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Your ref:
Our ref: LTR-RAC-21-51

July 13, 2021

Subject: **June 2021 CA Progress Report**

Ms. Kuhn:

In accordance with Item 19 of Consent Agreement (CA) 19-02-HW, this progress report is being submitted to you, including the following requested information:

- (a) a brief description of the actions which Westinghouse has taken toward achieving compliance with the Consent Agreement during the previous month;
- (b) results of sampling and tests, in tabular summary format received by Westinghouse during the reporting period;
- (c) a brief description of all actions which are scheduled for the next month to achieve compliance with the Consent Agreement, and other information relating to the progress of the work as deemed necessary or requested by the Department; and
- (d) information regarding the percentage of work completed and any delays encountered or anticipated that may affect the approved schedule for implementation of the terms of the Consent Agreement, and a description of efforts made to mitigate delays or avoid anticipated delays.

In response to the above requirements, the following is being reported to the Department since the last progress report submitted on **June 15, 2021**. The following progress report is for work occurring from **June 1- 30, 2021**:

- (a) Actions during the previous month:
Westinghouse began implementation of the Final Remedial Investigation (RI) Work Plan on 6/10/19. To comply with **Item 4** of the CA, the following actions were completed this month.
 - Completed the following activities to support the Southern Storage Area (SSA) Operable Unit (OU) Work Plan:

- Conducted internal environmental surveys of sheds S22 through S26 prior to packaging for off-site shipment. The survey results indicated that the sheds could be recycled as scrap metal.
- Completed the following to support the **Phase II RI Work Plan**:
 - Relocated the pressure transducer from monitoring well W-4 to W-96.
- Hosted a site visit with DHEC on June 15 to observe Sanitary Lagoon sludge sampling to support closure planning.
- Met with the Department on June 17 to discuss the status and next steps for the Remedial Investigation.

- Completed the following to support **East Lagoon Closure Activities**:
 - Removed the hypalon and asphalt liners and packaged materials for off-site shipment.
 - Removed concrete structures (pump station and sump) from within the East Lagoon footprint.
 - Completed soil sampling underneath the concrete sump in the northeast corner. The results will be reported in the July monthly progress report.
 - Completed excavation of impacted soil within the East Lagoon footprint and packaged it for off-site shipment and disposal.
 - Completed a civil engineering assessment of the impacted soil that could be safely excavated from the East Lagoon. Some soil with results above the residential screening levels was left in place to avoid contact with the groundwater table and to ensure the structural integrity of nearby buildings and operations equipment was not compromised during the soil removal.
 - East Lagoon Metrics:
 - Sludge waste shipments = 88% complete (15/17 Rail Shipments).
 - Soil and liner removal = 100% complete (1485 yd³)

(b) Results of sampling and tests:

- **Soil Sampling Results for the Primary Soil Gas Survey Area**
 In May 2021, AECOM conducted soil sampling based upon the results of the soil gas survey (SGS) in the Primary Soil Gas Survey Area. Final analytical results were received from the external laboratory in June. A consolidated data table and graphic of sampling locations were submitted to the Department with the “*Proposed Actions Resulting from the June 2021 Virtual Meeting*” correspondence dated June 18, 2021.

- **W-28 Quarterly Groundwater Sampling Results**
 As a follow-up to the Hydrofluoric Spiking Station leak that occurred in June of 2018, Westinghouse committed to quarterly monitoring of W-28, the closest down-gradient well (at that time) to the spiking station operations, for the next three years. Tabulated results of the monitoring well data are included as **Attachment A**. Since the installation of additional monitoring wells as part of the RI, uranium impact has been detected in close proximity to the

manufacturing building at sentinel monitoring well W-77. Monitoring well W-28 is approximately 55 feet downgradient of monitoring W-77. U has not been detected above its MCL in W-28 showing that the occurrence at W-77 is of limited extent.

- **East Lagoon Soil Sampling Results**

During the months of May and June, soil samples were collected below the East Lagoon liner in 26 locations (16 systematic and 10 bias) according to the approved East Lagoon Closure Plan dated June 30, 2020 (LTR-RAC-20-57). The sampling results were tabulated and are included as **Attachment B**. A graphic is also included to illustrate the location of each sampling point.

