Indian River County Purchasing Division
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ADDENDUM NO. 2

Issue Date: June 9, 2023

Project Name: Upper Floridan Aquifer South Well No. 1 Replacement (S1R)

Bid Number: 2023030

Bid Opening Date: **June 23, 2023 (updated)**

This addendum is being released to provide pre-bid minutes and sign-in sheet and answer questions received to date. The information and documents contained in this addendum are hereby incorporated in the Bid Documents. **This addendum must be acknowledged where indicated on the bid form, or the bid will be declared non-responsive.**

Questions and Answers

1. Please provide the anticipated NTP date. Is that date flexible?
   Anticipated NTP date is August 1, 2023, this date is not flexible as it is based on duration and working around Scrub Jay mating season.

2. Please provide the engineer's estimate/budget.
   The Opinion of Probable Construction Costs is $920,000 for the base bid and $320,000 for the bid alternate.

3. Is the 85db an absolute requirement to meet during construction of the well? Will we be penalized if not able to meet during construction?
   This is a requirement that must be met. If necessary, the Owner will submit to obtain administrative approval to operate the generator and drill rig so that the project may be completed prior to scrub jay mating season.

4. If able to meet the 85db requirement, would 24/7 drilling operations be acceptable?
   Work should be done between the hours of 6:00am and 8:00pm unless the contractor elects to seek administrative approval from Indian River County on the basis of good cause shown. (Per the code of ordinances Section 974.04)

5. Would Indian River County consider allowing contractor to work 24/7 when considering the higher cost of operating under day shift only?
   Work should be done between the hours of 6:00am and 8:00pm unless the contractor elects to seek administrative approval from Indian River County on the basis of good cause shown. (Per the

code of ordinances Section 974.04)

6. Would the requestor be disqualified for proposing additional or varied line items on the bid form?
Yes, utilize the bid form to include the costs necessary for each bid item. If there are items the contractor believes are excluded that need to be included for the bid, Contractor is recommended to include those costs in a bid item that closely relates to the work.

7. If substantial completion is 300 days, would the owner be willing to consider 60/90-day extension on mobilization?
This will be considered. Contractor is cautioned that no drilling is to occur during scrub jay mating season.

8. Would Contract be held responsible for proposing usage of a compressor coupling during the cementing vs. welding on a flange only?
Contractor responsible for means and methods.

9. Does the owner have any drillers/ lithology logs available?
This is provided for well S-4R, a nearby UFA well that is located west of proposed S-1R.

10. Is the Contractor allowed to use the owners water main during construction?
This is a 10-inch FRP main that runs from the well site to the WTP. If so, Contractor is responsible for cutting and routing main to disposal location. This includes cost to restore/cap the location where the 10-inch is severed from the combined raw water main header.

11. Is the Contractor allowed to lay out hoses from the well to the pond for discharge?
Yes.

Attachments

Non-Mandatory Pre-Bid Sign in
Drill Log for S-4R

Pre-Bid Conference – Bid 2023030 UFA South Well No. 1 Replacement (S1R)
Wednesday, May 31, 2023, 10:00 a.m. – South County RO Plant

