



March 15, 2022

**VIA ELECTRONIC MAIL ONLY**

Ms. Jennifer Carlin  
Ohio Environmental Protection Agency  
Northeast District Office  
Division of Materials and Waste Management  
2110 East Aurora Road  
Twinsburg, Ohio 44087

Dear Ms. Carlin:

RE: Order No. 14 – Monthly Monitoring Schedule Notification  
Director's Final Findings and Orders, In the Matter of: Lordstown  
Construction Recovery Facility, Lafarge North America, Inc. & The  
Standard Slag Co.

Pursuant to Condition 6A of the Odor Control Compliance Plan (Plan) provided in Exhibit A of the above referenced Director's Final Findings and Orders (DFFO) dated November 23, 2016, the Lordstown Construction Recovery Facility (LCR) must:

“6.A. Prior to performing surface scans, LCR shall notify Ohio EPA of its schedule to perform surface scans.”

LCR plans to conduct the monthly hydrogen sulfide surface scans in accordance with the Plan at the facility on April 5<sup>th</sup> and 6<sup>th</sup>, 2022.

Should you have any questions, please feel free to contact Allyson Zurawski of Lafarge at 716-243-5612 or us at 412-429-2324.

Sincerely,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.

Matthew Lorenzato  
Assistant Project Manager

Duane R. Lanoue, P.E.  
Principal

cc: Mr. Ronald Rager, Lafarge  
Ms. Allyson Zurawski, Lafarge (electronic copy)  
Mr. Frank Migliozi, Trumbull County Health Department  
Ms. Lynn Sowers, Ohio EPA Northeast District Office (electronic copy)

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Ms. Jennifer Carlin  
Ohio Environmental Protection Agency  
Northeast District Office  
Division of Materials and Waste Management  
2110 East Aurora Road  
Twinsburg, Ohio 44087

Dear Ms. Carlin:

RE: Order No. 14 – February 2022 Hydrogen Sulfide Monitoring Results  
Director's Final Findings and Orders, In the Matter of: Lordstown  
Construction Recovery Facility, Lafarge North America, Inc. and The  
Standard Slag Co.

The information contained in this report summarizes the hydrogen sulfide (H<sub>2</sub>S) monitoring events which occurred on February 1<sup>st</sup> and 2<sup>nd</sup>, 2022 at the Lordstown Construction Recovery Facility (LCR). Applicable conditions from the above-referenced Director's Final Findings and Orders ("DFFO"), dated November 23, 2016, are restated and a summary follows describing how compliance with each order or condition was achieved.

Pursuant to Order No. 14 of the DFFO, LCR must:

"Upon the effective date of these Orders, Respondent shall implement the Odor Control Compliance Plan attached as Exhibit A, and fully incorporated herein"

LCR has completed baseline hydrogen sulfide on December 7<sup>th</sup> and 8<sup>th</sup>, 2016 surface monitoring and commenced surface monitoring in accordance with the Odor Control Compliance Plan (Plan) on January 4<sup>th</sup>, 5<sup>th</sup>, and 6<sup>th</sup>, 2017.

Pursuant to Condition 5 of the Plan provided in Exhibit A of the DFFO, LCR must:

"5. Not later than 60 days after the effective date of this Plan, LCR shall perform monthly on-site surface monitoring for hydrogen sulfide using a Jerome meter, or equivalent approved by Ohio EPA, ("Meter") capable of detecting concentrations of hydrogen sulfide at levels of 5 ppb and above over all areas where debris has been placed, including the working face (unless performing weekly scans), areas where a standard cap has been placed in accordance with OAC Rules 3745-400-08 and 3745-400-07 (unless approved to conduct quarterly scans in accordance with Section 9) and all other areas where debris has been placed. For all surface scans, the Meter shall be calibrated, operated, and maintained in accordance with manufacturer's specifications. Surface scanning shall be conducted such that the Meter probe inlet shall be placed within less than six inches of the landfill surface.

The performance of surface scans shall be conducted on a monthly basis in a 100 x 100 foot grid ("grid sectors") pattern designed to measure hydrogen sulfide emissions in all phases at the Facility where debris has been placed. When performing scans at the grid sector, LCR shall also identify and conduct a surface scan where surface separation has occurred, and/or where surface odors are identified. Prior to performing surface scans, LCR shall provide the Ohio EPA a plan view drawing depicting the location, latitude and longitude, of the 100 x 100 foot grid sectors where surface scans will be performed, and each grid sector shall be numbered and labelled."