(c) Brief description of all actions which are scheduled for the next month:

In accordance with **Item 4** of the CA, Westinghouse will continue to implement the Work Plan to include the following actions:

- Conduct underground utility surveys to prepare monitoring well and piezometer installation areas.
- Install new groundwater monitoring wells W-113 through W-126.
- Properly abandon existing monitoring well W-4 and install new well W-4R approximately 25 feet west of the current location and adjacent to W-3A.
- Install piezometer, PZ-1 adjacent to W-96.
- Develop the newly installed monitoring wells and begin groundwater sampling.
- Install four additional pressure transducers in W-96, W-126, PZ-1 and W-125.
- Conduct soil sampling in the former footprint of 5 sheds (S-22 through S-26).
- Submit a technical basis document to comply with the site's remediation procedure for evaluation of site dose/risk assessment of sediments impacted by historical site operations.

(d) Percentage of work completed and any delays encountered or anticipated:

- 75% of Phase II **field** work scope completed.
- Currently there are no anticipated delays.

Respectfully,



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cc: N. Parr, Environmental Manager
J. Ferguson, EH&S Manager
J. Grant, AECOM Project Manager
ENOVIA Records

Attachment A: Tabulated W-28 Quarterly Groundwater Sampling Results (3 years beginning July 2018)

Attachment B: Tabulated East Lagoon Soil Sampling Results and Graphic

Tabulated W-28 Quarterly Groundwater Sampling Results

3 years beginning July 2018

Attachment A

Well W-28 Analytical Results (3 years beginning July 2018)

Westinghouse Columbia Fuel Fabrication Facility, Hopkins, SC

					Well	W-28	W-28	W-28	W-28	W-28	W-28	W-28	W-28	W-28	W-28	W-28	
					Date	7/13/2018	10/23/2018	1/18/2019	4/16/2019	7/11/2019	10/7/2019	2/4/2020	4/3/2020	7/13/2020	10/7/2020	1/26/2021	4/7/2021
					Type	N	N	N	N	N	N	N	N	N	N	N	N
Group	Analyte	MCL	note	Units													
Radiological	Alpha particles	15	*	pCi/L	8.02	1.26 #	0 ##	4.36 #	2.25 #	3.14 #	4.57 #	1.78 #	1.96 #	1.73 #	1.85 #	1.58 #	
Radiological	Beta particles	50	*	pCi/L	12.4	7.30	7.28	7.69	8.47	8.26	6.09	3.86	6.29	4.94	5.83	4.44 #	
Radiological	Technetium-99	900		pCi/L	NA	NA	0 ##	6.77 #	7.91 #	20.1 #	0 ##	0 ##	0 ##	0.201 #	0.0670 #	1.87 #	
Radiological	Uranium-233/234			pCi/L	NA	NA	0.369	0.875	0.806	0.672	0.828	0.665	0.680	NA	0.775	1.02	
Radiological	Uranium-235/236			pCi/L	NA	NA	0.0893 #	0.0810 #	0.00224 #	0 #	0.0297 #	0 ##	0 ##	NA	0.0936 #	0.0388 #	
Radiological	Uranium-238			pCi/L	NA	NA	0.146 #	0.176 #	0.295	0.119 #	0.143 #	0.0287 #	0.0846 #	NA	0.270	0.326	
Radiological	Uranium-234			ug/L	NA	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.050	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	
Radiological	Uranium-235			ug/L	NA	0.0106 J	< 0.0700	0.013 J	0.0117 J	< 0.070	0.0101 J	0.0136 J	0.017 J	0.0233 J	0.0206 J	0.0168 J	
Radiological	Uranium-238			ug/L	NA	0.531	0.456	0.491	0.573	0.429	0.546	0.696	0.877	1.2	0.957	0.879	
Radiological	Total Uranium Isotopes	30		ug/L	NA	0.541	0.456	0.504	0.585	0.429	0.556	0.71	0.894	1.22	0.978	0.895	
Chemical	Fluoride	4		mg/L	NA	NA	NA	NA	NA	5.45	6.55	5.43	3.48	NA	5.95	6.30	
Chemical	Nitrate as N	10		mg/L	6.2	NA	7.2	7.4	7.4	6.3	8	7	6.6	5.1	NA	6.0	

