



Restoring the Environment.
Protecting Our Future.

June 19, 2024

Ms. Natasha Darre
NASA
Mail Code SI-E2
Building K6-1547 (Logistics Facility)
Room 2910A
Kennedy Space Center, Florida 32899-0001

**Re: Contract Number: 80KSC019D0012
Task Order Number: 80KSC019F088
2024 Monitoring Well Installation Report; Solid Waste Management Units 003, 077, and 079;
Ransom Road Landfill, Vertical Processing Facility, and Environmental Health Facility at
Kennedy Space Center, Florida**

Dear Ms. Darre,

HydroGeoLogic, Inc. (HGL) is pleased to submit the 2024 Well Installation Report for three Solid Waste Management Units: 003, 077, and 079; Ransom Road Landfill, Vertical Processing Facility and Environmental Health Facility at Kennedy Space Center, Florida.

Please feel free to contact us to discuss any comments and/or questions you have regarding this submittal.

Please call (321) 505-3913 should you have any questions.

Sincerely,

Jellett, Tim

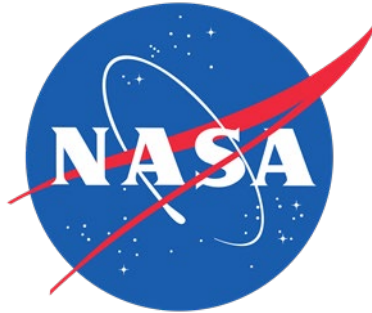
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Tim Jellett, P.G.
Project Manager

**MONITORING WELL INSTALLATION
COMPLETION REPORT
FOR
RANSOM ROAD LANDFILL, VERTICAL PROCESSING FACILITY,
AND ENVIRONMENTAL HEALTH FACILITY,
SOLID WASTE MANAGEMENT UNITS: 003, 077, AND 079**

**AT
KENNEDY SPACE CENTER, FLORIDA**

Prepared for



**SpacePort Integration and Services
Environmental Assurance Branch – Remediation Group
National Aeronautics and Space Administration
John F. Kennedy Space Center**

**Contract No. 80KSC019D0012
Task Order No. 80KSC019F088**

Prepared by

**HydroGeoLogic, Inc.
2405 N. Courtenay Parkway, Suite 203
Merritt Island, FL 32953**

June 2024

Revision 0

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SCOPE OF WORK

The intended purpose of the Monitoring Well Installation project is to support the Kennedy Space Center (KSC) Environmental Remediation Department's Resource Conservation and Recovery Act Program by installing new monitoring wells. The wells are installed in accordance with the Brevard County Health Department and St. Johns River Water Management Districts rules and guidelines. The monitoring well installations were completed under the National Aeronautics and Space Administration (NASA) Contract 80KSC019D0012, Task Order 80KSC019F0088.

MONITORING WELL INSTALLATION OVERVIEW

The well installation activities were completed on April 23, 2024 and April 24, 2024. Three different sites were identified by the KSC Remediation Project Manager as needing new monitoring wells or replacement wells due to damage. The three sites are listed below:

- Ransom Road Landfill (RRLF), Solid Waste Management Unit (SWMU) 003;
- Vertical Processing Facility (VPF), SWMU 077; and
- Environmental Health Facility (VHF), SWMU 079.

A total of three wells were installed at these sites. The Table below.

TABLE 1
MONITORING WELL INSTALLATION SUMMARY LIST

Well ID	Easting (m)	Northing (m)	Well Depth (ft)	Well Diameter (in)	Completion	Well Installation Date
RRLF-MW0043	230547.5784	462027.3315	25	1	Stick Up	4/23/2024
VPF-MW0032	235785.1593	462708.3688	13	1	Flush	4/23/2024
EHF-MW0009	234772.3891	466305.2934	25	1	Flush	4/24/2024

In order to facilitate the location of the wells on KSC, site maps were generated based on the information gathered from the Remediation Information System. **Figure 1** depicts the installed well at RRLF. **Figure 2** depicts the installed well at VPF. **Figure 3** depicts the well that was installed at EHF.

Field documentation including a photo log of the installation field efforts is included as **Attachment A**, and well installation permits are included as **Attachment B**. As previously mentioned, HGL obtained permits from the Brevard County Health Department. Following the installations, the monitoring wells were surveyed by a state of Florida licensed surveyor and the survey data is included as **Attachment C**.

No additional activities were completed at the three sites. If you have any questions or comments, please contact me at (321) 505-3913.

Sincerely,

Tim Jellett, P.G.
Senior Project Manager
HydroGeologic, Inc.

Attachments:

Figure 1 – Ransom Road Landfill Well Location

Figure 2 – Vertical Processing Facility Well Location

Figure 3 – Environmental Health Facility Well Location

Attachment A – Field Documentation and Photo Log

Attachment B – Monitoring Well Installation Permits

Attachment C – Monitoring Well Survey Data

FIGURES

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Figure 1
SWMU 003
Ransom Road Landfill
Site Layout

Legend

-  Monitoring Well to be Installed
-  SWMU 003 Boundary
-  Kennedy Space Center

Notes:
SWMU=solid waste management unit

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Source: HGL
ArcGIS Online Imagery



Figure 2
SWMU 077
Vertical Processing Facility
Site Layout

Legend

-  Monitoring Well to be Installed
-  SWMU 077 Boundary
-  Kennedy Space Center

Notes:
SWMU=solid waste management unit

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ArcGIS Online Imagery

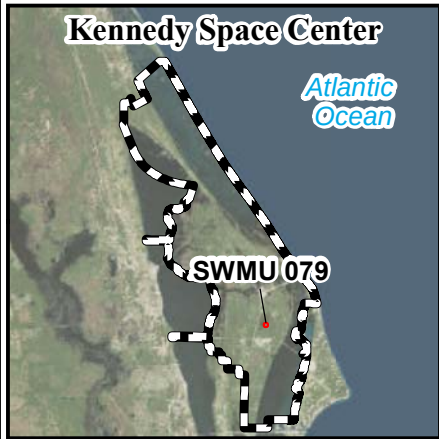
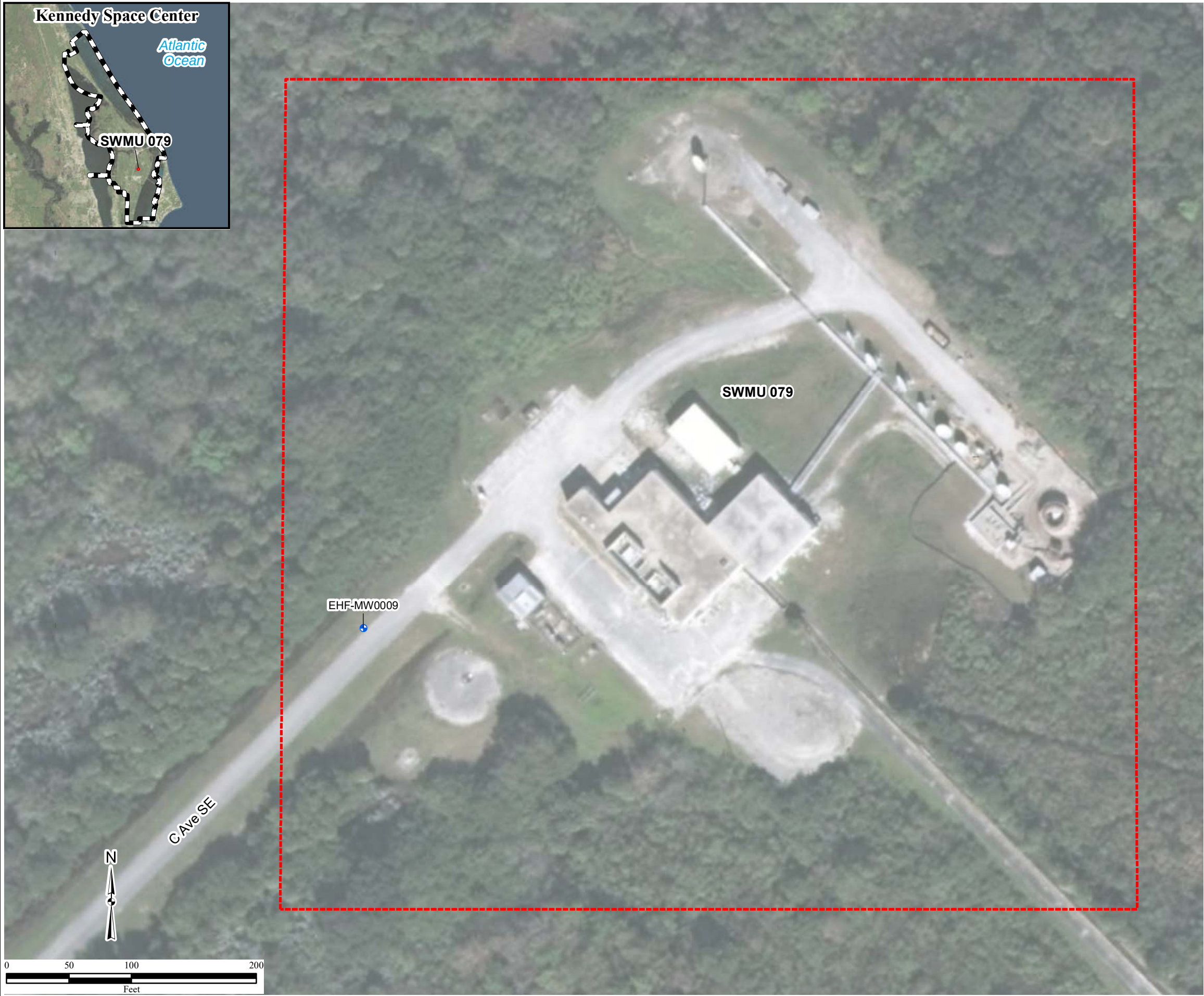


Figure 3
SWMU 079
Environmental Health Facility
Site Layout

Legend

-  Monitoring Well to be Installed
-  SWMU 079 Boundary
-  Kennedy Space Center

Notes:
SWMU=solid waste management unit

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ATTACHMENT A
FIELD DOCUMENTATION AND PHOTO LOG

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Daily Quality Control Report

Daily Quality Control Report		Day	S	M	T	W	TH	F	S
Date: 4/23/2024					X				
Remediation Project Manager:	Natasha Darre	Weather	Bright Sun		Clear	Overcast		Rain	Fog
HGL Program Manager:	Richard Smith PE		X						
HGL Project Manager:	Tim Jellett	Temp	Min. 61			Max. 75			
Contract No.	80KSC019D0012	Wind	Still	Moderate		High		Gust	
Task Order No.	80KSC019F0088			X					
Project No.:	NS1008.01.06	Humidity	Dry	Moderate		High		Rainfall	
Project Name:	Installation & Abandonment of			X				0%	
(RRLF, VPF, and EHF)	Monitoring Wells at Various Sites								
1. List of On-Site Personnel:									
1.1 List of HGL Personnel Onsite									
HGL Employee Name	Position	Location	Hours	Non-Hours	Total Hours				
Meghan West	Geologist I	RRLF and VPF	7		7				
					0				
TOTAL HGL PERSONNEL ONSITE			1	TOTAL HOURS WORKED			7		
1.2 List of GOV. Personnel Onsite									
Personnel Onsite	Affiliation / Position		Location		Est. Total Hours				
TOTAL GOV PERSONNEL ONSITE			0				0		
1.3 Subcontractors Onsite									
Employee Name	Company / Position	Location	Hours	Non-Hours	Total Hours				
Christian Dodd	Drill Pro	RRLF and VPF	7		7				
Tyler Watson	Drill Pro	RRLF and VPF	7		7				
TOTAL SUBCONTRACTOR PERSONNEL ONSITE			2	TOTAL HOURS WORKED			14		
2. List of Equipment									
2.1 Heavy Equipment									
Equipment	Date Arrived/Departed	Date of Safety Check	Hours Used	Hours Idle	Hours Repair				
2.2 Instrumentation & Equipment									
Description Of Instrumentation	Date Arrived/Departed	Pre/Post Calibration Conducted	Cal Form Completed	Pass / Fail	Hours Used				
3. Field Activities									
DFOW / ACTIVITY / DELIVERIES	S = Start		Description of Work Actually Performed / Material Deliveries						
	C = Continuing								
	F = Finish								
Monitoring Well Installation	S = Start		Installed 1 monitoring well at RRLF and 1 monitoring well at VPF.						
4. Testing and Sampling Activities									
4.1 Sampling Conducted									
Location	Analysis		Results - Detected / Not Detected						
NA	NA		NA						
5. Job Safety: (TGSM Topics, Report violations, instructions given, corrective action taken)									
Slips, Trips, Falls, Pinch Points, Hand Tools, Biologicals, Struck By, Chemical Hazards, Dehydration, Vehicle Safety									
6. Description of Work Completed									
0700- M. West arrives at CCSFS field office to load work truck and prepare paperwork									
0730- Contact KSC Support for dig status.									
0741- Contact John Bower for RRLF site access.									
0810- M. West mob to NASA badging station.									
0830- All personnel meet at badging station and mob to RRLF.									
0840- All personnel arrive on site and wait for security escort through active construction site to drill location.									
0947- All personnel arrive at RRLF entrance at the exit of construction site. Unload truck and drill rig.									
1000- Sign SSHASP, perform TGSM and drill rig inspection.									
1010- Mob to drill location RRLF-MW0043.									
1025- Set up to drill out at RRLF-MW0043.									
1032- Hand cleared at 5 ft.									
1050- Begin drill out at RRLF-MW0043.									
1059- Reached total depth at 25 ft. Begin well installation.									
1130- Installation complete, break down.									
1142- Begin development of well RRLF-MW0043.									

