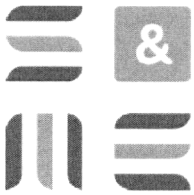
414343

CD Scanned
PM Copy



Annual Water Quality Monitoring Report
Marsh Lumber - VCC Number 16-5858-RP
Pamplico, South Carolina
S&ME Project No. 1584-98-146C

PREPARED FOR:

South Carolina Department of Health & Environmental Control
2600 Bull Street
Columbia, South Carolina 29301-1708

PREPARED BY:

S&ME, Inc.
8646 West Market Street, Suite 105
Greensboro, North Carolina 27409

May 20, 2020

92

May 20, 2020

South Carolina Department of Health & Environmental Control
2600 Bull Street
Columbia, South Carolina 29301-1708

Attention: Ms. Kim Kuhn

Reference: **Annual Water Quality Monitoring Report**
Marsh Lumber - VCC Number 16-5858-RP
Pamplico, South Carolina
S&ME Project No. 1584-98-146C

Dear Ms. Kuhn:

S&ME, Inc. (S&ME) has prepared this report for the Marsh Lumber site, VCC number 16-5858-RP. This report documents the 2020 annual water quality monitoring analytical results and our associated findings.

S&ME appreciates your regulatory program oversight of this project. Please review this report and if you have questions or if you need additional information, please contact Edmund Henriques at 336-288-7180.

Sincerely,

S&ME, Inc.

Edmund Q.B. Henriques
Senior Project Manager

John Whitehead, P.G.
Senior Geologist

Table of Contents

List of Figures

List of Tables

Appendices

1.0 Background

The subject property is located at 119 Sixth Avenue in Pamplico, Florence County, South Carolina. The subject site includes approximately 15 acres of an approximate 28 acre parcel identified by the County of Florence as Tax Map Series Number 60005-01-003. The current owner is listed as Marsh Furniture Company, Inc. (MARSH). The subject site is zoned industrial and occupied by MARSH operations. The site location is shown on **Figure 1**.

Multiple environmental assessments have been completed on the subject site over the past 26 years. Historically, pentachlorophenol (PCP) was used on-site at the former sawmill, in the area of the former Green Chain conveyor. Soil assessments conducted in the former Green Chain area concluded that no additional assessment of this potential PCP secondary source area was required. Furthermore, prior assessments concluded that TAL metals were not constituents of concern for this incident. The majority of the assessments conducted related to assessment of PCP dissolved in groundwater beneath a portion of the site. Site assessment work completed to date defined the horizontal extent of the dissolved phase plume and monitoring is conducted to assess plume migration and stability. The PCP incident is the focus of the Voluntary Cleanup Contract (i.e. VCC 16-5858-RP).

In addition to assessing site conditions, MARSH has conducted pilot testing of remedial alternatives. In 2009, MARSH initiated a long-term bio-sparge pilot test in the region up-gradient of monitoring well MW-3A. Analytical results for groundwater samples obtained from monitoring well MW-3A provided evidence for long-term reductions in the dissolved PCP concentrations at monitoring well MW-3A. Recognizing the success of the first long-term bio-sparge pilot test, the VCC Work Plans included a second bio-sparge pilot test in the area up-gradient of monitoring well MW-14A. The 2nd Bio-Sparge Pilot test was initiated in the vicinity of monitoring well MW-14A, situated in the area of the greatest PCP plume groundwater concentrations. The pilot test has focused on monitoring for evidence of bio-degradation of dissolved phase PCP and changes in PCP concentrations. Based on the data collected we infer that bio-sparging has reduced the concentrations of PCP at monitoring well MW-14A.

In 2017, additional assessment was performed to refine the horizontal extent of the dissolved phase PCP plume in the vicinity of monitoring well MW-14A. The additional assessment improved the understanding the PCP distributions in the pilot test study area, which in turn guided the selection of locations for five additional bio-sparge injection wells for pilot testing. Based on the Work Plan approved by SCDHEC, the pilot test program was expanded to include five additional bio-sparge wells to enhance the area of groundwater treatment, manage dissolved phase PCP within the test area, and monitoring for PCP concentration changes. The expansion of the bio-sparge system commenced the week of April 16, 2018, with the installation of five new sparge wells and appurtenant equipment and fixtures. On May 25, 2018, operation of the expanded bio-sparge pilot test wells system commenced. The pilot test data being collected will be utilized in the ensuing analysis of remedial alternatives for the PCP incident. S&ME's, *Investigation Report*, dated February 25, 2020; documents groundwater monitoring conducted during July 2019, and associated verification sampling conducted on October 29, 2019.

This report documents the sampling and analyses conducted for the 2020 annual water quality monitoring event.

2.0 Methods Employed

2.1 Groundwater Elevation Monitoring

On March 2, 2020, depth to groundwater data was collected from the wells MW-3A, MW-9, MW-10, MW-11, MW-13A, MW-14A, MW-15, MW-16, MW-17A, MW-18A, MW-18B, MW-19, MW-20, MW-21, MW-22, MW-23, MW-24, MW-25, MW-26, MW-27, MW-28, MW-29, and MW-30. The bio-sparge system was shut down approximately two days before this monitoring event. Groundwater levels were measured utilizing an electric water level indicator. The probe of the water level indicator was lowered into the well until the probe contacted the water surface as indicated by a solid tone or illumination of a light. The depth to groundwater was measured from the established top of casing elevation and was recorded to the nearest 0.01-foot. The depth to groundwater data was subtracted from the top of casing elevation to provide a relative groundwater elevation for each well gauged. The groundwater elevation data was utilized to evaluate the estimated direction of groundwater flow discussed in Section 3.1. **Table 1** provides a summary of well construction details and depth to groundwater data obtained on March 2, 2020.

2.2 Water Quality Monitoring

2.2.1 Groundwater Sampling

Groundwater samples were obtained from monitoring wells MW-3A, MW-10, MW-11, MW-13A, MW-14A, MW-15, MW-16, MW-18B, MW-19, MW-20, MW-21, MW-22, MW-23, MW-24, MW-25, MW-26, MW-27, MW-28, MW-29, and MW-30 between March 2, 2020 and March 4, 2020. Groundwater samples were collected using a peristaltic pump with silicone and polyethylene tubing. The polyethylene tubing was lowered to the lowermost portion of well screen interval, consistent with prior sampling events. Each well was purged using low flow rates and monitored for pH, temperature, conductivity, dissolved oxygen (DO), oxidation reduction potential (ORP) and turbidity, using a flow-through cell and YSI Pro (or equivalent) meter. At a minimum, the time interval between measurements was the time required for one complete exchange of the volume of water in the flow-through cell. Sample collection generally commenced when the changes in those readings fluctuated within ±10% or less. For turbidity, a target value of less than or equal to 10 Nephelometric Turbidity Units (NTU) was used as a guide for sample collection. Professional judgement was utilized in certain cases to collect a sample when the target NTU value was not achieved but other field parameter readings were stable.

S&ME field staff utilized Apple iPADs for recording field data on electronic groundwater sampling forms, virtually eliminating the use of paper forms. Upon returning to the office, our staff discovered that one of the electronic files containing the field data entered in the iPAD during sampling was inadvertently lost and could not be retrieved from the devise or from the iCloud. **Table 2** provides a summary of field parameter data collected for this event and notes those wells where field data was inadvertently lost. Copies of the Groundwater Sampling Field Forms are provided in **Appendix I**.

Groundwater samples obtained from the monitoring wells sampled were submitted to Pace Analytical Services, LLC; for analysis by EPA Method 8151. **Appendix II** contains copies of the laboratory analytical reports.

2.2.2 Surface Water Sampling

On March 4, 2020, surface water samples SW-1, SW-2, and SW-3 were collected from an unnamed tributary of the Big Swamp that is located along the southern and western portions of the site. The tributary flows open channel down-gradient of the PCP contaminant plume. An up-stream segment of tributary flows within the storm drain conduit installed in 2017. The tributary's open channel located west of wells MW-15, MW-18A and MW-18B represents an area of expected groundwater discharge for the water table aquifer.

The surface water sample locations are indicated on **Figure 2**. Surface water sample SW-1 was collected from the piped stream before it flows into a region down-gradient of the PCP groundwater plume. Surface water samples SW-2 and SW-3 represent samples collected after the stream flows around the southern perimeter of site. Sample location SW-2 is down-gradient of the PCP groundwater plume. Sample location SW-3 is approximately 450 feet down stream of location SW-2. The collected samples were transferred into laboratory prepared containers, placed in a cooler with ice, and submitted for analysis for PCP by Method 8151.

A verification sampling event was performed on April 9, 2020. Record samples were obtained from sample locations SW-1, SW-2, and SW-3. A duplicate sample identified as SW-1D, was obtained at location SW-1. The collected samples were transferred into laboratory prepared containers, placed in coolers with ice, and submitted for analysis for PCP by Method 8151. Samples SW-1, SW-2, and SW-3 were submitted to Pace Analytical Services, LLC; whereas, sample SW-1D was submitted to Research & Analytical Laboratories, Inc. Surface Water Sampling Field Data forms are contained in **Appendix I.** The laboratory analytical report is in **Appendix II**.

2.3 Pilot Test System Operations

The VCC Work Plan included a second long term bio-sparge pilot test to be conducted in the vicinity of monitoring well MW-14A. For this bio-sparge pilot test, SCDHEC issued UIC Permit #SCHE03020255M, dated June 27, 2016 to construct one Class V.A.-I injection well at the Marsh Lumber Company site (bio-sparge well BSW-3). The permit to operate was issued by SCDHEC on October 17, 2016. The bio-sparge system obtains compressed air from an air-compressor used for multiple purposes at the Marsh facility. Compressed air is supplied to the bio-sparge system control panel located in a building located north of the former Green Chain Area (see **Figure 2**). A pressure regulator provides for control over the air-pressure (pounds per square inch – PSI) delivered to the sparge well, whereas a flow controller provides for the control over the air flow rate (cubic feet per minute – CFM) delivered to the sparge well.

The expanded pilot test program included the installation of five additional bio-sparge wells to enhance the area of groundwater treatment, manage the migration of PCP within the test area, and monitor for PCP concentration changes. The installation of five new sparge wells and appurtenant equipment and fixtures commenced the week of April 16, 2018. On May 18, 2018, the Permit to Operate five new wells and the one existing well (BSW-3) as Class V.A.-1 wells was received from SCDHEC. On May 25, 2018, operation of the expanded bio-sparge pilot test wells system commenced. The expanded bio-sparge system operates with injection well pressures set at approximately 10 PSI and injection well air flow rates of approximately two CFM. The six injection wells operate on a timer, which cycles wells on and off. The system operates five days a week, Monday through Friday, typically between the hours of 7 AM and 5 PM.

On February 18, 2019, S&ME observed water, air, and sediment bubbling from a small hole in the ground approximately 15 feet east of bio-sparge well BSW-8. The bubbling was inferred to represent a possible short-circuit of air injected into sparge well BSW-8. The hole is located near the boundary between soil representing the prior developed land surface and fill soils placed during 2016 to improved wet weather vehicular access to monitoring wells. Following discovery this condition, well BSW-8 was shut-down until it is replaced. Otherwise, the system has operated as expected, with minor air flow and air pressure adjustment made for each sparge well, only if needed.

3.0 Summary of Findings

3.1 Groundwater Occurrence and Flow Direction

On March 2, 2020, depth to groundwater data was collected from the monitoring. The depth to groundwater and top of casing elevation data were used to calculate the groundwater elevations at the monitoring wells. **Table 1** provides a summary of the groundwater elevation data for the March 2, 2020 along with well construction data. **Figure 3** depicts groundwater elevation surface contours prepared using the March 2, 2020 data. The data suggest that groundwater flow in the water table aquifer beneath the studied area generally migrates west toward a segment of an unnamed tributary of the Big Swamp along Walnut Street. The inferred groundwater flow direction is generally consistent with prior assessment observations. **Appendix III** contains Table III-1, which summarizes historic depth to groundwater and groundwater elevation data.

3.2 Water Quality

3.2.1 Groundwater Quality

Table 2 provides a summary of the groundwater analytical results for the monitoring wells sampled between March 2, 2020 and March 4, 2020, and also includes historic analytical results for monitoring wells included in the Bio-Sparge pilot test program. For this annual monitoring event analytical results for PCP by Method 8151 reported the following detections:

- MW-10 at concentrations of 22 microgram per liter (µg/L).
- MW-16 at concentrations of 0.54 µg/L.
- MW-22 at concentrations of 65 µg/L.
- MW-25 at concentrations of 81 µg/L.
- MW-27 at concentrations of 55 µg/L.
- MW-28 at concentrations of 220 µg/L.
- MW-29 at concentrations of 37 µg/L.
- MW-30 at concentrations of 1.8 µg/L.

Analytical results for PCP by Method 8151 indicate that monitoring wells MW-3A, MW-11, MW-13A, MW-15, MW-16, MW-18B, MW-19, MW-20 , MW-21, MW-23, MW-24, and MW-26 delineate the horizontal extent of the 1 µg/L PCP plume, with a PCP plume that was delimited to the subject site.

Figure 4 depicts a conservative estimate of a 1 µg/L PCP isoconcentration line in the study area. **Figure 5** and **Figure 6** provides cross-sections A-A' and B-B' depicting subsurface stratigraphy and recent groundwater PCP concentrations at each monitoring well shown.

Appendix III contains Table III-2, which provides a summary of historic groundwater analytical data.

3.2.2 Surface Water Quality

Table 3 provides a summary of the current and historic surface water analytical results. Analytical results for the surface water samples collected on March 4, 2020, at sample locations SW-1, SW-2, and SW-3 reported estimated concentrations of PCP at up-stream location SW-1 and the furthest down-stream location SW-3, with no PCP detected in the shallow groundwater discharge area down-gradient of the PCP plume. Surface water sample locations are depicted on **Figure 3**.

Based on the anomalous detection of PCP at upstream sample location SW-1, a verification sampling event was conducted on April 9, 2020. Analytical results for the verification sampling event did not detected PCP in the record sample obtained at sample location SW-1. Duplicate sample SW-1D, also reported PCP as not detected.

4.0 Bio-Sparge Pilot Test

The following trends in PCP concentrations can be inferred from the groundwater analytical data collected:

- At monitoring well MW-14A PCP concentrations remain less than the Method 8151 Limit of Quantitation (LOQ) of 0.51 µg/L. Prior to pilot testing PCP was reported at 214 µg/L. This well is approximately 15 feet from the closest injection well.
- At monitoring well MW-28 PCP concentrations have fluctuated, although each reported concentration was less than the pre-pilot test baseline concentration. This well is approximately 30 feet north of the closest injection well.
- Since May 2017, PCP concentrations at monitoring well MW-21 were reported as less than the Method 8270 method detection limit (MDL), apparently less than the estimated 16.5 µg/L detected prior to pilot testing. Analytical results for Method 8151 report PCP concentrations less than 0.5 µg/L. This well is approximately 46 feet north of the closest injection well.
- At monitoring well MW-22 PCP concentrations appeared to increase following the initiation of the pilot test, followed by a consistent overall trend of declining concentrations. This well is approximately 68 feet east of the closest injection well.
- Prior to March 2020, PCP concentrations for monitoring well MW-25 indicated a persistent reduction over time. The March 2020 analytical results indicated an apparent PCP concentration increase. The March 2020 increase likely represents ordinary variances for groundwater quality monitoring data. Irrespective of the apparent increase, the most recent concentration represents an estimated 46% reduction when compared with the baseline concentration. This well is 45 feet south of the closest injection well.

- The reported PCP concentrations for monitoring well MW-27 suggest that the pilot test resulted in an initial decrease in PCP concentrations, which was sustained for five monitoring events. Similar to the trend observed at monitoring well MW-24, the March 2020 analytical results for MW-27 indicated an apparent increase in PCP concentration. The cause of the increase is unknown but likely represents ordinary variances for groundwater quality monitoring data. Irrespective of this apparent increase, the most recent concentration represents an estimated 83% reduction when compared with the baseline concentration. This well is 45 feet south of the closest injection well.

It is important to acknowledge that Method 8270 was the analytical method of choice and the Method specified in approved Work Plans. Method 8151 was first utilized in February 2019, since it provided the benefit of a lower detection limit. For most monitoring wells the Method 8151 data set is limited to two or three sampling events. Comparisons of PCP concentrations reported by Method 8270 verses Method 8151, must at a minimum, consider the differences in method detection limits.

Appendix IV includes time vs PCP concentration graphs for select monitoring wells.

5.0 Discussion

The groundwater analytical results for this annual water quality event indicate that the horizontal extent of PCP in the water table aquifer was generally consistent with prior assessments. For this event monitoring well MW-3A functioned at the up-gradient monitoring well. Historically monitoring well MW-1 provided this function. This modification was possible with the successful reduction of PCP concentrations at monitoring well MW-3A, an outcome of the 1st Bio-sparge pilot test. Groundwater samples obtained from monitoring well MW-3A have consistently reported PCP concentrations as less than the Method 8270 MDL beginning in February 2016. Thus, no evidence of a PCP concentration rebound has been observed in the last five years.

Analytical results for this event provided no noteworthy changes in PCP concentrations for monitoring wells located outside of the 2nd Bio-sparge pilot test area.

Analytical results received for this monitoring event continue to suggest an overall trend of declining concentrations of PCP in the water table aquifer in the vicinity of 2nd Bio-sparge pilot test area. Pilot testing data has been invaluable and provided information that permits refinement of air pressure and injection rates used during the pilot test and for full scale design. The collection of additional pilot test data was warranted for final decision making.

The historic occurrence of PCP in the vicinity of BSW-3 was consistent with existing Conceptual Site Model (CSM), which recognizes that site stratigraphy could influence migration and distribution of PCP in the water table aquifer. The top of the clay-rich layer at the base of the water table aquifer exhibits varying topography. A relative low point in the top of the clay-rich layer was previously discovered in the vicinity of monitoring well MW-13A. The CSM considered that undulations in the top of the clay-rich layer could influence the migration of dissolved-phase PCP and yield deviations from migration patterns expected based solely on hydraulic gradients. Accordingly, the observed changes in PCP concentrations at monitoring well MW-22 are thought to in part reflect localized stratigraphic control imposed by the slope of the top of the clay-rich layer (i.e. cross-gradient from MW-14A toward MW-22). Monitoring of groundwater quality at wells MW-13A and MW-30 has supported this theory.

In short, the CSM for contaminant migration associated with this incident appears to remain functional for this incident. No modification of the CSM is recommended at this time.

Observed changes in PCP concentrations over time at monitoring wells MW-14A, MW-22, MW-25, MW-27 and MW-28 remain the most noteworthy indicators that the pilot test has resulted in generally consistent reductions in PCP concentrations. Analytical data for the March 2020 event suggests that PCP concentrations have been sustained at less than 1 µg/L at monitoring well MW-14A. The data collected provides no definitive indicators of bio-sparging simply displacing PCP causing it to migrate by dispersion. The 2017 assessment activities added multiple monitoring wells positioned thoughtfully at locations and distances about the sparge well network for the detection of PCP migration during the pilot testing.

6.0 Sole Use Statement

All materials and information obtained by S&ME on this project are provided for the sole use of Marsh Furniture Company, Inc. and SCDHEC for this project. Use of the report issued for this project by any third parties will be at such party's sole risk. S&ME disclaims liability for any use of or reliance on the report issued for this project by third parties.

Appendices

Appendix I – Field Sampling Forms

Marsh - Pamplico

S&ME Job # 1584-98-146C

Date: Monday, March 2, 2020 Collected By: Gary Simcox

Location	Water Level
MW-3A	9.52
MW-9	6.19
MW-10	6.84
MW-11	5.49
MW-13A	5.61
MW-14A	3.44
MW-15	7.87
MW-16	7.45
MW-17A	8.52
MW-18A	7.96
MW-18B	5.36
MW-19	4.85
MW-20	6.05
MW-21	5.71
MW-22	4.42
MW-23	6.09
MW-24	4.25
MW-25	3.89

Location	Water Level
MW-26	4.55
MW-27	5.12
MW-28	5.16
MW-29	4.89
MW-30	3.86

LOW FLOW GROUNDWATER SAMPLING FORM

Project Name:	Marsh Pamplico		
Project Location:			
Project Number:	1584-98-146C	Purge Date:	March 3, 2020
Source Well:	MW-3A	Purge Time:	Minutes
Locked?:	Yes	Sample Date:	March 3, 2020
Sampled By:	Gary Simcox	Sample Time:	8:30
Weather:	Light Rain	Air Temp:	50° F

Water Level & Well Data

Measuring Point:		Top of Casing		
Depth to Water:		9.52		ft-TOC
Total Well Depth:		19.60		ft-TOC
Height of Water Column:		10.08		feet
Screen Length:		feet	Stickup:	ft-GRD

Well Volume		
Well Diameter	2	inch
Water Volume	1.6	Gal
3 * Well Volume	4.93	Gal
5 * Well Volume	8.22	Gal

Well Purging Information

Purge Method:		Peristaltic Pump		Start Time:	7:30	End Time:	8:30
(If Used)	Bladder Pump Control Settings:	On (sec):		Off (sec):		Pressure:	psi
Pump Intake Depth from Top of Casing:		16.0		ft-TOC			
Water Column Above Pump Intake:		6.48		feet	Flow Through Cell Vol:	200	mL
DTW-TOC at 25% Drawdown of WC Above Pump:		11.14		ft-TOC	**Comments:**		
Final Volume Purged:		1.6		Gallons	Used YSI Pro Plus,		
Final Volume Purge Rate:		100		mL/min			
Well Purged Dry?:		No		(Yes/No)			

Field Parameters (Taken at time intervals ≥ 5 minutes and purge volumes ≥ 1 flow-through cell volume)

	Time	Volume Purged (gal)	Flow Rate (mL/min)	Depth to Water (ft)	Temp (°C)	pH (s.u.)	Spec. Cond. (µS/cm)	Dissolved Oxygen (mg/L)	ORP* (mV)	Turbidity (NTU)	Comment
	07:30	0.0	---	---	---	---	---	---	---	---	Start Purging
	07:35	0.1	100		16.4	5.5	116	5.8	228	53.3	
	07:40	0.3	100		16.6	5.5	113	5.6	227	54.9	
	07:45	0.4	100		16.7	5.6	112	4.6	227	54.7	
	07:50	0.5	100		16.7	5.6	112	4.1	225	51.8	
	07:55	0.7	100		16.7	5.6	112	3.9	224	43.6	
	08:00	0.8	100		16.7	5.6	113	3.8	224	44.0	
	08:05	0.9	100		16.7	5.6	113	3.7	223	41.0	
	08:10	1.1	100		16.6	5.6	113	3.7	222	33.7	
	08:15	1.2	100		16.7	5.6	113	3.8	221	33.5	
	08:20	1.3	100		16.8	5.5	113	3.6	220	33.5	
	08:25	1.5	100		16.8	5.6	114	3.4	219	30.9	
	08:30	1.6	100		16.8	5.6	114	3.4	218	29.5	
Final:	08:30	1.6	100		16.8	5.6	114	3.4	218	29.5	End of Purging

Sample Method: Peristaltic Pump Sample Start Time: 08:30 Sample End Time: 08:50

Analytical Data

Method	Qty	Container	Preservative	Method	Qty	Container	Preservative
PCS 8151	2	1L A	Unpreserved				

Name	Signature	Date
(1)		

Notes: Duplicate 2 collected from this location.

Form Revision Date: 2/12/18 16:00

LOW FLOW GROUNDWATER SAMPLING FORM

Project Name:	Marsh Pamplico		
Project Location:			
Project Number:	1584-98-146C	Purge Date:	March 3, 2020
Source Well:	MW-10	Purge Time:	Minutes
Locked?:	Yes	Sample Date:	March 3, 2020
Sampled By:	Gary Simcox	Sample Time:	13:20
Weather:	Overcast	Air Temp:	60° F

Water Level & Well Data

Measuring Point:			Top of Casing	
Depth to Water:			6.84	ft-TOC
Total Well Depth:			17.80	ft-TOC
Height of Water Column:			10.96	feet
Screen Length:		feet	Stickup:	ft-GRD

Well Volume		
Well Diameter	2	inch
Water Volume	1.8	Gal
3 * Well Volume	5.37	Gal
5 * Well Volume	8.94	Gal

Well Purging Information

Purge Method:		Peristaltic Pump		Start Time:	12:45	End Time:	13:20
(If Used)	Bladder Pump Control Settings:	On (sec):		Off (sec):		Pressure:	psi
Pump Intake Depth from Top of Casing:		16.0		ft-TOC			
Water Column Above Pump Intake:		9.16		feet	Flow Through Cell Vol:	200	mL
DTW-TOC at 25% Drawdown of WC Above Pump:		9.13		ft-TOC	**Comments:**		
Final Volume Purged:		0.9		Gallons	Used YSI Pro Plus,		
Final Volume Purge Rate:		100		mL/min			
Well Purged Dry?:		No		(Yes/No)			

Field Parameters (Taken at time intervals ≥ 5 minutes and purge volumes ≥ 1 flow-through cell volume)

	Time	Volume Purged (gal)	Flow Rate (mL/min)	Depth to Water (ft)	Temp (°C)	pH (s.u.)	Spec. Cond. (µS/cm)	Dissolved Oxygen (mg/L)	ORP* (mV)	Turbidity (NTU)	Comment
	12:45	0.0	---	---	---	---	---	---	---	---	Start Purging
	12:50	0.1	100		17.4	6.3	397	1.1	38	10.5	
	12:55	0.3	100		17.4	6.2	362	0.5	47	5.98	
	13:00	0.4	100		17.3	6.2	351	0.4	51	6.51	
	13:05	0.5	100		17.4	6.2	335	0.3	54	8.11	
	13:10	0.7	100		17.5	6.2	329	0.3	57	5.95	
	13:15	0.8	100		17.3	6.2	322	0.3	59	5.17	
	13:20	0.9	100		17.3	6.2	317	0.2	60	4.06	
Final:	13:20	0.9	100		17.3	6.2	317	0.2	60	4.1	End of Purging

Sample Method: Peristaltic Pump Sample Start Time: 13:20 Sample End Time: 13:40

Analytical Data

Method	Qty	Container	Preservative	Method	Qty	Container	Preservative
PCS 8151	2	1L A	Unpreserved				

Name	Signature	Date
(1)		

Notes: To convert ORP to Eh, add 205 mV to ORP.

