. W = Sta 4. C = Colu 5. V = Volu	al Well Dept er Diameter tic Depth to umn of Wat ume of Wate	h: (I.D.): v Water (TO er in Casing er in Well =	C): ;: C(3.14159)(0.	5D) ² (7.48)	55.3 0.17 4.36 50.94 8.30	feet feet feet gal	D (inches) 1-inch 2-inch 3-inch 4-inch 6-inch	D (feet) 0.08 0.17 0.25 0.33 0.50	
						ermine v gr			
			D (inches) V (gal / ft)	1-inch 0.041	2-inch 0.163	3-inch 0.37	4-inch 0.65	6-inch 1.5	
Water Qua	lity Reading	s Collected	Using						
Parameter	Stabilizati	Units			R	eadings			
Time		24 hr	1025	1031					
Water Leve	0.33	feet	4.36						
Volume Pu	N/A	gal	2.00	7.00					
Flow Rate	N/A	mL / min	-	Ê					
Turbidity	(+/-) 10%	NTU	942.0	99.1					
Dissolved ((+/-) 10%	mg / L							
Eh / ORP	(+/-) 10	MeV	-86	-79					
Conductivi	(+/-) 3%	µmho / cm	0.886	0.821					
pН	(+/-) 0.1	pH unit	8.86	8.09					
Temp		С	14.48	13.82					
Color		Visual	very cloudy	cloudy					
Odor		Olfactory	none	none					
Comments The dissolv Started pur Purged a to Sampled at * Three cor	s: ved Oxygen ge 1023 otal of 8.5 ga : 1035 isecutive re	sensor on t al adings withi	he YSI was br	oken so no pa ates stabilizatio	nramters will	be taken fo rameter.	or any wells		
	171 March 1997						F	Page 1 of 1	

Monitor	ing Well	Purging /	Sampling	Form						
Project Name and Number:			Freemans Bridge Road					105886.02		
Monitoring Well Number:			MW-30 Date: 08/26/2008							
Samplers:			Tyler Brown and Cristine Vinciguerra							
Sample Number:			MW-30		QA/QC Collected? None					
Purging / S	Sampling M	ethod:	Whale Pump							
1. L = Tota 2. D = Rise 3. W = Sta 4. C = Colu 5. V = Volu	al Well Dept er Diameter atic Depth tc umn of Wat ume of Wat	h: (I.D.): Water (TO er in Casing er in Well =	C): j: C(3.14159)(0	.5D) ² (7.48)	16.49 feet D (inches) D (0.33 feet 1-inch 0 6.61 feet 2-inch 0 4.88 feet 3-inch 0 6.42 gal 4-inch 0		D (feet) 0.08 0.17 0.25 0.33 0.50			
				Conversion la	cors to dete	ermine v gi	ven C			
			D (inches) V (gal / ft)	1-inch 0.041	2-inch 0.163	3-inch 0.37	4-inch 0.65	6-inch 1.5		
Water Qua	lity Reading	s Collected	Using				-)			
Parameter	Stabilizati	Units			F	leadings				
Time	0.00	24 hr	1238	1240						
Valer Leve	U.33	feet	11.20	12.25						
Flow Roto	N/A	gai	5.00	10.00		-				
Turbidity	IN / A		-	-						
Discolved ((+/-) 10 /0	mall	07.0	59.5						
Eh / OPD	(+/) 10%	MoV	- 100	-						
Conductivit	(+/-) 3%		1 72	- 104						
nH	(+/_) 0 1	pH unit	7 1/	7.22						
Temn	(17-) 0.1	pri unit	19.49	15.05						
Color		Visual	Black	10.90						
Odor		Olfactory	strong smoll	strong smoll						
Comments	5:	Ondotory		Strong Smell				ł		
Free product Started pur Purged a to Sampled at	ct in the we ge at 1236 tal of 19gal 1243	ll, all over th	e tubing. A bl	ack oil.	of that sa	romotor				
							F	Page 1 of 1		

Monitor	ing Well	Purging /	Sampling	Form						
Project Name and Number:			Freemans Bridge Road			105886.02				
Monitoring Well Number:			MW- 31		Date: 08/26/2008					
Samplers:			Tyler Brown and Cristine Vinciguerra							
Sample Number:			MW-31		QA/QC Collected? None					
Purging / S	Sampling M	ethod:	Whale Pump							
1. L = Tota 2. D = Rise 3. W = Sta 4. C = Colu 5. V = Volu	I Well Dept er Diameter tic Depth to umn of Wat ume of Wat	th: - (I.D.): o Water (TO er in Casing er in Well =	$\begin{array}{c c} & 16.79 & \text{feet} \\ \hline 0.33 & \text{feet} \\ \hline 1.ir \\ 2.ir \\ C(3.14159)(0.5D)^2(7.48) & 7.13 & \text{gal} \\ \end{array} \begin{array}{c} 16.79 & \text{feet} \\ \hline 0.33 & \text{feet} \\ 1.ir \\ 2.ir \\ 3.ir \\ 4.ir \\ 6.ir \\ \end{array}$			D (inches) 1-inch 2-inch 3-inch 4-inch 6-inch	ches) D (feet) nch 0.08 nch 0.17 nch 0.25 nch 0.33 nch 0.50			
				Conversion fa	actors to dete	ermine V gi	ven C			
			D (inches) V (gal / ft)	1-inch 0.041	2-inch 0.163	3-inch 0.37	4-inch 0.65	6-inch 1,5		
Water Qua	lity Reading	gs Collected	Using							
Parameter	Stabilizati	Units			F	Readings	-			
Time		24 hr	1218	1221	1222		1			
Water Leve	0.33	feet	9.15	9.68	9.85					
Volume Pu	N/A	gal	5.00	10.00	15.00					
Flow Rate	N/A	mL/min	-	-	-					
Turbidity	(+/-) 10%	NTU	122.0	162.0	141.0					
Dissolved	(+/-) 10%	ma/L	_	-	-					
Eh / ORP	(+/-) 10	MeV	-89	-90	-87	-				
Conductivit	(+/-) 3%	umho / cm	1.35	1 31	1 24					
рН	(+/-) 0.1	pH unit	6.89	7.05	7 20					
Temp	<u> </u>	C	18.02	14 87	15 40					
Color		Visual	cloudy	cloudy	cloudy					
Odor		Olfactory	odor	odor	odor					
Comments Started purg Purged a to Sampled at	ge at 1216 tal of 21.4 (1225	gal					·			
* Three con	secutive re	adings withi	n range indica	ites stabilizatio	on of that pa	rameter.		Page 1 of	1	