LCR commenced monthly hydrogen sulfide monitoring in January 2017, within 60 days after the effective date of the DFFO in accordance with the Plan. The monitoring includes a 100 x 100 foot grid incorporating 597 nodes over 117 acres. On September 7, 2018, LCR received the Director's Authorization Approval to reduce the on-site surface monitoring for hydrogen sulfide from monthly to quarterly for the nodes that have not exceeded 10 ppb H<sub>2</sub>S in any of the 21 months from December 2016 through August 2018 of H<sub>2</sub>S monitoring. Since September 7, 2018, most nodes in the approval have exceeded 10 ppb and have been removed from the approved reduction, so all 597 nodes were monitored during monthly hydrogen sulfide monitoring. The H<sub>2</sub>S Monitoring Overview drawing is included in Attachment 1.

The Ohio EPA was notified of the schedule for performing surface scans via a letter dated January 14<sup>th</sup>, 2022. The February 2022 monthly monitoring was completed on February 1<sup>st</sup> and 2<sup>nd</sup>, 2022. The monthly scan included 597 nodes over 117 acres. The surface monitoring was completed in compliance with the Plan over a two day period. One node registered hydrogen sulfide levels greater than 20 ppb during the monthly scan.

Pursuant to Conditions 7 and 8 of the Plan provided in Exhibit A of the DFFO, LCR must:

"7. After completing baseline surface monitoring and application of soil layer as applicable pursuant to Order Number 12, if hydrogen sulfide is detected in any grid sector at a level that exceeds 20 ppb, during surface scans conducted at the Facility. LCR shall implement short-term odor control measures to abate hydrogen sulfide. Such short-term odor control measures shall include any one of the following measures, or any combination thereof:

- A. The use of the minimum 6 inches of soils;
- B. The use of odor misting or neutralizing technologies;
- C. The use of odor control blankets;
- D. Other measures to ensure that hydrogen sulfide concentrations in the grid sector do not exceed 20 ppb.

8. Not later than 60 days after the effective date of the Plan, if hydrogen sulfide is detected in a grid sector at a level that exceeds 20 ppb, LCR shall:

A. Perform the following corrective measures in accordance with the indicated progressive schedule:

- (1) Within seven days implement odor control measures to address hydrogen sulfide concentrations in that grid sector. The measures may include any one or combination of such short-term measures identified in item 7 of this Plan, or any other measures to address hydrogen sulfide concentrations in the grid sector.
- (2) Upon performing the corrective measure and within seven days of a measured exceedance, LCR shall rescan the grid sector to determine whether hydrogen sulfide concentrations exceed 20 ppb at the grid sector.”

During the monthly monitoring event on February 1<sup>st</sup> and 2<sup>nd</sup>, 2022, one node was measured and observed to have exceeded 20 ppb (node 57). Five nodes were monitored as part of the January weekly rescans, and did not exceed 20 ppb during the rescans so no points were included from January.

When exceedances are encountered, LCR implemented the odor control measures outlined in Condition 7 of the Plan with the use of odor neutralizing agents and the placement of a minimum of 6 inches of soil over the one grid sector within seven days of the measured exceedance.

LCR performed the February weekly monitoring at one node with an exceedance from the February monthly monitoring (node 57). No exceedances were measured during the February weekly rescans.

Pursuant to Condition 6B of the Plan provided in Exhibit A of the DFFO, LCR must:

“B. Not later than the fifteenth day of each month, LCR shall electronically submit to Ohio EPA and the Trumbull County Health District:

- (1) A plan view drawing that shows the location, latitude and longitude, of each monitoring point and the results of all surface scans conducted in the prior month for all hydrogen sulfide concentration varies for each grid sector. Hydrogen sulfide concentration value results shall be reported for all monthly scans, weekly scans, and rescans performed following the implementation of an odor control measure, and as applicable for quarterly scans approved in accordance with Section 9; and,
- (2) Summary of action taken to address any exceedances.”

LCR is submitting a plan view drawing (Attachment 1) and tables summarizing the results of the monthly hydrogen sulfide surface monitoring event (Attachment 2). The weekly monitoring results are also provided in Attachment 2.

Ms. Jennifer Carlin  
CEC Project 318-442.0001  
Page 4  
March 15, 2022

Should you have any questions, please feel free to contact us at 412-429-2324.

