Madrid, Tina

From: Brian Moore <Brian.Moore@ghd.com>
Sent: Tuesday, May 24, 2022 2:13 PM
To: Madrid, Tina
Cc: Vik Mahadeo
Subject: 636 Grand Regency Boulevard ERIC_7535
Attachments: Site Assessment Status Report - 11177535-RPT-7.pdf

EXTERNAL MESSAGE
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Tina,

Please find attached out latest status report for the referenced site.

Contact me with any questions/comments.

Thank you

BRIAN MOORE PE

GHD
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The Power of Commitment

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Site Assessment Status Report

636 Grand Regency Boulevard (OER Incident #2019-4I-62290) Site ID: ERIC_7535

Costa Regency LLC

May 23, 2022

The Power of Commitment

GHD Services Inc.
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File name	G:\Legacy\Projects\8-chars\11------\1117----\111775--\11177535\Reports\11177535-RPT 7-SASR\Site Assessment Status Report - 11177535-RPT-7.docx
Author	Ed Siersema
Project manager	Brian Moore
Client name	Costa Regency LLC
Project name	11177535
Document title	Site Assessment Status Report | 636 Grand Regency Boulevard (OER Incident #2019-4I-62290) Site ID: ERIC_7535
Revision version	Rev [00]
Project number	11177535.01****

Document status

Status Code	Revision	Author	Reviewer		Approved for issue		
			Name	Signature	Name	Signature	Date
S2		Ed Siersema			Brian Moore		5/23/22
[Status code]							
[Status code]							
[Status code]							
[Status code]							

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Professional Engineer Certification

Site Assessment Status Report:

Costa Regency
636 Grand Regency Boulevard
Brandon, Hillsborough County, Florida
OER Incident #2019-41-62290
FDEP Facility ID ERIC_7535

In accordance with Chapter 471, Florida Statutes, and Chapter 62-780 Florida Administrative Code, I hereby certify that, to the best of my knowledge, all engineering plans, specifications, and calculations included herein are in accordance with standard and appropriate engineering practices.

Brian Moore, P.E.
Principal Engineer
Florida Registration #64017

5/23/22

GHD Services, Inc.
5904 Hampton Oaks Parkway Suite F
Tampa, Florida 33610
Certificate Of Authorization 9931

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Appendix A FDEP February 21, 2022, Comment Letter

Appendix B Field Notes and Logs

Appendix C Laboratory Analytical Report

1. Introduction

On behalf of Costa Regency, LLC, GHD Services Inc. (GHD) has completed groundwater sampling activities at the former HSBC Card Services, Inc. (HSBC) facility, located at 636 Grand Regency Boulevard in Brandon, Florida. A site location map is included as **Figure 1**. A site plan is included as **Figure 2**. This Site Assessment Status Report (SASR) describes the results of recent groundwater sampling activities.

2. Site Summary

The facility consists of a single, multi-story building with a loading dock, emergency generators, elevators, and parking areas. The HSBC facility reportedly maintains four 70-gallon capacity aboveground storage tanks (ASTs)/reservoirs used to store hydraulic oil that service elevators inside the building. The ASTs are situated in self-contained elevator equipment located in rooms on the first floor of the building, near the elevators.

A hydraulic oil leak associated with piping that led to the building's main elevators was discovered during an annual inspection in June 2018 (27°56'55.49"N; 82°19'34.53"W). According to an HSBC Pollution Notice, "*approximately 100 gallons of hydraulic oil from an indoor elevator reservoir was released from piping into the soil beneath the concrete slab in this area of the building*." After discovering the release, the elevator associated with the leaking pipe was immediately taken out of service, and all hydraulic oil remaining in the elevator reservoir was removed to eliminate the source of the release. The underground piping was capped and replaced by overhead piping. The piping associated with the release was permanently removed from service. The general Site layout and approximate location of the elevator equipment room and associated elevators are included as **Figure 3**.

Site Assessment (SA) activities were performed beginning in June 2019 by GHD. The assessment included soil sampling, monitor well installation, and groundwater sampling. During the assessment, free product was noted at monitor well MW-1, and soil and groundwater total recoverable petroleum hydrocarbon (TRPH) impacts were identified in the vicinity of MW-1. GHD submitted a Supplemental Site Assessment Report (SSAR) in June 2021. The Florida Department of Environmental Protection (FDEP) provided comments on June 3, 2021 and requested additional groundwater sampling at MW-1. GHD conducted the additional sampling, and the results were provided in the SASR dated August 31, 2021. In the response comment letter dated September 17, 2021, the FDEP requested additional quarterly groundwater monitoring at wells MW-1 and MW-7 and free product recovery at MW-1 continue. GHD conducted the additional monitoring and free product recovery, and the results were provided in the SASR dated November 26, 2011. In the response comment letter dated December 7, 2021, the FDEP requested free product recovery at MW-1 continue and agreed with continued groundwater monitoring until two consecutive quarters show concentrations are below their respective Groundwater Cleanup Target Levels (GCTLs). GHD conducted additional monitoring and free product recovery, the results of which were provided in in the SASR dated February 16, 2022. Based upon the data, GHD recommended that quarterly groundwater monitoring continue at wells MW-1 and MW-7 for polynuclear aromatic hydrocarbons (PAHs), only, and based upon the low volume of free product recovery over the previous year, free product recovery could be discontinued. The FDEP agreed with continued quarterly monitoring at wells MW-1 and MW-7 for PAHs only and agreed with discontinuing free product recovery in correspondence dated February 21, 2022. A copy of the FDEP February 21, 2022, correspondence is included in **Appendix A**.

3. Free Product Recovery

As stated in the February 2022 SASR, free product recovery efforts were initiated at monitor well MW-1 (see **Figure 3**) in early 2021. The product was recovered using a combination of absorbent pads and a manual bailer. Between each site visit, the absorbent pad was suspended within the well. Free product recovery was initiated on February 3, 2021.

Additional free product recovery efforts were completed on March 24, April 28, May 19, July 28, October 26, 2021, and January 19, 2022. In total, approximately 51.5 ounces, or 0.40 gallons of free product, were recovered over a period of approximately one year. The amount of product recovered during each sampling event decreased during the recovery period with a slight increase during the October 2021 recovery event. A summary of free product recovery is included in **Table 1**. Overall, manual free product recovery efforts have been minimally effective and have been discontinued.

4. Groundwater Sampling Summary

4.1 Groundwater Sampling Methodology

GHD conducted groundwater sampling activities on April 13, 2022. Before sampling, GHD opened all monitoring wells (MW-1 through MW-7 and MW-6D) to allow atmospheric equilibration prior to collecting depth to groundwater measurements (**Table 2**).

The monitoring wells were purged and sampled in accordance with the FDEP Field Sampling (FS) 2200 Standard Operating Procedures (SOP) for Groundwater Sampling. A peristaltic pump equipped with polyethylene and silicone tubing was used to purge the monitoring wells. During purging, field parameters including pH, temperature, dissolved oxygen, specific conductance, and turbidity were measured.

Groundwater samples were collected from monitor wells MW-1 and MW-7 using dedicated polyethylene tubing after purging. Jupiter Environmental Laboratories analyzed the groundwater samples for the presence of PAHs by EPA Method 8270. Groundwater sampling logs, calibration logs, and field notes from the sampling event are included in **Appendix B**.

4.2 Results and Data Evaluation

4.2.1 Groundwater Flow Direction

The direction of groundwater flow at the facility in the shallow zone during the April 2022 sampling event is presented on **Figure 4**. The shallow groundwater elevation contour map indicates a south-southwesterly flow direction, consistent with previous observations. A horizontal hydraulic gradient of approximately 0.019 feet per foot (ft/ft) was calculated between monitoring wells MW-4 and MW-2. The groundwater flow has been consistent during the monitoring period.

Shallow monitoring well MW-6 and deep well MW-6D were considered for the evaluation of the vertical hydraulic gradient. A downward vertical gradient of 0.35 ft/ft was observed between the shallow (MW-6) and deep zone (MW-6D). Based on the vertical gradient, it appears that the shallow clays are acting as an aquitard, which separates the surficial aquifer from the intermediate/Floridan.

4.2.2 Groundwater Analytical Results

Laboratory analyses of the groundwater samples collected in April 2022, detected concentrations of two PAHs at well MW-1 [phenanthrene at 11.2 micro grams per liter (ug/L) and pyrene at 3.31 ug/L], below their respective GCTLs. It is noted that the Method Detection Limit (MDL) for the laboratory analysis of the groundwater sample collected in April 2022 from well MW-1 was diluted by 40 due to matrix interference. However, concentrations of PAHs have been below their respective GCTLs for two or more consecutive sampling events at well MW-1. The laboratory results indicated that PAHs at well MW-7 were below their respective MDLs and GCTLs. The concentrations of PAHs at well MW-7 have been below their respective GCTLs for two consecutive sampling events. A copy of the laboratory analytical report is included in **Appendix C**. A summary of historical groundwater analytical data for TRPH is provided

in **Table 3** and a summary of groundwater analytical data for PAHs is provided in **Table 4**. The laboratory data are shown graphically on **Figure 5**.