Form Revision Date: 2/12/18 16:00

LOW FLOW GROUNDWATER SAMPLING FORM

Project Name:	Marsh Pamplico		
Project Location:			
Project Number:	1584-98-146C	Purge Date:	March 4, 2020
Source Well:	MW-13A	Purge Time:	Minutes
Locked?:	Yes	Sample Date:	March 4, 2020
Sampled By:	Gary Simcox	Sample Time:	9:10
Weather:	Light Rain	Air Temp:	55° F

Water Level & Well Data

Measuring Point:	Top of Casing			
Depth to Water:	5.61	ft-TOC		
Total Well Depth:	26.20	ft-TOC		
Height of Water Column:	20.59	feet		
Screen Length:		feet	Stickup:	ft-GRD

Well Volume		
Well Diameter	2	inch
Water Volume	3.4	Gal
3 * Well Volume	10.08	Gal
5 * Well Volume	16.80	Gal

Well Purging Information

Purge Method:	Peristaltic Pump		Start Time:	8:00	End Time:	9:10	
(If Used) Bladder Pump Control Settings:	On (sec):		Off (sec):		Pressure:		psi
Pump Intake Depth from Top of Casing:	16.0		ft-TOC				
Water Column Above Pump Intake:	10.39		feet	Flow Through Cell Vol:	200		mL
DTW-TOC at 25% Drawdown of WC Above Pump:	8.21		ft-TOC	**Comments:**			
Final Volume Purged:	1.8		Gallons	Used YSI Pro Plus,			
Final Volume Purge Rate:	100		mL/min				
Well Purged Dry?:	No		(Yes/No)				

Field Parameters (Taken at time intervals ≥ 5 minutes and purge volumes ≥ 1 flow-through cell volume)

	Time	Volume Purged (gal)	Flow Rate (mL/min)	Depth to Water (ft)	Temp (°C)	pH (s.u.)	Spec. Cond. (µS/cm)	Dissolved Oxygen (mg/L)	ORP* (mV)	Turbidity (NTU)	Comment
	08:00	0.0	---	---	---	---	---	---	---	---	Start Purging
	08:05	0.1	100		17.2	7.0	743	3.5	-80	15.7	
	08:10	0.3	100		17.0	7.0	745	2.2	-86	12.3	
	08:15	0.4	100		17.1	7.0	745	1.2	-88	19.9	
	08:20	0.5	100		17.2	7.0	744	0.6	-89	15.6	
	08:25	0.7	100		17.3	7.0	745	0.4	-91	18.7	
	08:30	0.8	100							18.8	
	08:35	0.9	100		17.5	7.0	744	0.3	-93	16.2	
	08:40	1.1	100		17.5	7.0	743	0.2	-93	20.5	
	08:45	1.2	100		17.4	7.0	742	0.2	-93	14.5	
	08:50	1.3	100		17.4	7.0	747	0.2	-93	17.3	
	08:55	1.5	100		17.3	7.0	747	0.2	-92	17.3	
	09:00	1.6	100		17.4	7.0	746	0.2	-93	15.3	
	09:05	1.7	100		17.5	7.0	746	0.2	-93	15.2	
	09:10	1.8	100		17.5	7.0	745	0.2	-93	15.0	
Final:	09:10	1.8	100		17.5	7.0	745	0.2	-93	15.0	End of Purging

Sample Method: Peristaltic Pump Sample Start Time: 09:10 Sample End Time: 09:30

Analytical Data

Method	Qty	Container	Preservative	Method	Qty	Container	Preservative
PCS 8151	2	1L A	Unpreserved				

Name	Signature	Date
(1)		

Notes: Duplicate 3 collected from this location.

Form Revision Date: 2/12/18 16:00

LOW FLOW GROUNDWATER SAMPLING FORM

Project Name:	Marsh Pamplico		
Project Location:			
Project Number:	1584-98-146C	Purge Date:	March 3, 2020
Source Well:	MW-16	Purge Time:	Minutes
Locked?:	Yes	Sample Date:	March 3, 2020
Sampled By:	Gary Simcox	Sample Time:	10:25
Weather:	Overcast	Air Temp:	50° F

Water Level & Well Data

Measuring Point:			Top of Casing	
Depth to Water:			7.45	ft-TOC
Total Well Depth:			19.00	ft-TOC
Height of Water Column:			11.55	feet
Screen Length:		feet	Stickup:	ft-GRD

Well Volume		
Well Diameter	2	inch
Water Volume	1.9	Gal
3 * Well Volume	5.65	Gal
5 * Well Volume	9.42	Gal

Well Purging Information

Purge Method:		Peristaltic Pump		Start Time:	9:40	End Time:	10:25
(If Used)	Bladder Pump Control Settings:	On (sec):		Off (sec):		Pressure:	psi
Pump Intake Depth from Top of Casing:		16.0		ft-TOC			
Water Column Above Pump Intake:		8.55		feet	Flow Through Cell Vol:	200	mL
DTW-TOC at 25% Drawdown of WC Above Pump:		9.59		ft-TOC	**Comments:**		
Final Volume Purged:		1.2		Gallons	Used YSI Pro Plus,		
Final Volume Purge Rate:		100		mL/min			
Well Purged Dry?:		No		(Yes/No)			

Field Parameters (Taken at time intervals ≥ 5 minutes and purge volumes ≥ 1 flow-through cell volume)

	Time	Volume Purged (gal)	Flow Rate (mL/min)	Depth to Water (ft)	Temp (°C)	pH (s.u.)	Spec. Cond. (µS/cm)	Dissolved Oxygen (mg/L)	ORP* (mV)	Turbidity (NTU)	Comment
	09:40	0.0	---	---	---	---	---	---	---	---	Start Purging
	09:45	0.1	100		17.0	6.6	413	2.9	209	26.0	
	09:50	0.3	100		17.1	6.6	411	2.5	205	28.0	
	09:55	0.4	100		17.1	6.6	402	2.1	202	26.8	
	10:00	0.5	100		17.1	6.5	393	2.0	199	21.4	
	10:05	0.7	100		17.0	6.5	383	1.8	197	16.1	
	10:10	0.8	100		16.9	6.5	374	1.7	194	10.1	
	10:15	0.9	100		16.9	6.4	363	1.6	193	12.9	
	10:20	1.1	100		16.9	6.4	363	1.5	192	15.3	
	10:25	1.2	100		16.9	6.4	351	1.5	190	10.3	
Final:	10:25	1.2	100		16.9	6.4	351	1.5	190	10.3	End of Purging

Sample Method: Peristaltic Pump Sample Start Time: 10:25 Sample End Time: 10:45

Analytical Data

Method	Qty	Container	Preservative	Method	Qty	Container	Preservative
PCS 8151	2	1L A	Unpreserved				

Name	Signature	Date
(1)		

Notes: To convert ORP to Eh, add 205 mV to ORP.

Form Revision Date: 2/12/18 16:00

LOW FLOW GROUNDWATER SAMPLING FORM

Project Name:	Marsh Pamplico		
Project Location:			
Project Number:	1584-98-146C	Purge Date:	March 3, 2020
Source Well:	MW-18B	Purge Time:	Minutes
Locked?:	Yes	Sample Date:	March 3, 2020
Sampled By:	Gary Simcox	Sample Time:	16:25
Weather:	Overcast	Air Temp:	65° F

Water Level & Well Data

Measuring Point:		Top of Casing		
Depth to Water:		5.36		ft-TOC
Total Well Depth:		19.60		ft-TOC
Height of Water Column:		14.24		feet
Screen Length:		feet	Stickup:	ft-GRD

Well Volume		
Well Diameter	2	inch
Water Volume	2.3	Gal
3 * Well Volume	6.97	Gal
5 * Well Volume	11.62	Gal

Well Purging Information

Purge Method:		Peristaltic Pump		Start Time:	15:50	End Time:	16:25
(If Used)	Bladder Pump Control Settings:	On (sec):		Off (sec):		Pressure:	psi
Pump Intake Depth from Top of Casing:		16.0		ft-TOC			
Water Column Above Pump Intake:		10.64		feet	Flow Through Cell Vol:	200	mL
DTW-TOC at 25% Drawdown of WC Above Pump:		8.02		ft-TOC	**Comments:**		
Final Volume Purged:		0.9		Gallons	Used YSI Pro Plus,		
Final Volume Purge Rate:		100		mL/min			
Well Purged Dry?:		No		(Yes/No)			

Field Parameters (Taken at time intervals ≥ 5 minutes and purge volumes ≥ 1 flow-through cell volume)

	Time	Volume Purged (gal)	Flow Rate (mL/min)	Depth to Water (ft)	Temp (°C)	pH (s.u.)	Spec. Cond. (µS/cm)	Dissolved Oxygen (mg/L)	ORP* (mV)	Turbidity (NTU)	Comment
	15:50	0.0	---	---	---	---	---	---	---	---	Start Purging
	15:55	0.1	100		17.0	6.9	733	2.1	15	12.8	
	16:00	0.3	100		16.9	6.9	742	1.6	18	12.4	
	16:05	0.4	100		16.9	6.9	743	1.3	14	11.1	
	16:10	0.5	100		16.9	6.9	744	1.2	8	10.5	
	16:15	0.7	100		16.9	6.9	745	1.0	1	7.96	
	16:20	0.8	100		17.0	6.9	745	0.9	-4	5.70	
	16:25	0.9	100		17.0	6.9	743	0.9	-5	7.00	
Final:	16:25	0.9	100		17.0	6.9	743	0.9	-5	7.0	End of Purging

Sample Method: Peristaltic Pump Sample Start Time: 16:25 Sample End Time: 16:45

Analytical Data

Method	Qty	Container	Preservative	Method	Qty	Container	Preservative
PCS 8151	2	1L A	Unpreserved				

Name	Signature	Date
(1)		

Notes: To convert ORP to Eh, add 205 mV to ORP.

Form Revision Date: 2/12/18 16:00

LOW FLOW GROUNDWATER SAMPLING FORM

Project Name:	Marsh Pamplico		
Project Location:			
Project Number:	1584-98-146C	Purge Date:	March 3, 2020
Source Well:	MW-19	Purge Time:	Minutes
Locked?:	Yes	Sample Date:	March 3, 2020
Sampled By:	Gary Simcox	Sample Time:	11:50
Weather:	Light Rain	Air Temp:	55° F

Water Level & Well Data

Measuring Point:	Top of Casing			
Depth to Water:	4.85	ft-TOC		
Total Well Depth:	20.40	ft-TOC		
Height of Water Column:	15.55	feet		
Screen Length:		feet	Stickup:	ft-GRD

Well Volume		
Well Diameter	2	inch
Water Volume	2.5	Gal
3 * Well Volume	7.61	Gal
5 * Well Volume	12.69	Gal

Well Purging Information

Purge Method:	Peristaltic Pump	Start Time:	11:15	End Time:	11:50	
(If Used) Bladder Pump Control Settings:	On (sec):	Off (sec):		Pressure:		psi
Pump Intake Depth from Top of Casing:	16.0	ft-TOC				
Water Column Above Pump Intake:	11.15	feet	Flow Through Cell Vol:	200	mL	
DTW-TOC at 25% Drawdown of WC Above Pump:	7.64	ft-TOC	**Comments:**			
Final Volume Purged:	0.9	Gallons	Used YSI Pro Plus,			
Final Volume Purge Rate:	100	mL/min				
Well Purged Dry?:	No	(Yes/No)				

Field Parameters (Taken at time intervals ≥ 5 minutes and purge volumes ≥ 1 flow-through cell volume)

	Time	Volume Purged (gal)	Flow Rate (mL/min)	Depth to Water (ft)	Temp (°C)	pH (s.u.)	Spec. Cond. (µS/cm)	Dissolved Oxygen (mg/L)	ORP* (mV)	Turbidity (NTU)	Comment
	11:15	0.0	---	---	---	---	---	---	---	---	Start Purging
	11:20	0.1	100		18.2	6.3	686	1.3	-18	11.4	
	11:25	0.3	100		18.2	6.3	704	0.7	-26	4.35	
	11:30	0.4	100		18.3	6.3	708	0.4	-31	3.19	
	11:35	0.5	100		18.5	6.4	714	0.4	-34	4.31	
	11:40	0.7	100		18.6	6.4	720	0.4	-36	5.42	
	11:45	0.8	100		18.5	6.4	727	0.3	-37	4.16	
	11:50	0.9	100		18.5	6.4	731	0.3	-38	4.32	
Final:	11:50	0.9	100		18.5	6.4	731	0.3	-38	4.3	End of Purging

Sample Method: Peristaltic Pump Sample Start Time: 11:50 Sample End Time: 12:10

Analytical Data

Method	Qty	Container	Preservative	Method	Qty	Container	Preservative
PCS 8151	2	1L A	Unpreserved				

Name	Signature	Date
(1)		

Notes: To convert ORP to Eh, add 205 mV to ORP.

Form Revision Date: 2/12/18 16:00

LOW FLOW GROUNDWATER SAMPLING FORM

Project Name:	Marsh Pamplico		
Project Location:			
Project Number:	1584-98-146C	Purge Date:	March 3, 2020
Source Well:	MW-20	Purge Time:	Minutes
Locked?:	Yes	Sample Date:	March 3, 2020
Sampled By:	Gary Simcox	Sample Time:	15:00
Weather:	Overcast	Air Temp:	60° F

Water Level & Well Data

Measuring Point:			Top of Casing	
Depth to Water:			6.05	ft-TOC
Total Well Depth:			17.00	ft-TOC
Height of Water Column:			10.95	feet
Screen Length:		feet	Stickup:	ft-GRD

Well Volume		
Well Diameter	2	inch
Water Volume	1.8	Gal
3 * Well Volume	5.36	Gal
5 * Well Volume	8.93	Gal

Well Purging Information

Purge Method:		Peristaltic Pump		Start Time:	14:10	End Time:	15:00
(If Used)	Bladder Pump Control Settings:	On (sec):		Off (sec):		Pressure:	psi
Pump Intake Depth from Top of Casing:		16.0		ft-TOC			
Water Column Above Pump Intake:		9.95		feet	Flow Through Cell Vol:	200	mL
DTW-TOC at 25% Drawdown of WC Above Pump:		8.54		ft-TOC	**Comments:**		
Final Volume Purged:		1.3		Gallons	Used YSI Pro Plus,		
Final Volume Purge Rate:		100		mL/min			
Well Purged Dry?:		No		(Yes/No)			

Field Parameters (Taken at time intervals ≥ 5 minutes and purge volumes ≥ 1 flow-through cell volume)

	Time	Volume Purged (gal)	Flow Rate (mL/min)	Depth to Water (ft)	Temp (°C)	pH (s.u.)	Spec. Cond. (µS/cm)	Dissolved Oxygen (mg/L)	ORP* (mV)	Turbidity (NTU)	Comment
	14:10	0.0	---	---	---	---	---	---	---	---	Start Purging
	14:15	0.1	100		17.4	7.2	401	2.9	-51	6.38	
	14:20	0.3	100		17.4	7.2	404	0.9	-57	9.77	
	14:25	0.4	100		17.3	7.2	405	0.5	-44	11.3	
	14:30	0.5	100		17.4	7.3	404	0.3	-40	11.2	
	14:35	0.7	100		17.4	7.3	404	0.2	-42	9.65	
	14:40	0.8	100		17.4	7.3	404	0.2	-41	10.4	
	14:45	0.9	100		17.3	7.3	404	0.2	-42	11.6	
	14:50	1.1	100		17.4	7.3	404	0.2	-26	11.3	
	14:55	1.2	100		17.5	7.3	404	0.2	-23	8.44	
	15:00	1.3	100		17.5	7.3	404	0.2	-20	7.95	
Final:	15:00	1.3	100		17.5	7.3	404	0.2	-20	8.0	End of Purging

Sample Method: Peristaltic Pump Sample Start Time: 15:00 Sample End Time: 15:20

Analytical Data

Method	Qty	Container	Preservative	Method	Qty	Container	Preservative
PCS 8151	2	1L A	Unpreserved				

Name	Signature	Date
(1)		

Notes: To convert ORP to Eh, add 205 mV to ORP.

Form Revision Date: 2/12/18 16:00

LOW FLOW GROUNDWATER SAMPLING FORM

Project Name:	Marsh Pamplico		
Project Location:			
Project Number:	1584-98-146C	Purge Date:	March 2, 2020
Source Well:	MW-22	Purge Time:	Minutes
Locked?:	Yes	Sample Date:	March 2, 2020
Sampled By:	Gary Simcox	Sample Time:	10:55
Weather:	Sunny	Air Temp:	60° F

Water Level & Well Data

Measuring Point:		Top of Casing		
Depth to Water:		4.42	ft-TOC	
Total Well Depth:		20.40	ft-TOC	
Height of Water Column:		15.98	feet	
Screen Length:		feet Stickup:		ft-GRD

Well Volume		
Well Diameter	2	inch
Water Volume	2.6	Gal
3 * Well Volume	7.82	Gal
5 * Well Volume	13.04	Gal

Well Purging Information

Purge Method:	Peristaltic Pump	Start Time:	10:25	End Time:	10:55	
(If Used) Bladder Pump Control Settings:	On (sec):	Off (sec):		Pressure:		psi
Pump Intake Depth from Top of Casing:	18.0	ft-TOC				
Water Column Above Pump Intake:	13.58	feet	Flow Through Cell Vol:		200	mL
DTW-TOC at 25% Drawdown of WC Above Pump:	7.82	ft-TOC	**Comments:**			
Final Volume Purged:	0.8	Gallons	Used YSI Pro Plus,			
Final Volume Purge Rate:	100	mL/min				
Well Purged Dry?:	No	(Yes/No)				

Field Parameters (Taken at time intervals ≥ 5 minutes and purge volumes ≥ 1 flow-through cell volume)

	Time	Volume Purged (gal)	Flow Rate (mL/min)	Depth to Water (ft)	Temp (°C)	pH (s.u.)	Spec. Cond. (µS/cm)	Dissolved Oxygen (mg/L)	ORP* (mV)	Turbidity (NTU)	Comment
	10:25	0.0	---	---	---	---	---	---	---	---	Start Purging
	10:30	0.1	100		16.7	5.6	136	4.7	217	3.40	
	10:35	0.3	100		17.1	5.6	132	2.4	209	2.89	
	10:40	0.4	100		17.3	5.6	131	2.0	202	3.82	
	10:45	0.5	100		17.4	5.6	131	1.8	194	3.16	
	10:50	0.7	100		17.4	5.6	131	1.7	191	2.92	
	10:55	0.8	100		17.4	5.6	132	1.3	187	2.44	
Final:	10:55	0.8	100		17.4	5.6	132	1.3	187	2.4	End of Purging

Sample Method: Peristaltic Pump Sample Start Time: 10:55 Sample End Time: 11:15

Analytical Data

Method	Qty	Container	Preservative	Method	Qty	Container	Preservative
PCS 8151	2	1L A	Unpreserved				

Name	Signature	Date
(1)		

Notes: Duplicate 1 collected from this location.

Form Revision Date: 2/12/18 16:00

LOW FLOW GROUNDWATER SAMPLING FORM

Project Name:	Marsh Pamplico		
Project Location:			
Project Number:	1584-98-146C	Purge Date:	March 2, 2020
Source Well:	MW-25	Purge Time:	Minutes
Locked?:	Yes	Sample Date:	March 2, 2020
Sampled By:	Gary Simcox	Sample Time:	13:10
Weather:	Sunny	Air Temp:	60° F

Water Level & Well Data

Measuring Point:			Top of Casing	
Depth to Water:			3.89	ft-TOC
Total Well Depth:			17.10	ft-TOC
Height of Water Column:			13.21	feet
Screen Length:		feet	Stickup:	ft-GRD

Well Volume		
Well Diameter	1	inch
Water Volume	0.5	Gal
3 * Well Volume	1.62	Gal
5 * Well Volume	2.69	Gal

Well Purging Information

Purge Method:		Peristaltic Pump		Start Time:	12:00	End Time:	13:10
(If Used)	Bladder Pump Control Settings:	On (sec):		Off (sec):		Pressure:	psi
Pump Intake Depth from Top of Casing:		16.0		ft-TOC			
Water Column Above Pump Intake:		12.11		feet	Flow Through Cell Vol:	200	mL
DTW-TOC at 25% Drawdown of WC Above Pump:		6.92		ft-TOC	**Comments:**		
Final Volume Purged:		1.8		Gallons	Used YSI Pro Plus,		
Final Volume Purge Rate:		100		mL/min			
Well Purged Dry?:		No		(Yes/No)			

Field Parameters (Taken at time intervals ≥ 5 minutes and purge volumes ≥ 1 flow-through cell volume)

	Time	Volume Purged (gal)	Flow Rate (mL/min)	Depth to Water (ft)	Temp (°C)	pH (s.u.)	Spec. Cond. (µS/cm)	Dissolved Oxygen (mg/L)	ORP* (mV)	Turbidity (NTU)	Comment
	12:00	0.0	---	---	---	---	---	---	---	---	Start Purging
	12:05	0.1	100		18.2	5.9	181	2.9	135	313	
	12:10	0.3	100		18.2	6.0	197	2.0	104	317	
	12:15	0.4	100		18.4	6.0	207	1.2	88	249	
	12:20	0.5	100		18.4	6.0	220	0.6	74	189	
	12:25	0.7	100		18.4	6.0	225	0.4	62	114	
	12:30	0.8	100		18.2	6.0	227	0.4	59	102	
	12:35	0.9	100		18.2	6.1	227	0.3	54	65.0	
	12:40	1.1	100		18.2	6.1	229	0.3	50	47.0	
	12:45	1.2	100		18.3	6.0	230	0.2	46	31.0	
	12:50	1.3	100		18.4	6.1	231	0.3	44	25.0	
	12:55	1.5	100		18.4	6.1	231	0.2	41	23.0	
	13:00	1.6	100		18.3	6.1	230	0.2	40	18.0	
	13:05	1.7	100		18.3	6.1	229	0.2	37	16.0	
	13:10	1.8	100		18.1	6.1	230	0.2	36	12.0	
Final:	13:10	1.8	100		18.1	6.1	230	0.2	36	12.0	End of Purging

Sample Method: Peristaltic Pump Sample Start Time: 13:10 Sample End Time: 13:30

Analytical Data

Method	Qty	Container	Preservative	Method	Qty	Container	Preservative
PCS 8151	2	1L A	Unpreserved				

Name	Signature	Date
(1)		

Notes: To convert ORP to Eh, add 205 mV to ORP.

Form Revision Date: 2/12/18 16:00

LOW FLOW GROUNDWATER SAMPLING FORM

Project Name:	Marsh Pamplico		
Project Location:			
Project Number:	1584-98-146C	Purge Date:	March 2, 2020
Source Well:	MW-26	Purge Time:	Minutes
Locked?:	Yes	Sample Date:	March 2, 2020
Sampled By:	Gary Simcox	Sample Time:	14:45
Weather:	Sunny	Air Temp:	60° F

Water Level & Well Data

Measuring Point:			Top of Casing	
Depth to Water:			4.55	ft-TOC
Total Well Depth:			17.10	ft-TOC
Height of Water Column:			12.55	feet
Screen Length:		feet	Stickup:	ft-GRD

Well Volume		
Well Diameter	1	inch
Water Volume	0.5	Gal
3 * Well Volume	1.54	Gal
5 * Well Volume	2.56	Gal

Well Purging Information

Purge Method:		Peristaltic Pump		Start Time:	13:55	End Time:	14:45
(If Used)	Bladder Pump Control Settings:	On (sec):		Off (sec):		Pressure:	psi
Pump Intake Depth from Top of Casing:		16.0		ft-TOC			
Water Column Above Pump Intake:		11.45		feet	Flow Through Cell Vol:	200	mL
DTW-TOC at 25% Drawdown of WC Above Pump:		7.41		ft-TOC	**Comments:**		
Final Volume Purged:		1.3		Gallons	Used YSI Pro Plus,		
Final Volume Purge Rate:		100		mL/min			
Well Purged Dry?:		No		(Yes/No)			

Field Parameters (Taken at time intervals ≥ 5 minutes and purge volumes ≥ 1 flow-through cell volume)

	Time	Volume Purged (gal)	Flow Rate (mL/min)	Depth to Water (ft)	Temp (°C)	pH (s.u.)	Spec. Cond. (µS/cm)	Dissolved Oxygen (mg/L)	ORP* (mV)	Turbidity (NTU)	Comment
	13:55	0.0	---	---	---	---	---	---	---	---	Start Purging
	14:00	0.1	100		19.1	6.6	359	3.1	43	163	
	14:05	0.3	100		19.0	6.6	363	1.5	35	68.0	
	14:10	0.4	100		19.0	6.5	349	0.9	15	39.0	
	14:15	0.5	100		19.0	6.4	338	0.7	9	32.0	
	14:20	0.7	100		18.9	6.4	328	0.6	3	25.0	
	14:25	0.8	100		19.0	6.4	323	0.5	-1	23.0	
	14:30	0.9	100		19.0	6.4	323	0.5	-5	16.0	
	14:35	1.1	100		19.0	6.3	316	0.4	-9	13.0	
	14:40	1.2	100		18.9	6.3	312	0.4	-13	13.0	
	14:45	1.3	100		18.9	6.3	308	0.4	-16	12.9	
Final:	14:45	1.3	100		18.9	6.3	308	0.4	-16	12.9	End of Purging

Sample Method: Peristaltic Pump Sample Start Time: 14:45 Sample End Time: 15:05

Analytical Data

Method	Qty	Container	Preservative	Method	Qty	Container	Preservative
PCS 8151	2	1L A	Unpreserved				

Name	Signature	Date
(1)		

Notes: To convert ORP to Eh, add 205 mV to ORP.

Form Revision Date: 2/12/18 16:00

LOW FLOW GROUNDWATER SAMPLING FORM

Project Name:	Marsh Pamplico		
Project Location:			
Project Number:	1584-98-146C	Purge Date:	March 2, 2020
Source Well:	MW-28	Purge Time:	Minutes
Locked?:	Yes	Sample Date:	March 2, 2020
Sampled By:	Gary Simcox	Sample Time:	16:10
Weather:	Overcast	Air Temp:	55° F

Water Level & Well Data

Measuring Point:			Top of Casing	
Depth to Water:			5.16	ft-TOC
Total Well Depth:			20.20	ft-TOC
Height of Water Column:			15.04	feet
Screen Length:		feet	Stickup:	ft-GRD

Well Volume		
Well Diameter	1	inch
Water Volume	0.6	Gal
3 * Well Volume	1.84	Gal
5 * Well Volume	3.07	Gal

Well Purging Information

Purge Method:		Peristaltic Pump		Start Time:	15:35	End Time:	16:10
(If Used)	Bladder Pump Control Settings:	On (sec):		Off (sec):		Pressure:	psi
Pump Intake Depth from Top of Casing:		18.0		ft-TOC			
Water Column Above Pump Intake:		12.84		feet	Flow Through Cell Vol:	200	mL
DTW-TOC at 25% Drawdown of WC Above Pump:		8.37		ft-TOC	**Comments:**		
Final Volume Purged:		0.9		Gallons	Used YSI Pro Plus,		
Final Volume Purge Rate:		100		mL/min			
Well Purged Dry?:		No		(Yes/No)			

Field Parameters (Taken at time intervals ≥ 5 minutes and purge volumes ≥ 1 flow-through cell volume)

	Time	Volume Purged (gal)	Flow Rate (mL/min)	Depth to Water (ft)	Temp (°C)	pH (s.u.)	Spec. Cond. (µS/cm)	Dissolved Oxygen (mg/L)	ORP* (mV)	Turbidity (NTU)	Comment
	15:35	0.0	---	---	---	---	---	---	---	---	Start Purging
	15:40	0.1	100		18.2	5.3	141	1.4	46	8.60	
	15:45	0.3	100		18.1	5.3	131	0.9	57	4.93	
	15:50	0.4	100		18.3	5.3	124	0.6	63	4.89	
	15:55	0.5	100		18.2	5.2	116	0.5	66	5.00	
	16:00	0.7	100		18.3	5.2	114	0.5	68	6.27	
	16:05	0.8	100		18.3	5.2	113	0.4	71	6.34	
	16:10	0.9	100		18.2	5.3	114	0.4	72	6.19	
Final:	16:10	0.9	100		18.2	5.3	114	0.4	72	6.2	End of Purging

Sample Method: Peristaltic Pump Sample Start Time: 16:10 Sample End Time: 16:30

Analytical Data

Method	Qty	Container	Preservative	Method	Qty	Container	Preservative
PCS 8151	2	1L A	Unpreserved				

Name	Signature	Date
(1)		

Notes: To convert ORP to Eh, add 205 mV to ORP.