Daily Quality Control Report

1210- C. Dodd brings drill rig back to exit of active construction site.
1230- Honda pump runs out of fuel. M. West retrieves fuel at parked truck at active construction site exit. Well development paused.
1255- Well development resumes.
1345- Well development complete.
1410- All personnel move to VPF.
1438- Set up at well location VPF-MW0032.
1443- Hand cleared to 5 ft.
1450- Begin drill out at VPF-MW0032.
1452- Reached total depth. Begin well installation.
1500- Installation complete, break down.
1525- Begin development of well VPF-MW0032.
1610- Well development complete.
1611- Crew pack up work trucks and rig.
1620- All personnel move to CCF IDW Storage Area. All personnel offsite. Site secured.
1635- All personnel arrive at CCF IDW Storage Area. Stage drum # 232523 on pallet #228349. Transferred approximately 25 gal of purge water from RRLF into drum # 232523. Staged drum #232521 on pallet #220963. Transferred approximately 45 gal of purge water from VPF into drum #232521.
1640- M. West Move to CCSFS field office. C. Dodd and T. Watson demob. End of day.
Please see field notes for additional details.

7. 3-PHASE INSPECTION (Preparatory / Initial / Final Follow-Up)

Name of Inspection Held	Gov. Notified (Y/N)	Definable Feature of Work	Checklist Completed
I Certify that I am the Contractor's Authorized Representative and that the above information stated in this Daily Activity Report is accurate and representative of the work completed.			
Printed Name: Meghan West		4/23/2024	
Signature: <i>Meghan West</i>		4/23/2024	
I Certify that I am the Contractor's Authorized Quality Control Representative and that this Daily Activity Report conforms with all appropriate and approved Work Plan Statement of Work.			
Printed Name: Tim Jellett		4/23/2024	
Signature: _____		4/23/2024	



SAFETY MEETING/TRAINING LOG

- ☒ Tailgate (daily)
- ☐ Activity Hazard Analysis
- ☐ Pre-Task Hazard Analysis (prior to new task or operation)
- ☐ Site Safety Orientation (new personnel)
- ☐ Supervisor's (monthly)
- ☐ Supervisor's (weekly)
- ☐ UXO Awareness
- ☐ Asbestos Awareness
- ☐ Health and Safety Plan Addendum: _____
- ☐ Other: _____

Date/Time: 4/23/2024

Client: NASA/KSC

Location: NASA/KSC

Job No.: NS1008-01.06

Meeting/training conducted by: Meghan West

Work Activities: installion groundwater monitoring wells

Safety / Training Topics Presented

Chemical Hazards: VOCs

Physical Hazards: slips, trips, falls, pinch points, struck by, heat stress, biologicals

Specific Safety Topic(s): sound pollution/hearing loss

Specific Training Covered: use ear/hearing protection such as earplugs while DPT drill rig is in use.

Attendees

Name Printed and Employee Number:

Signature:

Meghan West
Christen Dodd
Tyler Watson

Meghan West
Tyler Watson

 Drilling Equipment and Operations Inspection Pre-Mobilization	Contractor: Drill Pro
Drill Rig Manufacturer/Model: DPT H ^{ms} 7822	Hours/Mileage: N/A / 4188
Inspection Completed By: Meghan West / Christopher Veda	Equipment No.: 191
Project Number: NS1008.01.06	Date: 4/23/24

Answer each question by checking the appropriate column (Yes, No, or NA). If "no" is checked, an explanation should be provided in the space available. This checklist is to be completed by the drilling contractor prior to and upon mobilization to the project site. This checklist is to be submitted to the Site Safety and Health Officer (SSHO) prior to drilling or boring.

Pre-Mobilization and Mobilization

	Yes	No	NA
1. Has drill rig been thoroughly inspected by a competent person (using USACE Safety Inspection Checklist for Construction Equipment) at contractor's shop prior to bringing on site? Explanation: _____	☒	☐	☐
2. Does driller or driver have valid Commercial Driver's License? Explanation: _____	☒	☐	☐
3. Does driller or driver have current DOT physical examination card? Explanation: _____	☒	☐	☐
4. Is DOT logbook available in rig cab with entries up to date? Explanation: _____	☒	☐	☐
5. Is each drilling operations worker participating in a hearing conservation program? Explanation: _____	☒	☐	☐
6. Do drilling personnel have current documented training in: -			
- 40-Hour or 24-hour HAZWOPER?	☒	☐	☐
- 8-Hour Annual HAZWOPER Refresher (if applicable)?	☒	☐	☐
- Hearing Conservation?	☒	☐	☐
- MEC Awareness Training?	☒	☐	☐
- Hazard communication training for operational chemicals (e.g., Bentonite, fuel, etc.)?	☒	☐	☐
- Proper rig operating procedures?	☒	☐	☐
Explanation: _____			
7. Has each worker reviewed and signed the safety plan agreement/acknowledgement statement? Explanation: _____	☒	☐	☐
8. Are applicable drilling materials/supplies Material Safety Data Sheets (MSDSs) available at the site and attached to the AHA? Explanation: _____	☒	☐	☐
9. Are drilling personnel familiar with designated emergency procedures? Explanation: _____	☒	☐	☐
10. Were underground utilities located and marked prior to the start of drilling operation (each bore-hole location)? Explanation: _____	☒	☐	☐

 Drilling Equipment and Operations Inspection Pre-Mobilization	Contractor: Drill Pro
	Date: 4/23/24

Pre-Mobilization and Mobilization (continued)

	Yes	No	NA
11. Were overhead utilities identified and accounted for prior to the start of drilling operations (each bore location)? Explanation: <u>There are no overhead utilities</u>	☐	☐	☒
12. Are all warning and control labels on drill rig in place, clean, and legible? Explanation: _____	☒	☐	☐
13. Is a copy of the manufacturer's operator's manual available in rig for reference? Explanation: _____	☒	☐	☐
14. Has the preventative maintenance been performed as recommended by the manufacturer? Explanation: _____	☒	☐	☐
15. Are "kill switches" installed by the manufacturer in operable condition and all workers at the drill site are familiar with their location and how to activate them? Explanation: _____	☒	☐	☐
16. Is the drill rig equipped/provided with a means (e.g., guard around the auger; barricade around the perimeter of the auger; electronic brake activated by a presence-sensing device) to guard against employee contact with the auger. Explanation: <u>no auger</u>	☐	☐	☒
17. Are drive shafts, belts, chain drives, and universal joints guarded to prevent accidental insertion of hand, fingers, or tools? Explanation: <u>no drive shafts, belts, chain drives or universal joints</u>	☐	☐	☒
18. Are all hydraulic fittings and hoses free of damage, tightened, and not leaking (including panel)? Explanation: _____	☒	☐	☐
19. Do high-pressure hoses have a safety (chain, cable, or strap) at each end of the hose connection to prevent whipping in the event of a failure (safety lashing)? Explanation: _____	☐	☐	☒
20. Is rig clean and free of soils, oils, and other debris? Explanation: _____	☒	☐	☐
21. Are there any miscellaneous leaks on rig? Explanation: _____	☐	☒	☐
22. Are tires fully inflated and in good condition? Explanation: <u>no tires</u>	☐	☐	☒
23. Do the parking brakes function properly? Explanation: _____	☐	☐	☒
24. Do controls operate smoothly; cables and lifting devices do not operate erratically to overcome resistance? Explanation: _____	☒	☐	☐
25. Do controls have freedom of movement, not blocked, or locked in an action position? Explanation: _____	☒	☐	☐

 Drilling Equipment and Operations Inspection Pre-Mobilization	Contractor: Drill Pro	
	Project Number: NS1008.01.06	Date: 4/23/24

Pre-Mobilization and Mobilization (continued)

	Yes	No	NA
26. Are safety devices not bypassed or neutralized? Explanation: _____	☐	☒	☐
27. Is an acceptable spark arrestor installed and working? Explanation: <u>there is no spark arrestor.</u>	☐	☐	☒
28. Does the backup alarm function properly? Explanation: <u>no backup alarm</u>	☐	☐	☒
29. Are all cables free of kinks, frayed wires, "bird cages," and worn or missing sections? Explanation: _____	☒	☐	☐
30. Are wire rope, sockets, splices, thimbles, and clips adequate and properly applied? Explanation: <u>no wire rope, socket, splices, thimbles, or clips</u>	☐	☐	☒
31. Are cables terminated on the working end with a proper eye splice, either swaged coupling or using cable clamps? Explanation: _____	☒	☐	☐
32. Are cable clamps installed with the saddle on the live or load side? Clamps should not be alternated and should be of the correct size and number for the cable size to which it is installed. Are clamps complete with no missing parts? Explanation: <u>no cable clamps</u>	☐	☐	☒
33. Are hooks, safety latches, shackles, rings, etc., in good condition? Explanation: _____	☒	☐	☐
34. Are safety latches functional and completely span the entire throat of the hook and have a positive action to close the throat except when manually displaced for connecting or disconnecting a load? Explanation: _____	☒	☐	☐
35. Are wedge sockets and hoisting plugs in good condition and properly installed? Explanation: <u>no wedge sockets or hoisting plugs</u>	☐	☐	☒
36. Are fire extinguishers available and charged with service tag current within past year? Explanation: _____	☒	☐	☐
37. Are first aid kit and blood-borne pathogen kit available and inspected for contents? Explanation: _____	☒	☐	☐
Drill Rig Inspection (supplemental manufacturer's inspection points for specific rig)			
38. Are hydraulic fluid levels OK according to manufacturer's recommendations? Explanation: _____	☒	☐	☐
39. Are motor oil levels OK according to manufacturer's recommendations? Explanation: _____	☒	☐	☐
40. Are coolant levels OK according to manufacturer's recommendations? Explanation: _____	☒	☐	☐



**Drilling Equipment and Operations Inspection
Pre-Mobilization**

Contractor: Drill Pro

Project Number: NS1008.01.06

Date: 4/23/24

**Drill Rig Inspection (supplemental manufacturer's inspection points for specific rig)
(continued)**

	Yes	No	NA
41. Are air cleaner systems OK according to manufacturer's recommendations? Explanation: _____	☒	☐	☐
42. Are belt and pulley systems OK according to manufacturer's recommendations? Explanation: _____	☒	☐	☐
43. Are all guards in place and adjusted properly? Explanation: _____	☒	☐	☐
44. Is tub oil level OK (if equipped)? Explanation: <u>no tub oil</u>	☐	☐	☒
45. Are hydraulic stabilizer pads OK? Explanation: <u>no hydraulic stabilizer(pad)</u>	☐	☐	☒
46. Are welder and generator oil levels OK according to manufacturer's recommendations? Explanation: <u>no welder or generator oils</u>	☐	☐	☒
47. Are pull down cables inspected and in good condition? Explanation: <u>no pull down cables</u>	☐	☐	☒
48. Are pull down cables properly adjusted? Explanation: <u>no pull down cables</u>	☐	☐	☒
49. Are pull down cables properly lubricated? Explanation: <u>no pull down cables</u>	☐	☐	☒
50. Explanation: _____	☐	☐	☐
51. Explanation: _____	☐	☐	☐
52. Explanation: _____	☐	☐	☐
53. Explanation: _____	☐	☐	☐
54. Explanation: _____	☐	☐	☐
55. Explanation: _____	☐	☐	☐

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA					
Well Number: RRLF-MW0043		Site Name: Ransom Road Landfill (RRLF)		FDEP Facility I.D. Number: N/A	
Well Location and Type (check appropriate boxes): ☒ On-Site ☐ Right-of-Way ☐ Off-Site Private Property ☐ Above Grade (AG) ☐ Flush-to-Grade		Well Purpose: ☐ Perched Monitoring ☐ Shallow (Water-Table) Monitoring ☒ Intermediate or Deep Monitoring ☐ Remediation or Other (describe)		Well Install Date(s): 4/23/2024	
If AG, list feet of riser above land surface:				Well Install Method: DPT	
				Surface Casing Install Method: NA	
Borehole Depth (feet): 25	Well Depth (feet): 25	Borehole Diameter (inches): 3.25	Manhole Diameter (inches): 8	Well Pad Size: 2 feet by 2 feet 4 inches	
Riser Diameter and Material: 1 in. SCHD 40 PVC		Riser/Screen Connections: ☒ Flush-Threaded ☐ Other (describe)	Riser Length: 18 feet from 15 feet to 3 feet above ground surface		
Screen Diameter and Material: 1 in. SCHD 40 PVC		Screen Slot Size: 10 slot	Screen Length: 10 feet from 25 feet to 15 feet		
1 st Surface Casing Material: also check: ☐ Permanent ☐ Temporary		1 st Surface Casing I.D. (inches):	1 st Surface Casing Length: _____ feet from _____ feet to _____ feet		
2 nd Surface Casing Material: also check: ☐ Permanent ☐ Temporary		2 nd Surface Casing I.D. (inches):	2 nd Surface Casing Length: _____ feet from _____ feet to _____ feet		
3 rd Surface Casing Material: also check: ☐ Permanent ☐ Temporary		3 rd Surface Casing I.D. (inches):	3 rd Surface Casing Length: _____ feet from _____ feet to _____ feet		
Filter Pack Material and Size: 20/30 silica sand		Prepacked Filter Around Screen (check one): ☒ Yes ☐ No	Filter Pack Length: 12 feet from 25 feet to 13 feet		
Filter Pack Seal Material and Size: 30/65 silica sand			Filter Pack Seal Length: 2 feet from 13 feet to 11 feet		
Surface Seal Material: portland cement			Surface Seal Length: 11 feet from 11 feet to surface		

WELL DEVELOPMENT DATA			
Well Development Date: 4/23/2024		Well Development Method (check one): ☐ Surge/Pump ☒ Pump ☐ Compressed Air ☐ Other (describe)	
Development Pump Type (check): ☐ Centrifugal ☐ Peristaltic ☐ Submersible ☒ Other (describe) Honda Pump		Depth to Groundwater (before developing in feet): 6.53 feet	
Pumping Rate (gallons per minute): ~ 0.19	Maximum Drawdown of Groundwater During Development (feet): N/A		Well Purged Dry (check one): ☐ Yes ☒ No
Pumping Condition (check one): ☒ Continuous ☒ Intermittent	Total Development Water Removed (gallons): 25	Development Duration (minutes): 110	Development Water Drummed (check one): ☒ Yes ☐ No
Water Appearance (color and odor) At Start of Development: gray/brown, no odor		Water Appearance (color and odor) At End of Development: slightly murky, no odor	

WELL CONSTRUCTION OR DEVELOPMENT REMARKS
- pause in development due to needing more pump fuel. - completed well development to not surge over 50 gal.