5. Conclusions and Recommendations

GHD has conducted free product recovery and groundwater sampling activities at the former HSBC facility. The results of the free product recovery efforts resulted in the removal of approximately 0.40 gallons of product over an approximately one-year period. As a result of the minimal free product recovery at well MW-1, free product recovery was discontinued.

The concentrations of TRPH, benzene, toluene, ethylbenzene, and total xylenes (BTEX) and PAHs [including benzo(a)anthracene] have been below their respective GCTLs at monitor wells MW-1 and MW-7 for two or more consecutive quarterly sampling events. As indicated in previous submittals, the area of impact is limited to the immediate vicinity of MW-1, and no free product has been detected at other wells (including MW-2, which is located within 5 feet of MW-1).

The only remaining documented impact is a slight aromatic TRPH fraction exceedance of the residential direct exposure soil cleanup target level, per Chapter 62-780, FAC at location SB-1 at a depth of 7 to 8 feet below land surface (ft bls). However, depth to water at MW-1 (the location of SB-1) has ranged from 6.68 to 8.61 ft bls, suggesting that the potential TRPH impacts are located within the smear zone and are not representative of vadose zone soils. In addition, the fact that the concentration of TRPH has been below its GCTL for two consecutive sampling events at well MW-1 suggests that the TRPH detected at boring SB-1 in the smear zone is not impacting groundwater. Given the limited nature and extent of residual impacts, the location of the discharge beneath a multi-story building, and the lack of migration of impacts/product since the release date of June 2018 (4 years), it appears the site closure criteria have been met in accordance with Chapter 62-780.680(1), FAC. Upon FDEP concurrence, site monitor wells will be properly abandoned.

Tables

Table 1
Free Product Recovery Summary
HSBC Card Services, Inc.
636 Grand Regency Boulevard
Brandon, Hillsborough County, Florida

Well	Date	Water (gallons)	Free Product (ounces)	Running Total	
				ounces	gallons
MW-1	02/03/2021	3	16	16	0.13
	03/24/2021	2	8	24	0.19
	04/28/2021	2	8	32	0.25
	05/19/2021	1	4	36	0.28
	07/28/2021	1	4	40	0.31
	10/26/2021	0.75	7	47	0.37
	01/19/2022	2	4.5	51.5	0.40

Table 2
Summary of Monitor Well Construction and Groundwater Elevation Data
HSBC Card Services, Inc.
636 Grand Regency Boulevard
Brandon, Hillsborough County, Florida

WELL NO.	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-6D		MW-7		TMW-7	
DIAMETER (inches)	1		1		1		1		1		1		1		1		1	
WELL DEPTH (ft bls)	9		9		9		15		15		15		30		17		16	
SCREEN INTERVAL (ft bls)	4-9		4-9		4-9		5-15		5-15		5-15		25-30		7-17		11-17	
TOC ELEVATION (ft)	54.62		54.59		54.80		55.00		52.85		54.70		54.59		54.81		NS	
DATE	DTW	ELEV	DTW	ELEV	DTW	ELEV	DTW	ELEV	DTW	ELEV	DTW	ELEV	DTW	ELEV	DTW	ELEV	DTW	ELEV
06/25/19	6.68	47.94	6.63	47.96	6.67	48.13									Not Installed		-	-
07/31/20	8.16	46.46	8.18	46.41	8.16	46.64	7.04	47.96	5.99	46.86	8.03	46.67	13.33	41.26			-	-
10/29/20	NS	NS	7.50	47.09	7.43	47.37	6.60	48.40	5.23	47.62	7.33	47.37	12.81	41.78			12.44	-
04/28/21	8.61	46.01	7.77	46.82	7.81	46.99	7.00	48.00	5.53	47.32	7.75	46.95	13.30	41.29	Dry	--	--	-
05/19/21	NS	--	NS	--	NS	--	NS	--	NS	--	NS	--	NS	--	15.49	39.32	--	-
07/28/21	8.50	46.12	6.87	47.72	6.67	48.13	5.87	49.13	4.61	48.24	6.54	48.16	11.15	43.44	8.70	46.11	--	-
10/29/21	7.18	47.44	7.23	47.36	7.24	47.56	6.34	48.66	4.91	47.94	6.99	47.71	17.86	36.73	9.83	44.98	--	-
01/26/22	7.73	46.89	7.75	46.84	7.78	47.02	7.03	47.97	5.40	47.45	7.47	47.23	12.83	41.76	11.25	43.56	--	-
04/13/22	8.53	46.09	8.30	46.29	8.30	46.50	7.51	47.49	5.97	46.88	7.89	46.81	13.54	41.05	10.79	44.02	--	-

Notes:

TOC - top of casing
ft btoc - feet below top of casing (well)
ft NAVD - elevations referenced to North American Vertical Datum (1988) via site benchmark

DTW - Depth to Water
ELEV - Elevation
NS - Not Surveyed
Temporary well removed following sampling

Table 3
Groundwater Laboratory Analytical Summary - TRPH
HSBC Card Services, Inc.
636 Grand Regency Boulevard
Brandon, Hillsborough County, Florida

Sample		TRPH (µg/L)
Location	Date	
GCTL 62-777 FAC		5000
MW-1	06/25/2019	**6010**
	07/31/2020	NA
	10/29/2020	NA
	04/28/2021	1390
	07/28/2021	**219,000**
	10/29/2021	2010
	01/26/2022	893
MW-2	06/25/2019	1300
	07/31/2020	804
	10/29/2020	385 I
	04/28/2021	527 I
MW-3	06/25/2019	588 I
	07/31/2020	417 I
	10/29/2020	320 U
	04/28/2021	593 I
MW-4	07/31/2020	557 I
	10/29/2020	320 U
	04/28/2021	508 I
MW-5	07/31/2020	359 I
	10/29/2020	320 U
	04/28/2021	564 I
MW-6	07/31/2020	364 I
	10/29/2020	320 U
	04/28/2021	408 I
MW-6D	07/31/2020	396 I
	10/29/2020	320 U
TMW-7	10/29/2020	320 U
MW-7	05/19/2021	320 U
	10/29/2021	852
	01/26/2022	531 I

Notes:
All results in micrograms per liter (ug/L)
NA = Not Analyzed
FAC = Florida Administrative Code
GCTL = Groundwater Cleanup Target Level per Chapter 62-777, Florida Administrative Code (FAC)
Bold indicates result exceeds GCTL
U = Indicates the compound was analyzed for but not detected
I = The reported value is between the laboratory detection limit and the laboratory practical quantitation limit

Table 4
Groundwater Laboratory Analytical Summary - PAHs
HSBC Card Services, Inc.
636 Grand Regency Boulevard
Brandon, Hillsborough County, Florida

Sample		1-Methyl-naphthalene	2-Methyl-naphthalene	Acenaphthene	Anthracene	Benzo(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Chrysene	Fluoranthene	Fluorene	Naphthalene	Phenanthrene	Pyrene
Location	Date	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
GCTL 62-777 FAC		**28**	**28**	**20**	**2100**	**0.05**	**0.2**	**0.05**	**4.8**	**280**	**280**	**14**	**210**	**210**
MW-1	10/29/2021	0.050 U	0.050 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.025 U	0.025 U	0.028 I	0.050 U	0.100 U	0.025 U
	01/26/2022	0.050 U	0.050 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.025 U	0.025 U	0.028 I	0.203	0.100 U	0.025 U
	04/13/2022	2.00 U	2.00 U	1.00 U	1.00 U	1.00 U	0.600 U	0.600 U	1.00 U	1.00 U	1.00 U	2.00 U	11.2	2.21
MW-7	10/29/2021	0.614	0.568	2.91	1.86	**0.219**	0.016 I	0.031 I	0.151	3.58	3.41	0.461	8.24	3.31
	01/26/2022	0.050 U	0.050 U	0.030 I	0.025 U	0.025 U	0.015 U	0.015 U	0.025 U	0.028 I	0.025 U	0.050 U	0.100 U	0.028 I
	04/13/2022	0.050 U	0.050 U	0.025 U	0.025 U	0.025 U	0.015 U	0.015 U	0.025 U	0.025 U	0.025 U	0.050 U	0.100 U	0.025 U

Notes:

U = Indicates the compound was analyzed for but not detected

GCTL = Groundwater Cleanup Target Level per Chapter 62-777, Florida Administrative Code (FAC)