а. ч

Monitor	ing Well	Purging /	Sampling	Form					1	
Project Name and Number:			Freemans Bridge Road					105886.02		
Monitoring Well Number:			MW- 32 Date: 08/26/2008			8				
Samplers:			Tyler Brown and Cristine Vinciguerra							
Sample Ni	umber:		MW-32 QA/QC Collected? None							
Purging / S	Sampling M	ethod:	Whale Pump							
1. L = Tota 2. D = Rise 3. W = Sta 4. C = Colu 5. V = Volu	I Well Dept er Diameter tic Depth to umn of Wat ume of Wat	h: (I.D.): Water (TO er in Casing er in Well =	C): ;: C(3.14159)(0	5D) ² (7.48)	22.24 0.33feetD (inches) 1-inch7.3 14.94feet2-inch9.71 6-inchgal4-inch			D (feet) 0.08 0.17 0.25 0.33 0.50		
				Conversion ta	actors to deta	ermine v gi	ven C			
			D (inches) V (gal / ft)	1-inch 0.041	2-inch 0.163	3-inch 0.37	4-inch 0.65	6-inch 1.5		
Water Qua Parameter	lity Reading Stabilizati	Units	Using		F	Readings	-			
Lime Mator Love	0.22	24 hr	1104	1108						
Volume Pu	0.33 N / A	aal	7.00	1.75	1.11					
Flow Rate		yai ml/min	5.00	10.00	22.50					
Turbidity	$(+/_{-})$ 10%		74.4	226.0	-					
Dissolved	(+/-) 10%	ma/l	74.4	330.0	151.0					
Fh / ORP	(+/-) 10	MeV	-120	-108	- 00					
Conductivi	(+/-) 3%	umho / cm	0.814	0 785	0 784					
oH	(+/-) 0.1	pH unit	8.08	7.73	1.55			5		
Гетр		C	13.13	12.85	13.80					
Color		Visual	grayish	cloudy	cloudy					
Odor		Olfactory	odor	odor	odor					
Comments Started purg Purged a to Sampled at	e at 1101 tal of 29.13 1120	gal								
Three con	secutive re	adings withi	n range indica	ites stabilizatio	on of that pa	rameter.	F	Page 1 of 1		

Monitor	ing Well	Purging	/ Sampling	Form						
Project Name and Number:		Freemans Bridge Road					105886.02			
Monitoring Well Number:			MW- 33		_ Date:	08/26/200	08			
Samplers:			Tyler Brown and Cristine Vinciguerra							
Sample Number:			MW-33		QA/QC Collected? None					
Purging / S	Sampling N	lethod:	Whale Pump							
1. L = Tota 2. D = Rise 3. W = Sta 4. C = Colu 5. V = Volu	al Well Dep er Diamete tic Depth to umn of Wa ume of Wat	th: r (I.D.): o Water (TC ter in Casing rer in Well =	0C): g: C(3.14159)(C).5D) ² (7.48)	13.94 0.33 6.45 7.49 4.86	feet feet feet gal	D (inches) 1-inch 2-inch 3-inch 4-inch 6-inch	D (feet) 0.08 0.17 0.25 0.33 0.50		
				Conversion fac	ctors to dete	ermine V gi	ven C			
				1-inch 0.041	2-inch 0.163	3-inch 0.37	4-inch 0.65	6-inch 1.5		
Water Qua	lity Reading	gs Collected	Using							
Parameter	Stabilizati	Units			R	eadings	-			
Time		24 hr	1025	1049		cuunigo				
Vater Leve	0.33	feet	9.52	12.60				· · · · · · · · · · · · · · · · · · ·		
olume Pu	N/A	gal	1.00	5.00						
low Rate	N/A	mL/min	-							
urbidity	(+/-) 10%	NTU	102.0	167.0						
issolved	(+/-) 10%	ma/l	-	107.0						
h/ORP	(+/-) 10	MeV	-145	-144		-				
onductivi	(+/-) 3%	umho / cm	0.863	28						
H	(+/-) 0.1	pH unit	7 15	7.55						
emp		C	17 32	18.20						
olor		Visual	cloudy	cloudy						
)dor		Olfactory	strong odor	strong odor						
omments	:	e			l		L			
targed pur urged dry a urged a tot ampled at ubing had	ge at 1041 at 1051 tal of 6 gal 1130 a black coa	at								
				ales stadilization	i of that para	ameter.	F	Page 1 of 1		