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA					
Well Number: VPF- MW0032		Site Name: Vertical Processing Facility (VPF)		FDEP Facility I.D. Number: N/A	
Well Location and Type (check appropriate boxes): ☒ On-Site ☐ Right-of-Way ☐ Off-Site Private Property ☐ Above Grade (AG) ☐ Flush-to-Grade		Well Purpose: ☐ Perched Monitoring ☒ Shallow (Water-Table) Monitoring ☐ Intermediate or Deep Monitoring ☐ Remediation or Other (describe)		Well Install Date(s): 4/23/2024	
If AG, list feet of riser above land surface:				Well Install Method: DPT	
				Surface Casing Install Method: N/A	
Borehole Depth (feet): 13	Well Depth (feet): 13	Borehole Diameter (inches): 3.25	Manhole Diameter (inches): 8	Well Pad Size: 2 feet by 2 feet 4 in	
Riser Diameter and Material: 1 in. SCHD 40 PVC		Riser/Screen Connections: ☒ Flush-Threaded ☐ Other (describe)	Riser Length: 3 feet from 3 feet to surface feet		
Screen Diameter and Material: 1 in. SCHD 40 PVC		Screen Slot Size:	Screen Length: 10 feet from 13 feet to 3 feet		
1 st Surface Casing Material: also check: ☐ Permanent ☐ Temporary		1 st Surface Casing I.D. (inches):	1 st Surface Casing Length: _____ feet from _____ feet to _____ feet		
2 nd Surface Casing Material: also check: ☐ Permanent ☐ Temporary		2 nd Surface Casing I.D. (inches):	2 nd Surface Casing Length: _____ feet from _____ feet to _____ feet		
3 rd Surface Casing Material: also check: ☐ Permanent ☐ Temporary		3 rd Surface Casing I.D. (inches):	3 rd Surface Casing Length: _____ feet from _____ feet to _____ feet		
Filter Pack Material and Size: 20/30 Silica Sand	Prepacked Filter Around Screen (check one): ☒ Yes ☐ No		Filter Pack Length: 11 feet from 13 feet to 2 feet		
Filter Pack Seal Material and Size: 30/65 Silica Sand			Filter Pack Seal Length: 1 feet from 2 feet to 1 feet		
Surface Seal Material: portland cement			Surface Seal Length: 1 feet from 1 feet to surface feet		

WELL DEVELOPMENT DATA			
Well Development Date: 4/23/2024		Well Development Method (check one): ☐ Surge/Pump ☒ Pump ☐ Compressed Air ☐ Other (describe)	
Development Pump Type (check): ☐ Centrifugal ☐ Peristaltic ☐ Submersible ☒ Other (describe) nonda pump		Depth to Groundwater (before developing in feet): 3.77 feet	
Pumping Rate (gallons per minute): ~ 1 gal/min	Maximum Drawdown of Groundwater During Development (feet): N/A		Well Purged Dry (check one): ☐ Yes ☒ No
Pumping Condition (check one): ☒ Continuous ☐ Intermittent	Total Development Water Removed (gallons): 45	Development Duration (minutes): 45	Development Water Drummed (check one): ☒ Yes ☐ No
Water Appearance (color and odor) At Start of Development: dark brown, no odor		Water Appearance (color and odor) At End of Development: clear, no odor	

WELL CONSTRUCTION OR DEVELOPMENT REMARKS

Location KSC/NASA RRLF & VPFDate 4/23/24Project / Client KSC / NASANS1008.01.06Purpose - install monitoring wells (2) ^{@ RRLF and VPF}Personnel - M. West (HGL), C. Dodd (Drill Pro), & T. Watson (Drill Pro)Equipment - static water level meter #250548, hand tools, 15-gal buckets/hoses, work trucks, decon supplies (5-gal buckets, Luminol, potable water, DI water), nitrile gloves, DPT driller rig, Level DPPE, Honda gas pump, tubingWeather - H-75°F, L-61°F, sunny, Prec-0%, 7mph NE winds

0700 - M. West arrive at field office (CCSFS)

to load work truck & prepare paperwork ^{permission}0730 - Call KSC support for dig status - ~~okay~~ ^{today}

0741 - contacted John Bower (Blue Origin) for site access at RRLF

0810 - mob to NASA badging station

0830 - all personnel meet at badging station & mob to Ransom Road Landfill (RRLF)

0840 - all personnel arrive on site, wait for security / escort through active construction site to get to drill location

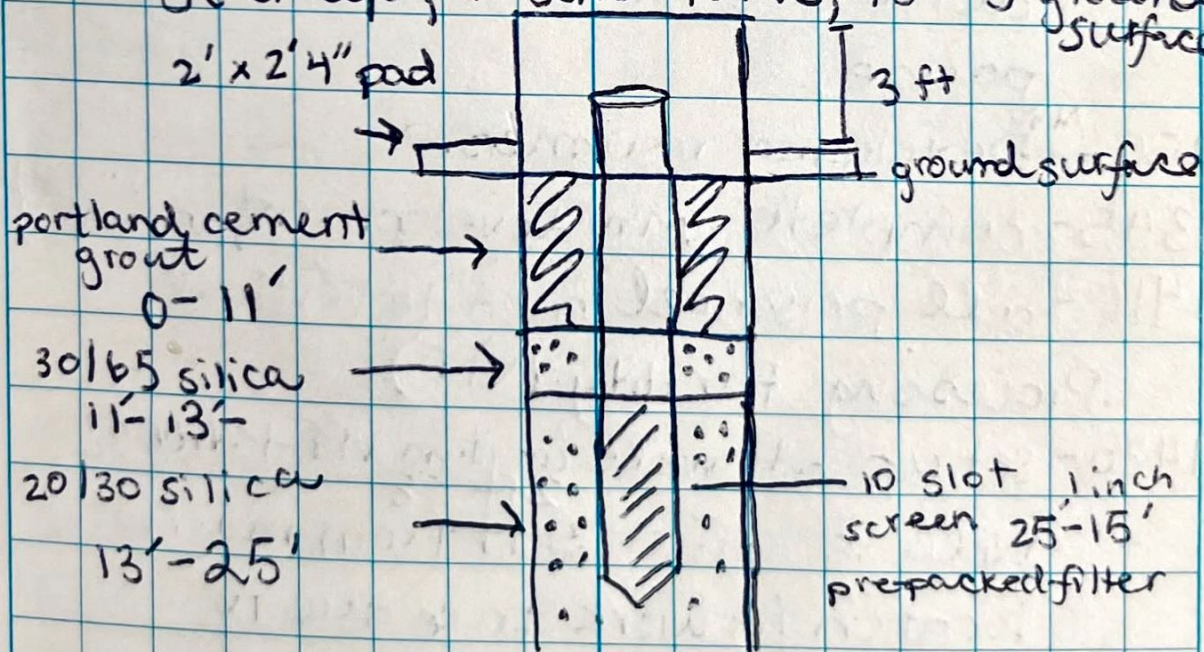
0947 - all personnel at RRLF entrance at exit of construction site. Unload truck / drill rig.

1000 - perform TGSM, drill rig inspection, and sign SHASP.

NS1008.01.06

- 1010 - mob to drill location RRLF-MW0043
- 1025 - set up to drill out at RRLF-MW0043
- 1032 - hand cleared at 5 ft
- 1050 - Begin drill out at RRLF-MW0043
- 1059 - TD @ 25 ft. Begin well installation.

- screen 1" SCHD 40 PVC, 10 slot, 25'-15'
- 20/30 filter pack silica sand, 25'-13'
- 30/65 filter pack seal silica sand, 13'-11'
- Grout, portland cement, 11' - surface
- stick up, 1" SCHD 40 PVC, 15'-3' ^{above} ground surface



1130 - installation complete, breakdown
 * well was installed 5 ft SE of original marked location due to an obstruction 1 ft below ground 2" in all directions. *

NS1008.01.06

1142 - Begin development of well RRLF-MW0043.

DTW: 6.53 feet, Flow Rate: ≈ 0.19 gal/min

Honda pump, gray brown, no odor

* 1110 - Mike Collins from Blue Origin arrives on site

* 1120 - M. Collins leaves site

1210 - C. Dodd brings drill rig back to
active construction site.

1230 - Honda pump runs out of fuel.

M. West gets fuel at parked truck at
active construction site. Well developing
pause.1255 - ^{MW}1 Developing resumes.1345 - complete MW development, n.o. ^{slightly} murky

1410 - all personnel mob to vertical

Processing Facility (VPF)

1438 - set up at well location VPF-MW0032.

Well is offset ^{2 ft SE} ~~4 ft~~ from marked
location for work space due to
nearby well.

1443 - hand cleared to 5 ft

1450 - Begin drill out at VPF-MW0032.

1452 - screen 1" SCHD 40 PVC, 10 slot, 13'-3"

• Riser 1" SCHD 40 PVC, 3'-0"

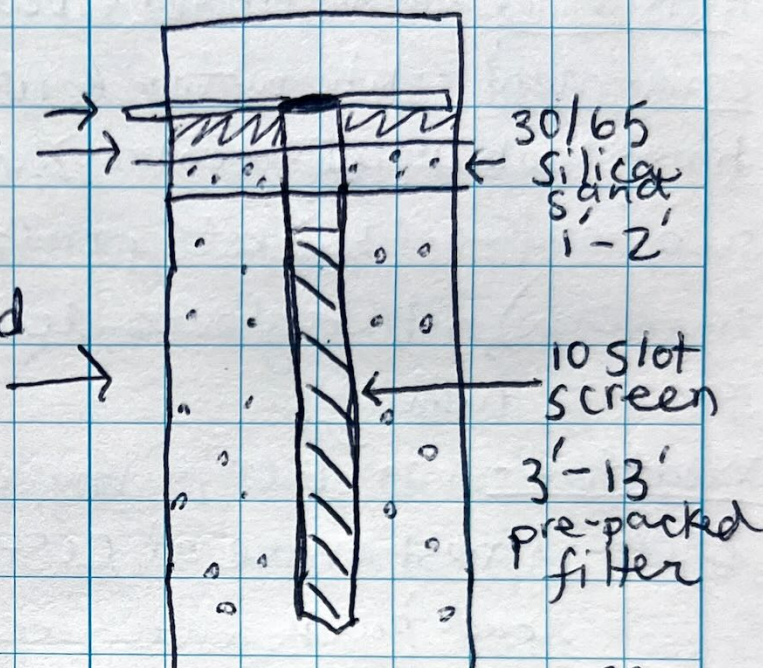
• 20/30 filter pack silica sand, 13'-2"

• 30/65 filter pack seal silica, 2'-1"

portland cement, grout 1'-0'

2'x2'4" wellpad
portland cement
0'-1'

20/30 silica sand
2'-13'



1452-^{mw} TD @ 13 ft. Begin well install

1500 - installation complete, break down

1525 - Begin development for VPF-MW0032

RTW: 3.77 ft, Flow Rate: 1 gal/min

Honda Pump, dark brown, no odor

1610 - Development complete, clear, no odor

1611 - crew pack up work trucks / rig

1620 - all personnel mob to CCF IDW area.

1635 - arrive at CCF IDW storage area.

staged drum # ²³²⁵²³ ~~190804~~, ^{mw} pallet 220349

(RRLF well purge / dev water) → transferred

≈ 25 gal. staged drum # ^{mw} ~~190805~~

232521 pallet # 220963, transferred ≈ 45 gal

1640 of VPF purge / well development IDW.

1640 - M. West mob to CCF's field office

1700 - end of day

Rite in the Rain

NASA – RRLF & VPF Well Installations



Photograph No.: 1

Photographer: M. West

Date: 4/23/2024

Description: Drill Pro employee installing monitoring well RRLF-MW0043.



Photograph No.: 2

Photographer: M. West

Date: 4/23/2024

Description: Drill Pro employee deconning drill rod at well RRLF0MW0043.

NASA – RRLF & VPF Well Installations



Photograph No.: 3

Photographer: M. West

Date: 4/23/2024

Description: Newly installed monitoring well RRLF-MW0043.



Photograph No.: 4

Photographer: M. West

Date: 4/23/2024

Description: Drill Pro employee hand clearing at monitoring well VPF-MW0032.

NASA – RRLF & VPF Well Installations



Photograph No.: 5

Photographer: M. West

Date: 4/23/2024

Description: Drill Pro employees installing well pad around monitoring well VPF-MW0032.



Photograph No.: 6

Photographer: M. West

Date: 4/23/2024

Description: Newly installed monitoring well VPF-MW0032.

NASA – RRLF & VPF Well Installations

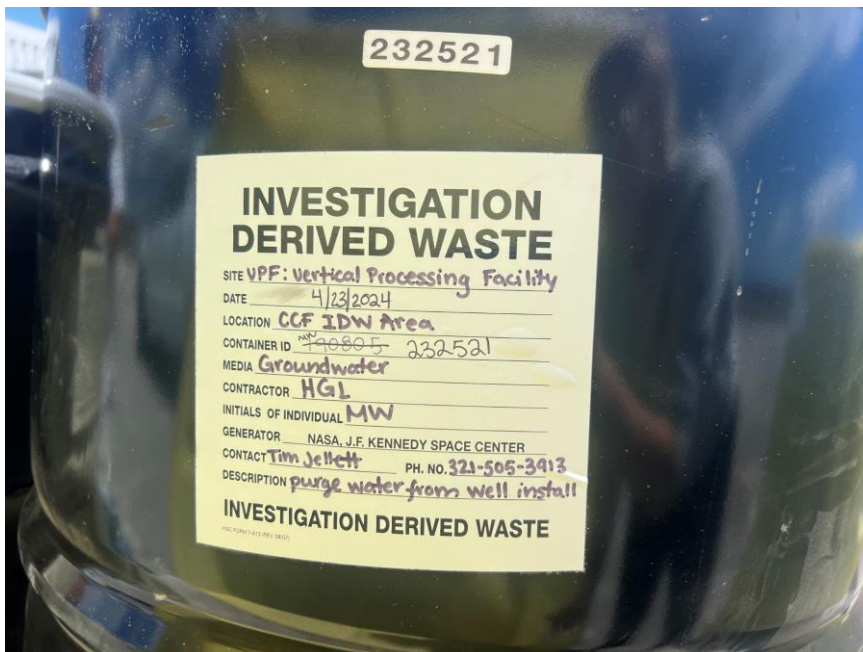


Photograph No.: 7

Photographer: M. West

Date: 4/23/2024

Description: IDW drum # 232523 on pallet #228349 located at CCF IDW Storage Area. Staged on 4/23/2024.