Form Revision Date: 2/12/18 16:00

LOW FLOW GROUNDWATER SAMPLING FORM

Project Name:	Marsh Pamplico		
Project Location:			
Project Number:	1584-98-146C	Purge Date:	March 4, 2020
Source Well:	MW-30	Purge Time:	Minutes
Locked?:	Yes	Sample Date:	March 4, 2020
Sampled By:	Gary Simcox	Sample Time:	11:10
Weather:	Rain	Air Temp:	55° F

Water Level & Well Data

Measuring Point:	Top of Casing			
Depth to Water:	3.86	ft-TOC		
Total Well Depth:	22.40	ft-TOC		
Height of Water Column:	18.54	feet		
Screen Length:		feet	Stickup:	ft-GRD

Well Volume		
Well Diameter	1	inch
Water Volume	0.8	Gal
3 * Well Volume	2.27	Gal
5 * Well Volume	3.78	Gal

Well Purging Information

Purge Method:	Peristaltic Pump		Start Time:	10:20	End Time:	11:10	
(If Used) Bladder Pump Control Settings:	On (sec):		Off (sec):		Pressure:		psi
Pump Intake Depth from Top of Casing:	20.0		ft-TOC				
Water Column Above Pump Intake:	16.14		feet	Flow Through Cell Vol:	200		mL
DTW-TOC at 25% Drawdown of WC Above Pump:	7.90		ft-TOC	**Comments:**			
Final Volume Purged:	1.3		Gallons	Used YSI Pro Plus,			
Final Volume Purge Rate:	100		mL/min				
Well Purged Dry?:	No		(Yes/No)				

Field Parameters (Taken at time intervals ≥ 5 minutes and purge volumes ≥ 1 flow-through cell volume)

	Time	Volume Purged (gal)	Flow Rate (mL/min)	Depth to Water (ft)	Temp (°C)	pH (s.u.)	Spec. Cond. (µS/cm)	Dissolved Oxygen (mg/L)	ORP* (mV)	Turbidity (NTU)	Comment
	10:20	0.0	---	---	---	---	---	---	---	---	Start Purging
	10:25	0.1	100		16.0	6.8	573	1.9	2	152	
	10:30	0.3	100		16.3	6.9	572	0.8	-14	107	
	10:35	0.4	100		16.5	6.9	577	0.4	-33	67.0	
	10:40	0.5	100		16.6	6.9	580	0.3	-44	49.4	
	10:45	0.7	100		16.7	6.9	585	0.2	-50	31.1	
	10:50	0.8	100		16.8	6.9	585	0.2	-56	36.9	
	10:55	0.9	100		16.7	6.9	598	0.2	-57	22.1	
	11:00	1.1	100		16.6	6.9	598	0.2	-60	14.8	
	11:05	1.2	100		16.6	6.9	600	0.2	-62	9.43	
	11:10	1.3	100		16.7	6.9	602	0.2	-63	6.02	
Final:	11:10	1.3	100		16.7	6.9	602	0.2	-63	6.0	End of Purging

Sample Method: Peristaltic Pump Sample Start Time: 11:10 Sample End Time: 11:30

Analytical Data

Method	Qty	Container	Preservative	Method	Qty	Container	Preservative
PCS 8151	2	1L A	Unpreserved				

Name	Signature	Date
(1)		

Notes: To convert ORP to Eh, add 205 mV to ORP.

Form Revision Date: 2/12/18 16:00

Marsh Pamplico
1584-98-146C
2020 Monitoring Event

On March 2, 2020, March 3, 2020 and March 4, 2020, a monitoring event took place at Marsh Lumber in Pamplico, South Carolina. During this event, data was kept on iPads and laptop computers. The data for wells 14A, 15, 21, 23, 24, 27, and 29 was kept on Colby Paine's iPad. The file containing data about these wells was lost somehow, possibly through excel or the iPad IOS crashing while the file was open. The file was saved multiple times to the physical iPad storage, and to the cloud database at the end of the event. The file cannot be found.

Environmental Field Report	
Date: April 9, 2020	**Job Number:** 1584-98-146C
Project Name: Marsh Pamplico	**Weather/Temperature:** Sunny 80 °F
Project Location: Pamplico, South Carolina	
Notes By: ☒ ☐	**Present at the Site:** Gary Simcox

Equipment Used
Oakton pH/conductivity meter
Pole sampler

On site at 10 30 hours

I calibrated the pH/conductivity meter before sampling. I collected surface water samples from locations 1, 2 and 3. I collected a duplicate sample from location SW-1. That sample will be delivered to R&A Labs to be analyzed separately. I decontaminated the sampler before I started today as well as between each sample location.

Sample	pH	Temperature	conductivity
SW-1	6.58	19.5	145.1
SW-2	6.71	22.6	169.4
SW-3	6.77	22.3	170.2

Before leaving the site today, I recorded the pressures and flows. I checked both the oil coalescing filter elements and the particulate element. Everything looked good. BSW-4 and BSW-8 are turned off.

Well	Pressure	Flow
BSW-3	14	1.2
BSW-5	15	1.2
BSW-6	11	1.1
BSW-7	9	1.0

Off site at 1230 hours

Hours	Mileage	Signature of S&ME Personnel
9.0	350	

Appendix II – Laboratory Analytical Report

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

March 17, 2020

Mr. Ed Henriques
S&ME, Inc.
8646 West Market Street
Suite 105
Greensboro, NC 27409

RE: Project: Marsh Lumber Annual Sampling
Pace Project No.: 92467956

Dear Mr. Henriques:
Enclosed are the analytical results for sample(s) received by the laboratory on March 04, 2020. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
(704)875-9092
Project Manager

Enclosures

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Marsh Lumber Annual Sampling
Pace Project No.: 92467956

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92467956001	MW-3A	Water	03/03/20 08:30	03/04/20 16:05
92467956002	MW-10	Water	03/03/20 13:20	03/04/20 16:05
92467956003	MW-13A	Water	03/04/20 09:10	03/04/20 16:05
92467956004	MW-14A	Water	03/04/20 13:15	03/04/20 16:05
92467956005	MW-15	Water	03/03/20 12:45	03/04/20 16:05
92467956006	MW-16	Water	03/03/20 10:25	03/04/20 16:05
92467956007	MW-18B	Water	03/03/20 16:25	03/04/20 16:05
92467956008	MW-19	Water	03/03/20 11:50	03/04/20 16:05
92467956009	MW-20	Water	03/03/20 15:00	03/04/20 16:05
92467956010	MW-21	Water	03/03/20 15:55	03/04/20 16:05
92467956011	MW-22	Water	03/02/20 10:55	03/04/20 16:05
92467956012	MW-23	Water	03/04/20 11:35	03/04/20 16:05
92467956013	MW-24	Water	03/04/20 08:55	03/04/20 16:05
92467956014	MW-25	Water	03/02/20 13:10	03/04/20 16:05
92467956015	MW-26	Water	03/02/20 14:45	03/04/20 16:05
92467956016	MW-27	Water	03/03/20 14:10	03/04/20 16:05
92467956017	MW-28	Water	03/02/20 16:10	03/04/20 16:05
92467956018	MW-29	Water	03/03/20 17:20	03/04/20 16:05
92467956019	MW-30	Water	03/04/20 11:10	03/04/20 16:05
92467956020	SW-1	Water	03/04/20 12:15	03/04/20 16:05
92467956021	SW-2	Water	03/04/20 12:35	03/04/20 16:05
92467956022	SW-3	Water	03/04/20 12:55	03/04/20 16:05
92467956023	Duplicate 1	Water	03/02/20 07:00	03/04/20 16:05
92467956024	Duplicate 2	Water	03/03/20 07:00	03/04/20 16:05
92467956025	Duplicate 3	Water	03/04/20 07:00	03/04/20 16:05

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

PROJECT NARRATIVE

Project:
Pace Project No.:

Method:
Description:
Client:
Date:

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical
www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	S&ME	Report To:	Ed Henriques	Attention:	
Address:	8646 West Market Street	Copy To:		Company Name:	
Suite 105, Greensboro, NC 27409				Address:	
Email:	EHenriques@smeinc.com	Purchase Order #:		Pace Quote:	
Phone:	(336)288-7180 Fax	Project Name:	Marsh Lumber Annual Sampling Event	Pace Project Manager:	angela.baioni@pacelabs.com,
Requested Due Date:		Project #:		Pace Profile #:	2237-6

Regulatory Agency: State / Location: SC

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	8151 Herbicides - PCP	Residual Chlorine (Y/N)	92467956
1	MW-3A	WT				3/3/20	0830		2										X		001
2	MW-10	WT				3/3/20	1320		2										X		002
3	MW-13A	WT				3/4/20	0910		2										X		003
4	MW-14A	WT				3/4/20	1315		2										X		004
5	MW-15	WT				3/3/20	1245		2										X		005
6	MW-16	WT				3/3/20	1025		2										X		006
7	MW-18B	WT				3/3/20	1625		2										X		007
8	MW-19	WT				3/3/20	1150		2										X		008
9	MW-20	WT				3/3/20	1500		2										X		009
10	MW-21	WT				3/3/20	1555		2										X		010
11	MW-22	WT				3/2/20	1055		2										X		011
12	MW-23	WT				3/4/20	1135		2										X		012

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Project should go to Cathy Dover	Colby Paine SME	3/4/20	1605		3/4/20	1605	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Gary Simcox / Colby Paine

SIGNATURE of SAMPLER: [signature] DATE Signed: 3/4/2020

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

WO# : 92467956

92467956

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 2 Of 3

Section A — Required Client Information:

Company:	S&ME
Address:	8646 West Market Street
	Suite 105, Greensboro, NC 27409
Email:	EHenriques@smeinc.com
Phone: (336)288-7180	Fax:
Requested Due Date:	

Section B — Required Project Information:

Report To:	Ed Henriques
Copy To:	
Purchase Order #:	
Project Name:	Marsh Lumber Annual Sampling Event
Project #:	

Section C — Invoice Information:

Attention:	
Company Name:	
Address:	
Pace Quote:	
Pace Project Manager:	angela.baioni@pacelabs.com,
Pace Profile #:	2237-6

Regulatory Agency: State / Location: SC

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	8151 Herbicides - PCP	Residual Chlorine (Y/N)	
13	MW-24	WT				3/4/20	0855												X		013
14	MW-25	WT				3/2/20	1310												X		014
15	MW-26	WT				3/2/20	1445												X		015
16	MW-27	WT				3/3/20	1410												X		016
17	MW-28	WT				3/2/20	1600												X		017
18	MW-29	WT				3/3/20	1720												X		018
19	MW-30	WT				3/4/20	1110												X		019
20	SW-1	WT				3/4/20	1215												X		020
21	SW-2	WT				3/4/20	1235												X		021
22	SW-3	WT				3/4/20	1255												X		022
23	DUPLICATE 1	WT				3/2/20	0700														023
24	DUPLICATE 2	WT				3/3/20	0700														024

924607956

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Project should go to Cathy Dover	Colby Paine S&ME	3/4/20	1605		3/4/20	1605	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Gary Simcox / Colby Paine

SIGNATURE of SAMPLER:

DATE Signed: 3/4/2020

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Pace Analytical
WWW.PACELABS.COM

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 3 Of 3

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	S&ME	Report To:	Ed Henriques	Attention:	
Address:	8646 West Market Street	Copy To:		Company Name:	
Suite 105, Greensboro, NC 27409				Address:	
Email:	EHenriques@smeinc.com	Purchase Order #:		Pace Quote:	
Phone:	(336)288-7180 Fax	Project Name:	Marsh Lumber Annual Sampling Event	Pace Project Manager:	angela.baioni@pacelabs.com,
Requested Due Date:		Project #:		Pace Profile #:	2237-6

Regulatory Agency: | State / Location: SC

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	8151 Herbicides - PCP	Residual Chlorine (Y/N)	
	DUPLICATE 3	WT				3/4/20	0700												X		92467956 OZE

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Project should go to Cathy Dove	Gary Simcox SME	3/4/20	1605		3/4/20	1605	

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Gary Simcox / Colby Paine

SIGNATURE of SAMPLER: DATE Signed: 3/4/2020

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

Report of Analysis

Pace Analytical Services, Inc.
9800 Kincey Avenue
Suite 100
Huntersville, NC 28078
Attention: Angela M. Baioni

Project Name: Marsh Lumber Annual Sampling Event

Project Number: 92467956

Lot Number:**VC04071**

Date Completed:03/16/2020

03/16/2020 3:06 PM
Approved and released by:
Project Manager: **Cathy S. Dover**

Case Narrative
Pace Analytical Services, Inc.
Lot Number: VC04071

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Pace Analytical Services, LLC ("Pace") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Pace policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

Herbicide 8151A
The following samples required a dilution for Pentachlorophenol and the surrogate was diluted out and did not pass criteria range:

VC04071-002 (MW-10) 10x
VC04071-011 (MW-22) 50x
VC04071-014 (MW-25) 50x
VC04071-016 (MW-27) 50x
VC04071-017 (MW-28) 100x
VC04071-018 (MW-29) 20x
VC04071-023 (DUPLICATE 1) 50x

The associated method blank, laboratory control sample (LCS), matrix spike/matrix spike duplicate (MS/MSD) all passed acceptance criteria.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

Sample Summary

Pace Analytical Services, Inc.

Lot Number: VC04071

Project Name: Marsh Lumber Annual Sampling Event

Project Number: 92467956

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	MW-3A	Aqueous	03/03/2020 0830	03/04/2020
002	MW-10	Aqueous	03/03/2020 1320	03/04/2020
003	MW-13A	Aqueous	03/04/2020 0910	03/04/2020
004	MW-14A	Aqueous	03/04/2020 1315	03/04/2020
005	MW-15	Aqueous	03/03/2020 1245	03/04/2020
006	MW-16	Aqueous	03/03/2020 1025	03/04/2020
007	MW-18B	Aqueous	03/03/2020 1625	03/04/2020
008	MW-19	Aqueous	03/03/2020 1150	03/04/2020
009	MW-20	Aqueous	03/03/2020 1500	03/04/2020
010	MW-21	Aqueous	03/03/2020 1555	03/04/2020
011	MW-22	Aqueous	03/02/2020 1055	03/04/2020
012	MW-23	Aqueous	03/04/2020 1135	03/04/2020
013	MW-24	Aqueous	03/04/2020 0955	03/04/2020
014	MW-25	Aqueous	03/02/2020 1310	03/04/2020
015	MW-26	Aqueous	03/02/2020 1445	03/04/2020
016	MW-27	Aqueous	03/03/2020 1410	03/04/2020
017	MW-28	Aqueous	03/02/2020 1610	03/04/2020
018	MW-29	Aqueous	03/03/2020 1720	03/04/2020
019	MW-30	Aqueous	03/04/2020 1110	03/04/2020
020	SW-1	Aqueous	03/04/2020 1215	03/04/2020
021	SW-2	Aqueous	03/04/2020 1235	03/04/2020
022	SW-3	Aqueous	03/04/2020 1255	03/04/2020
023	DUPLICATE 1	Aqueous	03/02/2020 0700	03/04/2020
024	DUPLICATE 2	Aqueous	03/03/2020 0700	03/04/2020
025	DUPLICATE 3	Aqueous	03/04/2020 0700	03/04/2020

(25 samples)

Detection Summary

Pace Analytical Services, Inc.

Lot Number: VC04071

Project Name: Marsh Lumber Annual Sampling Event

Project Number: 92467956

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	MW-10	Aqueous	Pentachlorophenol	8151A	22		ug/L	6
006	MW-16	Aqueous	Pentachlorophenol	8151A	0.54		ug/L	10
011	MW-22	Aqueous	Pentachlorophenol	8151A	65		ug/L	15
014	MW-25	Aqueous	Pentachlorophenol	8151A	81		ug/L	18
016	MW-27	Aqueous	Pentachlorophenol	8151A	55		ug/L	20
017	MW-28	Aqueous	Pentachlorophenol	8151A	220		ug/L	21
018	MW-29	Aqueous	Pentachlorophenol	8151A	37		ug/L	22
019	MW-30	Aqueous	Pentachlorophenol	8151A	1.8		ug/L	23
020	SW-1	Aqueous	Pentachlorophenol	8151A	0.16	J	ug/L	24
022	SW-3	Aqueous	Pentachlorophenol	8151A	0.13	J	ug/L	26
023	DUPLICATE 1	Aqueous	Pentachlorophenol	8151A	73		ug/L	27

(11 detections)

Herbicides by GC

Client: Pace Analytical Services, Inc.
Laboratory ID: VC04071-001
Description: MW-3A
Matrix: Aqueous
Date Sampled: 03/03/2020 0830
Project Name: Marsh Lumber Annual
Date Received: 03/04/2020
Project Number: 92467956

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	1	03/12/2020 1123	JJG	03/08/2020 2118	47235

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	ND		0.51	0.13	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA		82	50-112

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Herbicides by GC

Client: Pace Analytical Services, Inc.
Laboratory ID: VC04071-002
Description: MW-10
Matrix: Aqueous
Date Sampled: 03/03/2020 1320
Project Name: Marsh Lumber Annual
Date Received: 03/04/2020
Project Number: 92467956

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	10	03/13/2020 1425	JJG	03/08/2020 2118	47235

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	22		5.2	1.3	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA	N	0.00	50-112

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Herbicides by GC

Client: Pace Analytical Services, Inc. | Laboratory ID: VC04071-003
Description: MW-13A | Matrix: Aqueous
Date Sampled: 03/04/2020 0910 | Project Name: Marsh Lumber Annual
Date Received: 03/04/2020 | Project Number: 92467956

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	1	03/12/2020 1210	JJG	03/08/2020 2118	47235

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	ND		0.51	0.13	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA		70	50-112

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Herbicides by GC

Client: Pace Analytical Services, Inc. | Laboratory ID: VC04071-004
Description: MW-14A | Matrix: Aqueous
Date Sampled: 03/04/2020 1315 | Project Name: Marsh Lumber Annual
Date Received: 03/04/2020 | Project Number: 92467956

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	1	03/12/2020 1233	JJG	03/08/2020 2118	47235

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	ND		0.52	0.13	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA		74	50-112

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Herbicides by GC

Client: Pace Analytical Services, Inc. | Laboratory ID: VC04071-005
Description: MW-15 | Matrix: Aqueous
Date Sampled: 03/03/2020 1245 | Project Name: Marsh Lumber Annual
Date Received: 03/04/2020 | Project Number: 92467956

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	1	03/12/2020 1256	JJG	03/08/2020 2118	47235

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	ND		0.51	0.13	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA		66	50-112

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Herbicides by GC

Client: Pace Analytical Services, Inc.
Laboratory ID: VC04071-006
Description: MW-16
Matrix: Aqueous
Date Sampled: 03/03/2020 1025
Project Name: Marsh Lumber Annual
Date Received: 03/04/2020
Project Number: 92467956

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	1	03/13/2020 1448	JJG	03/08/2020 2118	47235

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	0.54		0.51	0.13	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA		57	50-112

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Herbicides by GC

Client: Pace Analytical Services, Inc.
Laboratory ID: VC04071-007
Description: MW-18B
Matrix: Aqueous
Date Sampled: 03/03/2020 1625
Project Name: Marsh Lumber Annual
Date Received: 03/04/2020
Project Number: 92467956

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	1	03/13/2020 0837	JJG	03/08/2020 2118	47235

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	ND		0.53	0.13	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA		74	50-112

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Herbicides by GC

Client: Pace Analytical Services, Inc. | Laboratory ID: VC04071-008
Description: MW-19 | Matrix: Aqueous
Date Sampled: 03/03/2020 1150 | Project Name: Marsh Lumber Annual
Date Received: 03/04/2020 | Project Number: 92467956

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	1	03/12/2020 2019	DAL1	03/10/2020 1752	47397

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	ND		0.51	0.13	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA		74	50-112

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Herbicides by GC

Client: Pace Analytical Services, Inc.
Laboratory ID: VC04071-009
Description: MW-20
Matrix: Aqueous
Date Sampled: 03/03/2020 1500
Project Name: Marsh Lumber Annual
Date Received: 03/04/2020
Project Number: 92467956

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	1	03/12/2020 2042	DAL1	03/10/2020 1752	47397

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	ND		0.52	0.13	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA		77	50-112

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Herbicides by GC

Client: Pace Analytical Services, Inc. | Laboratory ID: VC04071-010
Description: MW-21 | Matrix: Aqueous
Date Sampled: 03/03/2020 1555 | Project Name: Marsh Lumber Annual
Date Received: 03/04/2020 | Project Number: 92467956

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	1	03/12/2020 2105	DAL1	03/10/2020 1752	47397

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	ND		0.50	0.13	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA		80	50-112

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Herbicides by GC

Client: Pace Analytical Services, Inc. | Laboratory ID: VC04071-011
Description: MW-22 | Matrix: Aqueous
Date Sampled: 03/02/2020 1055 | Project Name: Marsh Lumber Annual
Date Received: 03/04/2020 | Project Number: 92467956

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	50	03/16/2020 1047	JJG	03/08/2020 2118	47235

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	65		27	6.6	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA	N	0.00	50-112

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Herbicides by GC

Client: Pace Analytical Services, Inc. | Laboratory ID: VC04071-012

Description: MW-23 | Matrix: Aqueous

Date Sampled: 03/04/2020 1135 | Project Name: Marsh Lumber Annual

Date Received: 03/04/2020 | Project Number: 92467956

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	1	03/12/2020 2128	DAL1	03/10/2020 1752	47397

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	ND		0.51	0.13	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA		65	50-112

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Herbicides by GC

Client: Pace Analytical Services, Inc. | Laboratory ID: VC04071-013
Description: MW-24 | Matrix: Aqueous
Date Sampled: 03/04/2020 0955 | Project Name: Marsh Lumber Annual
Date Received: 03/04/2020 | Project Number: 92467956

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	1	03/12/2020 2151	DAL1	03/10/2020 1752	47397

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	ND		0.51	0.13	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA		79	50-112

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Herbicides by GC

Client: Pace Analytical Services, Inc. | Laboratory ID: VC04071-014
Description: MW-25 | Matrix: Aqueous
Date Sampled: 03/02/2020 1310 | Project Name: Marsh Lumber Annual
Date Received: 03/04/2020 | Project Number: 92467956

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	50	03/16/2020 1110	JJG	03/08/2020 2118	47235

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	81		26	6.5	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA	N	0.00	50-112

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Herbicides by GC

Client: Pace Analytical Services, Inc. | Laboratory ID: VC04071-015
Description: MW-26 | Matrix: Aqueous
Date Sampled: 03/02/2020 1445 | Project Name: Marsh Lumber Annual
Date Received: 03/04/2020 | Project Number: 92467956

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	1	03/12/2020 1539	JJG	03/08/2020 2118	47235

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	ND		0.52	0.13	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA		75	50-112

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Herbicides by GC

Client: Pace Analytical Services, Inc. | Laboratory ID: VC04071-016
Description: MW-27 | Matrix: Aqueous
Date Sampled: 03/03/2020 1410 | Project Name: Marsh Lumber Annual
Date Received: 03/04/2020 | Project Number: 92467956

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	50	03/13/2020 1228	DAL1	03/10/2020 1752	47397

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	55		25	6.3	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA	N	0.00	50-112

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Herbicides by GC

Client: Pace Analytical Services, Inc. | Laboratory ID: VC04071-017
Description: MW-28 | Matrix: Aqueous
Date Sampled: 03/02/2020 1610 | Project Name: Marsh Lumber Annual
Date Received: 03/04/2020 | Project Number: 92467956

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	100	03/16/2020 1133	JJG	03/08/2020 2118	47235

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	220		54	14	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA	N	0.00	50-112

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Herbicides by GC

Client: Pace Analytical Services, Inc. | Laboratory ID: VC04071-018
Description: MW-29 | Matrix: Aqueous
Date Sampled: 03/03/2020 1720 | Project Name: Marsh Lumber Annual
Date Received: 03/04/2020 | Project Number: 92467956

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	20	03/13/2020 1338	DAL1	03/10/2020 1752	47397

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	37		10	2.6	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA	N	0.00	50-112

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Herbicides by GC

Client: Pace Analytical Services, Inc. | Laboratory ID: VC04071-019
Description: MW-30 | Matrix: Aqueous
Date Sampled: 03/04/2020 1110 | Project Name: Marsh Lumber Annual
Date Received: 03/04/2020 | Project Number: 92467956

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	1	03/13/2020 1401	DAL1	03/10/2020 1752	47397

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	1.8		0.52	0.13	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA		83	50-112

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Herbicides by GC

Client: Pace Analytical Services, Inc. | Laboratory ID: VC04071-020
Description: SW-1 | Matrix: Aqueous
Date Sampled: 03/04/2020 1215 | Project Name: Marsh Lumber Annual
Date Received: 03/04/2020 | Project Number: 92467956

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	1	03/13/2020 0032	DAL1	03/10/2020 1752	47397

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	0.16	J	0.52	0.13	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA		86	50-112

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Herbicides by GC

Client: Pace Analytical Services, Inc. | Laboratory ID: VC04071-021

Description: SW-2 | Matrix: Aqueous

Date Sampled: 03/04/2020 1235 | Project Name: Marsh Lumber Annual

Date Received: 03/04/2020 | Project Number: 92467956

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	1	03/13/2020 1205	DAL1	03/10/2020 1752	47397

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	ND		0.51	0.13	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA		81	50-112

