# TECHNICAL SPECIFICATIONS ISSUED FOR BID

## Valdosta Water Treatment Plant No. 2 and Production Wells
## Appendices

**Prepared for:**

VALDOSTA
A City Without Limits

**Issue Date:**

**July 2025**

CDM Smith

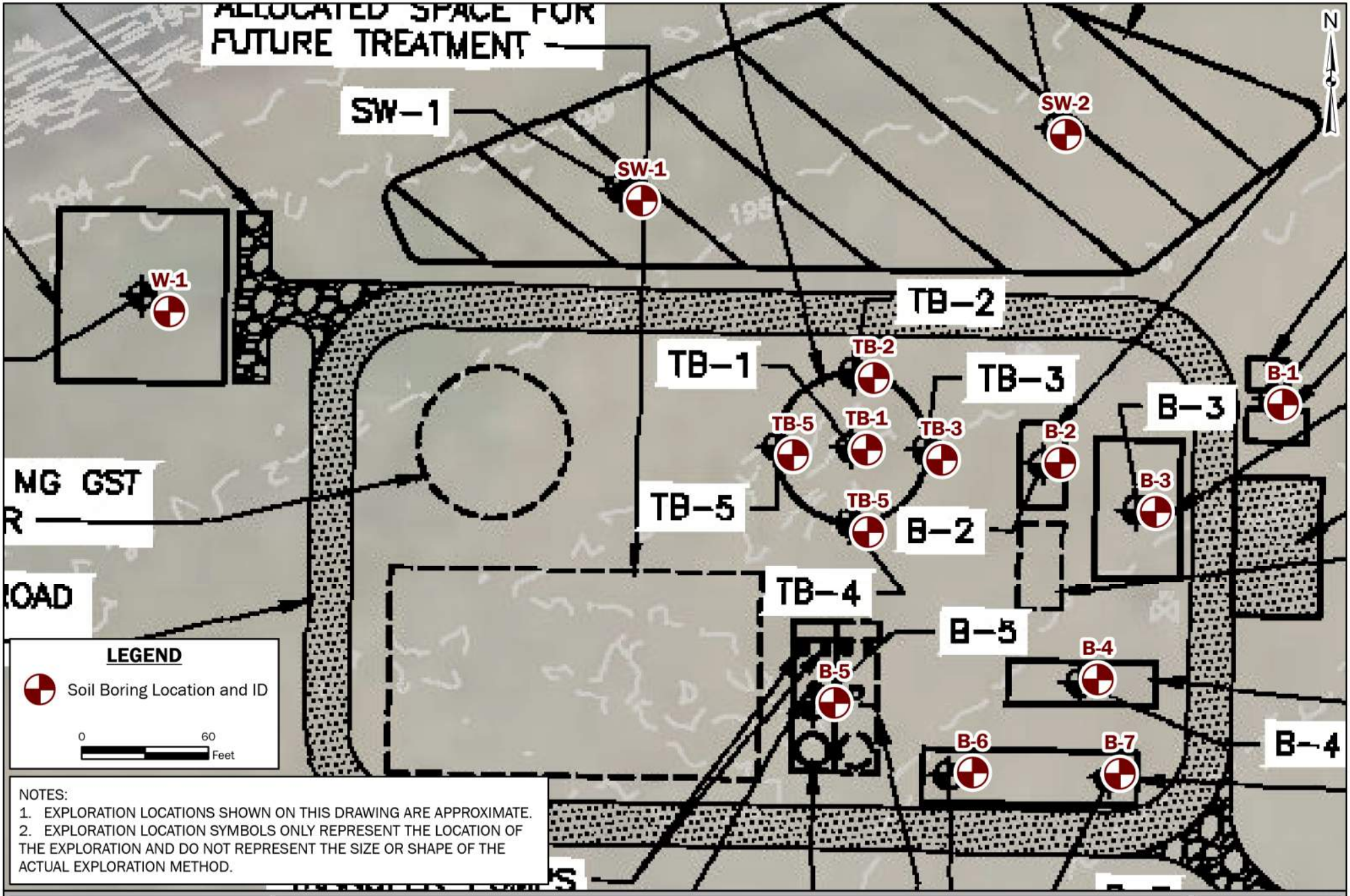
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# APPENDIX A – GEOTECHNICAL DATA

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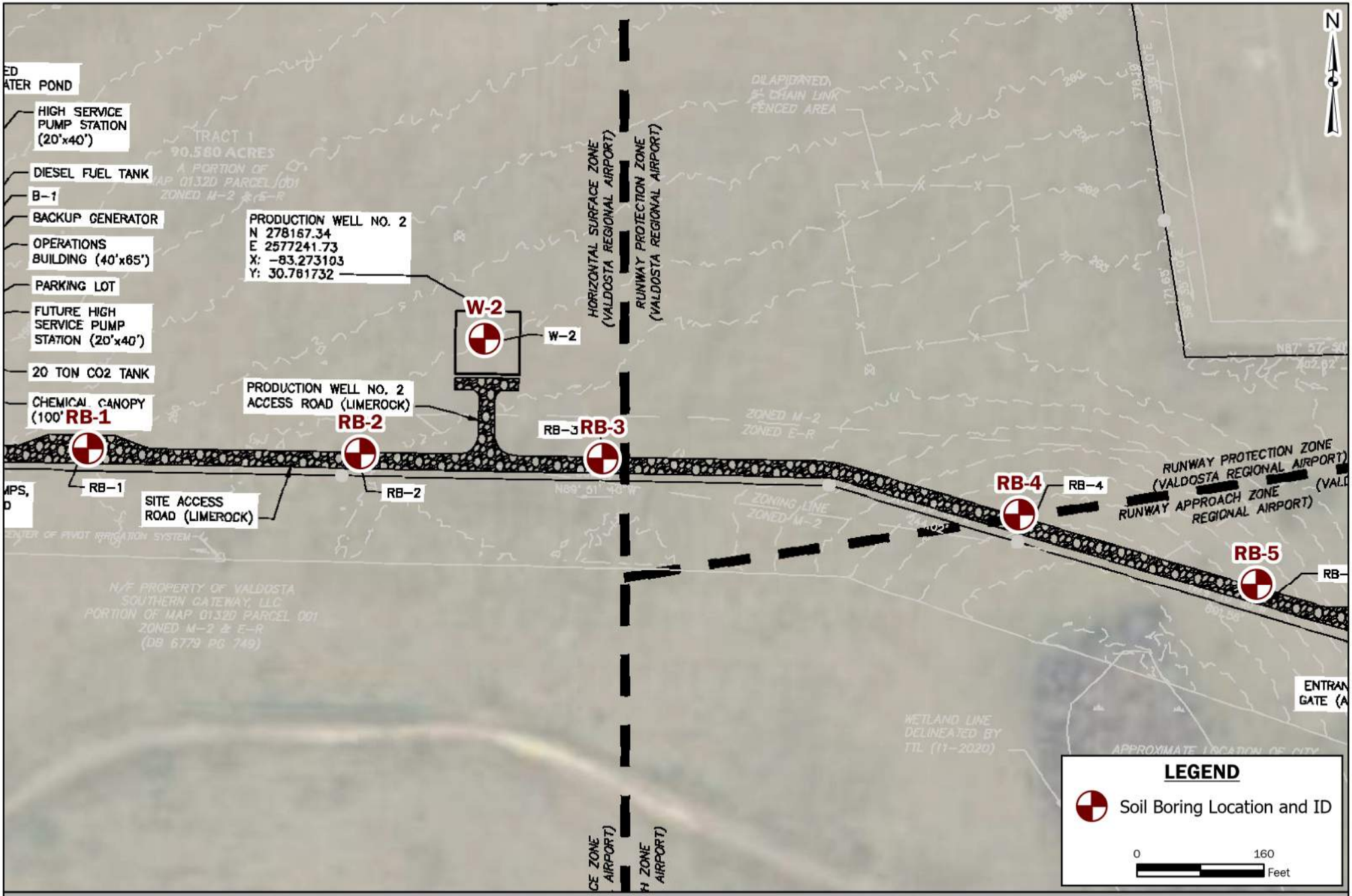

NOTES:
1. EXPLORATION LOCATIONS SHOWN ON THIS DRAWING ARE APPROXIMATE.
2. EXPLORATION LOCATION SYMBOLS ONLY REPRESENT THE LOCATION OF THE EXPLORATION AND DO NOT REPRESENT THE SIZE OR SHAPE OF THE ACTUAL EXPLORATION METHOD.

TTL

# BORING LOCATION PLAN (WEST)

CDM SMITH
VALDOSTA WATER TREATMENT PLANT
VALDOSTA, LOWNDES COUNTY, GEORGIA
BASEMAP: Maxar Technologies. Vivid Imagery. 3/18/2022 (0.5 m Resolution).

| |
|---|
| DRAWN BY: JDM |
| CHECKED BY: CH |
| DRAWING DATE: 1/15/2024 |
| REVISION DATE: N/A |
| TTL JOB NO.: 23-07-02183.00 |
| APPROX. SCALE: 1 in = 60 ft |




# BORING LOCATION PLAN (EAST)

CDM SMITH

VALDOSTA WATER TREATMENT PLANT

VALDOSTA, LOWNDES COUNTY, GEORGIA

BASEMAP: Maxar Technologies. Vivid Imagery. 3/18/2022 (0.5 m Resolution).

| |
|---|
| DRAWN BY: JDM |
| CHECKED BY: CH |
| DRAWING DATE: 1/15/2024 |
| REVISION DATE: N/A |
| TTL JOB NO.: 23-07-02183.00 |
| APPROX. SCALE: 1 in = 200 ft |

# SOIL LEGEND

## FINE- AND COARSE-GRAINED SOIL INFORMATION

### FINE-GRAINED SOILS (SILTS AND CLAYS)

| SPT N-Value | Consistency | Estimated $Q_u$ (TSF) |
|---|---|---|
| 0 - 1 | Very Soft | 0 - 0.25 |
| 2 - 4 | Soft | 0.25 - 0.5 |
| 5 - 8 | Firm | 0.5 - 1.0 |
| 9 - 15 | Stiff | 1.0 - 2.0 |
| 16 - 30 | Very Stiff | 2.0 - 4.0 |
| 31+ | Hard | 4.0+ |

$Q_u$ = Unconfined Compression Strength

### COARSE-GRAINED SOILS (SANDS AND GRAVELS)

| SPT N-Value | Relative Density |
|---|---|
| 0 - 4 | Very Loose |
| 5 - 10 | Loose |
| 11 - 30 | Medium Dense |
| 31 - 50 | Dense |
| 51+ | Very Dense |

### PARTICLE SIZE

| Name | Size (US Std. Sieve) |
|---|---|
| Boulders | >300 mm (>12 in.) |
| Cobbles | 75 mm to 300 mm (3 - 12 in.) |
| Coarse Gravel | 19 mm to 75 mm (3/4 - 3 in.) |
| Fine Gravel | 4.75 mm to 19 mm (#4 - 3/4 in.) |
| Coarse Sand | 2 mm to 4.75 mm (#10 - #4) |
| Medium Sand | 0.425 mm to 2 mm (#40 - #10) |
| Fine Sand | 0.075 mm to 0.425 mm (#200 - #40) |
| Silts and Clays | < 0.075 mm (< #200) |

## RELATIVE PROPORTIONS OF SAND AND GRAVEL

| Descriptive Terms | Percent of Dry Weight |
|---|---|
| "Trace" | < 15 |
| "With" | 15 - 30 |
| Modifier | > 30 |

## RELATIVE PROPORTIONS OF CLAYS AND SILTS

| Descriptive Terms | Percent of Dry Weight |
|---|---|
| "Trace" | < 5 |
| "With" | 5 - 12 |
| Modifier | > 12 |

## CRITERIA FOR DESCRIBING MOISTURE CONDITION

| Description | Criteria |
|---|---|
| Dry | Absence of moisture, dusty, dry to the touch |
| Moist | Damp, but no visible water |
| Wet | Visible free water, usually soil is below water table |

## CRITERIA FOR DESCRIBING CEMENTATION

| Description | Criteria |
|---|---|
| Weak | Crumbles or breaks with handling or little finger pressure |
| Moderate | Crumbles or breaks with considerable finger pressure |
| Strong | Will not crumble or break with finger pressure |