Note:

NA Not analyzed

Concentrations in orange shaded cells exceed their MCL

Bold concentrations indicate detections

* - site-specific action level

- value is below minimum detectable concentration

- value is reported as a negative number

Attachment B

Tabulated East Lagoon Soil Sampling Results and Graphic

Attachment B

East Lagoon Soil Sampling Results

Systematic Sample Locations

Sample ID	Analyte (pCi/g)							SOF Resid.	SOF Ind.	
	U-234 DL	U-234	U-235 DL	U-235	U-238	Sum U	Tc-99 DL			Tc-99
EL-1-6"		42.9		1.60	10.6	55.1		4.23	4.48	0.11
EL-1-6" DUP		42.5		1.71	10.9	55.1		5.05	4.53	0.12
EL-1-1'		26.8		1.03	6.22	34.1	< 0.768	0.567	2.66	0.07
EL-1-2'		18.3		1.11	5.59	25.0		0.844	1.99	0.07
EL-1-3'		13.1		0.428	3.55	17.1	< 0.789	0	1.31	0.03
EL-1-4'		9.41		0.195	3.06	12.67	< 0.693	0.304	0.98	0.02
EL-2-6"		27.7		1.07	7.95	36.7		1.29	2.90	0.08
EL-2-1'		2.60		0.18	1.28	4.06	< 0.741	0.178	0.32	0.01
EL-2-2'		1.93	< 0.176	0.0304	1.11	3.07	< 0.815	0	0.23	0.01
EL-2-3'		2.08		0.128	1.18	3.39	< 0.769	0	0.26	0.01
EL-2-4'		24.2		1.20	6.28	31.7	< 0.699	0.601	2.49	0.07
EL-3-6"		11.8		0.597	3.51	15.9		9.96	1.76	0.04
EL-3-1'		14.4		0.88	3.92	19.2		1.22	1.56	0.05
EL-3-2'		11.6		0.439	3.3	15.3	< 0.695	0.55	1.21	0.03
EL-3-3'		18.7		0.927	4.61	24.2	< 0.691	0.202	1.89	0.06
EL-3-4'		9.48		0.478	3.25	13.21	< 0.671	0.173	1.03	0.03
EL-4-6"		4.94		0.334	2.10	7.37		7.53	0.97	0.02
EL-4-1'		3.06	< 0.339	0	1.63	4.69		1.92	0.45	0.01
EL-4-2'		9.91		0.427	2.85	13.19		1.02	1.07	0.03
EL-4-3'		24.7		1.05	6.65	32.4		0.652	2.54	0.07
EL-4-4'		14.8		0.675	4.47	19.9	< 0.684	0.338	1.56	0.05
EL-5-6"		21		1.01	5.69	28		1.6	2.23	0.06
EL-5-6"-DUP		23		0.845	6.32	30		1.7	2.42	0.06
EL-5-1'		16.4		0.951	4.11	21.5	< 0.660	0.549	1.70	0.05
EL-5-2'		25.5		0.562	6.66	32.7	< 0.667	0.146	2.52	0.06
EL-5-3'		69.4		2.91	16.6	88.9	< 0.649	0.222	6.90	0.19
EL-5-4'		57.1		2.62	14.7	74.4	< 0.630	0	5.77	0.17
EL-6-6"		37.7		1.79	10	49.5	< 0.728	0.717	3.88	0.11
EL-6-1'		51.4		3.18	13.6	68.2	< 0.675	0.0427	5.33	0.17
EL-6-2'		15.3		0.669	4.5	20.5	< 0.666	0	1.58	0.05
EL-6-3'		24.6		0.924	5.79	31.3	< 0.705	0	2.42	0.06
EL-6-4'		24.2		0.99	6.62	31.8	< 0.738	0	2.46	0.07