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APPENDIX B INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES, SOUTH COUNTY WATER TREATMENT PLANT UPPER FLORIDAN AQUIFER PRODUCTION WELL S-4R CONSTRUCTION Well S-4R Lithologic Log	
Depth (Feet BLS)	Lithologic Description
0 – 15	SAND (100%), yellowish gray (5YR 8/1) to pale yellowish brown (10YR 6/2), unconsolidated, fine sand sized quartz, trace very pale orange (10YR 8/2) carbonate grains, sub rounded, well sorted. Overall, trace organic material from 0 feet bls to 15 feet bls.
15 – 25	SAND (100%), moderate brown (5YR 4/4) to dark yellowish brown (10YR 4/2), unconsolidated, fine sand to coarse sand sized quartz grains, sub angular to sub rounded, moderately well sorted. Overall, interbedded minor dusky brown (5YR 2/2) organic material.
25 – 35	SAND (100%), moderate yellowish brown (10YR 5/4) to pale brown (5YR 5/2), unconsolidated, fine sand to coarse sand sized quartz grains, trace very pale orange (10YR 8/2) carbonate grains, sub rounded, moderately well sorted. Overall, trace shell fragments and trace limestone fragments increase with depth.
35 – 45	SAND AND SHELL (100%), moderate yellowish brown (10YR 5/4) to pale brown (5YR 5/2), unconsolidated, fine sand to coarse sand sized quartz grains, sub angular to sub rounded, abundant very pale orange (10YR 8/2) to grayish orange (10YR 7/4), undifferentiated shell fragments, poorly sorted.
45 – 50	SHELL HASH (100%), very pale orange (10YR 8/2) to grayish orange (10YR 7/4), unconsolidated, undifferentiated shell fragments, intact mollusk shells, trace pale yellowish orange (10YR 8/6) fine sand to coarse sand sized quartz grains.
50 – 60	SAND AND SHELL (100%), grayish brown (5Y 8/4) to yellowish gray (5Y 7/2), unconsolidated, fine sand to coarse sand sized quartz grains, sub angular to sub rounded, very pale orange (10YR 8/2) to grayish orange (10YR 7/4) to light gray (N7), undifferentiated shell fragments, poorly sorted.
60 – 105	SHELL HASH (100%), very pale orange (10YR 8/2) to grayish orange (10YR 7/4) to light gray (N7) to medium light gray (N6), unconsolidated, undifferentiated shell fragments, minor fine sand to coarse sand sized quartz grains, poorly sorted.
105 – 125	SHELL HASH (70%), very pale orange (10YR 8/2) to light gray (N7), unconsolidated, undifferentiated shell fragments; SAND (20%), very pale orange (10YR 8/2) to grayish orange (10YR 7/4) to light gray (N7) to medium light gray (N6), unconsolidated, coarse sand to fine sand sized carbonate grains, sub angular to subrounded; LIMESTONE (10%), dark gray (N3), moderately hard to hard, very fine sand to micritic texture. Overall, limestone present as sub-rounded to rounded pebbles.
125 – 135	LIMESTONE (50%), light gray (N7) to medium light gray (N6), moderately hard to moderately soft, micritic to fossiliferous texture, medium sand to coarse sand sized

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125 – 135	carbonate grains, micritic matrix, carbonate cemented; SHELL (50%), very pale orange (10YR 8/2) to grayish orange (10YR 7/4) to light gray (N7) to medium light gray (N6), unconsolidated, undifferentiated shell fragments, poorly sorted. Overall, shell fragments and limestone interbedded.
135 – 150	CLAY (50%), olive gray (5Y 4/1) to dark gray (N3), unconsolidated to semi consolidated, very cohesive, carbonate clay, moderate to abundant black (N1) phosphate grains, very low permeability. SHELL HASH (50%), very pale orange (10YR 8/2) to grayish orange (10YR 7/4), unconsolidated, undifferentiated shell fragments. Overall, the transition zone from into the Hawthorne Unit.
150 – 240	CLAY (100%), olive gray (5Y 4/1) to dark gray (N3) to light olive gray (5Y 5/6), unconsolidated to semi consolidated, very cohesive, carbonate clay, moderate to abundant black (N1) phosphate grains, very low permeability.
240 – 245	CLAY (80%), same as above; SAND (20%), unconsolidated, fine sand to coarse sand sized quartz grains, sub angular to sub rounded, moderately well sorted. Overall, interbedded clay and sand. Phosphate and content increases with depth.
245 – 275	CLAY (70%), olive gray (5Y 4/1) to yellowish gray (5Y 7/2), unconsolidated to semi consolidated, very cohesive, carbonate clay, very low permeability; PHOSPHATE (30%), grayish black (N2) to black (N1), coarse sand to pebble sized phosphate grains, sub rounded, poorly sorted.
275 – 355	CLAY (50%), olive gray (5Y 4/1) to dark gray (N3), unconsolidated to semi consolidated, very cohesive, carbonate clay, very low permeability; SANDY CLAY (30%), light olive gray (5Y 5/6) to dark yellowish brown (10YR 2/2), semi consolidated to consolidated, friable, carbonate clay, medium sand to coarse sand sized white (N9) quartz and carbonate grains, low permeability; PHOSPHATE (20%), grayish black (N2) to black (N1), coarse sand to pebble sized phosphate grains, sub rounded; Overall, phosphate content increase with depth and become interbedded with clay and sandy clay.
355 – 360	CLAY (80%), light olive gray (5Y 6/1) to olive gray (5Y 4/1), unconsolidated, cohesive to very cohesive, carbonate clay, moderate to abundant black (N1) phosphate grains, minor to moderate medium sand to coarse sand sized quartz grains, very low permeability; PHOSPHATE (15%), grayish black (N2) to black (N1), coarse sand to pebble sized phosphate grains, sub rounded; CHERT (<5%), medium dark gray (N4), hard, very low permeability. Overall, interbedded clay and chert.