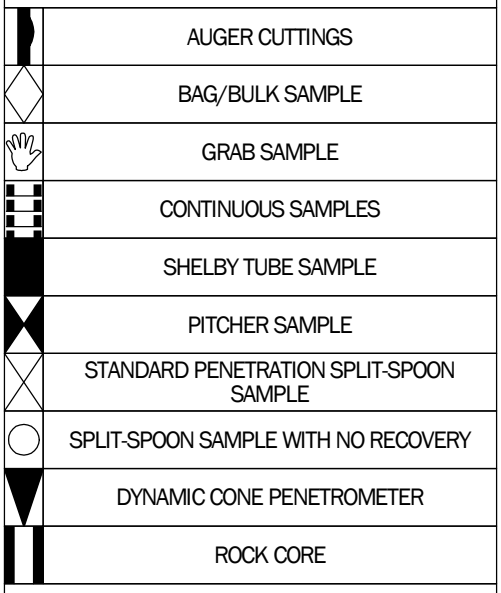
## CRITERIA FOR DESCRIBING STRUCTURE

| Description | Criteria |
|---|---|
| Stratified | Alternating layers of varying material or color with layers at least 6 mm thick; note the thickness |
| Laminated | Alternating layers of varying material or color with the layers less than 6 mm thick; note thickness |
| Fissured | Breaks along definite planes of fracture with little resistance to fracturing |
| Slickensided | Fracture planes appear polished or glossy, sometimes striated |
| Blocky | Cohesive soil that can be broken down into small angular lumps which resist further breakdown |
| Lensed | Inclusion of small pockets of different soils such as small lenses of sand scattered through a mass of clay; note thickness |
| Homogeneous | Same color and appearance throughout |

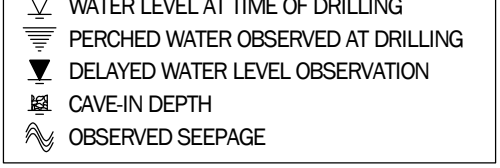
## ABBREVIATIONS AND ACRONYMS

| | | | |
|---|---|---|---|
| WOH | Weight of Hammer | N-Value | Sum of the blows for last two 6-in increments of SPT |
| WOR | Weight of Rod | | |
| Ref. | Refusal | NA | Not Applicable or Not Available |
| ATD | At Time of Drilling | OD | Outside Diameter |
| DCP | Dynamic Cone Penetrometer | PPV | Pocket Penetrometer Value |
| Elev. | Elevation | SFA | Solid Flight Auger |
| ft. | feet | SH | Shelby Tube Sampler |
| HSA | Hollow Stem Auger | SS | Split-Spoon Sampler |
| ID | Inside Diameter | SPT | Standard Penetration Test |
| in. | inches | USCS | Unified Soil Classification System |
| lbs | pounds | | |

## SAMPLERS AND DRILLING METHODS




## WATER LEVEL SYMBOLS




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## UNIFIED SOIL CLASSIFICATION SYSTEM (USCS)

| | | | | | |
|---|---|---|---|---|---|
| COARSE GRAINED SOILS (>50% of the material is larger than the #200 sieve) | GRAVELS (>50% of coarse fraction is larger than the #4 sieve) | CLEAN GRAVEL WITH <5% FINES | Cu > 4 Cc = 1-3 | GW | Well-graded gravels, gravel-sand mixtures with trace or no fines |
| | | | Cu < 4 and/or Cc < 1 Cc > 3 | GP | Poorly-graded gravels, gravel-sand mixtures with trace or no fines |
| | | GRAVEL WITH 5% TO 12% FINES | Cu > 4 Cc = 1-3 | GW-GM | Well-graded gravels, gravel-sand mixtures with silt fines |
| | | | | GW-GC | Well-graded gravels, gravel-sand mixtures with clay fines |
| | | | Cu < 4 and/or Cc < 1 Cc > 3 | GP-GM | Poorly-graded gravels, gravel-sand mixtures with silt fines |
| | | | | GP-GC | Poorly-graded gravels, gravel-sand mixtures with clay fines |
| | | GRAVEL WITH MORE THAN 12% FINES | | GM | Silty gravels, gravel-silt-sand mixtures |
| | | | | GC | Clayey gravels, gravel-sand-clay mixtures |
| | | | | GC-GM | Clayey gravels, gravel-sand-clay-silt mixtures |
| | SANDS (>50% of coarse fraction is smaller than the #4 sieve) | CLEAN SAND WITH <5% FINES | Cu > 6 Cc = 1-3 | SW | Well-graded sands, sand-gravel mixtures with trace or no fines |
| | | | Cu < 6 and/or Cc < 1 Cc > 3 | SP | Poorly-graded sands, sand-gravel mixtures with trace or no fines |
| | | SAND WITH 5% TO 12% FINES | Cu > 6 Cc = 1-3 | SW-SM | Well-graded sands, sand-gravel mixtures with silt fines |
| | | | | SW-SC | Well-graded sands, sand-gravel mixtures with clay fines |
| | | | Cu < 6 and/or Cc < 1 Cc > 3 | SP-SM | Poorly-graded sands, sand-gravel mixtures with silt fines |
| | | | | SP-SC | Poorly-graded sands, sand-gravel mixtures with clay fines |
| | | SAND WITH MORE THAN 12% FINES | | SM | Silty sands, sand-gravel-silt mixtures |
| | | | | SC | Clayey sands, sand-gravel-clay mixtures |
| | | | | SC-SM | Clayey sands, sand-gravel-clay-silt mixtures |
| FINE GRAINED SOILS (>50% of material is smaller than the #200 sieve) | | SILTS & CLAYS (Liquid Limit less than 50) | | ML | Inorganic silts with low plasticity |
| | | | | CL | Inorganic clays of low plasticity, gravelly or sandy clays, silty clays, lean clays |
| | | | | CL-ML | Inorganic clay-silts of low plasticity, gravelly clays, sandy clays, silty clays, lean clays |
| | | | | OL | Organic silts and organic silty clays of low plasticity |
| | | SILTS & CLAYS (Liquid Limit more than 50) | | MH | Inorganic silts of high plasticity, elastic silts |
| | | | | CH | Inorganic clays of high plasticity, fat clays |
| | | | | OH | Organic clays and organic silts of high plasticity |

## USCS - HIGHLY ORGANIC SOILS

Primarily organic matter, dark in color, organic odor

| | |
|---|---|
| PT | Peat, humus, swamp soils with high organic contents |

## OTHER MATERIALS

- BITUMINOUS CONCRETE (ASPHALT)
- CONCRETE
- CRUSHED STONE/AGGREGATE BASE
- TOPSOIL
- FILL
- UNDIFFERENTIATED ALLUVIUM
- UNDIFFERENTIATED OVERBURDEN
- BOULDERS AND COBBLES

**UNIFORMITY COEFFICIENT**

$$C_u = D_{60}/D_{10}$$

**COEFFICIENT OF CURVATURE**

$$C_C = (D_{30})^2/(D_{60} \times D_{10})$$

Where:

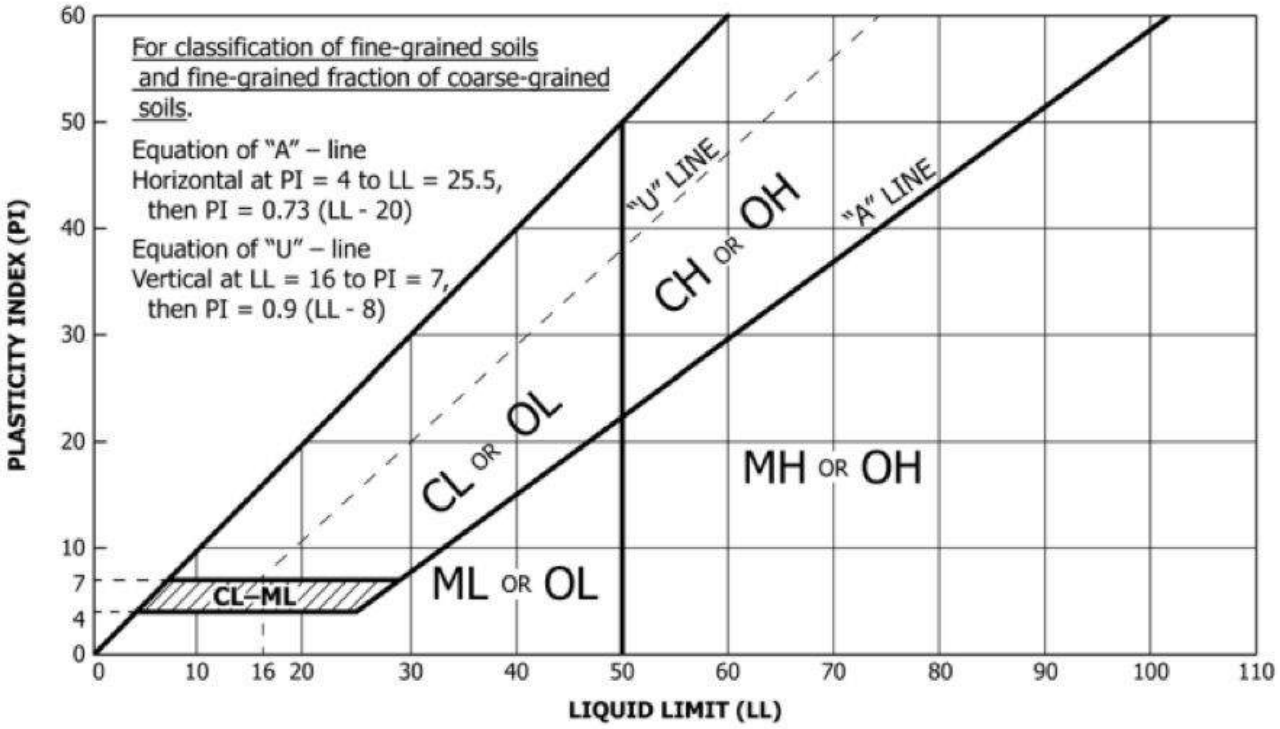
$D_{60}$ = grain diameter at 60% passing

$D_{30}$ = grain diameter at 30% passing

$D_{10}$ = grain diameter at 10% passing

TTL

## PLASTICITY CHART FOR USCS CLASSIFICATION OF FINE-GRAINED SOILS




## IMPORTANT NOTES ON TEST BORING RECORDS

1) The report and graphics key are an integral part of these logs. All data and interpretations in this log are subject to the explanations and limitations stated in the report.

2) Lines separating strata on the logs represent approximate boundaries only. Actual transitions may be gradual or differ from those shown. Solid lines are used to indicate a change in the material type, particularly a change in the USCS classification. Dashed lines are used to separate two materials that have the same material type, but that differ with respect to two or more other characteristics (e.g. color, consistency).

3) No warranty is provided as to the continuity of soil or rock conditions between individual sample locations.

4) Logs represent general soil and rock conditions observed at the point of exploration on the date indicated.

5) In general, Unified Soil Classification System (USCS) designations presented on the logs were based on visual classification in the field and were modified where appropriate based on gradation and index property testing.

6) Fine-grained soils that plot within the hatched area on the Plasticity Chart, and coarse-grained soils with between 5% and 12% passing the #200 sieve require dual USCS symbols as presented on the previous page.

7) If the sampler is not able to be driven at least 6 inches, then 50/X" indicates that the sampler advanced X inches when struck 50 times with a 140-pound hammer falling 30 inches.

8) If the sampler is driven at least 6 inches, but cannot be driven either of the subsequent two 6-inch increments, then either 50/X" or the sum of the second 6-inch increment plus 50/X" for the third 6-inch increment will be indicated.
Example 1: Recorded SPT blow counts are 16 - 50/4", the SPT N-value will be shown as N = 50/4"
Example 2: Recorded SPT blow counts are 18 - 25 - 50/2", the SPT N-value will be shown as N = 75/8"

**CDM Smith**
**Valdosta Water Treatment Plant**

Valdosta, Lowndes County, Georgia

**Log of B-1**

Page 1 of 1

| | | | |
|---|---|---|---|
| Drilling Co.: | *TTL, Inc.* | **TTL** Project No.: | *23-07-02183.00* |
| Driller: | *P. Gay* | Date Drilled: | *12/15/2023* |
| Logged by: | *P. Kelly* | Boring Depth: | *20 feet* |
| Equipment: | *CME 45* | Boring Elevation: | *197 feet* |
| Hammer Type: | *Automatic* | Coordinates: | *N: n/a E: n/a* |
| Drilling Method: | *Hollow Stem Auger w/SPT Sampling* | ▽ Water Level at Time of Drilling: | *13.5 ft BGS* |
| | | ▩ Cave-In at Time of Drilling: | *N/A* |

Remarks:
The boring was backfilled with drill cuttings following an observation period for delayed groundwater measurement. The hammer efficiency of the rig used was 91.5%.