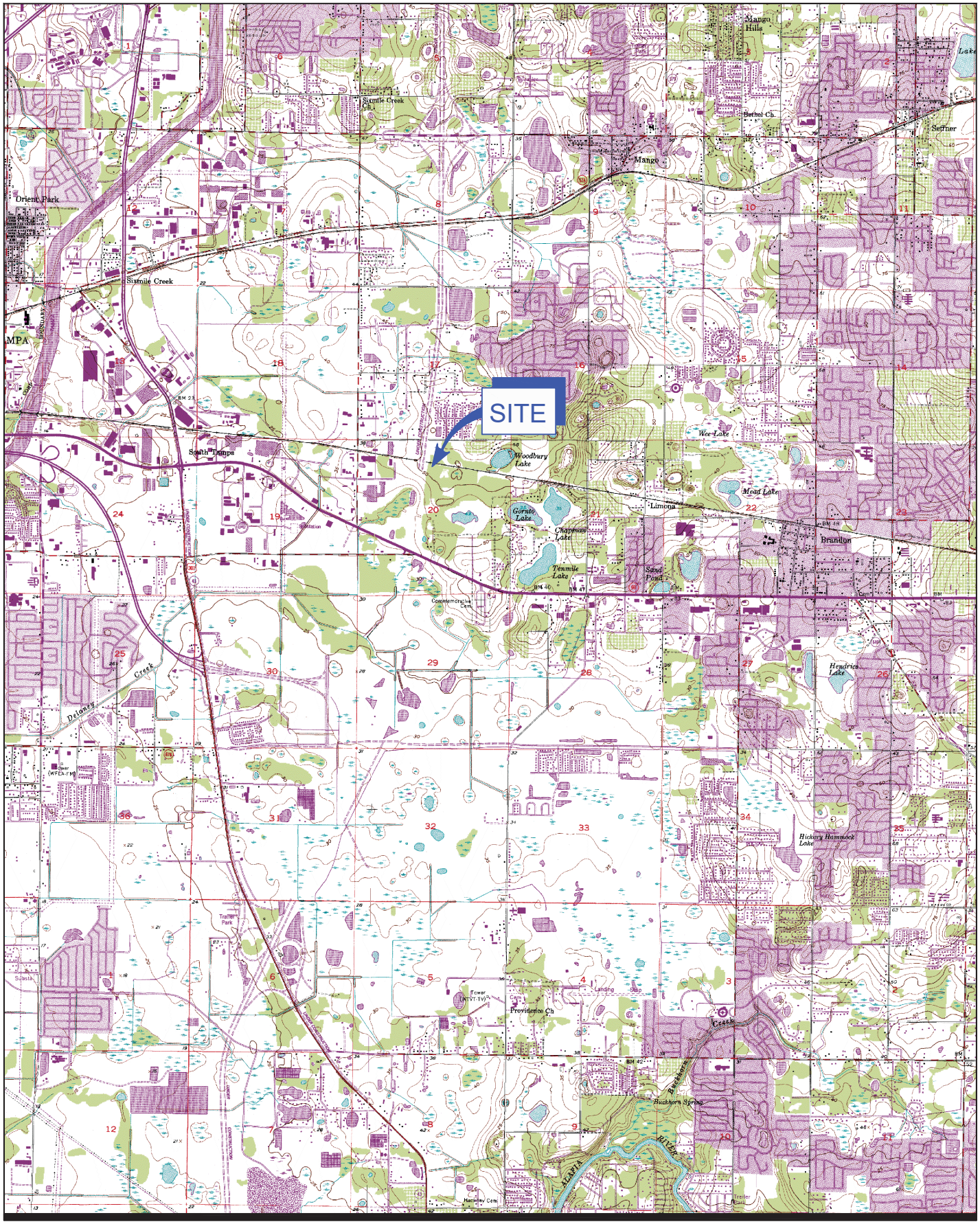
I = The reported value is between the laboratory detection limit and the laboratory practical quantitation limit

All results in micrograms per liter (ug/L)

FAC = Florida Administrative Code

Bold indicates result exceeds GCTL

Figures



0 2500 5000 ft

1" = 5000 ft

N

GHD

HSBC FACILITY (FACILITY ID #ERIC_7535)
636 GRAND REGENCY BOULEVARD, BRANDON,
HILLSBOROUGH COUNTY, FLORIDA
SITE ASSESSMENT STATUS REPORT

Project No. **11177535**
Date **May 2022**

SITE LOCATION MAP

FIGURE 1

Filename: N:\US\Santa Rosa\Projects\Sonoma Legacy\Sonoma.Public\CAD\drawings\11170000s\11177535\RPT007\11177535-GHD-00-00-RPT-EN-D101_SO-007.DWG
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Data Source: USGS QUADRANGLE MAPS: MARIANNA, COTTONDALE EAST QUADRANGLES, FLORIDA - HILLSBOROUGH COUNTY, PUBLISHED 2019.

LEGEND

PROPERTY LINE AND BOUNDARY (APPROXIMATE)

AREA OF FOCUS

0 50 100 ft

1" = 100 ft

N

GHD

HSBC FACILITY (FACILITY ID #ERIC_7535)
636 GRAND REGENCY BOULEVARD,BRANDON,
HILLSBOROUGH COUNTY, FLORIDA
SITE ASSESSMENT STATUS REPORT

Project No. **11177535**
Date **May 2022**

SITE PLAN

FIGURE 2

Filename: N:\US\Santa Rosa\Projects\Sonoma Legacy\Sonoma.Public\CAD\drawings\11170000s\11177535\RPT007\11177535-GHD-00-00-RPT-EN-D102_SO-007.DWG
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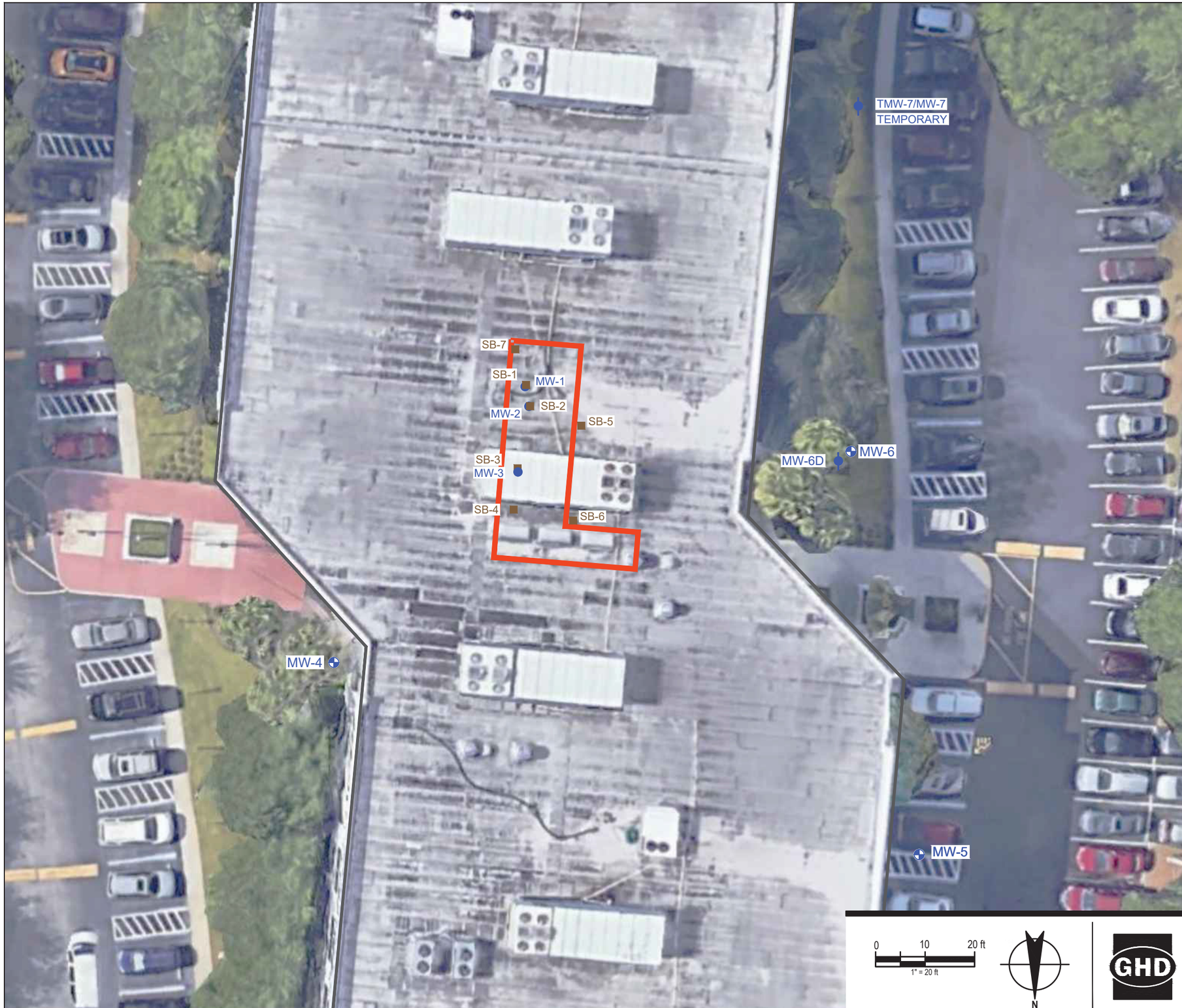