Sincerely,

CIVIL & ENVIRONMENTAL CONSULTANTS, INC.



Matthew Lorenzo  
Assistant Project Manager



Duane R. Lanoue, P.E.  
Principal

Attachments:

- (1) Drawing
- (2) Monthly and Weekly Monitoring Results

cc: Mr. Ronald Rager, Lafarge  
Ms. Allyson Zurawski, Lafarge (electronic copy only)  
Mr. Frank Migliozi, Trumbull County Health Department  
Ms. Lynn Sowers, Ohio EPA Northeast District Office (electronic copy)

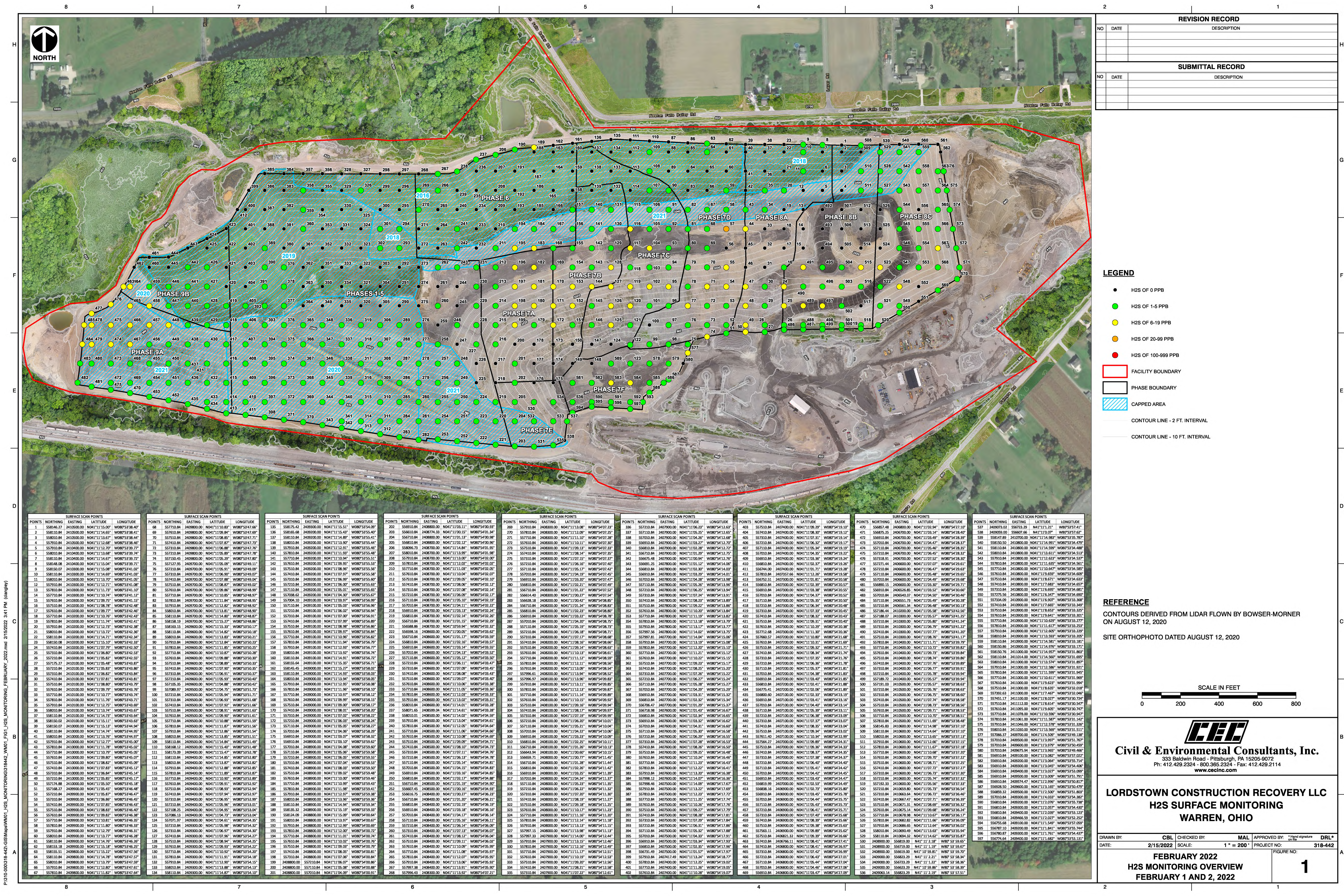
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**ATTACHMENT 1**