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Herbicides by GC

Client: Pace Analytical Services, Inc.
Laboratory ID: VC04071-022
Description: SW-3
Matrix: Aqueous
Date Sampled: 03/04/2020 1255
Project Name: Marsh Lumber Annual
Date Received: 03/04/2020
Project Number: 92467956

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	1	03/13/2020 0056	DAL1	03/10/2020 1752	47397

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	0.13	J	0.52	0.13	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA		87	50-112

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Herbicides by GC

Client: Pace Analytical Services, Inc. | Laboratory ID: VC04071-023
Description: DUPLICATE 1 | Matrix: Aqueous
Date Sampled: 03/02/2020 0700 | Project Name: Marsh Lumber Annual
Date Received: 03/04/2020 | Project Number: 92467956

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	50	03/16/2020 1156	JJG	03/08/2020 2118	47235

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	73		26	6.4	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA	N	0.00	50-112

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Herbicides by GC

Client: Pace Analytical Services, Inc. | Laboratory ID: VC04071-024
Description: DUPLICATE 2 | Matrix: Aqueous
Date Sampled: 03/03/2020 0700 | Project Name: Marsh Lumber Annual
Date Received: 03/04/2020 | Project Number: 92467956

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	1	03/13/2020 0119	DAL1	03/10/2020 1752	47397

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	ND		0.52	0.13	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA		84	50-112

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Herbicides by GC

Client: Pace Analytical Services, Inc. | Laboratory ID: VC04071-025
Description: DUPLICATE 3 | Matrix: Aqueous
Date Sampled: 03/04/2020 0700 | Project Name: Marsh Lumber Annual
Date Received: 03/04/2020 | Project Number: 92467956

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	1	03/13/2020 0142	DAL1	03/10/2020 1752	47397

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	ND		0.51	0.13	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA		85	50-112

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

QC Summary

Herbicides by GC - MB

Sample ID: VQ47235-001
Batch: 47235
Analytical Method: 8151A

Matrix: Aqueous
Prep Method: 8151A
Prep Date: 03/08/2020 2118

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Pentachlorophenol	ND		1	0.50	0.13	ug/L	03/12/2020 1037

Surrogate	Q	% Rec	Acceptance Limit
DCAA		55	50-112

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Herbicides by GC - LCS

Sample ID: VQ47235-002
Batch: 47235
Analytical Method: 8151A

Matrix: Aqueous
Prep Method: 8151A
Prep Date: 03/08/2020 2118

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Pentachlorophenol	10	7.0		1	70	70-130	03/13/2020 1557

Surrogate	Q	% Rec	Acceptance Limit
DCAA		65	50-112

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Herbicides by GC - MS

Sample ID: VC04071-006MS
Batch: 47235
Analytical Method: 8151A

Matrix: Aqueous
Prep Method: 8151A
Prep Date: 03/08/2020 2118

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Pentachlorophenol	0.54	20	15		1	72	70-130	03/13/2020 1511

Surrogate	Q	% Rec	Acceptance Limit
DCAA		66	50-112

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Sample ID: VC04071-006MD
Batch: 47235
Analytical Method: 8151A

Matrix: Aqueous
Prep Method: 8151A
Prep Date: 03/08/2020 2118

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Pentachlorophenol	0.54	20	17		1	79	8.5	70-130	30	03/13/2020 1534

Surrogate	Q	% Rec	Acceptance Limit
DCAA		72	50-112

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Herbicides by GC - MB

Sample ID: VQ47397-001
Batch: 47397
Analytical Method: 8151A

Matrix: Aqueous
Prep Method: 8151A
Prep Date: 03/10/2020 1752

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Pentachlorophenol	ND		1	0.50	0.13	ug/L	03/12/2020 1932

Surrogate	Q	% Rec	Acceptance Limit
DCAA		75	50-112

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Herbicides by GC - LCS

Sample ID: VQ47397-002
Batch: 47397
Analytical Method: 8151A

Matrix: Aqueous
Prep Method: 8151A
Prep Date: 03/10/2020 1752

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Pentachlorophenol	10	7.2		1	72	70-130	03/12/2020 1955

Surrogate	Q	% Rec	Acceptance Limit
DCAA		66	50-112

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Herbicides by GC - MS

Sample ID: VC04071-016MS
Batch: 47397
Analytical Method: 8151A

Matrix: Aqueous
Prep Method: 8151A
Prep Date: 03/10/2020 1752

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Pentachlorophenol	55	20	72		50	87	70-130	03/13/2020 1252

Surrogate	Q	% Rec	Acceptance Limit
DCAA	N	0.00	50-112

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Herbicides by GC - MSD

Sample ID: VC04071-016MD
Batch: 47397
Analytical Method: 8151A

Matrix: Aqueous
Prep Method: 8151A
Prep Date: 03/10/2020 1752

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Pentachlorophenol	55	20	70		50	75	3.5	70-130	30	03/13/2020 1315

Surrogate	Q	% Rec	Acceptance Limit
DCAA	N	0.00	50-112

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately. 23084

Page : 1 Of 1

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: SRMF	Report To: Ed Henriques	Attention:
Address: 8646 West Market Street, Suite 105, Greensboro, NC 27409	Copy To:	Company Name:
Email: EHenriques@srmfinc.com	Purchase Order #:	Address:
Phone: (336)288-7183 Fax:	Project Name: Marsh Furnace Annual Sampling Event	Pace Quote:
Requested Due Date:	Project #:	Pace Project Manager: angela.baioni@pacelabs.com,
		Pace Profile #: 2237-6

Regulatory Agency: Site

Requested Analysis Filtered (Y/N)

VC04071

LAD

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test: Y/N	8101 Herbicides - PSP	Residual Chlorine (Y/N)	
1	MW-3A	WT				3/3/20	0830		2										X		
2	MW-12	WT				3/3/20	1320		2										X		
3	MW-13A	WT				3/4/20	0910		2										X		
4	MW-14A	WT				3/4/20	1315		2										X		
5	MW-15	WT				3/3/20	1245		2										X		
6	MW-16	WT				3/3/20	1025		2										X		
7	MW-17D	WT				3/3/20	1625		2										X		
8	MW-19	WT				3/3/20	1150		2										X		
9	MW-20	WT				3/3/20	1500		2										X		
10	MW-21	WT				3/3/20	1555		2										X		
11	MW-22	WT				3/2/20	1055		2										X		
12	MW-23	WT				3/4/20	1135		2										X		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Project should go to Cathy Dover	Colby Paine SRME	3/4/20	1605		3/4/20	1605	5.1			
							5.5			
							4.1			
							5.4			
							5.3	Y	N	Y
							Temp in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Gary Simcox / Colby Paine

SIGNATURE of SAMPLER: DATE Signed: 3/4/2020

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 2 Of 3

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: S&ME	Report To: Ed Henriques	Attention:
Address: 6846 West Market Street	Copy To:	Company Name:
Suite 105, Greensboro NC 27409		Address:
Email: ehenriques@smeinc.com	Purchase Order #:	Pace Quote:
Phone: (336)288-7180 Fax:	Project Name: March Lumber Annual Sampling Event	Pace Project Manager: angela.baron@pacelabs.com
Requested Due Date:	Project #:	Pace Profile #: 22567-8

Regulatory Agency: State / Location: SC

Requested Analysis Filtered (Y/N)

VC04071

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test: 8151 - Herbicides - TOF	Y/N	Residual Chlorine (Y/N)
13	MW-24	WT				3/4/20	0955											X		
14	MW-25	WT				3/4/20	1310											X		
15	MW-26	WT				3/2/20	1445											X		
16	MW-27	WT				3/3/20	1410											X		
17	MW-28	WT				3/2/20	1600											X		
18	MW 29	WT				3/3/20	1720											X		
19	MW-30	WT				3/4/20	1110											X		
20	SW-1	WT				3/4/20	1215											X		
21	SW-2	WT				3/4/20	1235											X		
22	SW-3	WT				3/4/20	1255											X		
23	DUPLICATE 1	WT				3/2/20	0700													
24	DUPLICATE 2	WT				3/3/20	0700													

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
Project should go to Cathy Dover	Colby Pine S&ME	3/4/20	1605		3/4/20	1605	5.1			
							5.5			
							4.1			
							5.4			
							5.3	Y	N	Y
							TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Gary Simcox / Colby Pine

SIGNATURE of SAMPLER: DATE Signed: 3/4/2020

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page : 3 Of 3

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: SEME	Report To: Ed Henriques	Attention:
Address: 3046 West Market Street	Copy To:	Company Name:
Suite 100 Greensboro, NC 27403		Address:
Email: EHenriques@smeinc.com	Purchase Order #:	Pace Quote:
Phone: 3369288700 Fax:	Project Name: Marsh Lumber Annual Sampling Event	Pace Project Manager: angela.bacri@pacelabs.com
Requested Due Date:	Project #:	Pace Profile #: 9237-6

Regulatory Agency: | State / Location: SC

Requested Analysis Filtered (Y/N)

VC04071

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analysis Test: 8151 Herbicides PCP	Residual Chlorine (Y/N)
25	DUPLICATE 3	WT				3/4/20	0700											X	

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
Project should go to Cathy Dove	Gary Simcox SEME	3/4/20	1605		3/4/20	1605	

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
4.1	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Gary Simcox / Colby Payne

SIGNATURE of SAMPLER: DATE Signed: 3/4/2020

Shealy Environmental Services, Inc.
Document Number: ME001SC-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: S&ME Cooler Inspected by/date: MBC / 03/04/2020 Lot #: VC04071

Means of receipt: ☐ SESI ☑ Client ☐ UPS ☐ FedEx ☐ Other:

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

5.1 / 5.1 °C 5.5 / 5.5 °C 4.1 / 4.1 °C 5.4 / 5.4 °C

Method: ☐ Temperature Blank ☑ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☐ No	☑ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA

SR barcode labels applied by: BMG Date: 03/04/2020

Comments: Cooler temps continued; 5.3°C

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

April 22, 2020

Mr. Ed Henriques
S&ME, Inc.
8646 West Market Street
Suite 105
Greensboro, NC 27409

RE: Project: Marsh Pamplico
Pace Project No.: 92473300

Dear Mr. Henriques:

Enclosed are the analytical results for sample(s) received by the laboratory on April 10, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angela M. Baioni

Angela Baioni
angela.baioni@pacelabs.com
(704)875-9092
Project Manager

Enclosures

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

SAMPLE SUMMARY

Project: Marsh Pamplico
Pace Project No.: 92473300

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92473300001	**SW-1**	Water	04/09/20 11:05	04/10/20 12:28
92473300002	**SW-2**	Water	04/09/20 11:30	04/10/20 12:28
92473300003	**SW-3**	Water	04/09/20 11:50	04/10/20 12:28

Pace Analytical Services, LLC
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

PROJECT NARRATIVE

Project:
Pace Project No.:

Method:
Description:
Client:
Date:

This data package has been reviewed for quality and completeness and is approved for release.

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

WO# : 92473300

92473300

LAB USE (nber or

Company: S&ME, Inc.	Billing Information:
Address: 8646 W. Market St., Suite 105	
Report To: Ed Henriques	Email To:
Copy To:	Site Collection Info/Address:
Customer Project Name/Number: Marsh Pamplico	State: / County/City: Time Zone Collected: [ ] PT [ ] MT [ ] CT [ ] ET
Phone: 336-288-7180 Email: ehenriques@sme	Site/Facility ID #:
Collected By (print): Gary Simcox	Purchase Order #: Quote #:
Collected By (signature):	Turnaround Date Required: Standard
Sample Disposal: [ ] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold: _____	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)

Compliance Monitoring? [ ] Yes [✓] No

DW PWS ID #: DW Location Code:

Immediately Packed on Ice: [✓] Yes [ ] No

Field Filtered (if applicable): [ ] Yes [✓] No

Analysis: _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	8151 (pentachlorophenol)	Lab Sample # / Comments
SW-1	Water				4/9/20	1105		2	X	92473300 001
SW-2	Water				4/9/20	1130		2	X	002
SW-3	Water				4/9/20	1150		2	X	003

Container Preservative Type

Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Analyses

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y	N	NA
Custody Signatures Present	Y	N	NA
Collector Signature Present	Y	N	NA
Bottles Intact	Y	N	NA
Correct Bottles	Y	N	NA
Sufficient Volume	Y	N	NA
Samples Received on Ice	Y	N	NA
VOA - Headspace Acceptable	Y	N	NA
USDA Regulated Soils	Y	N	NA
Samples in Holding Time	Y	N	NA
Residual Chlorine Present	Y	N	NA
Cl Strips: _____			
Sample pH Acceptable	Y	N	NA
pH Strips: _____			
Sulfide Present	Y	N	NA
Lead Acetate Strips: _____			

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards:
Run sample first in batch

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #:

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: IR 4 Total
Cooler 1 Temp Upon Receipt: 3.6 oC
Cooler 1 Therm Corr. Factor: 0.1 oC
Cooler 1 Corrected Temp: 3.7 oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
	4/10/20 0700		4-10-20 855
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
	4-10-20 1228		4/10/20 1258
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: _____ of: _____

Report of Analysis

Pace Analytical Services, Inc.
9800 Kincey Avenue
Suite 100
Huntersville, NC 28078
Attention: Angela M. Baioni

Project Name: Marsh Pamplico

Project Number: 92473300

Lot Number:**VD11012**

Date Completed:04/17/2020

04/22/2020 10:34 AM
Approved and released by:
Project Manager: **Cathy S. Dover**

Case Narrative
Pace Analytical Services, Inc.
Lot Number: VD11012

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Pace Analytical Services, LLC ("Pace") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Pace policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

Sample Summary

Pace Analytical Services, Inc.

Lot Number: VD11012

Project Name: Marsh Pamplico

Project Number: 92473300

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	SW-1	Aqueous	04/09/2020 1105	04/11/2020
002	SW-2	Aqueous	04/09/2020 1130	04/11/2020
003	SW-3	Aqueous	04/09/2020 1150	04/11/2020

(3 samples)

Detection Summary

Pace Analytical Services, Inc.

Lot Number: VD11012

Project Name: Marsh Pamplico

Project Number: 92473300

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	SW-2	Aqueous	Pentachlorophenol	8151A	0.84		ug/L	6
003	SW-3	Aqueous	Pentachlorophenol	8151A	0.64		ug/L	7

(2 detections)

Herbicides by GC

Client: Pace Analytical Services, Inc.
Laboratory ID: VD11012-001
Description: SW-1
Matrix: Aqueous
Date Sampled: 04/09/2020 1105
Project Name: Marsh Pamplico
Date Received: 04/11/2020
Project Number: 92473300

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	1	04/16/2020 1502	JJG	04/14/2020 1942	51021

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	ND		0.51	0.13	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA		98	50-112

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Herbicides by GC

Client: Pace Analytical Services, Inc. | Laboratory ID: VD11012-002
Description: SW-2 | Matrix: Aqueous
Date Sampled: 04/09/2020 1130 | Project Name: Marsh Pamplico
Date Received: 04/11/2020 | Project Number: 92473300

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	1	04/16/2020 1525	JJG	04/14/2020 1942	51021

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	0.84		0.51	0.13	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA		99	50-112

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Herbicides by GC

Client: Pace Analytical Services, Inc. | Laboratory ID: VD11012-003
Description: SW-3 | Matrix: Aqueous
Date Sampled: 04/09/2020 1150 | Project Name: Marsh Pamplico
Date Received: 04/11/2020 | Project Number: 92473300

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8151A	8151A	1	04/16/2020 1548	JJG	04/14/2020 1942	51021

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Pentachlorophenol	87-86-5	8151A	0.64		0.51	0.13	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
DCAA		88	50-112

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

QC Summary

Herbicides by GC - MB

Sample ID: VQ51021-001
Batch: 51021
Analytical Method: 8151A

Matrix: Aqueous
Prep Method: 8151A
Prep Date: 04/14/2020 1942

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Pentachlorophenol	ND		1	0.50	0.13	ug/L	04/16/2020 1416

Surrogate	Q	% Rec	Acceptance Limit
DCAA		86	50-112

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Herbicides by GC - LCS

Sample ID: VQ51021-002
Batch: 51021
Analytical Method: 8151A

Matrix: Aqueous
Prep Method: 8151A
Prep Date: 04/14/2020 1942

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Pentachlorophenol	5.0	5.4		1	107	70-130	04/16/2020 1439

Surrogate	Q	% Rec	Acceptance Limit
DCAA		96	50-112

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

Chain of Custody

23084

Pace Analytical
www.pacelabs.com

☐ Samples were sent directly to the Subcontracting Laboratory.

State Of Origin: SC
Cert. Needed: ☑ Yes ☐ No
Owner Received Date: 4/10/2020 Results Requested By: 4/24/2020

Workorder: 92473300 **Workorder Name:** Marsh Pamplico

Report To	Subcontract To
Angela Baioni Pace Analytical Charlotte 9800 Kincey Ave. Suite 100 Huntersville, NC 28078 Phone (704)875-9092	Pace Analytical West Columbia 106 Vantage Point Drive West Columbia, SC 29172 Phone (803)791-9700

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: Unpreserved	8151 Herbicides - PCP only	LAB USE ONLY
	SW-1	PS	4/9/2020 11:05	92473300001	Water	3	X	
	SW-2	PS	4/9/2020 11:30	92473300002	Water	1	X	
	SW-3	PS	4/9/2020 11:50	92473300003	Water	↓	X	

VD11012
csp

Transfers	Released By	Date/Time	Received By	Date/Time
	PACE	4-10-2020 1800		0933

Comments: *client requesting samples be run at front of batch to minimize cross-contamination

Cooler Temperature on Receipt 2.8 °C | Custody Seal Y or (N) | Received on Ice (Y) or N | Samples Intact (Y) or N

*In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.
This chain of custody is considered complete as is since this information is available in the owner laboratory.

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

PACE ANALYTICAL SERVICES, LLC

Shealy Environmental Services, Inc.
Document Number: MES013C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: Pace Analytical Cooler Inspected by/date: LKH / 04/11/2020 Lot #: VD11012

Means of receipt: ☐ SESI ☐ Client ☐ UPS ☑ FedEx ☐ Other:

☑ Yes	☐ No		1. Were custody seals present on the cooler?
☑ Yes	☐ No	☐ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap Cup ID: NA

2.8 / 2.8 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☑ Yes	☐ No	☐ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☐ No	☑ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: LKH Date: 04/11/2020

Comments:

Research & Analytical Laboratories, Inc.
Analytical/Process Consultations

RESEARCH & ANALYTICAL LABS. SIDNEY L. CHAMPION NC #34 DIRECTOR CERTIFIED ANALYSIS

Chemical Analysis for Selected Parameters and Water Samples Identified as Marsh Pamplico (A S & ME, Inc. Project #1584-98-146C, collected 09 April 2020)

I. **EPA Method 8150 Herbicides** Parameter	**Quantitation Limit** (ppb)	**SW-1D** (ppb)
Pentachlorophenol	0.04	BQL
Sample Number		80818-01
Sample Date		04/09/20
Sample Time		1105
Date Extracted		04/13/20
Date Analyzed		04/23/20
Time Analyzed		0151
Surrogate Recovery	(Range)	
DCAA	**(70-130 %)**	109%

PCB = Polychlorinated Biphenyl
ppb = parts per billion

BQL = Below Quantitation Limit

Research & Analytical Laboratories, Inc.
Analytical / Process Consultations
Phone (336) 996-2841

CHAIN OF CUSTODY RECORD

Company	S&ME, Inc.
Street Address	8646 West Market St., Suite 105
City, State, Zip	Greensboro, NC 27409
Contact	Ed Henriques
Phone	336-288-7180
Job No.	1584-98-146C
Project	Marsh Pamplico
Sampler Name (Please Print)	Gary Simcox
Sampler Signature	

Sample Number (Lab Use Only)	Date	Time	Comp.	Grab	Temp °C	Res. Cl.	Chlorine Removed Y or N	Sample Matrix (S or W)	Sample Location / I.D.	No. of Containers	Water / Wastewater: 2L G (BNA, Herb. / Pest.)	2 40 ml. Vials (VOA) HCL	250 ml. G (TOX)	250 ml P (TOC) H_2SO_4	1L P,G (BOD, TSS, Unpreserved, etc.)	1L G (Phenol, Oil&Grease) H_2SO_4	1L P,G (COD, N, P) H_2SO_4	1L P,G (Metals, Hardness) HNO_3	1L P,G (Cyanide) NaOH	Sterile P,G (Coliform)	Misc.	Requested Analysis
80818-01	4/9/2020	1105		X				Water	SW-1D	2												8151 (pentachlorophenol)

Relinquished By	Date/Time	Received By	Remarks
	4/10/20 0720	4-8-20 0927	
Relinquished By	Date/Time	Received By	

☑ On Ice — Sample Temperature at receipt 2.9 °C

RESEARCH & ANALYTICAL LABORATORIES, INC.

Analytical/Process Consultations

CASE NARRATIVE

One (1) water sample was received in good condition on 10 April 2020. The sample was analyzed without difficulties unless noted below.

Sidney L. Champion

04/23/20

Sidney L. Champion **Date**
Director of Laboratory Services

P.O. Box 473 • 106 Short Street • Kernersville, North Carolina 27284 • 336-996-2841 • Fax 336-996-0326
www.randalabs.com

RESEARCH & ANALYTICAL LABORATORIES, INC.
Analytical/Process Consultations

RESEARCH & ANALYTICAL LABS. SIDNEY L. CHAMPION NC #34 DIRECTOR CERTIFIED ANALYSIS

Quality Control Summary Results for Project Identified as Marsh Pamplico (An S&ME, Inc. project collected 09 April 2020)

Herbicides **EPA Method 8151 A** **Parameter**	**Method Blank** **(mg\L)**	**Matrix** **Spike** **% Recovery**	**Spike** **Diplicate** **% Recovery**	**Quality** **Control** **Limits**	**Analyst**
Pentachlorophenol	ND	**116**	**122**	70-130	MG

COMMENTS: 80818-01
Corresponding Samples:
% = Percent
ND = Non Detected
N/A = Not Available

Appendix III – Historic Data

TABLE III-1
GROUNDWATER ELEVATION DATA SUMMARY
MARSH LUMBER COMPANY
PAMPLICO, SOUTH CAROLINA
S&ME PROJECT NO. 1584-98-146C

Well Location	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Data Collected By
MW-1	1/6/1993	100.39	6.73	93.66	LAW
	10/18/1993	100.39	8.08	92.31	LAW
	11/11/1993	100.39	7.92	92.47	LAW
	1/5/1999	100.39	7.80	92.59	S&ME
	8/16/2000	100.39	7.66	92.73	S&ME
	3/28/2001	100.39	7.76	92.63	S&ME
	10/22/2001	100.39	10.05	90.34	S&ME
	4/24/2002	100.39	8.83	91.56	S&ME
	10/22/2002	100.39	8.32	92.07	S&ME
	5/20/2003	100.39	7.42	92.97	S&ME
	12/11/2003	100.39	7.59	92.80	S&ME
	5/25/2004	100.39	8.18	92.21	S&ME
	12/14/2004	100.39	7.44	92.95	S&ME
	6/15/2005	100.39	7.08	93.31	S&ME
	12/19/2005	100.39	6.98	93.41	S&ME
	7/21/2006	100.39	7.84	92.55	S&ME
	1/24/2007	100.39	7.69	92.70	S&ME
	10/3/2007	100.39	9.51	90.88	S&ME
	7/24/2008	100.39	8.64	91.75	S&ME
	1/8/2009	100.39	7.75	92.64	S&ME
	1/7/2010	100.39	7.28	93.11	S&ME
	6/23/2010	100.39	7.67	92.72	S&ME
	5/25/2011	100.39	7.42	92.97	S&ME
	5/16/2013	100.39	7.82	92.57	S&ME
	2/5/2016	100.39	5.30	95.09	S&ME
	2/21/2017	85.55	7.25	78.30	S&ME

TABLE III-1
GROUNDWATER ELEVATION DATA SUMMARY
MARSH LUMBER COMPANY
PAMPLICO, SOUTH CAROLINA
S&ME PROJECT NO. 1584-98-146C

Well Location	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Data Collected By
MW-3	1/6/1993	99.13	7.88	91.25	LAW
	10/18/1993	99.13	8.52	90.61	LAW
	11/11/1993	99.13	8.47	90.66	LAW
	1/5/1999	99.13	8.87	90.26	S&ME
	8/16/2000	99.13	8.14	90.99	S&ME
	3/28/2001	99.13	8.04	91.09	S&ME
	10/22/2001	99.13	9.43	89.7	S&ME
	4/24/2002	99.13	8.86	90.27	S&ME
	10/22/2002	99.13	8.61	90.52	S&ME
	5/20/2003	99.13	8.03	91.10	S&ME
	12/11/2003	99.13	8.30	90.83	S&ME
	5/25/2004	99.13	well damaged	no data	S&ME
*	12/14/2004	99.11	8.26	90.85	S&ME
*	6/15/2005	99.11	7.81	91.30	S&ME
*	12/19/2005	99.11	8.08	91.03	S&ME
*	8/22/2006	99.11	8.14	90.97	S&ME
*	1/24/2007	99.11	7.68	91.43	S&ME
*	10/3/2007	99.11	9.05	90.06	S&ME
*	7/24/2008	99.11	8.74	90.37	S&ME
*	1/8/2009	99.11	8.26	90.85	S&ME
*	1/7/2010	99.11	8.06	91.05	S&ME
*	6/23/2010	99.11	8.25	90.86	S&ME
*	5/25/2011	99.11	7.91	91.20	S&ME
*	5/16/2013	99.11	8.65	90.46	S&ME
*	2/5/2016	99.11	3.11	96.00	S&ME
*	2/21/2017	88.59	11.54	77.05	S&ME
*	3/14/2018	88.59	11.37	77.22	S&ME
*	2/18/2019	88.59	11.35	77.24	S&ME

* = MW-3 replaced by MW-3A

TABLE III-1
GROUNDWATER ELEVATION DATA SUMMARY
MARSH LUMBER COMPANY
PAMPLICO, SOUTH CAROLINA
S&ME PROJECT NO. 1584-98-146C