Attachment B

East Lagoon Soil Sampling Results

Systematic Sample Locations

Sample ID	Analyte (pCi/g)							SOF Resid.	SOF Ind.	
	U-234 DL	U-234	U-235 DL	U-235	U-238	Sum U	Tc-99 DL			Tc-99
EL-7-6"		37.3		1.73	8.21	47.2		25	4.99	0.10
EL-7-1'		43.3		2.27	9.3	54.9		5.46	4.57	0.12
EL-7-2'		55.8		2.34	13	71.1		5.11	5.78	0.15
EL-7-3'		18.9		1.17	4.89	25.0		1.82	2.05	0.06
EL-7-4'		32.8		1.34	7.64	41.8		1.15	3.30	0.09
EL-8-6"		4.51	< 0.362	0.102	1.53	6.14		1.83	0.57	0.01
EL-8-1'		6.32		0.341	2.05	8.71		0.802	0.72	0.02
EL-8-2'		2.52		0.375	1.01	3.91	< 0.761	0	0.31	0.02
EL-8-3'		0.511		0.159	0.396	1.066	< 0.735	0.161	0.10	0.01
EL-8-4'	< 0.395	0.295	< 0.128	0.0854	0.547	0.927	< 0.788	0	0.07	0.01
EL-9-6"		1.90	< 0.370	0	1.13	3.03		1.47	0.30	0.01
EL-9-1'		2.01	< 0.229	0.0645	0.931	3.01	< 0.770	0.117	0.24	0.01
EL-9-2'		1.18	< 0.259	0	0.816	2.00	< 0.711	0.4	0.17	0.00
EL-9-3'		1.59	< 0.244	0.138	0.98	2.71		0.918	0.26	0.01
EL-9-4'		2.78	< 0.312	0.0972	1.2	4.08	< 0.711	0.553	0.34	0.01
EL-10-6"		1.03	< 0.0655	0.0437	0.601	1.67	< 0.708	0	0.13	0.00
EL-10-1'		0.633	< 0.192	0.0521	0.576	1.261	< 0.693	0.123	0.10	0.00
EL-10-2'		0.693		0.114	0.708	1.515		2.03	0.22	0.01
EL-10-3'		0.600	< 0.419	0	0.842	1.442	< 0.668	0.259	0.12	0.00
EL-10-4'						0.000	< 0.688	0.191	0.01	0.00
EL-11-6"		22.0		1.29	5.56	28.9	< 0.681	0.171	2.26	0.07
EL-11-6"-DUP		20.7		0.888	5.10	26.7	< 0.610	0.115	2.07	0.06
EL-11-1'		13.2		0.639	3.14	17.0	< 0.679	0.279	1.33	0.04
EL-11-2'		7.78		0.413	2.46	10.65	< 0.623	0.267	0.84	0.03
EL-11-3'		18.5		0.711	4.09	23.3	< 0.671	0	1.80	0.05
EL-11-4'		22.6		1.38	5.65	29.6	< 0.683	0.208	2.33	0.07
EL-12-6"		11.0		0.596	2.59	14.2		1.21	1.17	0.03
EL-12-1'		7.29		0.265	1.77	9.33		0.939	0.77	0.02
EL-12-2'		6.98		0.286	4.47	11.74		0.812	0.93	0.03
EL-12-3'		6.38		0.402	2.23	9.01	< 0.675	0.242	0.71	0.02
EL-12-4'		7.75	< 0.381	0.0775	2.20	10.03	< 0.676	0.314	0.78	0.02