Photograph No.: 8

Photographer: M. West

Date: 4/23/2024

Description: IDW drum # 232521 on pallet #220963 located at CCF IDW Storage Area. Staged on 4/23/2024.

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Daily Quality Control Report

Daily Quality Control Report		Day	S	M	T	W	TH	F	S
Date: 4/24/2024						X			
Remediation Project Manager:	Natasha Darre	Weather	Bright Sun		Clear	Overcast		Rain	Fog
HGL Program Manager:	Richard Smith PE		X						
HGL Project Manager:	Tim Jellett	Temp	Min. 60			Max. 79			
Contract No.	80KSC019D0012	Wind	Still	Moderate		High		Gust	
Task Order No.	80KSC019F0088			X					
Project No.:	NS1008.01.06	Humidity	Dry	Moderate		High		Rainfall	
Project Name:	Installation & Abandonment of			X				0%	
(RRLF, VPF, and EHF)	Monitoring Wells at Various Sites								
1. List of On-Site Personnel:									
1.1 List of HGL Personnel Onsite									
HGL Employee Name	Position	Location	Hours	Non-Hours	Total Hours				
Meghan West	Geologist I	EHF	5		5				
					0				
TOTAL HGL PERSONNEL ONSITE			1	TOTAL HOURS WORKED			5		
1.2 List of GOV. Personnel Onsite									
Personnel Onsite	Affiliation / Position		Location		Est. Total Hours				
TOTAL GOV PERSONNEL ONSITE			0				0		
1.3 Subcontractors Onsite									
Employee Name	Company / Position	Location	Hours	Non-Hours	Total Hours				
Christian Dodd	Drill Pro	EHF	5		5				
Tyler Watson	Drill Pro	EHF	5		5				
TOTAL SUBCONTRACTOR PERSONNEL ONSITE			2	TOTAL HOURS WORKED			10		
2. List of Equipment									
2.1 Heavy Equipment									
Equipment	Date Arrived/Departed	Date of Safety Check	Hours Used	Hours Idle	Hours Repair				
2.2 Instrumentation & Equipment									
Description Of Instrumentation	Date Arrived/Departed	Pre/Post Calibration Conducted	Cal Form Completed	Pass / Fail	Hours Used				
3. Field Activities									
DFOW / ACTIVITY / DELIVERIES	S = Start	Description of Work Actually Performed / Material Deliveries							
	C = Continuing								
	F = Finish								
Monitoring Well Installation	F = Finish	Installed 1 monitoring well at EHF.							
4. Testing and Sampling Activities									
4.1 Sampling Conducted									
Location	Analysis		Results - Detected / Not Detected						
NA	NA		NA						
5. Job Safety: (TGSM Topics, Report violations, instructions given, corrective action taken)									
Slips, Trips, Falls, Pinch Points, Hand Tools, Biologicals, Struck By, Chemical Hazards, Dehydration, Vehicle Safety									
6. Description of Work Completed									
0700- M. West arrives at CCSFS field office to load work truck and prepare paperwork. 0730- Mob to VPF. 0745- All personnel meet at VPF and mob to EHF. 0800- All personnel arrive on site EHF. 0815- Call KSC Support for dig status. 0820- Perform TGSM and rig inspection. 0830- Set up to drill out at EHF-MW009. 0845- Hand cleared to 5 ft. 0850- Begin drill out at EHF-MW0009. 0900- Reached total depth at 25 ft. Begin well install. 0905- Metal drill rod damaged inside bore hole. PVC removed. New drill location offset from marked location approximately 3 ft ENE. 0915- Hand cleared to 5 ft. 0920- Begin drill out at location EHF-MW0009. 0931- Reached total depth at 25 ft. Begin well installation.									

Daily Quality Control Report

0950- Well installation complete, break down.

1000- Begin well pad installation.

1024- Complete well pad installation.

1030- Begin development of well EHF-MW0009.

1055- Complete development.

1056- Pack up drill rig and work trucks.

1115- All personnel mob toCCF IDW Storage Area. Site secured. All personnel offsite.

1130- Arrive at CCF IDW Storage Area. Staged drum #232522 on pallet #22093. Transferred approximately 45 gal of purge water into drum.

1200- M. West mob to CCSFS field office. C. Dodd and T. Watson demob from IDW Storage Area. End of day.

Please see field notes for additional details.

7. 3-PHASE INSPECTION (Preparatory / Initial / Final Follow-Up)

Name of Inspection Held	Gov. Notified (Y/N)	Definable Feature of Work	Checklist Completed

I Certify that I am the Contractor's Authorized Representative and that the above information stated in this Daily Activity Report is accurate and representative of the work completed.

Printed Name: Meghan West

4/24/2024

Signature: *Meghan West*

4/24/2024

I Certify that I am the Contractor's Authorized Quality Control Representative and that this Daily Activity Report conforms with all appropriate and approved Work Plan Statement of Work.

Printed Name: Tim Jellett

4/24/2024

Signature:

4/24/2024



SAFETY MEETING/TRAINING LOG

- ☒ Tailgate (daily)
- ☐ Activity Hazard Analysis
- ☐ Pre-Task Hazard Analysis (prior to new task or operation)
- ☐ Site Safety Orientation (new personnel)
- ☐ Supervisor's (monthly)
- ☐ Supervisor's (weekly)
- ☐ UXO Awareness
- ☐ Asbestos Awareness
- ☐ Health and Safety Plan Addendum: _____
- ☐ Other: _____

Date/Time: 4/24/2024

Client: NASA/KSC

Location: NASA/KSC EHF

Job No.: NS1008.01.06

Meeting/training conducted by: Meghan West

Work Activities: monitoring well installation

Safety / Training Topics Presented

Chemical Hazards: VOCs

Physical Hazards: pinch points, struck by, slips, trips, falls, biologicals

Specific Safety Topic(s): struck by / traffic

Specific Training Covered: be aware of your surroundings, wear bright colors / safety vest, look for nearby vehicles

Attendees

Name Printed and Employee Number:

Signature:

Meghan West
Chukun Deeld
Tyler Watson

Meghan West
Tyler Watson



Direct-Push Rig Inspection Checklist

Project Name/Number: Nasa/KSC monitoring well install :EHF/NS1008.01-06
Make/Model Number: DPT 7822
Equipment Number: 191
Hours/Mileage: N/A / 4189.7

Rig clean and free of soils, oils, and other debris.	✓	Tracks in good condition.	✓
All hydraulic fittings and hoses free of damage, tightened, and not leaking.	✓	Tires fully inflated and in good condition.	N/A
Rig controls clearly labeled and in working condition.	✓	Back-up alarm working.	N/A
Rig Kill Switch in working order.		First Aid Kit accessible and stocked.	✓
All of the Rig's connections tightened and leak-free.	✓	Fire Extinguisher accessible and fully charged.	✓
Parking brake functions properly.	N/A	Eye Wash full and accessible.	
Steering controls in working order and clear of obstacles.	✓	Hearing protection available and is being used during hammering.	✓
Copy of the manual for all drilling equipment available.	✓	All overhead and underground hazards identified.	✓

✓ = OK

N/A = Not Applicable

X = Defective

These items are to be checked each shift before operating this piece of equipment.
Report all items requiring repair to supervisor.

Notes:

Operator/Inspector:

Christina V. West / *Meghan West*

Date:

4/24/24

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA					
Well Number: EHF-MW0009		Site Name: Environmental Health Facility		FDEP Facility I.D. Number: N/A	
Well Location and Type (check appropriate boxes): ☒ On-Site ☐ Right-of-Way ☐ Off-Site Private Property ☐ Above Grade (AG) ☐ Flush-to-Grade		Well Purpose: ☐ Perched Monitoring ☐ Shallow (Water-Table) Monitoring ☒ Intermediate or Deep Monitoring ☐ Remediation or Other (describe)		Well Install Method: DPT	
If AG, list feet of riser above land surface:				Surface Casing Install Method: N/A	
Borehole Depth (feet): 25	Well Depth (feet): 25	Borehole Diameter (inches): 3.25	Manhole Diameter (inches): 8	Well Pad Size: 2 feet by 2 feet 4 inches	
Riser Diameter and Material: 1 in. SCHD 40 PVC	Riser/Screen Connections: ☒ Flush-Threaded ☐ Other (describe)	Riser Length: 15 feet from 15 feet to surface feet			
Screen Diameter and Material: 1 in. SCHD 40 PVC	Screen Slot Size: 10 slot	Screen Length: 10 feet from 25 feet to 15 feet			
1 st Surface Casing Material: also check: ☐ Permanent ☐ Temporary	1 st Surface Casing I.D. (inches):	1 st Surface Casing Length: feet from feet to feet			
2 nd Surface Casing Material: also check: ☐ Permanent ☐ Temporary	2 nd Surface Casing I.D. (inches):	2 nd Surface Casing Length: feet from feet to feet			
3 rd Surface Casing Material: also check: ☐ Permanent ☐ Temporary	3 rd Surface Casing I.D. (inches):	3 rd Surface Casing Length: feet from feet to feet			
Filter Pack Material and Size: 20/30 Silica Sand	Prepacked Filter Around Screen (check one): ☒ Yes ☐ No	Filter Pack Length: 12 feet from 25 feet to 13 feet			
Filter Pack Seal Material and Size: 30/65 silica sand		Filter Pack Seal Length: 2 feet from 213 feet to 11 feet			
Surface Seal Material: portland cement		Surface Seal Length: 11 feet from 11 feet to surface feet			

WELL DEVELOPMENT DATA			
Well Development Date: 4/24/2024		Well Development Method (check one): ☐ Surge/Pump ☒ Pump ☐ Compressed Air ☐ Other (describe)	
Development Pump Type (check): ☐ Centrifugal ☐ Peristaltic ☐ Submersible ☒ Other (describe) Hondapump		Depth to Groundwater (before developing in feet): 3.11 feet	
Pumping Rate (gallons per minute): ~ 1.32 gal/min	Maximum Drawdown of Groundwater During Development (feet): N/A	Well Purged Dry (check one): ☐ Yes ☒ No	
Pumping Condition (check one): ☒ Continuous ☐ Intermittent	Total Development Water Removed (gallons): 45	Development Duration (minutes): 15	Development Water Drummed (check one): ☒ Yes ☐ No
Water Appearance (color and odor) At Start of Development: gray brown / no odor		Water Appearance (color and odor) At End of Development: clear / no odor	

WELL CONSTRUCTION OR DEVELOPMENT REMARKS

Location Environmental Health Facility (EHF) Date 4/24/24
 Project / Client NASA/KSC
NS1008.01.06

- Purpose - install monitoring well at EHF
- Personnel - M. West (HGL), C. Dodd (Drill Pro), T. Watson (D.P.)
- Equipment - static water level meter #250548, hand tools, 15-gal totes (10W), work truck, decon supplies (5-gal buckets, potable water, DI water, luminex), nitrile gloves, level DPPE, honda gas pump, tubing
- Weather - H-79°F, L-60°F, sunny, Prec-0%, 2mph NE wind
- 0700 - M. West arrive at CCSFS field office to load truck and prepare paperwork
- 0730 - mob to (VPF) Vertical Processing facility
- 0745 - all personnel meet at VPF and mob to the Environmental Health Facility (EHF)
- 0810 - all personnel on site
- 0815 - call KSC support for dig status
- 0820 - perform TGS & drill rig inspection
- 0830 - set up to drill out at EHF-MW0009
- 0845 - hand cleared to 5 feet
- 0850 - begin drill out at EHF-MW0009
- 0900 - reached TD @ 25 ft, begin well install.
- 0905 - metal drill rod ~~rod~~ ^{new} damaged inside bore hole. PVC removed. ^{new} Drill location offset from marked location $\approx$ 3ft ENE. Location within utility mark outs.

Location Environmental Health Facility Date 4/24/24 65
Project / Client NASA/KSC
NS 1008.01.06

0915 - hand cleared to 5 feet

0920 - begin drill out at location EHF-MW0009

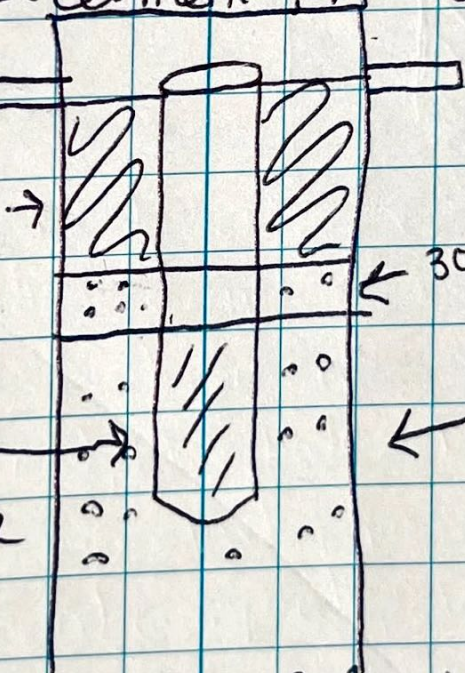
0931 - reached TD @ 25 feet, begin install

- screen 1" SCHD 40 PVC, 10 slot, 25' - 15' pre-packed filter
- riser 1" SCHD 40 PVC, 15' - ground surface
- 20/30 filterpack silica sand, 25' - 13'
- 30/65 filterpack seal silica sand, 13' - 11'
- grout, portland cement, 11' - 0' ground surface

2' x 2' 4" pad →

portland cement
grout
0' - 11'

10 slot, 1 in
screen 25' - 15'
pre-packed filter



30/65 silica sand
11' - 13'

20/30 silica
sand
13' - 25'

0950 - installation complete, break down

1000 - begin well pad install

1024 - complete pad install

1030 - Begin development for EHF-MW0009

DTW: 3.11 ft, Flow Rate: 1.32 gal/min,

Honda pump, gray brown, no odor

1055 - development complete. Clear, no odor

1056 - pack up drill rig / truck

Location Environmental Health Facility Date 4/24/24Project / Client NASA/KSC
NS1008.01.06

1115 - all personnel off site. Site secured.

moB to CCF IDW Storage Area

1130 - arrive at CCF IDW Area. Staged drum
~~190806~~²³²⁵²²mw, pallet # 220963. Transferred
≈ 45 gals of purge water into
drum # ~~190806~~²³²⁵²²mw.