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Depth (Feet BLS)	Lithologic Description
360 – 370	FOSSILIFEROUS LIMESTONE (100%), light gray (N7), fine to medium grained, sub angular to sub rounded, moderately hard. Overall, a transition zone from clay to fossiliferous limestone.
370 – 415	SANDY LIMESTONE (90%), yellowish gray (5Y 8/1), friable to very soft, sandy texture, poorly cemented, moderate permeability; FOSSILIFEROUS LIMESTONE (10%), SAA.
415 – 435	CARBONATE SAND (60%), yellowish gray (5Y 8/1), semi consolidated to unconsolidated, very fine sand to medium sand sized carbonate grains, undifferentiated shell fragments; SANDY LIMESTONE (40%), yellowish gray (5Y 8/1) to light gray (N7), friable to moderately soft, sandy to fossiliferous texture, poorly cemented, moderate permeability.
435 - 455	LIMESTONE (100%), yellowish gray (5Y 8/1), soft, sandy to fossiliferous texture, very fine sand sized carbonate grains, undifferentiated shell fragments, poorly cemented, moderate permeability.
455 – 465	FOSSILIFEROUS LIMESTONE (100%), yellowish gray (5Y 8/1), moderately hard to hard, micritic to microcrystalline texture, very well cemented, moderate permeability, in tack mollusk shells, traces of very fine to medium sand sized phosphate grains.
465 – 530	FOSSILIFEROUS LIMESTONE (90%), very pale orange (10YR 8/2) to yellowish gray (5Y 8/1), moderately soft to hard, granular to fossiliferous texture, medium sand to very coarse sand sized carbonate grains, moderate undifferentiated fossils/shell fragments, moderately well to well cemented, moderate permeability; SANDY LIMESTONE (10%), yellowish gray (5Y 8/1), soft, sandy texture, poorly cemented, moderate permeability. Overall, abundant content of medium sand to gravel sized Lepidocyclina sp.
530 – 590	FOSSILIFEROUS LIMESTONE (90%), very pale orange (10YR 8/2), moderately hard, fossiliferous texture, fine sand to very coarse sand sized carbonate grains, abundant undifferentiated fossils/shell fragments, moderately well to well cemented, moderate permeability. Overall, abundant content of fine sand to gravel sized Lepidocyclina sp.
590 – 640	DOLOMITIC LIMESTONE (50%), very pale orange (10YR 8/2) to pale yellowish brown (10YR 6/2), hard, coarse sand sized grained to gravel sized fragments, sub angular, minor vuggy porosity, variably crystalline, moderately permeable; LIMESTONE (50%), very pale orange (10YR 8/2) to light brown (5Y 6/4), moderately hard to hard, granular texture, very fine sand to medium sand sized carbonate grains, minor undifferentiated shell fragments, moderately cemented, moderate permeability. Overall interbedded dolomitic limestone and limestone.