Well Location	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Data Collected By
MW-9	10/18/1993	97.97	7.91	90.06	LAW
	11/11/1993	97.97	7.86	90.11	LAW
	1/5/1999	97.97	8.11	89.86	S&ME
	8/16/2000	97.97	7.42	90.55	S&ME
	3/28/2001	97.97	7.32	90.65	S&ME
	10/22/2001	97.97	8.62	89.35	S&ME
	4/24/2002	97.97	8.22	89.75	S&ME
	10/22/2002	97.97	8.03	89.94	S&ME
	5/20/2003	97.97	7.70	90.27	S&ME
	12/11/2003	97.97	7.87	90.10	S&ME
	5/25/2004	97.97	7.84	90.13	S&ME
	12/14/2004	97.97	7.65	90.32	S&ME
	6/15/2005	97.97	7.79	90.18	S&ME
	12/19/2005	97.97	8.04	89.93	S&ME
	7/20/2006	97.97	7.98	89.99	S&ME
	1/24/2007	97.97	7.81	90.16	S&ME
	10/3/2007	97.97	8.54	89.43	S&ME
	7/24/2008	98.51	8.41	90.10	S&ME
	1/8/2009	98.51	8.11	90.40	S&ME
	1/7/2010	98.51	7.99	90.52	S&ME
	6/23/2010	98.51	8.03	90.48	S&ME
	5/25/2011	98.51	not found	not found	not found
	5/16/2013	98.51	7.92	90.59	S&ME
	2/5/2016	98.51	6.48	92.03	S&ME
	2/21/2017	83.5	7.51	75.99	S&ME

TABLE III-1
GROUNDWATER ELEVATION DATA SUMMARY
MARSH LUMBER COMPANY
PAMPLICO, SOUTH CAROLINA
S&ME PROJECT NO. 1584-98-146C

Well Location	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Data Collected By
MW-10	10/18/1993	93.42	4.86	88.56	LAW
	11/11/1993	93.42	4.98	88.44	LAW
	1/5/1999	93.42	4.19	89.23	S&ME
	8/16/2000	93.42	4.59	88.83	S&ME
	3/28/2001	93.42	4.51	88.91	S&ME
	10/22/2001	93.42	6.72	86.70	S&ME
	4/24/2002	93.42	5.64	87.78	S&ME
	10/22/2002	93.42	5.25	88.17	S&ME
	5/20/2003	93.42	4.25	89.17	S&ME
	12/11/2003	93.42	4.26	89.16	S&ME
	5/25/2004	93.42	4.92	88.50	S&ME
	12/15/2004	93.42	4.06	89.36	S&ME
	6/15/2005	93.42	3.80	89.62	S&ME
	12/19/2005	93.42	3.64	89.78	S&ME
	7/20/2006	93.42	4.74	88.68	S&ME
	1/24/2007	93.42	3.09	90.33	S&ME
	10/3/2007	93.42	5.08	88.34	S&ME
	7/24/2008	93.93	5.48	88.45	S&ME
	1/8/2009	93.93	3.99	89.94	S&ME
	1/7/2010	93.93	3.51	90.42	S&ME
	6/23/2010	93.93	4.73	89.20	S&ME
	5/25/2011	93.93	4.20	89.73	S&ME
	5/16/2013	93.93	4.45	89.48	S&ME
	2/5/2016	93.93	1.21	92.72	S&ME
	9/14/2016	83.30	6.77	76.53	S&ME
	12/8/2016	83.30	8.22	75.08	S&ME
	2/21//17	83.30	8.47	74.83	S&ME
	5/24/2017	83.30	8.70	74.60	S&ME
	8/30/2017	83.30	8.84	74.46	S&ME
	3/14/2018	83.30	8.35	74.95	S&ME
	6/26/2018	83.30	9.34	73.96	S&ME
	9/19/2018	83.30	7.45	75.85	S&ME
	2/19/2019	83.30	8.07	75.23	S&ME

TABLE III-1
GROUNDWATER ELEVATION DATA SUMMARY
MARSH LUMBER COMPANY
PAMPLICO, SOUTH CAROLINA
S&ME PROJECT NO. 1584-98-146C

Well Location	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Data Collected By
MW-11	10/18/1993	97.45	7.59	89.86	LAW
	11/11/1993	97.45	7.43	90.02	LAW
	1/5/1999	97.45	7.58	89.87	S&ME
	8/16/2000	97.45	7.04	90.41	S&ME
	3/28/2001	97.45	7.14	90.31	S&ME
	10/22/2001	97.45	8.26	89.19	S&ME
	4/24/2002	97.45	7.74	89.71	S&ME
	10/22/2002	97.45	7.50	89.95	S&ME
	5/20/2003	97.45	6.93	90.52	S&ME
	12/11/2003	97.45	7.20	90.25	S&ME
	5/25/2004	97.45	7.38	90.07	S&ME
	12/115/04	97.45	7.12	90.33	S&ME
	6/15/2005	97.45	6.72	90.73	S&ME
	12/19/2005	97.45	6.97	90.48	S&ME
	7/20/2006	97.45	7.18	90.27	S&ME
	1/24/2007	97.45	6.60	90.85	S&ME
	10/3/2007	97.45	7.91	89.54	S&ME
	7/24/2008	97.45	7.63	89.82	S&ME
	1/8/2009	97.45	7.12	90.33	S&ME
	1/7/2010	97.45	6.88	90.57	S&ME
	6/23/2010	97.45	7.14	90.31	S&ME
	5/25/2011	97.45	6.92	90.53	S&ME
	5/16/2013	97.45	7.08	90.37	S&ME
	2/5/2016	97.45	2.45	95.00	S&ME
	2/21//17	85.61	8.42	77.19	S&ME
	3/14/2018	85.61	8.07	77.54	S&ME

TABLE III-1
GROUNDWATER ELEVATION DATA SUMMARY
MARSH LUMBER COMPANY
PAMPLICO, SOUTH CAROLINA
S&ME PROJECT NO. 1584-98-146C

Well Location	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Data Collected By
MW-13	8/16/2000	93.18	5.09	88.09	S&ME
	3/28/2001	93.18	5.19	87.99	S&ME
	10/22/2001	93.18	5.43	87.75	S&ME
	4/24/2002	93.18	5.21	87.97	S&ME
	10/22/2002	93.18	5.15	88.03	S&ME
	5/20/2003	93.18	4.69	88.49	S&ME
	12/11/2003	93.18	4.52	88.66	S&ME
	5/25/2004	93.18	well damaged	no data	S&ME
**	12/15/2004	94.16	6.29	87.87	S&ME
**	6/15/2005	94.16	5.64	88.52	S&ME
**	12/19/2005	94.16	5.89	88.27	S&ME
**	7/20/2006	94.16	5.91	88.25	S&ME
**	1/24/2007	94.16	5.82	88.34	S&ME
**	10/3/2007	94.16	6.22	87.94	S&ME
**	7/24/2008	94.19	5.61	88.58	S&ME
**	1/8/2009	94.19	5.27	88.92	S&ME
**	1/7/2010	94.19	5.29	88.9	S&ME
**	6/23/2010	94.19	5.56	88.63	S&ME
**	5/25/2011	94.19	5.37	88.82	S&ME
**	5/16/2013	94.19	5.36	88.83	S&ME
**	2/5/2016	94.19	3.03	91.16	S&ME
**	2/21/2017	83.52	7.04	76.48	S&ME
**	11/3/2017	83.52	8.35	75.17	S&ME
**	3/13/2018	83.52	6.90	76.62	S&ME
**	9/20/2018	83.52	6.19	77.33	S&ME
**	2/21/2019	83.52	6.75	76.77	S&ME

** = MW-13 replaced with MW-13A

TABLE III-1
GROUNDWATER ELEVATION DATA SUMMARY
MARSH LUMBER COMPANY
PAMPLICO, SOUTH CAROLINA
S&ME PROJECT NO. 1584-98-146C

Well Location	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Data Collected By
MW-14	8/16/2000	93.02	4.59	88.43	S&ME
	3/28/2001	93.02	4.49	88.53	S&ME
	10/22/2001	93.02	5.60	87.42	S&ME
	4/24/2002	93.02	5.00	88.02	S&ME
	10/22/2002	93.02	4.93	88.09	S&ME
	5/20/2003	93.02	4.61	88.41	S&ME
	12/11/2003	93.02	4.86	88.16	S&ME
	5/25/2004	93.02	4.79	88.23	S&ME
	12/15/2004	93.02	4.88	88.14	S&ME
	6/15/2005	93.02	4.55	88.47	S&ME
	12/19/2005	93.02	5.65	87.37	S&ME
	7/20/2006	93.02	well not found	no data	S&ME
	1/24/2007	93.02	4.42	88.60	S&ME
	10/3/2007	92.94	4.79	88.15	S&ME
	7/24/2008	93.02	4.69	88.33	S&ME
	1/8/2009	93.02	4.61	88.41	S&ME
	1/7/2010	93.02	5.04	87.98	S&ME
	6/23/2010	93.02	4.43	88.59	S&ME
	5/25/2011	93.02	4.31	88.71	S&ME
	5/16/2013	93.02	4.49	88.53	S&ME
	2/5/2016	93.02	2.15	90.87	S&ME
	9/16/2016	81.11	5.51	75.60	S&ME
	12/8/2016	81.11	5.97	75.14	S&ME
	2/21/2017	81.11	7.05	74.06	S&ME
	6/7/2017	81.11	5.19	75.92	S&ME
	8/30/2017	81.11	5.88	75.23	S&ME
	3/14/2018	81.11	4.55	76.56	S&ME
	6/26/2018	81.11	5.52	75.59	S&ME
	9/21/2018	81.11	4.21	76.90	S&ME
	2/20/2019	81.11	4.59	76.52	S&ME

TABLE III-1
GROUNDWATER ELEVATION DATA SUMMARY
MARSH LUMBER COMPANY
PAMPLICO, SOUTH CAROLINA
S&ME PROJECT NO. 1584-98-146C

Well Location	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Data Collected By
MW-15	8/16/2000	92.74	6.04	86.70	S&ME
	3/28/2001	92.74	6.14	86.60	S&ME
	10/22/2001	92.74	6.66	86.08	S&ME
	4/24/2002	92.74	6.35	86.39	S&ME
	10/22/2002	92.74	6.36	86.38	S&ME
	5/20/2003	92.74	5.69	87.05	S&ME
	12/11/2003	92.74	5.99	86.75	S&ME
	5/25/2004	92.74	5.93	86.81	S&ME
	12/15/2004	92.74	5.91	86.83	S&ME
	6/15/2005	92.74	5.43	87.31	S&ME
	12/19/2005	92.74	5.72	87.02	S&ME
	7/21/2006	92.74	5.71	87.03	S&ME
	1/24/2007	92.74	5.38	87.36	S&ME
	10/3/2007	92.74	6.30	86.44	S&ME
	7/24/2008	92.95	6.15	86.80	S&ME
	1/8/2009	92.95	5.63	87.32	S&ME
	1/7/2010	92.95	5.75	87.20	S&ME
	6/23/2010	92.95	5.72	87.23	S&ME
	5/25/2011	92.95	5.52	87.43	S&ME
	5/16/2013	92.95	5.72	87.23	S&ME
	2/5/2016	92.95	4.65	88.30	S&ME
	9/14/2016	82.32	8.34	73.98	S&ME
	12/8/2016	82.32	8.64	73.68	S&ME
	2/21/2017	82.32	9.34	72.98	S&ME
	5/23/2017	82.32	9.14	73.18	S&ME
	8/30/2017	82.32	9.31	73.01	S&ME
	3/13/2018	82.32	8.37	73.95	S&ME
	9/19/2018	82.32	8.91	73.41	S&ME
	2/20/2019	82.32	8.89	73.43	S&ME

TABLE III-1
GROUNDWATER ELEVATION DATA SUMMARY
MARSH LUMBER COMPANY
PAMPLICO, SOUTH CAROLINA
S&ME PROJECT NO. 1584-98-146C

Well Location	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Data Collected By
MW-16	8/16/2000	94.76	5.37	89.39	S&ME
	3/28/2001	94.76	5.27	89.49	S&ME
	10/22/2001	94.76	6.25	88.51	S&ME
	4/24/2002	94.76	5.87	88.89	S&ME
	10/22/2002	94.76	5.86	88.90	S&ME
	5/20/2003	94.76	5.18	89.58	S&ME
	12/11/2003	94.76	5.41	89.35	S&ME
	5/25/2004	94.76	5.30	89.46	S&ME
	12/15/2004	94.76	5.24	89.52	S&ME
	6/15/2005	94.76	4.92	89.84	S&ME
	12/19/2005	94.76	5.30	89.46	S&ME
	7/20/2006	94.76	5.14	89.62	S&ME
	1/24/2007	94.76	5.03	89.73	S&ME
	10/3/2007	94.76	5.62	89.14	S&ME
	7/24/2008	94.74	5.43	89.31	S&ME
	1/8/2009	94.74	4.51	90.23	S&ME
	1/7/2010	94.74	5.16	89.58	S&ME
	1/7/2010	94.74	5.04	89.70	S&ME
	5/25/2011	94.74	4.85	89.89	S&ME
	5/16/2013	94.74	4.99	89.75	S&ME
	2/5/2016	94.74	3.30	91.44	S&ME
	2/21/2017	83.65	8.36	75.29	S&ME
	3/14/2018	83.65	8.26	75.39	S&ME
	2/19/2019	83.65	8.22	75.43	S&ME

TABLE III-1
GROUNDWATER ELEVATION DATA SUMMARY
MARSH LUMBER COMPANY
PAMPLICO, SOUTH CAROLINA
S&ME PROJECT NO. 1584-98-146C

Well Location	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Data Collected By
MW-17	3/28/2007	94.66	6.49	88.17	S&ME
	10/3/2007	94.66	8.00	86.66	S&ME
	7/24/2008	94.70	7.71	86.99	S&ME
	1/8/2009	94.70	5.92	88.78	S&ME
	1/7/2010	94.70	5.61	89.09	S&ME
	6/23/2010	94.70	6.74	87.96	S&ME
	5/25/2011	94.70	5.92	88.78	S&ME
	5/16/2013	94.70	6.13	88.57	S&ME
	2/5/2016	94.70	1.95	92.75	S&ME
MW-17A	9/15/2016	82.37	8.91	73.46	S&ME
MW-17A	2/21/2017	82.37	9.65	72.72	S&ME
MW-17A	3/14/2018	82.37	9.70	72.67	S&ME
MW-18A	1/8/2009	90.77	4.71	86.06	S&ME
	1/7/2010	90.77	4.27	86.50	S&ME
	6/23/2010	90.77	4.53	86.24	S&ME
	5/25/2011	90.77	4.27	86.50	S&ME
	5/16/2013	90.77	4.45	86.32	S&ME
	2/5/2016	90.77	2.07	88.70	S&ME
	2/21/2017	80.27	8.75	71.52	S&ME
	3/14/2018	80.27	8.34	71.93	S&ME
MW-18B	1/8/2009	90.97	3.17	87.80	S&ME
	1/7/2010	90.97	1.86	89.11	S&ME
	6/23/2010	90.97	3.38	87.59	S&ME
	5/25/2011	90.97	2.72	88.25	S&ME
	5/16/2013	90.97	3.01	87.96	S&ME
	2/5/2016	90.97	0.00	90.97	S&ME
	2/21/2017	80.17	7.11	73.06	S&ME
	3/14/2018	80.17	7.07	73.10	S&ME
	2/19/2019	80.17	6.73	73.44	S&ME
MW-19	9/15/2016	79.56	5.76	73.80	S&ME
	2/12/2017	79.56	5.73	73.83	S&ME
	3/14/2018	79.56	5.89	73.67	S&ME
	2/19/2019	79.56	5.46	74.10	S&ME
MW-20	9/15/2016	80.59	7.37	73.22	S&ME
	2/12/2017	80.59	7.71	72.88	S&ME
	3/14/2018	80.59	7.17	73.42	S&ME
	9/19/2018	80.59	6.63	73.96	S&ME
	2/19/2019	80.59	6.87	73.72	S&ME
BSW-2	1/7/2010	100.32	8.40	91.92	S&ME
	6/23/2010	100.32	8.53	91.79	S&ME
	5/25/2011	100.32	8.50	91.82	S&ME
	5/16/2013	100.32	8.78	91.54	S&ME
	2/5/2016	100.32	5.89	94.43	S&ME
	2/21/2017	100.32	7.98	92.34	S&ME

TABLE III-1
GROUNDWATER ELEVATION DATA SUMMARY
MARSH LUMBER COMPANY
PAMPLICO, SOUTH CAROLINA
S&ME PROJECT NO. 1584-98-146C

Well Location	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Data Collected By
MW-21	9/15/2016	84.04	7.94	76.10	S&ME
	12/14/2016	84.04	6.10	77.94	S&ME
	2/21/2017	84.04	7.66	76.38	S&ME
	5/24/2017	84.04	7.67	76.37	S&ME
	8/30/2017	84.04	8.11	75.93	S&ME
	3/14/2018	84.04	7.13	76.91	S&ME
	2/21/2019	84.04	7.20	76.84	S&ME
MW-22	9/15/2016	81.74	5.79	75.95	S&ME
	12/8/2016	81.74	5.56	76.18	S&ME
	2/21/2017	81.74	5.87	75.87	S&ME
	5/24/2017	81.74	6.21	75.53	S&ME
	8/30/2017	81.74	6.39	75.35	S&ME
	3/14/2018	81.74	5.73	76.01	S&ME
	6/26/2018	81.74	6.84	74.90	S&ME
	9/20/2018	81.74	4.76	76.98	S&ME
	2/18/2019	81.74	5.67	76.07	S&ME
MW-23	9/15/2016	81.37	7.57	73.8	S&ME
	12/13/2016	81.37	7.20	74.17	S&ME
	2/21/2017	81.37	7.62	73.75	S&ME
	5/23/2017	81.37	7.79	73.58	S&ME
	8/30/2017	81.37	8.03	73.34	S&ME
	3/14/2018	81.37	7.30	74.07	S&ME
	9/21/2018	81.37	7.79	73.58	S&ME
	2/18/2019	81.37	7.39	73.98	S&ME
MW-24	5/24/2017	81.23	5.89	75.34	S&ME
	8/30/2017	81.23	6.53	74.70	S&ME
	3/14/2018	81.23	5.56	75.67	S&ME
	6/27/2018	81.23	6.44	74.79	S&ME
	9/21/2018	81.23	6.48	74.75	S&ME
	2/18/2019	81.23	5.58	75.65	S&ME

TABLE III-1
GROUNDWATER ELEVATION DATA SUMMARY
MARSH LUMBER COMPANY
PAMPLICO, SOUTH CAROLINA
S&ME PROJECT NO. 1584-98-146C

Well Location	Date	Top of Casing Elevation (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	Data Collected By
MW-25	11/2/2017	80.49	6.30	74.19	S&ME
	3/14/2018	80.49	5.02	75.47	S&ME
	6/26/2018	80.49	5.89	74.60	S&ME
	9/20/2018	80.49	5.02	75.47	S&ME
	2/20/2019	80.49	5.01	75.48	S&ME
MW-26	11/2/2017	81.21	7.08	74.13	S&ME
	3/14/2018	81.21	5.75	75.46	S&ME
	6/27/2018	81.21	6.54	74.67	S&ME
	9/20/2018	81.21	5.84	75.37	S&ME
	2/21/2019	81.21	5.7	75.51	S&ME
MW-27	11/2/2017	82.20	7.60	74.60	S&ME
	3/14/2018	82.20	6.29	75.91	S&ME
	6/26/2018	82.20	7.07	75.13	S&ME
	9/19/2018	82.20	5.49	76.71	S&ME
	2/20/2019	82.20	6.16	76.04	S&ME
MW-28	11/3/2017	83.03	7.95	75.08	S&ME
	3/14/2018	83.03	6.31	76.72	S&ME
	6/27/2018	83.03	7.39	75.64	S&ME
	9/20/2018	83.03	5.29	77.74	S&ME
	2/21/2019	83.03	6.46	76.57	S&ME
MW-29	11/3/2017	82.90	7.76	75.14	S&ME
	3/14/2018	82.90	6.23	76.67	S&ME
	9/20/2018	82.90	5.29	77.61	S&ME
	2/21/2019	82.90	6.11	76.79	S&ME
MW-30	11/3/2017	81.58	6.25	75.33	S&ME
	3/13/2018	81.58	5.06	76.52	S&ME
	6/27/2018	81.58	5.98	75.60	S&ME
	9/20/2018	81.58	4.51	77.07	S&ME
	2/19/2019	81.58	4.98	76.60	S&ME

1) Groundwater depths measured from the top of the PVC well casings

2) Elevations are referenced prior to September 2016 relied upon an assumed site datum (southeast corner of the concrete slab at the Pre-Dryer Building = 100.00 feet). In 2016 Nesbitt Surveying Co. Inc. was contracted to survey existing wells and update the well top of casing elevations. The 2016 survey occurred after existing monitoring wells were converted from flush mount wells over to monitoring wells with above grade post-type well covers.

TABLE III-2
HISTORIC GROUNDWATER ANALYTICAL DATA SUMMARY
MARSH LUMBER COMPANY
PAMPLICO, SOUTH CAROLINA
S&ME PROJECT NO. 1584-98-146C

Sample Location	Date Collected	Method 8270 (BNA or Acid Extractable List)					Tentatively Identified Compounds	
		Pentachloro-phenol	bis(2-Ethylhexyl)-phthalate	2,4-Dichloro-phenol	2,4,6-Trichloro-phenol**	2,4,5-Trichloro-phenol	1,2,3,4-Tetrachloro-phenol	3,4,5-Trichloro-phenol
MW-1	1/6/1993	nd	nd	nd	nd	nd	not requested	not requested
	2/10/1993	nd	nd	nd	nd	nd	not requested	not requested
	10/18/1993	nd	nd	nd	nd	nd	not requested	not requested
	1/5/1999	nd	nd	nd	nd	nd	not requested	not requested
	8/16/2000	<50	ANR	<10	<10	<10	not requested	not requested
	3/28/2001	<20	<10	<10	<10	<10	not requested	not requested
	10/22/2001	<20	<10	<10	<10	<10	not requested	not requested
	4/24/2002	<20	ANR	<10	<10	ANR	not requested	not requested
	10/22/2002	<20	ANR	<10	<10	ANR	not requested	not requested
	5/20/2003	<20	ANR	<10	<10	ANR	not requested	not requested
	12/11/2003	<20	ANR	<10	<10	ANR	not requested	not requested
	5/25/2004	<20	ANR	<10	<10	ANR	not requested	not requested
	12/14/2004	<20	ANR	<10	<10	ANR	not requested	not requested
	6/15/2005	<20	ANR	<10	<10	ANR	not requested	not requested
	12/19/2005	<20	ANR	<10	<10	ANR	not detected	not detected
	7/21/2006	<20	ANR	<10	<10	ANR	not requested	not requested
	1/24/2007	<20	ANR	<10	<10	ANR	not requested	not requested
	10/3/2007	<20	ANR	<10	<10	ANR	not requested	not requested
	7/24/2008	<20	ANR	<10	<10	ANR	not requested	not requested
	1/8/2009	<20	ANR	<10	<10	ANR	not requested	not requested
	1/7/2010	<20	ANR	<10	<10	ANR	not requested	not requested
	6/23/2010	<50	ANR	<10	<10	ANR	not requested	not requested
	5/25/2011	<50	ANR	<10	<10	ANR	not requested	not requested
	5/16/2013	<20	ANR	<10	<10	ANR	not requested	not requested
	2/5/2016	<20	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	2/21/2017	<25	<6.0	<10.0	<10.0	<10.0	not requested	not requested
Corresponding MCL		1	6	NS	NS	NS	NS	NS

TABLE III-2
HISTORIC GROUNDWATER ANALYTICAL DATA SUMMARY
MARSH LUMBER COMPANY
PAMPLICO, SOUTH CAROLINA
S&ME PROJECT NO. 1584-98-146C

Sample Location	Date Collected	Method 8270 (BNA or Acid Extractable List)					Tentatively Identified Compounds	
		Pentachloro-phenol	bis(2-Ethylhexyl)-phthalate	2,4-Dichloro-phenol	2,4,6-Trichloro-phenol**	2,4,5-Trichloro-phenol	1,2,3,4-Tetrachloro-phenol	3,4,5-Trichloro-phenol
MW-2	1/6/1993	nd	nd	nd	nd	nd	not requested	not requested
	10/18/1993	nd	nd	nd	nd	nd	not requested	not requested
	1/8/2009	<20	ANR	<10	<10	ANR	not requested	not requested
MW-4	1/6/1993	nd	nd	nd	nd	nd	not requested	not requested
	10/18/1993	nd	nd	nd	nd	nd	not requested	not requested
MW-8	1/5/1999	nd	nd	nd	nd	nd	not requested	not requested
	8/16/2000	**320**	ANR	<10	<10	<10	not requested	not requested
MW-12	10/18/1993	nd	**22**	nd	nd	nd	not requested	not requested
	7/24/1998	nd	nt	nd	nd	nd	not requested	not requested
DS-1	8/22/2006	<20	ANR	<10	<10	ANR	not requested	not requested
DS-2	8/22/2006	<20	ANR	<10	<10	ANR	not requested	not requested
DS-3D	8/22/2006	<20	ANR	<10	<10	ANR	not requested	not requested
GWS-1	10/31/2017	**323**	<6	<10	<10	<10	not requested	not requested
BSW-2	3/5/2009	<20	ANR	<10	<10	ANR	not requested	not requested
	7/13/2009	<20	ANR	<10	<10	ANR	not requested	not requested
	10/1/2009	<20	ANR	<10	<10	ANR	not requested	not requested
	1/7/2010	<20	ANR	<10	<10	ANR	not requested	not requested
	6/23/2010	<50	ANR	<10	<10	ANR	not requested	not requested
	5/25/2011	<50	ANR	<10	<10	ANR	not requested	not requested
	5/16/2013	<20	ANR	<10	<10	ANR	not requested	not requested
	2/5/2016	<20	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	2/21/2017	<25	<6.0	<10.0	<10.0	<10.0	not requested	not requested
Corresponding MCL		1	6	NS	NS	NS	NS	NS

TABLE III-2
HISTORIC GROUNDWATER ANALYTICAL DATA SUMMARY
MARSH LUMBER COMPANY
PAMPLICO, SOUTH CAROLINA
S&ME PROJECT NO. 1584-98-146C