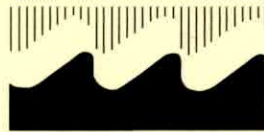
1200 - M. West moB to CCSFS field office

1215 - Arrive at field office. End of day.

mw

GROUNDWATER

DAILY PROJECT SUMMARY



PROTECTION

A Division of DRILLPRO, LLC
Environmental & Geotechnical Drilling

DAILY PROJECT SUMMARY

CLIENT NAME:

HGL

CITY:

KSC

RIG:

7822B

PROJECT NAME:

SW/MU-003, 077, 9078
SW/MU-003 077

WORK ORDER #:

424025

DATE:

4-23-24

WELL/BORING #								
DIRECT PUSH								
Soil Sampling								
# of Samples								
Total Depth								
H ₂ O Samples SP15/Profiling								
# of Samples								
Total Depth								
DRILLING								
STP Footage / Sonic Sampling								
0-50' Below Land Surface								
50'-100' Below Land Surface								
100'+ Below Land Surface								
Total Spoons / Samples								
WELL / BOREHOLE ABANDONMENT								
Diameter								
Depth								
Pad Removal / Size								
WELL INFORMATION:								
Size	1"	1"						
Depth	25'	17'						
Screen Length	10'	10'						
SURFACE CASING / DUAL								
Size								
Depth								
Type:								
CAPS:								
LEP	1"	1"						
Slip Cap	14"							
COVER:								
Flush Cover								
Above Grade Protector	4PVC							
Bumper Post								
Bolt Down Cover		8"						
WELL DEVELOPMENT TIME:	15 hr	30 min						
CLEAN-UP / DECON:	30 min	30 min						

To the best of my knowledge, the quantities indicated are correct, and I know of no injuries, loss of, or damage to equipment or near miss incidents that occurred during this project.

Meghan West
Signature of Client Field Representative

Meghan West
Printed Name of Client Field Representative

4/24/24
Date Signed

DAILY PROJECT SUMMARY

GROUNDWATER



PROTECTION

A Division of DRILLPRO, LLC
Environmental & Geotechnical Drilling

DAILY PROJECT SUMMARY

CLIENT NAME:

HEL

CITY:

KSC

RIG:

7822B

PROJECT NAME:

SW/MV-003.077.8 079

WORK ORDER #:

424075

DATE:

4-23-24

OVERNIGHT:

☒ Yes ☐ No

DRILLER:

Charles D. Field

CREW MEMBERS:

Tyler Watson

HOURS WORKED:

Time On Site:

8:00

Lunch:

1:00

Time Off Site:

5:30

MATERIALS USED / PURCHASED:

Sand

2

Riser

2'x1"

Fine Sand

1

Screen

Bentonite

1

Pre-Packed

4.5'x5'x10'

Portland

1

Manholes

1-9'x13'

Concrete

4

Sample Tubing

80'

Locks

1

Exp. Points

2-325'

Cones

1

LEP

2-1"

Other

F4'S14'Sg

Other

5'x4'R.13'

AEP

EQUIPMENT RENTAL:

Hydrant Meter:

Installed Yes / No:

Rental Company:

Equipment Rental:

Reason:

of Days:

Cost:

Other:

DRUMS:

Drums Supplied (Daily)

2

Soil

2

Water

2

Time Spent Relocating Drums On Site

30 min

MISCELLANEOUS:

Pavement Cutting (hrs.):

Concrete Coring:

Decontamination Structure:

STANDBY TIME:

Hour / Date / Time

Reason

DESCRIPTION OF SIGNIFICANT PROBLEMS / ADDITIONAL COMMENTS:

DESCRIPTION OF SIGNIFICANT PROBLEMS / ADDITIONAL COMMENTS:

To the best of my knowledge, the quantities indicated are correct, and I know of no injuries, loss of, or damage to equipment or near miss incidents that occurred during this project.

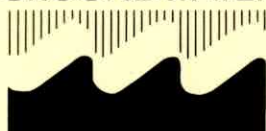
Signature of Client Field Representative

Printed Name of Client Field Representative

Date Signed

DAILY PROJECT SUMMARY

GROUNDWATER



PROTECTION

A Division of DRILLPRO, LLC
Environmental & Geotechnical Drilling

DAILY PROJECT SUMMARY

CLIENT NAME:

HGL

CITY:

KSC

RIG:

7822 B

PROJECT NAME:

SUMU-003077+079
SUMU-079

WORK ORDER #:

424025

DATE:

4-24-24

WELL/BORING #								
WELL/BORING #	WU-0009							
DIRECT PUSH								
Soil Sampling								
# of Samples								
Total Depth								
H ₂ O Samples SP15/Profiling								
# of Samples								
Total Depth								
DRILLING								
STP Footage / Sonic Sampling								
0-50' Below Land Surface								
50'-100' Below Land Surface								
100'+ Below Land Surface								
Total Spoons / Samples								
WELL / BOREHOLE ABANDONMENT								
Diameter								
Depth								
Pad Removal / Size								
WELL INFORMATION:								
Size	1"							
Depth	25'							
Screen Length	10'							
SURFACE CASING / DUAL								
Size								
Depth								
Type:								
CAPS:								
LEP	1"							
Slip Cap								
COVER:								
Flush Cover								
Above Grade Protector								
Bumper Post								
Bolt Down Cover	8"							
WELL DEVELOPMENT TIME:	30 min							
CLEAN-UP / DECON:	30 min							

To the best of my knowledge, the quantities indicated are correct, and I know of no injuries, loss of, or damage to equipment or near miss incidents that occurred during this project.

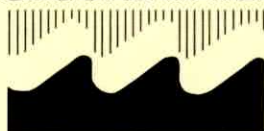
Signature of Client Field Representative

Printed Name of Client Field Representative

Date Signed

DAILY PROJECT SUMMARY

GROUNDWATER



PROTECTION

A Division of DRILLPRO, LLC
Environmental & Geotechnical Drilling

DAILY PROJECT SUMMARY

CLIENT NAME:

HGL

CITY:

HSC

RIG:

7822B

PROJECT NAME:

SUMN-003.077 + 079

WORK ORDER #:

424025

DATE:

4-24-24

OVERNIGHT:

☐ Yes ☒ No

DRILLER:

Meghan West

CREW MEMBERS:

Tyler Westover

HOURS WORKED:

Time On Site:

4:30

Lunch:

No lunch

Time Off Site:

12:30

MATERIALS USED / PURCHASED:

Sand

1

Riser

15'x1"

Fine Sand

Screen

Bentonite

Pre-Packed

2-1'x5'x20"

Portland

1

Manholes

1-8'x30"

Concrete

2

Sample Tubing

30'

Locks

Exp. Points

1-3-25"

Cones

LEP

1-1'

Other

Other

EQUIPMENT RENTAL:

Hydrant Meter:

Installed Yes / No:

Rental Company:

Equipment Rental:

Reason:

of Days:

Cost:

Other:

DRUMS:

Drums Supplied (Daily)

1

Soil

Water

1

Time Spent Relocating Drums On Site

30 min

MISCELLANEOUS:

Pavement Cutting (hrs.):

Concrete Coring:

Decontamination Structure:

STANDBY TIME:

Hour / Date / Time

Reason

DESCRIPTION OF SIGNIFICANT PROBLEMS / ADDITIONAL COMMENTS:

DESCRIPTION OF SIGNIFICANT PROBLEMS / ADDITIONAL COMMENTS:

To the best of my knowledge, the quantities indicated are correct, and I know of no injuries, loss of, or damage to equipment or near miss incidents that occurred during this project.

Meghan West
Signature of Client Field Representative

Meghan West
Printed Name of Client Field Representative

4/24/24
Date Signed

NASA – EHF Well Installation



Photograph No.: 1

Photographer: M. West

Date: 4/24/2024

Description: Drill Pro employees installing monitoring well EHF-MW0009.



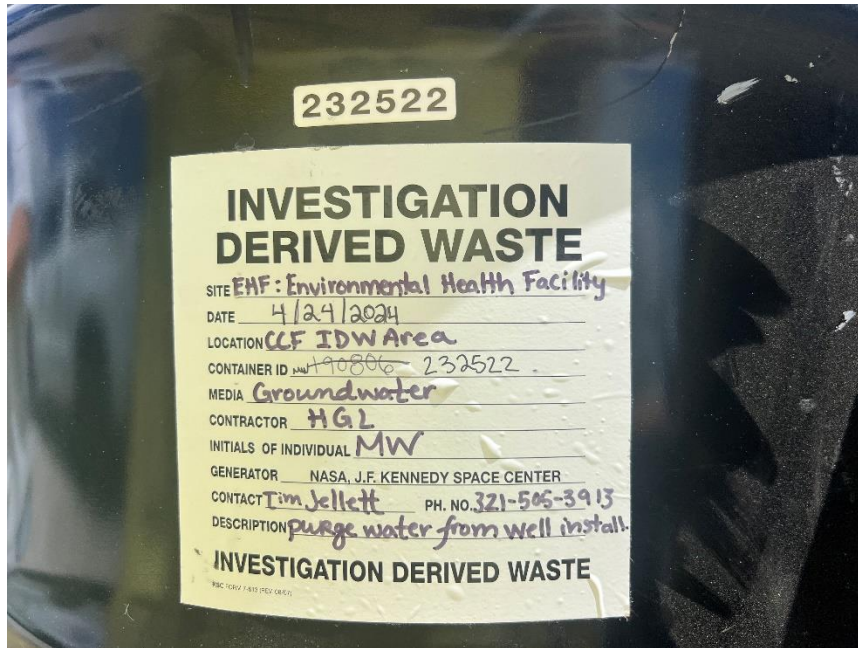
Photograph No.: 2

Photographer: M. West

Date: 4/24/2024

Description: Newly installed and completed monitoring well EHF-MW0009.

NASA – EHF Well Installation



Photograph No.: 3

Photographer: M. West

Date: 4/24/2024

Description: IDW drum #232522 on pallet #220963 located at CCF IDW Storage Area. Staged on 4/24/2024.

ATTACHMENT B
MONITORING WELL INSTALLATION PERMITS

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WELL COMPLETION LOG

Water Mgmt. Dist.:

Permit Number:

Work Order: 424026

Type of Well: Monitor

Well Number: MW 0032

Method Used: DPT

Borehole Diaz. 3.25"

Site Information:

Name: KSC

Address: SWMU 0077

C,S,Z: KSC, FL

S/T/R:

Client / Consultant Information

Consultant: HGL

Field Rep: Meghan West

Well Diameter	Well Type	Well Depth	Screen Length	Casing Length	Bags Grout	Sand Bags/Weight	Filter Type	Well Seal
1"	PVC	13'	10'	3'	0.33	1 / 50 lbs.	20/30	30/65
40	Schedule	Slot Size:	.01 PP		1.5'	Feet	10.5'	1'

Surface Completion

2 x 2 with 8" BD

Well Casing

Diameter:	1"
Type:	PVC
Schedule:	40
Length:	3' Ft.

Surface Casing

Diameter:		Diameter:	
Type:		Type:	
Schedule:		Schedule:	
Depth:		Depth:	

Intermediate Casing

Grout Seal

Type:	I / II PORTLAND
Feet:	1.5'
Amount:	0.33 Bags

Well Seal

Type:	30/65
Feet:	1'

Well Screen

Diameter:	1"
Type:	PVC
Slot:	.01 PP
Length:	10' Ft.
Note:	

Filter Pack

Type:	20/30
Feet:	10.5'
No. of Bags:	1 / 50 lbs.

Sump

Length:		Ft.
Type:		

Well Development

Water Level:	3'		
Method:	Centrifugal		
Start:	Brown	Finish:	Clear
Time:	.5 Hr.		
GPM:	1		

Contractor Information

Contractor #:	9311
Completion:	4/23/2024
Driller:	Christian Dodd
Lead Hand:	Tyler Watson
3rd Man:	NA
Drill Rig:	7822B

Company:	Drillpro LLC d/b/a Groundwater Protection
Address:	2300 Silver Star Road
C,S,Z:	Orlando, Florida 32804-3310
Phone/FAX:	(407) 426-7885 / (407) 426-7586



**STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT,
REPAIR, MODIFY, OR ABANDON A WELL**

☐ Southwest
☐ Northwest
☐ St. Johns River
☐ South Florida
☐ Suwannee River
☐ DEP
☒ Delegated Authority (If Applicable) **Brevard DOH**

PLEASE, FILL OUT ALL APPLICABLE FIELDS
(*Denotes Required Fields Where Applicable)

The water well contractor is responsible for completing this form and forwarding the permit application to the appropriate delegated authority where applicable.