LEGEND

- SOIL BORING LOCATIONS
- GROUNDWATER MONITORING WELL/SOIL SAMPLE LOCATION
- SHALLOW MONITORING WELL 5-15 FT.
- DEEP MONITORING WELL 25- 30 FT.
- AREA OF FOCUS

0 10 20 ft
1" = 20 ft

N

GHD

HSBC FACILITY (FACILITY ID #ERIC_7535)
636 GRAND REGENCY BOULEVARD,BRANDON,
HILLSBOROUGH COUNTY, FLORIDA
SITE ASSESSMENT STATUS REPORT

SAMPLE LOCATION PLAN

Project No. **11177535**
Date **May 2022**

FIGURE 3

Filename: N:\US\Santa Rosa\Projects\Sonoma Legacy\Sonoma.Public\CAD\drawings\11170000s\11177535\RPT007\11177535-GHD-00-00-RPT-EN-D103_SO-007.DWG
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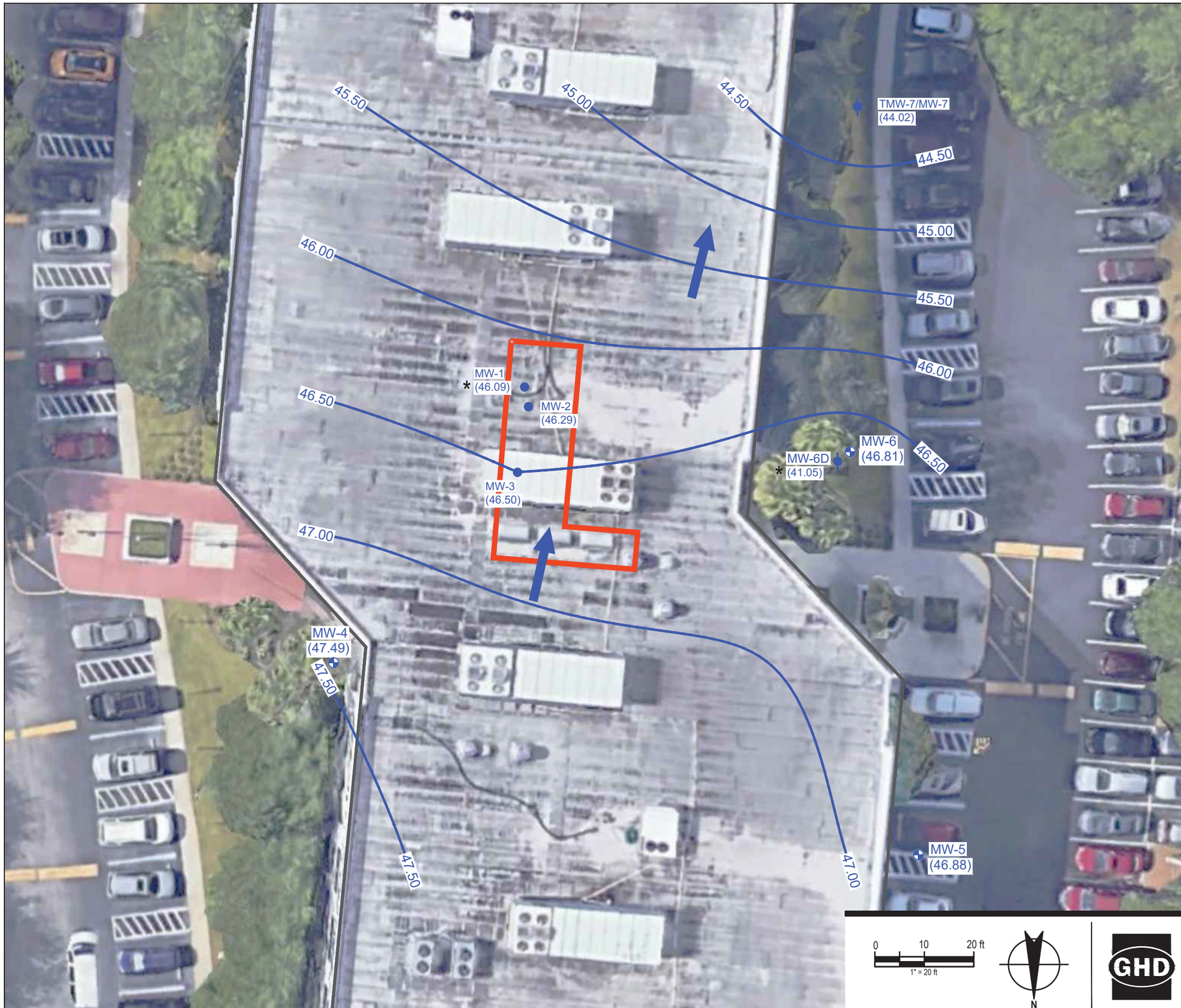

LEGEND

- SOIL BORING LOCATIONS
- GROUNDWATER MONITORING WELL/SOIL SAMPLE LOCATION
- SHALLOW MONITORING WELL 5-15 FT.
- DEEP MONITORING WELL 25- 30 FT.
- AREA OF FOCUS
- PROPERTY LINE AND BOUNDARY (APPROXIMATE)
- 47.00 GROUNDWATER CONTOUR IN FEET
- (46.84) GROUNDWATER ELEVATIONIN FEET
- INFERRED GROUNDWATER FLOW DIRECTION
- * GROUNDWATER ELEVATION NOT USED IN CONTOURING

0 10 20 ft
1" = 20 ft

N

GHD

HSBC FACILITY (FACILITY ID #ERIC_7535)
636 GRAND REGENCY BOULEVARD,BRANDON,
HILLSBOROUGH COUNTY, FLORIDA
SITE ASSESSMENT STATUS REPORT

Project No. 11177535
Date May 2022

GROUNDWATER FLOW MAP (4/13/2022)

FIGURE 4

Filename: N:\US\Santa Rosa\Projects\Sonoma Legacy\Sonoma.Public\CAD\drawings\11170000s\11177535\RPT007\11177535-GHD-00-00-RPT-EN-D104_SO-007.DWG
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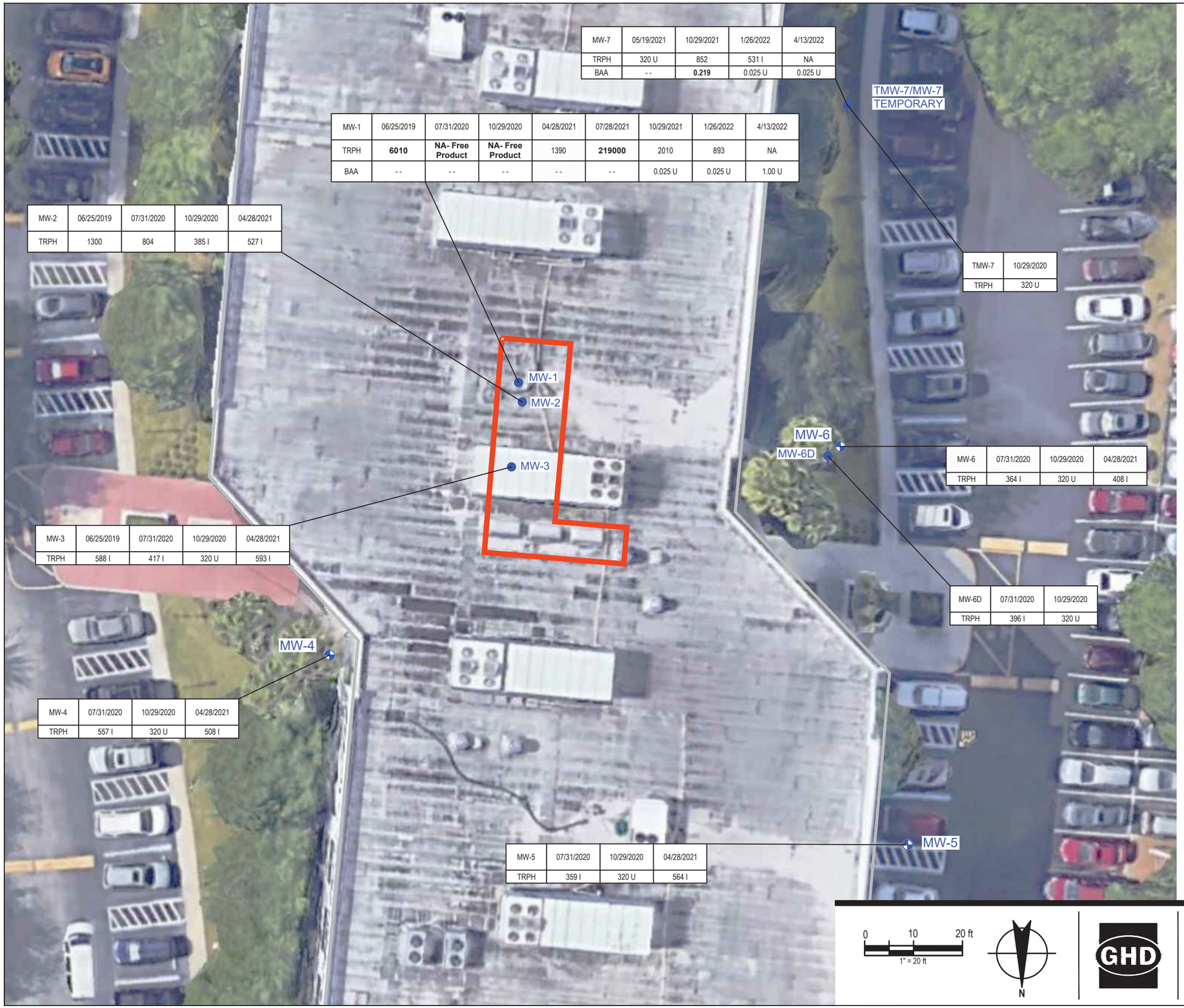