Sample Location	Date Collected	Method 8270 (BNA or Acid Extractable List)					Tentatively Identified Compounds	
		Pentachloro-phenol	bis(2-Ethylhexyl)-phthalate	2,4-Dichloro-phenol	2,4,6-Trichloro-phenol**	2,4,5-Trichloro-phenol	1,2,3,4-Tetrachloro-phenol	3,4,5-Trichloro-phenol
MW-3	1/6/1993	**4000**	nd	**13**	**14**	**380**	not requested	not requested
	2/10/1993	**4300**	nd	**11**	**15**	**290**	not requested	not requested
	10/18/1993	**3000**	nd	nd	nd	**170**	not requested	not requested
	7/24/1998	**215**	nt	nd	nd	nd	not requested	not requested
	1/5/1999	**271**	nt	nd	nd	nd	not requested	not requested
	4/27/1999	**145**	nt	nd	nd	nd	**17**	**15**
	8/16/2000	**230**	ANR	<10	<10	<10	not requested	not requested
	3/28/2001	**128**	<10	<10	<10	<10	not requested	not requested
	10/22/2001	**134**	<10	<10	<10	<10	not requested	not requested
	4/24/2002	**166**	ANR	<50	<50	ANR	not requested	not requested
	10/22/2002	**201**	ANR	<20	<20	ANR	not requested	not requested
	5/20/2003	**193/"194"**	ANR	<20	<20	ANR	not requested	not requested
	12/11/2003	**295**	ANR	<10	<10	ANR	not requested	not requested
	5/25/2004	well not found	well not found	well not found	well not found	well not found	well not found	well not found
MW-3A	12/15/2004	**795**	ANR	<10	<10	ANR	not requested	not requested
MW-3A	6/15/2005	**360**	ANR	<10	<10	ANR	not requested	not requested
MW-3A	12/19/2005	**204**	ANR	<10	<10	ANR	not detected	not detected
MW-3A	8/22/2006	**169**	ANR	<10	<10	ANR	not requested	not requested
MW-3A	1/24/2007	**112**	ANR	<10	<10	ANR	not requested	not requested
MW-3A	10/3/2007	**117**	ANR	<10	<10	ANR	not requested	not requested
MW-3A	7/24/2008	**71**	ANR	<10	<10	ANR	not requested	not requested
MW-3A	1/8/2009	**115**	ANR	<10	<10	ANR	not requested	not requested
MW-3A	7/13/2009	**268**	ANR	<10	<10	ANR	not requested	not requested
MW-3A	10/1/2009	**303**	ANR	<10	<10	ANR	not requested	not requested
MW-3A	1/7/2010	**307**	ANR	<10	<10	ANR	not requested	not requested
MW-3A	6/23/2010	**35.8 J**	ANR	<10	<10	ANR	not requested	not requested
MW-3A	5/25/2011	**13.9 J**	ANR	<10	<10	ANR	not requested	not requested
MW-3A	5/16/2013	**5 J**	ANR	<10	<10	ANR	not requested	not requested
MW-3A	2/5/2016	<20	<6.0	<10.0	<10.0	<10.0	not requested	not requested
MW-3A	2/21/2017	<25	<6.0	<10.0	<10.0	<10.0	not requested	not requested
MW-3A	3/13/2018	<50	<6.0	<10.0	<10.0	<10.0	not requested	not requested
MW-3A	2/18/2019	<24.8	<5.9	<9.8	<9.8	<9.8	not requested	not requested
Corresponding MCL		1	6	NS	NS	NS	NS	NS

MW-3 damaged and replaced with MW-3A

TABLE III-2
HISTORIC GROUNDWATER ANALYTICAL DATA SUMMARY
MARSH LUMBER COMPANY
PAMPLICO, SOUTH CAROLINA
S&ME PROJECT NO. 1584-98-146C

Sample Location	Date Collected	Method 8270 (BNA or Acid Extractable List)					Tentatively Identified Compounds	
		Pentachloro-phenol	bis(2-Ethylhexyl)-phthalate	2,4-Dichloro-phenol	2,4,6-Trichloro-phenol**	2,4,5-Trichloro-phenol	1,2,3,4-Tetrachloro-phenol	3,4,5-Trichloro-phenol
MW-9	10/18/1993	nd	**21**	nd	nd	nd	not requested	not requested
	1/5/1999	nd	nt	nd	nd	nd	not requested	not requested
	8/16/2000	<50	ANR	<10	<10	<10	not requested	not requested
	3/28/2001	<20	<10	<10	<10	<10	not requested	not requested
	10/22/2001	<20	<10	<10	<10	<10	not requested	not requested
	4/24/2002	<20	ANR	<10	<10	ANR	not requested	not requested
	10/22/2002	<20	ANR	<10	<10	ANR	not requested	not requested
	5/20/2003	<20	ANR	<10	<10	ANR	not requested	not requested
	12/11/2003	<20	ANR	<10	<10	ANR	not requested	not requested
	5/25/2004	<20	ANR	<10	<10	ANR	not requested	not requested
	12/14/2004	<20	ANR	<10	<10	ANR	not requested	not requested
	6/15/2005	<20	ANR	<10	<10	ANR	not requested	not requested
	12/19/2005	<20	ANR	<10	<10	ANR	not detected	not detected
	7/20/2006	<20	ANR	<10	<10	ANR	not requested	not requested
	1/24/2007	<20	ANR	<10	<10	ANR	not requested	not requested
	10/3/2007	<20	ANR	<10	<10	ANR	not requested	not requested
	7/24/2008	<20	ANR	<10	<10	ANR	not requested	not requested
	1/8/2009	<20	ANR	<10	<10	ANR	not requested	not requested
	1/7/2010	<20	ANR	<10	<10	ANR	not requested	not requested
	6/23/2010	<50	ANR	<10	<10	ANR	not requested	not requested
	5/16/2013	**2 J**	ANR	<10	<10	ANR	not requested	not requested
	2/5/2016	<20	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	2/21/2017	<25	<6.0	<10.0	<10.0	<10.0	not requested	not requested
Corresponding MCL		1	6	NS	NS	NS	NS	NS

TABLE III-2
HISTORIC GROUNDWATER ANALYTICAL DATA SUMMARY
MARSH LUMBER COMPANY
PAMPLICO, SOUTH CAROLINA
S&ME PROJECT NO. 1584-98-146C

Sample Location	Date Collected	Method 8270 (BNA or Acid Extractable List)					Tentatively Identified Compounds	
		Pentachloro-phenol	bis(2-Ethylhexyl)-phthalate	2,4-Dichloro-phenol	2,4,6-Trichloro-phenol**	2,4,5-Trichloro-phenol	1,2,3,4-Tetrachloro-phenol	3,4,5-Trichloro-phenol
MW-10	10/18/1993	**62**	**18**	nd	nd	nd	not requested	not requested
	7/24/1998	**76**	nd	nd	nd	nd	not requested	not requested
	1/5/1999	**58**	nt	nd	nd	nd	not requested	not requested
	4/27/1999	**35**	nt	nd	nd	nd	not detected	not detected
	8/16/2000	**53**	ANR	<10	<10	<10	not detected	not detected
	3/28/2001	<20	<10	<10	<10	<10	not detected	not detected
	10/22/2001	**185**	<10	<10	<10	<10	not requested	not requested
	4/24/2002	**240 / {220}**	ANR	<50	<50	ANR	not requested	not requested
	10/22/2002	**155/ {241}**	ANR	<20	<20	ANR	not requested	not requested
	5/20/2003	<20	ANR	<10	<10	ANR	not requested	not requested
	12/11/2003	**10 J**	ANR	<10	<10	ANR	not requested	not requested
	5/25/2004	<20	ANR	<10	<10	ANR	not requested	not requested
	12/15/2004	<20	ANR	<10	<10	ANR	not requested	not requested
	6/15/2005	**11**	ANR	<10	<10	ANR	not requested	not requested
	12/19/2005	**8.4 J**	ANR	<10	<10	ANR	not detected	not detected
	7/20/2006	**2 J**	ANR	<10	<10	ANR	not requested	not requested
	1/24/2007	<20	ANR	<10	<10	ANR	not requested	not requested
	10/3/2007	**128**	ANR	<10	<10	ANR	not requested	not requested
	7/24/2008	**90**	ANR	<10	<10	ANR	not requested	not requested
	1/8/2009	**7 J**	ANR	<10	<10	ANR	not requested	not requested
	3/5/2009	**5 J**	ANR	<10	**3 J**	ANR	not requested	not requested
	1/7/2010	**5 J**	ANR	<10	<10	ANR	not requested	not requested
	6/23/2010	<50	ANR	<10	**1.8 J**	ANR	not requested	not requested
	5/25/2011	<50	ANR	<10	<10	ANR	not requested	not requested
	5/16/2013	**2 J**	ANR	**2 J**	<10	ANR	not requested	not requested
	2/5/2016	<20	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	9/14/2016	<50	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	12/8/2016	<50	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	2/21/2017	**16.0 J**	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	5/24/2017	<25.0	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	8/30/2017	<50	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	3/14/2018	<52.1	<6.3	<10.4	<10.4	<10.4	not detected	not detected
	6/26/2018	**30.4**	<5.9	<9.8	<9.8	<9.8	not requested	not requested
	9/19/2018	<25.5	<6.1	<10.2	<10.2	<10.2	not requested	not requested
	2/19/2019	<25.0	<6.0	<10.0	<10.0	<10.0	not requested	not requested
Corresponding MCL		1	6	NS	NS	NS	NS	NS

TABLE III-2
HISTORIC GROUNDWATER ANALYTICAL DATA SUMMARY
MARSH LUMBER COMPANY
PAMPLICO, SOUTH CAROLINA
S&ME PROJECT NO. 1584-98-146C

Sample Location	Date Collected	Method 8270 (BNA or Acid Extractable List)					Tentatively Identified Compounds	
		Pentachloro-phenol	bis(2-Ethylhexyl)-phthalate	2,4-Dichloro-phenol	2,4,6-Trichloro-phenol**	2,4,5-Trichloro-phenol	1,2,3,4-Tetrachloro-phenol	3,4,5-Trichloro-phenol
MW-11	10/18/1993	nd	**14**	nd	nd	nd	not requested	not requested
	1/5/1999	nd	nt	nd	nd	nd	not requested	not requested
	8/16/2000	**19**	ANR	<10	<10	<10	not requested	not requested
	3/28/2001	<20	<10	<10	<10	<10	not requested	not requested
	10/22/2001	<20	<10	<10	<10	<10	not requested	not requested
	4/24/2002	<20	ANR	<10	<10	ANR	not requested	not requested
	10/22/2002	<20	ANR	<10	<10	ANR	not requested	not requested
	5/20/2003	<20	ANR	<10	<10	ANR	not requested	not requested
	12/11/2003	<20	ANR	<10	<10	ANR	not requested	not requested
	5/25/2004	<20	ANR	<10	<10	ANR	not requested	not requested
	12/15/2004	<20	ANR	<10	<10	ANR	not requested	not requested
	6/15/2005	<20	ANR	<10	<10	ANR	not requested	not requested
	12/19/2005	<20	ANR	<10	<10	ANR	not detected	not detected
	7/20/2006	<20	ANR	<10	<10	ANR	not requested	not requested
	1/24/2007	<20	ANR	<10	<10	ANR	not requested	not requested
	10/4/2007	<20	ANR	<10	<10	ANR	not requested	not requested
	7/24/2008	<20	ANR	<10	<10	ANR	not requested	not requested
	1/8/2009	<20	ANR	<10	<10	ANR	not requested	not requested
	1/7/2010	<20	ANR	<10	<10	ANR	not requested	not requested
	6/23/2010	<50	ANR	<10	<10	ANR	not requested	not requested
	5/25/2011	<50	ANR	<10	<10	ANR	not requested	not requested
	5/16/2013	<20	ANR	<10	<10	ANR	not requested	not requested
	2/5/2016	<20	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	2/21/2017	<25	<6.0	<10.0	<10.0	<10.0	not requested	not requested
Corresponding MCL		1	6	NS	NS	NS	NS	NS

TABLE III-2
HISTORIC GROUNDWATER ANALYTICAL DATA SUMMARY
MARSH LUMBER COMPANY
PAMPLICO, SOUTH CAROLINA
S&ME PROJECT NO. 1584-98-146C

Sample Location	Date Collected	Method 8270 (BNA or Acid Extractable List)					Tentatively Identified Compounds	
		Pentachloro-phenol	bis(2-Ethylhexyl)-phthalate	2,4-Dichloro-phenol	2,4,6-Trichloro-phenol**	2,4,5-Trichloro-phenol	1,2,3,4-Tetrachloro-phenol	3,4,5-Trichloro-phenol
MW-13	8/16/2000	<50	ANR	<10	<10	<10	not requested	not requested
	3/28/2001	<20	<10	<10	<10	<10	not requested	not requested
	10/22/2001	<20	<10	<10	<10	<10	not requested	not requested
	4/24/2002	<20	ANR	<10	<10	ANR	not requested	not requested
	10/22/2002	<20	ANR	<10	<10	ANR	not requested	not requested
	5/20/2003	<20	ANR	<10	<10	ANR	not requested	not requested
	12/11/2003	<20	ANR	<10	<10	ANR	not requested	not requested
	12/15/2004	<20	ANR	<10	<10	ANR	not requested	not requested
	6/15/2005	<20	ANR	<10	<10	ANR	not requested	not requested
	12/19/2005	<20	ANR	<10	<10	ANR	not detected	not detected
	7/20/2006	<20	ANR	<10	<10	ANR	not requested	not requested
	1/24/2007	<20	ANR	<10	<10	ANR	not requested	not requested
	10/3/2007	<20	ANR	<10	<10	ANR	not requested	not requested
	7/24/2008	<20	ANR	<10	<10	ANR	not requested	not requested
	1/8/2009	<20	ANR	<10	<10	ANR	not requested	not requested
	1/7/2010	<20	ANR	<10	<10	ANR	not requested	not requested
	6/23/2010	<50	ANR	<10	<10	ANR	not requested	not requested
	5/25/2011	<50	ANR	<10	<10	ANR	not requested	not requested
	5/16/2013	<20	ANR	<10	<10	ANR	not requested	not requested
	2/5/2016	<20	<6.0	<10.0	<10.0	<10.0	not requested	not requested
MW-13A	2/21/2017	<25	<6.0	<10.0	<10.0	<10.0	not requested	not requested
MW-13A	11/3/2017	<25	<6.0	<10.0	<10.0	<10.0	not requested	not requested
MW-13A	3/13/2018	<50	<6.0	<10.0	<10.0	<10.0	not detected	not detected
MW-13A	9/20/2018	<25.0	<6.0	<10.0	<10.0	<10.0	not requested	not requested
MW-13A	2/21/2019	<24.5	<5.9	<9.8	<9.8	<9.8	not requested	not requested
Corresponding MCL		1	6	NS	NS	NS	NS	NS

MW-13 damaged and replaced with MW-13A

TABLE III-2
HISTORIC GROUNDWATER ANALYTICAL DATA SUMMARY
MARSH LUMBER COMPANY
PAMPLICO, SOUTH CAROLINA
S&ME PROJECT NO. 1584-98-146C

Sample Location	Date Collected	Method 8270 (BNA or Acid Extractable List)					Tentatively Identified Compounds	
		Pentachloro-phenol	bis(2-Ethylhexyl)-phthalate	2,4-Dichloro-phenol	2,4,6-Trichloro-phenol**	2,4,5-Trichloro-phenol	1,2,3,4-Tetrachloro-phenol	3,4,5-Trichloro-phenol
MW-14	8/16/2000	**1100**	ANR	<10	<10	**15**	not requested	not requested
	3/28/2001	**734**	<10	<10	<10	<10	not requested	not requested
	10/22/2001	**2020**	<10	<10	<10	<10	not requested	not requested
	4/24/2002	**595 / (950)**	ANR	<400	<400	ANR	not requested	not requested
	10/22/2002	**741/ {908}**	ANR	<10	<10	ANR	not requested	not requested
	5/20/2003	**557/"576"**	ANR	<10	<10	ANR	not requested	not requested
	12/11/2003	**650**	ANR	<10	<10	ANR	not requested	not requested
	5/25/2004	**590**	ANR	<10	<10	ANR	not requested	not requested
	12/15/2004	**625**	ANR	<10	<10	ANR	not requested	not requested
	6/15/2005	**482**	ANR	<10	<10	ANR	not requested	not requested
	12/19/2005	**411**	ANR	<10	<10	ANR	not detected	**13**
	7/20/2006	well not found	well not found	well not found	well not found	well not found	well not found	well not found
	1/24/2007	**584**	ANR	<10	<10	ANR	not requested	not requested
	10/4/2007	**42**	ANR	<10	**11**	ANR	not requested	not requested
	7/24/2008	**264**	ANR	<10	<10	ANR	not requested	not requested
	1/8/2009	**142**	ANR	<10	<10	ANR	not requested	not requested
	1/7/2010	**129**	ANR	<10	<10	ANR	not requested	not requested
	6/23/2010	**133**	ANR	<10	**2.0 J**	ANR	not requested	not requested
	5/25/2011	**371**	ANR	<10	<10	ANR	not requested	not requested
	5/16/2013	**333**	ANR	<10	<10	ANR	not requested	not requested
	2/5/2016	**214 / (279)**	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	9/14/2016	**214**	<6.0	<10.0	<10.0	<10.0	not detected	**11.5 J**
	12/13/2016	<250	<30	<50	<50	<50	not requested	not requested
	2/21/2017	<250 / (<250)	<60.0	<100	<100	<100	not requested	not requested
MW-14A	6/7/2017	**122**	<6.0	<10.0	<10.0	<10.0	not requested	not requested
MW-14A	8/30/2017	<50	<6.0	<10.0	<10.0	<10.0	not requested	not requested
MW-14A	3/14/2018	<50	<6.0	<10.0	<10.0	<10.0	not detected	not detected
MW-14A	6/26/2018	<24.5	<5.9	<9.8	<9.8	<9.8	not requested	not requested
MW-14A	9/21/2018	<26.6	<6.4	<10.6	<10.6	<10.6	not requested	not requested
MW-14A	2/20/2019	<25.0	<6.0	<10.0	<10.0	<10.0	not requested	not requested
Corresponding MCL		1	6	NS	NS	NS	NS	NS

TABLE III-2
HISTORIC GROUNDWATER ANALYTICAL DATA SUMMARY
MARSH LUMBER COMPANY
PAMPLICO, SOUTH CAROLINA
S&ME PROJECT NO. 1584-98-146C

Sample Location	Date Collected	Method 8270 (BNA or Acid Extractable List)					Tentatively Identified Compounds	
		Pentachloro-phenol	bis(2-Ethylhexyl)-phthalate	2,4-Dichloro-phenol	2,4,6-Trichloro-phenol**	2,4,5-Trichloro-phenol	1,2,3,4-Tetrachloro-phenol	3,4,5-Trichloro-phenol
MW-15	8/16/2000	<50	ANR	<10	<10	<10	not requested	not requested
	3/28/2001	<20	<10	<10	<10	<10	not requested	not requested
	10/22/2001	<20	<10	<10	<10	<10	not requested	not requested
	4/24/2002	<20	ANR	<10	<10	ANR	not requested	not requested
	10/22/2002	<20	ANR	<10	<10	ANR	not requested	not requested
	5/20/2003	**551**	ANR	<10	<10	ANR	not requested	not requested
	6/16/2003	<20	ANR	<10	<10	ANR	not requested	not requested
	12/11/2003	<20	ANR	<10	<10	ANR	not requested	not requested
	5/25/2004	<20	ANR	<10	<10	ANR	not requested	not requested
	12/14/2004	<20	ANR	<10	<10	ANR	not requested	not requested
	6/15/2005	<20	ANR	<10	<10	ANR	not requested	not requested
	12/19/2005	<20	ANR	<10	<10	ANR	not detected	not detected
	7/21/2006	<20	ANR	<10	<10	ANR	not requested	not requested
	1/24/2007	<20	ANR	<10	<10	ANR	not requested	not requested
	10/4/2007	<20	ANR	<10	<10	ANR	not requested	not requested
	7/24/2008	<20	ANR	<10	<10	ANR	not requested	not requested
	1/8/2009	<20	ANR	<10	<10	ANR	not requested	not requested
	1/7/2010	<20	ANR	<10	<10	ANR	not requested	not requested
	6/23/2010	<50	ANR	<10	<10	ANR	not requested	not requested
	5/25/2011	<50	ANR	<10	<10	ANR	not requested	not requested
	5/16/2013	<20	ANR	<10	<10	ANR	not requested	not requested
	2/5/2016	<20	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	9/14/2016	<50	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	12/8/2016	<50	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	2/21/2017	<25	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	5/23/2017	<31.2	<7.5	<12.5	<12.5	<12.5	not requested	not requested
	8/29/2017	<50	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	3/13/2018	<52.1	<6.3	<10.4	<10.4	<10.4	not requested	not requested
	9/19/2018	<24.8	<5.9	<9.9	<9.9	<9.9	not requested	not requested
	2/20/2019	<25.0	<6.0	<10.0	<10.0	<10.0	not requested	not requested
Corresponding MCL		1	6	NS	NS	NS	NS	NS

TABLE III-2
HISTORIC GROUNDWATER ANALYTICAL DATA SUMMARY
MARSH LUMBER COMPANY
PAMPLICO, SOUTH CAROLINA
S&ME PROJECT NO. 1584-98-146C

Sample Location	Date Collected	Method 8270 (BNA or Acid Extractable List)					Tentatively Identified Compounds	
		Pentachloro-phenol	bis(2-Ethylhexyl)-phthalate	2,4-Dichloro-phenol	2,4,6-Trichloro-phenol**	2,4,5-Trichloro-phenol	1,2,3,4-Tetrachloro-phenol	3,4,5-Trichloro-phenol
MW-16	8/16/2000	**16**	ANR	<10	<10	<10	not requested	not requested
	3/28/2001	**27**	<10	<10	<10	<10	not requested	not requested
	10/22/2001	**56**	<10	<10	<10	<10	not requested	not requested
	4/24/2002	**38**	nt	nd	nd	nd	not requested	not requested
	10/22/2002	<20	ANR	<10	<10	ANR	not requested	not requested
	5/20/2003	<20	ANR	<10	<10	ANR	not requested	not requested
	12/11/2003	<20	ANR	<10	<10	ANR	not requested	not requested
	5/25/2004	<20	ANR	<10	<10	ANR	not requested	not requested
	12/14/2004	<20	ANR	<10	<10	ANR	not requested	not requested
	6/15/2005	<20	ANR	<10	<10	ANR	not requested	not requested
	12/19/2005	<20	ANR	<10	<10	ANR	not detected	not detected
	7/20/2006	**1.9 J**	ANR	<10	<10	ANR	not requested	not requested
	1/24/2007	<20	ANR	<10	<10	ANR	not requested	not requested
	10/4/2007	**2 J**	ANR	<10	<10	ANR	not requested	not requested
	7/24/2008	<20	ANR	<10	<10	ANR	not requested	not requested
	1/8/2009	**3 J**	ANR	<10	<10	ANR	not requested	not requested
	1/7/2010	**4 J**	ANR	<10	<10	ANR	not requested	not requested
	6/23/2010	**5.8 J**	ANR	<10	<10	ANR	not requested	not requested
	5/25/2011	<50	ANR	<10	<10	ANR	not requested	not requested
	5/16/2013	**7 J**	ANR	<10	<10	ANR	not requested	not requested
	2/5/2016	<20	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	2/20/2017	<25	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	3/13/2018	<51	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	2/19/2019	<25.0	<6.0	<10.0	<10.0	<10.0	not requested	not requested
Corresponding MCL		1	6	NS	NS	NS	NS	NS

TABLE III-2
HISTORIC GROUNDWATER ANALYTICAL DATA SUMMARY
MARSH LUMBER COMPANY
PAMPLICO, SOUTH CAROLINA
S&ME PROJECT NO. 1584-98-146C

Sample Location	Date Collected	Method 8270 (BNA or Acid Extractable List)					Tentatively Identified Compounds	
		Pentachloro-phenol	bis(2-Ethylhexyl)-phthalate	2,4-Dichloro-phenol	2,4,6-Trichloro-phenol**	2,4,5-Trichloro-phenol	1,2,3,4-Tetrachloro-phenol	3,4,5-Trichloro-phenol
MW-17	3/28/2007	<20	ANR	<10	<10	ANR	not requested	not requested
	10/3/2007	<20	ANR	<10	<10	ANR	not requested	not requested
	7/24/2008	<20	ANR	<10	<10	ANR	not requested	not requested
	1/8/2009	<20	ANR	<10	<10	ANR	not requested	not requested
	1/7/2010	<20	ANR	<10	<10	ANR	not requested	not requested
	6/23/2010	<50	ANR	<10	<10	ANR	not requested	not requested
	5/25/2011	<50	ANR	<10	<10	ANR	not requested	not requested
	5/16/2013	<20	ANR	<10	<10	ANR	not requested	not requested
	2/5/2016	<20	<6.0	<10.0	<10.0	<10.0	not requested	not requested
MW-17A	9/15/2016	<50	<6.0	<10.0	<10.0	<10.0	not requested	not requested
MW-17A	2/21/2017	<25	<6.0	<10.0	<10.0	<10.0	not requested	not requested
MW-18A	1/8/2009	<20	ANR	<10	<10	ANR	not requested	not requested
	1/7/2010	<20	ANR	<10	<10	ANR	not requested	not requested
	6/23/2010	<50	ANR	<10	<10	ANR	not requested	not requested
	5/25/2011	<50	ANR	<10	<10	ANR	not requested	not requested
	5/16/2013	<20	ANR	<10	<10	ANR	not requested	not requested
	2/5/2016	<20	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	2/20/2017	<25	<6.0	<10.0	<10.0	<10.0	not requested	not requested
MW-18B	1/8/2009	<20	ANR	<10	<10	ANR	not requested	not requested
	1/7/2010	<20	ANR	<10	<10	ANR	not requested	not requested
	6/23/2010	<50	ANR	<10	<10	ANR	not requested	not requested
	5/25/2011	<50	ANR	<10	<10	ANR	not requested	not requested
	5/16/2013	<20	ANR	<10	<10	ANR	not requested	not requested
	2/5/2016	<20	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	2/20/2017	<25	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	3/13/2018	<51	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	2/19/2019	<25.0	<6.0	<10.0	<10.0	<10.0	not requested	not requested
Corresponding MCL		1	6	NS	NS	NS	NS	NS

TABLE III-2
HISTORIC GROUNDWATER ANALYTICAL DATA SUMMARY
MARSH LUMBER COMPANY
PAMPLICO, SOUTH CAROLINA
S&ME PROJECT NO. 1584-98-146C

Sample Location	Date Collected	Method 8270 (BNA or Acid Extractable List)					Tentatively Identified Compounds	
		Pentachloro-phenol	bis(2-Ethylhexyl)-phthalate	2,4-Dichloro-phenol	2,4,6-Trichloro-phenol**	2,4,5-Trichloro-phenol	1,2,3,4-Tetrachloro-phenol	3,4,5-Trichloro-phenol
MW-19	9/15/2016	<50	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	2/20/2017	<25	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	3/13/2018	<51	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	2/19/2019	<25.0	<6.0	<10.0	<10.0	<10.0	not requested	not requested
MW-20	9/15/2016	<50	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	2/21/2017	<25	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	3/13/2018	<49	<5.9	<9.8	<9.8	<9.8	not detected	not detected
	9/19/2018	<27.2	<6.5	<10.9	<10.9	<10.9	not requested	not requested
	2/20/2019	<25.0	<6.0	<10.0	<10.0	<10.0	not requested	not requested
MW-21	9/15/2016	**16.6 J/(21.5 J)**	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	12/13/2016	<50	<6.0	<10.0	<10.0	<10.0	not detected	not detected
	2/22/2017	**6.5 J**	<6.0	<10.0	<10.0	<10.0	not detected	not detected
	5/23/2017	<31.2	<7.5	<12.5	<12.5	<12.5	not detected	not detected
	8/30/2017	<50	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	3/14/2018	<52.1	<6.3	<10.4	<10.4	<10.4	not detected	not detected
	2/21/2019	<24.8	<5.9	<9.8	<9.8	<9.8	not requested	not requested
MW-22	9/15/2016	<50	<6.0	<10.0	<10.0	<10.0	not detected	not detected
	12/13/2016	**294**	<6.0	<10.0	<10.0	<10.0	not detected	**5.8 J**
*	2/21/2017	**472**	<6.0	<10.0	<10.0	<10.0	not detected	**12.0 J**
	5/23/2017	**358**	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	8/30/2017	**339**	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	3/14/2018	**271**	<5.8	<9.6	<9.6	<9.6	not detected	**10.238**
	6/26/2018	**150**	<5.9	<9.8	<9.8	<9.8	not requested	not requested
	9/20/2018	**186**	<6.1	<10.2	<10.2	<10.2	not requested	not requested
	2/18/2019	**128**	<5.9	<9.8	<9.8	<9.8	not requested	not requested
Corresponding MCL		1	6	NS	NS	NS	NS	NS