Attachment B

East Lagoon Soil Sampling Results

Systematic Sample Locations

Sample ID	Analyte (pCi/g)							Tc-99 DL	Tc-99	SOF Resid.	SOF Ind.
	U-234 DL	U-234	U-235 DL	U-235	U-238	Sum U					
EL-13-6"		4.50		0.26	1.06	5.82		3.27	0.63	0.01	
EL-13-6"-DUP		3.25		0.165	1.43	4.85		1.28	0.44	0.01	
EL-13-1'		9.75		0.490	3.54	13.78	< 0.688	0.162	1.07	0.04	
EL-13-2'		3.39	< 0.262	0.132	0.926	4.45	< 0.655	0.619	0.38	0.01	
EL-13-3'		4.12		0.249	0.993	5.36	< 0.676	0.246	0.43	0.01	
EL-13-4'		6.35		0.327	2.00	8.68	< 0.802	0.196	0.68	0.02	
EL-14-6"		5.06	< 0.417	0.29	1.56	6.91		2.97	0.69	0.02	
EL-14-1'		0.818	< 0.214	0.0666	1.1	1.985	< 0.669	0.0237	0.15	0.01	
EL-14-2'		2.52	< 0.215	0.152	0.479	3.15	< 0.720	0.0672	0.25	0.01	
EL-14-3'		9.15		0.43	2.31	11.89	< 0.696	0.659	0.96	0.03	
EL-14-4'		5.43		0.21	1.74	7.38	< 0.767	0	0.57	0.02	
EL-15-6"		0.997	< 0.179	0	0.861	1.858	< 0.718	0	0.14	0.01	
EL-15-1'		1.03		0.165	0.701	1.90	< 0.750	0	0.15	0.01	
EL-15-2'		0.392	< 0.277	0	0.327	0.719	< 0.636	0	0.05	0.00	
EL-15-3'		1.27		0.0903	0.877	2.24	< 0.706	0	0.17	0.01	
EL-15-4'		0.656	< 0.163	0.107	0.724	1.487	< 0.667	0.0182	0.12	0.01	
EL-16-6"		4.16		0.265	1.69	6.12		4.12	0.69	0.02	
EL-16-1'		1.93		0.202	1.16	3.29	< 0.696	0.281	0.27	0.01	
EL-16-2'		1.12		0.185	1.05	2.36		7.46	0.58	0.01	
EL-16-3'		1.26	< 0.221	0.0180	0.887	2.17		77.7	4.25	0.01	
EL-16-4'		2.72		0.193	1.32	4.23	< 0.627	0.578	0.36	0.01	

Residential Limits in Soil (per RA-433)

U234	13 pCi/g
U235	8 pCi/g
U238	14 pCi/g
Tc-99	19 pCi/g
Fluoride	600 mg/kg
PCE	0.0023 mg/kg

exceeds screening value or SOF

Attachment B

East Lagoon Soil Sampling Results

Bias Sample Locations

Sample ID	Analyte (pCi/g)									SOF	SOF
	U-234 DL	U-234	U-235 DL	U-235	U-238 DL	U-238	Sum U	Tc-99 DL	Tc-99	Resid.	Ind.
EL-B1-1-6"		3.94	< 0.359	0.0219		1.51	5.4719		0.864	0.46	0.01
EL-B1-1-6" DUP		4.34	< 0.443	0.1		1.68	6.12		0.995	0.52	0.01
EL-B1-1-1'		3.96	< 0.324	0.0913		1.04	5.0913		0.959	0.44	0.01
EL-B1-1-2'		3.43		0.633		2.91	6.973		1.17	0.61	0.03
EL-B1-1-3'		0.944	< 0.226	0.0943		0.458	1.4963		0.684	0.15	0.01
EL-B1-1-4'		10.3		0.591		3.61	14.501	< 0.585	0.478	1.15	0.04
EL-B2-6"		1.35	< 0.130	0		0.718	2.068	< 0.658	0.186	0.16	0.00
EL-B2-1'		1.18	< 0.128	0.0852		0.413	1.6782		1.46	0.21	0.00
EL-B2-2'	< 0.497	0.387	< 0.179	0.0704		0.398	0.8554	< 0.589	0.587	0.10	0.00
EL-B2-3'		0.772	< 0.401	0		0.555	1.327		0.734	0.14	0.00
EL-B2-4'		3.42	< 0.401	0.045		1.49	4.955		0.662	0.41	0.01
EL-B3-6"		5.51	< 0.485	0.202		1.35	7.062		3.23	0.72	0.01
EL-B3-1'		4.77	< 0.401	0.32		1.76	6.85		0.727	0.57	0.02
EL-B3-2'		1.08		0.116	< 0.359	0.328	1.524	< 0.552	0.405	0.14	0.01
EL-B3-3'		2.9	< 0.253	0.193		1.29	4.383		1.15	0.40	0.01
EL-B3-4'		8.3		0.246		2.51	11.056		1.02	0.90	0.02
EL-B4-6"		7.95		0.303		2.80	11.053		1.33	0.92	0.03
EL-B4-1'		3.49	< 0.325	0.276		1.49	5.256	< 0.662	0.372	0.43	0.02
EL-B4-2'		1.24	< 0.266	0.0679		0.752	2.0599		3.00	0.32	0.01
EL-B4-3'		0.523	< 0.345	0.0484		0.612	1.1834		1.84	0.19	0.00
EL-B4-4'		1.56	< 0.277	0.117		0.935	2.612	< 0.714	0.00957	0.20	0.01
EL-B5-6"		3.33	< 0.224	0.0952		1.42	4.8452		1.14	0.43	0.01
EL-B5-6" DUP		3.73	< 0.309	0.175		1.18	5.085	< 0.719	0.0127	0.39	0.01
EL-B5-1'		0.815	< 0.262	0		0.494	1.309		1.14	0.16	0.00
EL-B5-2'	< 0.444	0.403	< 0.284	0.0801		0.502	0.9851	< 0.717	0.0985	0.08	0.00
EL-B5-3'		1.77	< 0.336	0		0.768	2.538	< 0.761	0	0.19	0.00
EL-B5-4'		2.51	< 0.280	0.0314		0.985	3.5264	< 0.698	0	0.27	0.01
EL-B6-6"		8.01		0.412		1.86	10.282		3.48	0.98	0.02
EL-B6-1'		6.74		0.295		2.42	9.455	< 0.758	0	0.73	0.02
EL-B6-2'		1.36	< 0.271	0.115		0.465	1.94	< 0.773	0	0.15	0.01
EL-B6-3'		15.8		0.903		4.60	21.303	< 0.709	0	1.66	0.05
EL-B6-4'		17.6		0.990		5.72	24.31	< 0.713	0	1.89	0.06