**DRAWING**

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REVISION RECORD

NO	DATE	DESCRIPTION

SUBMITTAL RECORD

NO	DATE	DESCRIPTION

LEGEND

- H2S OF 0 PPB
- H2S OF 1-5 PPB
- H2S OF 6-19 PPB
- H2S OF 20-99 PPB
- H2S OF 100-999 PPB
- FACILITY BOUNDARY
- PHASE BOUNDARY
- CAPPED AREA
- CONTOUR LINE - 2 FT. INTERVAL
- CONTOUR LINE - 10 FT. INTERVAL

REFERENCE

CONTOURS DERIVED FROM LIDAR FLOWN BY BOWSER-MORNER ON AUGUST 12, 2020

SITE ORTHOPHO TO DATED AUGUST 12, 2020

SCALE IN FEET

0 200 400 600 800

Civil & Environmental Consultants, Inc.

333 Baldwin Road - Pittsburgh, PA 15207

Ph: 412.429.2324 - Fax: 412.429.2114

www.cecinco.com

LORDSTOWN CONSTRUCTION RECOVERY LLC

H2S SURFACE MONITORING

WARREN, OHIO

DRAWN BY: CBL

CHECKED BY: MAL

APPROVED BY: \*Hand signature on file

DATE: 2/15/2022

SCALE: 1" = 200'

PROJECT NO: 318-442

FIGURE NO: 1

DATE: FEBRUARY 2022

H2S MONITORING OVERVIEW

FEBRUARY 1 AND 2, 2022



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**ATTACHMENT 2**

**MONTHLY AND WEEKLY MONITORING RESULTS**

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MONTHLY H2S MONITORING RESULTS

