ATTACHMENT IX FIELD SAMPLING LOGS



Date of Event	t: 10/2	-3/17 W	ell ID:		Ν	IW-X1			
Project Name	e: Culp	peper Pr	oject/Ta	isk No.:	3	10.1701.03.02			
Sampler(s):	Britton Coc	ke							
	Well Diame	eter:		2	ir	iches			
	Initial Deptl	n to Water (D	TW):	30.97	fe	feet			
	Depth to Bo	ttom (DTB):		36.71	fe	et			
	Water Colu	: 5.74	fe	et [DTB-DTW	/]				
Calculation for One Well Volume (WV): 0.9 gallons									
WV = WCT Z	X 0.163 for 2	2" well; WV	= WCT	X 0.653	for	4" well			
For Three We	ell Volumes:	WV X	3	2.7	g	allons			
Actual	Amount Pu	rged :		1.2	g	allons			
Purgeo	d with:			Dispo	osab	le Bailer			
Sampl	ed with:			Dispo	osab	le Bailer			
Depth	to Water be	fore Samplii	ng:	31.00	fe	et			
Gallons Purge	ed Time	Temp(°C)	pН	Cond.(u	S)	Turb.(ntu)	Initial		
0	1136	16.7	5.85	590		49.42	BC		
0.0	1120	15.0	5.00	614		52.26	DO		

0.9	1139	15.6	5.99	514	53.36	BC				
Dry @ 1.2 gallons										
Before Sampling	1020	15.7	5.99	458	59.93	BC				

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 10/2/17 and sampled on 10/3/17. The weather was sunny with temperatures in the 70s on both days. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature Data Date 10/5/17 Ten Anderson Date 11/21/13 QA/QC Sign Off Thicker Anderson



Date of Even	nt:	10/2-3/17	Well ID:		MW-3A
Project Nam	e:	Culpeper	Project/Task	No.:	310.1701.03.01
Sampler(s):	Britton	Cocke			
	Well D	iameter:		2	inches
	Initial l	Depth to Water	r (DTW):	14.94	feet
	Depth	to Bottom (DT	B):	16.40	feet
	Water	Column Thick	ness (WCT):	1.46	feet [DTB-DTW]
Calculation	for One	Well Volume	(WV):	0.2	gallons
WV = WCT	X 0.163	for 2" well; V	WV = WCT X	0.653	for 4" well
For Three W	ell Volu	mes: WV	X X 3	0.6	gallons
Actua	l Amou	nt Purged :		0.5	gallons
Purge	d with:			Dispos	sable Bailer
Samp	led with	•		Dispos	sable Bailer
Depth	to Wat	er before Sam	pling :	14.97	feet

Gallons Purged	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initial			
0	0906	12.7	5.34	335	8.06	BC			
0.2	0908	13.1	5.22	308	12.61	BC			
0.4	0909	13.0	5.18	296	42.16	BC			
Dry @ 0.5 gallons									
Before Sampling	0730	13.1	5.78	253	9.58	BC			
After Sampling	Insufficient Volume								

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 10/2/17 and sampled on 10/3-5/17. The weather was sunny with temperatures in the 70s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. The well was sampled on numerous days due to low water volume.

Varh Date 10/5/17 Signature QA/QC Sign Off Michael Date 11/21/17 Andered

P:\Culpeper\Laurel Valley Center Sanitary Landfill\Groundwater\GMR\2017\10_2017\Sampling Logs & Field Charges\MW-3A.doc



Date of Even	t: 10/2	-3/17 W	ell ID:		MW-4	
Project Name	e: Culp	eper P	roject/Tas	sk No.:	310.1701.03.01	
Sampler(s):	Britton Coc	ke				
	Well Diame	ter:		2	inches	
	Initial Depth	39.05	feet			
	Depth to Bo	45.30	feet			
	Water Colum	6.25	feet [DTB-DTW	V]		
Calculation f	o <mark>r One</mark> Well	Volume (W	V):	1.0	gallons	
WV = WCT	X 0.163 for 2	2" well; WV	= WCT	X 0.653 f	or 4" well	
For Three W	ell Volumes:	WV X	3	3.0	gallons	
Actua	l Amount Pu	rged :		1.5	gallons	
Purge	d with:			Dispos	able Bailer	
Sampl	ed with:			Dispos	able Bailer	
Depth	to Water be	fore Sampli	ng :	39.08	feet	
Gallons Purg	ed Time	Temp(°C)	рН	Cond.(uS) Turb.(ntu)	In

Gallons Purged	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initial				
0	1215	19.0	5.39	194	3.85	BC				
1.0	1217	15.5	5.55	239	220.3	BC				
	Well purged dry @ 1.5 gallons									
Before Sampling	1055	16.3	5.53	200	8.26	BC				
After Sampling	1105	15.6	5.65	232	53.92	BC				

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 10/2/17 and sampled on 10/3/17. The weather was sunny with temperatures in the 70s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site.

Signature Blick Date 10/5/17 QA/QC Sign Off Michael Ander Date 11/21/17



Date of Even	t: 10	/2-3/17	Well ID:		MW-5
Project Name	e: Cu	lpeper	Project/Ta	sk No.:	310.1701.03.02
Sampler(s):	Britton Co	ocke			
	Well Diar	neter:		2	inches
	Initial Dep	11.93	feet		
	Depth to I	22.26	feet		
	Water Col	10.33	feet [DTB-DTW]		
Calculation f	or One We	ell Volume	(WV):	1.7	gallons
WV = WCT	X 0.163 fo	r 2" well; N	WV = WCT	X 0.653	for 4" well
For Three W	ell Volume	es: WV	X 3	5.1	gallons
Actua	l Amount l	Purged :		5.1	gallons
Purge	d with:			Dispos	sable Bailer
Samp	led with:	Dispos	Disposable Bailer		
Depth	to Water	before Sam	pling :	11.97	feet
Collons Durg	rod Time	Tomp(%		Cand (us	Turb (ntu) Ir

Gallons Purged	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initial
0	1059	15.4	4.56	700	3.73	BC
1.7	1101	15.1	4.62	700	12.80	BC
3.4	1103	15.0	4.74	700	19.14	BC
5.1	1104	14.9	4.78	690	25.61	BC
Before Sampling	0930	15.1	5.34	690	6.77	BC

Comments (weather conditions, color, silt, purge water management, etc.): <u>The well</u> was purged on 10/2/17 and sampled on 10/3/17. The weather was sunny with temperatures in the 70s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature Bling Date 10/5/17 QA/QC Sign Off Multice Ander Date 11/21/17



Date of Even	t: 10/	2-3/17	We	ell ID:		MW-6
Project Name	e: Cul	peper	Pro	oject/Tas	sk No.:	310.1701.03.02
Sampler(s):	Britton Co	cke				
	Well Diam	eter:			2	inches
Initial Depth to Water (DTW):						feet
Depth to Bottom (DTB):						feet
	Water Colu	0.64	feet [DTB-DTW]			
Calculation f	or One We	l Volume	(WV	/):	0.1	gallons
WV = WCT	X 0.163 for	2" well; V	VV:	= WCT	X 0.653	for 4" well
For Three W	ell Volumes	: WV	x	3	0.3	gallons
Actua	l Amount P	urged :			0.3	gallons
Purge	d with:				Dispos	sable Bailer
Samp	led with:	Dispos	able Bailer			
Depth	to Water b	efore Sam	plin	g :	46.96	feet
Collons Pura	ed Time	Tomn/9	$\overline{\mathbf{n}}$	nH	Cond (us	C) Trueb (netra) In

Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initial
0	1203	15.7	5.72	271	21.19	BC
0.1	1203	15.6	5.70	284	40.12	BC
0.2	1204	15.6	5.67	299	71.01	BC
0.3	1204	15.4	5.66	308	82.61	BC
After Sampling	1050	16.1	6.05	292	296.4	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 10/2/17 and sampled on 10/3/17. The weather was sunny with temperatures in the 70s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. The water level before sampling was low, therefore, before sampling parameters were not taken to preserve low turbidity water for sampling metals parameters.

Signature Date___ Date______ QA/QC Sign Off_Micha



Date of Even	it:	10/3-4/	/17	Well ID:	MW-2	20		
Project Nam	e:	Culper	er I	Project/Task	No.:	310.1701.03.01		
Sampler(s):	Britto	n Cocke						
	Well I	Diameter	r:		2	inch	es	
	Initial	Depth to	o Water ((DTW):	35.88	feet		
	Depth	to Botto	om (DTB):	51.64	feet		
	Water	Column	1 Thickne	ess (WCT):	15.76	feet [DTB-DTW]		
Calculation f	or One	Well V	olume (V	WV):	2.6	gallons		
WV = WCT	X 0.16	3 for 2"	well; W	V = WCT X	0.653	for 4"	' well	
For Three W	ell Volu	imes:	WV	X 3	7.8	galle	ons	
Actua	l Amou	nt Purg	ged :		4.0	galle	ons	
Purge	d with:				Grund	fos P	ump	
Samp	led with	Disposable Bailer						
Depth	to Wat	ter befo	re Samp	ling :	36.76 feet			
Gallons Pi	irged	Time	Temp(^e	PC) pH	Cond.	(uS)	Turb.(ntu)	Γ

Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initial				
0	1731	14.7	5.48	34	73.78	BC				
2.6	1743	14.4	5.25	35	7.99	BC				
	Dry at 4.0 Gallons									
Before Sampling	0935	13.0	5.55	34	3.03	BC				
After Sampling	0944	13.0	5.57	33	5.38	BC				

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 10/3/17 and sampled on 10/4/17. The weather was sunny with temperatures in the 70s both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. D.O.: 4.29 mg/L, ORP: -70.8 mV, Ferrous Iron: 0 mg/L, Sulfate: 1.8 mg/L Signature B_{lack} Date 16 5 17QA/QC Sign Off M_{lack} M_{lack} Date 11/21/12



Date of Even	Date of Event: 10/3-4/17 Well ID:				CLF-S3	
Project Nam	e:	Culpeper	Project/Task	No.:	310.1701.03.02	
Sampler(s):	Brittor	n Cocke				
	Well I	Diameter:		2	inches	
	Initial	Depth to Wate	er (DTW):	22.48	feet	
	Depth	to Bottom (D)	88.50	feet		
	Water	Column Thick	ness (WCT):	66.02	feet [DTB-DTW]	
Calculation f	for One	Well Volume	(WV):	10.8	gallons	
WV = WCT	X 0.16	3 for 2" well;	WV = WCT X	0.653	for 4" well	
For Three W	ell Volu	umes: W	V X 3	32.4	gallons	
Actua	l Amou	nt Purged :		32.4	gallons	
Purged with:					Grundfos Pump	
Sampled with:				Dispos	sable Bailer	
Depth	to Wa	ter before San	npling :	24.79	feet	

Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initial
0	1448	16.7	7.41	304	5.95	BC
10.8	1508	14.5	6.78	274	3.11	BC
21.6	1528	14.5	6.71	270	2.61	BC
32.4	1538	14.5	6.62	269	2.86	BC
Before Sampling	0820	13.1	6.79	237	4.02	BC
After Sampling	0825	13.2	6.81	229	3.39	BC

Comments (weather conditions, color, silt, purge water management, etc.): <u>The well</u> was purged on 10/3/17 and sampled on 10/4/17. The weather was sunny with temperatures in the 70s on both days. All purge water was containerized and disposed of in 250-gallon tanks on site. D.O.: 4.00 mg/L, ORP: -90.2 mV, Ferrous Iron: 0 mg/L, Sulfate: 1.3 mg/L.

Signature Black	Date	10/5/17
QA/QC Sign Off Muthae philem	Date	11/21/17



Date of Even	t:	10/2-3/17	Well ID:		MW-1B		
Project Name	e: (Culpeper	Project/Task	No.:	310.1701.03.01		
Sampler(s):	Britton	Cocke					
	Well Di	iameter:		2	inches		
	Initial D	Depth to Wate	r (DTW):	7.13	feet		
	Depth to	o Bottom (DT	Ъ):	27.10	feet		
	Water C	Column Thick	ness (WCT):	19.97	feet [DTB-DTW]		
Calculation f	or One V	Well Volume	(WV):	3.3	gallons		
WV = WCT	X 0.163	for 2" well; V	WV = WCT X	0.653	for 4" well		
For Three W	ell Volu	mes: WV	/ X 3	9.3	gallons		
Actua	l Amoun	t Purged :		9.3	gallons		
Purged with:					Disposable Bailer		
Sampled with:					able Bailer		
Depth	to Wate	er before Sam	pling :	7.12	feet		

Gallons Purged	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initial
0	1037	15.1	5.89	559	4.46	BC
3.3	1040	14.7	5.88	572	11.41	BC
6.6	1043	14.5	5.88	604	14.06	BC
9.9	1046	14.2	5.88	680	15.12	BC
Before Sampling	0850	13.6	5.86	660	5.39	BC
After Sampling	0903	13.8	5.91	700	14.29	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 10/2/17 and sampled on 10/3/17. The weather was sunny with temperatures in the 70s on the both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. MS/MSD samples were collected at this well.

Signature_Blikk	Date_	10/5/17
QA/QC Sign Off Mutuu Anum	Date_	11/21/17



Date of Even	t: 10/2	-3/17 W	ell ID:		MW-1C
Project Name	e: Culp	beper P	roject/Task	No.:	310.1701.03.02
Sampler(s):	Michael An	derson			
	Well Diame	eter:		2	inches
	Initial Deptl	n to Water (I	DTW):	16.50	feet
	Depth to Bo	ottom (DTB):	:	45.00	feet
	Water Colu	mn Thicknes	s (WCT):	28.50	feet [DTB-DTW]
Calculation f	or One Well	Volume (W	(V):	4.6	gallons
WV = WCT	X 0.163 for 2	2" well; WV	V = WCT X	0.653	for 4" well
For Three W	ell Volumes:	: WV X	Κ 3	13.8	gallons
Actua	l Amount Pu	rged :		13.8	gallons
Purge	d with:			Dispos	sable Bailer
Samp	led with:			Dispos	able Bailer
Depth	to Water be	fore Sampli	ing:	16.49	feet
Collone Dune	ad Time	Tom (Q(C))		Tand (n6	

Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initial
0	1010	15.4	5.90	27	5.56	BC
4.6	1014	15.0	5.91	35	12.91	BC
9.2	1018	14.2	5.90	66	18.16	BC
13.8	1022	14.0	5.92	71	22.16	BC
Before Sampling	0830	14.0	5.87	660	6.56	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 10/2/17 and sampled on 10/3/17. The weather was sunny with temperatures in the 70s on both days. All samples were collected from one bailer; therefore, no after sampling parameters were necessary. All purge water was containerized and disposed of in 250-gallon plastic tanks on site.

Signature Date Date_____/2/ QA/QC Sign Off_



Date of Even	t: 10/2-3/17	Well ID:		MW-1D
Project Name	e: Culpeper	Project/Task	No.:	310.1701.03.02
Sampler(s):	Britton Cocke			
	Well Diameter:		2	inches
	Initial Depth to Wate	er (DTW):	20.07	feet
	Depth to Bottom (D	ТВ):	57.13	feet
	Water Column Thick	kness (WCT):	37.06	feet [DTB-DTW]
Calculation f	or One Well Volume	e (WV):	6.0	gallons
WV = WCT	X 0.163 for 2" well;	WV = WCT X	0.653 1	for 4" well
For Three W	ell Volumes: W	V X 3	18.0	gallons
Actua	l Amount Purged :		16.5	gallons
Purge	d with:		Grund	fos Pump
Samp	led with:		Dispos	able Bailer
Depth	to Water before Sa	npling :	20.08	feet
Caller D			1. 1/ 6	

Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initial		
0	1516	15.7	6.28	720	33.15	BC		
6.0	1526	14.9	6.01	626	24.09	BC		
12.0	1538	15.1	5.91	548	21.16	BC		
Well purged dry @ 16.5 gallons								
Before Sampling	1155	14.7	5.81	491	4.36	BC		

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 10/2/17 and sampled on 10/3/17. The weather was sunny with temperatures in the 70s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature Blick Date 10/5/17 QA/QC Sign Off Multian Andrea Date 11/2/12



Date of Even	it: 1	0/2-3/17	Well ID:		MW-1E
Project Name	e: (Culpeper	Project/Tas	k No.:	310.1701.03.02
Sampler(s):	Britton (Cocke			
	Well Dia	ameter:		2	inches
	Initial D	epth to Wate	r (DTW):	20.12	feet
	Depth to	103.20) feet		
	Water C	olumn Thick	ness (WCT):	83.08	feet [DTB-DTW]
Calculation f	or One V	Vell Volume	(WV):	13.5	gallons
WV = WCT	X 0.163 f	for 2" well; V	WV = WCT 2	X 0.653	for 4" well
For Three W	ell Volun	nes: WV	7 X 3	40.5	gallons
Actua	l Amount	Purged :		40.5	gallons
Purge	d with:			2" Grı	undfos Pump
Samp	led with:			Dispos	sable Bailer
Depth	to Water	r before Sam	pling :	22.17	feet
Callana Duna	a di Tria			Could 6	

Gallons Purged	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initial
0	1418	14.7	6.39	540	6.53	BC
13.5	1433	15.2	6.46	583	37.76	BC
27.0	1448	15.0	6.31	548	22.80	BC
40.5	1501	14.7	6.20	524	13.66	BC
Before Sampling	1150	14.5	6.57	469	4.34	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 10/2/17 and sampled on 10/3/17. The weather was sunny with temperatures in the 70s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature Sim Muchael Andrease Date 10/5/17 QA/QC Sign Off Michael Andrease Date 11/21/17



Date of Even	it:	10/3-4/17	Well ID:		MW-1F
Project Nam	e:	Culpeper	Project/Task	No.:	310.1701.03.02
Sampler(s):	Britto	n Cocke			
	Well I	Diameter:		2	inches
	Initial	Depth to Wate	r (DTW):	17.70	feet
	Depth	to Bottom (DT	[•] B):	200.00) feet
	Water	Column Thick	ness (WCT):	182.3	feet [DTB-DTW]
Calculation f	for One	Well Volume	(WV):	30.0	gallons
WV = WCT	X 0.16	3 for 2" well; Y	WV = WCT X	0.653	for 4" well
For Three W	ell Volu	umes: WV	X X 3	90.0	gallons
Actua	l Amou	nt Purged :		90.0	gallons
Purge	d with:			Grund	fos Pump
Samp	led with	1:		Dispos	sable Bailer
Depth	to Wat	ter before Sam	pling :	17.83	feet

Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initial
0	0812	10.8	7.49	408	11.45	BC
30.0	0840	11.2	7.01	449	8.61	BC
60.0	0910	13.8	6.42	532	2.94	BC
90.0	0946	13.9	6.42	680	2.75	BC
Before Sampling	0745	13.9	6.94	406	4.82	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 10/3/17 and sampled on 10/4/17. The weather was sunny with temperatures in the 70s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature Bahn Date 10/5/17 QA/QC Sign Off Michael Physicen Date 11/21/18



Date of Even	nt: 10/2-3/17	Well ID:		MW-1G
Project Nam	e: Culpeper	Project/Task	No.:	310.1701.03.02
Sampler(s):	Britton Cocke			
	Well Diameter:		2	inches
	Initial Depth to Wate	er (DTW):	9.66	feet
	Depth to Bottom (D	TB):	200.00) feet
	Water Column Thick	kness (WCT):	190.34	feet [DTB-DTW]
Calculation f	for One Well Volume	e (WV):	31.0	gallons
WV = WCT	X 0.163 for 2" well;	WV = WCT X	0.653	for 4" well
For Three W	ell Volumes: W	V X 3	93.0	gallons
Actua	Amount Purged :		93.0	gallons
Purge	ed with:		Grund	fos Pump
Samp	led with:		Dispos	sable Bailer
Depth	to Water before Sar	npling :	74.46	feet

Gallons Purged	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initial
0	1608	20.8	6.91	560	5.36	BC
31.0	1642	20.2	6.94	570	4.18	BC
62.0	1718	19.6	6.95	580	5.72	BC
93.0	1758	19.4	6.97	580	6.22	BC
Before Sampling	1205	14.1	6.83	560	4.85	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 10/2/17 and sampled on 10/3/17. The weather was sunny with temperatures in the 70s on the both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature Bluch Date 10/5/17 Date 10/5/17 Date 11/21/12



Date of Even	t: 10/3-4/1	7 Well ID	:		MW-1H
Project Name	e: Culpepe	er Project /	Task I	No.:	310.1701.03.02
Sampler(s):	Britton Cocke				
	Well Diameter:			2	inches
	Initial Depth to	Water (DTW):		7.19	feet
	Depth to Bottor	n (DTB):		210.00	feet
	Water Column	Thickness (WC	:(T):	202.81	feet [DTB-DTW]
Calculation f	or One Well Vo	lume (WV):		33.1	gallons
WV = WCT	X 0.163 for 2" w	well; $WV = WC$	CT X	0.653 f	or 4" well
For Three W	ell Volumes:	WV X 3		99.3	gallons
Actua	l Amount Purge	ed :		99.3	gallons
Purge	d with:			Grundf	os Pump
Samp	led with:	1		Dispos	able Bailer
Depth	to Water befor	e Sampling :		5.81	feet

Gallons Purged	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initial
0	1135	17.2	6.96	506	5.35	BC
33.1	1205	15.3	6.61	540	3.10	BC
66.2	1235	14.8	6.50	599	2.04	BC
99.3	1305	15.2	6.67	590	2.32	BC
Before Sampling	0755	16.6	7.43	383	3.57	BC

Comments (weather conditions, color, silt, purge water management, etc.): <u>The well</u> <u>was purged on 10/3/17 and sampled on 10/4/17</u>. The weather was sunny with temperatures in the 70s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature Black Date 10/5/ QA/QC Sign Off Minhail Andrew Date 11/21



Date of Even	it:	10/3/17	Well ID:		MW-11
Project Nam	e:	Culpeper	Project/Task	No.:	310.1701.03.02
Sampler(s):	Britto	n Cocke			
	Well I	Diameter:		2	inches
	Initial	Depth to Wate	r (DTW):	0.00	feet
	Depth	to Bottom (DT	^T B):	310.00	feet
	Water	Column Thick	ness (WCT):	310.00	feet [DTB-DTW]
Calculation f	for One	Well Volume	(WV):		gallons
WV = WCT	X 0.16	3 for 2" well; V	WV = WCT X	0.653	for 4" well
For Three W	ell Vol	umes: WV	X X 3		gallons
Actua	l Amou	int Purged :			gallons
Purge	d with:				
Samp	led witl	h:		Dispos	able Bailer
Depth	to Wa	ter before San	pling :	0.00 fe	et

	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initial
Before Sampling	1220	18.9	7.87	253	2.55	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was sampled on 10/3/17. The weather was sunny with temperatures in the 70s. All samples were collected from one bailer; therefore, no after parameters were necessary.

Signature_Black	Date	10/5/17
QA/QC Sign Off Mchai Andrew	Date	11/2/12



Date of Even	nt:	10/2-3/17	Well ID:		MW-2B
Project Nam	e:	Culpeper	Project/Task	No.:	310.1701.03.01
Sampler(s):	Brittor	n Cocke			
	Well I	Diameter:		2	inches
	Initial	Depth to Wate	r (DTW):	20.95	feet
	Depth	to Bottom (DT	̈́Β):	22.50	feet
	Water	Column Thick	ness (WCT):	1.55	feet [DTB-DTW]
Calculation f	for One	Well Volume	(WV):	0.4	gallons
WV = WCT	X 0.163	B for 2" well; N	WV = WCT X	0.653	for 4" well
For Three W	ell Volu	imes: WV	X X 3	1.2	gallons
Actua	l Amou	nt Purged :		1.2	gallons
Purge	ed with:			Dispos	sable Bailer
Samp	led with	1:		Dispos	sable Bailer
Depth	to Wat	er before Sam	pling :	21.03	feet

Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initial
0	0953	15.7	5.37	1510	4.16	BC
0.4	0954	15.7	5.48	1540	12.91	BC
0.8	0956	15.8	5.55	1610	34.82	BC
1.2	0957	15.6	5.67	1640	69.28	BC
Before Sampling	0745	12.6	6.02	1550	9.04	BC
After Sampling	0756	14.2	6.02	1540	61.77	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 10/2/17 and sampled on 10/3/17. The weather was sunny with temperatures in the 70s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site.

Date 10/5/17 Date 11/21/17 Signature Buh althulun QA/QC Sign Off_



Project Name:CulpeperProject/TaskNo.:310.1701.03.02Sampler(s):Brittor-Cocke111<
Well Diameter:2inchesInitial Depth to Water (DTW):17.58feetDepth to Bottom (DTB):21.18feetWater Column Thickness (WCT):3.6feet [DTB-DTW]Calculation for One Well Volume (WV):0.6WV = WCT X 0.163 for 2" well; WV = WCT X0.653 for 4" wellFor Three Well Volumes: WV X 31.8gallons
Initial Depth to Water (DTW):17.58feetDepth to Bottom (DTB):21.18feetWater Column Thickness (WCT):3.6feet [DTB-DTW]Calculation for One Well Volume (WV):0.6gallonsWV = WCT X 0.163 for 2" well; WV = WCT X0.653 for 4" wellFor Three Well Volumes:WV X 31.8gallons
Depth to Bottom (DTB):21.18feetWater Column Thickness (WCT):3.6feet [DTB-DTW]Calculation for One Well Volume (WV):0.6gallonsWV = WCT X 0.163 for 2" well; WV = WCT X 0.653 for 4" wellFor Three Well Volumes:WV X 31.8gallons
Water Column Thickness (WCT):3.6feet [DTB-DTW]Calculation for One Well Volume (WV):0.6gallonsWV = WCT X 0.163 for 2" well;WV = WCT X 0.653 for 4" wellFor Three Well Volumes:WV X 31.8gallons
Calculation for One Well Volume (WV):0.6gallonsWV = WCT X 0.163 for 2" well;WV = WCT X 0.653 for 4" wellFor Three Well Volumes:WV X 31.8gallons
$WV = WCT \times 0.163$ for 2" well; $WV = WCT \times 0.653$ for 4" wellFor Three Well Volumes: $WV \times 3$ 1.8 gallons
For Three Well Volumes: WV X 3 1.8 gallons
Actual Amount Purged : 1.8 gallons
Purged with: Disposable Bailer
Sampled with: Disposable Bailer
Depth to Water before Sampling: 17.61 feet

Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initial
0	1423	17.0	5.13	86	6.64	BC
0.6	1425	16.0	5.08	80	30.12	BC
1.2	1426	15.3	5.03	77	131.8	BC
1.8	1427	15.1	5.05	64	174.3	BC
Before Sampling	1140	15.3	5.14	85	6.54	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 10/2/17 and sampled on 10/3/17. The weather was sunny with temperatures in the 70s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature Kah Date 10/5 QA/QC Sign Off Mitthe Mylern



Date of Even	t: 10/2	2-3/17 N	Well ID:		CLF-1	
Project Nam	e: Culj	peper H	Project/Task	No.:	310.1701.03.02	2
Sampler(s):	Britton Coc	ke				
	Well Diame	eter:		6	inches	
	Initial Dept	h to Water (DTW):	34.44	feet	
	Depth to Bo	ottom (DTB)):	62.30	feet	
	Water Colu	mn Thickne	ess (WCT):	27.86	feet [DTB-DTV	W]
Calculation f	or One Well	Volume (V	VV):	41.0	gallons	
WV = WCT	X 0.163 for 2	2" well; W	V = WCT X	0.653 f	for 4" well	
For Three W	ell Volumes	WV .	X 3	123.0	gallons	
Actua	l Amount Pu	irged :		123.0	gallons	
Purge	d with:			Grund	fos Pump	
Samp	led with:			Dispos	able Bailer	
Depth	to Water be	fore Samp	ling :	34.50	feet	
Callons Pure	ad Time	Tomp(%C)	nH (^a ond (uS	3) Trank (neta)	Test

Gallons Purged	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initials
0	1233	16.9	5.99	307	24.12	BC
41.0	1303	16.9	5.81	369	7.17	BC
82.0	1333	17.1	5.80	362	4.96	BC
123.0	1403	17.3	5.80	359	4.83	BC
Before Sampling	1115	17.1	5.73	297	6.86	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 10/2/17 and sampled on 10/3/17. The weather was sunny with temperatures in the 70s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature_Black_____ QA/QC Sign Off_MarkaePhaleum_ ___ Date____10/5/17 -__ Date____/2///+_____



								÷
Date of Even	nt:	10/3-4	/17 Well	ID:		CLF	F-15A	
Project Nam	e:	Culper	er Proj	ect/Task	No.:	310	1701.03.02	
Sampler(s):	Britto	n Cocke						
	Well	Diameter			2	inch	es	
	Initial	Depth to	o Water (DT)	W):	46.01	feet		
	Depth	to Botto	om (DTB):		81.46	feet		
	Water	Column	WCT):	35.45	feet	[DTB-DTW]		
Calculation f	for One	e Well V	•	5.8	galle	ons		
WV = WCT	X 0.16	3 for 2"	well; WV =	wст х	0.653	for 4'	' well	
For Three W	ell Vol	umes:	WV X 3	j	17.4	galle	ons	
Actua	l Amou	int Purg	ged :		7.5	galle	ons	
Purge	d with:				Grund	fos P	ump	
Samp	led wit	h:			Dispos	able	Bailer	
Depth	Depth to Water before Sampling :					feet		
Gallons Pu	urged	Time	Temp(°C)	pН	Cond.	(uS)	Turb.(ntu)	Γ
0	_	1619	15.5	6.36	670)	4.14	
								t

5.8	1631	15.5	6.61	610	2.68	BC			
Well purged dry at 7.5 Gallons									
Before Sampling	0850	13.2	6.45	635	3:25	BC			
After Sampling	0855	13.4	6.39	670	2.03	BC			

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 10/3/17 and sampled on 10/4/17. The weather was sunny with temperatures in the 70s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. D.O.: 3.00 mg/L; ORP -87.7 mV; Ferrous Iron: 1.0 mg/, Sulfate: 3.6 mg/L.

Signature	Date
QA/QC Sign Off Michael Anderson	Date/17



Date of Even	t:	10/3-4	/17	Well	ID:		CLF	7-S 1	
Project Name	e:	Culper	er	Proje	ect/Task	No.:	310	.1701.03.02	
Sampler(s):	Britto	n Cocke							
	Well	Diameter	r:			2	inch	es	
	Initial	Depth to	o Water	(DTV	V):	82.16	feet		
	Depth to Bottom (DTB):						103.46 feet		
	Water	Columr	h Thickr	ness (V	WCT):	21.3	feet	[DTB-DTW]	
Calculation f	or One	Well V	olume ((WV):		3.5	gallo	ons	
WV = WCT	X 0.16	3 for 2"	well; W	VV = 1	WCT X	0.653 d	for 4'	' well	
For Three W	ell Vol	umes:	WV	X 3		10.5	gallo	ons_	
Actua	l Amou	int Purg	ged :			8.0	gallo	ons	
Purge	d with:	1				Grund	fos pi	ımp	
Samp	led wit	h:				Dispos	able	Bailer	
Depth	to Wa	ter befo	re Samj	pling	•	93.12	fee	t	
Gallons Pu	irged	Time	Temp	(°C)	nH	Cond	(nS)	Turb (ntu)	

Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initial			
0	1546	16.3	7.67	630	37.88	BC			
3.5	1558	15.7	7.74	521	16.26	BC			
7.0	1604	15.9	7.72	516	12.82	BC			
Dry at 8.0 gallons									
Before Sampling	0835	13.2	7.66	494	9.65	BC			

Comments (weather conditions, color, silt, purge water management, etc): The well was purged on 10/3/17 and sampled on 10/4/17. The weather was sunny with temperatures in the 70s on both days. All samples were collected from one bailer, therefore no after sampling parameters were necessary All purge water was containerized and disposed of in 250-gallon plastic tanks on site.

_____ Date__ 10|5|17 Signature Black Date 11/21/14 QA/QC Sign Off Machine Anderson



Date of Even	it:	10/3-4/	/17 Wel	I ID:		MW	/-X2	
Project Nam	e:	Culpep	er Pro j	ect/Task	No.:	310.	1701.03.02	
Sampler(s):	Britton	Cocke						
	Well D	iameter	4 E . 9		2	inch	es	
	Initial I	Depth to	o Water (DT	W):	8.01	feet		
	Depth t	to Botto	om (DTB):		16.71	feet		
	Water (Column	Thickness (WCT):	8.70	feet	[DTB-DTW]	
Calculation f	or One	Well V	olume (WV)):	1.4	gallo	ons	
WV = WCT	X 0.163	for 2"	well; WV =	WCT X	0.653 ±	for 4"	well	
For Three W	ell Volu	mes:	WV X 3	3	4.2	gallo	ons	
Actua	l Amour	nt Purg	ed :		2.5	gallo	ons	
Purge	d with:				Grund	fos P	ımp	
Samp	led with:	•			Dispos	able	Bailer	
Sampled with:Disposable BailerDepth to Water before Sampling :8.56feet								
Gallons Pu	irged	Time	Temp(°C)	pН	Cond.	(uS)	Turb.(ntu)	Γ

Gallons Purged	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initial		
0	1800	16.7	6.58	162	162 400.2			
1.4	1812	17.1	6.82	226	10.12	BC		
Well purged dry at 2.5 gallons.								
Before Sampling	1010	15.6	6.40	307	6.71	BC		
After Sampling	1013	16.0	6.53	323	28.73	BC		

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 10/3/17 and sampled on 10/4/17. The weather was sunny with temperatures in the 70s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. D.O.: 1.31 mg/L, ORP: 108.3 mV, Ferrous Iron: 1.9 mg/L, Sulfate: 3.1 mg/L.