Attachment B

East Lagoon Soil Sampling Results

Bias Sample Locations

EL-B7-6"		6.93		0.416		1.88	9.226		8.73	1.18	0.02
EL-B7-1'		3.80		0.275		1.35	5.425		3.12	0.59	0.02
EL-B7-2'		2.55		0.218		1.55	4.318		3.91	0.54	0.02
EL-B7-3'		3.82		0.170		1.32	5.31		1.27	0.48	0.01
EL-B7-4'		4.07		0.233		1.65	5.953		0.939	0.51	0.02
EL-B8-6"		9.55		0.740		2.83	13.12		2.33	1.15	0.04
EL-B8-1'		11.8		0.498		2.78	15.078	< 0.773	0.607	1.20	0.03
EL-B8-2'		4.62		0.297		2.02	6.937	< 0.604	0.0336	0.54	0.02
EL-B8-3'		1.03	< 0.390	0		1.08	2.11	< 0.691	0	0.16	0.01
EL-B8-4'		1.23	< 0.208	0.0434		0.579	1.8524		1.22	0.21	0.00
EL-B9-6"		20.3		0.950		3.80	25.05	< 0.669	0	1.95	0.05
EL-B9-1'		0.801		0.0841		1.05	1.9351	< 0.705	0	0.15	0.01
EL-B9-2'		0.216	< 0.302	0		0.731	0.947	< 0.694	0	0.07	0.00
EL-B9-3'		0.802	< 0.222	0		1.01	1.812	< 0.686	0	0.13	0.01
EL-B9-4'		0.723	< 0.222	0		0.806	1.529	< 0.680	0	0.11	0.00
EL-B10-6"		1.90		0.197		0.955	3.052	< 0.764	0.0599	0.24	0.01
EL-B10-6" DUP		2.04	< 0.215	0.0699		0.877	2.9869	< 0.751	0	0.23	0.01
EL-B10-1'		0.636		0.0900		0.558	1.284		7.70	0.51	0.01
EL-B10-2'		0.686		0.0887		0.915	1.6897	< 0.740	0.0397	0.13	0.01
EL-B10-3'		0.951	< 0.215	0		0.671	1.622	< 0.630	0.0117	0.12	0.00
EL-B10-4'		0.461	< 0.192	0.0751		1.05	1.5861	< 0.628	0.125	0.13	0.01