MW-7	05/19/2021	10/29/2021	1/26/2022	4/13/2022
TRPH	320 U	852	531 I	NA
BAA	- -	**0.219**	0.025 U	0.025 U

MW-1	06/25/2019	07/31/2020	10/29/2020	04/28/2021	07/28/2021	10/29/2021	1/26/2022	4/13/2022
TRPH	**6010**	**NA- Free Product**	**NA- Free Product**	1390	**219000**	2010	893	NA
BAA	- -	- -	- -	- -	- -	0.025 U	0.025 U	1.00 U

MW-2	06/25/2019	07/31/2020	10/29/2020	04/28/2021
TRPH	1300	804	385 I	527 I

TMW-7	10/29/2020
TRPH	320 U

MW-6	07/31/2020	10/29/2020	04/28/2021
TRPH	364 I	320 U	408 I

MW-3	06/25/2019	07/31/2020	10/29/2020	04/28/2021
TRPH	588 I	417 I	320 U	593 I

MW-6D	07/31/2020	10/29/2020
TRPH	396 I	320 U

MW-4	07/31/2020	10/29/2020	04/28/2021
TRPH	557 I	320 U	508 I

MW-5	07/31/2020	10/29/2020	04/28/2021
TRPH	359 I	320 U	564 I

LEGEND

- SOIL BORING LOCATIONS
- GROUNDWATER MONITORING WELL/SOIL SAMPLE LOCATION
- SHALLOW MONITORING WELL 5-15 FT.
- DEEP MONITORING WELL 25- 30 FT.
- AREA OF FOCUS

POINT ID	SAMPLE DATE (MM/DD/YYYY)
ANALYTE	CONCENTRATION RESULT IN ug/L

ug/L MICROGRAMS PER LITER

U INDICATES THAT THE COMPOUND WAS ANALYZED FOR BUT NOT DETECTED ABOVE THE METHOD DETECTION LIMIT (MDL)

I INDICATES INDICATES RESULT IS BETWEEN AND PRACTICAL QUANTITATION LIMIT (PQL)

GCTL GROUNDWATER CLEANUP TARGET LEVELS SPECIFIED IN TABLE I OF CHAPTER 62-777, F.A.C.

NADC NATURAL ATTENUATION DEFAULT SOURCE CONCENTRATIONS SPECIFIED IN TABLE V OF CHAPTER 62-777, F.A.C.

Abbrev.	Analyte	GCTL	NADC
TRPH	TOTAL RECOVERABLE PETROLEUM HYDROCARBONS	5000	50000
BAA	BENZO(a)ANTHRACENE	0.05	5

BOLD VALUE EXCEEDS GCTL

0 10 20 ft
1" = 20 ft

N

GHD

HSBC FACILITY (FACILITY ID #ERIC_7535)
636 GRAND REGENCY BOULEVARD,BRANDON,
HILLSBOROUGH COUNTY, FLORIDA
SITE ASSESSMENT STATUS REPORT

Project No. **11177535**
Date **May 2022**

GROUNDWATER ANALYTICAL RESULTS

FIGURE 5

Filename: N:\US\Santa Rosa\Projects\Sonoma Legacy\Sonoma.Public\CAD\drawings\11170000s\11177535\RPT007\11177535-GHD-00-00-RPT-EN-D105_SO-007.DWG
Plot Date: 10 May 2022 1:44 PM

Data Source: BASEMAP VIA BUILDING PLANS BY OPUS ARCHITECTS & ENGINEERS, INC., DATED OCTOBER 18TH, 1999.

Appendices

Appendix A

FDEP December 7, 2021 Comment Letter

FLORIDA DEPARTMENT OF Environmental Protection

Southwest District Office
13051 North Telecom Parkway #101
Temple Terrace, Florida 33637-0926

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Shawn Hamilton
Secretary

February 21, 2022

Via Email: nbanwell@frankjcostamd.com

Ms. Nadine Banwell
Costa Regency LLC
7 Meadow Park Lane
Pittsburgh, PA 15215

RE: Site Assessment Status Report (SASR)
636 Grand Regency Blvd (OER Incident #2019-4I-62290)
Brandon, Hillsborough County, Florida
Site # ERIC_7535

Dear Ms. Banwell:

The Florida Department of Environmental Protection (the Department) has reviewed the document referenced above, dated February 16, 2022, received February 17, 2022, and submitted by GHD The Department offers the following comments:

1. The Department agrees with continued quarterly sampling of polyaromatic hydrocarbons (PAHs).

2. The Department also agrees with discontinuing free product recovery based on minimal results.

The next sampling event should be conducted in April 2022, and a SASR submitted no later than June 29, 2022. If you are unable to submit the document by the specified date, please request a time extension in accordance with Rule 62-780.790, Florida Administrative Code, including a detailed explanation for the requirement for the time extension. The request is to be received by the Department at least 20 days prior to the submittal due date.

Should you have any questions or concerns, please contact me at the letterhead address above, by telephone at (813) 470-5762, or by email to Tina.Madrid@FloridaDEP.gov. For future submittals please one signed and sealed electronic and reference the FDEP Site# ERIC_7535 in your communications.

Sincerely,

Tina L. Madrid
Environmental Specialist III
Permitting & Waste Cleanup Programs

cc: Brian Moore, PE, GHD (via email only: Brian.Moore@ghd.com)
Dr. Frank J. Costa, M.D., Costa Regency, LLC
(via email only: frankjcostamd@frankjcostamd.com)
Tina Madrid, ES III, FDEP (via email only: Tina.Madrid@FloridaDEP.gov)

Appendix B

Field Notes and Logs

Ouchre

FIELD SERVICES REQUEST

Date: *4/13/2022* **Time:** *8:00 AM*

Site Information

Project Name: Costa Regency **Project #:** 11177535/00/****
WACS Name: NA **WACS #:**
Site Address: 636 Grand Regency Boulevard, Brandon, Florida
Site Contact: Vik Mahadeo 321-355-3415
EDD: Petroleum EDD

Subcontractor Information

Direct Push Services:

Contact:
Cell:

Utility Locate:

N/A

Laboratory

Jupiter Labs **Contact:** Paul Suda
Phone: **Cell:** 561-510-4514

Field Services

Equipment Needed: Water Level Indicator, Groundwater Sampling Equipment and Sample Kit

Gray and Black Lock Box Code 2018

Open all wells and allow to equilibrate. Complete full round water levels. (8) Interior and Exterior. See Figure 3 for locations.

Sample MW-1 and MW-7 for PAHs
Place purge water in on-site drum.