Signature Balan Date_ 10/5/ Date_ 11/21 QA/QC Sign Off Macha



Date of Even	it:	10/2-3/17	Wel	l ID:		MW-	X2D	
Project Nam	e:	Culpeper	Proj	ect/Task	No.:	310.1701.03.02		
Sampler(s):	Britton	Cocke						
	Well D)iameter:			2	inche	S	
	Initial	Depth to W	ater (DT	W):	61.38	feet		
	Depth to Bottom (DTB):							
	Water Column Thickness (WCT):						DTB-DTW]	
Calculation f	or One	Well Volu	me (WV)):	0.6	gallo	ns	
WV = WCT	X 0.163	for 2" we	ll; $WV =$	WCT X	0.653	for 4"	well	
For Three W	'ell Volu	mes:	WV X 3	3	1.8	galloi	ns	
Actua	l Amou	nt Purged	•		1.0	galloi	ns	
Purge	d with:				Dispos	sable B	lailer	
Samp	led with		Disposable Bailer					
Depth	to Wat	er before S	Sampling	i.e	63.10	feet		
Gallons Pu	irged	Time	Temp(°C	C) pH	Cond	l.(uS)	Turb.(ntu)	

Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initial		
0	1116	13.9	7.45 4640 2.63		2.63	BC		
0.6	1118	13.6	7.61	4960 19.94		BC		
Well dry @ 1.0 gallon								
Before Parameters	0940	13.5	7.29	4850	22.14	BC		

Comments (weather conditions, color, silt, purge water management, etc.): <u>The well</u> was purged on 10/2/17 and sampled on 10/3/17. The weather was sunny with temperatures in the 70s on the both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature Bach Date 10/5/17 QA/QC Sign Off Muture Ander Date 11/2/14



Date of Even	it:	10/3-4	/17	Well	ID:		PZ-4	4E	
Project Nam	e:	Culper	ber	Proje	ect/Task	No.:	310.	1701.03.02	
Sampler(s):	Britto	n Cocke							
	Well	Diameter	r:			2	inch	es	
	Initial	Depth to	o Water	r (DTV	W):	22.81	feet		
	Depth	to Botto	om (DT	B):		30.98	feet		
	Water	Colum	n Thick	ness (V	WCT):	10.17	feet	[DTB-DTW]	
Calculation f	for One	e Well V	olume	(WV):		1.7	gallo	ons	
WV = WCT	X 0.16	3 for 2"	well; V	VV =	wст х	0.653	for 4'	well	
For Three W	ell Vol	umes:	WV	X 3		5.1	gallo	ons	
Actua	l Amou	int Purg	ged :			5.1	galle	ons	
Purge	d with	:				Grund	fos P	ump	
Samp	led wit	h:				Dispos	sable	Bailer	
Depth	to Wa	ter befo	re Sam	pling	•	24.69	feet		
Gallons Pu	irged	Time	Temp	(°C)	pН	Cond.	(uS)	Turb.(ntu)	Γ

Gallons Purged	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initial
0	1645	16.6	5.25	77	93.31	BC
1.7	1651	15.3	5.22	43	94.12	BC
3.4	1657	15.2	5.29	47	60.45	BC
5.1	1703	15.4	5.29	48	163.2	BC
Before Sampling	0910	13.5	5.39	21	4.56	BC
After Sampling	0914	13.6	5.20	45	58.66	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 10/3/17 and sampled on 10/4/17. The weather was sunny with temperatures in the 70s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. D.O.: 1.31 mg/L, ORP: -73.8 mV, Ferrous Iron: 1.6 mg/L, Sulfate: 0 mg/L. Signature $\beta_{10}/5/17$

Date___ QA/QC Sign Off Mithan Juleuro Date



Ι	Date of Event	t:	11/9-1	0/17 We	ll ID:		PZ-	4E	
F	Project Name	2:	Culper	er Pro	ject/Task	No.:	218	0019.01	
S	ampler(s):	Andre	ew Zell						
		Well	Diameter	r:		2	inch	ies	
		Initial	Depth to	o Water (DI	'W):	26.33	feet		
		Depth	to Botto	om (DTB):		30.98	feet		
		Water	Colum	4.65	feet [DTB-DTW]				
0	Calculation fo	or One	e Well V	olume (WV):	0.8	gall	ons	
ν	VV = WCT Z	X 0.16	3 for 2"	well; WV =	WCT X	0.653 1	for 4'	' well	
F	or Three Wo	ell Vol	umes:	WV X	3	2.4	galle	ons	
	Actual	l Amou	int Purg	ged :		2.4	galle	ons	
	Purgee	d with:	:			Dispos	able	Bailer	
	Sampl	ed wit	h:			Dispos	able	Bailer	
	Depth	to Wa	ter befo	re Samplin		25.43	feet		
	Gallons Pu	rged	Time	Temp(°C)	pH	Cond.((uS)	Turb.(ntu)	Γ
	0		1223	14.5	4.74	168		65.95	┢

Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initial
0	1223	14.5	4.74	168	65.95	AZ
0.8	1225	14.0	4.46	67	609.8	AZ
1.6	1227	13.9	4.49	78	>1100	AZ
2.4	1229	13.8	4.37	75	564.3	AZ
Before Sampling	1140	14.6	5.01	234	9.49	AZ

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 11/9/17 and sampled on 11/10/17. The weather was overcast the first day and sunny on the second with temperatures in the 40s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. After Sampling parameters where not recorded since all bottles were filled with one bailer.

Signature and Zell	Date	11/14/17
QA/QC Sign Off	Date	11/15/17-

P:\Culpeper\Laurel Valley Center Sanitary Landfill\Groundwater\GMR\2017\10_2017\Sampling Logs & Field Charges\PZ-4E = resample.doc



Date of Even	it:	4/2-3/2018	Well ID:		CLF-1		
Project Nam	e:	Culpeper	Project/Task	2180019.02			
Sampler(s):	Micha	el Anderson					
	Well I	Diameter:		6	inches		
	Initial	Depth to Wate	er (DTW):	37.00	feet		
	Depth	to Bottom (D7	ГВ):	62.30	feet		
	Water	Column Thick	tness (WCT):	25.30	feet [DTB-DTW]		
Calculation f	for One	Well Volume	(WV):	37.2	gallons		
WV = WCT	X 0.16	3 for 2" well;	WV = WCT X	C 0.653 for 4" well			
For Three W	ell Vol	umes: W	V X 3	111.6	gallons		
Actua	l Amou	int Purged :		111.6	gallons		
Purge	d with:	:		Grund	fos Pump		
Samp	led wit		Disposable Bailer				
Depth	to Wa	ter before San	npling :	37.00	feet		

Gallons Purged	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initials
0	1200	15.2	5.51	524	4.02	MA
37.2	1230	15.3	5.64	528	2.24	MA
74.4	1300	15.4	5.35	419	4.35	MA
111.6	1330	15.6	5.47	418	1.71	MA
Before Sampling	1005	14.2	5.83	362	32.21	MA

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 4/2/18 and sampled on 4/3/18. The weather was cloudy with temperatures in the 40s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature Maha Date 4/5/18 QA/QC Sign Off Billin Date 4/14/18



Date of Even	t:	4/3-4/2	2018	Well ID:			CLF	-15A	
Project Name	e:	Culper	ber I	Project/Ta	sk N	No.:	2180	019.02	
Sampler(s):	Micha	el Ande	rson						
	Well	Diameter	r:		,	2	inche	es	
	Initial	Depth to	o Water (DTW):	4	48.22	feet		
	Depth	to Botto	om (DTB):	8	81.46	feet		
	Water	Columr	n Thickne	ss (WCT)		33.24	feet	DTB-DTW]	
Calculation f	or One	e Well V	olume (V	VV):		5.4	gallo	ns	
WV = WCT	X 0.16	3 for 2"	well; W	V = WCT	X (0.653 f	for 4"	well	
For Three W	ell Vol	umes:	WV	X 3		16.2	gallo	ns	
Actua	l Amou	int Purg	ged:		(6.0	gallo	ns	
Purge	d with:	:			(Grundi	fos Pu	mp	
Sampl	ed wit	h:			I	Dispos	able I	Bailer	
Depth	to Wa	ter befo	re Samp	ling :		76.79	feet		
Gallons Pu	rged	Time	Temp(°	C) pH	1	Cond.(uS)	Turb.(ntu)	Ini

Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initials					
0	1520	13.7	6.98	90	31.45	MA					
5.4	1532	15.6	6.19	90	5.49	MA					
	Well purged dry at 6.0 Gallons										
Before Sampling	0840	14.6	6.55	93	9.46	MA					
After Sampling	0847	14.3	6.84	1160	103.9	MA					

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 4/3/18 and sampled on 4/4/18. The weather was rainy with temperatures in the 40s on 4/3/18 and rainy with temperatures in the 60s on 4/4/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. D.O.: 3.05 mg/L; ORP -38.9 mV; Ferrous Iron: 1.4 mg/, Sulfate: 4.2 mg/L.

Signature Michaelum Date <u>1/5/18</u> QA/QC Sign Off Back Date <u>1/10/18</u>



Date of Event:	4/3-4/2	2018 Well	ID:		CLF	F-S1		
Project Name:	Culpep	er Proj	ect/Task	No.:	218	0019.02		
Sampler(s): Micha	ael Ande							
Well	Diameter	.		2	inches			
Initial	Well Diameter: Initial Depth to Water (DTW): Depth to Bottom (DTB): Water Column Thickness (WC Iculation for One Well Volume (WV):							
Depth	to Botto	om (DTB):		103.46	feet			
Water	Column	Thickness (WCT):	23.96	feet	[DTB-DTW]		
Calculation for One	e Well V	olume (WV)	:	3.9	gallons			
WV = WCT X 0.16	3 for 2"	well; WV =	wст х	0.653 f	for 4'	' well		
Calculation for One Well Volume (WV): 3.9 gallonsWV = WCT X 0.163 for 2" well; WV = WCT X 0.653 for 4" well								
For Three Well Vol	umes:	WV X 3	}	11.7	gallo	ons		
For Three Well Vol Actual Amor			\$	11.7 11.7	gallo gallo			
	int Purg)		gallo	ons		
Actual Amo	int Purg		\$	11.7	gallo fos pu	ons ump		
Actual Amo Purged with	unt Purg : h:	ged :		11.7 Grundi	gallo fos pu able	ons ump Bailer		
Actual Amor Purged with Sampled wit	unt Purg : h:	ged :		11.7 Grundf Dispos	galle fos pu able fee	ons ump Bailer	Initial	
Actual Amor Purged with Sampled wit Depth to Wa	int Purg : h: ter befor	ged : re Sampling	:	11.7 Grundf Dispos 97.58	galle fos pu able fee	ons ump Bailer t	Initial MA	
Actual Amou Purged with Sampled wit Depth to Wa Gallons Purged	int Purg : h: ter befo Time	ed : re Sampling Temp(°C)	: pH	11.7 Grundf Dispos 97.58 Cond. (gallo fos pu able fee uS)	ons ump Bailer t Turb.(ntu)		

Comments (weather conditions, color, silt, purge water management, etc): The well was purged on 4/3/18 and sampled on 4/4/18. The weather was rainy with temperatures in the 40s on 4/3/18 and rainy with temperatures in the 70s on 4/4/18. All samples were collected from one bailer, therefore no after sampling parameters were necessary All purge water was containerized and disposed of in 250-gallon plastic tanks on site.

7.57

7.43

Signature

Date_

QA/QC Sign Off

11.7

Before Sampling

1507

0825

15.3

14.0

lun

Date 4/14/18

62

536

MA

MA

115.1

17.65



Ι	Date of Event:	4/3-4/2	2018 Well	ID:		CLF	F-S3	
F	Project Name:	Culper	per Proj	ect/Task	No.:	218	0019.02	
S	ampler(s): Mic	hael Ande	rson					
	We	l Diamete	r:		2	inch	es	
	Initi	al Depth t	o Water (DT	W):	12.21	feet		
	Dep	th to Botto	om (DTB):		88.50	feet		
	Wat	76.29	feet	[DTB-DTW]				
0	Calculation for O	ne Well V	olume (WV)	•	12.4	galle	ons	
V	VV = WCT X 0.	163 for 2"	well; WV =	WCT X	0.653 f	for 4'	' well	
F	or Three Well V	olumes:	WV X 3	1	37.2	gallo	ons	
	Actual Am	ount Purg	ged :		37.2	gallo	ons	
	Purged wit	h:			Grund	fos P	ump	
	Sampled w	ith:			Dispos	able	Bailer	
	Depth to W	ater befo	re Sampling	•	21.73	feet		
	Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	
	0	1400	13.5	6.91	312		1.02	
	10.1		10.0	1				

		P()	F	,		
0	1400	13.5	6.91	312	1.02	MA
12.4	1415	13.6	6.30	186	0.51	MA
24.8	1428	13.5	6.33	189	0.45	MA
37.2	1436	13.6	6.32	185	0.39	MA
Before Sampling	0810	13.4	6.89	279	3.74	MA
After Sampling	0816	13.4	6.89	262	1.19	MA

Comments (weather conditions, color, silt, purge water management, etc.): <u>The well</u> <u>was purged on 4/3/18 and sampled on 4/4/18.</u> The weather was rainy with temperatures in the 40s on 4/3/18 and rainy with temperatures in the 70s on 4/4/18. All purge water was containerized and disposed of in 250-gallon tanks on site. D.O.: 1.10 mg/L, ORP: -42.6 mV, Ferrous Iron: 0 mg/L, Sulfate: 2.0 mg/L.

Signature/ QA/QC Sign Off_Hotelan

____ Date____//5 Date 4/14/18

Initial

P:\Culpeper\Laurel Valley Center Sanitary Landfill\Groundwater\GMR\2018\4_2018\Sampling Logs & Field Charges\CLF-S3.doc



7.4

11.1

Before Sampling

After Sampling

GROUNDWATER MONITORING WELL SAMPLING LOG

Γ	Date of Event	: 4/2-3/	18 Wel	ID:	MW-1B			
P	roject Name	: Culpe	per Proj	ect/Task	No.:	218	0019.01	
S	ampler(s):	Michael And	erson					
		Well Diamete	er:		2	inch	es	
		Initial Depth	to Water (DT	W):	4.43	feet		
		Depth to Bott	om (DTB):		27.10	feet		
		Water Colum	n Thickness (WCT):	22.67	feet	[DTB-DTW]	
C	Calculation fo	or One Well V	olume (WV)		3.7	gallo	ons	
V	VV = WCT X	X 0.163 for 2"	well; WV =	wст х	0.653 f	for 4'	' well	
F	or Three We	ell Volumes:	WV X 3	3	11.1	gallo	ons	
	Actual	Amount Pur	ged :		11.1	gallo	ons	
	Purgeo	l with:			Dispos	able	Bailer	
	Sample	ed with:			Dispos	able	Bailer	
	Depth	to Water befo	ore Sampling		4.41	feet		
	Gallons Pu	rged Time	Temp(°C)	pH	Cond.(uS)	Turb.(ntu)	Initial
	0	0936	9.2	5.56	72		28.36	MA
	3.7	0940	11.7	5.39	349		77.36	MA

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 4/2/18 and sampled on 4/3/18. The weather was cloudy with temperatures in the 40s on 4/2/18 and rainy with temperatures in the 70s on 4/3/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. MS/MSD samples were collected at this well.

5.29

5.30

5.54

5.64

662

619

574

663

Maha Signature_ QA/QC Sign Off Black

0945

0949

0835

0857

12.0

12.1

10.0

11.8

Date

57.34

31.45

46.11

72.54

MA

MA

MA

MA

Date

P:\Culpeper\Laurel Valley Center Sanitary Landfill\Groundwater\GMR\2018\4_2018\Sampling Logs & Field Charges\MW-1B.doc



10.2

15.3

Before Sampling

1009

1014

0905

GROUNDWATER MONITORING WELL SAMPLING LOG

Date of Even	t: 4/2-	3/2018 W	ell ID:		MW-1C			
Project Name	e: Culj	peper Pr	oject/Ta	isk No.:	2180019.01			
Sampler(s):	Michael An	derson						
	Well Diame	eter:		2	inches			
	Initial Dept	h to Water (D	TW):	13.73	feet			
	Depth to Bo	ottom (DTB):		45.00	feet			
	Water Colu	: 31.27	feet [DTB-DTV	V]				
Calculation for One Well Volume (WV): 5.1 gallons								
WV = WCT	X 0.163 for 3	2" well; WV	= WCT	X 0.653 f	or 4" well			
For Three W	ell Volumes:	WV X	3	15.3	gallons			
Actua	l Amount Pi	irged :		15.3	gallons			
Purge	d with:			Dispos	able Bailer			
Sampl	ed with:			Dispos	able Bailer			
Depth	to Water be	efore Sampli	ng:	13.73	feet			
Gallons Purg) Turb.(ntu)	Initial						
0	0957	11.1	5.55	71	3.37	MA		
5.1	1002	13.0	5.35	77	9.78	MA		

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 4/2/18 and sampled on 4/3/18. The weather was cloudy with temperatures in the 40s on 4/2/18 and rainy with temperatures in the 40s on 4/3/18. All samples were collected from one bailer; therefore, no after sampling parameters were necessary. All purge water was containerized and disposed of in 250-gallon plastic tanks on site.

5.48

5.81

5.55

84

84

79

18.40

12.90

5.91

MA

MA

MA

Chidens Date_ Signature **QA/QC Sign Off** Date

13.4

12.9

11.5



Date of Event:	4/2-	3/2018 W	ell ID:		MW-1D			
Project Name:	Culj	peper Pr	oject/Ta	ask No.:	2180019.01			
Sampler(s): M	ichael An	derson						
W	ell Diame	eter:		2	inches			
In	itial Dept	16.70	feet					
De	Depth to Bottom (DTB): 57.13							
W	: 40.43	feet [DTB-DTW]						
Calculation for	One Well	Volume (W	V):	6.6	gallons			
WV = WCT X).163 for 1	2" well; WV	= WCT	X 0.653 f	for 4" well			
For Three Well	Volumes	WV X	3	19.8	gallons			
Actual A	mount Pi	irged :		19.8	gallons			
Purged w	ith:			Grund	fos Pump			
Sampled	with:			Dispos	able Bailer			
Depth to Water before Sampling : 16.67 feet								
Gallons Purged	Time	Temp(°C)	рН	Cond.(uS) Turb.(ntu)	Initial		
0	1442	14.2	6.38	1020	375.8	MA		

			1 *	` ´		
0	1442	14.2	6.38	1020	375.8	MA
6.6	1447	139	6.38	660	13.37	MA
13.2	1452	14.0	6.03	660	9.93	MA
19.8	1457	13.9	5.94	670	10.69	MA
Before Sampling	1050	11.8	5.80	667	3.54	MA

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 4/2/18 and sampled on 4/3/18. The weather was cloudy with temperatures in the 40s on 4/2/18 and rainy with temperatures in the 40 on 4/3/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature Michael Andrew Date <u>4/5/18</u> QA/QC Sign Off Bluch Date <u>4/16/18</u>



Date of Even	it:	4/2-3/2018	Well ID:		MW-1E		
Project Name	e:	Culpeper	Project/Task	No.:	2180019.01		
Sampler(s):	Michae	el Anderson					
	Well D	Diameter:		2	inches		
Initial Depth to Water (DTW):				18.79	feet		
	Depth	103.20) feet				
Water Column Thickness (WCT):					feet [DTB-DTW]		
Calculation f	for One	Well Volume	(WV):	13.8	gallons		
WV = WCT	X 0.163	B for 2" well;	WV = WCT X	0.653	for 4" well		
For Three W	ell Volu	imes: W	V X 3	41.4	gallons		
Actua	l Amou	nt Purged :		41.4	gallons		
Purge	d with:	2" Gru	Indfos Pump				
Sampled with:					Disposable Bailer		
Depth	to Wat	19.26	feet				
Callena Dave		5 mag (1)					

Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initial
0	1350	13.5	6.26	900	69.72	MA
13.8	1405	13.8	6.38	710	449.3	MA
27.6	1420	14.0	5.64	627	27.40	MA
41.4	1435	14.2	5.92	640	35.30	MA
Before Sampling	1040	12.0	6.44	421	3.76	MA

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 4/2/18 and sampled on 4/3/18. The weather was cloudy with temperatures in the 40s on 4/2/18 and rainy with temperatures in the 40s on 4/3/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature Mithie Ander Date 4/5/8 QA/QC Sign Off Bish Date 4/14/18



Date of Even	Date of Event:		Well ID:		MW-1F		
Project Nam	e:	Culpeper	Project/Task	No.:	2180019.02		
Sampler(s):	Micha	el Anderson					
	Well Diameter:			2	inches		
Initial Depth to Water (DTW):				15.92	feet		
Depth to Bottom (DTB):				200.00	feet		
Water Column Thickness (WCT):					feet [DTB-DTW]		
Calculation f	for One	Well Volume	(WV):	30.0	gallons		
WV = WCT	X 0.16	3 for 2" well; "	WV = WCT X	0.653 f	for 4" well		
For Three W	ell Vol	umes: W	V X 3	90.0	gallons		
Actua	l Amou	int Purged :		90.0	gallons		
Purge	d with:	Grund	Grundfos Pump				
Sampled with:					Disposable Bailer		
Depth	to Wa	ter before San	npling :	16.00 f	feet		

Gallons Purged	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initial
0	0730	12.1	6.72	467	5.78	МА
30.0	0820	13.5	5.85	617	2.55	MA
60.0	0910	13.7	6.09	636	1.03	MA
90.0	1010	13.6	6.62	637	0.98	МА
Before Sampling	0740	12.4	7.05	511	1.13	МА

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 4/3/18 and sampled on 4/4/18. The weather was rainy with temperatures in the 40s on 4/3/18 and rainy with temperatures in the 60s on 4/4/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature Muthae Ander Date 4/5/8 QA/QC Sign Off Balan Date 4/16/18



Date of Even	it: 4	4/2-3/18	Well ID:		MW-1G	
Project Nam	e: (Culpeper	Project/Task	No.:	2180019.02	
Sampler(s):	Sampler(s): Michael Anderson					
	Well Diameter:			2	inches	
Initial Depth to Water (DTW):				8.20	feet	
Depth to Bottom (DTB):) feet	
Water Column Thickness (WCT):					feet [DTB-DTW]	
Calculation f	for One V	Well Volume	(WV):	31.3	gallons	
WV = WCT	X 0.163	for 2" well; V	WV = WCT X	0.653 1	for 4'' well	
For Three W	ell Volur	mes: WV	X 3	93.9	gallons	
Actua	l Amoun	t Purged :		93.9	gallons	
Purged with:					fos Pump	
Sampled with:					Disposable Bailer	
Depth	to Wate	r before Sam	pling :	185.20	feet	

Gallons Purged	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initial
0	1520	13.9	6.54	690	3.11	МА
31.3	1600	17.9	7.09	690	2.04	MA
62.6	1640	16.0	6.90	690	1.29	MA
93.3	1720	15.7	6.77	690	0.33	MA
Before Sampling	1100	13.3	6.94	68	3.98	MA

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 4/2/18 and sampled on 4/3/18. The weather was cloudy with temperatures in the 40s on 4/2/18 and rainy with temperature in the 40s on 4/3/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature Michaelfreder Date 1/5/18

QA/QC Sign Off_Beh

Date 4/14/18



Date of Even	it:	4/3-4/18	Well ID:		MW-1H	
Project Nam	e:	Culpeper	Project/Task	No.:	2180019.02	
Sampler(s):	Micha	el Anderson				
	Well I	Diameter:		2	inches	
Initial Depth to Water (DTW):				5.43	feet	
	Depth	210.00) feet			
Water Column Thickness (WCT):					7 feet [DTB-DTW]	
Calculation f	ior One	Well Volume	(WV):	33.3	gallons	
WV = WCT	X 0.16	3 for 2" well;	WV = WCT X	0.653 for 4" well		
For Three W	ell Vol	umes: W	V X 3	99.9	gallons	
Actua	l Amou	int Purged :		99.9	gallons	
Purge	d with:	Grund	fos Pump			
Sampled with:					Disposable Bailer	
Depth	to Wa	ter before San	npling :	3.98	feet	

Gallons Purged	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initial
0	1030	13.4	6.50	710	1.99	MA
33.3	1130	14.0	6.80	710	0.74	MA
66.6	1200	14.1	6.46	710	0.55	MA
99.9	1245	14.0	6.37	710	0.33	MA
Before Sampling	0755	10.6	7.00	547	5.08	MA

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 4/3/18 and sampled on 4/4/18. The weather was rainy with temperatures in the 40s on 4/3/18 and rainy with temperatures in the 60s on 4/4/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature Michaelun Date 4/3/18 QA/QC Sign Off Black Date 4/10/18



Date of Even	it:	4/3/2018	Well ID:		MW-1I
Project Nam	e:	Culpeper	Project/Task	No.:	2180019.02
Sampler(s):	Micha	el Anderson			
	Well I	Diameter:		2	inches
	Initial	Depth to Wate	er (DTW):	0.00	feet
	Depth	to Bottom (D7	310.00) feet	
	Water	Column Thick	310.00	feet [DTB-DTW]	
Calculation f	for One		gallons		
WV = WCT	X 0.16	3 for 2" well;	WV = WCT X	0.653	for 4" well
For Three W	ell Vol	umes: W	V X 3		gallons
Actua	l Amou	int Purged :			gallons
Purge	d with:	:			
Samp	led wit	h:		Dispos	sable Bailer
Depth	to Wa	ter before San	npling :	0.00 fe	eet

	Time	Temp(°C)	pН		Turb.(ntu)	Initial
Before Sampling	1125	11.7	7.50	324	0.25	MA

Comments (weather conditions, color, silt, purge water management, etc.): <u>The well</u> was sampled on 4/3/18. The weather was rainy with temperatures in the 40s. All samples were collected from one bailer; therefore, no after parameters were necessary.

Signature_	Millio Alun
0	11101 1100
QA/QC Sig	in Off Allen

,

____ Date_____/5/18 ____ Date_____/19



Date of Even	t:	4/2-3/1	18	Well II):		MW-2B
Project Name	e: Culpeper Project/Task				No.:	2180019.01	
Sampler(s):	Micha	el Ande	rson				
	Well I	Diamete	r:			2	inches
	Initial	Depth to	o Wate	r (DTW)		18.84	feet
	Depth to Bottom (DTB):				22.50	feet	
	Water	Water Column Thickness (WCT):				3.66	feet [DTB-DTW]
Calculation f	or One	Well V	olume	(WV):		0.6	gallons
WV = WCT	X 0.16	3 for 2"	well; \	WV = W	ст х	0.653	for 4" well
For Three W	ell Vol	umes:	WV	X 3		1.8	gallons
Actua	l Amou	nt Purg	ged :			1.8	gallons
Purged with:					Disposable Bailer		
Sampled with:					Dispos	sable Bailer	
Depth	to Wa	ter befo	re Sam	pling :		19.07	feet
	1	(ID)*		(0.00)		0	

Gallons Purged	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initial
0	0919	13.5	5.24	1900	4.08	MA
0.6	0921	14.0	5.38	1820	12.78	MA
1.2	0923	[4.1	5.41	1850	67.41	MA
1.8	0925	14.3	5.57	1870	133.4	MA
Before Sampling	0805	13.3	5.95	350	7.29	MA
After Sampling	0816	14.0	5.76	1980	79.85	MA

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 4/2/18 and sampled on 4/3/18. The weather was cloudy with temperatures in the 40s on 4/2/18 and rainy with temperatures in the 40 on 4/3/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site.

Signature Michaeller Date 4/5/18 QA/QC Sign Off Black Date 4/10/18



Date of Even	nt:	4/2-3/18	Well ID:		MW-3
Project Nam	ne: Culpeper Project/Task I			No.:	2180019.02
Sampler(s):	Micha	el Anderson			
	Well I	Diameter:		2	inches
	Initial	Depth to Wate	er (DTW):	14.02	feet
	Depth	to Bottom (D)	21.18	feet	
	Water Column Thickness (WCT):				feet [DTB-DTW]
Calculation f	for One	Well Volume	(WV):	1.2	gallons
WV = WCT	X 0.16	3 for 2" well;	WV = WCT X	0.653	for 4" well
For Three W	ell Vol	umes: W	V X 3	3.6	gallons
Actua	l Amou	nt Purged :		3.6	gallons
Purged with:					sable Bailer
Sampled with:					sable Bailer
Depth	to Wa	ter before San	npling :	14.36	feet

Gallons Purged	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initial
0	1355	12.0	6.07	139	10.23	MA
1.2	1357	11.9	5.11	124	54.21	MA
2.4	1359	11.8	4.78	98	99.31	MA
3.6	1402	11.9	4.64	95	235.5	MA
Before Sampling	1020	11.0	5.37	114	8.83	MA

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 4/2/18 and sampled on 4/3/18. The weather was cloudy with temperatures in the 40s on 4/2/18 and rainy with temperatures in the 40s on 4/3/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature Michael Ander Date 4/5/18 QA/QC Sign Off Bach Date 4/10/18



Date of Event:	te of Event: 4/2-3/18 Well ID:			MW-3A
Project Name:	Culpeper	No.:	2180019.01	
Sampler(s): N	Aichael Anderson			
V	Well Diameter:		2	inches
Ι	nitial Depth to Wate	er (DTW):	11.99	feet
Γ	Depth to Bottom (D7	16.40	feet	
V	Water Column Thick	4.41	feet [DTB-DTW]	
Calculation for	One Well Volume	(WV):	0.7	gallons
WV = WCT X	0.163 for 2" well;	WV = WCT X	0.653	for 4" well
For Three Well	l Volumes: W	V X 3	2.1	gallons
Actual A	Amount Purged :		1.0	gallons
Purged	Dispos	able Bailer		
Sampled	ł with:		Dispos	able Bailer
Depth to	o Water before San	npling :	11.97	feet

Gallons Purged	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initial			
0	0907	11.3	6.78	358	2.28	MA			
0.7	0908	11.1	5.39	319	33.13	MA			
Dry @ 1.0 gallons									
Before Sampling	0750	11.9	5.66	236	5.41	MA			
After Sampling	Insufficient Volume								

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 4/2/18 and sampled on 4/3/18. The weather was cloudy with temperatures in the 40s on 4/2/18 and rainy with temperatures in the 40s on 4/3/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. The well was sampled on numerous days due to low water volume.

Adam Date 9 Signature Muchae QA/QC Sign Off Van

Date

P:\Culpeper\Laurel Valley Center Sanitary Landfill\Groundwater\GMR\2018\4_2018\Sampling Logs & Field Charges\MW-3A.doc



Date of Even	t: 4/2-3	3/17 W	ell ID:		MW-4	
Project Name	e: Culp	eper Pr	sk No.:	2180019.01		
Sampler(s):	Britton Coc	ke				
	Well Diame	ter:		2	inches	
	Initial Depth	n to Water (D	(WTW):	40.83	feet	
	Depth to Bo	ttom (DTB):		45.30	feet	
	Water Colu	mn Thickness	4.47	feet [DTB-DTW]		
Calculation f	or One Well	Volume (W	V):	0.7	gallons	
WV = WCT	X 0.163 for 2	2" well; WV	= WCT	X 0.653 f	or 4" well	
For Three W	ell Volumes:	WV X	3	2.1	gallons	
Actua	l Amount Pu	rged :		1.0	gallons	
Purge	d with:			Dispos	able Bailer	
Sampl	ed with:			Dispos	able Bailer	
Depth	to Water be	fore Sampli	ng:	40.85	feet	
Gallons Purg	ed Time	Temp(°C)	pH	Cond.(uS) Turb.(ntu) I	'n

Gallons Purged	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initial			
0	1143	14.6	5.72	228	29.60	MA			
0.7	1144	14.7	5.70	200	>1100	MA			
Well purged dry @ 1.0 gallons									
Before Sampling	0955	13.0	5.42	266	73.99	MA			
After Sampling		Insufficient Volume							

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 4/2/18 and sampled on 4/3-4/18. The weather was cloudy with temperatures in the 40s on 4/2/18, rainy with temperatures in the 40s on 4/3/18 and rainy with temperatures in the 60s on 4/4/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site.



Project Name:CulpeperProject/Task No.:2180019.02Sampler(s):Michael Anderson2inches	
Well Diameter: 2 inches	
Initial Depth to Water (DTW): 8.84 feet	
Depth to Bottom (DTB): 22.26 feet	
Water Column Thickness (WCT): 13.42 feet [DTB-DTW	/]
Calculation for One Well Volume (WV): 2.2 gallons	
WV = WCT X 0.163 for 2" well; WV = WCT X 0.653 for 4" well	
For Three Well Volumes:WV X 36.6gallons	
Actual Amount Purged : 6.6 gallons	
Purged with: Disposable Bailer	
Sampled with: Disposable Bailer	
Depth to Water before Sampling: 8.89 feet	

Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initial
0	1038	10.2	5.44	77	101.2	MA
2.2	1040	10.3	5.10	178	141.4	MA
4.4	1043	11.0	5.05	142	347.9	MA
6.6	1046	11.1	5.04	136	>1100	MA
Before Sampling	0920	10.3	5.41	169	8.62	MA

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 4/2/18 and sampled on 4/3/18. The weather was cloudy with temperatures in the 40s on 4/2/18 and rainy with temperatures in the 40s on 4/3/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature Muchae Ada Date <u>4/5/17</u> QA/QC Sign Off Back Date <u>4/10/18</u>



Date of Event	: 4/2-	3/18 W	ell ID:		MW-6	
Project Name	: Culj	peper Pr	oject/Tas	sk No.:	2180019.02	
Sampler(s):	Michael An	derson				
	Well Diame	eter:		2	inches	
	Initial Dept	h to Water (D	TW):	Dry	feet	
	Depth to Bo	ottom (DTB):		47.56	feet	
	Water Colu	mn Thicknes	s (WCT):	0.00	feet [DTB-DT	W]
Calculation for	or One Well	Volume (W	V):	0.00	gallons	
$WV = WCT \Sigma$	C 0.163 for 2	2" well; WV	= WCT	X 0.653	for 4" well	
For Three We	ell Volumes	WV X	3	0.00	gallons	
Actual	Amount Pu	irged :		0.00	gallons	
Purged	l with:			Dispos	able Bailer	
Sample	ed with:			Dispos	able Bailer	
Depth	to Water be	fore Sampli	ng:		feet	
Gallons Purge	ed Time	Temp(°C)	pH	Cond.(uS	5) Turb.(ntu)	Initial
<u></u>		Wel	ll was dry		· · · · ·	

Comments (weather conditions, color, silt, purge water management, etc.): The well was dry on 4/2/18 and on 4/3/18; therefore no purging or sampling took place for this event.