Attachment B



East Lagoon Soil Sampling Results

Tetrachloroethylene

Residential Limits in Soil (per RA-433)

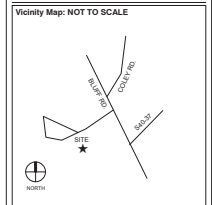
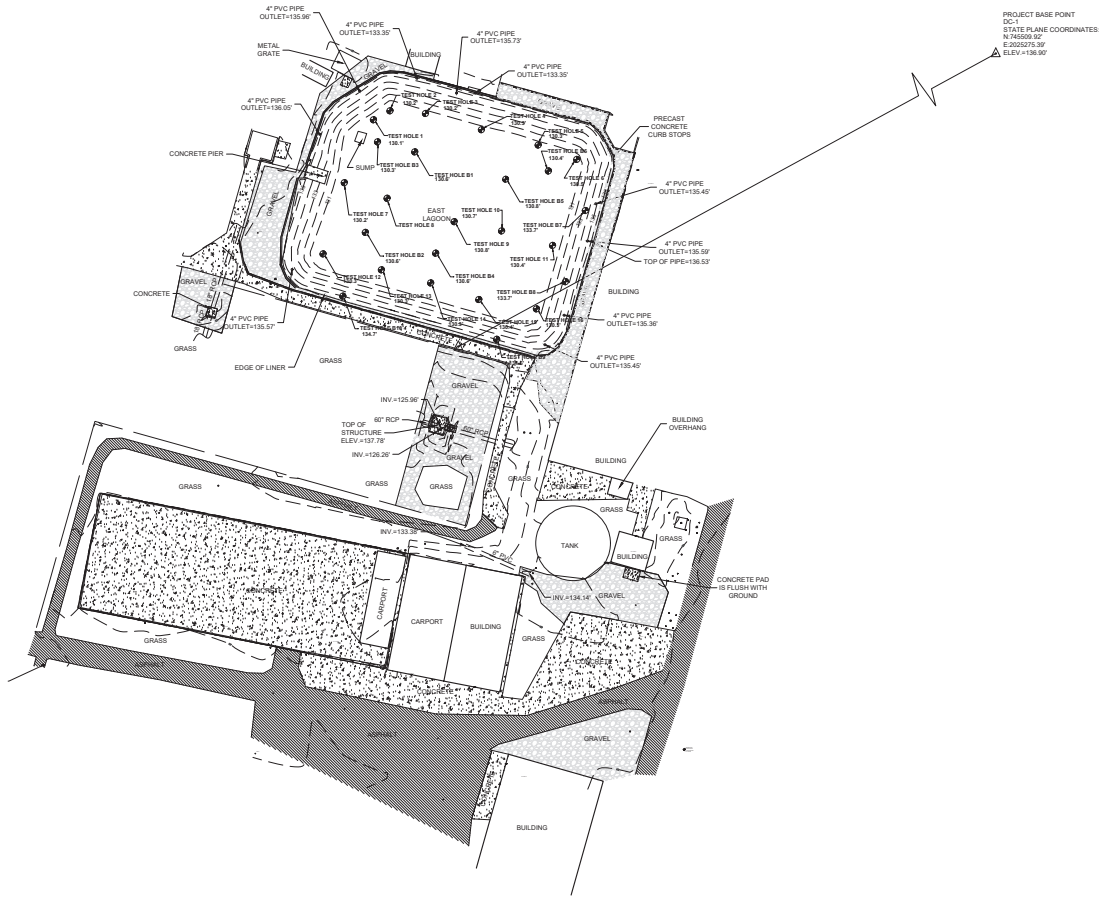
PCE 0.0023 mg/kg