Samples to Jupiter Labs for PAHs (8270)

Jupiter PO# 340-001638

Pg 1 of 2

Location Brandon Date 4-13-22

Project / Client 11177535 / Costa Regency

PM: Brian Moore Tech: Bill Ouchie

Task: Open all (8) wells to collect DTWs & purge & sample MW-1 & MW-7 for PAHs

0830 - Depart to site

0900 - Arrive site, tailgate safety meeting. PPE, hydration SGO awareness

0910 - Begin opening well to collect DTWs

MW-1	8.53	MW-5	5.97
MW-2	8.30	MW-6	7.89
MW-3	8.30	MW-6D	13.54
MW-4	7.51	MW-7	10.79

0945 - Calibrate meters

1015 - Set up to purge & sample MW-1 Sample time 1049

1150 - Begin purge & sample MW-7 Sample time 1214

1240 - Calibrate meters

1255 - Clean up, put equipment away, load truck & put water & bailer into drum

1320 - Depart site

1340 - Arrive office, unload truck

Pg 2 of 2

Location Brandon Date 4-13-22

Project / Client 11177535 / Costa Regency

PM: Brian Moore Tech: Bill Ouchie

cont - Put equipment away, finish paperwork.

1400 - End of Day

Rite in the Rain

DEP-SOP-001/01: Form FD 9000-8

Field Instrument Calibration Records

USER (Full Name) Bill Ouchie **LOCATION** Brandon

PROJECT NAME costa Regency **PROJECT NUMBER** 11177535

INSTRUMENT (MAKE/MODEL#) YSI Pro Plus **INSTRUMENT** (CONTROL #) 13H 100588

☒ **pH**

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard A pH 7.00 Buffer Capsule, lot 165651 exp 12/23

Standard B pH 4.00 Buffer Capsule lot 1G5780 exp 10/23

Standard C _____

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
4-13-22	0951	A	7.0	7.00	—	Y	Init.	[illegible]
4-13-22	0953	B	4.0	4.00	—	Y	"	"
4-13-22	1246	A	7.0	7.00		Y	Final	"
4-13-22	1248	B	4.0	4.00		Y	"	"

☒ **CONDUCTIVITY**

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard A 1000 us/cm @ 25 degrees C,

Standard B 1413us/cm @ 25 degrees C lot 1G5693 exp 10/22

Standard C _____

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
4-13-22	0948	A	1413	1395/24.1		Y	Init.	[illegible]
4-13-22	1243	A	1413	1432/26.2		Y	Final	"

☒ **DO**

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard A Saturated Air Chamber/100%

Standard B _____

Standard C _____

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
4-13-22	0945	A	100	100.5	0.5	Y	Init.	[illegible]
4-13-22	1240	A	100	100.1	0.1	Y	Final	"

DEP-SOP-001/01: Form FD 9000-8

USER (Full Name) Bill Ovchie **LOCATION** Brandon
PROJECT NAME costa Regency **PROJECT NUMBER** 11177535
INSTRUMENT (MAKE/MODEL#) HACH 2000Q **INSTRUMENT** (CONTROL #) 13080C027513

☒ **TURBIDITY**

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard A 20.0 ntu, Lot A1110 exp 4/23
Standard B 100 ntu, Lot A1007 exp 1/23
Standard C 800 ntu, Lot A1082 exp 3/23

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
4-13-22	0955	A	20	20.1	0.5	Y	Init	D
4-13-22	0957	B	100	100	—	Y	"	"
4-13-22	0955	C	800	802	0.25	Y	"	"
4-13-22	1250	A	20	19.8	1	Y	Final	"
4-13-22	1252	B	100	98.7	1.3	Y	"	"
4-13-22	1254	C	800	796	0.5	Y	"	"

INSTRUMENT (MAKE/MODEL#) _____ **INSTRUMENT #** _____

☒ **TURBIDITY**

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard A 0.0ntu,
Standard B 10.0ntu,

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS

INSTRUMENT (MAKE/MODEL#) _____ **INSTRUMENT #** _____

☒ **PID**

STANDARDS: *[Specify the type(s) of standards used for calibration, the origin of the standards, the standard values, and the date the standards were prepared or purchased]*

Standard A 100 ppm
Standard B

DATE (yy/mm/dd)	TIME (hr:min)	STD (A, B, C)	STD VALUE	INSTRUMENT RESPONSE	% DEV	CALIBRATED (YES, NO)	TYPE (INIT, CONT)	SAMPLER INITIALS
			100					
			100					
			100					

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: Costa Regency		SITE LOCATION: Brandon	
WELL NO: MW-1	SAMPLE ID: MW-1		DATE: 4-13-22

PURGING DATA

WELL DIAMETER (inches): 1	TUBING DIAMETER (inches): ¼ od	WELL SCREEN INTERVAL DEPTH: 4 feet to feet 9	STATIC DEPTH TO WATER (feet): 8.53	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) 0.47 = (9 feet – 8.53 feet) X .04 gallons/foot = .019 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 8.8	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 8.8	PURGING INITIATED AT: 1036	PURGING ENDED AT: 1047	TOTAL VOLUME PURGED (gallons): 0.10

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or mS/cm	DISSOLVED OXYGEN (circle units) mg/l or % saturation	TURBIDITY (NTUs)	COLOR ODOR (describe)	ORP
1038	.02	0.02	.01		5.87	23.8	352	1.17	16.9	clear oily	-161
1041	.03	0.05	.01		5.98	23.7	357	1.19	16.5	clear oily	-159
1044	.03	0.08	.01		5.96	23.6	346	1.28	16.8	clear oily	-158
1047	.03	0.10	.01		6.00	23.6	346	1.33	12.8	clear oily	-157

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Bill Ouchie/GHD	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING INITIATED AT: 1049	SAMPLING ENDED AT: 1105
PUMP OR TUBING DEPTH IN WELL (feet): 8.8	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ___ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-1	1	AG	250ml	wet ice	—	—	PAH	APP	38
								APP	
								APP	
								APP	
								APP	

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: Costa Regency	SITE LOCATION: Brandon	
WELL NO: MW-7	SAMPLE ID: MW-7	DATE: 4-13-22

PURGING DATA

WELL DIAMETER (inches): 1	TUBING DIAMETER (inches): ¼ od	WELL SCREEN INTERVAL DEPTH: 7 feet to 17 feet	STATIC DEPTH TO WATER (feet): 10.79	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable)
6.21 = (17 feet – 10.79 feet) X .04 gallons/foot = .248 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
= gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 12.5	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 14.0	PURGING INITIATED AT: 1150	PURGING ENDED AT: 1212	TOTAL VOLUME PURGED (gallons): 0.35

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or mS/cm	DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBIDITY (NTUs)	COLOR ODOR (describe)	ORP
1203	.26	0.26	.02	12.41	6.41	25.7	220	1.30	24.3	clear none	107
1206	.03	0.29	.01	12.48	6.29	25.8	219	0.88	24.0	cloudy none	105
1209	.03	0.32	.01	12.72	6.23	25.8	217	0.57	23.9	cloudy none	101
1212	.03	0.35	.01	12.81	6.15	25.8	215	0.53	23.4	cloudy none	99

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **O** = Other (Specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Bill Ouchie/GHD	SAMPLER(S) SIGNATURE(S):	SAMPLING INITIATED AT: 1214	SAMPLING ENDED AT: 1230
PUMP OR TUBING DEPTH IN WELL (feet): 14.0	TUBING MATERIAL CODE: HDPE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ___ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
MW-7	1	AG	250ml	wet ice	—	—	PAH	APP	38
								APP	
								APP	
								APP	
								APP	

REMARKS: Note: moved tubing to 14.0' due to drawdown
Note: Turbidity above 20NTU - within 10%

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE** = Low Density Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (Specify)

NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** all readings ≤ 20% saturation (see Table FS 2200-2); optionally, ± 0.2 mg/L or ± 10% (whichever is greater) **Turbidity:** all readings ≤ 20 NTU; optionally ± 5 NTU or ± 10% (whichever is greater)

Appendix C

Laboratory Analytical Report

Jupiter Environmental Laboratories, Inc.
150 S. Old Dixie Highway
Jupiter, FL 33458
Phone: (561)575-0030
Fax: (561)575-4118
www.jupiterlabs.com
clientservices@jupiterlabs.com

April 21, 2022

Brian Moore
GHD Tampa
5904 Hampton Oaks Parkway
Suite F
Tampa, FL 33610

RE: LOG# 2279708
Project ID: Costa Regency

Dear Brian Moore:

Enclosed are the analytical results for sample(s) received by the laboratory on Thursday, April 14, 2022. Results reported herein conform to the most current NELAC standards, where applicable, unless indicated by * in the body of the report. The enclosed Chain of Custody is a component of this package and should be retained with the package and incorporated therein.