Signature Machielan Date 4/5/18 QA/QC Sign Off Bach Date 4/16/18



Date of Even	t:	4/3-4/]	18	Well	ID:	MW-2	20		
Project Nam	e:	Culper	per	Proje	ect/Task	No.:	218	0019.01/02	
Sampler(s):	Micha	ael Ande	rson						
	Well	Diameter	r:			2	inch	es	
	Initial	Depth to	o Water	r (DTV	W):	37.21	feet		
	Depth	to Botto	om (DT	B):		51.64	feet		
	Water	Columr	n Thicki	ness (V	WCT):	14.43	feet	[DTB-DTW]	
Calculation f	or One	Well V	olume	(WV):		2.4	gallo	ons	
WV = WCT	X 0.16	3 for 2"	well; V	VV =	WCT X	0.653 1	for 4"	well	
For Three W	ell Vol	umes:	WV	X 3		7.2	gallo	ons	
Actua	l Amou	int Purg	ged :			4.0	gallo	ons	
Purge	d with:	:				Grund	fos P	Jmp	
Samp	led wit	h:				Dispos	able	Bailer	
Depth	to Wa	ter befo	re Sam	pling	•	37.21	feet		
Gallons Pu	irged	Time	Temp	(°C)	рН	Cond.(nS)	Turb.(ntu)	

Gallons Purged	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initial					
0	1610	13.0	5.29	40	223.1	MA					
2.4	1622	13.5	5.35	42	63.17	MA					
	Dry at 4.2 Gallons										
Before Sampling	0925	13.8	5.46	43	7.97	MA					
After Sampling	0939	13.5	5.41	22	21.64	MA					

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 4/3/18 and sampled on 4/4/18. The weather was rainy with temperatures in the 40s on 4/3/18 and rainy with temperatures in the 60s on 4/4/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. D.O.: 4.48 mg/L, ORP: -8.1

mV, Ferrous Iron: 0 mg/L, Sulfate: 2.2 mg/L Signature_____ QA/QC Sign Off_Block Date 4/1/0/18

holen Date 1/5/18



	Depth to Bo Water Colu		feet IDTB-DTWI						
	Water Colu	mn Thicknes	s (WCT)	: 3.64	feet [DTB-DTW	V]			
Calculation f	Calculation for One Well Volume (WV): 0.6								
WV = WCT	X 0.163 for 2	2" well; WV	= WCT	X 0.653 i	for 4" well				
For Three W	ell Volumes:	wv x	3	1.8	gallons				
Actual	Amount Pu	irged :		1.0	gallons				
Purge	d with:			Dispos	able Bailer				
Sampl	ed with:			Dispos	able Bailer				
Depth	to Water be	efore Sampli	ng:	31.00					
		-				In			
Gallons Purg	ed Time	Temp(°C)	pH	Cond.(uS	b) Turb.(ntu)	In			

Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initial			
0	1111	14.5	5.80	680	10.58	MA			
0.6	1114	14.6	5.84	620	60.21	MA			
Dry @ 1.0 gallons									
Before Sampling	0945	14.8	5.96	586	41.69	MA			

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 4/2/18 and sampled on 4/3/18. The weather was cloudy with temperatures in the 40s on 4/2/18 and rainy with temperatures in the 40s on 4/3/18. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature Mucha Adum Date <u>1/3/18</u> QA/QC Sign Off Block Date <u>4/10/18</u>



Ι	Date of Event	t:	4/3-4/1	8 Wel	ID:		М₩	/-X2	
ŀ	Project Name		Culper	er Proj	ect/Task	No.:	218	0019.02	
5	Sampler(s):	Micha	el Ande	rson					
		Well	Diameter	**		2	inch	ies	
		Initial	Depth to	o Water (DT	W):	4.22	feet		
		Depth	to Botto	om (DTB):		16.71	feet		
		Water	Colum	WCT):	12.49	feet	[DTB-DTW]		
0	Calculation fo	or One	e Well V	*	2.0	gall	ons		
V	VV = WCT	X 0.16	3 for 2"	well; WV =	WCT X	0.653	for 4'	' well	
F	for Three We	ell Vol	umes:	WV X 3	}	6.0	gall	ons	
	Actual	Ато	int Purg	ged :		6.0	gall	ons	
	Purgeo	d with:				Grund	fos P	ump	
	Sample	ed witl	h:			Dispos	able	Bailer	
	Depth	to Wa	ter befo	re Sampling	•	4.06	feet		
	Gallons Pu	rged	Time	Temp(°C)	рН	Cond.	(uS)	Turb.(ntu)	Γ
	0		1620	10.0	5.05	401		200.0	

Gallons Purged	Time	Temp(°C)	pH	Cond.(uS)	Turb.(ntu)	Initial
0	1638	10.0	5.95	491	300.0	MA
2.0	1650	9.1	6.25	490	7.11	MA
4.0	1653	9.0	6.24	490	7.11	MA
6.0	1655	9.0	6.21	490	8.64	МА
Before Sampling	0955	11.4	6.41	462	7.14	MA
After Sampling	1002	10.1	6.45	494	21.48	MA

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 4/3/18 and sampled on 4/4/18. The weather was rainy with temperatures in the 40s on 4/3/18 and rainy with temperatures in the 60s on 4/4/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. D.O.: 3.66 mg/L,

ORP: -32.0 mV, Ferrous Iron: 2.3 mg/L, Sulfate: 4.0 mg/L. Signature_ tuler Date Date 4/16/18 QA/QC Sign Off



Date of Even	it:	4/2-3/18	Well ID:		MW-	X2D
Project Name	e:	Culpeper	Project/Task	No.:	2180	019.02
Sampler(s):	Micha	el Anderson				
	Well I	Diameter:		2	inche	S
	Initial	Depth to Wate	er (DTW):	61.22	feet	
	Depth	to Bottom (D)	ГВ):	65.05	feet	
	Water	Column Thick	iness (WCT):	3.83	feet [DTB-DTW]
Calculation f	or One	Well Volume	(WV):	0.6	gallo	ns
WV = WCT	X 0.16	3 for 2" well;	WV = WCT X	0.653	for 4"	well
For Three W	ell Volu	imes: W	V X 3	1.8	gallo	ns
Actua	l Amou	nt Purged :		1.0	gallo	ns
Purge	d with:			Dispos	sable E	Bailer
Sampl	led with	Disposable Bailer				
Depth	to Wat	ter before San	npling :	62.76	feet	
Gallons Pu	rged	Time Te	mn(°C) nH	Cond	(nS)	Turb (ntu)

Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initial			
0	1056	12.9	5.82	5870	2.92	MA			
0.6	1100	13.0	6.97	5970	10.70	MA			
Well dry @ 1.0 gallon									
Before Parameters	0925	12.7	6.50	3040	7.48	MA			

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 4/2/18 and sampled on 4/3/18. The weather was cloudy with temperatures in the 40s on 4/2/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature Mahar Adum Date 4/18/18 QA/QC Sign Off Blule Date 4/16/18



Date of Even	t:	4/3-4/	18 W e	ell ID:		PZ-	4E	
Project Name	2 :	Culper	per Pr	oject/Task	No.:	218	0019.02	
Sampler(s):	Micha	ael Ande	rson					
	Well	Diamete	r:		2	inch	ies	
	Initial	Depth t	o Water (D	ΓW):	25.68	feet		
	Depth	to Botto	om (DTB):		30.98	feet		
	Water	5.30	feet [DTB-DTW]					
Calculation f	or One	e Well V	olume (WV	7):	0.9	gall	ons	
WV = WCT	X 0.16	3 for 2"	well; WV	= WCT X	0.653	for 4'	' well	
For Three W	ell Vol	umes:	WV X	3	2.7	galle	ons	
Actual	Amou	int Purg	ged :		2.7	galle	ons	
Purge	d with:				Grund	fos P	ump	
Sampl	ed wit	h:			Dispos	sable	Bailer	
Depth	to Wa	ter befo	g :	25.63	feet			
Gallons Pu	rged	Time	Temp(°C)	pH	Cond.	(uS)	Turb.(ntu)	

Gallons Purged	Time	Temp(°C)	pH	Cond.(uS)	Turb.(ntu)	Initial
0	1542	14.0	5.32	80	89.32	MA
0.9	1548	14.3	5.06	77	452.7	MA
1.8	1552	14.4	5.04	78	234.3	MA
2.7	1555	15.0	5.05	82	486.4	MA
Before Sampling	0900	14.4	5.29	126	41.23	MA
After Sampling	0907	14.1	5.22	79	103.6	MA

Comments (weather conditions, color, silt, purge water management, etc.): <u>The well</u> was purged on 4/3/18 and sampled on 4/4/18. The weather was rainy with temperatures in the 40s on 4/3/18 and rainy with temperatures in the 60s on 4/4/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. D.O.: 0.88 mg/L, ORP: -16.2 mV, Ferrous Iron: 2.1 mg/L, Sulfate: 0 mg/L.

 Signature
 Michae
 Date
 1/5/8

 QA/QC Sign Off
 Bate
 Unit
 Date
 Unit



Date of Event:		9/25-26/2018	Well ID:		CLF-1
Project Name:		Culpeper	Project/Task	No.:	2180019.02
Sampler(s):	Britto	n Cocke			
	Well	Diameter:		6	inches
	Initial	Depth to Water	r (DTW):	36.54	feet
	Depth	to Bottom (DT	B):	62.30	feet
	Water	Column Thick	ness (WCT):	25.76	feet [DTB-DTW]
Calculation f	for One	e Well Volume	(WV):	37.9	gallons
WV = WCT	X 0.16	3 for 2" well; N	WV = WCT X	0.653	for 4" well
For Three W	ell Vol	umes: WV	X 3	113.7	gallons
Actua	l Amou	int Purged :		113.7	gallons
Purge	d with:	:		Grund	fos Pump
Samp	led wit	h:		Dispo	sable Bailer
Depth	to Wa	ter before Sam	pling :	36.59	feet

Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initials
0	1222	16.4	5.76	581	16.20	BC
37.9	1252	16.5	5.78	456	2.09	BC
75.8	1322	16.5	5.84	413	5.04	BC
113.7	1352	16.6	5.89	398	3.92	BC
Before Sampling	1030	15.9	5.65	486	5.10	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 9/25/18 and sampled on 9/26/18. The weather was rainy with temperatures in the 70s on 9/25/18 and sunny with temperatures in the 80's on 9/26/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature Blala Date 10/14/18 QA/QC Sign Off Ala Mua Date 11/3/18



After Sampling

GROUNDWATER MONITORING WELL SAMPLING LOG

								•
D	ate of Event:	9/26-2	7/2018 W	ell ID:		CLF	F-15A	
P	roject Name:	Culper	ber Pr	oject/Task	No.:	218	0019.02	
S	ampler(s): Brit	on Cocke						
	Wel	l Diamete	r:		2	inch	es	
	Initi	al Depth t	o Water (D	TW):	51.20	feet		
	Dep	th to Botto	om (DTB):		81.46	feet		
	Wat	er Columr	n Thickness	(WCT):	30.26	feet	[DTB-DTW]	
С	alculation for O	ne Well V	olume (W	V):	5.0	galle	ons	
W	V = WCT X 0.1	63 for 2"	well; WV	= WCT X	0.653	for 4'	' well	
F	or Three Well V	olumes:	WV X	3	15.0	galle	ons	
	Actual Am	ount Purg	ged :		11.0	galle	ons	
	Purged wit	h:			Grund	fos P	ump	
	Sampled w	ith:			Dispos	able	Bailer	
	Depth to W	ater befo	re Samplir	ng:	51.29	feet		
	Gallons Purged	Time	Temp(°C) pH	Cond.	(uS)	Turb.(ntu)	
	0	1544	15.9	6.91	598	;	9.91	
	5.0	1550	15.7	6.77	631		5.08	
	10.0	1556	15.7	6.74	644	,	2.01	
			Well purge	d dry at 11.	0 Gallon	5		
	Before Sampling	0755	15.7	6.61	680)	4.21	
11-								

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 9/26/18 and sampled on 9/27/18. The weather was sunny with temperatures in the 80s on 9/26/18 and overcast with temperatures in the 70s on 9/27/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. D.O.: 2.91 mg/L; ORP -88.4 mV; Ferrous Iron: 1.7 mg/, Sulfate: 2.9 mg/L.

6.74

649

Signature Stehn	_ Da
QA/QC Sign Off	_ Da

0759

15.8

Date_______ Date_______7_/7

45.77

BC



Date of Even	t: 9/26-2	27/2018	Well ID:		CLF-S1
Project Name	e: Culpe	per	Project/Task	No.:	2180019.02
Sampler(s):	Britton Cocke	2			
	Well Diamete	er:		2	inches
	Initial Depth	to Water	r (DTW):	90.11	feet
	Depth to Bott	om (DT	B):	103.46	feet
	Water Colum	n Thicki	ness (WCT):	13.35	feet [DTB-DTW]
Calculation f	or One Well V	olume	(WV):	2.2	gallons
WV = WCT	X 0.163 for 2"	well; V	WV = WCT X	0.653	for 4" well
For Three W	ell Volumes:	WV	X 3	6.6	gallons
Actua	l Amount Pur	ged :		6.0	gallons
Purge	d with:			Grund	fos pump
Samp	led with:			Dispos	able Bailer
Depth	to Water befo	ore Sam	pling :	94.18	feet
			(0.0)	0	

Gallons Purged	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initial
0	1516	16.0	7.51	735	29.70	BC
2.2	1522	15.7	7.64	622	22.01	BC
4.4	1532	15.6	7.71	600	11.11	BC
		Well purged	dry @ 6.0	0 gallons		
Before Sampling	0745	16.1	7.61	610	12.81	BC
After Sampling	0749	15.7	7.58	618	18.16	BC

Comments (weather conditions, color, silt, purge water management, etc): The well was purged on 9/26/18 and sampled on 9/27/18. The weather was sunny with temperatures in the 80s on 9/27/18 and overcast with temperatures in the 70s on 9/27/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. D.O.: 4.28 mg/L, ORP: -77.6 mV, Ferrous Iron: 0 mg/L, Sulfate: 5.1 mg/L.

Date 10/16Date 11/9/16Signature / Aula Alm OA/OC Sign Off



Date of Event:		9/26-27/2018	Well ID:		CLF-S3
Project Name:		Culpeper	Project/Task	No.:	2180019.02
Sampler(s):	Britto	n Cocke			
	Well I	Diameter:		2	inches
	Initial	Depth to Water	r (DTW):	17.52	feet
	Depth	to Bottom (DT	B):	88.50	feet
	Water	Column Thick	ness (WCT):	70.98	feet [DTB-DTW]
Calculation f	for One	Well Volume	(WV):	11.6	gallons
WV = WCT	X 0.16	3 for 2" well; V	VV = WCT X	0.653	for 4" well
For Three W	ell Vol	umes: WV	7 X 3	34.8	gallons
Actua	l Amou	nt Purged :		34.8	gallons
Purge	d with:			Grund	fos Pump
Sampled with:				Dispos	sable Bailer
Depth	to Wa	ter before Sam	pling :	17.70	feet

Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initial
0	1412	16.1	7.08	261	6.89	BC
11.6	1430	14.3	6.69	284	3.19	BC
23.2	1440	14.4	6.65	289	3.01	BC
34.8	1451	14.4	6.65	294	3.90	BC
Before Sampling	0945	15.4	6.61	275	5.81	BC
After Sampling	0950	15.1	6.58	269	6.91	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 9/26/18 and sampled on 9/27/18. The weather was sunny with temperatures in the 80s on 9/26/18 and overcast with temperatures in the 70s on 9/27/18. All purge water was containerized and disposed of in 250-gallon tanks on site. D.O.: 3.81 mg/L, ORP: -95.8 mV, Ferrous Iron: 0 mg/L, Sulfate: 1.9 mg/L.

Buli Signature___ QA/QC Sign Off And -

Date__/0//4/18 11/ Date

P:\Culpeper\Laurel Valley Center Sanitary Landfill\Groundwater\GMR\2018\10_2018\Sampling Logs & Field Charges\CLF-S3.doc



Date of Event:		9/25-26/18	Well ID:		MW-1B
Project Name:		Culpeper	Project/Task	No.:	2180019.01
Sampler(s):	Britto	n Cocke			
	Well I	Diameter:		2	inches
	Initial	Depth to Wate	r (DTW):	3.66	feet
	Depth	to Bottom (D7	[•] B):	27.10	feet
	Water	Column Thick	ness (WCT):	23.44	feet [DTB-DTW]
Calculation f	or One	Well Volume	(WV):	3.8	gallons
WV = WCT	X 0.16	3 for 2" well;	WV = WCT X	0.653	for 4" well
For Three W	ell Vol	umes: W	V X 3	11.4	gallons
Actua	l Amou	int Purged :		11.4	gallons
Purge	d with:			Dispos	sable Bailer
Samp	led witl	h:		Dispos	sable Bailer
Depth	to Wa	ter before San	pling :	3.72	feet

Gallons Purged	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initial
0	0958	14.9	5.91	612	2.18	BC
3.8	1002	14.7	5.95	655	8.21	BC
7.6	1007	14.6	5.99	6.81	14.08	BC
11.4	1012	14.6	6.06	719	21.12	BC
Before Sampling	0900	14.2	5.98	590	3.90	BC
After Sampling	0920	14.3	6.09	635	24.19	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 9/25/18 and sampled on 9/26/18. The weather was rainy with temperatures in the 70s on 9/25/18 and sunny with temperatures in the 80s on 9/26/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. MS/MSD samples were collected at this well.

Kela. Signature_ Date QA/QC Sign Off Date_ Mar

P:\Culpeper\Laurel Valley Center Sanitary Landfill\Groundwater\GMR\2018\10_2018\Sampling Logs & Field Charges\MW-IB.doc



Date of Event:		9/25-26/2018	Well ID:		MW-1C
Project Nam	e:	Culpeper	Project/Task	No.:	2180019.01
Sampler(s):	Britto	n Cocke			
	Well I	Diameter:		2	inches
	Initial	Depth to Water	r (DTW):	12.94	feet
	Depth	to Bottom (DT	B):	45.00	feet
	Water	Column Thick	ness (WCT):	32.06	feet [DTB-DTW]
Calculation f	for One	Well Volume	(WV):	5.2	gallons
WV = WCT	X 0.16	3 for 2" well; \	WV = WCT X	0.653	for 4" well
For Three W	ell Vol	umes: WV	7 X 3	15.6	gallons
Actua	l Amou	nt Purged :		15.6	gallons
Purge	d with:			Dispos	sable Bailer
Samp	led witi	h:		Dispos	sable Bailer
Depth	to Wa	ter before Sam	pling :	12.95	feet

Gallons Purged	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initial
0	1024	14.9	5.78	83	8.16	BC
5.2	1029	14.5	5.81	77	12.94	BC
10.4	1034	14.3	5.81	70	21.16	BC
15.6	1038	14.2	5.80	61	28.04	BC
Before Sampling	0925	14.8	5.79	65	5.11	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 9/25/18 and sampled on 9/26/18. The weather was rainy with temperatures in the 70s on 9/25/18 and sunny with temperatures in the 80s on 9/26/18. All samples were collected from one bailer; therefore, no after sampling parameters were necessary. All purge water was containerized and disposed of in 250-gallon plastic tanks on site.

Signature Stella Date QA/QC Sign Off Date____/



Date of Even	it:	9/25-26/2018	Well ID:		MW-1D
Project Name:		Culpeper	Project/Task	No.:	2180019.01
Sampler(s):	Britto	n Cocke			
	Well	Diameter:		2	inches
	Initial	Depth to Water	r (DTW):	15.25	feet
	Depth	to Bottom (DT	B):	57.13	feet
	Water	Column Thick	ness (WCT):	41.88	feet [DTB-DTW]
Calculation f	for One	Well Volume	(WV):	6.8	gallons
WV = WCT	X 0.16	3 for 2" well; V	WV = WCT X	0.653	for 4" well
For Three W	ell Vol	umes: WV	X 3	20.4	gallons
Actua	l Amou	int Purged :		20.4	gallons
Purge	d with:	•		Grund	fos Pump
Samp	led wit	h:		Dispos	sable Bailer
Depth	to Wa	ter before Sam	pling :	15.32	feet

Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initial
0	1528	16.1	5.84	722	58	BC
6.8	1535	15.5	5.81	709	22.16	BC
13.6	1541	15.4	5.78	681	18.09	BC
20.4	1548	15.3	5.56	612	11.14	BC
Before Sampling	1115	15.5	5.41	629	15.08	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 9/25/18 and sampled on 9/26/18. The weather was rainy with temperatures in the 70s on 9/25/18 and sunny with temperatures in the 80's on 9/26/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature_ Date Date___// QA/QC Sign Off



Date of Even	it:	9/25-26/2018	Well ID:		MW-1E
Project Nam	Project Name:		Project/Task	No.:	2180019.01
Sampler(s):	Britto	n Cocke			
	Well I	Diameter:		2	inches
	Initial	Depth to Water	r (DTW):	16.53	feet
	Depth to Bottom (DTB):) feet
Water Column Thickness (WCT):				86.67	feet [DTB-DTW]
Calculation f	for One	Well Volume	(WV):	15.8	gallons
WV = WCT	X 0.16	3 for 2" well; N	WV = WCT X	0.653	for 4" well
For Three W	ell Vol	umes: WV	X 3	47.4	gallons
Actua	l Amou	int Purged :		47.4	gallons
Purge	d with:			2" Gru	undfos Pump
Sampled with:				Dispos	sable Bailer
Depth	to Wa	ter before Sam	pling :	16.55	feet

Gallons Purged	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initial
0	1418	15.0	6.33	612	10.08	BC
14.1	1438	14.6	6.21	555	21.16	BC
28.2	1458	14.4	6.14	511	29.91	BC
42.3	1518	14.1	6.08	481	22.44	BC
Before Sampling	1105	14.9	6.18	592	12.81	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 9/25/18 and sampled on 9/26/18. The weather was rainy with temperatures in the 70s on 9/25/18 and sunny with temperatures in the 80s on 9/26/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature Sul Date___ 10/16/18 QA/QC Sign Off Mut Alm Date 11/7



Date of Even	it:	9/26-27/2018	Well ID:		MW-1F
Project Nam	e:	Culpeper	Project/Task	No.:	2180019.02
Sampler(s):	Britto	n Cocke			
	Well I	Diameter:		2	inches
	Initial	Depth to Water	r (DTW):	13.74	feet
	Depth to Bottom (DTB):) feet
Water Column Thickness (WCT):				186.26	feet [DTB-DTW]
Calculation f	for One	Well Volume	(WV):	30.4	gallons
WV = WCT	X 0.16	3 for 2" well; V	WV = WCT X	0.653	for 4" well
For Three W	ell Vol	umes: WV	X 3	91.2	gallons
Actua	l Amoı	int Purged :		91.2	gallons
Purge	d with:			Grund	fos Pump
Samp	led wit	h:		Dispos	able Bailer
Depth	to Wa	ter before Sam	pling :	13.81	feet

Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initial
0	0736	11.9	7.12	612	8.19	BC
30.4	0816	11.0	7.08	641	14.08	BC
60.8	0856	11.6	6.95	660	8.77	BC
91.2	0936	11.9	6.91	672	5.04	BC
Before Sampling	0900	11.7	6.77	651	6.81	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 9/26/18 and sampled on 9/27/18. The weather was sunny with temperatures in the 80s on 9/26/18 and overcast with temperatures in the 70s on 9/27/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature Bile Date 10/14/18QA/QC Sign Off Addime Date 11/3/18



Date of Even	it:	9/25-26/18	Well ID:		MW-1G
Project Nam	Project Name:		Project/Task	No.:	2180019.02
Sampler(s):	Britto	n Cocke			
	Well	Diameter:		2	inches
	Initial	Depth to Wate	er (DTW):	6.21	feet
	Depth	to Bottom (D7	⁽ B):	200.00) feet
	Water Column Thickness (WCT):				feet [DTB-DTW]
Calculation f	for One	e Well Volume	(WV):	31.6	gallons
WV = WCT	X 0.16	3 for 2" well;	WV = WCT X	0.653	for 4" well
For Three W	ell Vol	umes: W	V X 3	94.8	gallons
Actua	l Amou	int Purged :		94.8	gallons
Purge	d with	:		Grund	fos Pump
Samp	led wit	h:		Dispos	sable Bailer
Depth	to Wa	ter before San	npling :	182.94	feet

Gallons Purged	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initial
0	1608	17.9	6.94	551	3.19	BC
31.6	1648	17.3	6.88	526	5.08	BC
63.2	1728	17.1	6.81	511	6.40	BC
94.8	1808	17.1	6.69	495	4.18	BC
Before Sampling	1125	16.9	6.71	516	4.01	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 9/25/18 and sampled on 9/26/18. The weather was rainy with temperatures in the 70's on 9/25/18 and sunny with temperature in the 80's on 9/26/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

_____ Date____ Signature_Suba 10/14/18 1/hu QA/QC Sign Off Date



Date of Even	it:	9/26-27/18	Well ID:		MW-IH
Project Nam	e:	Culpeper	Project/Task	No.:	2180019.02
Sampler(s):	Britto	n Cocke			
	Well I	Diameter:		2	inches
	Initial	Depth to Wate	er (DTW):	5.11	feet
	Depth	to Bottom (D)	ГВ):	210.00) feet
Water Column Thickness (WCT):				204.89	feet [DTB-DTW]
Calculation f	or One	Well Volume	(WV):	33.4	gallons
WV = WCT	X 0.16	3 for 2" well;	WV = WCT X	0.653	for 4" well
For Three W	ell Vol	umes: W	V X 3	100.2	gallons
Actua	l Amou	int Purged :		100.2	gallons
Purge	d with:	}		Grund	fos Pump
Samp	led wit	h:		Dispo	sable Bailer
Depth	to Wa	ter before San	npling :	5.20	feet

Gallons Purged	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initial
0	1050	16.8	6.49	618	4.29	BC
33.4	1130	15.4	6.53	571	4.08	BC
66.8	1210	15.1	6.44	551	3.16	BC
100.2	1250	14.8	6.38	529	4.33	BC
Before Sampling	0850	15.8	6.30	588	3.66	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 9/26/18 and sampled on 9/27/18. The weather was sunny with temperatures in the 80s on 9/26/18 and overcast with temperatures in the 70s on 9/27/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

 Signature
 Signature
 Date
 10/14/18/

 QA/QC Sign Off
 Date
 11/2/8
 Date
 11/2/8



Date of Even	t:	9/26/2018	Well ID:		MW-11
Project Name	e:	Culpeper	Project/Task	No.:	2180019.02
Sampler(s):	Britto	n Cocke			
	Well I	Diameter:		2	inches
	Initial	Depth to Wate	r (DTW):	0.00	feet
	Depth	to Bottom (DT	`B):	310.00) feet
	Water	Column Thick	ness (WCT):	310.00) feet [DTB-DTW]
Calculation f	or One	Well Volume	(WV):		gallons
$WV \simeq WCT$	X 0.16	3 for 2" well;	WV = WCT X	0.653	for 4" well
For Three W	ell Vol	umes: WV	V X 3		gallons
Actua	l Amou	int Purged :			gallons
Purge	d with:				
Samp	led wit	h:		Dispos	sable Bailer
Depth	to Wa	ter before San	pling :	0.00 fe	eet

	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initial
Before Sampling	1135	17.9	7.42	196	1.58	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was sampled on 9/26/18. The weather was sunny with temperatures in the 80s. All samples were collected from one bailer; therefore, no after parameters were necessary.

Signature Aula	Date	10/16/18
QA/QC Sign Off	Date	11/3/2



Date of Even	t:	Well ID:		MW-2B	
Project Name	Project Name: Culpeper Project/Task				2180019.01
Sampler(s):	Brittor	n Cocke			
	Well I	Diameter:		2	inches
	Initial	Depth to Wate	er (DTW):	18.80	feet
	Depth	to Bottom (D7	TB):	22.50	feet
	Water	Column Thick	iness (WCT):	3.70	feet [DTB-DTW]
Calculation f	or One	Well Volume	(WV):	0.6	gallons
WV = WCT	X 0.163	3 for 2" well;	WV = WCT X	0.653	for 4" well
For Three We	ell Volu	imes: W	V X 3	1.8	gallons
Actual	l Amou	nt Purged :		1.8	gallons
Purged with:					sable Bailer
Sampled with:					sable Bailer
Depth	to Wat	ter before San	pling :	18.89	feet

Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initial
0	0938	15.9	5.61	1120	22.60	BC
0.6	0940	14.1	5.55	1160	52	BC
1.2	0942	14.3	5.51	1210	59	BC
1.8	0944	14.4	5.49	1220	45.15	BC
Before Sampling	0825	14.0	5.44	1100	18.70	BC
After Sampling	0835	14.2	5.40	1180	49.11	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 9/25/18 and sampled on 9/26/18. The weather was rainy with temperatures in the 70s on 9/25/18 and sunny with temperatures in the 80's on 9/26/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site.

Signature______ QA/QC Sign Off_______ Date_______ Date______/3/17



Date of Even	it:	9/25-26/18	Well ID:		MW-3
Project Nam	Project Name: Culpeper Project/Task			No.:	2180019.02
Sampler(s):	Britto	n Cocke			
	Well I	Diameter:		2	inches
	Initial	Depth to Wate	er (DTW):	12.78	feet
	Depth	to Bottom (D7	ГВ):	21.18	feet
	Water	13.44	feet [DTB-DTW]		
Calculation f	or One	Well Volume	• (WV):	12.2	gallons
WV = WCT	X 0.16	3 for 2" well;	WV = WCT X	0.653	for 4" well
For Three W	ell Vol	umes: W	V X 3	6.6	gallons
Actua	l Amou	int Purged :		6.6	gallons
Purged with:					sable Bailer
Sampled with:					sable Bailer
Depth	to Wa	12.86	feet		

Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initial
0	1422	16.5	5.35	89	12.19	BC
2.2	1426	16.1	5.22	83	31.24	BC
4.4	1430	15.8	5.04	66	78	BC
6.6	1433	15.7	4.91	45	152	BC
Before Sampling	1100	15.3	5.10	69	8.16	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 9/25/18 and sampled on 9/26/18. The weather was rainy with temperatures in the 70s on 9/25/18 and sunny with temperatures in the 80s on 9/26/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature /Schu QA/QC Sign Off Date 10/16/18 Date 11/7/14



Date of Event	9/25-26/18		MW-3A	
Project Name	: Culpeper	Project/Task	No.:	2180019.01
Sampler(s):	Britton Cocke			
	Well Diameter:		2	inches
	Initial Depth to Wa	ter (DTW):	7.09	feet
	Depth to Bottom (D	DTB):	16.40	feet
	Water Column Thio	ckness (WCT):	9.31	feet [DTB-DTW]
Calculation fo	or One Well Volum	e (WV):	1.5	gallons
WV = WCT X	C 0.163 for 2" well;	WV = WCT X	0.653	for 4" well
For Three We	ell Volumes: W	VV X 3	4.5	gallons
Actual	Amount Purged :		3.5	gallons
Purged	l with:	Dispos	sable Bailer	
Sampled with:				sable Bailer
Depth	to Water before Sa	7.12	feet	

Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initial
0	0915	12.4	5.81	402	5.16	BC
1.5	0919	12.1	5.74	362	13.18	BC
3.0	0923	11.8	5.66	312	56	BC
· · · · · · · · · · · · · · · · · · ·		Dry @	3.5 galle	ons		
Before Sampling	0755	13.1	5.69	390	3.29	BC
After Sampling	0810	12.7	5.60	375	10.16	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 9/25/18 and sampled on 9/26/18. The weather was rainy with temperatures in the 70s on 9/25/18 and sunny with temperatures in the 80s on 9/26/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site.

Buch Date 10/14/18 Signature_ Date_ // / QA/QC Sign Off



Date of Event	9/25		MW-4			
Project Name	culj	peper Pi	roject/Ta	isk No.:	2180019.01	
Sampler(s):	Britton Coc	ke				
	Well Diame	eter:		2	inches	
	Initial Dept	h to Water (E	DTW):	40.21	feet	
	Depth to Bo	ottom (DTB):	:	45.30	feet	
	Water Colu	mn Thicknes	s (WCT)	: 5.09	feet [DTB-DTW	V]
Calculation fo	r One Well	Volume (W	'V):	0.8	gallons	
WV = WCT X	0.163 for	2" well; WV	′ = WCT	X 0.653 f	for 4" well	
For Three We	ll Volumes	WV X	Χ 3	2.4	gallons	
Actual	Amount Pi	irged :		1.2	gallons	
Purged	with:	Dispos	able Bailer			
Sample	d with:			Dispos	able Bailer	
Depth to Water before Sampling :					feet	
Gallons Purge	d Time	Temp(°C)	pH	Cond.(uS) Turb.(ntu)	In

Gallons Purged	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initial
0	1205	16.6	5.66	180	5.88	BC
0.8	1207	15.7	5.61	195	19.20	BC
		Well purged	dry @ 1.:	5 gallons		
Before Sampling	1020	15.4	5.70	168	6.91	BC
After Sampling	1029	15.2	5.62	201	84	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 9/25/18 and sampled on 9/26/18. The weather was rainy with temperatures in the 70s on 9/25/18 and sunny with temperatures in the 80s on 9/26/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site.

_____ Date 10/10/18 _____ Date 11/3/18 Signature_/Steller



Date of Even	t: 9/2	5-26/18	Well ID:		MW-5
Project Name	ject Name: Culpeper Project/Tasl				2180019.02
Sampler(s):	Britton Co	cke			
	Well Diam	eter:		2	inches
	Initial Dep	th to Wate	r (DTW):	6.15	feet
	Depth to B	ottom (DT	`B):	22.26	feet
	Water Colu	umn Thick	ness (WCT):	16.11	feet [DTB-DTW]
Calculation f	or One Wel	l Volume	(WV):	2.6	gallons
WV = WCT	X 0.163 for	2" well; V	WV = WCT	X 0.653	for 4" well
For Three W	ell Volumes	: W1	X 3	7.8	gallons
Actua	l Amount P	urged :		7.8	gallons
Purge	d with:			Dispos	sable Bailer
Samp	led with:			Dispos	sable Bailer
Depth	to Water b	efore Sam	pling :	6.19	feet
Gallons Purg	ed Time	Temn(°	C) nH	Cond.(us	3) Turb.(ntu) Ir

Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initial
0	1052	15.0	4.98	333	8.19	BC
2.6	1055	14.8	4.95	310	15.16	BC
5.2	1058	14.8	4.89	288	34.18	BC
7.8	1101	14.6	4.85	269	62	BC
Before Sampling	0945	14.5	4.78	295	6.12	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 9/25/18 and sampled on 9/26/18. The weather was rainy with temperatures in the 70s on 9/25/18 and sunny with temperatures in the 80s on 9/26/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Date 10/10/18 Date 11/7/18 Signature Stud QA/QC Sign Off



Date of Even	t: 9/2:	5-26/18 W	Vell ID:		MW-6	
Project Name	e: Cul	peper P	roject/Task	No.:	2180019.02	
Sampler(s):	Britton Coc	ke				
	Well Diam	eter:		2	inches	
	Initial Dept	h to Water (I	DTW):	Dry	feet	
	Depth to B	ottom (DTB)	:	47.56	feet	
	Water Colu	mn Thicknes	ss (WCT):	0.00	feet [DTB-DTV	V]
Calculation f	or One Wel	l Volume (W	/V):	0.00	gallons	
WV = WCT	X 0.163 for	2" well; WV	V = WCT X	0.653 f	for 4" well	
For Three W	ell Volumes	: WV 2	Χ 3	0.00	gallons	
Actual	Amount P	urged :		0.00	gallons	
Purge	d with:			Dispos	able Bailer	
Sampl	ed with:			Dispos	able Bailer	
Depth	to Water b	efore Sampli	ing :		feet	
Gallons Purg	ed Time	Temp(°C)	pH (Cond.(uS) Turb.(ntu)	Initial
Well was dry						

Comments (weather conditions, color, silt, purge water management, etc.): <u>The well</u> was dry on 9/25/18 and on 9/26/18; therefore no purging or sampling took place for this event.