▼ Delayed Water Level: *Not Encount.*

Delayed Water Observation Date: *12/15/2023*

| ELEVATION (ft) | DEPTH (ft) | GRAPHIC LOG | MATERIALS DESCRIPTION | % PASSING #200 SIEVE | TYPE | SPT/CORE DATA 1st 6" 2nd 6" 3rd 6" N-VALUE | RQD % REC | SAMPLE DATA: SPT N-VALUE (BPF) ■ MOISTURE CONTENT (%) ▶◀ PLASTIC AND LIQUID LIMIT (%) 10 20 30 40 50 |
|---|---|---|---|---|---|---|---|---|
| 197 | 0 | | TOPSOIL (2 Inches) | | | | | |
| 195 | | | **COASTAL PLAIN:** SILTY SAND, very loose, medium to fine grained, brown, moist (SM) | 27.6 | | 3 - 2 - 1 N = 3 | | MC=15 ■ LL=0 ▶◀ |
| | 5 | | CLAYEY SAND, medium dense, medium to fine grained, brown, moist (SC) | | | 3 - 5 - 9 N = 14 | | |
| 190 | | | - becomes white and red below 6 feet | | | 6 - 13 - 15 N = 28 | | |
| | 10 | | SANDY FAT CLAY, very stiff to stiff, light pink and orange, moist (CH) | | | 7 - 8 - 12 N = 20 | | |
| 185 | | | | | | | | |
| | 15 | | - becomes gray and white below 13.5 feet ▽ | | | 9 - 5 - 6 N = 11 | | MC=16 ■ |
| 180 | | | | | | | | |
| | 20 | | Boring terminated at 20 feet. | | | 10 - 6 - 8 N = 14 | | |
| 175 | | | | | | | | |
| | 25 | | | | | | | |
| 170 | | | | | | | | |
| | 30 | | | | | | | |
| 165 | | | | | | | | |

*This boring log shall not be separated from the corresponding Instrument of Service; no third party may rely upon this boring log or the corresponding Instrument of Service absent a written TTL Secondary Client Agreement.*

\\FS-LOCAL\PROJECTS\2023\07\23-07-02183.00 CDM SMITH- VALDOSTA WATER TREATMENT PLANT - VALDOSTA, GEORGIA\GEOTECHNICAL\DATA\CDM VALDOSTA WATER - MASTER LAB LOG.GPJ 1/16/24 Report:GEOTECH LOG

**CDM Smith**
**Valdosta Water Treatment Plant**

Valdosta, Lowndes County, Georgia

**Log of B-2**

Page 1 of 1

| | | | |
|---|---|---|---|
| Drilling Co.: | *TTL, Inc.* | **TTL** Project No.: | *23-07-02183.00* |
| Driller: | *P. Gay* | Date Drilled: | *12/15/2023* |
| Logged by: | *P. Kelly* | Boring Depth: | *30 feet* |
| Equipment: | *CME 45* | Boring Elevation: | *197 feet* |
| Hammer Type: | *Automatic* | Coordinates: | *N: n/a E: n/a* |
| Drilling Method: | *Hollow Stem Auger w/SPT Sampling* | ▽ Water Level at Time of Drilling: | *13.5 ft BGS* |
| | | ▨ Cave-In at Time of Drilling: | *23 ft BGS* |

Remarks:
The boring was backfilled with drill cuttings following a groundwater measurement once drilling tools were removed. The hammer efficiency of the rig used was 91.5%.

▼ Delayed Water Level: *Not Encount.*

Delayed Water Observation Date: *12/15/2023*

| ELEVATION (ft) | DEPTH (ft) | GRAPHIC LOG | MATERIALS DESCRIPTION | % PASSING #200 SIEVE | TYPE | SPT/CORE DATA (1st 6" / 2nd 6" / 3rd 6" / N-VALUE) | RQD / % REC | SAMPLE DATA: SPT N-VALUE (BPF), MOISTURE CONTENT (%), PLASTIC AND LIQUID LIMIT (%) |
|---|---|---|---|---|---|---|---|---|
| 195 | 0 | | TOPSOIL (2 Inches) | | | | | |
| | | | **COASTAL PLAIN:** SILTY SAND, very loose, coarse to fine grained, gray and orange, wet (SM) | | | 2 - 2 - 2 N = 4 | | |
| | | | SANDY LEAN CLAY, firm, brownish-red and gray, moist (CL) | | | 3 - 3 - 3 N = 6 | | MC=16 |
| 190 | 5 | | CLAYEY SAND, medium dense, coarse to fine grained, gray and white, moist (SC) | | | 4 - 8 - 13 N = 21 | | |
| | | | - becomes orangish-red and gray below 8.5 feet | | | 5 - 10 - 12 N = 22 | | |
| 185 | 10 | | FAT CLAY, very stiff, reddish-brown and white, moist (CH) | | ▽ | 4 - 11 - 14 N = 25 | | |
| 180 | 15 | | SILTY SAND, medium dense, coarse to fine grained, brownish-red and white, moist (SM) | | | 4 - 9 - 15 N = 24 | | MC=16 |
| 175 | 20 | | SANDY FAT CLAY, very stiff to hard, grayish-orange and red, wet (CH) | | ▨ | 8 - 11 - 11 N = 22 | | |
| 170 | 25 | | | | | 8 - 14 - 17 N = 31 | | |
| 165 | 30 | | Boring terminated at 30 feet. | | | | | |

\\FS-LOCAL\PROJECTS\2023\07\23-07-02183.00 CDM SMITH- VALDOSTA WATER TREATMENT PLANT - VALDOSTA, GEORGIA\GEOTECHNICAL\DATA\CDM VALDOSTA WATER - MASTER LAB LOG.GPJ 1/16/24 Report:GEOTECH LOG

*This boring log shall not be separated from the corresponding Instrument of Service; no third party may rely upon this boring log or the corresponding Instrument of Service absent a written TTL Secondary Client Agreement.*

**CDM Smith**
**Valdosta Water Treatment Plant**

Valdosta, Lowndes County, Georgia

**Log of B-3**

Page 1 of 1

| | | | |
|---|---|---|---|
| Drilling Co.: | *TTL, Inc.* | **TTL** Project No.: | *23-07-02183.00* |
| Driller: | *P. Gay* | Date Drilled: | *12/15/2023* |
| Logged by: | *P. Kelly* | Boring Depth: | *30 feet* |
| Equipment: | *CME 45* | Boring Elevation: | *197 feet* |
| Hammer Type: | *Automatic* | Coordinates: | *N: n/a E: n/a* |
| Drilling Method: | *Hollow Stem Auger w/SPT Sampling* | ▽ Water Level at Time of Drilling: | *18.5 ft BGS* |
| | | ▨ Cave-In at Time of Drilling: | *21.5 ft BGS* |

Remarks:
The boring was backfilled with drill cuttings following a groundwater measurement once drilling tools were removed. The hammer efficiency of the rig used was 91.5%.

▼ Delayed Water Level: *Not Encount.*

Delayed Water Observation Date: *12/15/2023*

| ELEVATION (ft) | DEPTH (ft) | GRAPHIC LOG | MATERIALS DESCRIPTION | % PASSING #200 SIEVE | TYPE | SPT/CORE DATA (1st 6" / 2nd 6" / 3rd 6" / N-VALUE) | RQD / % REC | SAMPLE DATA: SPT N-VALUE (BPF) ● / MOISTURE CONTENT (%) ■ / PLASTIC AND LIQUID LIMIT (%) ▶◀ (10 20 30 40 50) |
|---|---|---|---|---|---|---|---|---|
| 195 | 0 | | TOPSOIL (2 Inches) | | | | | |
| | | | **COASTAL PLAIN:** SILTY SAND, very loose, coarse to fine grained, brown, moist (SM) | | | 1 - 1 - 1<br>N = 2 | | MC=16 |
| | | | CLAYEY SAND, medium dense, medium to fine grained, reddish-orange and gray, moist (SC) | | | 4 - 8 - 13<br>N = 21 | | |
| 190 | 5 | | FAT CLAY, hard to very stiff, purple and white, moist (CH) | | | 8 - 14 - 19<br>N = 33 | | |
| | | | | | | 10 - 13 - 17<br>N = 30 | | MC=18 |
| 185 | 10 | | LEAN CLAY, stiff, brown and white, moist (CL) | | | 5 - 6 - 7<br>N = 13 | | |
| 180 | 15 | | CLAYEY SAND, medium dense, medium to fine grained, reddish-orange and white, moist (SC) | ▽ | | 4 - 7 - 8<br>N = 15 | | |
| 175 | 20 | | SANDY FAT CLAY, stiff, light orange and red, wet (CH) | ▨ | | 3 - 5 - 6<br>N = 11 | | |
| 170 | 25 | | FAT CLAY, very stiff, orangish-red and gray, moist (CH) | | | 5 - 6 - 11<br>N = 17 | | |
| 165 | 30 | | Boring terminated at 30 feet. | | | | | |

\\FS-LOCAL\PROJECTS\2023\07\23-07-02183.00 CDM SMITH- VALDOSTA WATER TREATMENT PLANT - VALDOSTA, GEORGIA\GEOTECHNICAL\DATA\CDM VALDOSTA WATER - MASTER LAB LOG.GPJ 1/16/24 Report:GEOTECH LOG

*This boring log shall not be separated from the corresponding Instrument of Service; no third party may rely upon this boring log or the corresponding Instrument of Service absent a written TTL Secondary Client Agreement.*

**CDM Smith**
**Valdosta Water Treatment Plant**
Valdosta, Lowndes County, Georgia

**Log of B-4**
Page 1 of 1

| | | | |
|---|---|---|---|
| Drilling Co.: | *TTL, Inc.* | **TTL** Project No.: | *23-07-02183.00* |
| Driller: | *P. Gay* | Date Drilled: | *12/14/2023* |
| Logged by: | *P. Kelly* | Boring Depth: | *30 feet* |
| Equipment: | *CME 45* | Boring Elevation: | *197 feet* |
| Hammer Type: | *Automatic* | Coordinates: | *N: n/a E: n/a* |
| Drilling Method: | *Hollow Stem Auger w/SPT Sampling* | Water Level at Time of Drilling: | *3.5 ft BGS* |
| | | Cave-In at Time of Drilling: | *16 ft BGS* |
| | | Delayed Water Level: | *6 ft BGS* |
| | | Delayed Water Observation Date: | *12/14/2023* |

Remarks:
The boring was backfilled with drill cuttings following a groundwater measurement once drilling tools were removed. The hammer efficiency of the rig used was 91.5%.

| ELEVATION (ft) | DEPTH (ft) | GRAPHIC LOG | MATERIALS DESCRIPTION | % PASSING #200 SIEVE | TYPE | SPT/CORE DATA 1st 6" 2nd 6" 3rd 6" N-VALUE | RQD % REC | SAMPLE DATA: SPT N-VALUE (BPF), MOISTURE CONTENT (%), PLASTIC AND LIQUID LIMIT (%) |
|---|---|---|---|---|---|---|---|---|
| 195 | 0 | | TOPSOIL (2 Inches) | | | | | |
| | | | **COASTAL PLAIN:** SILTY SAND, loose, coarse to fine grained, tan and gray, moist (SM) | | | 2 - 2 - 3 N = 5 | | |
| | | | CLAYEY SAND, medium dense to dense, medium to fine grained, reddish-gray and brown, moist (SC) | | | 1 - 6 - 8 N = 14 | | MC=25 |
| 190 | 5 | | | | | 6 - 14 - 21 N = 35 | | |
| | | | LEAN CLAY, hard to very stiff, reddish-gray and brown, moist (CL) | | | 8 - 13 - 22 N = 35 | | |
| 185 | 10 | | | | | | | |
| | | | - becomes red and brown below 13.5 feet | | | 2 - 7 - 9 N = 16 | | |
| 180 | 15 | | | | | | | |
| | | | SANDY LEAN CLAY, very stiff, reddish-orange and white, moist (CL) | | | 3 - 6 - 12 N = 18 | | |
| 175 | 20 | | | | | | | |
| | | | CLAYEY SAND, loose, medium to fine grained, brownish-red and gray, wet (SC) | 39.5 | | 3 - 3 - 3 N = 6 | | MC=24 PL=16 LL=38 |
| 170 | 25 | | SANDY FAT CLAY, very stiff, light orange and tan, moist (CH) | | | | | |
| | | | | | | 9 - 10 - 16 N = 26 | | |
| 165 | 30 | | Boring terminated at 30 feet. | | | | | |

\\FS-LOCAL\PROJECTS\2023\07\23-07-02183.00 CDM SMITH- VALDOSTA WATER TREATMENT PLANT - VALDOSTA, GEORGIA\GEOTECHNICAL\DATA\CDM VALDOSTA WATER - MASTER LAB LOG.GPJ 1/16/24 Report:GEOTECH LOG

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**CDM Smith**
**Valdosta Water Treatment Plant**

Valdosta, Lowndes County, Georgia

**Log of B-5**



| | | | |
|---|---|---|---|
| Drilling Co.: | *TTL, Inc.* | **TTL** Project No.: | *23-07-02183.00* |
| Driller: | *P. Gay* | Date Drilled: | *12/14/2023* |
| Logged by: | *P. Kelly* | Boring Depth: | *30 feet* |
| Equipment: | *CME 45* | Boring Elevation: | *197 feet* |
| Hammer Type: | *Automatic* | Coordinates: | *N: n/a E: n/a* |
| Drilling Method: | *Hollow Stem Auger w/SPT Sampling* | ▽ Water Level at Time of Drilling: | *18.5 ft BGS* |
| | | ▨ Cave-In at Time of Drilling: | *19 ft BGS* |

Remarks:
The boring was backfilled with drill cuttings following a groundwater measurement once drilling tools were removed. The hammer efficiency of the rig used was 91.5%.