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640 – 645	LIMESTONE (60%), very pale orange (10YR 8/2), moderately soft, micritic texture, moderately cemented, moderately low permeability; LIMEMUD (40%), yellowish gray (5Y 7/2), very soft, low permeability.
645 – 660	DOLOMITIC LIMESTONE (80%), light bluish gray (5B 7/1) to light brownish gray (5YR 6/1), mottled color, hard, micritic texture, very well cemented, moderate permeability; LIMESTONE (10%), very pale orange (10YR 8/2) to light brown (5YR 6/4), soft to moderately hard, micritic texture, moderately cemented, moderately low permeability; LIMEMUD (10%), very light gray (N8) to light brownish gray (5YR 6/1), very soft, moderately cohesive, low permeability.
660 – 695	LIMESTONE (80%), yellowish gray (5Y 8/1), moderately soft, sandy to fossiliferous texture, very fine sand to medium sand sized carbonate grains, moderately cemented, moderate permeability; LIMEMUD (20%), yellowish gray (5Y 7/2) to light brownish gray (5YR 6/1), very soft, low permeability.
695 – 725	LIMESTONE (100%), very light gray (N8) to white (N9), soft, sandy to chalky texture, very fine sand to medium sand sized carbonate grains, well cemented, moderate to low permeability.
725 – 735	FOSSILIFEROUS LIMESTONE (100%), very pale orange (10YR 8/2), moderately hard, granular to fossiliferous texture, medium sand to very coarse sand sized carbonate grains, moderate amounts undifferentiated fossils/shell fragments, moderately well to well cemented, intergranular porosity, moderate permeability. Lepidocyclina sp. present.
735 – 750	LIMESTONE (100%), white (N9) to very light gray (N8), moderately soft, fine sand to medium sand sized carbonate grains, sub angular, chalky to variably crystalline, well cemented, traces of mollusk fossil molds and casts increase with depth, moderate permeability.
750 – 755	LIMEMUD (60%), very light gray (N8) to very pale orange (10YR 8/2), soft, cohesive, low permeability; LIMESTONE (40%), very pale orange (10YR 8/2) to yellowish gray (5Y 8/1), very soft, micritic texture, well cemented, moderately low permeability.
755 – 760	LIMESTONE (100%), medium light gray (N6) to light gray (N7), hard, fossiliferous texture, trace fossil/shell casts and molds, well cemented, intergranular porosity, moderately high permeability.
760 – 765	FOSSILIFEROUS LIMESTONE (100%), yellowish gray (5Y 8/1) to very pale orange (10YR 8/2), very hard, very fine sand to medium sand sized carbonate grains, sub angular, fossil/undifferentiated shell casts and molds, intergranular porosity.

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765 – 770	DOLOMITIC LIMESTONE (100%), light gray (N7) to yellowish gray (5Y 8/1), hard, fine sand to medium sand sized carbonate grains, sub angular, intergranular porosity, variably crystalline, moderately permeable.
770 – 790	FOSSILIFEROUS LIMESTONE (60%), pale brown (5YR 5/2) to pale yellowish brown (10YR 6/2) to very pale orange (10YR 8/2), moderately hard, granular to fossiliferous texture, medium sand to very coarse sand sized carbonate grains, abundant undifferentiated fossils/shell fragments, well cemented, moderate permeability; SANDY LIMESTONE (40%), very pale orange (10YR 8/2) to pale yellowish brown (10YR 6/2), moderately hard, very fine sand to medium sand sized carbonate grains, moderately cemented, moderate permeability. Overall, interbedded sandy limestone with fossiliferous limestone.
790 – 795	DOLOMITE (100%) pale brown (5YR 5/2) to dark yellowish brown (10YR 4/2), hard, medium grained sand sized carbonate grains, sub angular, permeable.
795 – 800	SANDY LIMESTONE (100%), very pale orange (10YR 8/2) to pale yellowish brown (10YR 6/2), moderately hard, very fine sand to medium sand sized carbonate grains, moderately cemented, moderate permeability.
800 – 825	FOSSILIFEROUS LIMESTONE (50%), yellowish gray (5Y 8/1) to medium light gray (N6), moderately hard, fossiliferous texture, very fine sand to medium sand sized carbonate grains, intergranular porosity, traces of fossil/undifferentiated shell casts and molds, moderate permeability; DOLOMITIC LIMESTONE (50%), yellowish gray (5Y 8/1), hard, fine sand to medium sand sized carbonate grains, sub angular, variably crystalline, moderately permeable.
825 – 835	DOLOMITIC LIMESTONE (90%), dark yellowish orange (10YR 6/6) to yellowish gray (5Y 8/1), hard, fine sand sized carbonate grains, intergranular porosity, sub angular, variably crystalline, low permeability; LIMEMUD (10%), light brown (5YR 6/4), soft, cohesive, low permeability.