Signature_Bulu	Date_	10/14/18
QA/QC Sign Off	Date_	11/2/12



Date of Even	9/26-2	7/18	Well ID:	MW-2	20			
Project Name	Culper	ber	Project/Task	No.:	2180019.01/02			
Sampler(s):	Britto	n Cocke						
	Well I	Diameter	r:		2	inches		
	Initial	Depth to	o Water	(DTW):	37.10	feet		
	Depth	to Botto	om (DT	B):	51.64	feet		
	Water	Colum	n Thicki	ness (WCT):	14.54	feet [DTB-DTW]		
Calculation f	or One	Well V	olume	(WV):	2.3	gallons		
WV = WCT	X 0.16	3 for 2"	well; V	VV = WCT X	0.653	for 4" well		
For Three W	ell Vol	umes:	WV	X 3	6.9	gallons		
Actual	l Amou	int Purg	ged :		6.0	gallons		
Purge	d with:	Grund	fos Pump					
Sampled with:						Disposable Bailer		
Depth to Water before Sampling :						feet		
Callons Du	raad	Timo	Tomp		Cond	(mc) Truch (man)		

Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initial
0	1649	14.9	5.71	61	66	BC
2.3	1655	14.4	5.55	55	33.41	BC
4.6	1701	14.2	5.49	52	14.09	BC
		Dry at	6.0 Gallo	ons		
Before Sampling	0715	14.8	5.51	58	11.18	BC
After Sampling	0724	14.6	5.66	51	23.70	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 9/26/18 and sampled on 9/27/18. The weather was sunny with temperatures in the 80s on 9/26/18 and overcast with temperatures in the 70s on 9/27/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. D.O.: 4.50 mg/L, ORP: -65.2 mV, Ferrous Iron: 0 mg/L, Sulfate: 1.1 mg/L

Signature_ Date_ QA/QC Sign Off Date Klun 11



Date of Event:		9/25-26/18	Well ID:		MW-X1
	Project Name:	Culpeper	Project/Tasl	k No.:	2180019.02
	Sampler(s): Bri	tton Cocke			
	We	ell Diameter:		2	inches
	Init	ial Depth to Wate	er (DTW):	30.84	feet
ł	De	pth to Bottom (D)	ГВ):	36.71	feet
	Wa	ter Column Thick	aness (WCT):	5.87	feet [DTB-DTW]
	Calculation for C)ne Well Volume	(WV):	1.0	gallons
	WV = WCT X 0	.163 for 2" well;	WV = WCT X	0.653	for 4" well
	For Three Well V	olumes: W	V X 3	3.0	gallons
	Actual An	nount Purged :		1.5	gallons
	Purged wi	Dispos	sable Bailer		
	Sampled v	Dispos	Disposable Bailer		
	Depth to V	30.91	feet		
	Callons Purged	Time Tomp(9		Cond (us	S) Trunk (mtu) In

Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initial	
0	1128	15.3	6.11	610	49.50	BC	
1.0	1131	15.0	5.94	630	62	BC	
	Dry @ 1.5 gallons						
Before Sampling	1010	14.8	6.03	590	38.72	BC	

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 9/25/18 and sampled on 9/26/18. The weather was rainy with temperatures in the 70s on 9/25/18 and sunny with temperatures in the 80s on 9/26/18. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature Steller QA/QC Sign Off Meter Ale ___ Date 10/10/18 ___ Date 11/7/3



Date of Event:		9/26-27/18	Well ID:		MW-X2
Project Name:		Culpeper	Project/Task	No.:	2180019.02
Sampler(s):	Britto	n Cocke			
	Well [Diameter:		2	inches
	Initial	Depth to Wate	er (DTW):	4.58	feet
	Depth	to Bottom (D7	(B) :	16.71	feet
	Water	Column Thick	iness (WCT):	12.14	feet [DTB-DTW]
Calculation f	or One	Well Volume	(WV):	2.0	gallons
WV = WCT	X 0.16	3 for 2" well;	WV = WCT X	0.653	for 4" well
For Three W	'ell Volı	imes: W	V X 3	6.0	gallons
Actua	l Amou	nt Purged :		5.5	gallons
Purge	d with:	Grund	fos Pump		
Samp	led with	Disposable Bailer			
Depth	to Wat	ter before San	npling :	4.70	feet

Gallons Purged	Time	Temp(°C)	pН	Cond.(uS)	Turb.(ntu)	Initial
0	1729	16.9	6.31	180	298	BC
2.0	1735	16.8	6.48	199	33.81	BC
4.0	1741	16.9	6.58	218	12.19	BC
		Well purged	dry @ 5.:	5 gallons		
Before Sampling	0910	16.7	6.41	198	10.19	BC
After Sampling	0915	16.7	6.51	216	31.16	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 4/3/18 and sampled on 4/4/18. The weather was rainy with temperatures in the 40s on 4/3/18 and rainy with temperatures in the 60s on 4/4/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. D.O.: 3.29 mg/L, ORP: 111.2 mV, Ferrous Iron: 2.4 mg/L, Sulfate: 3.9 mg/L.

Stel 10/10/18 Signature Date____ QA/QC Sign Off Date



Date of Even	t: 9/25-2	26/18	Well ID:		MW-X2D
Project Name	e: Culpe	per	Project/Tas	k No.:	2180019.02
Sampler(s):	Britton Cocke	e			
	Well Diamete	er:		2	inches
	Initial Depth	to Wate	r (DTW):	61.16	feet
	Depth to Bott	om (DT	`B):	65.05	feet
	Water Colum	n Thick	ness (WCT):	3.89	feet [DTB-DTW]
Calculation f	or One Well V	olume	(WV):	0.6	gallons
WV = WCT	X 0.163 for 2"	well; \	WV = WCT >	¢ 0.653	for 4" well
For Three W	ell Volumes:	WV	X 3	1.8	gallons
Actua	l Amount Pur	ged :		1.5	gallons
Purge	d with:	Dispo	sable Bailer		
Samp	led with:	Dispo	Disposable Bailer		
Depth	to Water befo	ore Sam	pling :	61.89	feet

Gallons Purged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initial		
0	1114	14.1	7.33	4960	3.08	BC		
0.6	1116	14.0	7.39	5060	18.12	BC		
1.2	1118	14.1	7.44	5110	26.14	BC		
	Well dry @ 1.5 gallon							
Before Parameters	0955	14.2	7.33	5500	5.19	BC		

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 9/25/18 and sampled on 9/26/18. The weather was rainy with temperatures in the 70s on 9/25/18 and sunny with temperatures in the 80s on 9/26/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

QA/QC Sign Off Date 10/14/18 Date 11/7/17

P:\Culpeper\Laurel Valley Center Sanitary Landfill\Groundwater\GMR\2018\10_2018\Sampling Logs & Field Charges\MW-X2D.doc



Ι	Date of Even	t:	9/26-2	7/18 We	ll ID:		PZ-	4E		
F	Project Name:		Culper	ber Pro	ject/Task	No.:	218	0019.02		
8	Sampler(s):	Britto	n Cocke							
	Well Diameter:					2	inch	ies		
	Initial Depth to Water (DTW): 2					23.00	feet	feet		
		Depth	to Botto	om (DTB):		30.98	feet			
		Water	Colum	n Thickness	(WCT):	7.98	feet	[DTB-DTW]		
0	Calculation f	or One	Well V	olume (WV	') :	1.3	gallons			
V	VV = WCT	X 0.16	3 for 2"	well; WV =	= WCT X	0.653	for 4'	' well		
F	for Three W	ell Vol	umes:	WV X	3	3.9	.9 gallons			
	Actua	l Amou	int Purg	ged :		3.9	gall	ons		
	Purge	d with:				Grund	fos P	ump		
	Sampl	ed wit	h:			Dispos	able	Bailer		
Depth to Water before Sampling :					23.18	feet				
	Gallons Pu	rged	Time	Temp(°C)	рН	Cond.(uS)	Turb.(ntu)	Initial	
	0		1608	16.4	5.11	61		111	BC	

			P		I di Oi(iitu)	
0	1608	16.4	5.11	61	111	BC
1.3	1614	15.7	5.20	50	71	BC
2.6	1620	15.4	5.21	49	54	BC
3.9	1624	15.4	5.20	49	97	BC
Before Sampling	0805	15.8	5.22	58	53	BC
After Sampling	0810	15.7	5.17	49	118	BC

Comments (weather conditions, color, silt, purge water management, etc.): The well was purged on 9/26/18 and sampled on 9/27/18. The weather was sunny with temperatures in the 80s on 9/26/18 and overcast with temperatures in the 70s on 9/27/18. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. D.O.: 1.73 mg/L, ORP: -86.2

mV, Ferrous Iron: 1.0 mg/L, Sulfate: 0.8 mg/L.

Signature_ **QA/QC** Sign Off

Date_ 10/14 Date



FIELD INFORMATION FORM - PURGE VOLUMES

Site Name: Culp	peper		Date: 4/1-2/2019					
Well ID:MW		Sampler(s): Michael Anderson						
Well Diameter: 2	(inches)		Initial Depth to	Initial Depth to Water:3.90 (feet)				
			Depth to Botto	n:	27.10 (feet)			
			Water Column	Thickness:	23.20 (feet)			
Calculation for One	Well Volume (WV	/):3.8	gallons					
	(WV = WCT X (0.163 for 2" well; W	/V = WCT X 0.653 fo	r 4" well)				
For Three Well Volu	mes: WV >	(3	<u>11.4</u> gallons	5				
Actual Amou	unt Purged:		<u>11.7</u> gallons					
Purged with	: Dispo	sable Bailer						
Sampled with	th: Dispo	sable Bailer						
Depth to Water Befo	ore Sampling:	4.03	feet					
	-	Temp.	рН	Cond.	Turb.			
Gallons Purged	Time	(°C)	(s.u.)	(µ.s.)	(ntu)			
0	1046	9.2	5.91	743	9.74			
3.9	1049	10.1	5.94	736	34.32			
7.8	1052	11.9	5.92	723	31.15			
11.7	1055	12.0	5.90	716	33.47			
Before Sampling	0755	8.1	5.79	735	7.11			
After Sampling	0803	10.0	5.83	740	10.12			

Comments (weather conditions, color, silt, type of sample, purge water management, etc.):

The well was purged on 4/1/19 and sampled on 4/2/19. The weather was overcast with temperatures in the 40s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. The water column thickness was incorrectly recorded in the field note increasing the purge volume by 0.1 gallons per well volume.

Signature: luch zell QA/QC Signature:

4/19/19 Date:

1604 Ownby Lane | Richmond, VA 23220 | p (804) 355-4520 | f (804) 355-4282

www.labeltapc.com



Site Name: Culpeper			Date:4/1-2/2019		
Well ID:MW	-10		Sampler(s):	Michael Anders	on
Well Diameter: 2	(inches)		Initial Depth to	Water: 13.50	<u>)</u> (feet)
			Depth to Botto	m:	<u>45.00</u> (feet)
			Water Column	Thickness:	<u>31.50</u> (feet)
Calculation for One	Well Volume (W\	/): 5.1	_ gallons		
			V = WCT X 0.653 fc	-	
For Three Well Volu	mes: WV 3	КЗ	<u>15.3</u> gallons	6	
Actual Amou	unt Purged:		15.3 gallons	6	
Purged with: Disposable Bailer					
Sampled wit	th: Dispo	sable Bailer			
Depth to Water Befo	ore Sampling:	14.25	feet		<u>• • • • • • • • • • • • • • • • • • • </u>
		Temp.	pН	Cond.	Turb.
Gallons Purged	Time	(°C)	(s.u.)	(µ.s.)	(ntu)
0	1101	11.3	6.14	713	30.93
5.1	1104	12.3	6.06	753	10.20
10.2	1109	13.1	5.30	877	10.72
15.3	1114	12.9	5.93	898	12.83
Before Sampling	0835	11.0	6.10	700	10.48

Comments (weather conditions, color, silt, type of sample, purge water management, etc.):

The well was purged on 4/1/19 and sampled on 4/2/19. The weather was overcast with temperatures in the 40s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature: elu zell QA/QC Signature:

Date:

Date:



Site Name: Culpeper			Date: 4/1-2/2019			
Well ID: MW-1D			Sampler(s): Michael Anderson			
Well Diameter: 2	(inches)		Initial Depth to Water: <u>14.60</u> (fe			
			Depth to Botto	m:	<u>57.13</u> (feet)	
			Water Column	Thickness:	42.53 (feet)	
Calculation for One	Well Volume (W\	/):6.9	gallons			
	(WV = WCT X	0.163 for 2" well; V	/V = WCT X 0.653 fc	or 4" well)		
For Three Well Volu	mes: WV X	(3	_20.7 gallons	6		
Actual Amou	unt Purged:		20.7 gallons	3		
Purged with	: Grune	dfos®				
Sampled wit	th: Dispo	sable Bailer				
Depth to Water Befo	ore Sampling:	14.75	5 feet			
	_	Temp.	pH	Cond.	Turb.	
Gallons Purged	Time	(°C)	(s.u.)	(µ.s.)	(ntu)	
0	1428	13.7	6.29	004	37.22	
	1420	10.7	0.29	604	37.22	
6.9	1423	13.8	5.88	512	18.51	
6.9						
	1437	13.8	5.88	512	18.51	

Comments (weather conditions, color, silt, type of sample, purge water management, etc.):

The well was purged on 4/1/19 and sampled on 4/2/19. The weather was overcast with temperatures in the 40s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature: QA/QC Signature:

Date:

4/19/19 Date:



Site Name: Culpeper			Date: 4/1-2/2019					
Well ID:MW-1E			Sampler(s):	Michael Anders	on			
Well Diameter: 2	(inches)		Initial Depth to Water: <u>14.70</u> (feet)					
			Depth to Botto	m: <u>103.20</u>	(feet)			
			Water Column	Thickness:	<u>88.50</u> (feet)			
Calculation for One Well Volume (WV): <u>14.4</u> gallons (WV = WCT X 0.163 for 2" well; WV = WCT X 0.653 for 4" well)								
For Three Well Volu			<u>43.2</u> gallon:					
Actual Amou	unt Purged:		43.2 gallons					
Purged with: Grundfos®								
Sampled wit	th: Dispo	sable Bailer						
Depth to Water Befo	ore Sampling:	14.15	feet	Depth to Water Before Sampling: 14.15 feet				
	In Manage Contract on a							
		Temp.	рН	Cond.	Turb.			
Gallons Purged	Time	Temp. (°C)	рН (s.u.)	Cond. (µ.s.)	Turb. (ntu)			
Gallons Purged	Time 1036			and the second se	and the second second			
		(°C)	(s.u.)	(µ.s.)	(ntu)			
0	1036	(°C) 12.7	(s.u.) 6.61	(µ.s.) 891	(ntu) 15.45			
0 14.4	1036 1057	(°C) 12.7 13.5	(s.u.) 6.61 6.39	(μ.s.) 891 688	(ntu) 15.45 231			

Comments (weather conditions, color, silt, type of sample, purge water management, etc.):

The well was purged on 4/1/19 and sampled on 4/2/19. The weather was overcast with temperatures in the 40s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature: QA/QC Signature:

Date: ___

4/19/19 Date:



Site Name: Culpeper			Date: 4/2-3/2019		
Well ID:MV	V-1F		Sampler(s):	Michael Ande	rson
Well Diameter: 2	(inches)		Initial Depth to	Water:	<u>11.75</u> (feet)
			Depth to Botto	m:	200.00 (feet)
			Water Column	Thickness:	188.25 (feet)
Calculation for One					
For Three Moll Vol		0.163 for 2" well; W			
For Three Well Volu			-		
Actual Amo	unt Purged:		<u>92.1</u> gallon:	S	
Purged with	n: Grun	dfos®			
Sampled w	ith: Dispo	sable Bailer			
Depth to Water Before Sampling: 11.70 feet					
Gallons Purged	Time	Temp. (°C)	pH (s.u.)	Cond.	Turb.

4.5

8.7

12.1

12.4

4.2

7.49

7.09

6.51

6.47

7.11

The well was purged on 4/2/19 and sampled on 4/3/19. The weather had temperatures in the 40s on both days, overcast the first and sunny the second. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature! In zell QA/QC Signature:

0710

0750

0830

0910

0725

0

30.7

61.4

92.1

Before Sampling

Date:

569

578

610

630

70.2

18.53

9.11

0.89

0.00

4.20

Date: 4/19/19



Site Name: Cul	peper		Date: 4/1-2/	2019	
Well ID:MW	-1G		Sampler(s):	Michael Anders	son
Well Diameter: 2	(inches)		Initial Depth to	Water:	<u>4.10 (feet)</u>
			Depth to Botto	m:	200.00 (feet)
			Water Column	Thickness:	<u>195.90</u> (feet)
Calculation for One	Well Volume (WV	/):31.9_	gallons		
	(WV = WCT X (0.163 for 2" well; W	W = WCT X 0.653 f	or 4" well)	
For Three Well Volu	mes: WV >	кз	95.7 gallon	S	
Actual Amo	unt Purged:			s	
Purged with	: Grune	dfos®			
Sampled wi	th: Dispo	sable Bailer			
Depth to Water Bef	ore Sampling:	163.6	60 feet		
Opliana Duratad	Time	Temp.	рН	Cond.	Turb.
Gallons Purged	Time	(°C)	(s.u.)	(µ.s.)	(ntu)
0	1455	14.0	6.92	716	13.68
31.9	1535	16.1	7.00	714	22.16
63.8	1615	13.9	7.46	707	24.57
95.7	1655	14.2	7.59	701	20.16

Comments (weather conditions, color, silt, type of sample, purge water management, etc.):

12.6

The well was purged on 4/1/19 and sampled on 4/2/19. The weather was overcast with temperatures in the 40s on both days. All purge water was containerized and disposed of in 250gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

7.23

Signature: QA/QC Signature:

1040

Before Sampling

Date:

751

5.53

Date:



Site Name: Culpeper			Date: 4/2-3/	2019	
Well ID: MW-1H			Sampler(s):	Michael Anders	son
Well Diameter: 2	(inches)		Initial Depth to Water:0.00		0.00 (feet)
			Depth to Botto	m:	210.00 (feet)
			Water Column	Thickness:	210.00 (feet)
Calculation for One	Well Volume (W	/):34.2	gallons		
	(WV = WCT X (0.163 for 2" well; W	V = WCT X 0.653 fc	or 4" well)	
For Three Well Volu	mes: WV X	КЗ	102.6 gallons	6	
Actual Amou	int Purged:		102.6 gallons	6	
Purged with	: Grun	dfos®			
Sampled wit	th: Dispo	sable Bailer			
Depth to Water Befo	ore Sampling:	0.00	feet		
		Temp.	рН	Cond.	Turb.
Gallons Purged	Time	(°C)	(s.u.)	(µ.s.)	(ntu)
0	0935	3.0	6.75	700	2.00
34.2	1015	4.4	6.88	740	0.78
68.4	1055	10.1	6.92	750	0.00
102.6	1135	10.3	6.95	750	0.00
Before Sampling	0735	2.8	6.78	710	0.00

Comments (weather conditions, color, silt, type of sample, purge water management, etc.):

The well was purged on 4/2/19 and sampled on 4/3/19. The weather had temperatures in the 40s on both days, overcast the first and sunny the second. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature: QA/QC Signature: 3

Date:

19/19 Date:



Site Name: Culpeper		Date:4/3/2019			
Well ID:MW-1!		Sampler(s):Michael Ander	son		
Well Diameter: 2 (inche	s)	Initial Depth to Water:	0.00 (feet)		
		Depth to Bottom:	<u>310.00</u> (feet)		
		Water Column Thickness:	<u>310.00</u> (feet)		
Calculation for One Well Volume (WV): gallons (WV = WCT X 0.163 for 2" well; WV = WCT X 0.653 for 4" well)					
For Three Well Volumes:	WV X 3	gallons			
Actual Amount Purged	* *	gallons			
Purged with:	-				
Sampled with:	Disposable Bailer				

Depth to Water Before Sampling:

<u>0.00</u> feet

Gallons Purged	Time	Temp. (°C)	рН (s.u.)	Cond. (µ.s.)	Turb. (ntu)
Before Sampling	0740	2.7	7.46	101	2.11

Comments (weather conditions, color, silt, type of sample, purge water management, etc.):

The well was sampled on 4/3/19. The weather was sunny with temperatures in the 40s. All samples were collected from one bailer; therefore, no after parameters were necessary.

Signature: 🖊 uch zel QA/QC Signature:

Date:

Date: 4/19/19



Site Name: Culpeper			Date: 4/1-2-19			
Well ID:MW	-28		Sampler(s):	Michael Anders	on	
Well Diameter: 2	(inches)			Water:		
			Depth to Botto	m:	<u>22.50</u> (feet)	
			Water Column	Thickness:	<u>5.20 (feet)</u>	
Calculation for One Well Volume (WV):0.8 gallons						
	(WV = WCT X	0.163 for 2" well; W	/V = WCT X 0.653 f	or 4" well)		
For Three Well Volu	mes: WV 2	ХЗ		s		
Actual Amo	unt Purged:			S		
Purged with	Purged with: Disposable Bailer					
Sampled wi	th: Dispo	sable Bailer				
Depth to Water Bef	ore Sampling:	17.48	feet			
		Temp.	рН	Cond.	Turb.	
Gailons Purged	Time	(°C)	(s.u.)	(µ.s.)	(ntu)	
0	1016	12.9	5.94	1949	5.46	
0.8	1018	13.4	6.00	1952	0.47	
1.6	1020	13.3	6.02	1935	6.30	
2.4	1021	13.3	6.11	1908	20.54	
Before Sampling	0740	10.3	6.05	2000	4.19	
After Sampling	0745	12.0	6.11	2010	28.30	

Comments (weather conditions, color, silt, type of sample, purge water management, etc.):

The well was purged on 4/1/19 and sampled on 4/2/19. The weather was overcast with temperatures in the 40s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site.

Signature: QA/QC Signature:

Date:

4/19/19 Date:



Site Name: Culp	eper		Date: 4/1-2/	19			
Well ID:MW	-3A		Sampler(s): Michael Anderson				
Well Diameter: 2	(inches)		Initial Depth to	Water:	<u>5.75 (feet)</u>		
			Depth to Botto	m:	<u>16.40 (feet)</u>		
			Water Column	Thickness:	<u>10.65</u> (feet)		
Calculation for One	Calculation for One Well Volume (WV): <u>1.7</u> gallons						
	(WV = WCT X (0.163 for 2" well; W	V = WCT X 0.653 f	or 4" well)			
For Three Well Volu	mes: WV >	(3	<u>5.1</u> gallon	S			
Actual Amou	unt Purged:		5.1 gallon	S			
Purged with	: Dispo	sable Bailer					
Sampled with	th: Dispo	sable Bailer					
Depth to Water Befo	pre Sampling:	6.11	feet				
	-	Temp.	pН	Cond.	Turb.		
Gallons Purged	Time	(°C)	(s.u.)	(µ.s.)	(ntu)		
0	1000	8.9	6.69	254	15.50		
1.7	1002	8.5	5.63	49.9	45.49		
3.4	1003	8.6	5.37	39.7	44.90		
5.1	1004	8.4	5.25	41.2	48.81		
Before Sampling	0720	6.0	7.01	69.1	12.30		
After Sampling	0730	6.2	7.11	60.2	25.17		

Comments (weather conditions, color, silt, type of sample, purge water management, etc.):

The well was purged on 4/1/19 and sampled on 4/2/19. The weather was overcast with temperatures in the 40s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site.

Signature: QA/QC Signature:

Date: 4/19/19 Date:

1604 Ownby Lane | Richmond, VA 23220 | p (804) 355-4520 | f (804) 355-4282

www.labellapc.com



Site Name:Culpeper			Date: 4/1-2/2019			
Well ID:MW	-3		Sampler(s):	Michael Ander	son	
Well Diameter: 2	(inches)		Initial Depth to	Initial Depth to Water: <u>11.81</u> (feet		
			Depth to Botto	m:	21.18 (feet)	
			Water Column	Thickness:	<u>9.37</u> (feet)	
Calculation for One Well Volume (WV): <u>1.5</u> gallons						
			VV = WCT X 0.653 f	or 4" well)		
For Three Well Volu	mes: WV)	(3	4.5 gallon	S		
Actual Amou	unt Purged:		4.5 gallon	S		
Purged with	: Dispo	sable Bailer				
Sampled wit	th: Dispo	sable Bailer				
Depth to Water Befo	ore Sampling:	11.79) feet			
		Temp.	рН	Cond.	Turb.	
Gallons Purged	Time	(°C)	(s.u.)	(µ.s.)	(ntu)	
0	1430	11.1	5.25	162	19.22	
1.5	1432	10.4	5.09	138	28.32	
3.0	1434	10.9	4.97	133	86	
4.5	1436	11.0	4.98	131	93	
Before Sampling	1020	9.9	5.76	142	3.98	

Comments (weather conditions, color, silt, type of sample, purge water management, etc.):

The well was purged on 4/1/19 and sampled on 4/2/19. The weather was overcast with temperatures in the 40s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

1h Signature! helr 3ll QA/QC Signature:

Date:

4/19/19 Date:



Site Name: Culpeper			Date:4/1-2/2019		
Well ID: MW	-4		Sampler(s):	Michael Ander	son
Well Diameter: 2	(inches)		Initial Depth to	Water:	<u>33.50</u> (feet)
			Depth to Botto	m:	45.30 (feet)
			Water Column	Thickness:	<u>11.80</u> (feet)
Calculation for One	•				
			V = WCT X 0.653 fo	,	
For Three Well Volu	mes: WV)		5.7 gallons		
Actual Amou	unt Purged:		2.0 gallons	6	
Purged with	: Dispo	sable Bailer			
Sampled with	th: Dispo	sable Bailer			
Depth to Water Befo	ore Sampling:	37.89	feet		
		Temp.	рН	Cond.	Turb.
Gallons Purged	Time	(°C)	(s.u.)	(µ.s.)	(ntu)
0	1225	15.2	5.51	224	0.41
1.9	1228	14.4	5.61	161	126
	\\	Vell purged dry @	2.0 gallons		
Before Sampling	0950	13.0	5.55	250	4.24
After Sampling	1002	14.0	5.64	251	66

Comments (weather conditions, color, silt, type of sample, purge water management, etc.):

The well was purged on 4/1/19 and sampled on 4/2/19. The weather was overcast with temperatures in the 40s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site.

119 Signature: QA/QC Signature:

Date:

Date:



Site Name: Culpeper			Date: 4/1-2/2019		
Well ID:MW	-5		Sampler(s):	Michael Ander	rson
Well Diameter: 2	(inches)		Initial Depth to	Water:	<u>8.48</u> (feet)
			Depth to Botto	m:	22.26 (feet)
			Water Column	Thickness:	<u>13.78</u> (feet)
Calculation for One					
			W = WCT X 0.653 f		
For Three Well Volu			-		
Actual Amou	-		<u>6.0</u> gallon:	5	
Purged with	: Dispo	sable Bailer			
Sampled wit	th: Dispo	sable Bailer			
Depth to Water Befo	ore Sampling:	9.30	feet		
		Temp.	рН	Cond.	Turb.
Gallons Purged	Time	(°C)	(s.u.)	(µ.s.)	(ntu)
0	1132	10.5	5.79	166	14.20
2.2	1134	10.4	5.75	148	24.76
4.4	1136	11.0	5.72	134	39.18
		Dry @ 6.0	gallons		
Before Sampling	0900	8.7	5.95	149	5.68

Comments (weather conditions, color, silt, type of sample, purge water management, etc.):

The well was purged on 4/1/19 and sampled on 4/2/19. The weather was overcast with temperatures in the 40s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature: QA/QC Signature:

Date:

Date:



Site Name: Culpeper	Date: 4/1-2/2019				
Well ID:CLF-1		Sampler(s):	Michael Anders	on	
Well Diameter: 2 (inches)		Initial Depth to Water: 30.96 (feet)			
		Depth to Botto	m:	<u>62.30</u> (feet)	
		Water Column	Thickness:	<u>31.34</u> (feet)	
Calculation for One Well Volume (WV): 46.0 gallons (WV = WCT X 0.163 for 2" well; WV = WCT X 0.653 for 4" well)					
For Three Well Volumes: WV >	(3	<u>138.0</u> gallons	<u>138.0</u> gallons		
Actual Amount Purged:		138.0 gallons			
Purged with: Grund	dfos®				
Sampled with: Dispo	sable Bailer				
Depth to Water Before Sampling:	<u>30.99</u> feet				
Gallons Purged Time	Temp. (°C)	рН (s.u.)	Cond. (µ.s.)	Turb. (ntu)	

		(0)	(5.0.)	(µ.ə.)	(IICG)
0	1235	15.3	5.96	626	0.00
46.0	1305	16.0	5.94	382	16.99
92.0	1335	15.8	5.91	386	4.39
138	1405	15.5	6.05	384	2.54
Before Sampling	1005	13.2	5.91	340	14.90

Comments (weather conditions, color, silt, type of sample, purge water management, etc.):

The well was purged on 4/1/19 and sampled on 4/2/19. The weather was overcast with temperatures in the 40s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature: Mã QA/QC Signature:

Date:

Date: 4/19/19



Site Name: Culpeper	Date: 4/2-3/2019					
Well ID:CLF-S1	Sampler(s): Michael A	nderson				
Well Diameter: 2 (inches)	Initial Depth to Water:					
	Depth to Bottom:	103.46 (feet)				
	Water Column Thickness:	24.16 (feet)				
	Calculation for One Well Volume (WV): <u>3.9</u> gallons (WV = WCT X 0.163 for 2" well; WV = WCT X 0.653 for 4" well)					
For Three Well Volumes: W	V X 3 <u>11.7</u> gallons					
Actual Amount Purged:	<u> </u>					
Purged with: Gr	undfos®					
Sampled with: Dis	sposable Bailer					
Depth to Water Before Sampling:	<u>80.44</u> feet					

Gallons Purged	Time	Temp. (°C)	pH (s.u.)	Cond. (µ.s.)	Turb. (ntu)
0	1426	13.0	7.11	620	7.11
3.9	1429	14.2	7.30	622	49.23
7.8	1432	14.3	7.50	630	102
11.7	1436	14.5	7.55	636	210
Before Sampling	0830	14.2	7.01	630	10.12

Comments (weather conditions, color, silt, type of sample, purge water management, etc.):

The well was purged on 4/2/19 and sampled on 4/3/19. The weather had temperatures in the 40s on both days, overcast the first and sunny the second. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from on bailer; therefore, no after parameters were necessary.

Signature: when zelf QA/QC Signature:

Date: 4/19/19 Date:



Site Name: Culpeper			Date: 4/2-3/	2019		
Well ID:CLF	Well ID: CLF-S3 S			Sampler(s): Michael Anderson		
Well Diameter: 2	(inches)		Initial Depth to	Initial Depth to Water: <u>17.00</u> (feet)		
			Depth to Botto	m:	<u>88.50</u> (feet)	
			Water Column	Thickness:	71.50 (feet)	
Calculation for One	-		gallons V = WCT X 0.653 fc	or 4" well)		
For Three Well Volumes: WV X 3			<u>35.1 gallons</u>			
Actual Amo	unt Purged:		<u>35.1</u> gallons			
Purged with	: Grun	dfos®				
Sampled wi	th: Dispo	osable Bailer				
Depth to Water Before Sampling:			<u>16.89</u> feet			
Gallons Purged	Time	Temp. (°C)	pH (s.u.)	Cond. (µ.s.)	Turb. (ntu)	

		(°C)	(s.u.)	(µ.s.)	(ntu)
0	1336	13.4	6.68	278	35.02
11.7	1352	13.8	6.71	185	0.00
23.4	1402	13.9	6.70	180	0.00
35.1	1412	14.0	6.70	178	0.00
Before Sampling	0820	13.1	6.72	270	0.00
After Sampling	0825	13.3	6.75	275	19.23

Comments (weather conditions, color, silt, type of sample, purge water management, etc.):

The well was purged on 4/2/19 and sampled on 4/3/19. The weather had temperatures in the 40s on both days, overcast the first and sunny the second. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. D.O.: 0.85 mg/L, ORP: 160.1 mV, Ferrous Iron: 0.0 mg/L, Sulfate: 3.2 mg/L.

Signature: QA/QC Signature:

Date: 4/

4/19/19 Date:

1604 Ownby Lane Richmond, VA 23220 p (804) 355-4520 f (804) 355-4282

www.labellapc.com



Site Name: Cul	peper		Date: 4/2-3/	2019		
Well ID:CLI	-15A		Sampler(s):	Michael Anders	son	
Well Diameter: 2	(inches)		Initial Depth to	Initial Depth to Water: 40.30 (feet)		
			Depth to Botto	m:	<u>81.46</u> (feet)	
			Water Column	Thickness:	<u>41.16 (feet)</u>	
Calculation for One	e Well Volume (W\	/):6.7	gallons			
	(WV = WCT X	0.163 for 2" well; V	VV = WCT X 0.653 fc	or 4" well)		
For Three Well Volu	umes: WV X	хз		6		
Actual Amount Purged: <u>12.0</u> gallons						
Purged wit	h: Grun	dfos®				
Sampled w	ith: Dispo	osable Bailer				
Depth to Water Be	fore Sampling:		40.32 feet			
	The	Temp.	pН	Cond.	Turb.	
Gallons Purged	Time	(°C)	(s.u.)	(µ.s.)	(ntu)	
0	1145	12.3	7.01	926	10.41	
6.7	1202	15.9	6.39	880	2.00	
	W	l Vell purged dry a	t 12.0 gallons		1	
Before Sampling	0840	12.0	6.93	920	5.13	
After Sampling	0845	12.2	6.96	925	10.11	

Comments (weather conditions, color, silt, type of sample, purge water management, etc.):

The well was purged on 4/2/19 and sampled on 4/3/19. The weather had temperatures in the 40s on both days, overcast the first and sunny the second. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. D.O.: 0.10 mg/L; ORP 68.3 mV; Ferrous Iron: 2.0 mg/L, Sulfate: 3.4 mg/L.

