MEMORANDUM

TO: Charlie Lynch

Chief Engineer, Wastewater Department

City of Tampa / 2545 Guy N Verger Boulevard / Tampa, Florida 33605

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FROM: James Golden, P.G., Grove Scientific & Engineering Co.

DATE: April 8, 2025

RE: Preliminary Odor Monitoring Results, City of Tampa Howard F. Curren Wastewater Treatment Plant, 2700 Maritime Blvd. Tampa, FL 33605

This memo presents the preliminary odor study monitoring results from Grove Scientific & Engineering (GSE) April 7, 2025, sampling event within the Howard F. Curren Wastewater Treatment Plant (WWTP) and nearby residential properties. GSE utilized a gas meter Jerome Hydrogen Sulfide (H2S) model J605 analyzer. H2S is a common odorific compound generated by WWTPs. This portable H2S meter is capable of measuring down to 2-3 parts per billion (ppb), or below most human odor detection concentration, which is about 10 ppb. The meter can also measure up to 100 parts per million (ppm) H2S. The monitoring crew on April 7, 2025, was Charlie Lynch, Chief Engineer, Wastewater Department, City of Tampa, Dave Caffery, Sr. Field Tech, GSE, and Braden Costner, Environmental Scientist, GSE.

H2S monitoring was conducted beginning at 7:45 am at six (6) strategic sample points (A-1 thru A-6) at potential odor generating locations within the WWTP, see figure in Attachment 1. GSE's Gas Monitoring Survey Form was used to collect important monitoring information, such as time, air temperature, H2S reading, weather conditions, such as wind direction and speed, and the Field Tech's personal odor detection comments, see Attachment 2 for the monitoring results for the WWTP locations. H2S meter results for locations A-1, A-4,A-5,and A-6 were all 0.00 ppm. However, a "faint to slight" odor was detected by the Tech at A-4 and A-5,

respectively.
At location A-2, along the west central side of the WWTP, H2S readings were elevated, ranging from 0.049 to 0.351 ppm, with a “slight “odor noted. At location A-3, in the southwest corner of the WWTP, H2S readings ranged from 0.010 to 0.026 ppm, with a “faint” odor noted. The odor survey at the WWTP ended at 9:26 am. The measured H2S concentrations at these sample points are far below the health-based concentration limits of 10 ppm under OHSA 8-hour Permissible Exposure Limit worker safety regulation standards, and NIOSH recommended exposure limit. .