** = Reported pentachlorophenol biodegradation compounds

* 2,3,4,6-Tetrachlorophenol reported concentration = 5.3 J at MW-22 on this sampling date

TABLE III-2
HISTORIC GROUNDWATER ANALYTICAL DATA SUMMARY
MARSH LUMBER COMPANY
PAMPLICO, SOUTH CAROLINA
S&ME PROJECT NO. 1584-98-146C

Sample Location	Date Collected	Method 8270 (BNA or Acid Extractable List)					Tentatively Identified Compounds	
		Pentachloro-phenol	bis(2-Ethylhexyl)-phthalate	2,4-Dichloro-phenol	2,4,6-Trichloro-phenol**	2,4,5-Trichloro-phenol	1,2,3,4-Tetrachloro-phenol	3,4,5-Trichloro-phenol
MW-23	9/15/2016	<50	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	12/13/2016	<50 / (<50)	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	2/22/2017	<25	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	5/23/2017	<31.2	<7.5	<12.5	<12.5	<12.5	not requested	not requested
	8/30/2017	<50	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	3/14/2018	<52.1	<6.3	<10.4	<10.4	<10.4	not detected	not detected
	9/21/2018	<25.0	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	2/18/2019	<24.5	<5.9	<9.8	<9.8	<9.8	not requested	not requested
MW-24	5/24/2017	<31.2	<7.5	<12.5	<12.5	<12.5	not requested	not requested
	8/30/2017	<50	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	3/14/2018	<50	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	6/27/2018	<24.5	<5.9	<9.8	<9.8	<9.8	not requested	not requested
	9/21/2018	<24.5	<5.9	<9.8	<9.8	<9.8	not requested	not requested
	2/18/2019	<24.5	<5.9	<9.8	<9.8	<9.8	not requested	not requested
MW-25	11/2/2017	**151**	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	3/14/2018	**114**	<6.4	<10.6	<10.6	<10.6	not detected	not detected
	6/26/2018	**72.5**	<5.9	<9.8	<9.8	<9.8	not requested	not requested
	9/20/2018	**55.8**	<5.9	<9.8	<9.8	<9.8	not requested	not requested
	2/20/2019	**47.4**	<6.0	<10.0	<10.0	<10.0	not requested	not requested
MW-26	11/2/2017	<25	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	3/14/2018	<55.6	<6.7	<11.1	<11.1	<11.1	not detected	not detected
	6/27/2018	<24.5	<5.9	<9.8	<9.8	<9.8	not requested	not requested
	9/20/2018	<25.0	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	2/21/2019	<24.5	<5.9	<9.8	<9.8	<9.8	not requested	not requested
Corresponding MCL		1	6	NS	NS	NS	NS	NS

TABLE III-2
HISTORIC GROUNDWATER ANALYTICAL DATA SUMMARY
MARSH LUMBER COMPANY
PAMPLICO, SOUTH CAROLINA
S&ME PROJECT NO. 1584-98-146C

Sample Location	Date Collected	Method 8270 (BNA or Acid Extractable List)					Tentatively Identified Compounds	
		Pentachloro-phenol	bis(2-Ethylhexyl)-phthalate	2,4-Dichloro-phenol	2,4,6-Trichloro-phenol**	2,4,5-Trichloro-phenol	1,2,3,4-Tetrachloro-phenol	3,4,5-Trichloro-phenol
MW-27	11/2/2017	**323**	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	3/14/2018	<56.8	<6.8	<11.4	<11.4	<11.4	not detected	not detected
	6/26/2018	<24.5	<5.9	<9.8	<9.8	<9.8	not requested	not requested
	9/19/2018	<25.5	<6.1	<10.2	<10.2	<10.2	not requested	not requested
	2/20/2019	<25.0	<6.0	<10.0	<10.0	<10.0	not requested	not requested
MW-28	11/3/2017	**351**	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	3/14/2018	**262**	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	6/27/2018	**128**	<5.9	<9.8	<9.8	<9.8	not requested	not requested
	9/20/2018	**252**	<6.4	<10.6	<10.6	<10.6	not requested	not requested
	2/21/2019	**151**	<5.9	<9.8	<9.8	<9.8	not requested	not requested
MW-29	11/3/2017	**51.7**	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	3/14/2018	<51	<6.1	<10.2	<10.2	<10.2	not detected	not detected
	9/20/2018	**41.4**	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	2/21/2019	<24.5	<5.9	<9.8	<9.8	<9.8	not requested	not requested
MW-30	11/3/2017	<25	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	3/13/2018	<52.1	<6.3	<10.4	<10.4	<10.4	not detected	not detected
	6/27/2018	<24.5	<5.9	<9.8	<9.8	<9.8	not requested	not requested
	9/20/2018	<25.0	<6.0	<10.0	<10.0	<10.0	not requested	not requested
	2/19/2019	<25.0	<6.0	<10.0	<10.0	<10.0	not requested	not requested
Corresponding MCL		1	6	NS	NS	NS	NS	NS

all concentrations reported in micrograms per liter (µg/l)

J = An estimated value less than the reporting value.'

MCL = Maximum Contaminant Levels

NS = no standard

nd = not detected

ANR = analyte not requested

25 / (25) Sample analytical result on left. Analytical result for duplicate sample on the right in parenthesis

** = Reported pentachlorophenol biodegradation compounds

155/ {241} = The number on the left is the analytical results for the sample collected following normal well purging procedures. The bracketed number on the right represents the analytical results for the sample collected with no purging prior to sample collection.

The bracketed number on the right represents the analytical results for the sample collected with no purging prior to sample collection.

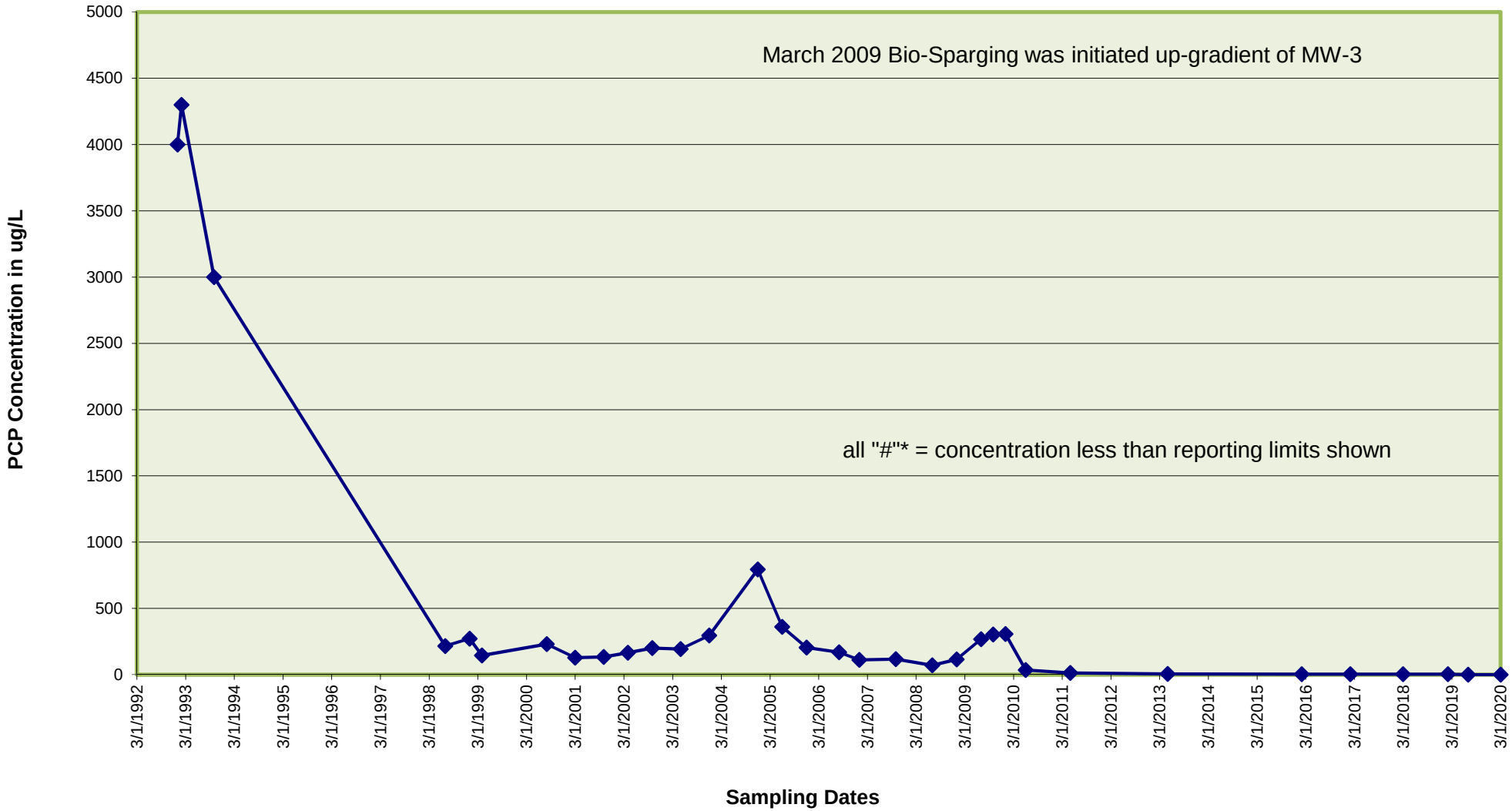
557/"576" The value on the left is for pre-acidified samples preparation used site wide. The 2nd value for the split sample result with no pre-acidification.

green shaded cells denote 1st bio-sparge pilot test time frame (2009 - 2013). Pilot test focused on area up-gradient of well MW-3A.

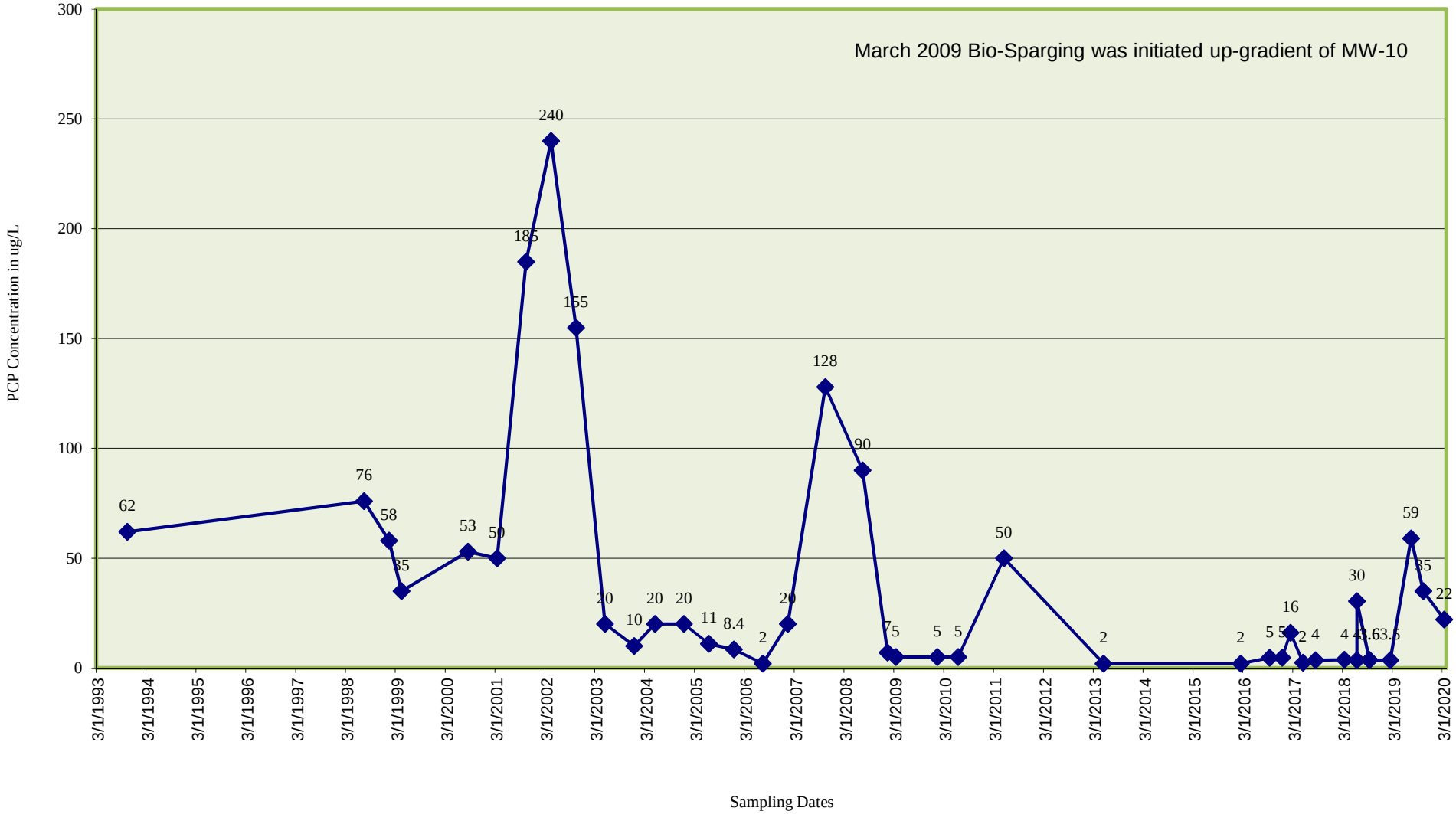
blue shaded cells denote 2nd bio-sparge pilot test time frame (2016 - 2019). Pilot test focused on the area around well MW-14A

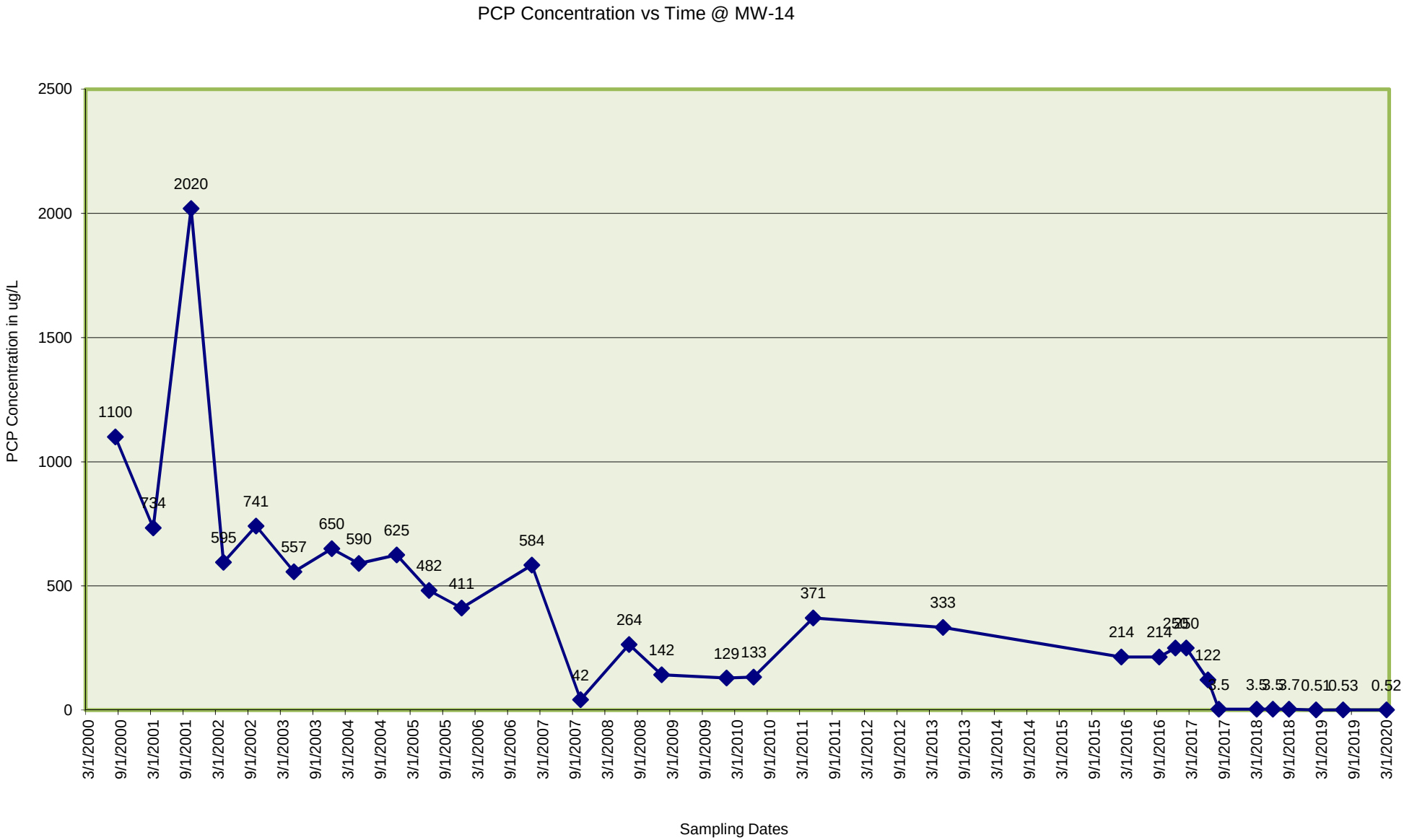
Appendix IV – Time vs Concentration Graphs