Signature: 🖌 QA/QC Signature:

Date: 4/19/19 Date:



Site Name: Culpe	per	Date: 4/2-3/2019			
Well ID: MW-2	.0	Sampler(s):Michael And	lerson		
Well Diameter: 2	(inches)	Initial Depth to Water:	<u>36.11</u> (feet)		
		Depth to Bottom:	51.64 (feet)		
		Water Column Thickness:	15.53 (feet)		
Calculation for One Well Volume (WV): 2.5 gallons (WV = WCT X 0.163 for 2" well; WV = WCT X 0.653 for 4" well)					
For Three Well Volum	es: WV X 3	7.5 gallons			
Actual Amoun	nt Purged:	7.5 gallons			
Purged with:	Grundfos®				
Sampled with	: Disposable Bailer				
Depth to Water Befor	e Sampling:	<u>36.22</u> feet			
	Tomp		Turb		

Gallons Purged	Time	Temp. (°C)	рН (s.u.)	Cond. (µ.s.)	Turb. (ntu)
0	1450	12.9	5.32	29	200
2.5	1456	13.1	5.39	32	39.25
5.0	1502	13.3	5.40	36	20.44
7.5	1505	13.4	5.42	36	56
Before Sampling	0755	12.4	5.30	32	4.55
After Sampling	0800	12.8	5.37	30	10.70

Comments (weather conditions, color, silt, type of sample, purge water management, etc.):

The well was purged on 4/2/19 and sampled on 4/3/19. The weather had temperatures in the 40s on both days, overcast the first and sunny the second. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. D.O.: 2.68 mg/L, ORP: -109.7 mV, Ferrous Iron: 0.0 mg/L, Sulfate: 0 mg/L

Signature: Z QA/QC Signature:

Date: 4/19/19 Date:



Site Name: Culp	eper		Date: 4/25/	19	
Well ID: <u>PZ-4</u>	E		Sampler(s):	Andrew Zell	
Well Diameter: 2	(inches)		Initial Depth to	Water:	<u>19.60</u> (feet)
			Depth to Botto	om:	<u>30.98</u> (feet)
			Water Column	Thickness:	<u>11.38</u> (feet)
Calculation for One			gallons WV = WCT X 0.653 f	or 4" well)	
For Three Well Volur	nes: WV X	ХЗ		S	
Actual Amou	nt Purged:		5.4 gallon	S	
Purged with:	Dispo	sable Bailer			
Sampled wit	h: Dispo	sable Bailer			
Depth to Water Befo	re Sampling:		<u>19.65</u> feet		
Gallons Purged	Time	Temp. (°C)	pH (s.u.)	Cond. (µ.s.)	Turb. (ntu)
0	1046	15.4	5.06	75	10.53
1.8	1049	14.1	5.12	67	802
3.6	1052	13.7	5.15	65	877

Comments (weather conditions, color, silt, type of sample, purge water management, etc.):

13.6

15.8

13.2

The well was purged and sampled on 4/25/19. The weather was partly cloudy with temperatures in the 60s. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after parameters were necessary.

5.18

5.43

6.36

Signature: QA/QC Signature:

1055

1250

0855

5.4

Before Sampling

After Sampling

Date:

56

81

69.3

926

102

19.43

5/9/19 Date:



Site Name: Culpeper		Date: 4/25/2019	
Well ID: <u>MW-1H</u>		Sampler(s): Andrew Zell	
Well Diameter: 2 (inche	es)	Initial Depth to Water:	0.00 (feet)
		Depth to Bottom:	_210.00 (feet)
		Water Column Thickness:	210.00 (feet)
Calculation for One Well Volu (WV =		_ gallons / = WCT X 0.653 for 4" well)	
For Three Well Volumes:		gallons	
Actual Amount Purgeo	l:	gallons	
Purged with:			
Sampled with:	Disposable Bailer		
Depth to Water Before Sample	ng:	0.00 feet	

Gallons Purged	Time	Temp. (°C)	рН (s.u.)	Cond. (µ.s.)	Turb. (ntu)
Before Sampling	1110	16.5	6.50	739	2.57

0.00 feet

Comments (weather conditions, color, silt, type of sample, purge water management, etc.):

The well was sampled on 4/25/19. The weather was partly cloudy with temperatures in the 60s. All samples were collected from one bailer; therefore, no after parameters were necessary.

Signature: 🟒 QA/QC Signature: r

Date: 5 Date:



Site Name: Culpeper			Date:4/1-2/	2019		
Well ID:MW-	-6		Sampler(s):	Michael Anders	on	
Well Diameter: 2	(inches)		Initial Depth to	Water:	43.60	(feet)
			Depth to Botto	m:	47.56	(feet)
			Water Column	Thickness:	3.96	(feet)
Calculation for One	•): <u>0.6</u> 0.163 for 2" well; W		or 4" well)		
For Three Well Volu	mes: WV >	(3	1.8 gallons	3		
Actual Amou	unt Purged:		1.8 gallons	6		
Purged with	: Dispo	sable Bailer				
Sampled wit	th: Dispo	sable Bailer				
Depth to Water Befo	ore Sampling:	43.45	feet			
Opliana Durata d	Time	Temp.	pН	Cond.	Т	urb.
Gallons Purged	Time	(°C)	(s.u.)	(µ.s.)	()	ntu)
0	1214	14.9	6.08	368	19	9.06
0.6	1216	14.9	5.88	418	43	3.69
1.2			= 0.1	400		
1.2	1217	15.0	5.91	423		67
1.2	1217 1218	15.0 15.2	6.00	423		67 100

Comments (weather conditions, color, silt, type of sample, purge water management, etc.):

The well was purged on 4/1/19 and sampled on 4/2/19. The weather was overcast with temperatures in the 40s on both days. All purge water was containerized and disposed of in 250gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature: luch zell QA/QC Signature:



Site Name: Culpeper			Date:4/1-2/	2019		
Well ID:MW-	X1		Sampler(s):	Michael Anders	on	
Well Diameter: 2	(inches)		Initial Depth to	Water:	25.30	_ (feet)
			Depth to Botto	m:	36.71	(feet)
			Water Column	Thickness:	11.41	(feet)
Calculation for One		/): <u>1.9</u> 0.163 for 2" well; W	-	or 4" well)		
For Three Well Volu	mes: WV >	(3	5.7 gallons	6		
Actual Amou	int Purged:		5.7 gallons	6		
Purged with	: Dispo	sable Bailer				
Sampled wit	th: Dispo	sable Bailer				
Depth to Water Befo	ore Sampling:	25.45	feet			
		Temp.	pН	Cond.	Т	urb.
Gallons Purged	Time	(°C)	(s.u.)	(µ.s.)	(1	ntu)
0	4450		5.67	CO 4		
	1156	14.1	5.67	624	2	7.81
1.9	1156 1158	14.1 14.3	5.86	535		7.81 215
1.9 3.8				_	2	
	1158	14.3	5.86	535	2	215

Comments (weather conditions, color, silt, type of sample, purge water management, etc.):

The well was purged on 4/1/19 and sampled on 4/2/19. The weather was overcast with temperatures in the 40s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature: luch zell QA/QC Signature:

Date: 4/19/19



Site Name:C	ulpeper		Date: 4/2-3/	2019		
Well ID:N	IW-X2		Sampler(s):	Michael Anders	on	
Well Diameter: 2	(inches)		Initial Depth to	Water:	<u>4.00 (fe</u>	eet)
			Depth to Botto	m:	<u>16.71</u> (fe	eet)
			Water Column	Thickness:	<u>12.71</u> (fe	eet)
Calculation for O	ne Well Volume (WV (WV = WCT X	/):2.1	-	or 4" well)		
For Three Well Vo	olumes: WV	хз	6.3 gallons	5		
Actual An	nount Purged:		6.3 gallons	6		
Purged w	ith: Grun	dfos®				
Sampled	with: Disp	osable Bailer				
Depth to Water B	efore Sampling:		<u>3.96</u> feet			
Gallons Purged	Time	Temp.	рН	Cond.	Turb	

Collope Durged	Time	Temp.	рН	Cond.	lurb.
Gallons Purged	Time	(°C)	(s.u.)	(µ.s.)	(ntu)
0	1525	9.0	5.83	410	296
2.1	1531	9.5	5.85	404	38.21
4.2	1537	9.6	5.87	403	9.00
6.3	1540	9.6	5.88	400	6.43
Before Sampling	0900	8.3	5.89	415	20.30
After Sampling	0905	8.5	5.94	417	29.44

Comments (weather conditions, color, silt, type of sample, purge water management, etc.):

The well was purged on 4/2/19 and sampled on 4/3/19. The weather had temperatures in the 40s on both days, overcast the first and sunny the second. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. D.O.: 2.86 mg/L, ORP: -19.8 mV, Ferrous Iron: 3.5 mg/L, Sulfate: 5.1 mg/L.

Signature: 2 hel 200 QA/QC Signature:

Date: _ 7

4/19/19 Date:

1604 Ownby Lane | Richmond, VA 23220 | p (804) 355-4520 | f (804) 355-4282

www.labellapc.com



Site Name: Culp	eper		Date: 4/1-2/2	2019	
Well ID:MW-	X2D		Sampler(s):	Michael Anders	on
Well Diameter: 2	(inches)		Initial Depth to	Water:	<u>59.60</u> (feet)
			Depth to Botto	m:	<u>65.05</u> (feet)
			Water Column	Thickness:	<u>5.45</u> (feet)
Calculation for One	Well Volume (WV):0.9	_gallons		
			V = WCT X 0.653 fc	or 4" well)	
For Three Well Volur	mes: WV >	(3	2.7 gallons	6	
Actual Amou	int Purged:		1.2 gallons	3	
Purged with:	: Dispo	sable Bailer			
Sampled wit	h: Dispo	sable Bailer			
Depth to Water Befo	ore Sampling:	60.00	feet		
		Temp.	pН	Cond.	Turb.
Gallons Purged	Time	(°C)	(s.u.)	(µ.s.)	(ntu)
0	1144	13.0	6.74	5510	19.10
0.9	1147	12.9	7.01	5670	11.63
		Well dry @ 1.2	2 gallons		
Before Sampling	0915	11.7	7.24	5445	31.51

Comments (weather conditions, color, silt, type of sample, purge water management, etc.):

The well was purged on 4/1/19 and sampled on 4/2/19. The weather was overcast with temperatures in the 40s on both days. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after sampling parameters were necessary.

Signature: luch zell QA/QC Signature: _

4/19/19 Date:



Site Name:	Culp	eper		Date: 4/2-3/	/2019	
Well ID:	PZ-4	E		Sampler(s):	Michael Anders	on
Well Diamete	r: <u>2</u>	(inches)		Initial Depth to	Water:	<u>19.65</u> (feet)
				Depth to Botto	om:	<u>30.98</u> (feet)
				Water Column	Thickness:	<u>11.33 (feet)</u>
Calculation fo	r One		/): <u>1.8</u> 0.163 for 2" well; W	-	or 4" well)	
For Three We	l Volu	mes: WV X	КЗ	5.4 gallon	IS	
Actua	l Amou	int Purged:		5.4 gallon	IS	
Purge	d with	Grun	dfos®			
Samp	led wit	t h: Dispo	osable Bailer			
Depth to Wate	er Befo	ore Sampling:		<u>19.69</u> feet		
O allana Dun		Time	Temp.	pН	Cond.	Turb.

College Durged	Time	Temp.	pН	Cond.	Turb.
Gallons Purged	Time	(°C)	(s.u.)	(µ.s.)	(ntu)
0	1311	13.4	6.30	75.4	33.97
1.8	1317	13.8	5.46	70.9	31.13
3.6	1323	14.0	5.45	69.2	87
5.4	1326	14.0	5.45	69.7	72
Before Sampling	0850	13.1	6.29	78.1	8.00
After Sampling	0855	13.2	6.36	69.3	19.43

Comments (weather conditions, color, silt, type of sample, purge water management, etc.):

The well was purged on 4/2/19 and sampled on 4/3/19. The weather had temperatures in the 40s on both days, overcast the first and sunny the second. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. D.O.: 0.10 mg/L, ORP: 152.3 mV, Ferrous Iron: 2.0 mg/L, Sulfate: 1.8 mg/L.

Signature: Ł QA/QC Signature:

Date:

1/19/19 Date:

1604 Ownby Lane | Richmond, VA 23220 | p (804) 355-4520 | f (804) 355-4282

www.labellapc.com



Site Name: Culp	eper		Date: 4/25/	19	
Well ID: <u>PZ-4</u>	E		Sampler(s):	Andrew Zell	
Well Diameter: 2	(inches)		Initial Depth to	Water:	<u>19.60</u> (feet)
			Depth to Botto	om:	<u>30.98</u> (feet)
			Water Column	Thickness:	<u>11.38</u> (feet)
Calculation for One			gallons WV = WCT X 0.653 f	or 4" well)	
For Three Well Volur	nes: WV X	ХЗ		S	
Actual Amou	nt Purged:		5.4 gallon	S	
Purged with:	Dispo	sable Bailer			
Sampled wit	h: Dispo	sable Bailer			
Depth to Water Befo	re Sampling:		<u>19.65</u> feet		
Gallons Purged	Time	Temp. (°C)	pH (s.u.)	Cond. (µ.s.)	Turb. (ntu)
0	1046	15.4	5.06	75	10.53
1.8	1049	14.1	5.12	67	802
3.6	1052	13.7	5.15	65	877

Comments (weather conditions, color, silt, type of sample, purge water management, etc.):

13.6

15.8

13.2

The well was purged and sampled on 4/25/19. The weather was partly cloudy with temperatures in the 60s. All purge water was containerized and disposed of in 250-gallon plastic tanks on site. All samples were collected from one bailer; therefore, no after parameters were necessary.

5.18

5.43

6.36

Signature: QA/QC Signature:

1055

1250

0855

5.4

Before Sampling

After Sampling

Date:

56

81

69.3

926

102

19.43

5/9/19 Date:



Site Name: Culpeper		Date: 4/25/2019	
Well ID: <u>MW-1H</u>		Sampler(s): Andrew Zell	
Well Diameter: 2 (inche	es)	Initial Depth to Water:	0.00 (feet)
		Depth to Bottom:	_210.00 (feet)
		Water Column Thickness:	210.00 (feet)
Calculation for One Well Volu (WV =		_ gallons / = WCT X 0.653 for 4" well)	
For Three Well Volumes:		gallons	
Actual Amount Purgeo	l:	gallons	
Purged with:			
Sampled with:	Disposable Bailer		
Depth to Water Before Sample	ng:	0.00 feet	

Gallons Purged	Time	Temp. (°C)	рН (s.u.)	Cond. (µ.s.)	Turb. (ntu)
Before Sampling	1110	16.5	6.50	739	2.57

0.00 feet

Comments (weather conditions, color, silt, type of sample, purge water management, etc.):

The well was sampled on 4/25/19. The weather was partly cloudy with temperatures in the 60s. All samples were collected from one bailer; therefore, no after parameters were necessary.

Signature: 🟒 QA/QC Signature: r

Date: 5 Date:

Project Name:	(ulpeb	er land	fil	Project 1	No./Task No.:	19119	5762	
Event:	2 SA	er land 19 - cor	nplianc	e	Sampler(s):			
Well ID:	MW-10		-	- Field Calibration				0740 10/
Well Diameter:	2	inches	-	Initial Depth to		14.81		feet
Depth to Bottom:	46.01	L [soft]	feet	Water Colum	n Thickness:	31.21		feet
Equipment Used:	: 🗌 WL Indi	cator 5/~ <u>5/17/102880</u>	Turbidity	Meter	🗌 Air Tank		Disposable	Bailer
				•	Compress	or	Non-dedica	ted BP
· · · · · · · · · · · · · · · · · · ·	🗌 In Situ	Troll 9500	MP-10 Co	ontroller Box		ntroller Box	Other	
Date	Time	рН	Sp. Cond.	Turbidity	Dissolved Oxygen	Temp.	ORP	Gallons
<i>P</i>		(S.U.)	(uS/cm) ^{oC}	(NTU)	(mg/L)	(°C)	(mV)	
10/14/19	1136	5.31	669	107.06	2.23	15.5	83.7	
10/14/19	1153	4.67	699	94.80	1.95	14.9	113.5	5.09
10/14/19	1209	5.01	726	13.90	2.56	14.7	125.4	10.18
10/14/19	1223	5.19	734	7.07	2.94	14.8	126.9	15.27
10/15/19	1258		- SAM	PLE				
10/15/19	1305	6.43	835	4.75	1,89	17.2	1237)
· · · ·						ţ.		
			· · · · · · · · · · · · · · · · · · ·			- <u></u>		
				· · · ·				
· · · · · · · · · · · · · · · · · · ·								-
Calculated Well \	L/ol. (Gallons)	5,09		Total Calculated	Purge Volum	e (Gallons)	31 JIVA	1(2)-5
Purge Water Mar	. ,	On-site	Containr	nent	, argo rolan			
Purge Observatio	ons (product o	observed, colo			Clear or	ab sam	ole	
								N
Sample Date/Tim	e: 29	8 10-19	5-19		Field Filtered	d (0.45um):	🗌 Yes	
Sample Paramete	ers/Analyte(s): 🗹	VSWMR Table	e 3.1 Column A VO	Cs		able 3.1 Column /	A Metals
				e 3.1 Column B				
		X	Other .		(oba)	t , di	'chlorodit	Juerom
Other Observatio	ns / Equipme	ent Operation P	roblems:					
	1/1	3 ₁						
Sampler Signatur	re: 4/12	~		Date:	10/15	19	Page	/ of /
		~ ~	1		10/18/10			

C

Project Name:	Laura	y Valley		Project	No./Task No.:	19115	362	
Event:		9 GW		1 10,000	Sampler(s):			
Well ID:	MW-		<u> </u>	Field Calibratio				1800 10/16/
		inches		Initial Depth to			5 (10-15-19	
Depth to Bottom:			feet	·			02	
Equipment Used:	WL Indicator X YSI <u>Props</u> 1551=3602 In Situ Troll 9500		Turbidity Peristaltic MP-10 Co	Meter Pump	Air Tank	sor	Disposable	e Bailer for so
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallons
10-15-19	1146	5.49	563	14.6	4.78	13.9	114.3	0
10-15-19	1156	5.44	595	5.0	2.96	14.0		56.25
10-15-19	12.05	5.44	581	2.2		13.7		
10-15-19	1214	5.44		1.9	2.21	13.8	93.4	n12.5
10-16-19	0935		603		2.02	0	99.9	18.75
10-16-19	0943	5.79	100	pled	4.92	14,1	10-	
10-10 11	0193	3, +1	505	SO	1.12	· •,1	66.7	~19
		ę.	1.	100 mg				
· · · · · · · · · · · · · · · · · · ·				'				
			1.10					
			1					
Calculated Well V		: (38.02)(016	3)="6.197	Total Calculate	d Purge Volum	ne (Gallons):	~19	
Purge Water Man	- really		olytank		19	1		-1. 1
Purge Observatio			r, odor, turbidi	ity, sheen):	Clear a	grab S	ample, i	nitial pur
_ purge start Sample Date/Time					Field Filtere		Ye	s 🚺 s
		5		e 3.1 Column A V	9	, ,	able 3.1 Columr	
Sample Paramete	rs/Analyte(s		VSWMR Table	e 3.1 Column B C Cobalt				
Other Observation	ns / Equipme	nt Operation F	Problems:	<u>~175Hz, ~0.</u>	75gal/min	for grund	fos	
Sampler Signatur	:Moin	Jayor	29	Date:	10/16/19	\rightarrow 1 α	Page	e (of /

							14	1 111
\$ G	OLD	ER ^F	FIELD SAN	MPLING LOO	G	Date: Weather:	(0-15 5vn, 70	19, 10/16/19 5, rain, 505
Project Name: Event:	ZSA	Lourel Val	iley	Project	No./Task No.: Sampler(s):		1115362 or	
	MW-1E 2.0	inches	-	Field Calibratio	on Completed: Water:	_0750 _ 	(10/15/19	<u>,0860 ≀°/16/</u> 1۹)feet
Equipment Used	YSI Pro	icator <u>pss 153</u> 103602 Troll 9500	Turbidity Peristaltic MP-10 Cc	c Pump	Air Tank	sor	Non-dedica	Bailer - Samp ^{l • 17} 9 ated BP <u>undfos pump</u> - purgin
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallons
10-15-19	1239	5.84	849	279.3	3.65	13.4	-12.2	0
10-15-19	1250	6.06	692	108.1	3.93	13.8	- 39.4	~14.25
10-15-19	1300	5.95	644	63.2	4.91	14.0	-21.6	-28.5
10-15-19	1311	5.87	635	47.1	3.09	14.2	-3.6	°42.75
10/10/19	0955		sam	pled				
10/16/19	1003	6.06 5.43mi	606	11.0	5.43	13.9	37.9	~42.75
Calculated Well V Purge Water Mar Purge Observation	nagement: ons (product	observed, colo	objant	mt onsite	leachate	contain	nent	ar grab sample
<u> </u>				···	Field Filtered			
Sample Paramete	ers/Analyte(s	;): X X X	VSWMR Table VSWMR Table Other	e 3.1 Column A VC e 3.1 Column B d Cobalt ^220 Hz, ~0.	ocs [letects	. ,	L Yes	
Sampler Signatur	re: Moi	na Jaylo	1	Date:	10/18		- Page) of [
QA/QC Signature	The			Date:	10/18	/19	-	

Project Name:	Laurel	Valley LI	F (closed)	Project	No./Task No.:	1911	3562 M	1 19115
Event:	= ZSAIC				Sampler(s):			
Well ID:	MW-IF			Field Calibratio			00 10/15/19	0800
Well Diameter:	2.0		-	Initial Depth to	•		10-16-19	feet 094
Depth to Bottom:	200.	00	feet		nn Thickness:			_ _feet
Equipment Used:	🕅 WL Indi	cator	Turbidity	Meter	Air Tank		🔀 Disposable	Bailer - Sam
		DSS 155103602	Peristaltic	: Pump	Compress	or	Non-dedica	
	🗌 In Situ ⁻	Troll 9500	MP-10 Co	ntroller Box	MP-15 Co	ntroller Box	Other <u>gra</u>	ndfos pump
Date	Time	рН	Sp. Cond.	Turbidity	Dissolved	Temp.	ORP	Gallons
		(S.U.)	(uS/cm) ^{oC}	(NTU)	Oxygen (mg/L)	(°C)	(mV)	
10-15-19	1422	77,89	5.93	10.9	5.61	15.1	-17.0	0
10-15-19	1434			lerator s	tops w			40.5
10-16-19	0910		- resum					
10-16-19	0929	6.37	620	2.4	5.49	14.3	22.8	*30
10-16.19	0950	5.68	590	1.)	4.23	14.1	40.9	n 60.2
10-16-19	1018	5.94	601	0.5	3.87	14.0	18.7	n 90.29
10-17-19	1042		- sam	pled				
10-17-19	1052	6.70	505	8-0	6.92	13.8	101.8	-90.25
								1581
	1							
							1	
· · · · ·								
Calculated Well V	ol. (Gallons)	: 30.05 (x?	5 = 90.16)	Total Calculated	d Purge Volum	e (Gallons):	m 90.16	
Purge Water Man	agement:	onsite lead	chate Conta	unment				<u> </u>
Purge Observatio	ns (product	observed, colo	or, odor, turbid	ity, sheen):	initial pur	ge dark b	rown/black,	clear +
purge start 1								
Sample Date/Tim	e: 10-17-	19 (0) 10	242		Field Filtered	d (0.45um):	L Yes	
Sample Paramete	ers/Analyte(s	.): X	VSWMR Table	e 3.1 Column A VC	DCs [able 3.1 Column	A Metals
			VSWMR Table	e 3.1 Column B				
		Ø	Other	cobalt, d	ichloro flu	oro metho	are	
Other Observation	ns / Equipme	ent Operation F	Problems:	DTB taken	from 4	12-4/3/19	purge 1	og (La B
panse purge	at 14	34 - gen. o	lies, m	275 Hz for	grundfos p	итр		J
	e: Moir	a Jayla		Date:	1. 1.	•	Page	

G G G							rain, 50s	,,
Project Name:	Laur	el Valley		Project I	No./Task No.:			
Event:	2 5A19				Sampler(s):			
	MW-1G		-	Field Calibratio				
Well Diameter:	2.0	•		Initial Depth to				
Depth to Bottom:	200.0	0	feet	Water Colum	in Thickness:	192	.13	feet
Equipment Used:			Turbidity		🔲 Air Tank		Disposable	
		1055 15510360			Compress		Non-dedica	
	🗌 In Situ	Troll 9500	MP-10 Co	ntroller Box	/MP-15 Co	ntroller Box	Cher <u>gru</u>	<u>inditos</u> pur
Date	Time	рН	Sp. Cond.	Turbidity	Dissolved Oxygen	Temp.	ORP	Gallo
		(S.U.)	(uS/cm) ^{oC}	(NTU)	(mg/L)	(°C)	(mV)	
10-16-19	1030	6.29	636	159.9	3.84	13.8	49.5	0
10-16-19	1102	6.54	601	131.2	3.50	13.7	37.5	131.5
10-16-19	1125	6.46	642	2.8	4.21	13.8	59.1	~63
10-16-19	1150			well d	.m			- 85
10-17-19	1025		- sa	mpled -	J			
10-17-19	1032	7.20	611	11.2	5.73	13.7	88.7	-85
The second	19							
								-
	<u> </u>							
	6							
Calculated Well V	ol. (Gallons)	: 31.32 (;	x3= 93.95)	Total Calculated	Purge Volum	e (Gallons):	93.95	
Purge Water Mar	agement:	onsite	leachate co	nlainment				
Purge Observatio	ns (product	observed, cold	or, odor, turbid	ity, sheen):	clear pu	rge, cle	argra	b san
	10100	<u>α</u> Ο τος	2 00					F
Sample Date/Tim	e: 10/11/1			a had	Field Filtered			
Sample Paramete	ers/Analyte(s			e 3.1 Column A VC	Ľ		able 3.1 Column	A Metals
		×		e 3.1 Column B d	etect			
		×.	Other	cobalt				
Other Observation				* PEPTH 90 F	bottom: tak	en from	4/2-4/3/19	La Bell
n320 - 3	350H2 =	>too fast	t, went c	m				
Sampler Signatur	e: W	oira Ja	yly	J Date:	10/17/19		Page) of
	11	7				3-19	- 0	

	OLD					Weather	rain, s	05 5vn, 60
Project Name:	Lo	mrel Valle	y LF	Project	No./Task No.	:	19115362	
Event:	ZSAIG		J	-		M.Tayle		
Vell ID:	1	.н		- Field Calibratio				140 10/17/1
Vell Diameter:	2.0	inches	_	Initial Depth to		3,6	9 10-16-19	feet
epth to Bottom:	210.0	o *	feet	Water Colur				feet
quipment Used	: 🔀 WL Indi	cator	Turbidity	Meter	🗌 Air Tank		X Disposable	e Bailer - sampli
	X YSI Pro	055 15 J103602 17M102 881	Peristaltic 🗌 ر	: Pump	Compres	sor	Non-dedic	
	🔲 In Situ	Troll 9500	MP-10 Co	ontroller Box	MP-15 Co	ontroller Box	X Othergru	ndfos pump-p
Date	Time	рН	Sp. Cond.	Turbidity	Dissolved	Temp.	ORP	Gallons
·		(S.U.)	(uS/cm) ^{oC}	(NTU)	Oxygen (mg/L)	(°C)	(mV)	
0/16/19	1227	5.54	668	9.4	2.42	13.9	33.5	0
10/16/19	1310		- gener	ator dies				-20
10/17/19	1000		- ve	sume pi	rging -			
19/17/19	1008	5.82	834	6.02	4.04	14,3	1826	33,63
10/17/19	1035	6.26	668	3.99	4.05	14,2	148,6	168.
0/17/19	1055	6.48	663	3,40	3.97	14.6	104.3	~101.
0/17/19	1100		<u> </u>	AMPL				
5								
						12		
				Total Calculated		e (Gallons):	100.0	4
urge Water Man	•	onsite	leachad		1			
irge Observation		bservea, colo	r, odor, turbidi	ty, sheen):	purge n	later clea	r, clear	grab
mple Date/Time	0/17/19	11100)		Field Filtered	(0.45um);	Yes	No
- Imple Paramete		-/		3.1 Column A VO		. ,	able 3.1 Column	
inple l'alamete	is/Analyte(s)			3.1 Column B de	. L		bie e. r eelamin	A Metals
		X	Other	Cobalt				
her Observation		nt Operation R						
peoth to b			4/2-3/19	La Bella	purge 109			
mpler Signature	0	5		Date:	purge 100			
25-11-	00	1 1		Dale.	10/11/19		Page	of
VQC Signature:	IVIA A				INI OI	i		

C

0

D

				/IPLING LOG		Date:	10/17/10 Overcast	7
G	OLDI	= R '			S	Weather:	Overcast	SOS
Project Name:	laurel	Valley LI Gw	=	Proiect N	lo./Task No.:		15762	
Event:	25A19	GW			Sampler(s):	N.	Chien	
Well ID:	MW-1	L		Field Calibratior				7/19
Well Diameter:	20	inches		Initial Depth to		\mathcal{O}		feet
Depth to Bottom	: Jor	30 310.00	feet	Water Colum			-	feet
Equipment Used	- 7		Turbidity	Meter	Air Tank		Disposable I	- Bailer
	X YSI Pro	05517M102001	Peristaltic	: Pump	Compress	or	Non-dedicat	ed BP
	🗌 In Situ T	roll 9500	MP-10 Co	ntroller Box	MP-15 Co	ntroller Box	Other	<u> </u>
Date	Time	pH	Sp. Cond.	Turbidity	Dissolved	Temp.	ORP	Gallo
		(S.U.)	(uS/cm) ^{oC}	(NTU)	Oxygen (mg/L)	(°C)	(mV)	
10/17/19	1019	7.00	290,		9,03	1412	176.9	0
INITIA	1022		<u> </u>	SAMPL	EO -		1701 1	
	1000			JAI 10 E	20			
		<u> </u>						
					-	6		
						1. 18		
(D)								
15								
Calculated Well	Vol. (Gallons)	-		Total Calculated	Purge Volum	e (Gallons):		ing a star
Purge Water Ma	anagement: 1	BITST						
Purge Observat				ity, sheen):	clear o	rabs	ampx	
Water leve							U	
Sample Date/Ti	m <u>e:</u> 10-17	1-19/10	ゴフ 、		Field Filtered	d (0.45um):	Yes	X
Sample Parame		· •		e 3.1 Column A VO	Cs [VSWMR1	Fable 3.1 Column	A Metals
oumpio r arame			VSWMR Table	e 3.1 Column B 起	etects	_		
			Other	Cohalt			•	
Other Ohersent	/ =		D 1. I	a chiana	ell			
Other Observati	ions/Equipme to bottom	nt Operation F taken t		Artison /19 La Bello		,		_
	111	- Taken I	21- 170		1/1-1	- a) .
Sampler Signati				Date:	10/1//	- <u> </u>	_ Page	<u>/ of</u>
		11	1.		Am front			

			21					T.
								1
					`	Date:	10/	15/19 10
G G G	DLD	ER	-IELD SAI		2	Weather:	Sunny	15/19,10 605°P,10
Project Name:	Cul	DeperL1	F	Project	No./Task No.:		19/15362	
Event:	JSAI	peperLI 9 GW		-	Sampler(s):	NICY	lien/M-	Taylor
Well ID:			-	Field Calibratio	n Completed:			19,0800 -,
Well Diameter:	3.0	inches		Initial Depth to			10/15/19	feet
Depth to Bottom:			_feet		nn Thickness:	5.20		_feet
Equipment Used:		cator	Turbidity Peristaltic		Air Tank	Sor	Disposable	
		Troll 9500		ontroller Box		ontroller Box	Other	
Date	Time	рН	Sp. Cond.	Turbidity	Dissolved	Temp.	ORP	Gallons
		(S.U.)	(uS/cm) ^{oC}	(NTU)	Oxygen (mg/L)	(°C)	(mV)	
10/15/19	1205	7.54	112.4	239.56	5.61	15,5	190,9	
10/15/19	1210	6.19	91.3	56.94	5.28	14.8	173.6	0.84
10/15/19	1214		DR	K				~1.2
10/16/19	1135 1130 m		sampled					
					•			
			<u> </u>					
0-1		16.240.10) -0 04			<u> </u>		
Calculated Well V Purge Water Man		onsite 1		Total Calculatec		ne (Gallons):	9.29	
Purge Observatio				-	C lear	grab	sample	
Sample Date/Tim	e: 10/16/1	9 @ 1135		- c	Field Filtere	d (0.45um):	Yes	s 🗹 No
Sample Paramete	ers/Analyte(s			e 3.1 Column A VC			able 3.1 Column	A Metals
		K		e 3:1 Column B	etect			
		Y	Other	cobalt			<u> </u>	
	ns / Equipme	ent Operation F	roblems:					
Other Observation								
·	MA	i en			10/11/10			
Other Observation	e: Mu	ring Ja	yles	Date:	10/16/19	1.1	Page) of (