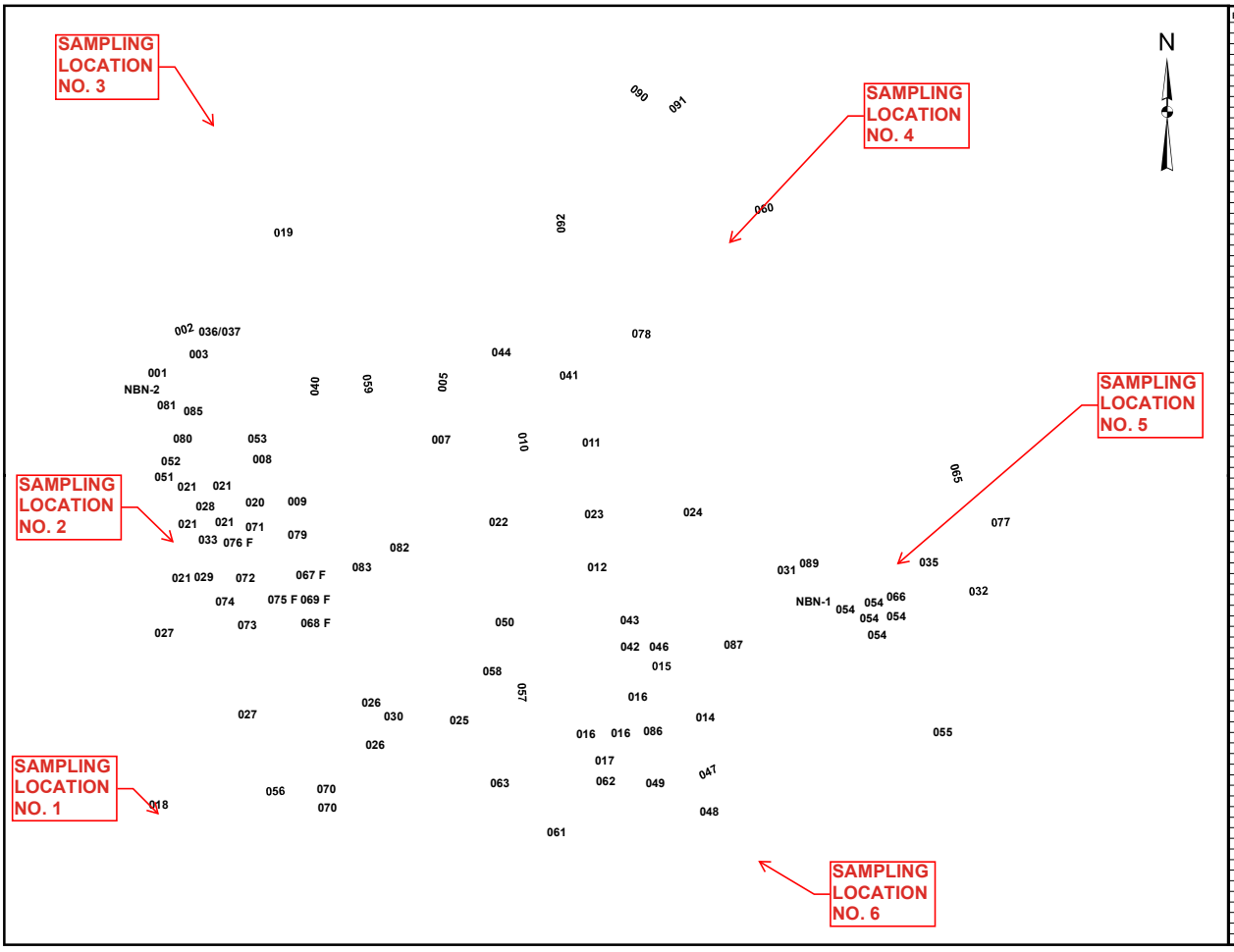
The H2S monitoring survey continued on to the Davis Island residential areas to the west of the WWTP at 10:10 am on April 7, 2025. Six (6) monitoring locations are depicted on the aerial map in Attachment 1. The Gas Monitoring Survey results at these sites are documented on the form in Attachment 2. All H2S readings were 0.000 ppm at the Davis Island locations, and no odors were detected by the Tech.

GSE plans to conduct a subsequent odor survey and sampling at the same locations on April 10, 2025. As indicated in GSE’s scope of work, a final report will be provided to the City after gas sample laboratory analysis have been completed.