▼ Delayed Water Level: *3 ft BGS*

Delayed Water Observation Date: *12/14/2023*

| ELEVATION (ft) | DEPTH (ft) | GRAPHIC LOG | MATERIALS DESCRIPTION | % PASSING #200 SIEVE | TYPE | SPT/CORE DATA (1st 6" / 2nd 6" / 3rd 6" / N-VALUE / RQD / % REC) | SPT N-VALUE (BPF) / MOISTURE CONTENT (%) / PLASTIC AND LIQUID LIMIT (%) |
|---|---|---|---|---|---|---|---|
| 195 | 0 | | TOPSOIL (2 Inches) | | | | |
| | | | **COASTAL PLAIN:** SILTY SAND, loose, coarse to fine grained, tan and gray, moist (SM) | | | 1 - 3 - 3<br>N = 6 | |
| | | | CLAYEY SAND, medium dense, medium to fine grained, grayish-orange and brown, moist (SC) | | | 3 - 5 - 7<br>N = 12 | MC=17 |
| 190 | 5 | | - becomes light gray and brown below 6 feet | | | 4 - 9 - 11<br>N = 20 | |
| | 10 | | - becomes gray and red below 8.5 feet | | | 5 - 9 - 9<br>N = 18 | |
| 185 | | | SANDY LEAN CLAY, very stiff, grayish-brown and red, moist (CL) | | | 4 - 10 - 11<br>N = 21 | |
| 180 | 15 | | | | | | |
| | | | POORLY GRADED SAND, medium dense, coarse to fine grained, orange and gray, wet (SP) | | | 3 - 6 - 6<br>N = 12 | MC=24 |
| 175 | 20 | | | | | | |
| | | | POORLY GRADED SAND with SILT, dense to medium dense, medium to fine grained, orange and gray, wet (SP-SM) | | | 10 - 15 - 17<br>N = 32 | |
| 170 | 25 | | | | | | |
| | | | | | | 3 - 5 - 15<br>N = 20 | |
| | 30 | | Boring terminated at 30 feet. | | | | |
| 165 | | | | | | | |

SAMPLE DATA

\\FS-LOCAL\PROJECTS\2023\07\23-07-02183.00 CDM SMITH- VALDOSTA WATER TREATMENT PLANT - VALDOSTA, GEORGIA\GEOTECHNICAL\DATA\CDM VALDOSTA WATER - MASTER LAB LOG.GPJ 1/16/24 Report:GEOTECH LOG

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**CDM Smith**
**Valdosta Water Treatment Plant**

Valdosta, Lowndes County, Georgia

**Log of B-6**

Page 1 of 1

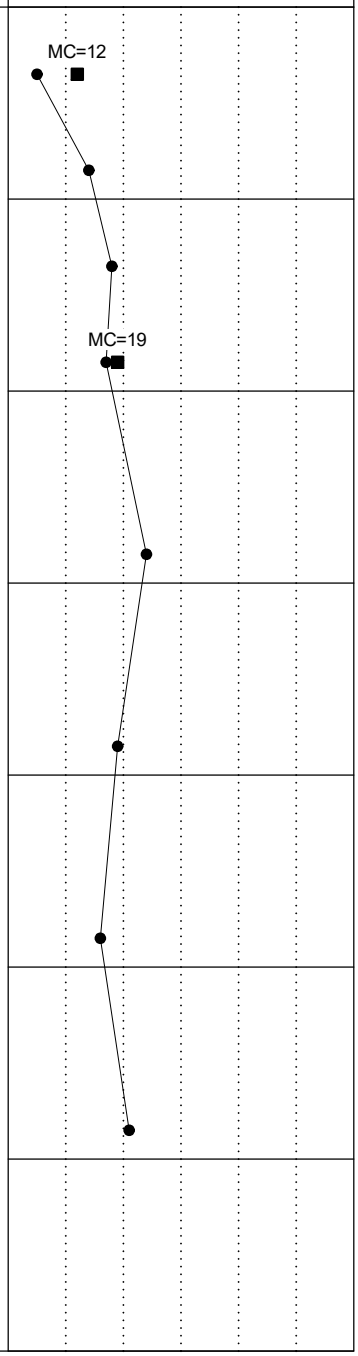
| | | | |
|---|---|---|---|
| Drilling Co.: | *TTL, Inc.* | **TTL** Project No.: | *23-07-02183.00* |
| Driller: | *P. Gay* | Date Drilled: | *12/14/2023* |
| Logged by: | *P. Kelly* | Boring Depth: | *30 feet* |
| Equipment: | *CME 45* | Boring Elevation: | *197 feet* |
| Hammer Type: | *Automatic* | Coordinates: | *N: n/a E: n/a* |
| Drilling Method: | *Hollow Stem Auger w/SPT Sampling* | Water Level at Time of Drilling: | *18.5 ft BGS* |
| | | Cave-In at Time of Drilling: | *21.5 ft BGS* |

Remarks:
The boring was backfilled with drill cuttings following a groundwater measurement once drilling tools were removed. The hammer efficiency of the rig used was 91.5%.

Delayed Water Level: *9 ft BGS*

Delayed Water Observation Date: *12/14/2023*

| ELEVATION (ft) | DEPTH (ft) | GRAPHIC LOG | MATERIALS DESCRIPTION | % PASSING #200 SIEVE | TYPE | SPT/CORE DATA 1st 6" 2nd 6" 3rd 6" N-VALUE | RQD / % REC |
|---|---|---|---|---|---|---|---|
| | | | TOPSOIL (2 Inches) | | | | |
| 195 | | | **COASTAL PLAIN:** SILTY SAND, loose, coarse to fine grained, tan and gray, moist (SM) | | | 2 - 3 - 2<br>N = 5 | |
| | | | CLAYEY SAND, medium dense, medium to fine grained, reddish-orange and gray, moist (SC) | | | 4 - 6 - 8<br>N = 14 | |
| 190 | 5 | | - becomes grayish-purple and brown below 6 feet | | | 3 - 7 - 11<br>N = 18 | |
| | | | | | | 4 - 7 - 10<br>N = 17 | |
| 185 | 10 | | | | | | |
| | | | - becomes gray and white below 13.5 feet | | | 7 - 11 - 13<br>N = 24 | |
| 180 | 15 | | | | | | |
| | | | | | | 5 - 9 - 10<br>N = 19 | |
| 175 | 20 | | | | | | |
| | | | SANDY FAT CLAY, very stiff, light brown and yellow, moist (CH) | | | 3 - 6 - 10<br>N = 16 | |
| 170 | 25 | | | | | | |
| | | | | | | 4 - 8 - 13<br>N = 21 | |
| 165 | 30 | | Boring terminated at 30 feet. | | | | |




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**CDM Smith**
**Valdosta Water Treatment Plant**

Valdosta, Lowndes County, Georgia

**Log of B-7**



| | | | |
|---|---|---|---|
| Drilling Co.: | *TTL, Inc.* | **TTL** Project No.: | *23-07-02183.00* |
| Driller: | *P. Gay* | Date Drilled: | *12/14/2023* |
| Logged by: | *P. Kelly* | Boring Depth: | *30 feet* |
| Equipment: | *CME 45* | Boring Elevation: | *197 feet* |
| Hammer Type: | *Automatic* | Coordinates: | *N: n/a E: n/a* |
| Drilling Method: | *Hollow Stem Auger w/SPT Sampling* | Water Level at Time of Drilling: | *9 ft BGS* |
| | | Cave-In at Time of Drilling: | *10 ft BGS* |

Remarks:
The boring was backfilled with drill cuttings following a groundwater measurement once drilling tools were removed. The hammer efficiency of the rig used was 91.5%.

Delayed Water Level: *5 ft BGS*

Delayed Water Observation Date: *12/14/2023*

| ELEVATION (ft) | DEPTH (ft) | MATERIALS DESCRIPTION | % PASSING #200 SIEVE | TYPE | SPT/CORE DATA (1st 6" / 2nd 6" / 3rd 6" / N-VALUE) | RQD / % REC |
|---|---|---|---|---|---|---|
| 195 | 0 | TOPSOIL (2 Inches) | | | | |
| | | **COASTAL PLAIN:** SILTY SAND, loose, coarse to fine grained, tan and gray, moist (SM) | | | 2 - 2 - 1<br>N = 3 | |
| | | CLAYEY SAND, medium dense, medium to fine grained, reddish-orange and gray, moist (SC) | | | 3 - 5 - 8<br>N = 13 | |
| 190 | 5 | CLAYEY SAND, dense, medium to fine grained, reddish-brown and white, moist (SC) | | | 10 - 18 - 29<br>N = 47 | |
| | 10 | | | | 11 - 16 - 27<br>N = 43 | |
| 185 | | SANDY LEAN CLAY, very stiff, grayish-red and orange, moist (CL) | 61.4 | | 5 - 7 - 8<br>N = 15 | |
| | 15 | | | | | |
| 180 | | - becomes light brown and red below 18.5 feet | | | 4 - 5 - 10<br>N = 15 | |
| | 20 | | | | | |
| 175 | | SANDY LEAN CLAY, hard, brownish-red and white, moist (CL) | | | 7 - 15 - 26<br>N = 41 | |
| | 25 | | | | | |
| 170 | | POORLY GRADED SAND, medium dense, coarse to fine grained, brownish-red, wet (SP) | | | 5 - 5 - 6<br>N = 11 | |
| | 30 | Boring terminated at 30 feet. | | | | |
| 165 | | | | | | |

SAMPLE DATA

SPT N-VALUE (BPF)
MOISTURE CONTENT (%)
PLASTIC AND LIQUID LIMIT (%)
10 20 30 40 50

MC=21
PL=19
LL=36
MC=24

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**CDM Smith**
**Valdosta Water Treatment Plant**

Valdosta, Lowndes County, Georgia

**Log of RB-1**



| | | | |
|---|---|---|---|
| Drilling Co.: | *TTL, Inc.* | **TTL** Project No.: | *23-07-02183.00* |
| Driller: | *P. Gay* | Date Drilled: | *12/15/2023* |
| Logged by: | *P. Kelly* | Boring Depth: | *7.5 feet* |
| Equipment: | *CME 45* | Boring Elevation: | *200 feet* |
| Hammer Type: | *Automatic* | Coordinates: | *N: n/a E: n/a* |
| Drilling Method: | *Hollow Stem Auger w/SPT Sampling* | Water Level at Time of Drilling: | *Not Encount.* |
| | | Cave-In at Time of Drilling: | *N/A* |

Remarks:
The boring was backfilled with drill cuttings following a groundwater measurement once drilling tools were removed. The hammer efficiency of the rig used was 91.5%.