Permit No:	MW-218284-1		
Florida Unique ID			
Permit Stipulations Required (See Attached)			
MW-1			
62-524 Quad No.	3706SE	Delineation No.	
CUP/WUP Application No.			
ABOVE THIS LINE FOR OFFICIAL USE ONLY			

1. United States Of America	1849 Nw C St Rm 5665	Washington	DC	20240	6097038783
*Owner, Legal Name if Corporation *Address *City *State *Zip *Telephone Number					
2. SWMU 077 Off 10th St SE, KSC, FL 32953					
*Well Location - Address, Road Name or Number, City					
3. 23-37-04-00-*					
*Parcel ID No. (PIN) or Alternate Key (Circle One)					
4. 4	23S	37E	Brevard		
*Section or Land Grant		*Township	*Range	*County	Subdivision
				Check if 62-524: Yes ☒ No	
5. James Hinst	9311	4074267885	jim@drillprollc.com		
*Water Well Contractor		*License Number	*Telephone Number E-mail Address		
6. 2300 Silver Star Rd	Orlando	FL	32804-3310		
*Water Well Contractor's Address		City	State	ZIP	
7. *Type of Work: ☒ Construction ☐ Repair ☐ Modification ☐ Abandonment					
*Reason for Repair, Modification, or Abandonment					
8. *Number of Proposed Wells 1					
9. *Specify Intended Use(s) of Well(s):					
☐ Domestic ☐ Landscape Irrigation ☐ Agricultural Irrigation ☐ Site Investigation					
☐ Bottled Water Supply ☐ Recreation Area Irrigation ☐ Livestock ☒ Monitoring					
☐ Public Water Supply (Limited Use/DOH) ☐ Nursery Irrigation ☐ Test					
☐ Public Water Supply (Community or Non-Community/DEP) ☐ Commercial/Industrial ☐ Earth-Coupled Geothermal					
☐ Class I Injection ☐ Golf Course Irrigation ☐ HVAC Supply					
☐ Class V Injection: ☐ Recharge ☐ Commercial/Industrial Disposal ☐ Aquifer Storage and Recovery ☐ Drainage					
☐ Remediation: ☐ Recovery ☐ Air Sparge ☐ Other (Describe)					
Other (Describe) (Note: Not all types of wells are permitted by a given permitting authority)					
10. *Distance from Septic System if ≤ 200 ft. 11. Facility Description Undefined - Reserved For Future Use 12. Estimated Start Date 04/23/2024					
13. *Estimated Well Depth 15 ft. *Estimated Casing Depth 5 ft. *Primary Casing Diameter 1 in. Open Hole: From To ft.					
14. Estimated Screen Interval: From 5 To 15 ft.					
15. *Primary Casing Material: ☐ Black Steel ☐ Galvanized ☒ PVC ☐ Stainless Steel					
☐ Not Cased ☐ Other:					
16. Secondary Casing: ☐ Telescope Casing ☐ Liner ☐ Surface Casing Diameter in.					
17. Secondary Casing Material: ☐ Black Steel ☐ Galvanized ☐ PVC ☐ Stainless Steel ☐ Other					
18. *Method of Construction, Repair, or Abandonment: ☐ Auger ☐ Cable Tool ☐ Jetted ☐ Rotary ☐ Sonic					
☐ Combination (Two or More Methods) ☐ Hand Driven (Well Point, Sand Point) ☒ Hydraulic Point (Direct Push)					
☐ Horizontal Drilling ☐ Plugged by Approved Method ☐ Other (Describe)					
19. Proposed Grouting Interval for the Primary, Secondary, and Additional Casing:					
From 0 To 5 Seal Material (☐ Bentonite ☐ Neat Cement ☒ Other Cement with Bentonite, < 5%)					
From To Seal Material (☐ Bentonite ☐ Neat Cement ☐ Other)					
From To Seal Material (☐ Bentonite ☐ Neat Cement ☐ Other)					
From To Seal Material (☐ Bentonite ☐ Neat Cement ☐ Other)					
20. Indicate total number of existing wells on site List number of existing unused wells on site					
21. *Is this well or any existing well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? ☐ Yes ☒ No If Yes, complete the following: CUP/WUP No. District Well ID No. 558816					
22. Latitude 283033.64 Longitude 803804.03					
23. Data Obtained From: ☐ GPS ☒ Map ☐ Survey Datum: ☐ NAD 27 ☒ NAD 83 ☐ WGS 84					
I hereby certify that I will comply with the applicable rules of Title 40, Florida Administration Code, and that a water use permit or artificial recharge permit, if needed, has been or will be obtained prior to commencement of well construction. I further certify that information provided in this application is accurate and that I will obtain necessary approval from other federal, state, or local governments, if applicable, I agree to provide a well completion report to the District within 30 days after completion of the construction, repair, modification, or abandonment authorized by this permit, or the permit expiration, whichever occurs first.					
I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well; or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to allowing personnel of this WMD or Delegated Authority access to the well site during the construction, repair, modification, or abandonment authorized by this permit.					
James Hinst		9311	James Hinst	04/17/2024	
*Signature of Contractor		*License No.	*Signature of Owner or Agent		*Date
BELOW THIS LINE - FOR OFFICIAL USE ONLY					
Approval Granted By Kayla Davis Issue Date 04/17/2024 Expiration Date 04/16/2025 Hydrologist Approval initialed					
Fee Received \$ 50 Receipt No. 113091 Check No. Online-88358616-889612					
THIS PERMIT IS NOT VALID UNTIL PROPERLY SIGNED BY AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD OR DELEGATED AUTHORITY. THE PERMIT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL CONSTRUCTION, MODIFICATION, OR ABANDONMENT ACTIVITIES.					

Payment Receipt Confirmation

Your payment was successfully processed.

Receipt Contact Information

Contact Name Brevard County Department of Health

Transaction Summary

Description	Receipt Confirmation	
	Amount	
WMD Permit	\$150.00	
Total Amount Paid	\$150.00	

Customer Information

Customer Name	James Hinst	Receipt Date	4/17/2024
Company Name	Drillpro dba Groundwater Protection	Receipt Time	11:42:35 AM EDT
Local Reference ID	WWC 889612		

Payment Information

Payment Type	Credit Card	Credit Card Number	*****8374
Credit Card Type	MAST	Order ID	88358616
		Name on Credit Card	James Hinst

Billing Information

Billing Address	2300 Silver Star Rd	Phone Number	4074267885
Billing City, State	Orlando, FL	This receipt has been emailed to the address below.	
Billing Zip/Postal C...	32804-3310	Email Address	jim@drillprollc.com
Country	US		

STATE OF FLORIDA WELL COMPLETION REPORT

☐	Southwest	PLEASE, FILL OUT ALL APPLICABLE FIELDS (*Denotes Required Fields Where Applicable)
☐	Northwest	
☐	St. Johns River	
☐	South Florida	
☐	Suwannee River	
☐	DEP	
☒	Delegated Authority (If Applicable)	Brevard DOH

Date Stamp

Confirmation#
892644

Date:05/04/2024

Official Use Only

1. *Permit Number MW-218284-1 *CUP/WUP Number _____ *DID Number 558816 62-524 Delineation No. _____

2. *Number of permitted wells constructed, repaired, or abandoned 1 *Number of permitted wells not constructed, repaired, or abandoned 0

3. *Owner's Name United States Of America 4. *Completion Date 04/23/2024 5. Florida Unique ID _____

6. SWMU 077 Off 10th St SE, KSC, FL 32953
*Well Location – Address, Road Name or Number, City, ZIP

7. *County Brevard *Section 4 Land Grant _____ *Township 23S *Range 37E

8. Latitude 283033.64 Longitude 803804.03

9. Data Obtained From: _____ GPS ☒ Map _____ Survey _____ Datum: _____ NAD 27 ☒ NAD 83 _____ WGS 84 _____

10. *Type of Work: ☒ Construction _____ Repair _____ Modification _____ Abandonment Reason: _____

11. *Specify Intended Use(s) of Well(s):
☐ Domestic ☐ Landscape Irrigation ☐ Agricultural Irrigation ☐ Site Investigation
☐ Bottled Water Supply ☐ Recreation Area Irrigation ☐ Livestock ☒ Monitoring
☐ Public Water Supply (Limited Use/DOH) ☐ Nursery Irrigation ☐ Test
☐ Public Water Supply (Community or Non-Community/DEP) ☐ Commercial/Industrial ☐ Earth-Coupled Geothermal
☐ Class I Injection ☐ Golf Course Irrigation ☐ HVAC Supply
☐ Class V Injection: _____ Recharge _____ Commercial/Industrial Disposal _____ Aquifer Storage and Recovery _____ Drainage
Remediation: _____ Recovery _____ Air Sparge _____ Other (Describe) _____
Other (Describe) _____

12. *Drill Method: _____ Auger _____ Cable Tool _____ Rotary _____ Combination (Two or More Methods) _____ Jetted _____ Sonic _____
Horizontal Drilling ☒ Hydraulic Point (Direct Push) _____ Other _____

13. *Measured Static Water Level 3 ft. Measured Pumping Water Level 3 ft. After 1 Hours at 1 GPM

14. *Measuring Point (Describe) ground surface Which is .4 ft. Above ☒ Below Land Surface *Flowing: _____ Yes ☒ No

15. *Casing Material: _____ Black Steel _____ Galvanized ☒ PVC _____ Stainless Steel _____ Not Cased _____ Other _____

16. *Total Well Depth 13 ft. Cased Depth 3 ft. *Open Hole: From _____ To _____ ft. *Screen: From 3 To 10 ft. Slot Size .01
Other(Explain) _____

17. *Abandonment:
From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

18. *Surface Casing Diameter and Depth:
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

19. *Primary Casing Diameter and Depth:
Dia 1 in. From 0 ft. To 1.5 ft. No. of Bags .33 Seal Material (Check One): _____ Neat Cement _____ Bentonite ☒ Other 5% by weight
Dia 1 in. From 1.5 ft. To 3 ft. No. of Bags .5 Seal Material (Check One): _____ Neat Cement _____ Bentonite ☒ Other Sand
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

20. *Liner Casing Diameter and Depth:
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

21. *Telescope Casing Diameter and Depth:
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

22. Pump Type (If known): _____ Centrifugal _____ Jet _____ Submersible _____ Turbine
Horsepower _____ Pump Capacity (GPM) _____
Pump Depth _____ ft. Intake Depth _____ ft. _____ Laboratory Test _____ Field Test Kit _____

23. Chemical Analysis (When Required):
Iron _____ ppm Sulfate _____ ppm Chloride _____ ppm

24. Water Well Contractor:
*Contractor Name James P Hinst *License Number 9311 E-mail _____ Address jim@drillprollc.com
*Contractor's Signature James P Hinst *Driller's Name (Print or Type) Christian Dodd

WELL COMPLETION LOG

Water Mgmt. Dist.:

Permit Number:

Work Order: 424026

Type of Well: Monitor

Well Number: MW 0009

Method Used: DPT

Borehole Diaz. 3.25"

Site Information:

Name: KSC

Address: SWMU 0079

C,S,Z: KSC, FL

S/T/R:

Client / Consultant Information

Consultant: HGL

Field Rep: Meghan West

Well Diameter	Well Type	Well Depth	Screen Length	Casing Length	Bags Grout	Sand Bags/Weight	Filter Type	Well Seal
1"	PVC	25'	10'	15'	0.5	1 / 50 lbs.	20/30	30/65
40	Schedule	Slot Size:	.01 PP		11'	Feet	12'	2'

Surface Completion

2 x 2 with 8" BD

Well Casing

Diameter:	1"
Type:	PVC
Schedule:	40
Length:	15' Ft.

Surface Casing

Diameter:		Diameter:	
Type:		Type:	
Schedule:		Schedule:	
Depth:		Depth:	

Intermediate Casing

Grout Seal

Type:	I / II PORTLAND
Feet:	11'
Amount:	0.5 Bags

Well Seal

Type:	30/65
Feet:	2'

Well Screen

Diameter:	1"
Type:	PVC
Slot:	.01 PP
Length:	10' Ft.
Note:	

Filter Pack

Type:	20/30
Feet:	12'
No. of Bags:	1 / 50 lbs.

Sump

Length:		Ft.
Type:		

Well Development

Water Level:	3'		
Method:	Centrifugal		
Start:	Brown	Finish:	Clear
Time:	.5 Hr.		
GPM:	1		

Contractor Information

Contractor #:	9311
Completion:	4/24/2024
Driller:	Christian Dodd
Lead Hand:	Tyler Watson
3rd Man:	NA
Drill Rig:	7822B

Company:	Drillpro LLC d/b/a Groundwater Protection
Address:	2300 Silver Star Road
C,S,Z:	Orlando, Florida 32804-3310
Phone/FAX:	(407) 426-7885 / (407) 426-7586



**STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT,
REPAIR, MODIFY, OR ABANDON A WELL**

☐ Southwest ☐ Northwest ☐ St. Johns River ☐ South Florida ☐ Suwannee River ☐ DEP
☒ Delegated Authority (If Applicable) **Brevard DOH**

PLEASE, FILL OUT ALL APPLICABLE FIELDS
(*Denotes Required Fields Where Applicable)

The water well contractor is responsible for completing this form and forwarding the permit application to the appropriate delegated authority where applicable.