Attachment 1

GROVE
SCIENTIFIC & ENGINEERING

Howard F Curren Advanced Wastewater Treatment Plant



BUILDING NO.	BUILDING NAME
001	RAW SEWAGE PUMPING STATION
002	JUNCTION CHAMBER NO. 1
003	METER VAULT NO. 1
005	SCREEN & GRIT BUILDING NO. 2 (OLD)
006	JUNCTION CHAMBER NO. 2
007	METER VAULT NO. 2
008	JUNCTION CHAMBER NO.3 AND BYPASS STRUCTURE
009	PRIMARY SEDIMENTATION TANKS NO. 1 TO 4
010	MAIN PUMPING STATION
011	HPO REACTORS
012	FINAL SEDIMENTATION TANKS NO. 1-12
013	INTERMEDIATE PUMPING STATION
014	DENITRIFICATION FILTERS NO. 1 TO 20
015	FILTER BUILDING NO. 1
016	POST AERATION CHLORINATION TANKS
017	JUNCTION CHAMBER NO. 4
018	OUTFALL STRUCTURE
019	WAREHOUSE
020	PRIMARY SLUDGE PUMPING STATION NO. 1
021	ANAEROBIC DIGESTER TANKS NO. 1 TO 5
022	RETURN SLUDGE STATION NO. 1
023	RETURN SLUDGE STATION NO. 2
024	RETURN SLUDGE STATION NO. 3
025	DIFFUSED AIR REACTORS (DARs)
026	SLUDGE THICKENER TANKS
027	OLD SLUDGE DRYING BEDS
028	DIGESTER CONTROL BUILDING A
029	DIGESTER CONTROL BUILDING B
030	SLUDGE TREATMENT BUILDING
031	FILTRATE PUMPING STATION
032	SLUDGE DEWATERING BUILDING - NOT IN USE
033	WASTE GAS BURNERS FOR DIGESTER NO 1 TO 5
035	SLUDGE HEAT DRYING ELECTRICAL ROOM
036	JUNCTION CHAMBER NO. 1 ODOR CONTROL SYSTEM
037	JUNCTION CHAMBER NO. 1 ODOR CONTROL SYSTEM
040	MAINTENANCE BUILDING
041	OXYGEN PLANTS AREA GENERATION
042	CHEMICAL HANDLING PLATAFORM
043	METHANOL STORAGE TANKS
044	MAIN SWITCHGEAR BUILDING
045	FILTER ACCESS TUNNEL
046	DECHLORINATION FACILITY
047	FILTER BUILDING NO. 2
048	DENITRIFICATION FILTERS NO. 21 TO 26 AND NO 31 TO 36
049	JUNCTION CHAMBER NO. 6
050	JUNCTION CHAMBER NO. 5
051	CARPENTER SHOP (FORMER CHLORINE STORAGE YARD)
052	WELDING SHOP (FORMER EFFLUENT BUILDING)
053	CAR PORT AND REPAIR SHOP
054	SLUDGE STORAGE TANKS AND SLUDGE CONTROL BUILDING
055	SLUDGE DRYING BEDS (32)
056	BELT THICKENER BUILDING - USED AS LUBE STORAGE OIL ROOM
057	NITRIFICATION PUMPING STATION
058	BLOWER BUILDING
059	SCREEN & GRIT BUILDING NO. 1 (NEW)
060	ADMINISTRATION BUILDING
061	FINAL SEDIMENTATION TANKS NO. 13 TO 20
062	RETURN SLUDGE STATION NO. 4
063	RETURN SLUDGE STATION NO. 5
065	SLUDGE DEWATERING FACILITY
066	SLUDGE FEED PUMP STATION
067	ANAEROBIC DIGESTER TANK NO. 8 AND SLUDGE MIXING PUMP STATION -
068	ANAEROBIC DIGESTER TANK NO. 9 AND SLUDGE MIXING PUMP STATION -
069	DIGESTER CONTROL BUILDING D -
070	SCUM THICKENER FACILITY (Dissolved Air Flotation Thickeners (DAFs)) - NOT IN USE
071	MIXED SLUDGE PUMPING STATION
072	ANAEROBIC DIGESTION TANKS NO. 6
073	ANAEROBIC DIGESTER TANK NO. 7 AND SLUDGE MIXING PUMP STATION
074	DIGESTER CONTROL BUILDING C
075	DIGESTER ELECTRICAL AND BOILERS BUILDING -
076	WASTE GAS BURNERS -
077	TECO PARTNERSHIP STATION
078	NUMBER AVAILABLE
079	WASTE GAS BURNERS FOR DIGESTER NO. 6 AND 7
080	NEW GENERATOR BUILDING AND FILTER ROOM
081	OLD GENERATORS BUILDING
082	PRIMARY SEDIMENTATION TANKS NO. 5 TO 8
083	PRIMARY SLUDGE AND DEWATERING PUMPING STATION NO. 2
085	SWITCHGEAR NO 60
086	RECLAIMED WATER STATION
087	WATER REUSE PILOT PLANT
089	FUEL STATION GAS AND DIESEL
090	COLLECTION TRAINING BUILDING
091	COLLECTION ADMINISTRATION BUILDING
092	COLLECTION VEHICLE MAINTENANCE BUILDING
NBN-1	LEACHATE DISCHARGE STATION
NBN-2	SEPTAGE RECEIVING STATION