Delayed Water Level: *Not Encount.*

Delayed Water Observation Date: *12/15/2023*

| ELEVATION (ft) | DEPTH (ft) | GRAPHIC LOG | MATERIALS DESCRIPTION | % PASSING #200 SIEVE | TYPE | SPT/CORE DATA 1st 6" 2nd 6" 3rd 6" N-VALUE | RQD / % REC | SAMPLE DATA: SPT N-VALUE (BPF), MOISTURE CONTENT (%), PLASTIC AND LIQUID LIMIT (%) 10 20 30 40 50 |
|---|---|---|---|---|---|---|---|---|
| 200 | 0 | | TOPSOIL (2 Inches) | | | | | |
| | | | **COASTAL PLAIN:** SANDY SILT soft, fine grained, brown, moist (ML) | | | 2 - 1 - 1<br>N = 2 | | MC=18 |
| | | | SANDY SILT, very stiff, medium to fine grained, reddish-orange and gray, moist (ML) | 65.0 | | 4 - 7 - 14<br>N = 21 | | MC=22, PL=29, LL=45 |
| 195 | 5 | | - becomes dry below 6 feet | | | 2 - 6 - 16<br>N = 22 | | |
| | | | Boring terminated at 7.5 feet. | | | | | |
| 190 | 10 | | | | | | | |
| 185 | 15 | | | | | | | |
| 180 | 20 | | | | | | | |
| 175 | 25 | | | | | | | |
| 170 | 30 | | | | | | | |

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**CDM Smith**
**Valdosta Water Treatment Plant**

Valdosta, Lowndes County, Georgia

**Log of RB-2**



| | | | |
|---|---|---|---|
| Drilling Co.: | *TTL, Inc.* | **TTL** Project No.: | *23-07-02183.00* |
| Driller: | *P. Gay* | Date Drilled: | *12/15/2023* |
| Logged by: | *P. Kelly* | Boring Depth: | *7.5 feet* |
| Equipment: | *CME 45* | Boring Elevation: | *202 feet* |
| Hammer Type: | *Automatic* | Coordinates: | *N: n/a E: n/a* |
| Drilling Method: | *Hollow Stem Auger w/SPT Sampling* | Water Level at Time of Drilling: | *Not Encount.* |
| | | Cave-In at Time of Drilling: | *N/A* |

Remarks:
The boring was backfilled with drill cuttings following a groundwater measurement once drilling tools were removed. The hammer efficiency of the rig used was 91.5%.

Delayed Water Level: *Not Encount.*

Delayed Water Observation Date: *12/15/2023*

| ELEVATION (ft) | DEPTH (ft) | GRAPHIC LOG | MATERIALS DESCRIPTION | % PASSING #200 SIEVE | TYPE | SPT/CORE DATA 1st 6" 2nd 6" 3rd 6" N-VALUE | RQD % REC | SAMPLE DATA: SPT N-VALUE (BPF), MOISTURE CONTENT (%), PLASTIC AND LIQUID LIMIT (%) 10 20 30 40 50 |
|---|---|---|---|---|---|---|---|---|
| 200 | 0 | | TOPSOIL (2 Inches) | | | | | |
| | | | **COASTAL PLAIN:** CLAYEY SAND, very loose, coarse to fine grained, brown, moist (SC) | | | 2 - 2 - 1 N = 3 | | MC=15 |
| | | | CLAYEY SAND, medium dense, medium to fine grained, reddish-orange and gray, moist (SC) | | | 2 - 6 - 13 N = 19 | | MC=25 |
| 195 | 5 | | | | | 2 - 6 - 12 N = 18 | | |
| | | | Boring terminated at 7.5 feet. | | | | | |
| 190 | 10 | | | | | | | |
| 185 | 15 | | | | | | | |
| 180 | 20 | | | | | | | |
| 175 | 25 | | | | | | | |
| 170 | 30 | | | | | | | |

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**CDM Smith**
**Valdosta Water Treatment Plant**

Valdosta, Lowndes County, Georgia

**Log of RB-3**

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| | | | |
|---|---|---|---|
| Drilling Co.: | *TTL, Inc.* | **TTL** Project No.: | *23-07-02183.00* |
| Driller: | *P. Gay* | Date Drilled: | *12/15/2023* |
| Logged by: | *P. Kelly* | Boring Depth: | *7.5 feet* |
| Equipment: | *CME 45* | Boring Elevation: | *203 feet* |
| Hammer Type: | *Automatic* | Coordinates: | *N: n/a E: n/a* |
| Drilling Method: | *Hollow Stem Auger w/SPT Sampling* | Water Level at Time of Drilling: | *Not Encount.* |
| | | Cave-In at Time of Drilling: | *N/A* |

Remarks:
The boring was backfilled with drill cuttings following a groundwater measurement once drilling tools were removed. The hammer efficiency of the rig used was 91.5%.

Delayed Water Level: *Not Encount.*

Delayed Water Observation Date: *12/15/2023*

| ELEVATION (ft) | DEPTH (ft) | GRAPHIC LOG | MATERIALS DESCRIPTION | % PASSING #200 SIEVE | TYPE | SPT/CORE DATA (1st 6" / 2nd 6" / 3rd 6" / N-VALUE) | RQD / % REC | SAMPLE DATA: SPT N-VALUE (BPF), MOISTURE CONTENT (%), PLASTIC AND LIQUID LIMIT (%) |
|---|---|---|---|---|---|---|---|---|
| 203 | 0 | | TOPSOIL (2 Inches) | | | | | |
| | | | **COASTAL PLAIN:** CLAYEY SAND, very loose, coarse to fine grained, brown, moist (CL) | 31.8 | | 2 - 2 - 2<br>N = 4 | | MC=15<br>PL=13 LL=23 |
| 200 | | | CLAYEY SAND, medium dense, medium to fine grained, reddish-orange and white, moist (SC) | | | 7 - 12 - 14<br>N = 26 | | MC=25 |
| | 5 | | | | | 3 - 4 - 10<br>N = 14 | | |
| 195 | | | Boring terminated at 7.5 feet. | | | | | |
| | 10 | | | | | | | |
| 190 | | | | | | | | |
| | 15 | | | | | | | |
| 185 | | | | | | | | |
| | 20 | | | | | | | |
| 180 | | | | | | | | |
| | 25 | | | | | | | |
| 175 | | | | | | | | |
| | 30 | | | | | | | |
| 170 | | | | | | | | |

SPT N-VALUE (BPF)
MOISTURE CONTENT (%)
PLASTIC AND LIQUID LIMIT (%)
10 20 30 40 50

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**CDM Smith**
**Valdosta Water Treatment Plant**

Valdosta, Lowndes County, Georgia

**Log of RB-4**



| | | | |
|---|---|---|---|
| Drilling Co.: | *TTL, Inc.* | **TTL** Project No.: | *23-07-02183.00* |
| Driller: | *P. Gay* | Date Drilled: | *12/15/2023* |
| Logged by: | *P. Kelly* | Boring Depth: | *7.5 feet* |
| Equipment: | *CME 45* | Boring Elevation: | *197 feet* |
| Hammer Type: | *Automatic* | Coordinates: | *N: n/a E: n/a* |
| Drilling Method: | *Hollow Stem Auger w/SPT Sampling* | ▽ Water Level at Time of Drilling: | *Not Encount.* |
| | | ▨ Cave-In at Time of Drilling: | *N/A* |

Remarks:
The boring was backfilled with drill cuttings following a groundwater measurement once drilling tools were removed. The hammer efficiency of the rig used was 91.5%.

▼ Delayed Water Level: *Not Encount.*

Delayed Water Observation Date: *12/15/2023*

| ELEVATION (ft) | DEPTH (ft) | GRAPHIC LOG | MATERIALS DESCRIPTION | % PASSING #200 SIEVE | TYPE | SPT/CORE DATA (1st 6" / 2nd 6" / 3rd 6" / N-VALUE) | RQD / % REC | SAMPLE DATA: SPT N-VALUE (BPF) / MOISTURE CONTENT (%) / PLASTIC AND LIQUID LIMIT (%) |
|---|---|---|---|---|---|---|---|---|
| 197 | 0 | | TOPSOIL (2 Inches) | | | | | |
| 195 | | | **COASTAL PLAIN:** SILT with SAND, soft, brown and gray, moist (ML) | | | 3 - 1 - 1<br>N = 2 | | MC=32 |
| | | | CLAYEY SAND, medium dense, medium to fine grained, reddish-orange and gray, moist (SC) | 47.3 | | 2 - 5 - 7<br>N = 12 | | MC=20, PL=21, LL=48 |
| 190 | 5 | | | | | 2 - 6 - 7<br>N = 13 | | |
| | | | Boring terminated at 7.5 feet. | | | | | |
| 185 | 10 | | | | | | | |
| 180 | 15 | | | | | | | |
| 175 | 20 | | | | | | | |
| 170 | 25 | | | | | | | |
| 165 | 30 | | | | | | | |

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**CDM Smith**
**Valdosta Water Treatment Plant**

Valdosta, Lowndes County, Georgia

**Log of RB-5**



| | | | |
|---|---|---|---|
| Drilling Co.: | *TTL, Inc.* | **TTL** Project No.: | *23-07-02183.00* |
| Driller: | *P. Gay* | Date Drilled: | *12/15/2023* |
| Logged by: | *P. Kelly* | Boring Depth: | *7.5 feet* |
| Equipment: | *CME 45* | Boring Elevation: | *199 feet* |
| Hammer Type: | *Automatic* | Coordinates: | *N: n/a E: n/a* |
| Drilling Method: | *Hollow Stem Auger w/SPT Sampling* | Water Level at Time of Drilling: | *Not Encount.* |
| | | Cave-In at Time of Drilling: | *N/A* |

Remarks:
The boring was backfilled with drill cuttings following a groundwater measurement once drilling tools were removed. The hammer efficiency of the rig used was 91.5%.

Delayed Water Level: *Not Encount.*

Delayed Water Observation Date: *12/15/2023*

| ELEVATION (ft) | DEPTH (ft) | GRAPHIC LOG | MATERIALS DESCRIPTION | % PASSING #200 SIEVE | TYPE | SPT/CORE DATA (1st 6" / 2nd 6" / 3rd 6" / N-VALUE) | RQD / % REC | SAMPLE DATA: SPT N-VALUE (BPF), MOISTURE CONTENT (%), PLASTIC AND LIQUID LIMIT (%) |
|---|---|---|---|---|---|---|---|---|
| | | | TOPSOIL (2 Inches) | | | | | |
| | | | **COASTAL PLAIN:** SILT with SAND, firm, brown and red, moist (ML) | 81.5 | | 3 - 3 - 3 N = 6 | | MC=32, PL=30, LL=49 |
| 195 | 5 | | FAT CLAY, stiff, white and red, moist (CH) | | | 3 - 6 - 7 N = 13 | | MC=26 |
| | | | | | | 3 - 3 - 7 N = 10 | | |
| | | | Boring terminated at 7.5 feet. | | | | | |
| 190 | 10 | | | | | | | |
| 185 | 15 | | | | | | | |
| 180 | 20 | | | | | | | |
| 175 | 25 | | | | | | | |
| 170 | 30 | | | | | | | |
| 165 | | | | | | | | |

10 20 30 40 50

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**CDM Smith**
**Valdosta Water Treatment Plant**

Valdosta, Lowndes County, Georgia

**Log of SW-1**



| | | | |
|---|---|---|---|
| Drilling Co.: | *TTL, Inc.* | **TTL** Project No.: | *23-07-02183.00* |
| Driller: | *D. Campbell* | Date Drilled: | *1/8/2024* |
| Logged by: | *E. Brunner* | Boring Depth: | *10 feet* |
| Equipment: | *CME 550X ATV* | Boring Elevation: | *195 feet* |
| Hammer Type: | *Automatic* | Coordinates: | *N: n/a E: n/a* |
| Drilling Method: | *Hollow Stem Auger w/SPT Sampling* | ▽ Water Level at Time of Drilling: | *4 ft BGS* |
| | | ▨ Cave-In at Time of Drilling: | *N/A* |

Remarks:
The boring was backfilled with drill cuttings following a groundwater measurement once drilling tools were removed. The hammer efficiency of the rig used was 83%.