Permit No:	MW-218282-1		
Florida Unique ID			
Permit Stipulations Required (See Attached)			
MW-1			
62-524 Quad No.	3706SE	Delineation No.	
CUP/WUP Application No.			
ABOVE THIS LINE FOR OFFICIAL USE ONLY			

1. United States Of America		1849 Nw C St Rm 5665	Washington	DC	20240	6097038783
*Owner, Legal Name if Corporation		*Address	*City	*State	*Zip	*Telephone Number
2. North end of C Ave SE, KSC, FL 32899						
*Well Location – Address, Road Name or Number, City						
3. 22-37-29-00.-						
*Parcel ID No. (PIN) or Alternate Key (Circle One)						
Lot Block Unit						
4. 29	22S	37E	Brevard			
*Section or Land Grant	*Township	*Range	*County	Subdivision		
				Check if 62-524: Yes ☒ No		
5. James Hinst	9311		4074267885	jim@drillprollc.com		
*Water Well Contractor	*License Number		*Telephone Number	E-mail Address		
6. 2300 Silver Star Rd		Orlando	FL	32804-3310		
*Water Well Contractor's Address		City	State	ZIP		
7. *Type of Work: ☒ Construction ☐ Repair ☐ Modification ☐ Abandonment						
*Reason for Repair, Modification, or Abandonment						
8. *Number of Proposed Wells <u>1</u>						
9. *Specify Intended Use(s) of Well(s):						
☐ Domestic ☐ Landscape Irrigation ☐ Agricultural Irrigation ☐ Site Investigation						
☐ Bottled Water Supply ☐ Recreation Area Irrigation ☐ Livestock ☒ Monitoring						
☐ Public Water Supply (Limited Use/DOH) ☐ Nursery Irrigation ☐ Test						
☐ Public Water Supply (Community or Non-Community/DEP) ☐ Commercial/Industrial ☐ Earth-Coupled Geothermal						
☐ Class I Injection ☐ Golf Course Irrigation ☐ HVAC Supply						
☐ Class V Injection: ☐ Recharge ☐ Commercial/Industrial Disposal ☐ Aquifer Storage and Recovery ☐ Drainage						
☐ Remediation: ☐ Recovery ☐ Air Sparge ☐ Other (Describe) _____						
Other (Describe) _____ (Note: Not all types of wells are permitted by a given permitting authority)						
10. *Distance from Septic System if ≤ 200 ft. _____		11. Facility Description <u>Undefined - Reserved For Future Use</u>		12. Estimated Start Date <u>04/23/2024</u>		
13. *Estimated Well Depth <u>25</u> ft. *Estimated Casing Depth <u>15</u> ft. *Primary Casing Diameter <u>1</u> in.		Open Hole: From _____ To _____ ft.				
14. Estimated Screen Interval: From <u>15</u> To <u>25</u> ft.						
15. *Primary Casing Material: ☐ Black Steel ☐ Galvanized ☒ PVC ☐ Stainless Steel						
☐ Not Cased ☐ Other: _____						
16. Secondary Casing: ☐ Telescope Casing ☐ Liner ☐ Surface Casing Diameter _____ in.						
17. Secondary Casing Material: ☐ Black Steel ☐ Galvanized ☐ PVC ☐ Stainless Steel ☐ Other _____						
18. *Method of Construction, Repair, or Abandonment: ☐ Auger ☐ Cable Tool ☐ Jetted ☐ Rotary ☐ Sonic						
☐ Combination (Two or More Methods) ☐ Hand Driven (Well Point, Sand Point) ☒ Hydraulic Point (Direct Push)						
☐ Horizontal Drilling ☐ Plugged by Approved Method ☐ Other (Describe) _____						
19. Proposed Grouting Interval for the Primary, Secondary, and Additional Casing:						
From <u>0</u> To <u>15</u> Seal Material (☐ Bentonite ☐ Neat Cement ☒ Other <u>Cement with Bentonite, < 5% by weight</u>)						
From _____ To _____ Seal Material (☐ Bentonite ☐ Neat Cement ☐ Other _____)						
From _____ To _____ Seal Material (☐ Bentonite ☐ Neat Cement ☐ Other _____)						
From _____ To _____ Seal Material (☐ Bentonite ☐ Neat Cement ☐ Other _____)						
20. Indicate total number of existing wells on site _____ List number of existing unused wells on site _____						
21. *Is this well or any existing well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? ☐ Yes ☒ No If Yes, complete the following: CUP/WUP No. _____ District Well ID No. <u>558814</u>						
22. Latitude <u>283230.75</u> Longitude <u>803840.73</u>						
23. Data Obtained From: ☐ GPS ☒ Map ☐ Survey		Datum: ☐ NAD 27 ☒ NAD 83 ☐ WGS 84				
I hereby certify that I will comply with the applicable rules of Title 40, Florida Administration Code, and that a water use permit or artificial recharge permit, if needed, has been or will be obtained prior to commencement of well construction. I further certify that information provided in this application is accurate and that I will obtain necessary approval from other federal, state, or local governments, if applicable, I agree to provide a well completion report to the District within 30 days after completion of the construction, repair, modification, or abandonment authorized by this permit, or the permit expiration, whichever occurs first.						
James Hinst		9311	James Hinst	04/17/2024		
*Signature of Contractor		*License No.	*Signature of Owner or Agent		*Date	
BELOW THIS LINE – FOR OFFICIAL USE ONLY						
Approval Granted By <u>Kayla Davis</u>		Issue Date <u>04/17/2024</u>	Expiration Date <u>04/16/2025</u>	Hydrologist Approval _____		
Fee Received \$ <u>50</u>		Receipt No. <u>113091</u>	Check No. <u>OnLine-88358616-889612</u>	initials		
THIS PERMIT IS NOT VALID UNTIL PROPERLY SIGNED BY AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD OR DELEGATED AUTHORITY. THE PERMIT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL CONSTRUCTION, MODIFICATION, OR ABANDONMENT ACTIVITIES.						



STATE OF FLORIDA WELL COMPLETION REPORT

☐ Southwest ☐ Northwest ☐ St. Johns River ☐ South Florida ☐ Suwannee River ☐ DEP ☒ Delegated Authority (If Applicable) **Brevard DOH**

PLEASE, FILL OUT ALL APPLICABLE FIELDS
(*Denotes Required Fields Where Applicable)

Date Stamp

Confirmation#
892645

Date:05/04/2024

Official Use Only

1. *Permit Number MW-218282-1 *CUP/WUP Number _____ *DID Number 558814 62-524 Delineation No. _____

2. *Number of permitted wells constructed, repaired, or abandoned 1 *Number of permitted wells not constructed, repaired, or abandoned 0

3. *Owner's Name United States Of America 4. *Completion Date 04/24/2024 5. Florida Unique ID _____

6. North end of C Ave SE, KSC, FL 32899
*Well Location - Address, Road Name or Number, City, ZIP

7. *County Brevard *Section 29 Land Grant _____ *Township 22S *Range 37E

8. Latitude 283230.75 Longitude 803840.73

9. Data Obtained From: _____ GPS ☒ Map _____ Survey _____ Datum: _____ NAD 27 ☒ NAD 83 _____ WGS 84

10. *Type of Work: ☒ Construction _____ Repair _____ Modification _____ Abandonment Reason: _____

11. *Specify Intended Use(s) of Well(s):
____ Domestic _____ Landscape Irrigation _____ Agricultural Irrigation _____ Site Investigation
____ Bottled Water Supply _____ Recreation Area Irrigation _____ Livestock _____ ☒ Monitoring
____ Public Water Supply (Limited Use/DOH) _____ Nursery Irrigation _____ Test
____ Public Water Supply (Community or Non-Community/DEP) _____ Commercial/Industrial _____ Earth-Coupled Geothermal
____ Class I Injection _____ Golf Course Irrigation _____ HVAC Supply
____ Class V Injection: _____ Recharge _____ Commercial/Industrial Disposal _____ Aquifer Storage and Recovery _____ Drainage
Remediation: _____ Recovery _____ Air Sparge _____ Other (Describe) _____
____ Other (Describe) _____

12. *Drill Method: _____ Auger _____ Cable Tool _____ Rotary _____ Combination (Two or More Methods) _____ Jetted _____ Sonic
____ Horizontal Drilling ☒ Hydraulic Point (Direct Push) _____ Other _____

13. *Measured Static Water Level 3 ft. Measured Pumping Water Level 3 ft. After 1 Hours at 1 GPM

14. *Measuring Point (Describe) ground surface Which is .4 ft. Above ☒ Below Land Surface *Flowing: _____ Yes ☒ No

15. *Casing Material: _____ Black Steel _____ Galvanized ☒ PVC _____ Stainless Steel _____ Not Cased _____ Other _____

16. *Total Well Depth 25 ft. Cased Depth 15 ft. *Open Hole: From _____ To _____ ft. *Screen: From 15 To 25 ft. Slot Size .01

17. *Abandonment: _____
From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

18. *Surface Casing Diameter and Depth:
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

19. *Primary Casing Diameter and Depth:
Dia 1 in. From 0 ft. To 11 ft. No. of Bags .5 Seal Material (Check One): _____ Neat Cement _____ Bentonite ☒ Other 5% by weight
Dia 1 in. From 11 ft. To 15 ft. No. of Bags .5 Seal Material (Check One): _____ Neat Cement _____ Bentonite ☒ Other Sand
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

20. *Liner Casing Diameter and Depth:
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

21. *Telescope Casing Diameter and Depth:
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

22. Pump Type (If known): _____ Centrifugal _____ Jet _____ Submersible _____ Turbine
Horsepower _____ Pump Capacity (GPM) _____
Pump Depth _____ ft. Intake Depth _____ ft. _____ Laboratory Test _____ Field Test Kit

23. Chemical Analysis (When Required):
Iron _____ ppm Sulfate _____ ppm Chloride _____ ppm

24. Water Well Contractor:
*Contractor Name James P Hinst *License Number 9311 E-mail jim@drillprollc.com
*Contractor's Signature James P Hinst *Driller's Name (Print or Type) Christian Dodd
(I certify that the information provided in this report is accurate and true.)

WELL COMPLETION LOG

Water Mgmt. Dist.:

Permit Number:

Work Order: 424026

Type of Well: Monitor

Well Number: MW 0043

Method Used: DPT

Borehole Diaz. 3.25"

Site Information:

Name: KSC

Address: SWMU 003

C,S,Z: KSC, FL

S/T/R:

Client / Consultant Information

Consultant: HGL

Field Rep: Meghan West

Well Diameter	Well Type	Well Depth	Screen Length	Casing Length	Bags Grout	Sand Bags/Weight	Filter Type	Well Seal
1"	PVC	25'	10'	15'	0.5	1 / 50 lbs.	20/30	30/65
40	← Schedule	Slot Size: →	.01 PP		11'	← Feet →	12'	2'

Surface Completion

2 x 2 with 4" AGP & 3' Stick Up

Well Casing

Diameter:	1"
Type:	PVC
Schedule:	40
Length:	15' Ft.

Surface Casing

Diameter:		Diameter:	
Type:		Type:	
Schedule:		Schedule:	
Depth:		Depth:	

Intermediate Casing

Grout Seal

Type:	I / II PORTLAND
Feet:	11'
Amount:	0.5 Bags

Well Seal

Type:	30/65
Feet:	2'

Well Screen

Diameter:	1"
Type:	PVC
Slot:	.01 PP
Length:	10' Ft.
Note:	

Filter Pack

Type:	20/30
Feet:	12'
No. of Bags:	1 / 50 lbs.

Sump

Length:		Ft.
Type:		

Well Development

Water Level:	3'				
Method:	Centrifugal				
Start:	Brown			Finish:	Clear
Time:	1.5 Hr				
GPM:	0.75				

Contractor Information

Contractor #:	9311
Completion:	4/23/2024
Driller:	Christian Dodd
Lead Hand:	Tyler Watson
3rd Man:	NA
Drill Rig:	7822B

Company:	Drillpro LLC d/b/a Groundwater Protection
Address:	2300 Silver Star Road
C,S,Z:	Orlando, Florida 32804-3310
Phone/FAX:	(407) 426-7885 / (407) 426-7586



**STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT,
REPAIR, MODIFY, OR ABANDON A WELL**

☐ Southwest
☐ Northwest
☐ St. Johns River
☐ South Florida
☐ Suwannee River
☐ DEP
☒ Delegated Authority (If Applicable) **Brevard DOH**

PLEASE, FILL OUT ALL APPLICABLE FIELDS
(*Denotes Required Fields Where Applicable)

The water well contractor is responsible for completing this form and forwarding the permit application to the appropriate delegated authority where applicable.

Permit No:	MW-218281-1		
Florida Unique ID			
Permit Stipulations Required (See Attached)			
MW-1			
62-524 Quad No.	3706SW	Delineation No.	
CUP/WUP Application No.			
ABOVE THIS LINE FOR OFFICIAL USE ONLY			

1. United States Of America	1849 Nw C St Rm 5665	Washington	DC	20240	6097038783
*Owner, Legal Name if Corporation		*Address	*City	*State	*Zip
*Telephone Number					
2. 1,450ft South of Ransom Rd 1,700ft east of E Ave SW, KSC, FL 32953					
*Well Location - Address, Road Name or Number, City					
3. 23-36-12-00*-					
*Parcel ID No. (PIN) or Alternate Key (Circle One)					
Lot Block Unit					
4. 12	23S	36E	Brevard		
*Section or Land Grant		*Township	*Range	*County	Subdivision
5. James Hinst		9311	4074267885	Check if 62-524: Yes ☒ No	
*Water Well Contractor		*License Number	*Telephone Number	E-mail Address jim@drillprollc.com	
6. 2300 Silver Star Rd		Orlando	FL	32804-3310	
*Water Well Contractor's Address		City	State	ZIP	
7. *Type of Work: ☒ Construction ☐ Repair ☐ Modification ☐ Abandonment					
*Reason for Repair, Modification, or Abandonment					
8. *Number of Proposed Wells 1					
9. *Specify Intended Use(s) of Well(s):					
☐ Domestic ☐ Landscape Irrigation ☐ Agricultural Irrigation ☐ Site Investigation					
☐ Bottled Water Supply ☐ Recreation Area Irrigation ☐ Livestock ☒ Monitoring					
☐ Public Water Supply (Limited Use/DOH) ☐ Nursery Irrigation ☐ Test					
☐ Public Water Supply (Community or Non-Community/DEP) ☐ Commercial/Industrial ☐ Earth-Coupled Geothermal					
☐ Class I Injection ☐ Golf Course Irrigation ☐ HVAC Supply					
☐ Class V Injection: ☐ Recharge ☐ Commercial/Industrial Disposal ☐ Aquifer Storage and Recovery ☐ HVAC Return					
Remediation: ☐ Recovery ☐ Air Sparge ☐ Other (Describe) ☐ Drainage					
Other (Describe) (Note: Not all types of wells are permitted by a given permitting authority)					
10. *Distance from Septic System if ≤ 200 ft. 11. Facility Description Undefined - Reserved For Future Use 12. Estimated Start Date 04/23/2024					
13. *Estimated Well Depth 25 ft. *Estimated Casing Depth 15 ft. *Primary Casing Diameter 1 in. Open Hole: From To ft.					
14. Estimated Screen Interval: From 15 To 25 ft.					
15. *Primary Casing Material: ☐ Black Steel ☐ Galvanized ☒ PVC ☐ Stainless Steel					
☐ Not Cased ☐ Other:					
16. Secondary Casing: ☐ Telescope Casing ☐ Liner ☐ Surface Casing Diameter in.					
17. Secondary Casing Material: ☐ Black Steel ☐ Galvanized ☐ PVC ☐ Stainless Steel ☐ Other					
18. *Method of Construction, Repair, or Abandonment: ☐ Auger ☐ Cable Tool ☐ Jetted ☐ Rotary ☐ Sonic					
☐ Combination (Two or More Methods) ☐ Hand Driven (Well Point, Sand Point) ☒ Hydraulic Point (Direct Push)					
☐ Horizontal Drilling ☐ Plugged by Approved Method ☐ Other (Describe)					
19. Proposed Grouting Interval for the Primary, Secondary, and Additional Casing:					
From 0 To 15 Seal Material (☐ Bentonite ☐ Neat Cement ☒ Other Cement with Bentonite, < 5% by weight)					
From To Seal Material (☐ Bentonite ☐ Neat Cement ☐ Other)					
From To Seal Material (☐ Bentonite ☐ Neat Cement ☐ Other)					
From To Seal Material (☐ Bentonite ☐ Neat Cement ☐ Other)					
20. Indicate total number of existing wells on site List number of existing unused wells on site					
21. *Is this well or any existing well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? Yes ☒ No ☐ If Yes, complete the following: CUP/WUP No. District Well ID No. 558813					
22. Latitude 283012.36 Longitude 804115.28					
23. Data Obtained From: ☐ GPS ☒ Map ☐ Survey Datum: ☐ NAD 27 ☒ NAD 83 ☐ WGS 84					
I hereby certify that I will comply with the applicable rules of Title 40, Florida Administration Code, and that a water use permit or artificial recharge permit, if needed, has been or will be obtained prior to commencement of well construction. I further certify that information provided in this application is accurate and that I will obtain necessary approval from other federal, state, or local governments, if applicable. I agree to provide a well completion report to the District within 30 days after completion of the construction, repair, modification, or abandonment authorized by this permit, or the permit expiration, whichever occurs first.					
James Hinst 9311 James Hinst 04/17/2024					
*Signature of Contractor		*License No.	*Signature of Owner or Agent		*Date
BELOW THIS LINE - FOR OFFICIAL USE ONLY					
Approval Granted By Kayla Davis Issue Date 04/17/2024 Expiration Date 04/16/2025 Hydrologist Approval initials					
Fee Received \$ 50 Receipt No. 113091 Check No. OnLine-88358616-889612					
THIS PERMIT IS NOT VALID UNTIL PROPERLY SIGNED BY AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD OR DELEGATED AUTHORITY. THE PERMIT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL CONSTRUCTION, MODIFICATION, OR ABANDONMENT ACTIVITIES.					