Results for all solid matrices are reported in dry weight unless otherwise noted. Results for all liquid matrices are reported as received in the laboratory unless otherwise noted. Results relate only to the samples received. Should insufficient sample be provided to the laboratory to meet the method and NELAC Matrix Duplicate and Matrix Spike requirements, then the data will be analyzed, evaluated and reported using all other available quality control measures.

Samples are disposed of after 30 days of their receipt by the laboratory unless extended storage is requested in writing. The laboratory maintains the right to charge storage fees for archived samples. This report will be archived for 5 years after which time it will be destroyed without further notice, unless prior arrangements have been made.

Certain analyses are subcontracted to outside NELAC certified laboratories, please see the Project Summary section of this report for NELAC certification numbers of laboratories used. A Statement of Qualifiers is available upon request.

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

Sincerely,

Taylor Tripodi

Taylor Tripodi for
Kacia Baldwin
kaciab@jupiterlabs.com

NELAP Accredited
FDOH# E86546
CERTIFICATE OF ANALYSIS
This report shall not be reproduced, except in full,
without the written consent of Jupiter Environmental Laboratories, Inc..

Jupiter Environmental Laboratories, Inc.
150 S. Old Dixie Highway
Jupiter, FL 33458
Phone: (561)575-0030
Fax: (561)575-4118

SAMPLE ANALYTE COUNT

Workorder: 2279708

Project ID: Costa Regency

Lab ID	Sample ID	Method	Analytes Reported
2279708001	MW-1	EPA 8270/PAH SIM	21
2279708002	MW-7	EPA 8270/PAH SIM	21

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Jupiter Environmental Laboratories, Inc.
150 S. Old Dixie Highway
Jupiter, FL 33458
Phone: (561)575-0030
Fax: (561)575-4118

SAMPLE SUMMARY

Workorder: 2279708

Project ID: Costa Regency

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2279708001	MW-1	Aqueous Liquid	4/13/2022 10:49	4/14/2022 07:00
2279708002	MW-7	Aqueous Liquid	4/13/2022 12:14	4/14/2022 07:00

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Jupiter Environmental Laboratories, Inc.
150 S. Old Dixie Highway
Jupiter, FL 33458
Phone: (561)575-0030
Fax: (561)575-4118

ANALYTICAL RESULTS

Workorder: 2279708
Project ID: Costa Regency

Lab ID: **2279708001** Date Received: 4/14/2022 07:00 Matrix: Aqueous Liquid
Sample ID: **MW-1** Date Collected: 4/13/2022 10:49

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
Semivolatiles by EPA 8270C										
Analysis Desc: PAH List by 8270C SIM (W)					Preparation Method: EPA 3510C SIM Analytical Method: EPA 8270/PAH SIM					
1-Methylnaphthalene	U	ug/L	4.00	2.00	40	4/15/2022 11:02	GB	4/18/2022 16:36	TJ	
2-Methylnaphthalene	U	ug/L	4.00	2.00	40	4/15/2022 11:02	GB	4/18/2022 16:36	TJ	
Acenaphthene	U	ug/L	2.00	1.00	40	4/15/2022 11:02	GB	4/18/2022 16:36	TJ	
Acenaphthylene	U	ug/L	2.00	1.00	40	4/15/2022 11:02	GB	4/18/2022 16:36	TJ	
Anthracene	U	ug/L	2.00	1.00	40	4/15/2022 11:02	GB	4/18/2022 16:36	TJ	
Benzo(a)anthracene	U	ug/L	2.00	1.00	40	4/15/2022 11:02	GB	4/18/2022 16:36	TJ	
Benzo(a)pyrene	U	ug/L	2.00	0.600	40	4/15/2022 11:02	GB	4/18/2022 16:36	TJ	
Benzo(b)fluoranthene	U	ug/L	2.00	0.600	40	4/15/2022 11:02	GB	4/18/2022 16:36	TJ	
Benzo(g,h,i)perylene	U	ug/L	2.00	0.600	40	4/15/2022 11:02	GB	4/18/2022 16:36	TJ	
Benzo(k)fluoranthene	U	ug/L	2.00	0.600	40	4/15/2022 11:02	GB	4/18/2022 16:36	TJ	
Chrysene	U	ug/L	2.00	1.00	40	4/15/2022 11:02	GB	4/18/2022 16:36	TJ	
Dibenzo(a,h)anthracene	U	ug/L	2.00	0.20	40	4/15/2022 11:02	GB	4/18/2022 16:36	TJ	
Fluoranthene	U	ug/L	2.00	1.00	40	4/15/2022 11:02	GB	4/18/2022 16:36	TJ	
Fluorene	U	ug/L	2.00	1.00	40	4/15/2022 11:02	GB	4/18/2022 16:36	TJ	
Indeno(1,2,3-cd)pyrene	U	ug/L	2.00	0.600	40	4/15/2022 11:02	GB	4/18/2022 16:36	TJ	
Naphthalene	U	ug/L	4.00	2.00	40	4/15/2022 11:02	GB	4/18/2022 16:36	TJ	
Phenanthrene	11.2	ug/L	8.00	4.00	40	4/15/2022 11:02	GB	4/18/2022 16:36	TJ	
Pyrene	2.21	ug/L	2.00	1.00	40	4/15/2022 11:02	GB	4/18/2022 16:36	TJ	
Nitrobenzene-d5 (S)	144	%	30-110		40	4/15/2022 11:02	GB	4/18/2022 16:36	TJ	J2
2-Fluorobiphenyl (S)	24	%	30-110		40	4/15/2022 11:02	GB	4/18/2022 16:36	TJ	J2
p-Terphenyl-d14 (S)	27	%	30-140		40	4/15/2022 11:02	GB	4/18/2022 16:36	TJ	J2

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ANALYTICAL RESULTS

Workorder: 2279708
Project ID: Costa Regency

Lab ID: **2279708002** Date Received: 4/14/2022 07:00 Matrix: Aqueous Liquid
Sample ID: **MW-7** Date Collected: 4/13/2022 12:14

Parameters	Results	Units	PQL	MDL	DF	Prepared	By	Analyzed	By	Qual
Semivolatiles by EPA 8270C										
Analysis Desc: PAH List by 8270C SIM (W)					Preparation Method: EPA 3510C SIM Analytical Method: EPA 8270/PAH SIM					
1-Methylnaphthalene	U	ug/L	0.100	0.050	1	4/15/2022 11:54	GB	4/15/2022 15:57	TJ	
2-Methylnaphthalene	U	ug/L	0.100	0.050	1	4/15/2022 11:54	GB	4/15/2022 15:57	TJ	
Acenaphthene	U	ug/L	0.050	0.025	1	4/15/2022 11:54	GB	4/15/2022 15:57	TJ	
Acenaphthylene	U	ug/L	0.050	0.025	1	4/15/2022 11:54	GB	4/15/2022 15:57	TJ	
Anthracene	U	ug/L	0.050	0.025	1	4/15/2022 11:54	GB	4/15/2022 15:57	TJ	
Benzo(a)anthracene	U	ug/L	0.050	0.025	1	4/15/2022 11:54	GB	4/15/2022 15:57	TJ	
Benzo(a)pyrene	U	ug/L	0.050	0.015	1	4/15/2022 11:54	GB	4/15/2022 15:57	TJ	
Benzo(b)fluoranthene	U	ug/L	0.050	0.015	1	4/15/2022 11:54	GB	4/15/2022 15:57	TJ	
Benzo(g,h,i)perylene	U	ug/L	0.050	0.015	1	4/15/2022 11:54	GB	4/15/2022 15:57	TJ	
Benzo(k)fluoranthene	U	ug/L	0.050	0.015	1	4/15/2022 11:54	GB	4/15/2022 15:57	TJ	
Chrysene	U	ug/L	0.050	0.025	1	4/15/2022 11:54	GB	4/15/2022 15:57	TJ	
Dibenzo(a,h)anthracene	U	ug/L	0.050	0.0050	1	4/15/2022 11:54	GB	4/15/2022 15:57	TJ	
Fluoranthene	U	ug/L	0.050	0.025	1	4/15/2022 11:54	GB	4/15/2022 15:57	TJ	
Fluorene	U	ug/L	0.050	0.025	1	4/15/2022 11:54	GB	4/15/2022 15:57	TJ	
Indeno(1,2,3-cd)pyrene	U	ug/L	0.050	0.015	1	4/15/2022 11:54	GB	4/15/2022 15:57	TJ	
Naphthalene	U	ug/L	0.100	0.050	1	4/15/2022 11:54	GB	4/15/2022 15:57	TJ	
Phenanthrene	U	ug/L	0.200	0.100	1	4/15/2022 11:54	GB	4/15/2022 15:57	TJ	
Pyrene	U	ug/L	0.050	0.025	1	4/15/2022 11:54	GB	4/15/2022 15:57	TJ	
Nitrobenzene-d5 (S)	103	%	30-110		1	4/15/2022 11:54	GB	4/15/2022 15:57	TJ	
2-Fluorobiphenyl (S)	65	%	30-110		1	4/15/2022 11:54	GB	4/15/2022 15:57	TJ	
p-Terphenyl-d14 (S)	89	%	30-140		1	4/15/2022 11:54	GB	4/15/2022 15:57	TJ	

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 2279708

Project ID: Costa Regency

PARAMETER QUALIFIERS

J2	Surrogate recovery was outside defined limits due to matrix interference.