▼ Delayed Water Level: *Not Encount.*

Delayed Water Observation Date: *1/8/2024*

| ELEVATION (ft) | DEPTH (ft) | GRAPHIC LOG | MATERIALS DESCRIPTION | % PASSING #200 SIEVE | TYPE | SPT/CORE DATA 1st 6" 2nd 6" 3rd 6" N-VALUE | RQD % REC | SAMPLE DATA: SPT N-VALUE (BPF) ■ MOISTURE CONTENT (%) ◀▶ PLASTIC AND LIQUID LIMIT (%) 10 20 30 40 50 |
|---|---|---|---|---|---|---|---|---|
| 195 | 0 | | TOPSOIL (3 Inches) | | | | | |
| | | | SILTY SAND, loose, coarse to fine grained, tan, wet (SM) | | | 3 - 2 - 4 N = 6 | | |
| | | | SANDY LEAN CLAY, stiff to very stiff, tan and gray, moist (CL) | ▽ | | 3 - 5 - 7 N = 12 | | |
| 190 | 5 | | | | | 8 - 8 - 13 N = 21 | | |
| 185 | 10 | | Boring terminated at 10 feet. | | | 8 - 11 - 13 N = 24 | | |
| 180 | 15 | | | | | | | |
| 175 | 20 | | | | | | | |
| 170 | 25 | | | | | | | |
| 165 | 30 | | | | | | | |

\\FS-LOCAL\PROJECTS\2023\07\23-07-02183.00 CDM SMITH- VALDOSTA WATER TREATMENT PLANT - VALDOSTA, GEORGIA\GEOTECHNICAL\DATA\CDM VALDOSTA WATER - MASTER LAB LOG.GPJ 1/16/24 Report:GEOTECH LOG

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# CDM Smith
# Valdosta Water Treatment Plant

Valdosta, Lowndes County, Georgia

**Log of SW-2**



| | | | |
|---|---|---|---|
| Drilling Co.: | *TTL, Inc.* | **TTL** Project No.: | *23-07-02183.00* |
| Driller: | *D. Campbell* | Date Drilled: | *1/8/2024* |
| Logged by: | *E. Brunner* | Boring Depth: | *10 feet* |
| Equipment: | *CME 550X ATV* | Boring Elevation: | *195 feet* |
| Hammer Type: | *Automatic* | Coordinates: | *N: n/a E: n/a* |
| Drilling Method: | *Hollow Stem Auger w/SPT Sampling* | Water Level at Time of Drilling: | *Not Encount.* |
| | | Cave-In at Time of Drilling: | *N/A* |

Remarks:
The boring was backfilled with drill cuttings following a groundwater measurement once drilling tools were removed. The hammer efficiency of the rig used was 83%.

Delayed Water Level: *N/A*

Delayed Water Observation Date: *N/A*

| ELEVATION (ft) | DEPTH (ft) | GRAPHIC LOG | MATERIALS DESCRIPTION | % PASSING #200 SIEVE | TYPE | SPT/CORE DATA (1st 6" / 2nd 6" / 3rd 6" / N-VALUE) | RQD / % REC | SAMPLE DATA: SPT N-VALUE (BPF) ■ MOISTURE CONTENT (%) ▶◀ PLASTIC AND LIQUID LIMIT (%) 10 20 30 40 50 |
|---|---|---|---|---|---|---|---|---|
| 195 | | | TOPSOIL (3 Inches) | | | | | |
| | | | SILTY SAND, loose, coarse to fine grained, tan, wet (SM) | | | 2 - 3 - 3 N = 6 | | |
| | | | SANDY LEAN CLAY, stiff to very stiff, tan and gray, moist (CL) | | | 6 - 6 - 5 N = 11 | | |
| 190 | 5 | | - becomes red-orange and gray below 6 feet | | | 8 - 8 - 9 N = 17 | | |
| | | | | | | 7 - 9 - 11 N = 20 | | |
| 185 | 10 | | Boring terminated at 10 feet. | | | | | |
| 180 | 15 | | | | | | | |
| 175 | 20 | | | | | | | |
| 170 | 25 | | | | | | | |
| 165 | 30 | | | | | | | |

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**CDM Smith**
**Valdosta Water Treatment Plant**

Valdosta, Lowndes County, Georgia

**Log of TB-1**



| | | | |
|---|---|---|---|
| Drilling Co.: | *TTL, Inc.* | **TTL** Project No.: | *23-07-02183.00* |
| Driller: | *D. Campbell* | Date Drilled: | *1/3/2024* |
| Logged by: | *E. Brunner* | Boring Depth: | *100 feet* |
| Equipment: | *CME 550X ATV* | Boring Elevation: | *196 feet* |
| Hammer Type: | *Automatic* | Coordinates: | *N: n/a E: n/a* |
| Drilling Method: | *Hollow Stem Auger w/SPT Sampling and Rotary Wash w/Mud* | ▽ Water Level at Time of Drilling: | *23.5 ft BGS* |
| | | ▩ Cave-In at Time of Drilling: | *N/A* |

Remarks:
The boring was backfilled with grout after drilling was completed. The hammer efficiency of the rig used was 83%.

▼ Delayed Water Level: *N/A*

Delayed Water Observation Date: *N/A*

| ELEVATION (ft) | DEPTH (ft) | GRAPHIC LOG | MATERIALS DESCRIPTION | % PASSING #200 SIEVE | TYPE | SPT/CORE DATA (1st 6" / 2nd 6" / 3rd 6" / N-VALUE) | RQD / % REC | SPT N-VALUE (BPF) / MOISTURE CONTENT (%) / PLASTIC AND LIQUID LIMIT (%) |
|---|---|---|---|---|---|---|---|---|
| 195 | 0 | | TOPSOIL (3 Inches) | | | | | |
| | | | CLAYEY SAND, loose, medium to fine grained, white, wet (SC) | | | 1 - 3 - 3 N = 6 | | MC=17 |
| | | | CLAYEY SAND, medium dense, medium to fine grained, white and orange, wet (SC) | 42.3 | | 4 - 6 - 9 N = 15 | | MC=18 PL=15 LL=29 |
| 190 | 5 | | SANDY LEAN CLAY, very stiff, white and red, moist (CL) | | | 9 - 9 - 20 N = 29 | | MC=19 |
| | | | CLAYEY SAND, dense, medium to fine grained, white and red, moist (SC) | | | 14 - 22 - 23 N = 45 | | MC=13 |
| 185 | 10 | | | | | | | |
| | | | CLAYEY SAND, medium dense, medium to fine grained, pink, moist (SC) | 23.0 | | | | MC=17 PL=14 LL=25 |
| 180 | 15 | | | | | | | |
| | | | | | | 7 - 7 - 11 N = 18 | | MC=18 |
| 175 | 20 | | SILTY SAND, dense to medium dense, coarse to fine grained, orange and white, wet (SM) | ▽ | | | | |
| | | | | | | 16 - 22 - 22 N = 44 | | MC=18 |
| 170 | 25 | | - becomes white below 28.5 feet | | | 5 - 5 - 13 N = 18 | | MC=33 |
| 165 | 30 | | | | | | | |
| | | | POORLY GRADED SAND, medium dense, coarse to fine grained, gray, wet (SP) | | | 5 - 9 - 6 N = 15 | | MC=21 |

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| ELEVATION (ft) | DEPTH (ft) | GRAPHIC LOG | MATERIALS DESCRIPTION | % PASSING #200 SIEVE | TYPE | SPT/CORE DATA (1st 6" / 2nd 6" / 3rd 6" / N-VALUE / RQD / % REC) | SAMPLE DATA |
|---|---|---|---|---|---|---|---|
| 160 | | | *Continued from previous page* | | | | |
| | | | POORLY GRADED SAND, medium dense, coarse to fine grained, gray, wet (SP) | | | | |
| | | | FAT CLAY, firm to stiff, blue and gray, wet (CH) | 89.1 | | 1 - 3 - 5 N = 8 | MC=56, PL=28, LL=81 |
| 155 | 40 | | | | | | |
| | | | | | | 3 - 4 - 6 N = 10 | MC=71 |
| 150 | 45 | | | | | | |
| | | | SILTY SAND, medium dense, coarse to fine grained, gray, wet (SM) | | | 3 - 5 - 7 N = 12 | |
| 145 | 50 | | | | | | |
| | | | CLAYEY SAND, medium dense, medium to fine grained, gray, moist (SC) | | | 4 - 6 - 7 N = 13 | MC=32 |
| 140 | 55 | | | | | | |
| | | | FAT CLAY with SAND, firm, blue and gray, wet (CH) | 78.3 | | 2 - 2 - 3 N = 5 | MC=55, PL=29, LL=71 |
| 135 | 60 | | | | | | |
| | | | | | | 2 - 3 - 4 N = 7 | MC=74 |
| 130 | 65 | | | | | | |
| | | | | | | 2 - 3 - 5 N = 8 | MC=69 |
| 125 | 70 | | | | | | |
| | | | SANDY FAT CLAY, very stiff and stiff, blue and gray, wet (CH) | | | | |
| 120 | 75 | | | | | 8 - 10 - 18 N = 28 | |

SPT N-VALUE (BPF)
MOISTURE CONTENT (%)
PLASTIC AND LIQUID LIMIT (%)
10 20 30 40 50

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| ELEVATION (ft) | DEPTH (ft) | GRAPHIC LOG | MATERIALS DESCRIPTION | % PASSING #200 SIEVE | TYPE | SPT/CORE DATA: 1st 6" / 2nd 6" / 3rd 6" / N-VALUE / RQD / % REC | SPT N-VALUE (BPF) / MOISTURE CONTENT (%) / PLASTIC AND LIQUID LIMIT (%) |
|---|---|---|---|---|---|---|---|
| 115 | 80 | | *Continued from previous page* | | | | |
| | | | SANDY FAT CLAY, very stiff and stiff, blue and gray, wet (CH) | | | 4 - 5 - 6<br>N = 11 | MC=69 |
| 110 | 85 | | | | | 6 - 9 - 16<br>N = 25 | MC=37 |
| | | | FAT CLAY with SAND, hard, blue and gray, trace gravel, moist (CH) | | | 50/3<br>N = 50/3" | |
| 105 | 90 | | | | | 50/3<br>N = 50/3" | |
| 100 | 95 | | | | | 12 - 24 - 25<br>N = 49 | MC=26 |
| 95 | 100 | | Boring terminated at 100 feet. | | | | |
| 90 | 105 | | | | | | |
| 85 | 110 | | | | | | |
| 80 | 115 | | | | | | |

SAMPLE DATA

10 20 30 40 50

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**CDM Smith**
**Valdosta Water Treatment Plant**

Valdosta, Lowndes County, Georgia

**Log of TB-2**



| | | | |
|---|---|---|---|
| Drilling Co.: | *TTL, Inc.* | **TTL** Project No.: | *23-07-02183.00* |
| Driller: | *D. Campbell* | Date Drilled: | *1/8/2024* |
| Logged by: | *E. Brunner* | Boring Depth: | *50 feet* |
| Equipment: | *CME 550X ATV* | Boring Elevation: | *196 feet* |
| Hammer Type: | *Automatic* | Coordinates: | *N: n/a E: n/a* |
| Drilling Method: | *Hollow Stem Auger w/SPT Sampling and Rotary Wash w/Mud* | Water Level at Time of Drilling: | *28.5 ft BGS* |
| | | Cave-In at Time of Drilling: | *N/A* |

Remarks:
The boring was backfilled with grout after drilling was completed. The hammer efficiency of the rig used was 83%.

Delayed Water Level: *N/A*

Delayed Water Observation Date: *N/A*

| ELEVATION (ft) | DEPTH (ft) | GRAPHIC LOG | MATERIALS DESCRIPTION | % PASSING #200 SIEVE | TYPE | SPT/CORE DATA (1st 6" / 2nd 6" / 3rd 6" / N-VALUE) | RQD / % REC |
|---|---|---|---|---|---|---|---|
| 195 | 0 | | TOPSOIL (3 Inches) | | | | |
| | | | SANDY LEAN CLAY, firm to very stiff, brown and gray, wet (CL) | | | 2 - 3 - 2 N = 5 | |
| | | | | | | 4 - 7 - 9 N = 16 | |
| 190 | 5 | | SANDY LEAN CLAY, hard, gray and red, moist (CL) | | | 9 - 15 - 19 N = 34 | |
| | | | CLAYEY SAND, medium dense, coarse to fine grained, red and gray, moist (SC) | | | 11 - 11 - 16 N = 27 | |
| 185 | 10 | | | | | | |
| | | | | | | 8 - 8 - 9 N = 17 | |
| 180 | 15 | | | | | | |
| | | | SANDY LEAN CLAY, hard, gray and white, moist (CL) | | | 8 - 15 - 28 N = 43 | |
| 175 | 20 | | | | | | |
| | | | FAT CLAY, very stiff, gray and orange, moist (CH) | | | 8 - 8 - 10 N = 18 | |
| 170 | 25 | | | | | | |
| | | | POORLY GRADED SAND, dense, coarse to fine grained, gray and tan, wet (SP) | ▽ | | 8 - 16 - 23 N = 39 | |
| 165 | 30 | | | | | | |
| | | | FAT CLAY, firm, gray and blue, moist (CH) | | | 3 - 3 - 4 N = 7 | |