Sample ID	Tetrachloroethylene
EL-3-6"	0.0013
EL-5-6"	0.0004
EL-9-6"	0.0005
EL-15-6"	
EL-B1-1-6"	
EL-B1-1-6"DUP	
EL-B3-6"	0.0005
EL-B5-6"	0.0044
EL-B5-6"DUP	0.0003

 non-detect
 exceeds screening value

1. ALL DISTANCES SHOWN ARE HORIZONTAL GROUND DISTANCES AND ARE IN INTERNATIONAL FEET AND DECIMALS THEREOF, UNLESS OTHERWISE NOTED.
2. ALL AREAS HAVE BEEN COMPUTED BY THE COORDINATE GEOMETRY METHOD.
3. THIS MAP WAS COMPLETED WITHOUT THE BENEFIT OF A TITLE EXAMINATION BY AN ATTORNEY AND MAY BE SUBJECT TO EASEMENTS, COVENANTS, RESTRICTIONS, AND OTHER MATTERS EITHER RECORDED OR IMPLIED.
4. THE COORDINATE SYSTEM FOR THIS PROJECT IS BASED ON S.C. N.A.D. 83 N.I.S. & S. 2011) AND THE ELEVATIONS ARE BASED ON N.A.V.D. 88. THE INITIAL POSITIONS WERE DETERMINED WITH A REAL TIME KINEMATIC GPS UNIT USING THE SOUTH CAROLINA GEODETIC SURVEY REAL TIME NETWORK, AND WERE TIED TO THE FOLLOWING MONUMENTS PROVIDED FOR THE SITE: DC-1 N. 74609.00 E. 203279.39, DC-2 N. 74607.85 E. 2035183.83 AND DC-3 N. 74481.8 E. 204789.94. VERTICAL DATUM BASED ON BENCHMARK PROVIDED FOR PROJECT SITE AT ELEV. = 136.17.
5. THE UTILITIES SHOWN HEREON ARE BASED UPON ABOVE-GROUND OBSERVATIONS, AND ARE SHOWN FOR PLANNING PURPOSES ONLY. THE LOCATION AND DEPTH OF UNDERGROUND UTILITIES SHOULD BE VERIFIED BY THE CONTRACTOR OR OWNER BEFORE BEGINNING ANY DIGGING OR CONSTRUCTION.

S.C. GRID NORTH N.A.D. 83
(U.S.S. 2011)



- LEGEND**
- ▲ SURVEY CONTROL POINT
 - RCP
 - ◆ SURVEY BENCHMARK (BM)
 - CF SF COMBINED GRID FACTOR
 - LIGHT POLE
 - POST INDICATOR VALVE
 - BOLLARD
 - SIGN
 - HYDRANT
 - WATER VALVE
 - STORM YARD INLET
 - MONITORING WELL
 - AIR CONDITIONER
 - POWER BOX/METER
 - POWER METER
 - BORE HOLE
 - SPOT ELEVATION
 - FF=500.00' FINISHED FLOOR ELEVATION
 - STORM DRAIN LINE
 - UNKNOWN DESTINATION
 - CHAIN LINK FENCE
 - VITRIFIED CLAY PIPE
 - ALUMINUM FENCE
 - CONCRETE SURFACE
 - GRAVEL SURFACE
 - ASPHALT SURFACE

TITLE: DESIGN SURVEY OF EAST LAGOON AREA FOR:



6801 BLUFF ROAD
HOPKINS (UNINCORPORATED)
RICHLAND COUNTY, SOUTH CAROLINA
DATE: 7/22/20 SCALE: 1"=30'
CONTOUR INTERVAL=1'

Revisions:

No.	Date	Description
1	8-25-20	ADDRESS ENGINEERING COMMENTS
2	8-27-20	ADD HATCHING
3	8-21	ADD DATA FOR EAST LAGOON



Project number: C20039 Sheet:
Date: 7/22/20
Drawn by: WSH
Checked by: KAG

1 OF 1

SURVEYOR CERTIFICATE
I, J. TIMOTHY THOMAS, CERTIFY THAT THIS PROJECT WAS COMPLETED UNDER MY SUPERVISION AND THAT THIS MAP WAS PREPARED FOR THE PURPOSE OF AS-BUILT/TOPOGRAPHIC INFORMATION ONLY, AND IS NOT INTENDED TO BE A BOUNDARY SURVEY OF THE PROPERTY SHOWN HEREON.



J. TIMOTHY THOMAS SC PLS-28148