 \bigcirc

)				7	/ ~~	* ¹)5	5 me	
G G G	DLD	ER ^F	FIELD SAI		i	Date: Weather:	JOHE SUDDY E	1/19, 505°F	10/16/19 1000,0
Project Name: Event:	Culpe 25A	per LF			lo./Task No.: Sampler <u>(s</u>):	Nchie		362	_
Well ID: Well Diameter: Depth to Bottom:	MW- 2.0	inches	- Jeet	Field Calibration Initial Depth to V Water Colum	Water:	10,3	<u>00 101</u> -9 -4	feet feet	+ 10/1
Equipment Used	Y YSI	cator <i>SIN</i> <i>ITM (0 288)</i> Froll 9500	- Turbidity	Meter	Air Tank	or ntroller Box	Disposable I Non-dedicat	- Bailer	
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallons	1
10/15/19	1556	584	743	11.14	3.10	16.7	138,1	0	- - ı.
10/15/19	1600	5.91	568	52,08	5.09	16.1	116.9	1.92	5.2
10/15/10	606	5.86	559	66,07	5,24	19, 1	132.7	3.84	- 5.6
10/16/19	1610		Well	IPLED -	4.99	allons			-
10/16/19	1328	4,65	603	15.04	3,18	15.6	173.8	~	
									_
									-
						· · · · · · · · · · · · · · · · · · ·			
									-
									-
Calculated Well \	/ol. (Gallons)	: (11.84)[0.	163) = 1.92	Total Calculated	Purge Volum	e (Gallons):	5.76		_
Purge Water Mar		onsite poly							_
Purge Observatio	ons (product o	bserved, colo	r, odor, turbid	ity, sheen):	clear	grab	Samp 1	1p	_
Sample Date/Tim	. 10-16	19/1	3)5			1 (0. 45			_
		5	VSWMR Tabl	e 3.1 Column A VO	Field Filtered		ble 3.1 Column A		0
Sample Paramete	ers/Analyte(s _,			e 3.1 Column B 🕅					
Other Observatio	ns / Equipme	nt Operation F	roblems:						
Sampler Signatur	e:	24		Date:	10-16	-19	Page	of	_
QA/QC Signature	: M	fort	1	Date:	10-18-1	9			

								10, Sunny e	
	oject Name:	Curpe	perLF		Project N	lo./Task No.:			
	ent:	MW-	1			Sampler(s):			11/19
	ell ID: ell Diameter:			-	Field Calibration		39.12	2A (0/)	-
	en Diameter: opth to Bottom:		inches fq .64	fact	Initial Depth to N Water Colum		•		_feet
				feet			10:52	. /	feet
Eq	juipment Used:	WL India	cator <i>\$/N</i> <i>17/110388</i>			Air Tank		Disposable	
		In Situ			c Pump ontroller Box	Compress		Non-dedica Other	ated BP
-						Dissolved	ntroller Box		
	Date	Time	рН	Sp. Cond.	Turbidity	Oxygen	Temp.	ORP	Gallon
			(S.U.)	(uS/cm) ^{oC}	(NTU)	(mg/L)	(°C)	(mV)	
H/gi	1328"	1328	5.52	340.2	18,97	3,54	15.8	フスト	
	0/14/14	1341	5,09	328.7	29.86	4.84	15.3	26.6	1.71
1	01/4/19	1347	4,94	333.0	75.00	4,76	14,9	17.6	3.42
1	0/14/19	1355	4.74	310,8	46.24	7.20	15.0	38.3	9.13
le	0/15/19	1425	\sim		SAMPLE				
10	0/15/19	1432	5.99	371.5	26,72	2.75	15,6	34,4	-
		1120		5/11-	20,10	<u>q</u> · 1 ·			
				· · · · · · · · · · · · · · · · · · ·					<u>_</u>
-									
-							······		
_									
								, , , , , , , , , , , , , , , , , , ,	
Ca	alculated Well	/ol. (Gallons)	(105) (0.163)=1.71	Total Calculated	Purge Volum	e (Gallons):	5,13	-
	ırge Water Maı		on-site		ainment				
Pu	irge Observatio	ons (product o	observed, colo	r, odor, turbic	lity, sheen):	Clear.	grab s	ample	
Sa	mple Date/Tim	ne: 0/19/1	9/142	5		Field Filtered	d (0.45um):	🗌 Ye	s 🕅
Sa	Imple Paramet	ers/Analyte(s): 🗹		e 3.1 Column A VO	L	VSWMR T	able 3.1 Columr	A Metals
			X	VSWMR Tabl	e 3.1 Column B	tects			
			x	Other	Cabalt				
Ot	her Observatio	ns / Equipme	ent Operation F	roblems:					
Sa	Impler Signatu	re: 4	2'		Date:	10/19	5/19	Page	of of
			'n A	1		inli «	110		
04	VQC Signature	$v = v^{\nu}$	1 for	24	Date:	10/10/	17		

G G	<i>.</i> .	,	F.,				<u>10/14</u> <u>Suppy</u>	~60
Project Name:	Culp	1 1	<u> </u>	Project N	lo./Task No.:		5362	
Event: Well ID: 🕅	- X-I	A19	GW	Field Celibration	Sampler(s):			
Well Diameter:	5.0	inches	_	Field Calibration		27.2		<u>, 0790</u> feet
Depth to Bottom:	Hard,	and the second s	feet	Water Colum		9.9		feet
Equipment Used	*		-		🔲 Air Tank		Disposable	- Bailer
Equipment oscu	YSI In	cator <u> S/N</u> SSSITMAS	Peristaltic		Compress	sor	Non-dedicat	
	In Situ	Troll 9500	MP-10 Cc	ontroller Box	MP-15 Co	ntroller Box	Other	
Date	Time	рН	Sp. Cond.	Turbidity	Dissolved Oxygen	Temp.	ORP	Gallon
		(S.U.)	(uS/cm) ^{oC}	(NTU)	(mg/L)	(°C)	(mV)	
10/14/19	1038	5,47	744	14.95	1,90	16.6	4,9	-
0/14/19	1045	5.50	310.2	25.26	4.36	15.2	-19.2	1.63
10/14/19	1052	5.53	641	18.49	2.57	14.9	12.6	3.2.
10/14/19	1028	4.96	632	15.94	2.70	14.9	17.0	4.88
10/15/19	1410		-5/	AMPLF				
10/15/19	1415	6.32	696	19,85	2.71	15.5	26.2	-
			<u>.</u>					
		<u> </u>				<u> </u>		
	•							
	1							
Calculated Well	Vol. (Gallons): 1.6345	,4.88(3)	Total Calculated	Purge Volum	L ne (Gallons):	(9.98)(0.16	1 03) = 1.(
Purge Water Ma				ainment				
Purge Observation			or, odor, turbid	lity, sheen):	clear	grab	Sampte	2
purge sta	14.4.4		lic					
Sample Date/Tin	ne: 141	0 10/19)		Field Filtere		└ Yes	
Sample Paramet	ers/Analyte(e 3.1 Column A VO	cs [etects	VSWMR T	able 3.1 Column	A Metals
*			VSWMR Tabl Other	$e 3.1 \operatorname{Column B}^{a}$	 (x)			
				(01,001)-1				
Other Observation	ons / Equipm	ent Operation I	Problems:					
					1011	< 11A		1
Sampler Signatu	re: //	h	<i></i>	Date:	10/1	5//9	Page	/ of

G G G	DLD	ER ^F	FIELD SAN	MPLING LOG	i	Date: Weather:	10/17/ Sunny	19 505°F
Project Name:		Valley L	F	Project N	lo./Task No.:	19/153	/	
Event: Well ID:	(LF	1		Field Calibratior	Sampler(s):		on 10/1	7/19
Well Diameter: 5 .	0 2. ONC	inches	_	Initial Depth to		27.0		feet
Depth to Bottom:			feet	Water Colum		> ~ .		feet
Equipment Used:		cator s 17 Mba 881	Turbidity	Meter	Air Tank			Bailer Sampling
		Troll 9500		entroller Box	Compress MP-15 Co	ntroller Box	Non-dedica	ted BP DOS pump - bu
Data	10-1-10 Al		1		Dissolved			59
Date	Time	рН	Sp. Cond.	Turbidity	Oxygen	Temp.		Gallons
Intialia	1162	(S.U.) 6.66	(uS/cm) ^{oC}	(NTU) &./4	(mg/L) このブ	(°C)	(mV)	6
10/17/19	1152		4/1.5	11 4 07	3,07	15,9	-9,0	NC.
10/17/19	1211	7,54	320.8	1	2.98	16.8	49.7	23,236
10/17/19	1235	7,72	342.9	4.67	2.08	16.7	29.9	72.44
0/17/19	1303	7.74	366.9	4.00	3.09	17.2	12.2	109
10/17/19	1309			SAMPLEI) —			
·								
								fi
								0
6								•
· · · · ·	•					· · ·		
				· · · · · · · · · · · · · · · · · · ·				
		()	020)=3C.	79				
Calculated Well \	Vol. (Gallons)	(35,51) (6	·653)=23.2	Total Calculated	Purge Volum	ne (Gallons):	108.66	
urge Water Mar	nagement:	container	ize and	move to t	(noch-ou	it tank		
urge Observatio	ons (product	observed, colo	or, odor, turbid	lity, sheen):	leargi	absan	nple	
							/	
Sample Date/Tim	ne: 10-17 -	19/ 130)9		Field Filtered	d (0.45um):	Yes	No No
Sample Paramete	ers/Analyte(s	. ×	VSWMR Table	e 3.1 Column A VO	Cs [able 3.1 Column	A Metals
		\geq	VSWMR Tabl	e 3.1 Column B 🔬	tects			
				(obalt				
Other Observatio	ons / Equipme	ent Operation I	roblems:]
	6911				1.1.1	1101		, 1
Sampler Signatur	re:	<u> </u>	· · · · · · · · · · · · · · · · · · ·	Date:	10/17/	1/9	Page	of
Sampler Signatur	M	- 1_1	6	Date:	10/17/	1/9	Page	of

G G G			IB	Droiset			Sun, 7.0	
Project Name: Event:		urel Valley		Project	No./Task No.:			
Well ID:	25A	19 GW		Field Calibratio	Sampler(s):		10-15-19,1	18/20 10
Well Diameter:	·	inches	-	Initial Depth to		7.5	,	feet
Depth to Bottom:		_	feet	-	nn Thickness:	9.62		feet
Equipment Used:	YSI Pro	DSS 153103602	Turbidity	Pump	Air Tank	+	Disposable	
1		Troll 9500		ntroller Box	Dissolved	ntroller Box	Other	
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallo
10-15-19	1637	7.62	405.2	6.42	3.17	16.2	75.3	D
10-15-19	1643	6.17	507	16.8	3.29	16.6	47.6	n1.5
10-15-19	1648	5.98	512	21.4	3.38	16.5	6.3	"3.2
10-15-19	1653	5.90	523	19.7	3.44	16.4	-12.9	n4.7
10-16-19	1400			- 5A1	MPL	ED.		
10-16-19	1405	5.56	58.6	17:65	2.28	161	94.0	-
				1101		1		
						1	1	1
							1.1	
-								
				-		7	1	
Calculated Well V	/ol. (Gallons): 1.56 (×3-	4.70)	Total Calculated	l Purge Volum	e (Gallons):	4.70	<u> </u>
Purge Water Mar	nagement:	onsite	leachate (ontainmen				
Purge Observatio			r, odor, turbidi	ity, sheen):	clear	grab.	Samp h	e
	10/15/19		00					
Sample Date/Tim	e: 10-1	<u> </u>	00		Field Filtered		└ Yes	
Sample Paramete	ers/Analyte(s			e 3.1 Column A VC	Ľ] VSWMR T	able 3.1 Column	A Metals
		× X		3.1 Column B d				. 10
		Þ	Other .	dissolved	trate/ hitrite	<u>, aika</u> Sulfati	Linity, chl	on or,
Other Observatio	ns / Equipm	ent Operation F	Problems:	0.13501020			, sur your	

GC								, sun, 60,
oject Name:	La	invel Va	lley		o./Task No.: _		115362	
ent: _	ZSA	19 GW		Field Calibration	Sampler(s): _	0500 10	116/19 116	940 an 10/1
ell ID:	CLF-1			Initial Depth to V		42.90		feet
ell Diameter:	2.0 i		fact	Water Column				feet
epth to Bottom:	8	.60	feet				X Disposable B	Railer
quipment Used:	WL Indic	ator	Turbidity I		Air Tank	or	Non-dedicat	
		<u>DSS (55103602</u>		ntroller Box		ntroller Box	Other	
	In Situ T	roll 9500			Dissolved		ORP	Gallons
Date	Time	рН	Sp. Cond.	Turbidity	Oxygen	Temp.	(mV)	Clanente
		(S.U.)	(uS/cm) ^{oC}	(NTU)	(mg/L)	(°C)		0
10/16/19	1508	5.50	757	87.7	3.75	13.6	66.3	
10/16/19	1545	5.93	804	92.8	4.07	13.5	78.9	-6.5
10/16/19	1617	6.13	702	71.3	3.39	13.5	61.2	w12.75
10/16/19	1618		p well	dry -				
10/17/19	1430		- 5A	MPLE -				
10/1/10	1515	7.67	914	69.44	6.34	14,8	58.7	-
	1112	1.01	1			15-	1.2	
						in the	Same -	
							+	
1		11				+		1200
				1.1				
Calculated Well	Vol. (Gallon	s): 6.31		Total Calculate	d Purge Volu	me (Gallons): 18.92	10.00
Purge Water Ma		onsi	te lea	chate c	ontaini	nent		
Purge Observat				oidity, sheen):	<u>clear-t</u>	0-0paqu	egabs	ample
. u.ge ear								
Sample Date/Ti	ime: 10-1	7-19/1	430		Field Filter	red (0.45um)): 🗋 Y	es 🖾 No
		NA		able 3.1 Column A V	OCs		Table 3.1 Colum	n A Metals
Sample Param	eters/Analyte	(s):	VSWMR Ta	able 3.1 Column B	detect			sulfa
			Other	mercury, hi	trate/nitrite	c, alkalin	ty, chlande,	dissolved method
				la fail rec	harad	lady d	ulina Sc	ampling
Other Observa	tions / Equip			Nellm	ych 5	jurry de	uning se	- mp /
pause	sampting	@ 1620	- equi	pment is	1011.	1/19		no 1 of 1
	100	an		Date:		////	Pa	

Project Name:	Culpe	per L	F	MPLING LOG Project N	lo./Task No.:	Weather:		<u>705°</u> †
Event:	ZSA	19 GW			- Sampler(s):	. 1 .	on / M. Taylo	r
Well ID:	· PZ-	HE		Field Calibration	Completed:			5/19
Well Diameter:	2.0	inches	6t	Initial Depth to	-	22.7		feet
Depth to Bottom:	/	,17,	_feet	Water Colum	-	8,30	-	feet
Equipment Used:	WL Indi	cator s/N 57103682 53103602 Froll 9500	Turbidity Peristaltic MP-10 Co		Air Tank	or ntroller Box	Disposable E	
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallon
10/19/19	1630	6.47	71.3	23.51	3.77	14,3	130.0	0
10/15/19	1634	5.98	50,9	121.54	4,99	14.2	153.7	1.30
10/15/19	1638	5.79	58.7	245.71	5.17	14.2	162.0	2.72
10/15/19	1644	6.34	61.1	161.37	3.07	13.9	197.8	400
10/16/19	1445	_	San	upled -			1	
10/16/19	1457	6.29	62.2	27.7	5.68	14.1	161.2	~ 4.0
Calculated Well V Purge Water Man Purge Observatio	agement:	onsite	contai	Total Calculated			4,09 74 WI So	my shi
Sample Date/Time	. 10/11/	10 @ 144	5		Field Filterec		Yes	N
	,	5		e 3.1 Column A VO			able 3.1 Column A	A Metals
Sample Paramete	rs/Analyte(s): ⊠ ⊠_	VSWMR Table	e 3.1 Column B Pe	tects	_		
Other Observation	ns / Equipme	ent Operation I	Other	Mercusy, Nitra Sulfate, Su	telnitrite, Ifide	Altalinity	, Chloride,	Dissolve
		iona à	1 1	Date:	10/16/	10	Page	of

Project Name:	Laurel	Valley LF		Proiect	No./Task No.:	191153	62	
Event:	2 5A19 G			· , · · ·	Sampler(s):			
Well ID:	CLF-53		·	Field Calibratio				
Well Diameter:	2.0	inches	-	Initial Depth to		23.89		feet
Depth to Bottom:		.96	feet	-	nn Thickness:			– feet
Equipment Used	: 🔀 WL Ind 🗙 YSI_Pro			Meter	Air Tank	or	Disposable Non-dedica	ated BP
Date	Time	рН	Sp. Cond.	Turbidity	Dissolved Oxygen	Temp.	ORP	Gallo
	1258	(S.U.)	(uS/cm) ^{oC}	(NTU)	(mg/L)	(°C)	(mV)	
10/17/19		7.84	305.3	681	5.54	13.0	81.9	0
10/17/19	1326	7.65	265.8	10.2	6.01	(3.2	.93.4	r.01~
10/17/19	1355	7.82	170.8	4.8	6.11	13.1	92.8	21
10/17/19	1418	7.53	161.2	1.9	4.29	13.2	97.6	× 32
10/17/19	1425		- SAN	APLED				1
10/17/19	[43]	6.86	163.6	4.2	6.12	13.3	110.9	~32
					4			
						\$		1
				The second				
1000	1							
	1							
	S				- 1 C			
		1.1						-
		-			14			
							. 9	
Calculated Well	Vol. (Gallons): (65.07)(0	. (63)= 10.60	Total Calculated	d Purge Volum	ie (Gallons):	31.82	
Purge Water Mai	nagement:	onsite	leachate	Containmer	it syster	າ		
Purge Observatio	ons (product	observed, cold	or, odor, turbid	ity, sheen):	clear	- prge,	clear.	grab
	the second		1		lan .			
Sample Date/Tim	ne: 10/1	7/19 @	0 1425		Field Filtered	d (0.45um):	Ye:	s 🕅
Sample Paramet	ers/Analyte(s	s): 🛛 🖄	VSWMR Table	e 3.1 Column A VO	DCs [able 3.1 Column	A Metals
		X		e 3.1 Column B 🕏		17		15
	. a	X	Other	Mercury Nith	ate nitrite	altalin	ity, chlori	de, diss
Other Observatio	ons / Equipm	ent Operation		sulfate, s	in 1fide	it and a	1-	3
	1							
Sampler Signatu	ro: M	Mey	9	Date:	10/17	119	Page	e) of
Sampler Signatu		110	/	Dale.		110	- i aye	
								1

		ED F	IELD SAN		ì	Date:	10-1	5-19
	DLDI	ER				Weather:	sun,	70;
Project Name:	Lau	rel Valle	4	Project N	lo./Task No.:	19115	362	
Event:	25A19 G		-J	-	Sampler(s):			
Well ID:	MW-XZ		4	- Field Calibratior				
-	2.0			Initial Depth to		58.17		feet
- Depth to Bottom:			feet	Water Colum			-	feet
- Equipment Used:		DSS 1551036			Air Tank	or ntroller Box	Disposable B	ed BP
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen	Temp. (°C)	ORP (mV)	Gallons
10-15-19	1602	<u>(3.0.)</u> 6-92		9.0	(mg/L) 10.33	14.3		
	1602		4961				76.0	0
10-15-19	1610	7.26	4983	126.2	9.35	14.3	81,3	1.5
10-15-19	1620	7.39	4890	112.3	9.73	14.3	94.7	23.0
10-15-19	623		well a	dry (0	"3.25	gal		
10/16/19	1337	6=		SAMPL	ED -		3	
10/16/19	1346	6,97	4878	110.7	8.89	13.8	110.8	
					, , ,		6	
			1 11					
								0.00
	0							1 Contraction
								1
Calculated Well Vo Purge Water Mana				Total Calculated) Containme		e (Gallons):	4,34	
Purge Observation						grab =	Sample	
Sample Date/Time	10-K-	19/ 133	7		Field Filtered	1 (0 45µm).	Yes	× N
		1		• e 3.1 Column A VO			able 3.1 Column /	
Sample Parameter	rs/Analyte(s)): 4P 15(1		e 3.1 Column B	L			
		 त्र	Other	NOR LOCAL	CIECUS			
Other Observation	s / Equipme			J				
Sampler Signature	m	Am	MM	Date:	10/1	6/19	Page	of
QA/QC Signature:	4/			Date:	10/10	5/19		

Project Name: Event: Well ID: Well Diameter: Depth to Bottom:	(ulper 25/4 (LF- 2.0 103.6	Per LF 19 Gw S 1 inches	_ _feet	Field Calibratio		Nchien	n 10-16. 5	r
Equipment Used	YSI YSI	cator 55 17/10288 15 1 10 3 60 2 Troll 9500	Turbidity		Air Tank	or ntroller Box	Disposable	
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallon
10][6][9 [0][6][9	1035	6.84	51.8	54.50 134.68	5.04 6.94	14, 3 13, 8	186,7 134.2	0
10/16/19	1203 1240	7.01 7.13	296 510	155.57 62.57	6.09	13.6	101.7 188,1	~16
10/17/19	1200 -	7,54	Samp 484.1	1ed	8.02	13.4	109.8	-25
Calculated Well \		CO AN	1/62)~2.12	Total Calculated				
Purge Water Mar Purge Observatio	nagement:	onsite	containme	int for leach	ite		iear gra	b san
Sample Date/Tim Sample Paramete	1	54	VSWMR Table	e 3.1 Column A VC e 3.1 Column B & Merc (UN)			Yes Yes	
Other Observatio	ns / Equipme	ent Operation F						
					10/17/19			

G G	OLD	ER	FIELD SAN	MPLING LOG		Date: Weather:		605 1		
Project Name:	La	urel Vall	ly	Project N	lo./Task No.:	191	15362			
Event:	ZSA)				M. Taylor / N. Chien			
Well ID:	MW-Z	0		Field Calibration						
Well Diameter:	2.0	inches		Initial Depth to V		34.0		feet		
Depth to Bottom:	55.	83	feet	Water Colum	n Thickness:			feet		
Equipment Used			Turbidity		Air Tank	sor ontroller Box	Disposable			
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gall		
10-10-10	1030	8.10	58,9	48.8				0		
10-15-19	1047	5.63	42.4	30.0	9.64	12.8	192.7			
10-15-19	1050 -					12.7	192.4	3.5		
		n n	rell dry	at 3.75	gal -					
10/16/19	0935		-71/	SAMPLE	D	121	init d			
	0945	4.95	74,6	4.46	8.07	13.1	186.9	-		
<u>, 800</u>			1	- Trailer	2					
	1 de	1.00		Mal	14					
		12				1000				
						1.0	1	1.1		
								2.50		
				37.65		1				
			•					× 3		
					- 6					
	1		et (al)							
	nagement: ons (product	onsite polyt observed, color -tmi on 10-	*3 .59al or, odor, turbid -15-19				sample	5- m		
Sample Date/Tirr Sample Paramet Other Observatic	ers/Analyte(s		VSWMR Table Other	9 3.1 Column A VOO 9 3.1 Column B de- <u>n.trate (n.trate</u> Sulfate, su	lects , alkalinit	VSWMRT	D Yes able 3.1 Column dissolved alt, arsenic	A Metals Metheory		
		~		A STREET, STRE						
Sampler Signatu	re.	7		Date:	10/16	5/19	Page	1 0		
Sampler Signation							Faue	+ U		

Project Name:	Culper	er LF		Project N	No./Task No.:	19115	362	
Event:	2SA1	9		•	Sampler(s):	N. Chier	n	
Well ID:		18		Field Calibration	n Completed:			4/19,
Well Diameter:		inches		Initial Depth to	Water:	6.5	4	4/19 _ ^{feet}
Depth to Bottom:	27.14	6[soft]	feet	Water Colum	n Thickness:	2010	52	feet
Equipment Used:	: 🔀 WL India	cator	Turbidity	Meter	🗌 Air Tank		🗙 Disposable	Bailer
	YSI Pro)SS 17m102881	Peristaltic	: Pump	Compress	sor	Non-dedica	ted BP
	📃 In Situ 🗌	roll 9500	MP-10 Cc	ontroller Box	MP-15 Co	ntroller Box	Other	
Date	Time	рН	Sp. Cond.	Turbidity	Dissolved Oxygen	Temp.	ORP	Gallon
		(S.U.)	(uS/cm) ^{oC}	(NTU)	(mg/L)	(°C)	(mV)	
10/14/19	1230	4,97	630	15.64	2.45	14.7	110,4	-
10/14/19	1235	4.86	634	8.04	5.41	146	93,9	3.4
10/14/19	1244	4.79	630	11.92	4.02	14.1	94.0	6.8
10/14/19	1256	4.87	607	13,97	4.24	14.5	86.5	10.2
10/15/19	1315			AMPLE	, , , , , , , , , , , , , , , , , , , ,			
10/19/19	1338	5,96	709	12,63	3.27	16,1	84.8	
0/15/191	1 7 30	110	104	12,05	Jiaj	10,1	01.0	
Calculated Well	I Vol. (Gallons)	: 3,4	L	Total Calculated	Purge Volum	e (Gallons)	20.6110	162)=3
Purge Water Mar	· · · ·	on-site	contain	ment	i uigo volun	io (caliono).	(0.02)(0)	
Purge Observatio					cleargr	nb sam	ole	
Sample Date/Tim	ne: 1310	5 10/19	5/19		Field Filtere	d (0.45um):	Yes	
Sample Paramet				- e 3.1 Column A VO		. ,	able 3.1 Column	
ample ratamet	ers/Analyte(S			e 3.1 Column B 👂	L			
		X		lobalt, Arse		F.dp. M	braunu 1	tin
					, ~y1	ing i	(1 <u>, 1</u> , 1)	
Other Observatio	ons / Equipme	ent Operation P	roblems:	125			n 1	
	1/1	1			[n]	110	Π	1
Sampler Signatu	10/1/1	-		Date:		7/17	Page	1 - 4 -

Project Name:	Laure	1 Valley		Project N	No./Task No.:	Weather:		
Event:	25A19				Sampler(s):			hier
Well ID:	MW-29	3	_	Field Calibration	n Completed:	0950	on 10/14	119
Well Diameter:		inches	frank	Initial Depth to		<u> </u>	9	feet
Depth to Bottom:		8 (hard)	_feet	Water Colum		6.7	7	feet
Equipment Used:		s sim loss	Turbidity		Air Tank	or	Disposable	
	In Situ 1		·	ontroller Box		ntroller Box	Other	
Date	Time	pН	Sp. Cond.	Turbidity	Dissolved Oxygen	Temp.	ORP	Gallor
		(S.U.)	(uS/cm) ^{oC}	(NTU)	(mg/L)	(°C)	(mV)	
10/14/19	1537	7,35	1165	27.00	2,40	17.7	128.9	0
10/14/19	1940	6.60	1683	21.50	2.96	16.1	98.2	0.94
10/14/19	1542	6.14	1640	86.77	4.80	15,6	87.3	1.88
10/14/19	1545	5.63	1638	78.76	3.39	15.7	85.22	2.82
10/15/19	1230				5	AMPL	ED-	
10/15/19	1244	6.52	880	34,19	5.77	16.6	121.7	
·								
		· · · · · · · · · · · · · · · · · · ·		·				
				-			· · · · ·	
								·
Calculated Well V	ol. (Gallons)	(5,79) (1.)	63)= 0.94	Total Calculated	Purge Volum	e (Gallons):	2.82	
^o urge Water Man				tainment				
Purge Observatio	ns (product c	bserved, colo	r, odor, turbid	ity, sheen):	clear	grabs	sample	_
	loka		20					
Sample Date/Time	B: [0/[5]		30		Field Filtered		🗌 Yes	X
Sample Paramete	ers/Analyte(s)			e 3.1 Column A VO			able 3.1 Column A	Metals
		X		3.1 Column B De			1	T,
		X		(obalt Ars	July July	ride iv	ercury	1 in
			roblome				-)	
Other Observatior	ns / Equipme	nt Operation F	TODIEITIS.					
Other Observation				Date:	101-	1.0	Page	

Project Name: Event: Well ID: Well Diameter: Depth to Bottom:	2.0	inches	feet	Project N Field Calibration Initial Depth to V Water Colum	Water:	N. Ch.: 07502 13.22	on 10/15/	10r 119,08
Equipment Used:	X YSI Ro	cator <u> 555</u> <u> 570</u> 555 <u> 570</u> 500	Turbidity Peristaltic MP-10 Cc		Air Tank	or ntroller Box	Disposable	
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallons
10/15/19	1146	7.85	449.3	81.32	2.54	17.1	141.1	
10/15/19	1148		-DR	Y				NO.2
10/16/19	1330	s	ample					
10/16/19	1394		well	dry -				
10/16/19	1543		- resur	re san	upling -			
10/16/19	1548		-well	dry				
10/17/19	llia		resume	san	pling			
10/17/19	1113		_ well	dry*				
	,				-			
Purge Water Mar Purge Observatio	nagement: ons (product) light tan	observed, color grab	r, odor, turbid		tain me	nt	~1.6 tan, sau	mple w
Sample Date/Tim Sample Paramete): 🗹	VSWMR Table	e 3.1 Column A VO(e 3.1 Column B de		, ,	Able 3.1 Column	•••
				* well u	,		finished fu mple wate	

Project Name:	Culor	per LF		Project N	lo./Task No.:	19/19	SUNNY 6	1115
Event:	2SA 1	1		1 10,0001	Sampler(s):	N.Chie		1110
Well ID:	MW-	4		Field Calibratior				119
Well Diameter:	2.0		-	Initial Depth to		34.7		feet
Depth to Bottom:	45.8	inches 39 Chard	feet	Water Colum		11.11	0	feet
Equipment Llood	🖄 WL Indi		-		🗌 Air Tank		Disposable	- Bailor
Equipment Used:	X YSI GO	DSS 5/~ DSS 17/102581	Peristaltic			or	Non-dedicat	
		Froll 9500		ntroller Box		ntroller Box	Other	
Date	Time	рН	Sp. Cond.	Turbidity	Dissolved	Temp.	ORP	Ga
		(S.U.)	(uS/cm) ^{oC}	(NTU)	Oxygen (mg/L)	(°C)	(mV)	
10/14/19	1416	5.68	20410	162.17	3.03	15.7	112.2	~
10/14/19	1422	6.32	204,6	74,30		15.3	102.9	1,81
10/14/19	1418	6.621	221.8	108.02	5,23	15.1	79.2	3.6
10/14/19	1434	6.76	231.5	70.57	5.70	15.3	80.7	5.0
Inliglia	1465	~	- SA	MOLTA -	5.70	1015	00.1	2.
10/15/19	1155	6.00	227.4	93,92	3,55	16.7	91.5	
10/15/19	1905	6.00	90/1-1	39.00	3,95	15,2	91.0	
			· · · ·					
	· .							
				· ·				
Calculated Well V	ol. (Gallons)	(11.11)0.16	3)=1.81	Total Calculated	Purge Volum	e (Gallons):	5.43	
Purge Water Man	agement:	on-site	contair					
Purge Observation	ns (product o	observed, colo	r, odor, turbid	ity, sheen):	clear gi	absa	mple	-
<u> </u>	12.10	101 1 1 m	~					
Sample Date/Time	e:10-19 -	19/145	5		Field Filtered		∐ Yes	
Sample Paramete	rs/Analyte(s): 🗚		e 3.1 Column A VO	4		able 3.1 Column /	A Metal
		X		e 3.1 Column B	10			
		7 54	Other	sulfi	de, mer	ung, f	N	····
Other Observatior	ns / Equipme	ent Operation F	Problems:			-		
		1						
	A 11 -	1 -			10-15			

Project Name:	La	urel Valle	24	Project N	No./Task No.:	191	15362	
Event:	25A)		Sampler(s):	· · ·	ylor / N.C.	hien
Well ID:	MW-Z	σ	1	Field Calibration	n Completed:			
Well Diameter:	2.0	inches		Initial Depth to		34.0		feet
Depth to Bottom	: 55.	83	feet	Water Colum	n Thickness:	21.7	74	_ feet
Equipment Usec	i: 📈 WL Ind	icator	Turbidity	Meter	🗌 Air Tank		🔀 Disposable	Bailer
	YSI Pro	055 15310360	Peristaltic	Pump	Compress	sor	Non-dedica	ited BP
	🔲 In Situ	Troll 9500	MP-10 Co	ntroller Box	MP-15 Co	ntroller Box	Other	
Date	Time	рН	Sp. Cond.	Turbidity	Dissolved	Temp.	ORP	Ga
		(S.U.)	(uS/cm) ^{oC}	(NTU)	Oxygen (mg/L)	(°C)	(mV)	
10-15-19	1030	8.10	58.9	48.8	9.64	12.8	118.9	0
10-15-19	1047	5.63	42.4	30.0	9.59	12.7	192.7	3.5
10-15-19	1050 -	- w	ell dry	at 3.75	gal -			
10/16/19	0935		J	SAMPLE	±D			
0116/19	0945	4,95	74,6	4.46	8.07	13,1	186.9	
							10001	
							1996-01	
	4.1						-	
						1		-
								-
					d			-64
					5			2.5
Calculated Well Purge Water Ma	nagement:	Onsite polyt	ank "3.5gal	Total Calculated		10		5_ mt
Purge Observation		this on 10-		ty, sneen):	(rear	gias	sample	
Sample Date/Tin	16/1/	110 09	35		Field Filtered	1 (0 4500)	Yes	
			VSWMR Table	e 3.1 Column A VO			able 3.1 Column	
Sample Paramet	ers/Analyte(s			3.1 Column B de	-			Amotal
		×1				Char do	directual	hack
have been			-	nitrate (nitnte sulfate su	Ifide me	rcury, cab	all, arsenic	INC +N CA
Other Observatio	ons / Equipmo	ent Operation I	Problems:					
	61	?			. 11.	111		2
Sampler Signatu		/		Date:	10/11	119	Page	1

G G G		ER	FIELD SA	MPLING LO	G	Date:	Sunn	0]]
							27	<u>y /c</u>
Project Name:	(n1pep	erLF		Project	No./Task No.:	1911 5	362	
Event:	JSA	19			Sampler(s):	N.Chi	en	
Well ID:	Field E	Blank	_	- Field Calibrati	on Completed:			
Well Diameter:		inches		Initial Depth to	o Water:	-		feet
Depth to Bottom:	~		feet	Water Colu	mn Thickness:			feet
Equipment Used:	🗌 WL Indi	cator	Turbidity	Meter	Air Tank		Disposable	Bailer
Equipment obcu.			Peristalti		Compress	or	Non-dedica	
		Troll 9500		ontroller Box		ntroller Box	Other	
Dut			- <u> </u>	1	Dissolved			<u> </u>
Date	Time	рН	Sp. Cond.	Turbidity	Oxygen	Temp.	ORP	Ga
0/10/19	1.415	(S.U.)	(uS/cm) ^{oC}	(NTU)	(mg/L)	(°C)	(mV)	
10/15/11	1443		+ SA	MPLE	p -			
								-
								<u> </u>
				· · · · · ·				
								╂──
								_
;					_			
Calculated Well V	ol. (Gallons)):	-	Total Calculate	d Purge Volum	e (Gallons):	-	
Purge Water Man			_	-				
Purge Observatio		observed, co	lor, odor, turbic	lity, sheen):	clear g	rab s	ample t	ahe
	fifst.	3/101	clia					Die
Sample Date/Tim			15/19	-	Field Filtered		L Yes	
Sample Paramete	ers/Analyte(s			e 3.1 Column A V	L		able 3.1 Column	A Meta
		X	VSWMR Tabl	le 3.1 Column B C رینه Ars و H	etects	www.tin		
		$\mathbf{ imes}$	Other					
Other Observation	ns / Fauinme	ant Oneration	Probleme					
		oporation					·····	
Sampler Signatur	di	5.		_	12/10	5/19		1
Sampler Signatur	e: //			Date:		111	Page	1
Campler Olynatur				- Duto.	101		. lago	-+-