February 1-2, 2022

LORDSTOWN CONSTRUCTION RECOVERY C&DD FACILITY

Node	H2S (ppb)	Node	H2S (ppb)	Node	H2S (ppb)	Node	H2S (ppb)	Node	H2S (ppb)	Node	H2S (ppb)	Node	H2S (ppb)	Node	H2S (ppb)
1	0	76	5	151	2	226	0	301	2	376	4	451	2	526	0
2	0	77	7	152	7	227	2	302	2	377	4	452	4	527	3
3	0	78	5	153	10	228	2	303	0	378	2	453	4	528	2
4	0	79	4	154	5	229	2	304	0	379	2	454	2	529	2
5	0	80	4	155	3	230	2	305	0	380	0	455	3	530	4
6	0	81	4	156	2	231	4	306	3	381	0	456	3	531	4
7	0	82	1	157	2	232	0	307	3	382	0	457	8	532	4
8	1	83	0	158	0	233	0	308	4	383	0	458	8	533	4
9	1	84	0	159	0	234	0	309	2	384	0	459	2	534	4
10	2	85	0	160	0	235	0	310	3	385	0	460	0	535	4
11	2	86	0	161	0	236	0	311	3	386	0	461	0	536	4
12	0	87	0	162	0	237	1	312	2	387	0	462	0	537	4
13	0	88	0	163	0	238	1	313	3	388	0	463	6	538	0
14	0	89	0	164	0	239	0	314	3	389	2	464	6	539	0
15	0	90	2	165	0	240	0	315	2	390	2	465	8	540	0
16	4	91	2	166	0	241	1	316	3	391	2	466	8	541	2
17	0	92	4	167	2	242	1	317	3	392	4	467	8	542	2
18	0	93	4	168	3	243	1	318	3	393	4	468	4	543	4
19	0	94	4	169	5	244	0	319	3	394	2	469	3	544	4
20	2	95	6	170	13	245	0	320	0	395	3	470	3	545	4
21	0	96	4	171	7	246	1	321	0	396	4	471	3	546	4
22	0	97	4	172	12	247	0	322	0	397	2	472	3	547	4
23	0	98	4	173	0	248	4	323	0	398	2	473	4	548	11
24	7	99	4	174	0	249	4	324	0	399	0	474	8	549	4
25	6	100	0	175	0	250	4	325	0	400	0	475	8	550	4
26	5	101	5	176	0	251	4	326	2	401	0	476	6	551	0
27	4	102	7	177	0	252	4	327	0	402	0	477	6	552	0
28	4	103	4	178	0	253	4	328	0	403	0	478	6	553	4
29	4	104	9	179	4	254	4	329	0	404	0	479	6	554	4
30	4	105	3	180	17	255	4	330	0	405	4	480	3	555	4
31	0	106	2	181	8	256	4	331	0	406	4	481	3	556	0
32	0	107	2	182	7	257	4	332	0	407	2	482	3	557	4
33	0	108	2	183	7	258	4	333	0	408	3	483	3	558	3
34	2	109	2	184	2	259	0	334	0	409	2	484	6	559	2
35	2	110	0	185	0	260	1	335	0	410	3	485	6	560	0
36	0	111	0	186	0	261	0	336	3	411	3	486	5	561	0
37	0	112	0	187	0	262	1	337	3	412	0	487	5	562	0
38	0	113	0	188	0	263	0	338	2	413	3	488	5	563	5
39	0	114	0	189	10	264	0	339	4	414	3	489	6	564	3
40	0	115	1	190	1	265	0	340	2	415	2	490	4	565	4
41	0	116	8	191	0	266	2	341	3	416	2	491	7	566	4
42	0	117	10	192	0	267	1	342	3	417	2	492	0	567	11
43	2	118	4	193	0	268	0	343	4	418	4	493	0	568	4
44	6	119	7	194	2	269	2	344	2	419	4	494	0	569	4
45	0	120	11	195	7	270	2	345	3	420	0	495	4	570	4
46	0	121	4	196	8	271	0	346	3	421	0	496	4	571	4
47	6	122	4	197	8	272	0	347	4	422	0	497	6	572	5
48	6	123	5	198	15	273	0	348	3	423	0	498	5	573	5
49	6	124	0	199	11	274	0	349	0	424	0	499	5	574	4
50	6	125	13	200	0	275	0	350	0	425	0	500	5	575	4
51	4	126	17	201	3	276	4	351	0	426	2	501	1	576	5
52	4	127	7	202	4	277	3	352	0	427	2	502	5	577	6
53	4	128	16	203	4	278	3	353	0	428	4	503	5	578	4
54	6	129	3	204	4	279	2	354	0	429	4	504	4	579	4
55	10	130	2	205	4	280	2	355	0	430	2	505	0	580	0
56	0	131	2	206	1	281	4	356	0	431	2	506	0	581	4
57	21	132	0	207	0	282	4	357	0	432	3	507	0	582	4
58	1	133	0	208	0	283	2	358	2	433	2	508	1	583	6
59	1	134	0	209	0	284	4	359	2	434	2	509	0	584	6
60	0	135	0	210	0	285	3	360	2	435	2	510	2	585	4
61	0	136	0	211	2	286	2	361	0	436	3	511	3	586	4
62	0	137	0	212	4	287	3	362	0	437	4	512	0	587	4
63	1	138	0	213	4	288	3	363	0	438	4	513	0	588	5
64	2	139	0	214	2	289	4	364	0	439	4	514	0	589	5
65	0	140	2	215	2	290	0	365	4	440	2	515	7	590	4
66	0	141	2	216	1	291	0	366	2	441	2	516	4	591	4
67	1	142	3	217	0	292	0	367	2	442	2	517	0	592	5
68	4	143	5	218	0	293	2	368	3	443	0	518	4	593	5
69	4	144	12	219	4	294	2	369	2	444	0	519	4	594	4
70	4	145	1	220	4	295	0	370	3	445	0	520	4	595	4
71	6	146	1	221	4	296	0	371	3	446	2	521	1	596	4
72	4	147	0	222	4	297	0	372	4	447	2	522	4	597	5
73	4	148	0	223	4	298	0	373	2	448	8	523	7		
74	6	149	0	224	4	299	0	374	2	449	4	524	0		
75	5	150	0	225	0	300	0	375	3	450	3	525	0		



**WEEKLY H2S MONITORING RESCAN RESULTS**  
**February 1-2, 2022**  
**LORDSTOWN CONSTRUCTION RECOVERY C&DD FACILITY**

			Monthly Scan	Weekly Rescan		
				Week 1	Week 2	Week 3
				2/9/2022	2/16/2022	2/23/2022
Node	Northing	Easting	H2S (ppb)	H2S (ppb)	H2S (ppb)	H2S (ppb)
57	557710.8	2409900	21	5	0	0