Howard F. Curren WWTP – Davis Island Sampling Locations – 04/07/25 bis-due

Attachment 2

GAS MONITORING SURVEY FORM

Site Name: Howard F. Curren WWTP | Project No.:

Date: 04/07/25 | Weather: Partly Cloudy, 72°F - 76°F, Gusty Winds out SE/SSE

Sampler's Name: David M. Caffrey | Sampler's Signature: [signature]

Instrumentation: Jerome ~~631-X~~ J605 Hydrogen Sulfide Meter ser.# 60500712

Ambient Location	Time	Air Temp (deg. F)	H2S (ppm)	Wind/Comments/Odors
A-4	0745	72	0.00	Faint Odor, out SE, 3-5 mph
↓	0746	↓	0.00	↓
↓	0747	↓	0.00	↓
A-5	0805	72	⊗3.00	Slight Odor, out SE, 2-4 mph
↓	0807	↓	0.00	↓
↓	0808	↓	0.00	↓
↓	0810	↓	0.00	↓
↓	0812	↓	0.00	↓
A-6	0816	72	0.00	No Odor, out SE, 2-4 mph
↓	0817	↓	0.00	↓
↓	0818	↓	0.00	↓
A-1	0823	72	0.00	No Odor, out SE, 3-5 mph
↓	0824	↓	0.00	↓
↓	0826	↓	0.00	↓
A-2	0830	72	.209	Slight Odor, out SE, 4-7 mph
↓	0832	↓	49.55 ppb	↓
↓	0834	↓	.204	↓
↓	0836	↓	.277	↓
↓	0838	73	.351	↓
A-3	0918	76	20.79 ppb	Faint Odor, out SSE, 8-12 mph
↓	0920	↓	20.55 ppb	↓
↓	0923	↓	10.75 ppb	↓
↓	0926	↓	26.02 ppb	↓
				Gusty winds out SE to SSE.

⊗ questionable 3.00 readings + 4 more readings all 0.00 ppm.

GAS MONITORING SURVEY FORM

Site Name: Howard F. Curren WWTP | Project No.:

Date: 04/07/25 | Weather: Partly cloudy, winds out SE to S

Sampler's Name: David M. Cafferty | Sampler's Signature: [signature]

Instrumentation: Jerome ~~631X~~ J605 Hydrogen Sulfide Meter SER.# 60500712

Ambient Location	Time	Air Temp (deg. F)	H2S (ppm)	Wind/Comments/Odors
MP Marina	1010	78	0.00	No Odor, out SSE, 8-12 mph
↓	1012	78	0.00	↓
↓	1014	78	0.00	↓
Ball Field	1018	78	0.00	No Odor, out S, 6-10 mph
↓	1019	78	0.00	↓
↓	1021	78	0.00	↓
Chip. + Channel	1024	78	0.00	No Odor, Out S, 4-8 mph
↓	1025	78	0.00	↓
↓	1027	78	0.00	↓
Channel + Davis	1030	79	0.00	No Odor, out S, 10-15 mph
↓	1031	79	0.00	↓
↓	1033	79	0.00	↓
Roundabout - S Davis	1036	79	0.00	No Odor, Out S, 10-15 mph
↓	1038	79	0.00	↓
↓	1039	79	0.00	↓
Chesapeake + Bos.	1049	79	0.00	No Odor, Out S, 8-12 mph
↓	1051	79	0.00	↓
↓	1053	79	0.00	↓
				Gusty winds out SSE to S.,
				No Odors noted on Davis Island.