SAMPLE DATA

SPT N-VALUE (BPF) ● MOISTURE CONTENT (%) ■ PLASTIC AND LIQUID LIMIT (%) ▶◀
10 20 30 40 50

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| ELEVATION (ft) | DEPTH (ft) | GRAPHIC LOG | MATERIALS DESCRIPTION | SAMPLE DATA: % PASSING #200 SIEVE | TYPE | SPT/CORE DATA: 1st 6" / 2nd 6" / 3rd 6" / N-VALUE | RQD / % REC | SPT N-VALUE (BPF) / MOISTURE CONTENT (%) / PLASTIC AND LIQUID LIMIT (%) |
|---|---|---|---|---|---|---|---|---|
| 160 | 40 | | *Continued from previous page* | | | | | |
| | | | FAT CLAY, firm, gray and blue, moist (CH) | | X | 3 - 3 - 4<br>N = 7 | | |
| 155 | | | POORLY GRADED SAND, loose to medium dense, coarse to fine grained, wet (SP) | | X | 3 - 4 - 5<br>N = 9 | | |
| 150 | 45 | | | | | | | |
| | 50 | | Boring terminated at 50 feet. | | X | 5 - 7 - 7<br>N = 14 | | |
| 145 | | | | | | | | |
| | 55 | | | | | | | |
| 140 | | | | | | | | |
| | 60 | | | | | | | |
| 135 | | | | | | | | |
| | 65 | | | | | | | |
| 130 | | | | | | | | |
| | 70 | | | | | | | |
| 125 | | | | | | | | |
| | 75 | | | | | | | |
| 120 | | | | | | | | |

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**CDM Smith**
**Valdosta Water Treatment Plant**

Valdosta, Lowndes County, Georgia

**Log of TB-3**



| | | | |
|---|---|---|---|
| Drilling Co.: | *TTL, Inc.* | **TTL** Project No.: | *23-07-02183.00* |
| Driller: | *D. Campbell* | Date Drilled: | *1/4/2024* |
| Logged by: | *E. Brunner* | Boring Depth: | *50 feet* |
| Equipment: | *CME 550X ATV* | Boring Elevation: | *196 feet* |
| Hammer Type: | *Automatic* | Coordinates: | *N: n/a E: n/a* |
| Drilling Method: | *Hollow Stem Auger w/SPT Sampling and Rotary Wash w/Mud* | ▽ Water Level at Time of Drilling: | *23.5 ft BGS* |
| | | ▨ Cave-In at Time of Drilling: | *N/A* |

Remarks:
The boring was backfilled with grout after drilling was completed. The hammer efficiency of the rig used was 83%.

▼ Delayed Water Level: *N/A*

Delayed Water Observation Date: *N/A*

| ELEVATION (ft) | DEPTH (ft) | GRAPHIC LOG | MATERIALS DESCRIPTION | % PASSING #200 SIEVE | TYPE | SPT/CORE DATA (1st 6" / 2nd 6" / 3rd 6" / N-VALUE) | RQD / % REC |
|---|---|---|---|---|---|---|---|
| 195 | 0 | | TOPSOIL (3 Inches) | | | | |
| | | | SILTY SAND, loose, coarse to fine grained, brown, wet (SM) | | | 2 - 3 - 3 N = 6 | |
| | | | SANDY LEAN CLAY, stiff to hard, gray and orange, moist (CL) | | | 3 - 5 - 10 N = 15 | |
| 190 | 5 | | - becomes red and gray below 6 feet | | | 7 - 18 - 20 N = 38 | |
| | | | CLAYEY SAND, dense to medium dense, coarse to fine grained, white and gray, moist (SC) | | | 8 - 18 - 20 N = 38 | |
| 185 | 10 | | | | | | |
| | | | | | | 8 - 10 - 14 N = 24 | |
| 180 | 15 | | | | | | |
| | | | SANDY LEAN CLAY, hard, white and orange, moist (CL) | | | 6 - 16 - 23 N = 39 | |
| 175 | 20 | | | | | | |
| | | | CLAYEY SAND, medium dense, coarse to fine grained, gray and orange, moist (SC) | | | 8 - 11 - 11 N = 22 | |
| 170 | 25 | | FAT CLAY with SAND, stiff, gray and blue, moist (CH) | 81.2 | | 3 - 6 - 8 N = 14 | |
| | | | | | | | |
| 165 | 30 | | SILTY SAND, medium dense, coarse to fine grained, gray, wet (SM) | | | 8 - 10 - 14 N = 24 | |

**SAMPLE DATA**

SPT N-VALUE (BPF) ● MOISTURE CONTENT (%) ■ PLASTIC AND LIQUID LIMIT (%) ▶◀

10 20 30 40 50

MC=16

MC=37

PL=26

LL=63

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| ELEVATION (ft) | DEPTH (ft) | GRAPHIC LOG | MATERIALS DESCRIPTION | SAMPLE DATA: % PASSING #200 SIEVE | TYPE | SPT/CORE DATA: 1st 6" / 2nd 6" / 3rd 6" / N-VALUE | RQD / % REC | SPT N-VALUE (BPF) / MOISTURE CONTENT (%) / PLASTIC AND LIQUID LIMIT (%) |
|---|---|---|---|---|---|---|---|---|
| 160 | 40 | | *Continued from previous page* | | | | | |
| | | | FAT CLAY, firm, blue and gray, moist (CH) | | X | 2 - 3 - 4<br>N = 7 | | |
| 155 | 45 | | | | X | 2 - 3 - 3<br>N = 6 | | |
| 150 | | | SILTY SAND, medium dense, coarse to fine grained, gray, wet (SM) | | X | 4 - 8 - 8<br>N = 16 | | |
| 145 | 50 | | Boring terminated at 50 feet. | | | | | |
| 140 | 55 | | | | | | | |
| 135 | 60 | | | | | | | |
| 130 | 65 | | | | | | | |
| 125 | 70 | | | | | | | |
| 120 | 75 | | | | | | | |

10 20 30 40 50

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**CDM Smith**
**Valdosta Water Treatment Plant**

Valdosta, Lowndes County, Georgia

**Log of TB-4**



| | | | |
|---|---|---|---|
| Drilling Co.: | *TTL, Inc.* | **TTL** Project No.: | *23-07-02183.00* |
| Driller: | *D. Campbell* | Date Drilled: | *1/5/2024* |
| Logged by: | *E. Brunner* | Boring Depth: | *50 feet* |
| Equipment: | *CME 550X ATV* | Boring Elevation: | *196 feet* |
| Hammer Type: | *Automatic* | Coordinates: | *N: n/a E: n/a* |
| Drilling Method: | *Hollow Stem Auger w/SPT Sampling and Rotary Wash w/Mud* | Water Level at Time of Drilling: | *13.5 ft BGS* |
| | | Cave-In at Time of Drilling: | *N/A* |

Remarks:
The boring was backfilled with grout after drilling was completed. The hammer efficiency of the rig used was 83%.

Delayed Water Level: *N/A*

Delayed Water Observation Date: *N/A*

| ELEVATION (ft) | DEPTH (ft) | GRAPHIC LOG | MATERIALS DESCRIPTION | % PASSING #200 SIEVE | TYPE | SPT/CORE DATA 1st 6" 2nd 6" 3rd 6" N-VALUE | RQD % REC |
|---|---|---|---|---|---|---|---|
| 195 | 0 | | TOPSOIL (3 Inches) | | | | |
| | | | CLAYEY SAND, very loose, coarse to fine grained, gray and brown, wet (SC) | | | 2 - 2 - 2 N = 4 | |
| | | | CLAYEY SAND, medium dense to dense, medium to fine grained, red and orange, moist (SC) | | | 3 - 5 - 7 N = 12 | |
| 190 | 5 | | - becomes red and gray below 6 feet | | | 7 - 12 - 20 N = 32 | |
| | | | - becomes gray-red and orange below 8.5 feet | | | 8 - 16 - 20 N = 36 | |
| 185 | 10 | | SILTY SAND, dense to medium dense, medium to fine grained, gray and red, wet (SM) | | | 8 - 20 - 21 N = 41 | |
| 180 | 15 | | | | | | |
| 175 | 20 | | CLAYEY SAND, dense, coarse to fine grained, gray, moist (SC) | | | 10 - 11 - 14 N = 25 | |
| | | | | | | 8 - 16 - 30 N = 46 | |
| 170 | 25 | | FAT CLAY with SAND, stiff, gray and orange, wet (CH) | | | 4 - 5 - 6 N = 11 | |
| 165 | 30 | | SILTY SAND, medium dense, coarse to fine grained, gray, wet (SM) | | | 10 - 13 - 12 N = 25 | |

SAMPLE DATA

SPT N-VALUE (BPF)
MOISTURE CONTENT (%)
PLASTIC AND LIQUID LIMIT (%)
10 20 30 40 50

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| ELEVATION (ft) | DEPTH (ft) | GRAPHIC LOG | MATERIALS DESCRIPTION | % PASSING #200 SIEVE | TYPE | SPT/CORE DATA: 1st 6" / 2nd 6" / 3rd 6" / N-VALUE | RQD / % REC |
|---|---|---|---|---|---|---|---|
| 160 | | | *Continued from previous page* | | | | |
| | | | FAT CLAY, firm to stiff, green and gray, wet (CH) | | | | |
| 155 | 40 | | | 88.2 | | 3 - 3 - 4<br>N = 7 | |
| | | | | | | 3 - 3 - 8<br>N = 11 | |
| 150 | 45 | | SILTY SAND, medium dense, coarse to fine grained, gray, wet (SM) | | | | |
| | 50 | | Boring terminated at 50 feet. | | | 6 - 7 - 9<br>N = 16 | |
| 145 | | | | | | | |
| | 55 | | | | | | |
| 140 | | | | | | | |
| | 60 | | | | | | |
| 135 | | | | | | | |
| | 65 | | | | | | |
| 130 | | | | | | | |
| | 70 | | | | | | |
| 125 | | | | | | | |
| | 75 | | | | | | |
| 120 | | | | | | | |

SAMPLE DATA

SPT N-VALUE (BPF)
MOISTURE CONTENT (%)
PLASTIC AND LIQUID LIMIT (%)
10 20 30 40 50

PL=30
MC=61
LL=114

*This boring log shall not be separated from the corresponding Instrument of Service; no third party may rely upon this boring log or the corresponding Instrument of Service absent a written TTL Secondary Client Agreement.*

# CDM Smith
# Valdosta Water Treatment Plant

Valdosta, Lowndes County, Georgia

**Log of TB-5**



| | | | |
|---|---|---|---|
| Drilling Co.: | *TTL, Inc.* | **TTL** Project No.: | *23-07-02183.00* |
| Driller: | *D. Campbell* | Date Drilled: | *1/4/2024* |
| Logged by: | *E. Brunner* | Boring Depth: | *50 feet* |
| Equipment: | *CME 550X ATV* | Boring Elevation: | *196 feet* |
| Hammer Type: | *Automatic* | Coordinates: | *N: n/a E: n/a* |
| Drilling Method: | *Hollow Stem Auger w/SPT Sampling and Rotary Wash w/Mud* | Water Level at Time of Drilling: | *Not Encount.* |
| | | Cave-In at Time of Drilling: | *N/A* |

Remarks:
The boring was backfilled with grout after drilling was completed. The hammer efficiency of the rig used was 83%.