PROJECT COMMENTS

2279708	A reported value of U indicates that the compound was analyzed for but not detected above the MDL. A value flagged with an "i" flag indicates that the reported value is between the laboratory method detection limit and the practical quantitation limit.

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QUALITY CONTROL DATA

Workorder: 2279708

Project ID: Costa Regency

QC Batch: XXX/16186 Analysis Method: EPA 8270/PAH SIM

QC Batch Method: EPA 3510C SIM

Associated Lab Samples: 2279601001 2279707001 2279707002 2279707003 2279707004 2279707005 2279707006 2279707007 2279708001 2279708002 2279731002 2279731004 2279732001 2279732002

METHOD BLANK: 252554

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
Semivolatiles by EPA 8270C				
Nitrobenzene-d5 (S)	%	97	30-110	
2-Fluorobiphenyl (S)	%	65	30-110	
p-Terphenyl-d14 (S)	%	106	30-140	
Naphthalene	ug/L	U	0.013	
2-Methylnaphthalene	ug/L	U	0.013	
1-Methylnaphthalene	ug/L	U	0.013	
Acenaphthylene	ug/L	U	0.00625	
Acenaphthene	ug/L	U	0.00625	
Fluorene	ug/L	U	0.00625	
Phenanthrene	ug/L	U	0.025	
Anthracene	ug/L	U	0.00625	
Fluoranthene	ug/L	U	0.00625	
Pyrene	ug/L	U	0.00625	
Benzo(a)anthracene	ug/L	U	0.00625	
Chrysene	ug/L	U	0.00625	
Benzo(b)fluoranthene	ug/L	U	0.00375	
Benzo(k)fluoranthene	ug/L	U	0.00375	
Benzo(a)pyrene	ug/L	U	0.00375	
Dibenzo(a,h)anthracene	ug/L	U	0.00125	
Indeno(1,2,3-cd)pyrene	ug/L	U	0.00375	
Benzo(g,h,i)perylene	ug/L	U	0.00375	

LABORATORY CONTROL SAMPLE & LCSD: 252555 252556

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Semivolatiles by EPA 8270C										
Nitrobenzene-d5 (S)	%				59	86	30-110	37	40	
2-Fluorobiphenyl (S)	%				45	57	30-110	24	40	
p-Terphenyl-d14 (S)	%				70	100	30-140	35	40	
Naphthalene	ug/L	0.806	0.458	0.473	57	59	30-140	3	40	
2-Methylnaphthalene	ug/L	0.801	0.438	0.458	55	57	30-140	4	40	
1-Methylnaphthalene	ug/L	0.8	0.457	0.477	57	60	30-140	4	40	
Acenaphthylene	ug/L	0.802	0.497	0.526	62	66	30-120	6	40	

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QUALITY CONTROL DATA

Workorder: 2279708

Project ID: Costa Regency

LABORATORY CONTROL SAMPLE & LCSD: 252555 252556

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Acenaphthene	ug/L	0.803	0.491	0.523	61	65	30-120	6	40	
Fluorene	ug/L	0.806	0.520	0.521	65	65	30-140	0.2	40	
Phenanthrene	ug/L	0.806	0.550	0.570	68	71	30-120	4	40	
Anthracene	ug/L	0.802	0.632	0.670	79	84	30-140	6	40	
Fluoranthene	ug/L	0.808	0.560	0.578	69	72	30-120	3	40	
Pyrene	ug/L	0.802	0.612	0.684	76	85	40-140	11	40	
Benzo(a)anthracene	ug/L	0.801	0.645	0.697	81	87	30-120	8	40	
Chrysene	ug/L	0.808	0.623	0.679	77	84	30-140	9	40	
Benzo(b)fluoranthene	ug/L	0.801	0.543	0.566	68	71	30-140	4	40	
Benzo(k)fluoranthene	ug/L	0.802	0.507	0.544	63	68	30-140	7	40	
Benzo(a)pyrene	ug/L	0.8	0.591	0.639	74	80	30-140	8	40	
Dibenzo(a,h)anthracene	ug/L	0.808	0.377	0.514	47	64	30-140	31	40	
Indeno(1,2,3-cd)pyrene	ug/L	0.806	0.521	0.543	65	67	30-140	4	40	
Benzo(g,h,i)perylene	ug/L	0.807	0.356	0.428	44	53	30-120	18	40	

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 2279708

Project ID: Costa Regency

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2279708002	**MW-7**	EPA 3510C SIM	XXX/16186	EPA 8270/PAH SIM	XMS/8316
2279708001	**MW-1**	EPA 3510C SIM	XXX/16186	EPA 8270/PAH SIM	XMS/8317

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J.E.L. Log # 2279708
P.O. # 340-001638
Quote # _____

Company Name: GHD
Address: 5904 Hampton Oaks Pkwy
City: Tampa State: FL Zip: 33610
Sampling Site Address: Brandon
Attn: Brian Moore Email:
Project Name: Costa Regency Project #: 11177535
Sampler Name/Signature: B. Ouchie

LAB ANALYSIS

Pres Codes: A
Parameters: PAH

Requested Turnaround Time
Note: Rush requests subject to acceptance by the laboratory
X Standard
___ Expedited
Due___/___/___

#	Sample Label (Client ID)	Collected Date	Collected Time	Matrix Code*	# of Cont	PAH	Field Filtered (Y/N)	Comments
1	MW-1	4-13-22	1049	GW	1	X		EDD
2	MW-7	4-13-22	1214	GW	1	X		Petroleum
3								
4								
5								
6								
7								
8								
9								
0								

Matrix Codes*
S Soil/Solid Sediment; SW Surface Water; GW Ground Water; SL Sludge; WW Waste Water; O Other (Please Specify); DW Drinking Water

Pres Codes
A- none; I- Ice; B- HNO_3; O- Other; C- H_2SO_4; M- MeOH; D- NaOH; N- $Na_2S_2O_3$; E- HCl; Z- ZnAc

Relinquished by	Date	Time	Received by	Date	Time
[signature]	4-13-22	1630	[signature]	4-13-22	1630
[signature] FLX	4-13-22	1900	FLX	4-13-22	1900
			PS	4/14/22	0700

QA/QC level with report
None ___1___2___3___ See price guide for applicable fees

FDEP Dry Cleaning ❑ FDEP UST Pre-Approval ❑
SFWMD ❑ ADaPT ❑ DOT ❑

Temp Control: 1.7 °C

SAMPLE RECEIPT CONFIRMATION SHEET

Client Information

SDG:	2279708	Profile:	2116
Client:	GHD Tampa	Project:	Brian Moore
Level:	1	Date Rec'd:	4/14/2022 7:00:00 AM
Rec'd via:	courier		

Cooler Check

ID	Temp (C)	# of samples	Arrived on Ice	Security Tape Present	Security Tape Intact	Comments	Temp Gun ID
	1.7	2	☑	☐	☐		Temp Gun 2

Checked By: KS

Sample Verification

Loose Caps?	No	All Samples on COC accounted For?	Yes
Broken Containers?	No	All Samples on COC?	Yes
pH Verified?	Yes	Written on Internal COC?	No
pH Strip Lot #	HC1603474	Sample Vol. Suff. For Analysis?	Yes
Acid Preserved Samples Lot #	22633	Samples Rec'd W/I Hold Time?	Yes
Base Preserved Samples Lot #		Are All Samples to be Analyzed?	Yes
Samples Received From	courier	Correct Sample Containers?	Yes
Soil Origin (Domestic/Foreign		COC Comments written on COC?	No
Site Location/Project on COC?	Yes	Samplers Initials on COC?	Yes
Client Project # on COC?	Yes	Sample Date/Time Indicated?	Yes
Project Mgr. Indicated on COC	Yes	TAT Requested:	STD
COC relinquished/Dated by Client?	Yes	Client Requests Verbal Results?	No
COC Received/Dated by JEL	Yes	Client Notified of discrepancies?	No
JEL to Conduct ALL Analyses?	Yes	Do VOC vials have headspace or a bubble <6mm (1/4")?	N/A
Number of Encores	0	Number of Lab Filtered Metals	0

Subcontract Analysis

Parameter	Via	Lab Name	Comments

ghd.com

→ The Power of Commitment