STATE OF FLORIDA WELL COMPLETION REPORT

Southwest
Northwest
St. Johns River
South Florida
Suwannee River
DEP
☒ Delegated Authority (If Applicable) Brevard DOH

PLEASE, FILL OUT ALL APPLICABLE FIELDS

(*Denotes Required Fields Where Applicable)

Date Stamp

Confirmation#

892646

Date:05/04/2024

Official Use Only

1. *Permit Number MW-218281-1 *CUP/WUP Number _____ *DID Number 558813 62-524 Delineation No. _____

2. *Number of permitted wells constructed, repaired, or abandoned 1 *Number of permitted wells not constructed, repaired, or abandoned 0

3. *Owner's Name United States Of America 4. *Completion Date 04/24/2024 5. Florida Unique ID _____

6. 1,450ft South of Ransom Rd 1,700ft east of E Ave SW, KSC, FL 32953
*Well Location - Address, Road Name or Number, City, ZIP

7. *County Brevard *Section 12 Land Grant _____ *Township 23S *Range 36E

8. Latitude 283012.36 Longitude 804115.28

9. Data Obtained From: _____ GPS ☒ Map _____ Survey _____ Datum: _____ NAD 27 ☒ NAD 83 _____ WGS 84

10. *Type of Work: ☒ Construction _____ Repair _____ Modification _____ Abandonment Reason: _____

11. *Specify Intended Use(s) of Well(s):
____ Domestic _____ Landscape Irrigation _____ Agricultural Irrigation _____ Site Investigation
____ Bottled Water Supply _____ Recreation Area Irrigation _____ Livestock _____ ☒ Monitoring
____ Public Water Supply (Limited Use/DOH) _____ Nursery Irrigation _____ Test
____ Public Water Supply (Community or Non-Community/DEP) _____ Commercial/Industrial _____ Earth-Coupled Geothermal
____ Class I Injection _____ Golf Course Irrigation _____ HVAC Supply
____ Class V Injection: _____ Recharge _____ Commercial/Industrial Disposal _____ Aquifer Storage and Recovery _____ Drainage
Remediation: _____ Recovery _____ Air Sparge _____ Other (Describe) _____
____ Other (Describe) _____

12. *Drill Method: _____ Auger _____ Cable Tool _____ Rotary _____ Combination (Two or More Methods) _____ Jetted _____ Sonic
____ Horizontal Drilling ☒ Hydraulic Point (Direct Push) _____ Other _____

13. *Measured Static Water Level 3 ft. Measured Pumping Water Level 3 ft. After 1 Hours at 1 GPM

14. *Measuring Point (Describe) ground surface Which is .4 ft. Above ☒ Below Land Surface *Flowing: _____ Yes ☒ No

15. *Casing Material: _____ Black Steel _____ Galvanized ☒ PVC _____ Stainless Steel _____ Not Cased _____ Other _____

16. *Total Well Depth 25 ft. Cased Depth 15 ft. *Open Hole: From _____ To _____ ft. *Screen: From 15 To 25 ft. Slot Size .01

17. *Abandonment: _____
From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

18. *Surface Casing Diameter and Depth:
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

19. *Primary Casing Diameter and Depth:
Dia 1 in. From 0 ft. To 11 ft. No. of Bags .5 Seal Material (Check One): _____ Neat Cement _____ Bentonite ☒ Other 5% by weight
Dia 1 in. From 11 ft. To 15 ft. No. of Bags .5 Seal Material (Check One): _____ Neat Cement _____ Bentonite ☒ Other Sand
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

20. *Liner Casing Diameter and Depth:
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

21. *Telescope Casing Diameter and Depth:
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____
Dia _____ in. From _____ ft. To _____ ft. No. of Bags _____ Seal Material (Check One): _____ Neat Cement _____ Bentonite _____ Other _____

22. Pump Type (If known): _____ Centrifugal _____ Jet _____ Submersible _____ Turbine
Horsepower _____ Pump Capacity (GPM) _____
Pump Depth _____ ft. Intake Depth _____ ft. Laboratory Test _____ Field Test Kit _____

23. Chemical Analysis (When Required):
Iron _____ ppm Sulfate _____ ppm Chloride _____ ppm

24. Water Well Contractor:
*Contractor Name James P Hinst *License Number 9311 E-mail jim@drillprollc.com
*Contractor's Signature James P Hinst *Driller's Name (Print or Type) Christian Dodd
(I certify that the information provided in this report is accurate and true.)

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ATTACHMENT C
MONITORING WELL SURVEY DATA

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KUGELMANN LAND SURVEYING, INC

5/28/2024

30 N TROPICAL TRL, STE B, MERRITT ISLAND, FL 32953

(IN FEET)

klsinc@cfl.rr.com

LB 6575

KLS# 2024015

SPECIFIC PURPOSE SURVEY FOR: HYDROGEOLOGIC CONSULTANTS

RANSOM ROAD LANDFILL, KENNEDY SPACE CENTER, FL

POINT#	NORTHING	EASTING	TOC EL	GND EL	DESC	ID
7	1515834.67	756388.18	5.46	2.09	MW	MW-0043

SURVEYOR'S NOTES:

1. THE PURPOSE OF THIS SURVEY IS TO DETERMINE THE HORIZONTAL AND VERTICAL POSITION OF MONITORING WELL.
2. THE TOP OF THE WELL CASING PVC WILL BE NOTCHED BY THE SURVEYOR AT THE NORTH POINT ON THE PVC, UNLESS THE TOP OF THE PVC IS NOT LEVEL. IN THAT CASE, THE SURVEYOR WILL NOTCH THE PVC PIPE AT THE HIGHEST POINT AT THE TOP OF THE PVC OF THE WELL FOR THE TOP OF CASING ELEVATION.
2. HORIZONTAL COORDINATES ARE REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM OF 1983 AND ARE BASED ON DEFENCE MAPPING AGENCY MONUMENTS "STEVE" & "STEVE AZ MARK" HAVING COORDINATES OF N=1517518.72, E=754713.34, & N=1518148.06 E=754725.00, RESPECTIVELY.
3. ELEVATION DEPICTED HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AND ARE BASED ON NGS MONUMENT "N-208" HAVING A PUBLISHED ELEVATION OF 4.49 FEET.
5. THIS SURVEY WAS PREPARED FOR THE EXCLUSIVE USE OF THE CLIENT(S) SHOWN HEREON AND COPIES ARE VALID ONLY WITH THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED PROFESSIONAL SURVEYOR & MAPPER UNLESS ELECTRONICALLY SIGNED AND SEALED IN ACCORDANCE WITH FLORIDA STATUTES CHAPTER 472.025 AND THE STANDARDS OF PRACTICE FOR SURVEYS AS REFERENCED BY CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODES.

ABBREVIATIONS:

TOC =	TOP OF CASING
GND =	GROUND
EL =	ELEVATION
DESC =	DESCRIPTION
ID =	IDENTIFICATION
MW =	MONITORING WELL



DAVID J KUGELMANN, P.L.S.

KUGELMANN LAND SURVEYING, INC

5/24/2024

30 N TROPICAL TRL, STE B, MERRITT ISLAND, FL 32953

(IN FEET)

klsinc@cfl.rr.com

LB 6575

KLS# 2024015

SPECIFIC PURPOSE SURVEY FOR: HYDROGEOLOGIC CONSULTANTS

VERTICAL PROCESSING FACILITY (VPF), KENNEDY SPACE CENTER, FL

POINT #	NORTHING	EASTING	TOC EL	GND EL	DESC	ID
12	1518069.04	773571.81	2.78	3.0	MW	VPF-MW0032

SURVEYOR'S NOTES:

1. THE PURPOSE OF THIS SURVEY IS TO DETERMINE THE HORIZONTAL AND VERTICAL POSITION OF MONITORING WELL.
2. THE TOP OF THE WELL CASING PVC WILL BE NOTCHED BY THE SURVEYOR AT THE NORTH POINT ON THE PVC, UNLESS THE TOP OF THE PVC IS NOT LEVEL. IN THAT CASE, THE SURVEYOR WILL NOTCH THE PVC PIPE AT THE HIGHEST POINT AT THE TOP OF THE PVC OF THE WELL FOR THE TOP OF CASING ELEVATION.
3. THE PHYSICAL COORDINATES IN THE EXCEL FILE ARE REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM OF 1983 (NAD83), 1990 ADJUSTMENT AND ARE BASED ON UNITED STATES COAST AND GEODETIC MONUMENT "WRIGHT", HAVING COORDINATES OF NORTHING 1544816.33 AND EASTING 768783.06 IN FEET AND NORTHING 470860.964 AND 234325.548 IN METERS.
4. THE ELEVATIONS DEPICTED HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88) AND ARE BASED ON UNITED STATES COAST AND GEODETIC MONUMENT "WRIGHT", HAVING AN ELEVATION OF 7.45 FEET.
5. THIS SURVEY WAS PREPARED FOR THE EXCLUSIVE USE OF THE CLIENT(S) SHOWN HEREON AND COPIES ARE VALID ONLY WITH THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED PROFESSIONAL SURVEYOR & MAPPER UNLESS ELECTRONICALLY SIGNED AND SEALED IN ACCORDANCE WITH FLORIDA STATUTES CHAPTER 472.025 AND THE STANDARDS OF PRACTICE FOR SURVEYS AS REFERENCED BY CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODES.

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DAVID J. KUGELMANN, P.L.S.

KUGELMANN LAND SURVEYING, INC

5/24/2024

30 N TROPICAL TRL, STE B, MERRITT ISLAND, FL 32953

(IN FEET)

klsinc@cfl.rr.com

LB 6575

KLS# 2024015

SPECIFIC PURPOSE SURVEY FOR: HYDROGEOLOGIC CONSULTANTS

ENVIRONMENTAL HEALTH FACILITY, KENNEDY SPACE CENTER, FL

POINT #	NORTHING	EASTING	TOC EL	GND EL	DESC	ID
7	1529869.95	770249.08	5.94	6.1	MW	EHF-MW0009

SURVEYOR'S NOTES:

1. THE PURPOSE OF THIS SURVEY IS TO DETERMINE THE HORIZONTAL AND VERTICAL POSITION OF MONITORING WELL.
2. THE TOP OF THE WELL CASING PVC WILL BE NOTCHED BY THE SURVEYOR AT THE NORTH POINT ON THE PVC, UNLESS THE TOP OF THE PVC IS NOT LEVEL. IN THAT CASE, THE SURVEYOR WILL NOTCH THE PVC PIPE AT THE HIGHEST POINT AT THE TOP OF THE PVC OF THE WELL FOR THE TOP OF CASING ELEVATION.
2. HORIZONTAL COORDINATES ARE REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, EAST ZONE, NORTH AMERICAN DATUM OF 1983 AND ARE BASED ON THE UNITED STATES COAST & GEODETIC MONUMENT "MOUDY 1965" HAVING COORDINATES OF N=1528714.99 & E=770982.25.
3. ELEVATION DEPICTED HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) AND ARE BASED ON THE UNITED STATES COAST & GEODETIC MONUMENT "MOUDY 1965" HAVING A PUBLISHED ELEVATION OF 6.48 FEET.
5. THIS SURVEY WAS PREPARED FOR THE EXCLUSIVE USE OF THE CLIENT(S) SHOWN HEREON AND COPIES ARE VALID ONLY WITH THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED PROFESSIONAL SURVEYOR & MAPPER UNLESS ELECTRONICALLY SIGNED AND SEALED IN ACCORDANCE WITH FLORIDA STATUTES CHAPTER 472.025 AND THE STANDARDS OF PRACTICE FOR SURVEYS AS REFERENCED BY CHAPTER 5J-17, FLORIDA ADMINISTRATIVE CODES.

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DAVID J. KUGELMANN, P.L.S.

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