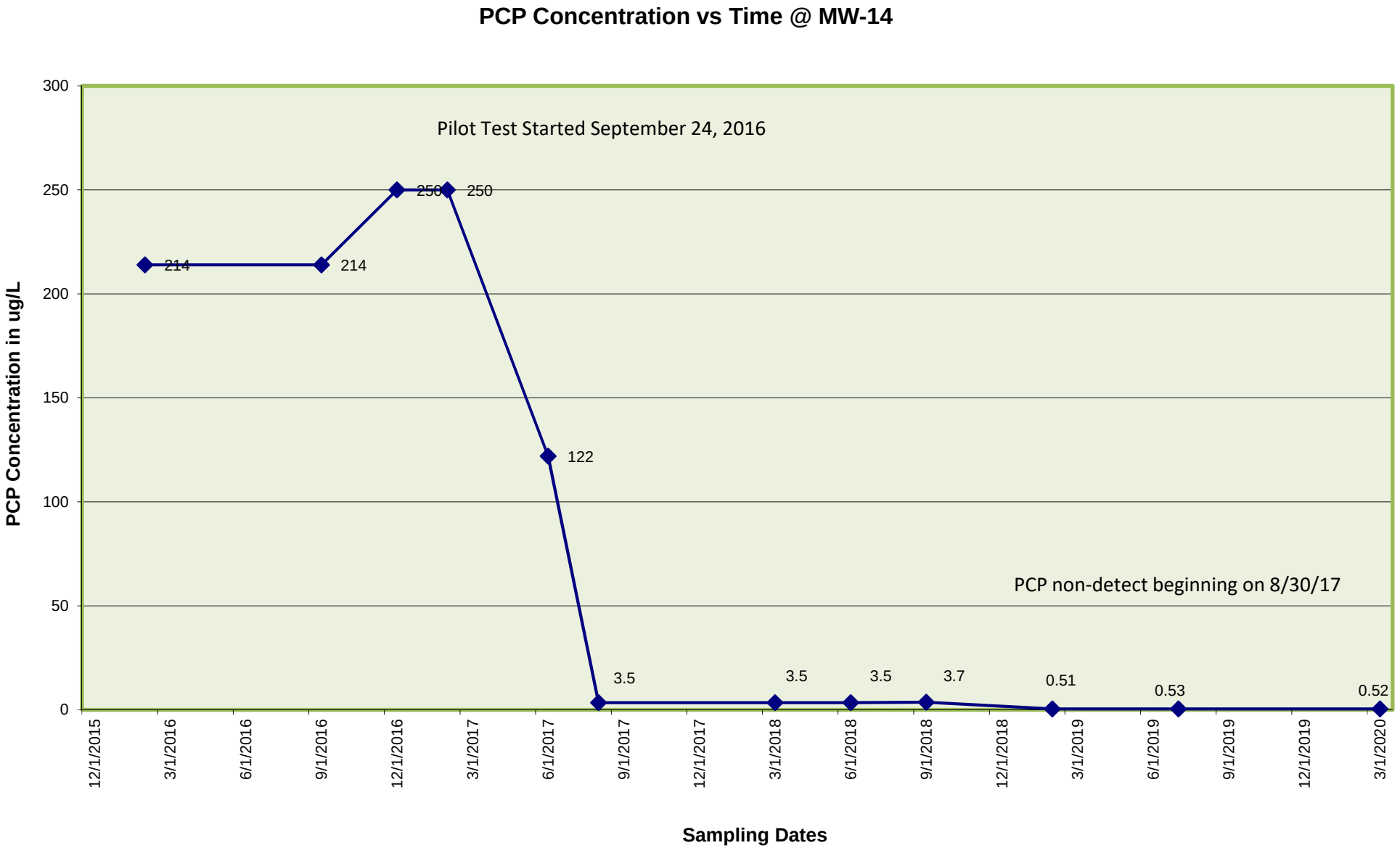
PCP Concentrations vs Time @ MW-3



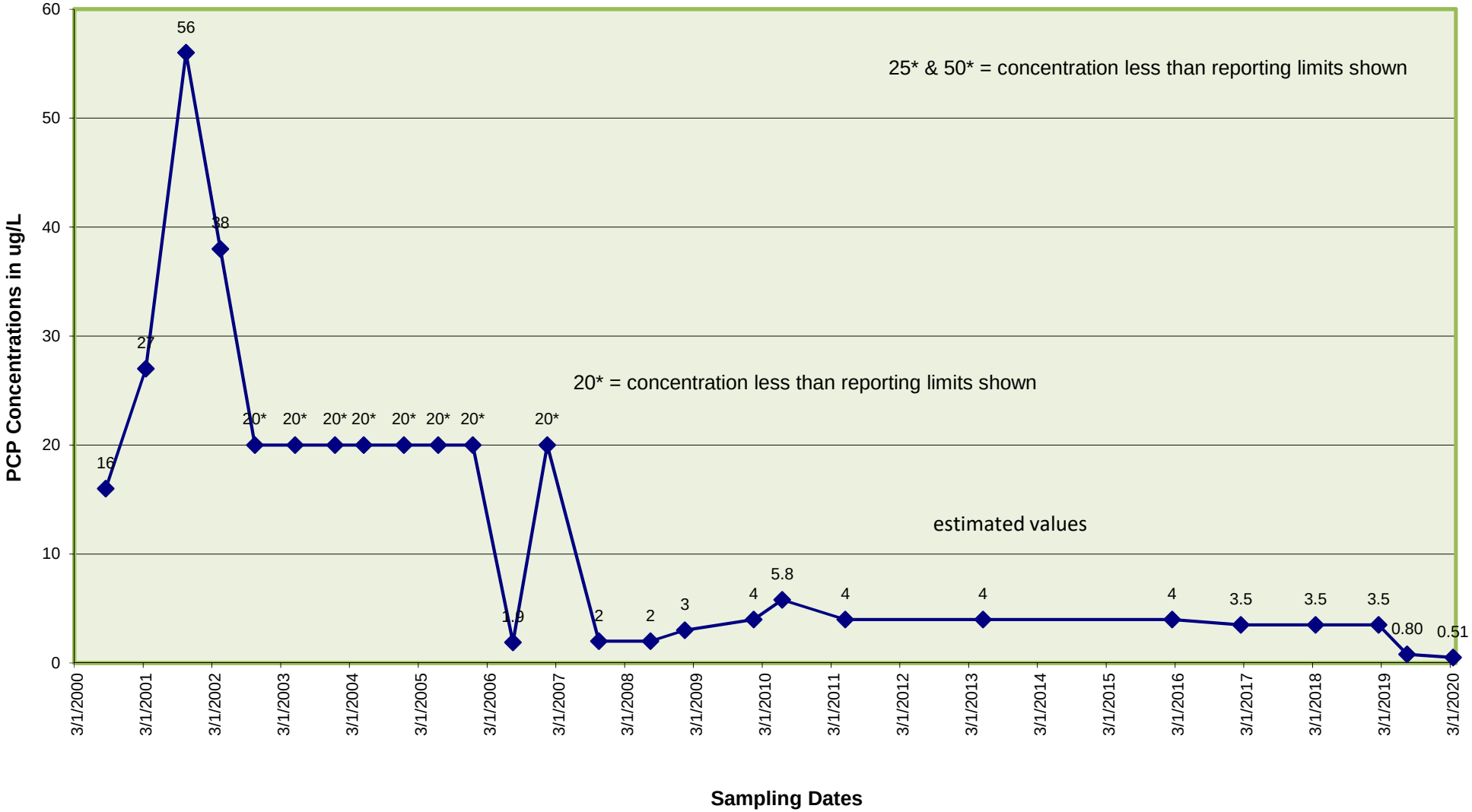
PCP Concentrations vs Time @ MW-10

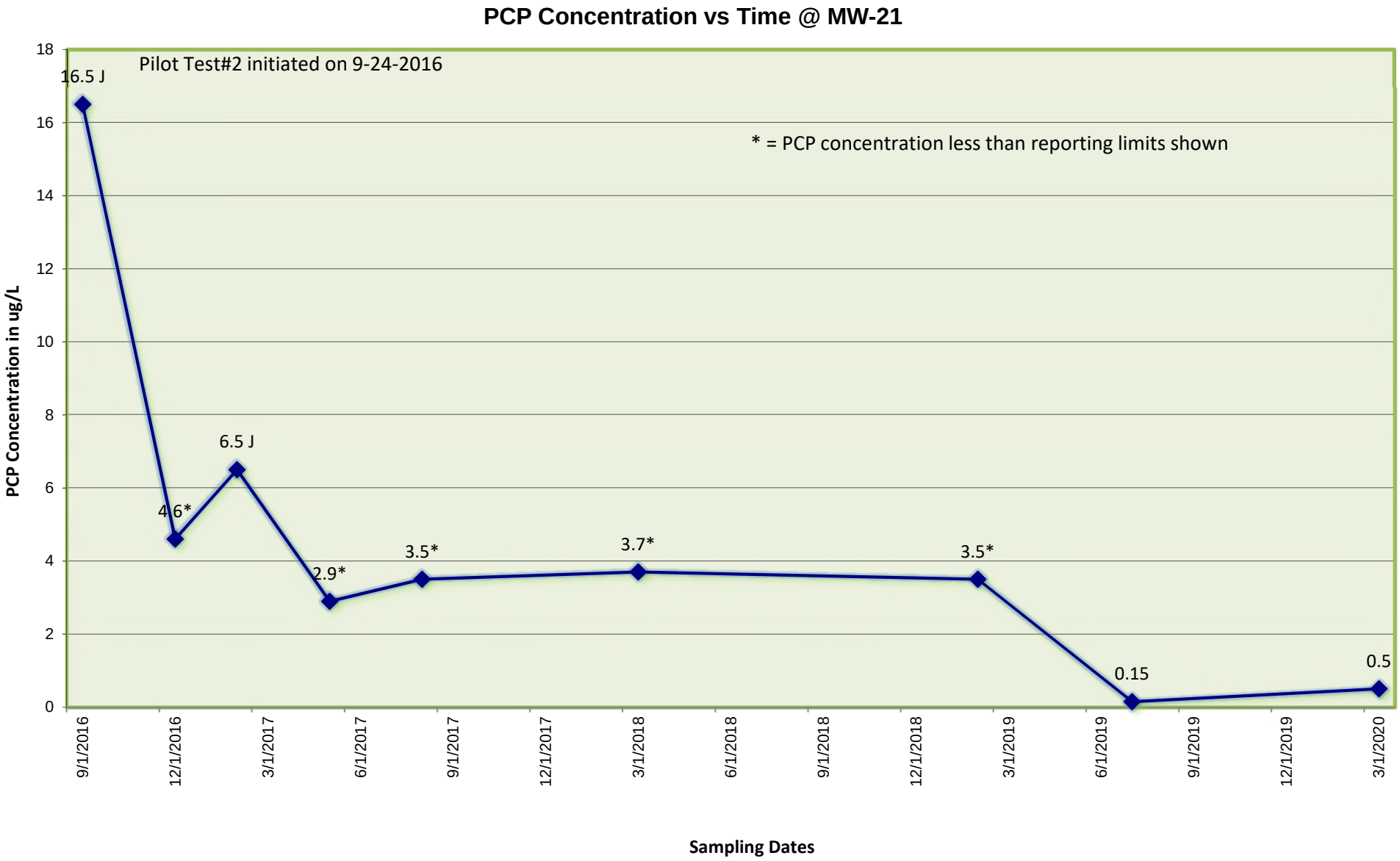


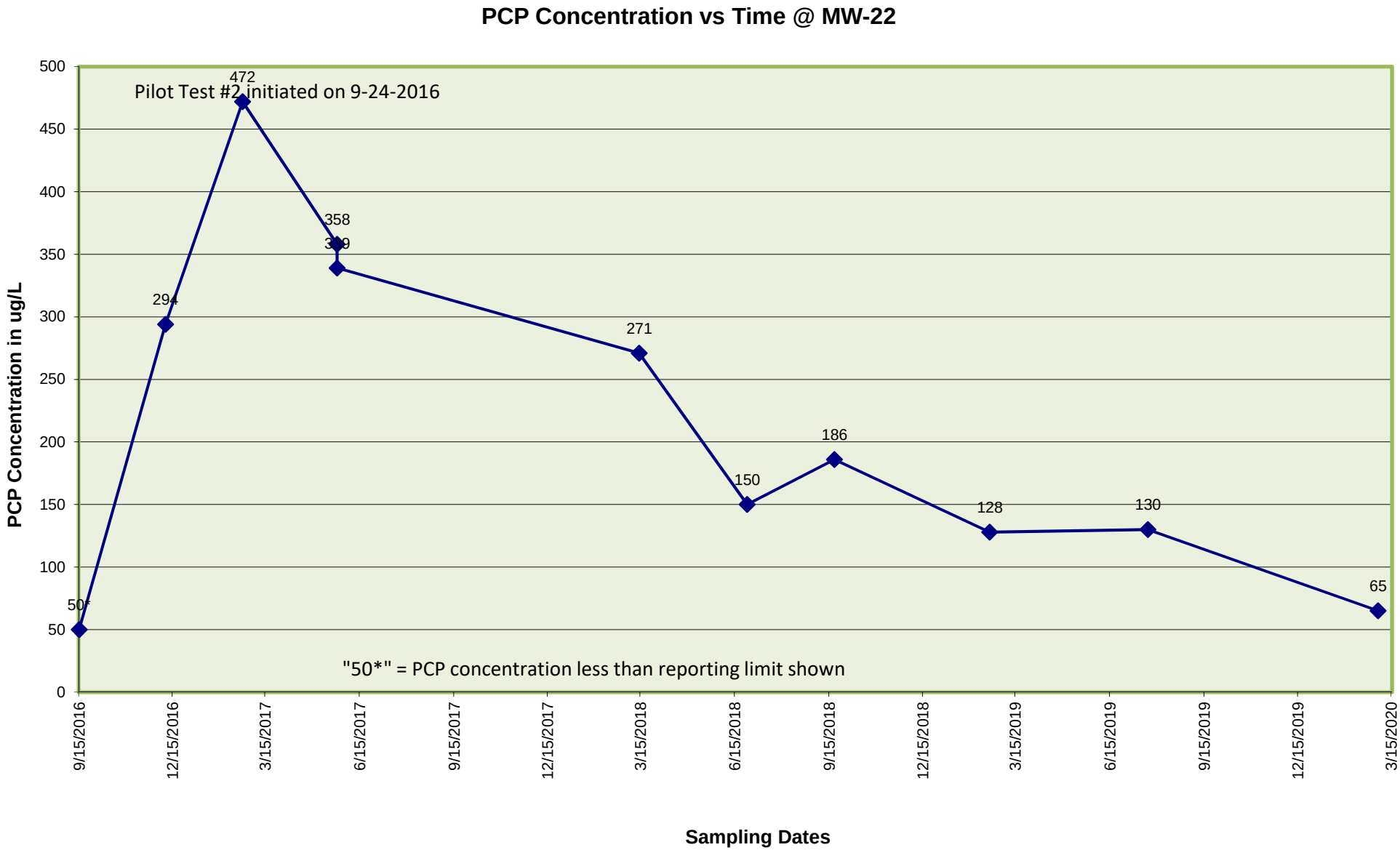

PCP Concentration vs Time @ MW-14
PCP Concentration in ug/L
2500
2000
1500
1000
500
0
1100
734
2020
595
741
557
650
590
625
482
411
584
42
264
142
129
133
371
333
214
214
122
3.5
0.52
3/1/2000
9/1/2000
3/1/2001
9/1/2001
3/1/2002
9/1/2002
3/1/2003
9/1/2003
3/1/2004
9/1/2004
3/1/2005
9/1/2005
3/1/2006
9/1/2006
3/1/2007
9/1/2007
3/1/2008
9/1/2008
3/1/2009
9/1/2009
3/1/2010
9/1/2010
3/1/2011
9/1/2011
3/1/2012
9/1/2012
3/1/2013
9/1/2013
3/1/2014
9/1/2014
3/1/2015
9/1/2015
3/1/2016
9/1/2016
3/1/2017
9/1/2017
3/1/2018
9/1/2018
3/1/2019
9/1/2019
3/1/2020
Sampling Dates

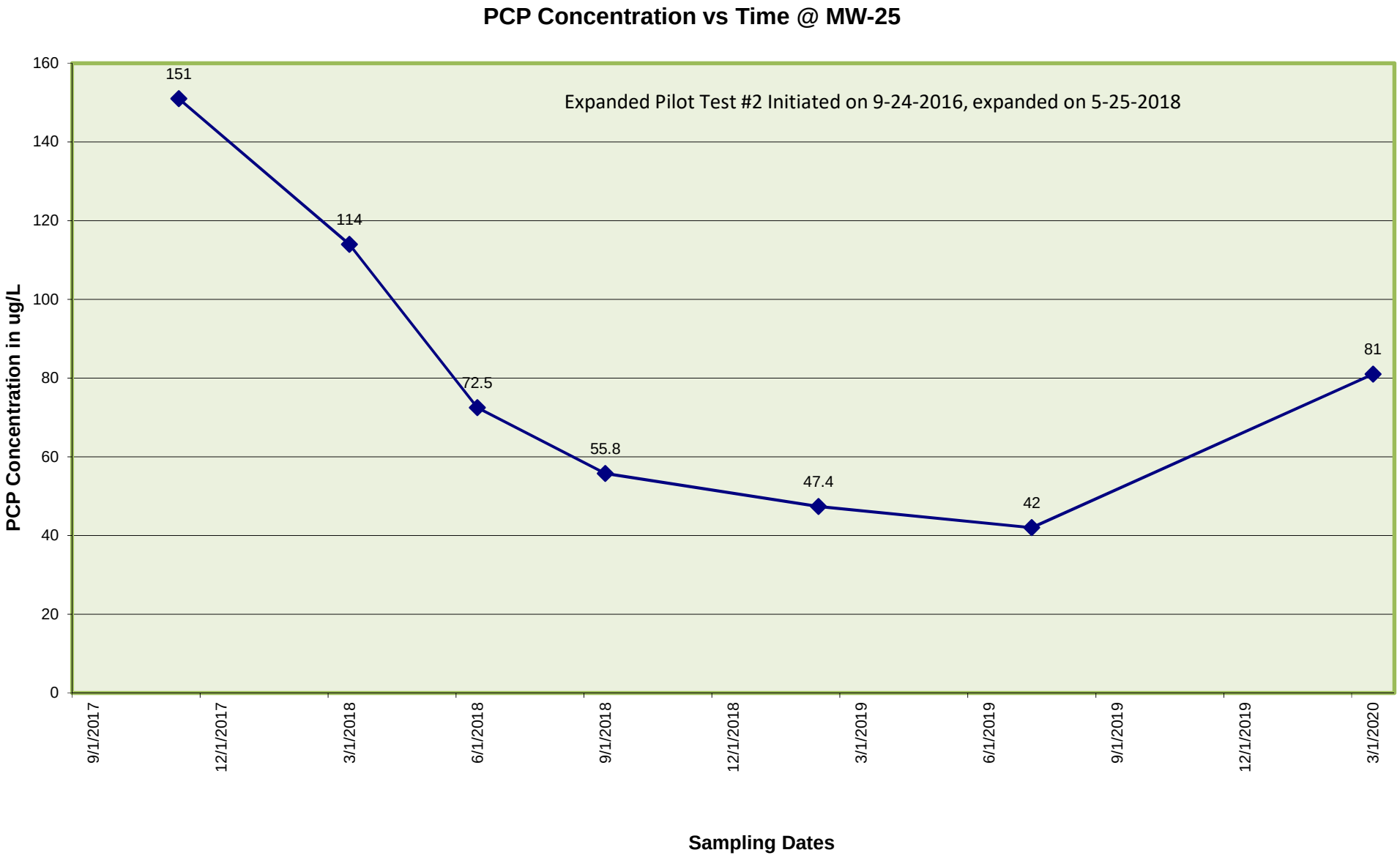

PCP Concentration vs Time @ MW-14
Pilot Test Started September 24, 2016
PCP non-detect beginning on 8/30/17
PCP Concentration in ug/L
Sampling Dates
300
250
200
150
100
50
0
214
214
250
250
122
3.5
3.5
3.5
3.7
0.51
0.53
0.52
12/1/2015
3/1/2016
6/1/2016
9/1/2016
12/1/2016
3/1/2017
6/1/2017
9/1/2017
12/1/2017
3/1/2018
6/1/2018
9/1/2018
12/1/2018
3/1/2019
6/1/2019
9/1/2019
12/1/2019
3/1/2020

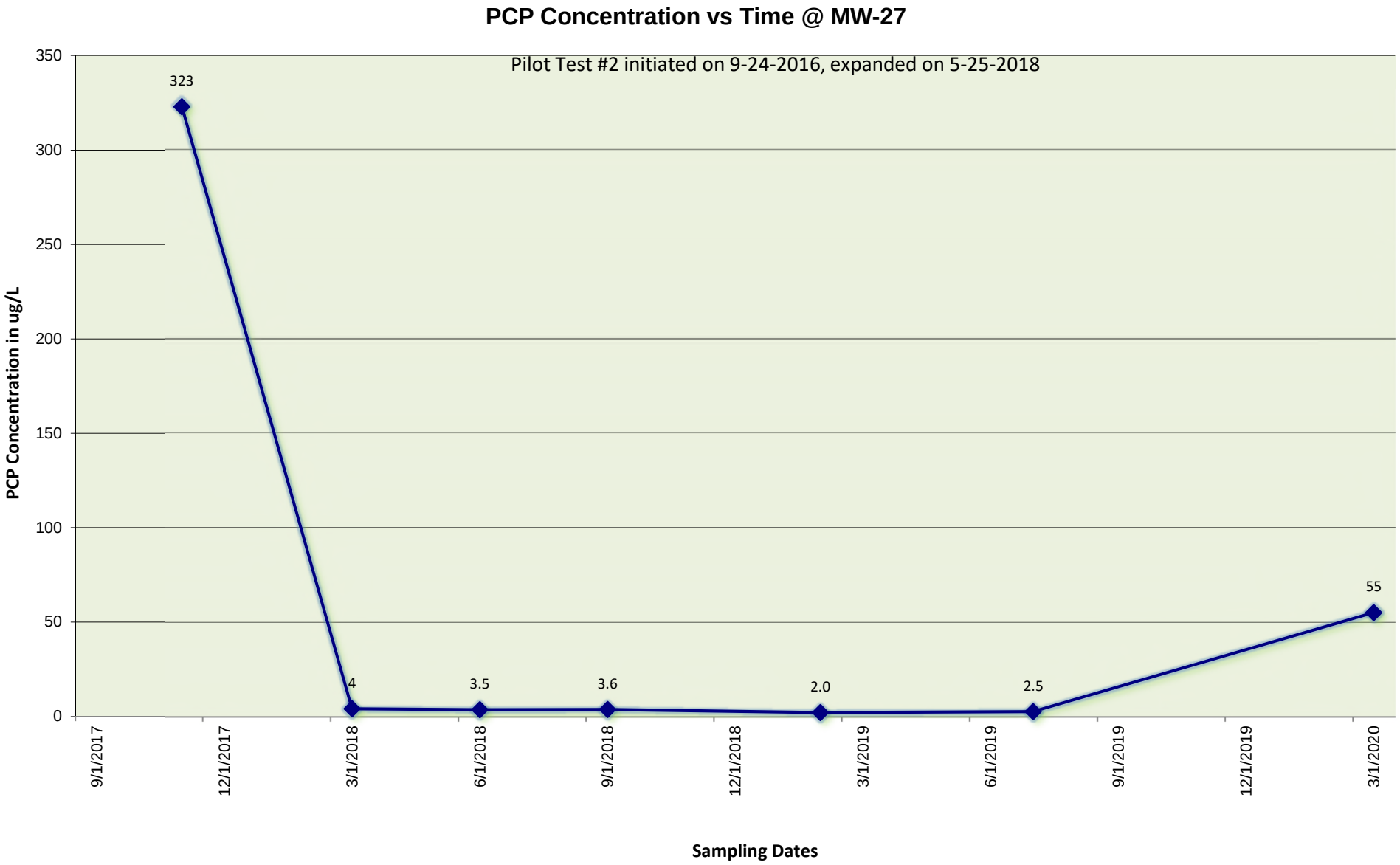
PCP Concentrations vs Time @ MW-16

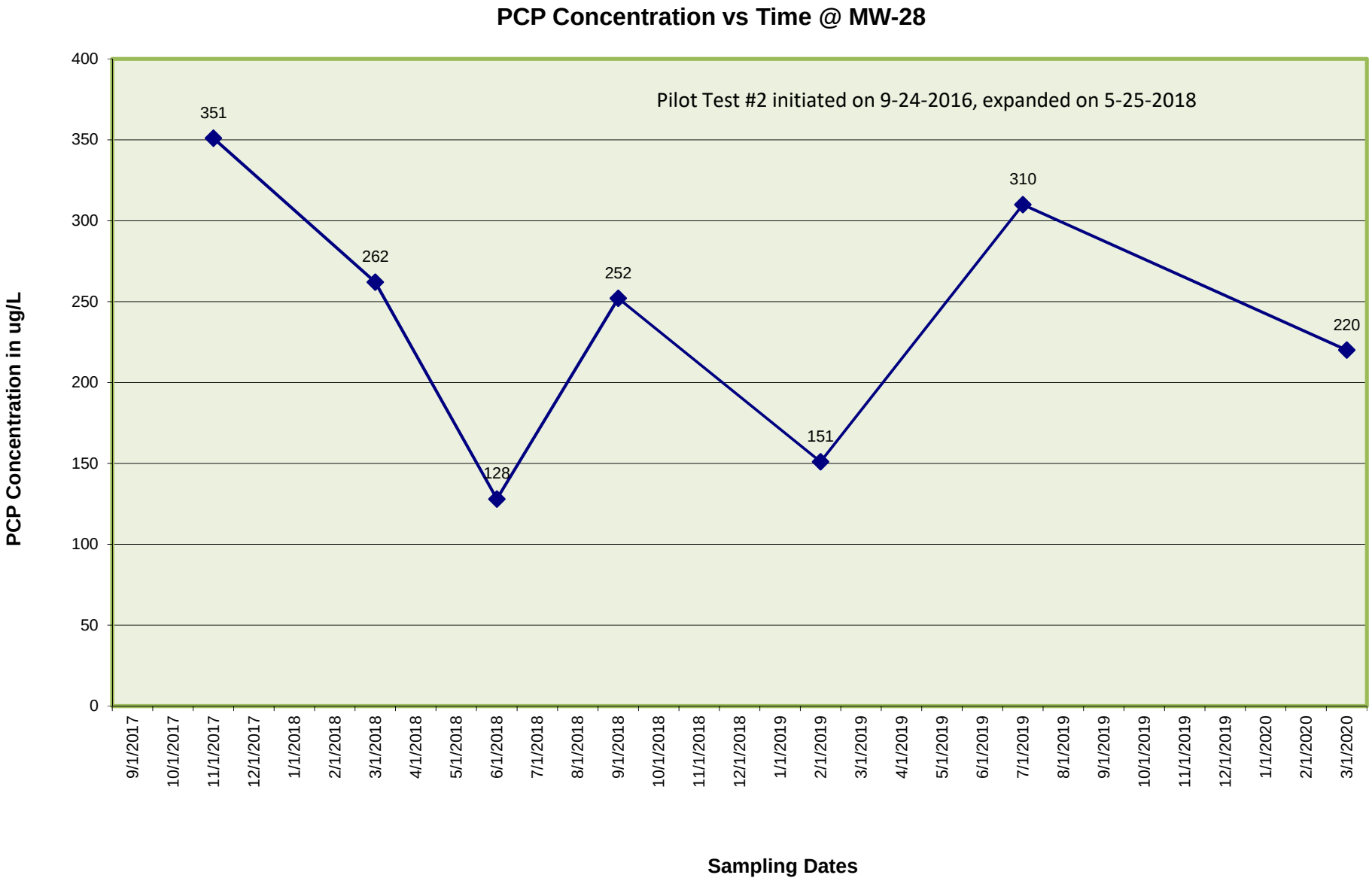


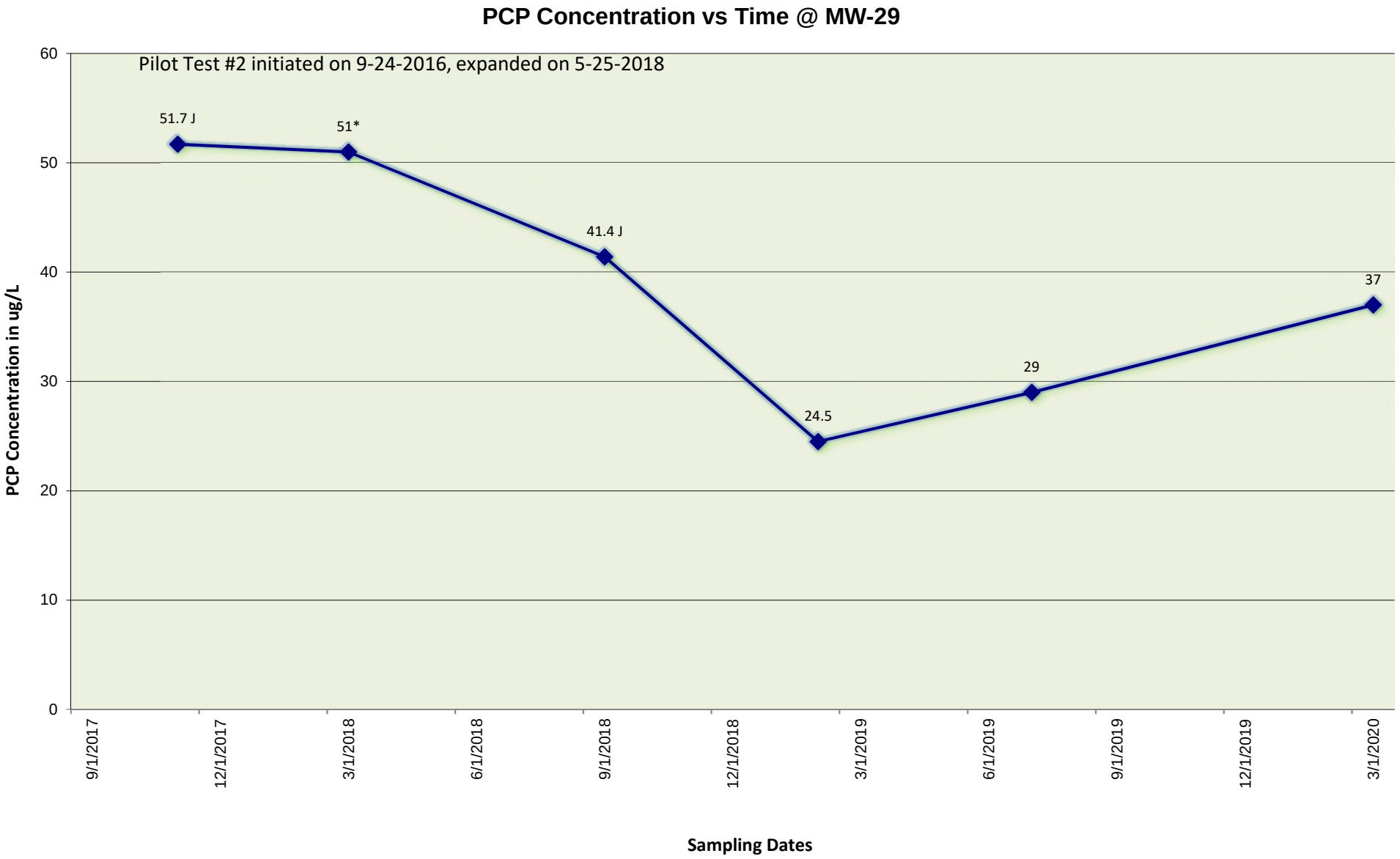

PCP Concentration vs Time @ MW-21
Pilot Test#2 initiated on 9-24-2016
* = PCP concentration less than reporting limits shown
PCP Concentration in ug/L
Sampling Dates
16.5 J
4.6*
6.5 J
2.9*
3.5*
3.7*
3.5*
0.15
0.5
18
16
14
12
10
8
6
4
2
0
9/1/2016
12/1/2016
3/1/2017
6/1/2017
9/1/2017
12/1/2017
3/1/2018
6/1/2018
9/1/2018
12/1/2018
3/1/2019
6/1/2019
9/1/2019
12/1/2019
3/1/2020


PCP Concentration vs Time @ MW-22
PCP Concentration in ug/L
500
450
400
350
300
250
200
150
100
50
0
Pilot Test #2 initiated on 9-24-2016
472
358
339
294
271
186
150
128
130
65
50*
"50*" = PCP concentration less than reporting limit shown
9/15/2016
12/15/2016
3/15/2017
6/15/2017
9/15/2017
12/15/2017
3/15/2018
6/15/2018
9/15/2018
12/15/2018
3/15/2019
6/15/2019
9/15/2019
12/15/2019
3/15/2020
Sampling Dates


PCP Concentration vs Time @ MW-25
Expanded Pilot Test #2 Initiated on 9-24-2016, expanded on 5-25-2018
PCP Concentration in ug/L
160
140
120
100
80
60
40
20
0
151
114
72.5
55.8
47.4
42
81
9/1/2017
12/1/2017
3/1/2018
6/1/2018
9/1/2018
12/1/2018
3/1/2019
6/1/2019
9/1/2019
12/1/2019
3/1/2020
Sampling Dates


PCP Concentration vs Time @ MW-27
Pilot Test #2 initiated on 9-24-2016, expanded on 5-25-2018
PCP Concentration in ug/L
350
300
250
200
150
100
50
0
323
4
3.5
3.6
2.0
2.5
55
9/1/2017
12/1/2017
3/1/2018
6/1/2018
9/1/2018
12/1/2018
3/1/2019
6/1/2019
9/1/2019
12/1/2019
3/1/2020
Sampling Dates


PCP Concentration vs Time @ MW-28
Pilot Test #2 initiated on 9-24-2016, expanded on 5-25-2018
PCP Concentration in ug/L
400
350
300
250
200
150
100
50
0
351
262
128
252
151
310
220
9/1/2017
10/1/2017
11/1/2017
12/1/2017
1/1/2018
2/1/2018
3/1/2018
4/1/2018
5/1/2018
6/1/2018
7/1/2018
8/1/2018
9/1/2018
10/1/2018
11/1/2018
12/1/2018
1/1/2019
2/1/2019
3/1/2019
4/1/2019
5/1/2019
6/1/2019
7/1/2019
8/1/2019
9/1/2019
10/1/2019
11/1/2019
12/1/2019
1/1/2020
2/1/2020
3/1/2020
Sampling Dates


PCP Concentration vs Time @ MW-29
Pilot Test #2 initiated on 9-24-2016, expanded on 5-25-2018
51.7 J
51*
41.4 J
24.5
29
37
PCP Concentration in ug/L
60
50
40
30
20
10
0
9/1/2017
12/1/2017
3/1/2018
6/1/2018
9/1/2018
12/1/2018
3/1/2019
6/1/2019
9/1/2019
12/1/2019
3/1/2020
Sampling Dates