G G G	DLC	ER	FIELD SAN	APLING LOO	G	Weather:	11/21/20 Sumy 505	// 4
Project Name:	laurel	Valler		Project	No./Task No.:			
Event:	Resampl	le			Sampler(s):			
	MW-1B			Field Calibratic		11/21/196	21029	
Well Diameter:		inches		Initial Depth to		4.80	×4.79	feet 4.7
Depth to Bottom:	27.08		feet	Water Colur	nn Thickness:	22.2	-4	- ^{feet}
Equipment Used:	WL Indi	cator	Turbidity		Air Tank		Deisposable I	
	In Situ	17410280 900		: Pump ontroller Box	Compress		Non-dedicat Other	
			1		Dissolved		1	T
Date	Time	рН (S.U.)	Sp. Cond.	Turbidity (NTU)	Oxygen	Temp. (°C)	ORP	Gallons
11/21/10	1775	5.74	(uS/cm) ^{oC} S97	23.1	(mg/L) Z-70	14.3	(mV)	7 17
1/2//1	1225	5.75	594	20.6	1.94	14.1	235.1 225.8	3.63 7.25
-	1238	5.75	586	21-8	1.99			11.09
11/27/14	1024	5.35	489.6	5.80	2,52	14.2	218.7	11-04
11/22/19	1020	SAMP		200	2002	13.8	202.7	
11/2/17	10.50	JANT	460 -	A.				
						-		
_			-		-		-	
					-			
	-		-	1 m				
			1					
								· · · · ·
					1			
						N		
Calculated Well	/ol. (Gallons)	: 3,63	- 1.1	Total Calculated	d Purge Volum	ne (Gallons)	11.00	
Purge Water Mar	-			ontainm		/	1 1	
Purge Observatio	ons (product	observed, col	or, odor, turbid	lity, sheen):	clear	grat	Sample	taken
Comple Date/Tim	nisopa	A DIDZ	n n	1/2/11	Field Filtere	d (0, 45, mm))		
Sample Date/Tim				- e 3.1 Column A V0	Field Filtere		L Yes	1
Sample Paramet	ers/Analyte(s	s): L		e 3.1 Column B				A Wetais
			Other	Total Col	9			
		A						163
Other Observatio			Problems:	DTB=27.08	- D/W=4	-79 = 2	2.29 XO.	103=
	11	51	1		11/- 11	·/		1
Sampler Signatu	re: Joh	nor	7	Date:	1/22/19	1	_ Page	of
QA/QC Signature	1	-11/	15	Date:	11/22/1	CI		

			1					1	
	G		MICR	OPURGE S	AMPLING	LOG	Date: Weather:	11/21/19 Sunny	201
	GOLD				Determine	T N	191/53	1	
	Project Name:	Laurel		_	Project No.				
	Event:	<u>Kesamu</u>	<u>e</u>		Sampler(s)		J-Engl		0
	Well ID:	PZ-76		- Fie	eld Calibration	-		1901021	
	Well Diameter:	2.0	inches		Initial Deptl		23.29		feet 23,17
	Depth to Bottom:			_feet		Imn Thickne	<u> </u>		_feet
	Equipment Used:		ator		eter	Air Tank			
			17.41.0288() igkory		ump			Non-dedica	ited BP
ſ	Time	In-Situ _	Sp. Cond.	MP-10 Contr	Dissolved		ontroller Box	□	
1				Turbidity	Oxygen	Temp.			Flow Rate Gillons (mL/min)
	(5 minute int.) Stabilization	(S.U.) +/- 0.1	(uS/cm) ^{oC} +/- 3%	(NTU) if >10, +/- 10%	(mg/L) +/- 10%	(°C) +/- 1°C	(mV) +/- 10 mV	(feet) → < 6.3 feet -	(mL/min) <500-
ľ	1150	5119	61.4	90.1	3.00	14.1	189.8		1.30
ł	1155	5.18	\$7.7	1109) 99	13.9	204.9	_	2.69
	1200	5.21	59.2	113.0	3.10	13.9	710.8	-	3.90
4	1043	5,82	53,5	18.4	224	142	273.3		
	1045 -				BAMPIE	1060	CINIS		N
					P P P P				
				- 6 B			-		
			1	12/15		i			
ł		· · · ·						11	
					-				
						The second		191	1
ľ						-5-372	100 81	14	1
					-	110,000	1		
					5				
		· · ·				- 18			s
ł				1	1.	1.	- at-		1
		+				2	35		
ľ	Purge Cycle (End	1)	<u>ا</u> @		psi	Flow Bate (ml/min End):		and the second s
	Purge volume (ga	á la church a church							
	Total Purge Volume (ge			normoning (6/6				the Conte	e
	Purge Observatio			een): Class		Annagerine	T	u conce	unmer
	r uige Observatio		or, turbiaity, si	ieen). Cuar	quar	Bang	4		One of the state of the
-	Sample Time:	11/2/	9C 104	٠٢	<u> </u>	Field Filtere	ed (0.45um):	Yes	No No
	Sample Paramet	•		CCR Appendix	: []]		opendix IV		VPDES (D.Ci , TDS, TOC)
			· · ·	Ni, Ag, Na, Sn, N				WMR (Sb, As,	•
	H2S, ALK, TOC,		·, · · · , · · · , · · · · ,	<u> </u>			Pb, Ni, Se, A		,,
			ঠ	Other:	lotal 1	fg			
	Other Observation $1.28 \times 3 = 3$		ent Operation F	Problems:	<u>DTB= 31-1</u>	3- DTW-	= 23-29= -	7.84 X O	.163-1-28
		. O by					4		1 1
	Complex Oferrat	a ht	CAN		Deter	11/22 /	10	D	
	Sampler Signatu	re: Alm	AL-		Date:	11/22/	19	Page	of /

	6		MICR	OPURGE S	AMPLING	à LOG	Date: Weather:	<u>11/22/19</u> Rain 50	r
\frown	GOLD	ER	. / 11						
\sim	Project Name:	Laurel	Valley	Fie	Project No	./Task No.:	1911530	2	
	Event:	<u> </u>	mple		Sampler(s):	J-England	1/M. Auto	a
	Well ID:	Field Bla	anK	_ Fie	eld Calibratio	n Completed:			
	Well Diameter:		inches		Initial Dept	th to Water:			feet
	Depth to Bottom:	·····		feet	Water Col	umn Thickne	ss:		feet
	Equipment Used:			Turbidity Me	eter	🗌 Air Tank		Dedicated B	ladder Pump
			-	Peristaltic Pu		Compres	sor	Non-dedicat	ed BP
		In-Situ 🗂		MP-10 Cont		MP-15 Co	ontroller Box		
	Time	рН	Sp. Cond.	Turbidity	Dissolved Oxygen	Temp.	ORP	DTW	Flow Rate
	(5 minute int.)	(S.U.)	(uS/cm) ^{oC}	(NTU)	(mg/L)	(°C)	(mV)	(feet)	(mL/min)
	Stabilization	+/- 0.1	+/- 3%	if >10, +/- 10%	+/- 10%	+/- 1°C	+/- 10 mV	<0.3 feet	<500
	1145	JAM	PLED-						
							G		
				-					
	-								
\bigcirc									
<u> </u>									
								• · · · · · · · · · · · · · · · · · · ·	
		-							
		\	L	<u> </u>	l				l
	Purge Cycle (End	· · · · · · · · · · · · · · · · · · ·	@		psi	-	ml/min End):		
	Purge volume (ga			nonitoring (3/8"				gal/ft):	
	Total Purge Volur					er Manageme		20 11	07 115
	Purge Observatio	ns (color, od	or, turbiality, sh	een): Clear	grat	Sample	taku	Near #	2-46
		1/1/5			<i>v</i>				
	Sample Time:	<u>1145</u>			-	Field Filtere		Yes	VPDES (D.Cr,
	Sample Paramete			CCR Appendix			pendix IV	D.Mn, SO4,	TDS, TOC)
	Sludge VSW		I, Cu, Fe, Mn, I	Ni, Ag, Na, Sn, N	/a, Zn, CN-,			WMR (Sb, As, I	Ba, Be, Cd,
	. i.e., Alex, 100, 1		د	. Other:	Total		Pb, Ni, Se, A	y, 11, va, 211)	
			Terrand		IDTAL	Cal 179		<u> </u>	
\bigcirc	Other Observation	ns / Equipme	ent Operation P	roblems:					
\bigcirc	. <u> </u>	. 1	×				2		
	Sampler Signatur	<u>e: John</u>	Engl		Date:	11/22/1	9	Page	/ _{of} /
	QA/QC Signature	/	/ '		Date:	11/221	9		
	J								

G G G	DLC	ER	FIELD SAN	APLING LOO	G	Weather:	11/21/20 Sumy 505	// 4
Project Name:	laurel	Valler		Project	No./Task No.:			
Event:	Resampl	le			Sampler(s):			
	MW-1B			Field Calibratic		11/21/196	21029	
Well Diameter:		inches		Initial Depth to		4.80	×4.79	feet 4.7
Depth to Bottom:	27.08		feet	Water Colur	nn Thickness:	22.2	-9	- ^{feet}
Equipment Used:	WL Indi	cator	Turbidity		Air Tank		Deisposable I	
	In Situ	17410280 900		: Pump ontroller Box	Compress		Non-dedicat Other	
			1		Dissolved		1	T
Date	Time	рН (S.U.)	Sp. Cond.	Turbidity (NTU)	Oxygen	Temp. (°C)	ORP	Gallons
11/21/10	1775	5.74	(uS/cm) ^{oC} S97	23.1	(mg/L)	14.3	(mV)	7 17
1/2//1	1225	5.75	594	20.6	1.94	14.1	235.1 225.8	3.63 7.25
-	1238	5.75	586	21-8	1.99			11.09
11/27/14	1024	5.35	489.6	5.80	2,52	14.2	218.7	11-04
11/22/19	1020	SAMP		200	2002	13.8	202.7	
11/2/17	10.50	JANT	460 -	A.				
						-		
_			-		-		-	
					-			
	-		-	1 m				
			1					
								· · · · ·
					1			
						N		
Calculated Well	/ol. (Gallons)	: 3,63	- 1.1	Total Calculated	d Purge Volum	ne (Gallons)	11.00	
Purge Water Mar	-			ontainm		/	1 1	
Purge Observatio	ons (product	observed, col	or, odor, turbid	lity, sheen):	clear	grat	Sample	taken
Comple Date/Tim	nisopa	A DIDZ	n n	1/2/11	Field Filtere	d (0, 45, mm))		
Sample Date/Tim				- e 3.1 Column A V0	Field Filtere		L Yes	1
Sample Paramet	ers/Analyte(s	s): L		e 3.1 Column B				A Wetais
			Other	Total Col	9			
		A						163
Other Observatio			Problems:	DTB=27.08	- D/W=4	-79 = 2	2.29 XO.	103=
	11	51	1		11/- 11	·/		1
Sampler Signatu	re: Joh	nor	7	Date:	1/22/19	1	_ Page	of
QA/QC Signature	1	-11/	15	Date:	11/22/1	CI		

			1					1	
	G		MICR	OPURGE S	AMPLING	LOG	Date: Weather:	11/21/19 Sunny	201
	GOLD				Determine	T N	191/53	1	
	Project Name:	Laurel		_	Project No.				
	Event:	<u>Kesamu</u>	<u>e</u>		Sampler(s)		J-Engl		0
	Well ID:	PZ-76		- Fie	eld Calibration	-		1901021	
	Well Diameter:	2.0	inches		Initial Deptl		23.29		feet 23,17
	Depth to Bottom:			_feet		Imn Thickne	<u> </u>		_feet
	Equipment Used:		ator		eter	Air Tank			
			17.41.0288() igkory		ump			Non-dedica	ited BP
ſ	Time	In-Situ _	Sp. Cond.	MP-10 Contr	Dissolved		ontroller Box	□	
1				Turbidity	Oxygen	Temp.			Flow Rate Gillons (mL/min)
	(5 minute int.) Stabilization	(S.U.) +/- 0.1	(uS/cm) ^{oC} +/- 3%	(NTU) if >10, +/- 10%	(mg/L) +/- 10%	(°C) +/- 1°C	(mV) +/- 10 mV	(feet) → < 6.3 feet -	(mL/min) <500-
ľ	1150	5119	61.4	90.1	3.00	14.1	189.8		1.30
ł	1155	5.18	\$7.7	1109) 99	13.9	204.9	_	2.69
	1200	5.21	59.2	113.0	3.10	13.9	710.8	-	3.90
4	1043	5,82	53,5	18.4	224	142	273.3		J
	1045 -				BAMPIE	1060	CINIS		N
					P P P P				
				- 6 B			-		
			1	12/15					
ł		· · ·						11.11	
					-				
						The second		191	1
ł						-5-372	100 81	14	1
					-	110,000	1		
					5				
		· · ·				- 18			s
ł				1	1.	1.	- at-		1
		+				2	35		
ľ	Purge Cycle (End	1)	<u>ا</u> @		psi	Flow Bate (ml/min End):		- and -
	Purge volume (ga	á la chuir a c							
	Total Purge Volume (ge			normoning (6/6				the Conte	e
	Purge Observatio			een): Class		Annagerine	T	u conce	unmer
	r uige Observatio		or, turbiaity, si	ieen). Cuar	quar	Bang	4		One of the state of the
-	Sample Time:	11/2/	9C 104	٠٢	<u> </u>	Field Filtere	ed (0.45um):	Yes	No No
	Sample Paramet	•		CCR Appendix	: []]		opendix IV		VPDES (D.Ci , TDS, TOC)
			· · · · · · · · · · · · · · · · · · ·	Ni, Ag, Na, Sn, N				WMR (Sb, As,	•
	H2S, ALK, TOC,		·, · · · , · · · , · · · · ,	<u> </u>			Pb, Ni, Se, A		,,
			ঠ	Other:	lotal 1	fg			
	Other Observation $1.28 \times 3 = 3$		ent Operation F	Problems:	<u>DTB= 31-1</u>	3- DTW-	= 23-29= -	7.84 X O	.163-1-28
		. O by					4		1 1
	Complex Oferrat	a ht	CAN		Deter	11/22 /	10	D	
	Sampler Signatu	re: Alm	AL-		Date:	11/22/	19	Page	of /

	6		MICR	OPURGE S	AMPLING	à LOG	Date: Weather:	<u>11/22/19</u> Rain 50	r
\frown	GOLD	ER	. / 11						
\sim	Project Name:	Laurel	Valley	Fie	Project No	./Task No.:	1911530	2	
	Event:	<u> </u>	mple		Sampler(s):	J-England	1/M. Auto	a
	Well ID:	Field Bla	anK	_ Fie	eld Calibratio	n Completed:			
	Well Diameter:		inches		Initial Dept	th to Water:			feet
	Depth to Bottom:	·····		feet	Water Col	umn Thickne	ss:		feet
	Equipment Used:			Turbidity Me	eter	🗌 Air Tank		Dedicated B	ladder Pump
			-	Peristaltic Pu		Compres	sor	Non-dedicat	ed BP
		In-Situ 🗂		MP-10 Cont		MP-15 Co	ontroller Box		
	Time	рН	Sp. Cond.	Turbidity	Dissolved Oxygen	Temp.	ORP	DTW	Flow Rate
	(5 minute int.)	(S.U.)	(uS/cm) ^{oC}	(NTU)	(mg/L)	(°C)	(mV)	(feet)	(mL/min)
	Stabilization	+/- 0.1	+/- 3%	if >10, +/- 10%	+/- 10%	+/- 1°C	+/- 10 mV	<0.3 feet	<500
	1145	JAM	PLED-						
							G		
				-					
	-								
\bigcirc									
<u> </u>									
								• · · · · · · · · · · · · · · · · · · ·	
		-							
		\	L	<u> </u>	l				l
	Purge Cycle (End	· · · · · · · · · · · · · · · · · · ·	@		psi	-	ml/min End):		
	Purge volume (ga			nonitoring (3/8"				gal/ft):	
	Total Purge Volur					er Manageme		20 11	07 115
	Purge Observatio	ns (color, od	or, turbiality, sh	een): Clear	grat	Sample	taku	Near #	2-46
		1/1/5			<i>v</i>				
	Sample Time:	<u>1145</u>			-	Field Filtere		Yes	VPDES (D.Cr,
	Sample Paramete			CCR Appendix			pendix IV	D.Mn, SO4,	TDS, TOC)
	Sludge VSW		I, Cu, Fe, Mn, I	Ni, Ag, Na, Sn, N	/a, Zn, CN-,			WMR (Sb, As, I	Ba, Be, Cd,
	. i.e., Alex, 100, 1		د	. Other:	Total		Pb, Ni, Se, A	y, 11, va, 211)	
			Terrand		IDTAL	Cal 179		<u> </u>	
	Other Observation	ns / Equipme	ent Operation P	roblems:					
\bigcirc	. <u> </u>	. 1	×				2		
	Sampler Signatur	<u>e: John</u>	Engl		Date:	11/22/1	9	Page	/ _{of} /
	QA/QC Signature	/	/ '		Date:	11/221	9		
	J								

	GG	DLD	ER	FIELD SAN	IPLING LOC	G	Date: Weather:		
\sum	Project Name: Event:	Lau ISAZO R	-	LF	Project	No./Task No.: Sampler(s):			
	Well ID:	mw-2	•		Field Calibratio			5-18-2020	
	Well Diameter:	2.0			Initial Depth to		32.3		feet
	Depth to Bottom:		. .	feet		nn Thickness:			- feet
							<u> </u>		-
	Equipment Used:		055 17M1028	☐ Turbidity 30 ☐ Peristaltic ☐ MP-10 Co	Pump	Air Tank		Disposable	
	Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallons
	E 10, 0, 00	12.00	7.93	170.2					
	5-18-2020	1200			3.8	7.61	13.8	233.4	0
	5-18-2020	1217	6.65	49.1	17.1	7.73	13.3	201.4	3.63
	5-18-2020	1221		t dru					-3,8
	5-18-2020	1244	4.94	40.9 4	5.4	8.61	13.5	246.8	-
	5-18-2020	1245		sa	mpled -		-		
	5-18-2020	1248	4.65	39.6	4.9	7.82	13.3	258.2	
	Calculated Well V	ol. (Gallons)	(22.33')(6	D.163a1tt1=3.60	Jotal Calculated	d Purge Volum	e (Gallons)	10.92	
	Purge Water Man	agement:	onsite	containmen	lions E				
	Purge Observatio	ns (product o ample	observed, col	lor, odor, turbid	ity, sheen):	clear f	ourge c	vater, c	ear
	Sample Date/Tim	e: 5-18-2	1020/12	245		Field Filtered	d (0.45um):	🗌 Yes	X No
	Sample Paramete	ers/Analyte(s):		e 3.1 Column A VC e 3.1 Column B	DCs [VSWMR 1	able 3.1 Column	A Metals
		. –	X	Other	gammq -	Chlordane	(8081)	
	Other Observation								
	WL @ 1	244 5-	18-2020 :	47.80'					
	Sampler Signatur	~	aylor	0	Date:	5-18-20		Page	1 of 1
	QA/QC Signature	: Cmpl	$\sim p$	nl_	Date:	05-19	-2020	_	

Project Name:	Law	rel valley	6.E	Project	No /Task No ·	20145	5729.100/2	
Event:		iomp. / CAP		-	Sampler(s):	A second s		DO MT
Vell ID:	MW-11	I NTT		- Field Calibratio				5 10-20-202
Well Diameter:	2.0	inches	-	Initial Depth to		4.33		feet
Depth to Bottom:	27.1	1	feet	Water Colur	nn Thickness:	22.7	8	feet
Equipment Used:	🖉 WL Indi	cator	Turbidity	Meter	🗌 Air Tank		X Disposable	e Bailer
	YSI Pro	055 M102881 Troll 9500	Peristaltic	e Pump ontroller Box	Compress	sor ontroller Box	Non-dedica Other	
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallons
10-19-2020	1238	5,54	612	11,94	2.79	13.6	115.8	0
10-19-2020	1245	5.78	641	12.85	3.85	12.7	100.3	~3.75
10-19-2020	1253	5,59	635	9.12	3.26	12.4	108.8	47.5
10-19-2020	1301	5.58	629	7.34	3.14	12.5	113.4	-+0-75m
10-20-2020	1049	5.84	286.9	6.80	6.75	14.7	141.2	-
10-20-2020	1050	-	SAMPL	ED ——				
10-20-2020	to MT 1105	6.38	585	9.60	8.64	14.7	107.7	-
						1		
								1
Calculated Well V Purge Water Man Purge Observatio DTW 10-7	agement: ns (product o	Onsite co	n <i>tainment</i> or, odor, turbid	ity, sheen):	Clea			٠ ٠
ample Date/Tim	e: 10-20-	2020 @ 1	050		Field Filtered	d (0.45um):	🗌 Ye	s 🕅 No
ample Paramete			VSWMR Table Other	dichlorodiflu	trethy phth phthemethane,	Tsobyty)	i Octobe	ate, gamma (- 3,2020 "
ther Observation	ns / Equipme	in operation	Toblottio.	that a chight	Crieft's printinger	1 1 1 1	1	
ample Date/Tim	e: 10-20- ers/Analyte(s)	2020 @ 1): ⊠ □ ▼	ØSØ VSWMR Table VSWMR Table Other	e 3.1 Column A Va e 3.1 Column B Acc Same dichiors diflue	Field Filteren DCs [Liethgi phth note Mana hromethane,	VSWMRT Frobuty) Calate naphthale	able 3.1 Column locultan sulf alcOhol Colobe 2019, sulfide,	A Met ate, q <u>37</u> merce

Depth to Bottom: 25.28 feet Water Column Thickness: 6.39 f Equipment Used: X WL Indicator Turbidity Meter Air Tank X Disposable Ba X YSI 00055 Peristaltic Pump Compressor Non-dedicated In Situ Troll 9500 MP-10 Controller Box MP-15 Controller Box Other): <u>r</u>	15420 C		-		Sampler(s):	20145729.100 M.Taylor 1100 10-19-2020/0745 10-20			
Equipment Used: X WL Indicator $Turbidity$ Meter $Air Tank$ X Disposable Ba X YS1 $\frac{\rho_{10}}{2900}$ 0.55 $Peristaltic Pump$ $Compressor$ $Non-dedicated$ $Date$ Time pH Sp. Cond. Turbidity $MP-15$ Controller Box ORP $Date$ Time pH Sp. Cond. Turbidity $Dissolved$ ORP $(S.U.)$ $(uS/cm)^{oc}$ (NTU) (mg/L) $(°C)$ (mV) $10-19\cdot 2020$ 1409 $6\cdot 24$ 1856 $12\cdot 54$ $3\cdot 6\cdot 8$ $15\cdot o$ $31\cdot 2$ $10-19\cdot 2020$ 1414 $6\cdot 08$ 1736 $14\cdot 28$ $2\cdot 51$ $14\cdot 7$ $30\cdot 6$ $9\cdot 6$ $10\cdot 19-2020$ 1417 $6\cdot 16$ 1756 $49\cdot 31$ $4\cdot 44$ $14\cdot 3$ $27\cdot 3$ 9 $10\cdot 19-2020$ 1417 $6\cdot 18$ 1694 $3\cdot 36$ $3\cdot 61$ $14\cdot 2$ $26\cdot o$ $10\cdot 20-2020$ 1143 $6\cdot 18$ 1694 $3\cdot 36$ $3\cdot 61$ $14\cdot 2$ $36\cdot o$ $10-20-2020$ 1145 $$				feet			-	9	feet feet	
DateImepHSp. Cond.IurbidityOxygen (mg/L)Iemp. (°C)ORP (mV) $10-19-2020$ 1409 (6.24) 1856 12.84 3.68 15.0 31.2 $10-19-2020$ 1419 6.08 1736 14.28 2.51 14.7 30.6 30.6 $10-19-2020$ 1417 6.16 1756 49.31 4.44 14.3 27.3 30.6 $10-19-2020$ 1417 6.16 1756 49.31 4.44 14.3 27.3 30.6 $10-19-2020$ 1421 6.13 1757 111.02 3.49 13.8 32.4 32.4 $10-20-2020$ 1143 6.18 1694 3.36 3.61 14.2 36.0 $10-20-2020$ 1145 $$ $5ampled$ $$ $$ $$		X WL Indica	ator	Turbidity	Meter Pump	Air Tank	sor	X Disposable	e Bailer	
10-19.2020 1414 6.08 1736 14.28 2.51 14.7 30.6 30.6 10-19-2020 1417 6.16 1756 49.31 4.44 14.3 27.3 30.6 10-19-2020 1417 6.16 1756 49.31 4.44 14.3 27.3 30.6 10-19-2020 1421 6.13 1757 111.02 3.49 13.8 32.4 32.4 10-20-2020 1143 6.18 1694 3.36 3.61 14.2 36.0 10-20-2020 1145	Date	Time		1 Y Y Y Y Y Y Y Y		Oxygen			Gallons	
10-19-2020 1417 6.16 1756 49.31 4.44 14.3 27.3 10.19-2020 10-19-2020 1421 6.13 1757 111.02 3.49 13.8 32.4 10.20 10-20-2020 1143 6.18 1694 3.36 3.61 14.2 36.0 10-20-2020 1145	9-2020 14	109	6.24	1856	12.84	3.68	15.0	31.2	0	
10-19-2020 1421 6.13 1757 111.02 3.49 13.8 32.4 . 10-20-2020 1143 6.18 1694 3.36 3.61 14.2 36.0 10-20-2020 1145 - sampled	9-2020 14	414	6.08	1736	14.28	2.51	14,7	30.6	-1.25	
10-20-2020 1143 6.18 1694 3.36 3.61 14.2 36.0 10-20-2020 1145 - sampled	1-2020 1	417	6.16	1756	49.31	4.44	14.3	27.3	*2.5	
10-20-2020 1145 sampled	-2020 14	421	6.13	1757	111.02	3.49	13.8	32.4	- 3.75	
	0-2020 11	143	6.18	1694	3.36	3.61	14.2	36.0	-	
10-20-2020 1158 6.04 1610 16.02 3.03 15.0 39.9	.0.2020 1	145	,	samp	ied —					
	0-2020 1	158	6.04	1610	16.02	3.03	15.0	39.9		
Calculated Well Vol. (Gallons): 16.39)(0.163)=1.04 Total Calculated Purge Volume (Gallons): 3.12	ated Well Vol.	(Gallons):	6.39)10	163)=1104	Total Calculated	d Purge Volum	e (Gallons);	3.12		
Purge Water Management: <u>Onsite containment</u> Purge Observations (product observed, color, odor, turbidity, sheen): <u>elear</u> grab sample DTW 10-20-2020 @ 1140 19.20 feet	Water Manage Observations (ement: (product ot	Onsite oserved, colo	Containma r, odor, turbidit	y, sheen):					
Sample Date/Time: 10-20-2020 / 1145 Field Filtered (0.45um): Yes Sample Parameters/Analyte(s): X VSWMR Table 3.1 Column A VOCs X VSWMR Table 3.1 Column A NOCs VSWMR Table 3.1 Column B VSWMR Table 3.1 Column B VSWMR Table 3.1 Column B Vocumentary		1	ÌX □	VSWMR Table	3.1 Column B	DCs D	VSWMR T	able 3.1 Columr	A Metals	
Other Observations / Equipment Operation Problems:	Observations /	/ Equipmen	t Operation F	Problems:					J	

Project Name:	Lau	rel Valley	LF	Project	No./Task No.:	20145	729.100	
Event:	25A20	Comp. 6	W		Sampler(s);	m.T.	aylor	
Well ID:	mw			Field Calibratio	n Completed:	100 10/19	12020 / 03	745 10-21
Well Diameter:	2.0			Initial Depth to Water:		8.88		feet
Depth to Bottom:	16:4	9	feet	Water Colun	nn Thickness:	7-61		feet
Equipment Used:	X YSI Pro	licator _D DSS निम्लाक्ट ४४ । Troll 9500	Turbidity Peristaltic MP-10 Co	: Pump	Air Tank		X Disposable	le Bailer icated BP
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallons
10-19-2020	1438	7.18	218-4	36.42	8.16	15.3	21.3	O
10-19-2020	1442	6.16	190.6	31.00	8,21	14.8	117.0	1125
10-19-2020	1436		- dry,	let rechan	ne			42
10-20-2020	1240	6.26	286.0	32.48	8.76	16.7	50.0	~
10-20-2020	1245		SAMP					-
10-20-2020	1259	5.77	168.2	6-21	7.51	15.7	172.1	~
						100		1
			1	1				
					1.000	1.	1	
1				140 miles	1		1	
								-
	(T	1.1						
							224	-
						-		
		10000	1000					
Calculated Well V	ol. (Gallons): (7 61)(0-16	3)= 1.24	Total Calculated	Purge Volum	e (Gallons):	total pu	rgenz
Purge Water Man		onsite co	The second se					
Purge Observation ຖານ ເວ-z				ty, sheen):	_clear	grab	sample	
Sample Date/Time	: 10-20	-2020 /	1245		Field Filtered	d (0.45um):	🗌 Ye	s 🖾
Sample Paramete	rs/Analyte(s	s):	VSWMR Table	e 3.1 Column A VO	Cs	VSWMR T	able 3.1 Column	A Metals
				e 3.1 Column B				
			Other .	see mw-	18 purge	log for	Compliance	e analyte
Other Observation	ns / Equipme	ent Operation I	Problems:					1.00
					122.4			- K
Sampler Signature	: m. J	aylor		Date:	10-20	-2020	- Page	/ of /
		14 · · · ·	1					

Project Name:	La	urel Valle	YLF	Project	No./Task No.:	201457	29.100	
Event:	ZSAZ C	Comp.	GW		Sampler(s):	M. Tayl	or	
Well ID:	MW-L	1	_	Field Calibratio	on Completed:	1100 10.1	9-2020/07	45 10-20-20
Well Diameter:	2.0	inches		Initial Depth to	Water:	38.03	2	feet
Depth to Bottom:	44.7	D	feet	Water Colur	nn Thickness:	6.68	3	feet
Equipment Used:	X YSI Pro	WL Indicator ∑ YSI <u>Pro DSS</u> I∃ M(02861 ☐ In Situ Troll 9500		Meter Pump ntroller Box	Air Tank	or ntroller Box	X Disposable	
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallons
10-19-2020	1632	5.98	301.7	6.67	5.36	12.8	34.7	Ø
10-19-2020	1639	6.10	301.4	69-81	6.61	12.7	39.4	-1.25
10-19-2020	1645	5.84	317.4	344.98	5.42	12.7	47.9	12.5
10-19-2020	1648		dry, le				1	12.75
10-20-2020	1348	5.71	209.3	70.28	2.20	14.9	56.8	-
10-20-2020	1400		Samp	ed-				
10-20-2020	1422	5.64	230.1	55.24	2.65	14.5	98.2	-
Calculated Well V				Total Calculated	Purge Volume	e (Gallons):	~3.0	
Purge Water Man Purge Observation DTW 1357	ns (product o		r, odor, turbidit	y, sheen):		urbid g micaceo	rab samp us	le,
Sample Date/Time	10-20-	2020/14	100		Field Filtered	l (0.45um):	🗌 Ye	s 🗵 No
Sample Paramete Other Observatior			VSWMR Table Other		L.		able 3.1 Column	A Metals
					and the second second			

<u>.</u>

Project Name:	Lau	cel Valle	LY LF	Project	No./Task No.:	2014	5729.10	0/200
Event:	25A20	Comp./	CAP GW		Sampler(s):	m.To	aylor	
Well ID:	NW-	20		Field Calibration	on Completed:	0745 10	20.2020 /	0800 10
Well Diameter:	2.0	inches		Initial Depth to	Water:	34.9		feet
Depth to Bottom:	54	.64	feet	Water Colur	nn Thickness:	19.67	1	feet
Equipment Used:	WL Indicator X YSI Pro DS S TAMIOZSYI In Situ Troll 9500		Turbidity Peristaltic MP-10 Cc		Air Tank	or ntroller Box	Disposable	
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallon
10-20-2020	0918	6.60	152.7	3,24	9.18	11.4	193.5	0
10-20-2020	0930	6.15	69.1	12.28	8.50	11.3	176.9	"3.25
10-20-2020	0933	- dry,	let rec	harge -				+3.5
10-21-2020	0852	5.82	138.8	4.10	8.74	11.0	208.2	-
10-21-2020	0 855		sampled		1000			
10-21-2020	F0P0	5.12	75.5	9.81	8.77	11.2	231.1	-
Calculated Well V Purge Water Mar Purge Observatio DTW 10-2	nagement: ns (product	onsite	Containr or, odor, turbid	nent			sample	
Sample Date/Tim	e: 10-21-3	1020/0	855		Field Filtered	d (0.45um):	🗌 Ye	s 🕅
Sample Paramete Other Observation			VSWMR Table Other j	e 3.1 Column A Vo e 3.1 Column B <u>nitrate/nitri</u> sulfide, See	te, alkalin	nty Chi	Fable 3.1 Column <u>bridle, Me4</u> for com	nane, sui
	e: M.	Jourly		Date:	10-21-2	02.0	Page	e (of l

Project Name:	Lauri	el Valler	LF	Project	No./Task No.:	2014	15729.2	00
Event:	ZSA2	O CAP	GW	and a first	Sampler(s):	m. Tau	lor	
Well ID:	MW-	IC		Field Calibratio	on Completed:	1100 10/19	12020, 07	45 10-20
Well Diameter:	C	inches		Initial Depth to		13.8		feet
Depth to Bottom:	45.1	5	feet	Water Colur	nn Thickness:	31.3	0	feet
Equipment Used:	WL Indicator X YSI <u>Pro Dss</u> 「うへいってます」 In Situ Troll 9500		Turbidity Peristaltic MP-10 Co		Air Tank		Disposable	
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallo
10-19-2020	1315	6.34	740	7.00	7.23	13.5	85.1	D
10-19-2020	1327	6.11	835	19.22	5.99	12.7	100.8	* 5.25
10-19-2020	1337	6.36	881	16.45	7.86	12.7	91.2	10.5
10-19-2020	1347	5.86	879	11.43	3.93	14.0	96.5	n15.75
10-20-2020	1118	5.77	787	4.68	2.79	15-1	112.0	-
10-20-2020	1120		- sar	npled -				
10-20-2020	1122	5.77	786	3.85	2.67	14.7	113.5	~
Calculated Well V Purge Water Man Purge Observatio ມາເ	agement: ns (product	Onsite observed, col	containme	ity, sheen):		ne (Gallons): grab s		
Sample Date/Tim			VSWMR Table VSWMR Table	e 3.1 Column A Va e 3.1 Column B 	DCs	_	ichloroethen	n A Metals
Other Observation	ns / Equipm	ent Operation	Problems:)
Sampler Signatur	e m.	Fauln		Date:	10-20-2	020	Pag	e of

Project Name:	Laurel	Valley	LF	Project	No./Task No.:	2014	5729.20	2
Event:	25A20	20 GV	-CAP			J.EN		
Vell ID:	MW-1	D	10.00	Field Calibratio	on Completed:	10/19/	2020 0 110	9.07451
Vell Diameter:	2.0	inches		Initial Depth to	Water:	15.8		feet
Depth to Bottom:	57.	10	feet	Water Colur	mn Thickness:	41.	28	feet
Equipment Used:	WL Ind	dicator	Turbidity	Meter	Air Tank		Disposable	Bailer
	YSI Ra	XYSI <u>R Dol90444</u>		: Pump	Compress	for	Non-dedica	
	In Situ Troll 9500		MP-10 Co	ontroller Box	MP-15 Co	ntroller Box	Other Dr.	endfor Pu
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallons
10/14/2020	1640	6.26	889	114.05	1.00	13.8	48.1	1
1	1648	5.98	617	36-76	1.15	14.1	66.8	7
	1656	5.97	672	25.89	1.21	14.7	99.3	14
J	1704	6.00	624	17.01	1.09	14.1	104.7	21
0/20/2020	1015	6.09	564	13.52	5.24	15.8	99.1	21.5
1	1020	-		1.2	1			22.0
L	1025	5.85	586	8.64	1.59	14.6	113.8	22.5
	1			0101				
	-	1						
			H					1
	-							
		-			-	-		
alculated Well V	ol (Gallons): 6.73		Total Calculated	I Purge Volum	e (Gallons):	225	
urge Water Man		ons	ite C	ortain		e (Galiona).	66.9	
urge Observatio	ns (product				Aural	tim	:1834	
clear	grab Sc	ample			11		2002 (M	
ample Date/Tim	e: 10/20/	2020 @1	920		Field Filtered	d (0.45um):	🗌 Yes	: 🗆 N
ample Paramete	ers/Analyte(s	s):	VSWMR Table	e 3.1 Column A VC	oCs [VSWMR T	able 3.1 Column A	A Metals
				e 3.1 Column B				
		D	Other Caba	it, he dicht	oraphano	Trichlor	settlens, V	inyl chle
other Observation 57.10 - 1				6.73				
Carlos Carlos	11	9/10	1	Date:	in An	12.020	Page	1 of 1
ampler Signatur				Lioto"	111/////////	1111	Page	1 04 1

Project Name:	Laurel	Vallery	LE	Project I	No./Task No.:	201457	29.200	
Event:	25420	20 6.00.	- CAP			J. Engla	4	
Well ID:	MW-12	5		- Field Calibratio		10/19/2020@1100,0745 10-		
Well Diameter:	2.0	inches	-	Initial Depth to		18.3	and the second sec	feet
Depth to Bottom:	104.85		feet Water Colu		n Thickness:	A COMPANY OF A COMPANY	-	feet
Equipment Used:	VSI P.D	WL Indicator Turbidity N YSI Peristaltic In Situ Troll 9500 MP-10 Cor			Air Tank	sor ontroller Box	Disposable	
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallons
10/19/2020	1537	6.39	796	109.60	0.99	14.7	22.4	1
and the second	1550	6.40	712	138-24	1.02	14.6	26.6	14.10
	1605	6.33	685	74.27	1.31	14-6	44.2	28.50
	1627	6.26	682	97.63	1.11	15.0	50.8	42.50
10/20/2020	1000	6.50	650	10.73	4.38	16.4	31.2	43.00
1	1005	-SA	NPLED					-43,50
	1010	6.22	643	10.01	1.41	14.5	72.4	44.00
	P MARTIN							
<								1
	11.1							
								1
	1.000				1.000		1	1. In
				·				
			1			1.00	1.000	
Calculated Well V	ol. (Gallons)	14.10		Total Calculated	Purge Volum	e (Gallons):	44.0	
Purge Water Man		ons		ontring	neros			
Purge Observatio					purg	& Lin	1535	
Sample Date/Tim				53 = 14.10	Eiold Filter	1/0 45		¥ .
			The second s	e 3.1 Column A VO	Field Filtered		able 3.1 Column	
Sample Paramete	ers/Analyte(s)	: []		e 3.1 Column B				A Wetais
		D		elt <u>, 1-1 dichba</u>	end and "	Seller	Luc Va	In.
Other Observation	ns / Equipme		0.00	any 14 arches	endine i j	ICHIOLAUS	the run	11 Chloris
Sampler Signatur	e: John	Engla	1	Date:	10/20,	12020	Page	of]
QA/QC Signature	Um.	19		Date:	10-23-	2.62		

Project Name:	Louiel 1	Aller !!	LF	Project	No /Task No	20145	729.200	
Event:	Contraction of the second	20 GW				JEn		
Well ID:	MW-1	P		- Field Calibratio			· · · · · · · · · · · · · · · · · · ·	5.0800 10-21-2
Well Diameter:	2.0	inches		Initial Depth to		16.79		feet
Depth to Bottom:	215.3	0	feet	Water Colum	n Thickness:	118	,52	feet
Equipment Used:		cator <u>E104904</u> DSS Troll 9500	Turbidity Peristaltic MP-10 Cc		Air Tank	or ntroller Box	Disposable	
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallons
10/20/2020	1045	6.54	557	3.60	3-99	14.2	45.5	1
	1100	6.30	608	1.59	1.80	14.4	35.9	33
	1/23	6.33	605	0.93	1.42	14.6	25.7	66
V	1150	6.33	605	4.03	1.67	161	28.9	99
10/21/2020	0825	6.42	551	10.47	2.84	12.9	133.4	99.5
	0830	- SAMI	KED -					100.0
1	0835	6.60	526	12.60	4.00	13.1	135-8	100.5
Calculated Well \ Purge Water Mar		A A	1	Total Calculated	Purge Volum	e (Gallons):	100.5	
Purge Observatio	ons (product o	on <u>pl</u> observed, colo	T. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	ty, sheen):	purge	tim	1044	
Sample Date/Tim	e:10/21	120202	0830		Field Filtered	d (0.45um):	🗌 Yes	s 🕅 No
Sample Paramete	ers/Analyte(s)		VSWMR Table	e 3.1 Column A VO e 3.1 Column B <u> t_f , elicible</u>		-	able 3.1 Column	A Metais
Other Observatio	and the second second	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Problems:	3=32.36				
Sampler Signatur	11	511		Date:	10/21/	12920	Page	of
sampler olgitatur								

Ò

Project Name: Event:	254200					J.Engl	and	
Well ID:	MW-I	and the second sec	e —	Field Calibratio			020@1100	1 mar 1
Well Diameter: Depth to Bottom:	203.7	_inches	feet	Initial Depth to Water Colum	Water: nn Thickness:	6.81	81	_feet feet
Equipment Used	X YSI Per	licator DS <u>(961047104</u> Troll 9500	Peristaltic	Turbidity Meter Peristaltic Pump MP-10 Controller Box		or ntroller Box	Disposable	
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallons
10/19/2020	1440	6.84	696	11.60	1.76	16.4	19.6	
	1507	7.18	691	8.46	7.38	18.3	1.5	32
	1518	- pur	ved a	tru -			-	- 47
10/20/2020	0925	6.84 0	651	07.40	4.89	15.7	70.1	48.0
	0930	-SAM	PLED					-48.5
	0935	6.74	690	7.60	1.21	14.7	26.0	49.0
				1 A 1 A				
	1.0	1			1.1			
		1000						
	/ <u> </u>							
L								
	1.1.1.1.1.	12						
Calculated Well \		~ 32.01		Total Calculated	Purge Volum	e (Gallons):	249.0	Gig
Purge Water Mar Purge Observatio	-7/22/2010	on served color	odor turbidit	termint	Augel	time	1439	
203-70-		and and the second second second			TA	lear or	and the second second	Ole
Sample Date/Tim	a total		the second second		Field Filtered	0	Ye:	1
Sample Paramete		-	Contraction of the second	e 3.1 Column A VO		13120	able 3.1 Column	A Metals
			VSWMR Table					
		×	Other Cob	alty 1,1-dichles	ochane, 1	Telloresthe	may Vinyl	chierides
Other Observatio	ns / Equipme	ent Operation P						
Sampler Signatur	e: John	England		Date:	10/20/20	21	Page	_ of
	//	//						

Event: Vell ID:	<u>25420.</u> MW-1			Field Calibratio		J.Eng 10/19/2	land	09, 0745 10
Well Diameter: Depth to Bottom:	2.0	_inches 3	feet	Initial Depth to Water Colur	Water: nn Thickness:	2.51	.72	_feet feet
Equipment Used:	🔀 WL Indi				Air Tank	or ntroller Box	Disposable	
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallons
10/19/2020	1231	6.63	732	2.10	2.64	163	54.7	134 1
	1254	6.51	722	0.62	1.60	15.6	22.7	168 34
\downarrow	1312	6.74	718	1.36	0.92	15.5	11-4	JF02 68
V	1335	6.68	715	0-54	0.79	15.3	7.5	102
10/20/2020	0850	6.62	627	8.77	4.01	13.5	209.0	103
	0855	-SAN	PLE	D	1			
T	0900	6.48	660	9.08	2.30	12.5	101.4	104
Calculated Well V	(ol. (Gallons)	34.0	60	Total Calculated	Durge Volum		~ 104	
Purge Water Man Purge Observatio 2 <u>10.23 - 2</u> .	nagement: ns (product <u>51 = 20</u>	on sit	, odor, turbidi 0.16	tain me ity, sheen):	purge	steet ?		ample
Sample Date/Tim Sample Paramete	Construction of the		VSWMR Table	e 3.1 Column A VC e 3.1 Column B	L		Ye able 3.1 Column	A Metals
Other Observation	ns / Equipme	ent Operation P		balt; 1,1-did	nlor@Cthan	e, Jrechie	or othere,	Vinyl Cher
1.1.1.1.1.1.1.1	11	Englas	1	Deter	intra	12020	Page	of
Sampler Signatur	e: John	inglas	4	Date:	10/201	2020	- Fage	

Project Name: Event: Well ID: Well Diameter: Depth to Bottom:	Culpepe	-T - Laurel 20 CAP G I inches	Valley LF W	Field Calibratio Initial Depth to	Sampler(s): on Completed:	JEn	729.200 gland 20 @ 1100	
Equipment Used:	Contraction of the second s	cator <u> </u>			Air Tank	or ntroller Box	Disposable	
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallons
10/19/2020	1140	6.99	285.1	0.75	8.50	15-5	180.5	0.25
	1145	SAMPI	50-					0.50
J	1150	7.28	282.1	1.92	8.42	15-6	169.3	0.75
Calculated Well V Purge Water Man		MAR On DO	the Con	Total Calculate		e (Gallons):	~1.0	
Purge Observatio	ns (product o	observed, color	, odor, turbidi	ty, sheen):	_ Clear	grab	Somp	<i>u</i>
Sample Date/Tim Sample Paramete		—	VSWMR Table	e 3.1 Column A VG e 3.1 Column B <u>Cobal 4 , 1-1-a</u>			able 3.1 Column	5
Other Observation	is / Equipme	ent Operation P	roblems:		_			
Sampler Signatur	: Joh	m Engle	int	Date:	10/19/	2020	Page	1 of 1

Project Name:	Laure	Valley L	F	Project	No./Task No.:	20145729.200 Mitaylor 1100 10-19-2020 / 0745 10-20-			
Event:		CAP GW							
Well ID:	MW-3		_	Field Calibratio					
Well Diameter:	2.0	inches		Initial Depth to	Water:	13.10		feet	
Depth to Bottom:	21.6	-2.1.6 8 feet			Water Column Thickness:		8	feet	
Equipment Used:	✓ WL Indicator ✓ YSI Pro p \$5 Image: Transform of the state of the s		Turbidity Feristaltic MP-10 Con		ump Compress		Disposable	-dedicated BP	
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallor	
10-19-2020	1504	5.68	120.5	38.42	6.38	13.8	138.9	0	
10-19-2020	1510	5.37	115.9	20.06	6.26	13.4	158.3	11.5	
10-19-2020	1514	5.06	114.8	25.65	6.19	13-1	173.6	-3	
10-19-2020	1519	5.24	64.0	30.08	9.43	14.0	183.3	×4.5	
10-20-2020	10171315	5.25	112.3	3.72	4.62	15.8	221.1	-	
10-20-2020	102 0 mr	- SAR	NPLEP -						
10-20-2020	1021132	2 5.17	112.5	4.86	4.17	14.2	239.4	-	
Calculated Well V Purge Water Man			(0)=1.39		l Purge Volume	e (Gallons):	4-17		
Purge Observation		0: 13.17	feet	y, sheen):		clear	grab	sample	
Sample Date/Time			VSWMR Table	3.1 Column A VC 3.1 Column B <i>Cobalt, 1</i> -	-	USWMR T	able 3.1 Column	A Metals	
Other Observation				le WQ:13	22 W	R= Wat	ter quality		
Sampler Signature	m	Janko		Date:	10/20/2	20-2-	Page	/ of	

Project Name:	-	1 Valley	LF	Project	No./Task No.	2014	5729.2	00	
Event:	25420		1		Sampler(s)	6			
Well ID:	MW-					1100 10-19-2020, 0745 10-20-2			
Well Diameter:	2.0	_inches		Initial Depth to Water:				10-19-2020 feet	
Depth to Bottom:	22.4	djb	_feet	Water Colur	nn Thickness	:5.8	+	feet	
Equipment Used:	WL Indicator YSIPre DSS ITM/102331 In Situ Troll 9500		Turbidity Peristaltic MP-10 Co	: Pump	Air Tank		Disposable Bailer Non-dedicated BP Other		
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallon	
10-19-2020	1158	7.08	181.8	11.15	7.62	14.3	194.9	0	
10-19=2020	1203	6.36	136.3	49.44	7.25	141	109.9	+2.5	
10-19-2020	1208	5.26	119.0	94.22	5.67	13,8	88.6	*5	
10-19-2020	1212	5.29	129.9	95.50	7.39	13.2	1178	"7.5	
10-20-2020	1018	6.59	126.3	10.26	8-80	14.5	181.5	-	
10-20-2020	1020		- 5	ampled .	-				
10-20-2020	1022	5.94	131.2	12.95	8.95	14.6	142.4	-	
Calculated Well V	ol. (Gallons): (13.87)(0.	(63)=2.26	Total Calculate	d Purge Volur	me (Gallons):	6.78		
and the second second	ns (product 10-20-20	observed, col	17'		<u>clear</u> a	<u>jrab wit</u> floatin	h small, br g particle.		
Sample Date/Tim Sample Paramete Other Observation	ers/Analyte(s	s);	VSWMR Table VSWMR Table Other	93.1 Column A Vo 93.1 Column B Cabalb, 1,1	DCs		Table 3.1 Column	n A Metals	

11 - 11	Sampler Signature:	m-Za	men
1.9.1			per 1
DA/QC Signature:	A/QC Signature:	Shuts	ngland

Project Name:	Laurel	Valley LF	_	Project	No./Task No.:	2014	2014:	5729.200
Event:	25A20	CAPGW			Sampler(s):			
Well ID:	MW-		-).		on Completed:	1 min 2	· · · ·	45 10-20-
Well Diameter: Depth to Bottom:	48.5	_inches	feet	Initial Depth to	Water: mn Thickness:	43.37		feet feet
Equipment Used:	V WL Ind		Turbidity	Meter	Air Tank	or	X Disposable	e Bailer ated BP
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallons
10-19-2020	1550	5.71	362.4	18.63	4.73	13.2	94.8	0
10-19-2020	1600	5.63	395.0	19.20	4.61	12.9	53.8	-1
10-19-2020	1606	5.93	407.3	39.02	4,42	12.8	36.0	·· Z
10-19-2020	1612	5.93	402.1	29.14	4.05	13.2	28.4	"3
10-20-2020	1339	5.69	342.0	16.29	5.94	14.8	100.5	-
10-20-2020	1340 -		- SAMPL	ED	1			
10-20-2020	1343	5,60	358.1	10.07	4.93	14.5	81.7	
Calculated Well V Purge Water Man Purge Observatio りてい 10-20	agement: ns (product - 2620 (Onsite colo observed, colo @ 1335 - 4	r, odor, turbidit 3 . 43 '			rab sar	mple; Sma	11 ,floating,
Sample Date/Time		, ,	VSWMR Table	2 3.1 Column A V(2 3.1 Column B 3,1-àichloro ei	le di		Cobalt	
Other Observatior		ent Operation F	Problems:					
Sampler Signature	a: YVI /	and		Date:	10-20-202	0	Page	e 1 of 1

Project Name:	_	BHE LO	wel Valle	LE Project N	lo./Task No.:	2014	\$729.200	
Event:	JEP2		2020 6.00	7	Sampler(s):			
Well ID:	12-4				Completed:	6745 10-2	0-2020, 0800	10-21-2020
Well Diameter:	2.0	inches		Initial Depth to V	Vater:	22.2	9	feet
Depth to Bottom:	31.20		feet	Water Colum	n Thickness:	8.41		feet
Equipment Used:	WL Indi	icator	Turbidity	Meter	Air Tank		X Disposable E	Bailer
	YSI Pro	055 24904, 17mio288	Peristaltic	: Pump	Compress	or	Non-dedicate	ed BP
	In Situ	Troll 9500	MP-10 Co	ontroller Box	MP-15 Co	ntroller Box	Other	
Date	Time	pН	Sp. Cond.	Turbidity	Dissolved Oxygen	Temp.	ORP	Gallons
		(S.U.)	(uS/cm) ^{oC}	(NTU)	(mg/L)	(°C)	(mV)	
10/20/2020	1700	5.71	81.2	6.11	2.41	15.1	51.2	i
1	1704	5-73	85.2	6.69	2.50	14.7	70-1	1.5
	1707	5-34	68.0	57.30	2.43	14.1	57.30	3.0
4	1715	5-53	71-5	169.66	2.40	143	103-8	4.5
10-21-2020	1138	5.56	196.3	18.77	3.39	13.9	94.6	-
10-21-2020	1140		- Sam	pled -		-		
10-21- 2020	1151	5.40	119.8	31.44	3.07	13.6	100.5	-
		1	0.00					
	1							
		1						
-								
	-		-					
						-		
						1.1.1.1.1.1.1	1	
Calculated Well V	1.	1.45		Total Calculated	Purge Volum	e (Gallons):	~5.0	
Purge Water Man	224.14.14	Onsite co	The state with a location of			-	-	
^D urge Observation	ns (product o	observed, color	r, odor, turbidi	ty, sheen):	clear	grab s	sample	
		1	2					
Sample Date/Time	3: 10-21-2	020/1141	ARCAN		Field Filtered		∐ Yes	K No
Sample Paramete	rs/Analyte(s):		e 3.1 Column A VOC	is [VSWMR I	able 3.1 Column A	Metals
				e 3.1 Column B				
		X	Other notra	ite/nitrite, a		chloride,	methane, s	ulfate, sulf
Other Observatior	ns / Equipme	ent Operation P	roblems:	Fe 2+ : 2.	5 mall	1		
			_	_	J	-		
Sampler Signature	m	Jaylor		Date:	10-21-20	020	Page	1 of /

R.

\$	GOLDER	FIELD SAMPLING LOG	
----	--------	--------------------	--

Date: 10-20-2020 / 10-21-2020 Weather: Sun, 70s /

sun, 705

Project Name:		el Valley L	F	Project	No./Task No.:			
Event:		CAP GW			Sampler(s):			
Vell ID:	mw-	and the second second	-				20-2020/08	
Vell Diameter:	5.54.6	inches		Initial Depth to		27.43	1 I.	feet
epth to Bottom:		61	feet	Water Colur	nn Thickness:	9.4	610	_feet
Equipment Used:	Y YSI Pro		Turbidity Peristaltic MP-10 Cc		Air Tank		Disposable	
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallons
10-20-2020	1548	6.17	706	5.42	2.84	14.0	.7.7	0
0-20-2020	1555	6.13	679	22.09	3.42	13.5	-17.8	1.75
0-20-2020	1602	5.98	665	75.81	2.98	13.1	-16.8	-3.5
0-20-2020	1612	6.01	623	73.14	4.03	14.0	-12.1	15.25
0-21-2020	0952	5.70	617	31.49	3.44	13.9	-9.3	-
0-21-2020	0955		s	AMPLED				
0-21-2020	1000	5.74	634	29.85	2.63	13.5	-9.1	-
alculated Well V	/ol. (Gallons)			Total Calculated	I Purge Volum	e (Gallons):	4.82	
urge Water Man			Containmer		1.200	A		
urge Observatio				ty, sheen):	slightly		micaceou	5
	and the second second	0950: 2			gra.	1		12-2
ample Date/Tim	2000			e 3.1 Column A VC e 3.1 Column B 1.1-d.(chlor			L Yes	A Metals
ther Observation	ns / Equipme	ent Operation I	Problems:	FE ?*	mg/L			
ampler Signatur	e: M.	Jaylo		Date:	10-21-21	020	Page	of
A/QC Signature	for	in Eng	land	Date:	0/21/	2029	-	

G G G		ER		APLING LOO		Weather:	sun, 701	/ overcast, 70
	Laurel	Valley LF		Project	No./Task No.:	and the second sec		
Event:		CAP GW		and and and	Sampler(s):		and the second se	
Vell ID:	mw-x		- .			1.47.1.04		00 10-21-201
Vell Diameter: Depth to Bottom:	2.0		feet	Initial Depth to		4.83		_feet
	1				nn Thickness:	14.1		_feet
Equipment Used:	YSI Pro	cator > 1055 I구MI@2동용 I Troll 9500	Turbidity Peristaltic MP-10 Co		Air Tank	or ntroller Box	Disposable	
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallons
10-20-2020	1511	8.44	509	4.31	8.97	14.4	51.4	Ø
10-20-2020	1517	8.33	290.8	20.04	7.27	14.3	-20.8	"2
10-20-2020	1525	7.72	237.5	22.19	5.51	14.5	-14.8	54
0-20-2020	1530	7.43	249.0	69.65	6.54	14.4	-27.8	- 6
0-21-2026	1043	6.57	591	18.15	5.16	13.9	84.2	(m)
0-21-2020	1045		- samp	A - 7 - 1				1.27
0-21-2020	1055	6.45	293.4	9.81	4.82	14.4	89.3	-
		1 har	1	1				
Calculated Well V Purge Water Mar Purge Observation <u>pTW en</u> Sample Date/Tim	nagement: ons (product o 10-21-202	onsite i observed, colo o @ 5-11m	1:5.11 4	- 1. Contract -	clear	grab :	sampie	
Sample Paramete	ers/Analyte(s):	VSWMR Table VSWMR Table Other nitre	= 3.1 Column A V(= 3.1 Column B <u>ute/nutrite, a</u> Fe ²⁺ : 0	ilkalinity,		able 3.1 Column	

GO	LD	ER	F

FIELD SAMPLING LOG

Date: 10-20-2020 /10-21-2020 Weather: sun, 70s / sun, 60s

Project Name:	Lau	rel Valley	LF	Project I	No./Task No.:	2014	5729200	
Event:	Z SA20	CAP GW			Sampler(s):	m.T.	44100	
Well ID:	mw-	- X20		Field Calibratio	n Completed:	0745 10-2	0-2020/080	10-21-202
Well Diameter:	2.0	inches		Initial Depth to	Water:	61.94	1	feet
Depth to Bottom:	66.2	8	feet	Water Colum	nn Thickness:	4-34	1	feet
Equipment Used	X YSI Pro		Turbidity Peristaltic MP-10 Cc		Air Tank	sor ontroller Box	Disposable	
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallons
10-20-2020	1448	6.54	2392	5.91	9.25	14.7	-20.3	0
10-20-2020	1505	7-34	2412	14.57	8.47	13.0	27.9	~ 0.75
10-20-2020	1507	-	ry, le		6			11
10-21-2020	1018	7.04	2282	94.70	8.24	12.9	-31.6	~
10-21-2020	1020		1	MPLED -				
10-21-2020	1028	6.80	2138	125.06	7.89	12.6	-49.7	-
Calculated Well \		-		Total Calculated	I Purge Volum	ne (Gallons):		
Purge Water Mar Purge Observatic גרש	ons (product	onsite co observed, colo on 10 21-2	r, odor, turbid	lity, sheen):	cloudy	grab	Sample	
Sample Date/Tim			and the second second		Field Filtere	d (0.45um):	□ Yes	s 🗹 No
Sample Paramete			VSWMR Table	- e 3.1 Column A VC e 3.1 Column B <u>)) - di Chloro</u> a	OCs [able 3.1 Column	A Metals
Other Observatio	ns / Equipme	ent Operation P	roblems:	Fern	NT			
Sampler Signatur	re: M-7	ayls		Date:	10-20-3	MT 10-21	1-2020 Page	(of)
QA/QC Signature	John	Englare	1	Date:	10/21/2	2020	-	

Project Name: Event: Well ID:	Laurel 25A20 CLF-1	120 Glar -	LF CAP	Field Calibratio	Sampler(s): on Completed:	J.E.	And the second sec	, 0800 10-21-2
Well Diameter: Depth to Bottom:	62.5	_inches	feet	Initial Depth to Water Colur	nn Thickness:	31.0		feet feet
Equipment Used:		licator 2044 04 PSS Troll 9500	Turbidity		Air Tank	or ntroller Box	Disposable	
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallons
10/20/2020	1250	5.88	388.6	7.25	1-08	17.1	9.2	1
	1310	5.95	345.6	6.32	0.92	16-6	9.7	47
	1340	5.79	365-7	0.90	0.91	17.4	18.3	93
1	1425	5.82	373-9	0.95	1.73	18.3	21.0	140
10/21/2020	0905	5.87	358-6	9.18	3.35	15.9	25.4	140.5
	0910	- SAN	4PLED)		10.000		-141.1
J	0915	5.79	345.1	7.45	1.48	15.9	31.2	142.0
1	1000							12
			2	()		1500	Ma	
	-							
		-			_			
							_	
		-			-			-
					1			
Calculated Well		1		Total Calculated		e (Gallons):	~142_0	
Purge Water Man	ons (product	1 1		talmmen ty, sheen):	purg	e tin	n1:124	9
Sample Date/Tim		12020 @	0910		Field Filtered	10 AFum):	□ Ye	s H No
			1. C. 2010	e 3.1 Column A VC			able 3.1 Column	
Sample Paramet	ers/Analyte(s):	VSWMR Table		Ļ	1		
		D		ichlocos than	e Nanhal	alene.	Cabalt	
Other Observatio	ons / Fauinm	ent Operation F				1		
62.55-		Contraction of the second		169=46	.26		-	
Sampler Signatu	1	in Ena	land	Date:	10/21	12020	Page	e of (
Sampler Signatu	77	1						

Project Name: Event: Well ID:	CLF-SI			Project - Field Calibratio	Sampler(s):	J.Eng	1		
Well Diameter: Depth to Bottom:	2.0	_inches ¶	feet	Initial Depth to Water Colun	Water: nn Thickness:	78.30		_feet _feet	
Equipment Used:	WL Ind	icator 5/04904 9 PS5 Troll 9500	Turbidity Peristaltic MP-10 Cc		Air Tank	or ntroller Box	Disposable	ated BP	
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallons	
10/20/2020	1625	7.27	515	33.60	3.98	14.7	86-1	1	
-1	1645	7.52	SIZ	51.79	3.14	14.6	\$7.5	4.5	
	1650	-Pu	god Di	4-		1		5.0	
10/21/2020	1005	7.6	396.7	20.42	7.49	14.6	89.8	5.5	
	1010-	-SA	MPLEI	D				6.0	
J.	1015	7.60	408.0	19.89	7.48	14.1	93.1	6.5	
	1				1			0	
								1	
	-								
)	
								1	
Calculated Well V Purge Water Man	agement:	onsi		Total Calculated	ent		6.5		
Purge Observatio					_ clear	grab	Sample		
Sample Date/Time	e: 10/21/2	2020 @ 10	10		Field Filtered	d (0.45um):	🗌 Yes	s 🗗 I	
Sample Paramete	ers/Analyte(s		VSWMR Table	e 3.1 Column A VO e 3.1 Column B			able 3.1 Column	A Metals	
Other Observation	ns / Equipme	ent Operation F		di chleroeth	EAR TOL	alprethe	ne, mercu	'Y	
		nEucla	1		202.5				

Project Name:	Laurel	Valley	LF	Project	No./Task No.:	20145	729.20	00
Event:	2Stz	020 cw			Sampler(s):	J.Engl	and	
Well ID:	CLF-	53		Field Calibrati	on Completed:	10/201	2000007	45,08001
Well Diameter:	2.0	inches		Initial Depth to	Water:	19.		feet
Depth to Bottom:	89.00	К	feet	Water Colu	mn Thickness:	69.7	72	feet
Equipment Used:	7YSI 19	icator <u>6104904</u> v ps s Troll 9500	Turbidity Peristaltic MP-10 Co		Air Tank	or ntroller Box	Disposable	
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallons
10/20/2020	1509	6.50	198.6	7.37	2.12	15.1	7.0	1
	1518	6.67	165.4	2.40	2.00	14.4	19.3	12
	1530	6.61	168.3	2.26	1.87	14.4	37.0	24
	1538	6.64	172.0	2.62	1.72	14.3	40.7	36
10/21/2020	0949	6.75	153.7	7.75	2.76	14.7	68.4	37
1	0945	-SAN	ARED-					37.5
	0950	6.85	249.8	7.99	3.72	14.8	71.7	38.0
Calculated Well V	/ol. (Gallons)	11.36		Total Calculate	d Purge Volum	e (Gallons):	~38.1	0
Purge Water Mar Purge Observatio <u>Clean</u> Y	rab	ampli	r, odor, turbidi	ty, sheen):	purge	tim		
Sample Date/Tim	e: 10/21/	12020@	1		Field Filtered		L Ye	0
Sample Paramete	ers/Analyte(s			e 3.1 Column A V(e 3.1 Column B (Cary , 1, 1 D		-	able 3.1 Column	
Other Observation								
89.00-1	1.28=6	59.72 X	1	:11-36	117	1.57		9
Sampler Signatur	e: Anh	n Cryla	nol	Date:	10/21/	2020	Page	e of

Project Name:	L	aurel Val	lley LF	Project N	No./Task No.:	2014	15729.20	P
Event:		0 CAP G	1		Sampler(s):			
Well ID:	CLF	-15A		Field Calibration				0800 10-2
Well Diameter:	2.0	inches		Initial Depth to		50.13		feet
Depth to Bottom:	83	25	feet	Water Colum	n Thickness:	33.13	2	feet
Equipment Used:	X YSI Pr		Turbidity Peristaltic MP-10 Co		Air Tank	or	X Disposabl	
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Dissolved Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallons
10-20-2020	1640	6.82	830	22.41	4.60	12.6	4.5	0
10-20-2020	1704	6.39	892	23.61	3.13	13.2	5.2	-5.5
10-20-2020	1722		- dry, le		1			48.75
10-21-2020	1113	6.81	1068	9.87	4.20	12.9	~ 24,7	-
10-21-2020			- sample					
	1126	6.24	1007	12.19	2.16	13.2	10.6	-
Calculated Well V	ol. (Gallons): ^5.4	C	Total Calculated	Purge Volum	e (Gallons):	* 8.75	-
Purge Water Man Purge Observation		Onsite observed, cold	containm, or, odor, turbidi		clear	grab	sample	
Sample Date/Time			VSWMR Table	a 3.1 Column A VO a 3.1 Column B rate, nitnite,			D Ye able 3.1 Columi le, methan	n A Metals
Other Observatior	ns / Equipme	ent Operation		Fe 25 : 3.		1.	1	1
Sampler Signature		1		Date:	10-21-20	1	Pag	

Project Name:	Loures	Valler	IF	Project	No /Task No :	2011	DI PEEZ	-
Event:	Contract	Ghl	Project No./Task No.: _		maylor			
Well ID:	Field	Comp. C	_/w	Field Calibration Completed:				
	~		-	Initial Depth to	11111			feet
Depth to Bottom:			feet		nn Thickness:			feet
Equipment Used:						-		
	WL Indicator		Turbidity Meter Peristaltic Pump MP-10 Controller Box		Air Tank	Disposable Bailer Dr Non-dedicated BP Dr Other		
Date			1 1		Dissolved			1.5
Date	Time	рН (S.U.)	Sp. Cond. (uS/cm) ^{oC}	Turbidity (NTU)	Oxygen (mg/L)	Temp. (°C)	ORP (mV)	Gallo
10-20-2020	1210		- samp	led —				-
					· · · · · · · · · · · · · · · · · · ·	1.000		
			1					
							-	
-								
-								-
			-		-			
		-						-
					1			
						1		
						1.000		
					1	T		
						_		
					10			
			- i					6
Calculated Well Vo			-	Total Calculated	d Purge Volume	(Gallons): -	-	-
Purge Water Mana	-				40000			
Purge Observation			100			irab sai	mple col	lected
	1W-2B		A STATE OF A	ed D.I. w		20102-1-01		M
Sample Date/Time	10-20-		1210		Field Filtered		└ Yes	
Sample Parameter	rs/Analyte(s):	X		3.1 Column A VC	DCs 🎗	VSWMR Tat	ble 3.1 Column A	Metals
			VSWMR Table			24		
		1×	Other -	see mw	-1B purge	log for	compliance	anali
Other Observation	s / Equipmen	t Operation F	roblems:			1.1		
	40.2							
Sampler Signature	: m.;	Jay m		Date:	10-20-2	020	Page	1 of
Contraction of the state of	- //	1 de l		1000.80			30	