Delayed Water Level: *N/A*

Delayed Water Observation Date: *N/A*

| ELEVATION (ft) | DEPTH (ft) | GRAPHIC LOG | MATERIALS DESCRIPTION | % PASSING #200 SIEVE | TYPE | SPT/CORE DATA (1st 6" / 2nd 6" / 3rd 6" / N-VALUE) | RQD / % REC | SPT N-VALUE (BPF) / MOISTURE CONTENT (%) / PLASTIC AND LIQUID LIMIT (%) |
|---|---|---|---|---|---|---|---|---|
| 195 | 0 | | TOPSOIL (3 Inches) | | | | | |
| | | | SILTY SAND, loose, coarse to fine grained, brown and gray, wet (SM) | | | 2 - 2 - 3 N = 5 | | |
| | | | CLAYEY SAND, medium dense and dense, medium to fine grained, grayish-red and orange, moist (SC) | 36.6 | | 4 - 5 - 7 N = 12 | | MC=16 PL=12 LL=22 |
| 190 | 5 | | - becomes red and gray below 6 feet | | | 10 - 12 - 14 N = 26 | | |
| | | | | | | 12 - 14 - 17 N = 31 | | |
| 185 | 10 | | | | | | | |
| | | | | | | 10 - 15 - 19 N = 34 | | |
| 180 | 15 | | | | | | | |
| | | | - becomes gray below 18.5 feet | | | 7 - 9 - 11 N = 20 | | MC=17 |
| 175 | 20 | | | | | | | |
| | | | FAT CLAY, stiff, orange and gray, moist (CH) | | | 5 - 5 - 6 N = 11 | | |
| 170 | 25 | | | | | | | |
| | | | SILTY SAND, dense, coarse to fine grained, white and tan, moist (SM) | | | 11 - 19 - 15 N = 34 | | |
| 165 | 30 | | | | | | | |
| | | | FAT CLAY, firm, blue and gray, wet (CH) | | | 2 - 2 - 4 N = 6 | | MC=51 |

*This boring log shall not be separated from the corresponding Instrument of Service; no third party may rely upon this boring log or the corresponding Instrument of Service absent a written TTL Secondary Client Agreement.*

\\FS-LOCAL\PROJECTS\2023\07\23-07-02183.00 CDM SMITH- VALDOSTA WATER TREATMENT PLANT - VALDOSTA, GEORGIA\GEOTECHNICAL\DATA\CDM VALDOSTA WATER - MASTER LAB LOG.GPJ 1/16/24 Report:GEOTECH LOG

\\FS-LOCAL\PROJECTS\2023\07\23-07-02183.00 CDM SMITH- VALDOSTA WATER TREATMENT PLANT - VALDOSTA, GEORGIA\GEOTECHNICAL\DATA\CDM VALDOSTA WATER - MASTER LAB LOG.GPJ 1/16/24 Report:GEOTECH LOG

| ELEVATION (ft) | DEPTH (ft) | GRAPHIC LOG | MATERIALS DESCRIPTION | SAMPLE DATA: % PASSING #200 SIEVE | TYPE | SPT/CORE DATA: 1st 6" / 2nd 6" / 3rd 6" / N-VALUE | RQD / % REC | SPT N-VALUE (BPF) / MOISTURE CONTENT (%) / PLASTIC AND LIQUID LIMIT (%) |
|---|---|---|---|---|---|---|---|---|
| 160 | 40 | | *Continued from previous page* | | | | | |
| | | | FAT CLAY, firm, blue and gray, wet (CH) | | X | 2 - 3 - 3<br>N = 6 | | |
| 155 | 45 | | SILTY SAND, medium dense, coarse to fine grained, gray, wet (SM) | | X | 4 - 6 - 6<br>N = 12 | | MC=29 |
| 150 | 50 | | | | X | 4 - 6 - 7<br>N = 13 | | |
| | | | Boring terminated at 50 feet. | | | | | |
| 145 | 55 | | | | | | | |
| 140 | 60 | | | | | | | |
| 135 | 65 | | | | | | | |
| 130 | 70 | | | | | | | |
| 125 | 75 | | | | | | | |
| 120 | | | | | | | | |

*This boring log shall not be separated from the corresponding Instrument of Service; no third party may rely upon this boring log or the corresponding Instrument of Service absent a written TTL Secondary Client Agreement.*

# CDM Smith
# Valdosta Water Treatment Plant

Valdosta, Lowndes County, Georgia

**Log of W-1**



| | | | |
|---|---|---|---|
| Drilling Co.: | *TTL, Inc.* | **TTL** Project No.: | *23-07-02183.00* |
| Driller: | *D. Campbell* | Date Drilled: | *1/8/2024* |
| Logged by: | *E. Brunner* | Boring Depth: | *20 feet* |
| Equipment: | *CME 550X ATV* | Boring Elevation: | *194 feet* |
| Hammer Type: | *Automatic* | Coordinates: | *N: n/a E: n/a* |
| Drilling Method: | *Hollow Stem Auger w/SPT Sampling* | Water Level at Time of Drilling: | *Not Encount.* |
| | | Cave-In at Time of Drilling: | *N/A* |

Remarks:
The boring was backfilled with drill cuttings following a groundwater measurement once drilling tools were removed. The hammer efficiency of the rig used was 83%.

Delayed Water Level: *N/A*

Delayed Water Observation Date: *N/A*

| ELEVATION (ft) | DEPTH (ft) | GRAPHIC LOG | MATERIALS DESCRIPTION | % PASSING #200 SIEVE | TYPE | SPT/CORE DATA (1st 6" / 2nd 6" / 3rd 6" / N-VALUE) | RQD / % REC | SAMPLE DATA: SPT N-VALUE (BPF) / MOISTURE CONTENT (%) / PLASTIC AND LIQUID LIMIT (%) |
|---|---|---|---|---|---|---|---|---|
| | | | TOPSOIL (3 Inches) | | | | | |
| | | | SILTY SAND, medium dense, coarse to fine grained, tan, wet (SM) | | | 3 - 5 - 6<br>N = 11 | | |
| 190 | 5 | | SANDY LEAN CLAY, very stiff, tan and orange, moist (CL) | | | 3 - 8 - 9<br>N = 17 | | |
| | | | | | | 4 - 7 - 10<br>N = 17 | | |
| 185 | 10 | | CLAYEY SAND, medium dense, coarse to fine grained, tan, moist (SC) | | | 11 - 12 - 13<br>N = 25 | | |
| | | | SANDY LEAN CLAY, very stiff to stiff, white, moist (CL) | | | 8 - 12 - 15<br>N = 27 | | |
| 175 | 20 | | Boring terminated at 20 feet. | | | 5 - 5 - 5<br>N = 10 | | |
| 170 | 25 | | | | | | | |
| 165 | 30 | | | | | | | |
| 160 | | | | | | | | |

*This boring log shall not be separated from the corresponding Instrument of Service; no third party may rely upon this boring log or the corresponding Instrument of Service absent a written TTL Secondary Client Agreement.*

\\FS-LOCAL\PROJECTS\2023\07\23-07-02183.00 CDM SMITH- VALDOSTA WATER TREATMENT PLANT - VALDOSTA, GEORGIA\GEOTECHNICAL\DATA\CDM VALDOSTA WATER - MASTER LAB LOG.GPJ 1/16/24 Report:GEOTECH LOG

**CDM Smith**
**Valdosta Water Treatment Plant**
Valdosta, Lowndes County, Georgia

**Log of W-2**
Page 1 of 1

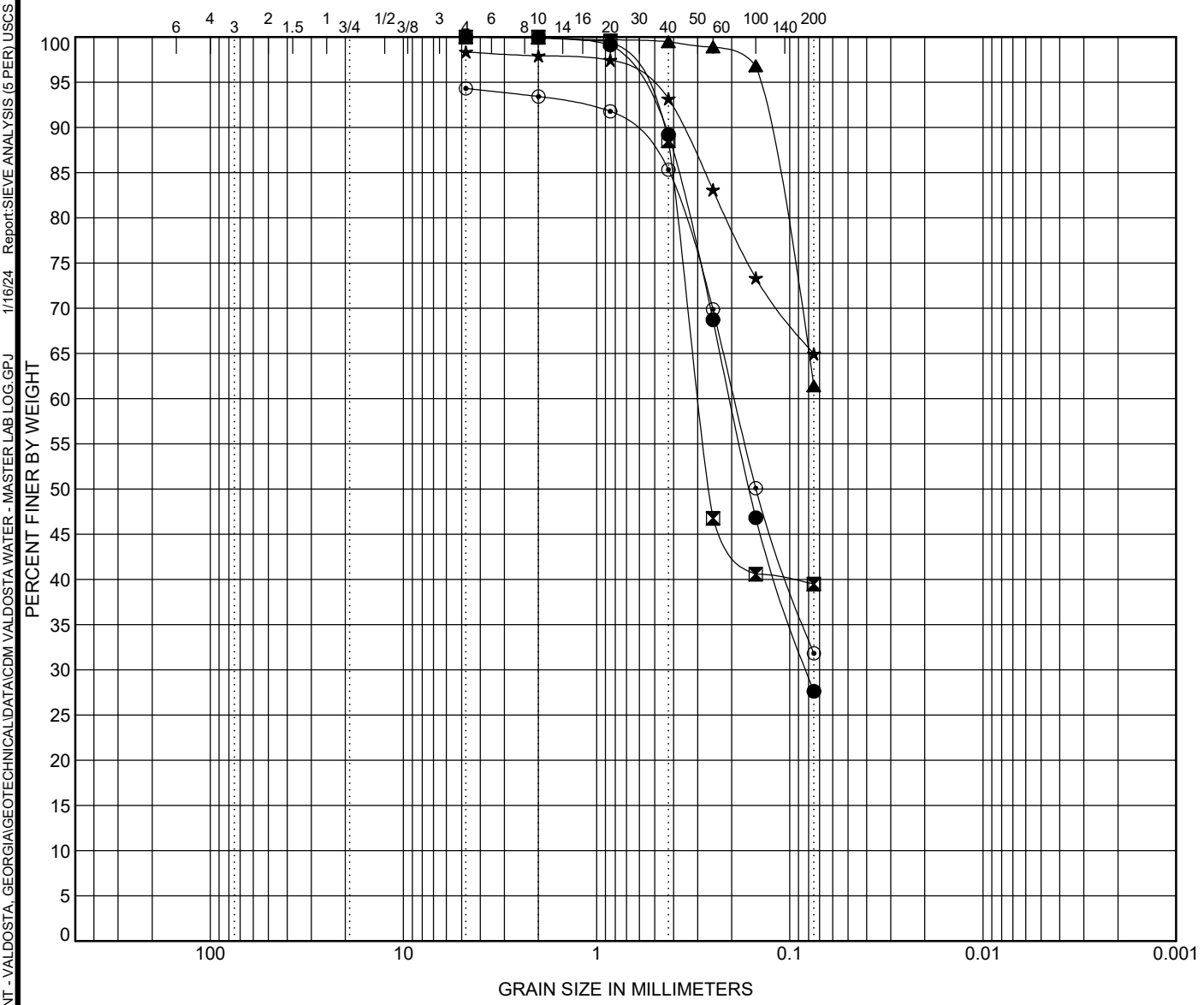
| | | | |
|---|---|---|---|
| Drilling Co.: *TTL, Inc.* | **TTL** Project No.: *23-07-02183.00* | Remarks: The boring was backfilled with drill cuttings following a groundwater measurement once drilling tools were removed. The hammer efficiency of the rig used was 91.5%. |
| Driller: *P. Gay* | Date Drilled: *12/15/2023* | |
| Logged by: *P. Kelly* | Boring Depth: *20 feet* | |
| Equipment: *CME 45* | Boring Elevation: *201 feet* | |
| Hammer Type: *Automatic* | Coordinates: *N: n/a E: n/a* | |
| Drilling Method: *Hollow Stem Auger* | ▽ Water Level at Time of Drilling: *9 ft BGS* | ▼ Delayed Water Level: *6 ft BGS* |
| | Cave-In at Time of Drilling: *N/A* | Delayed Water Observation Date: *12/15/2023* |

| ELEVATION (ft) | DEPTH (ft) | GRAPHIC LOG | MATERIALS DESCRIPTION | % PASSING #200 SIEVE | TYPE | SPT/CORE DATA (1st 6" / 2nd 6" / 3rd 6" / N-VALUE) | RQD / % REC | SPT N-VALUE (BPF) / MOISTURE CONTENT (%) / PLASTIC AND LIQUID LIMIT (%) |
|---|---|---|---|---|---|---|---|---|
| 200 | 0 | | TOPSOIL (2 Inches) | | | | | |
| | | | **COASTAL PLAIN:** LEAN CLAY, soft, brown and gray, moist (CL) | | | 2 - 2 - 1<br>N = 3 | | MC=18 |
| | | | CLAYEY SAND, medium dense, medium to fine grained, red-gray and orange, moist (SC) | | | 4 - 10 - 15<br>N = 25 | | MC=24 |
| 195 | 5 | | SANDY LEAN CLAY, very stiff, red and gray, moist (CL) | 64.1 | | 5 - 6 - 9<br>N = 15 | | MC=21, PL=24, LL=45 |
| | | | | ▽ | | 5 - 6 - 11<br>N = 17 | | |
| 190 | 10 | | | | | | | |
| | | | | | | 3 - 14 - 15<br>N = 29 | | |
| 185 | 15 | | | | | | | |
| | | | | | | 3 - 8 - 15<br>N = 23 | | |
| 180 | 20 | | Boring terminated at 20 feet. | | | | | |
| 175 | 25 | | | | | | | |
| 170 | 30 | | | | | | | |

SAMPLE DATA

\\FS-LOCAL\PROJECTS\2023\07\23-07-02183.00 CDM SMITH- VALDOSTA WATER TREATMENT PLANT - VALDOSTA, GEORGIA\GEOTECHNICAL\DATA\CDM VALDOSTA WATER - MASTER LAB LOG.GPJ 1/16/24 Report:GEOTECH LOG

*This boring log shall not be separated from the corresponding Instrument of Service; no third party may rely upon this boring log or the corresponding Instrument of Service absent a written TTL Secondary Client Agreement.*




| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---|---|---|---|---|---|---|
| | coarse | fine | coarse | medium | fine | |

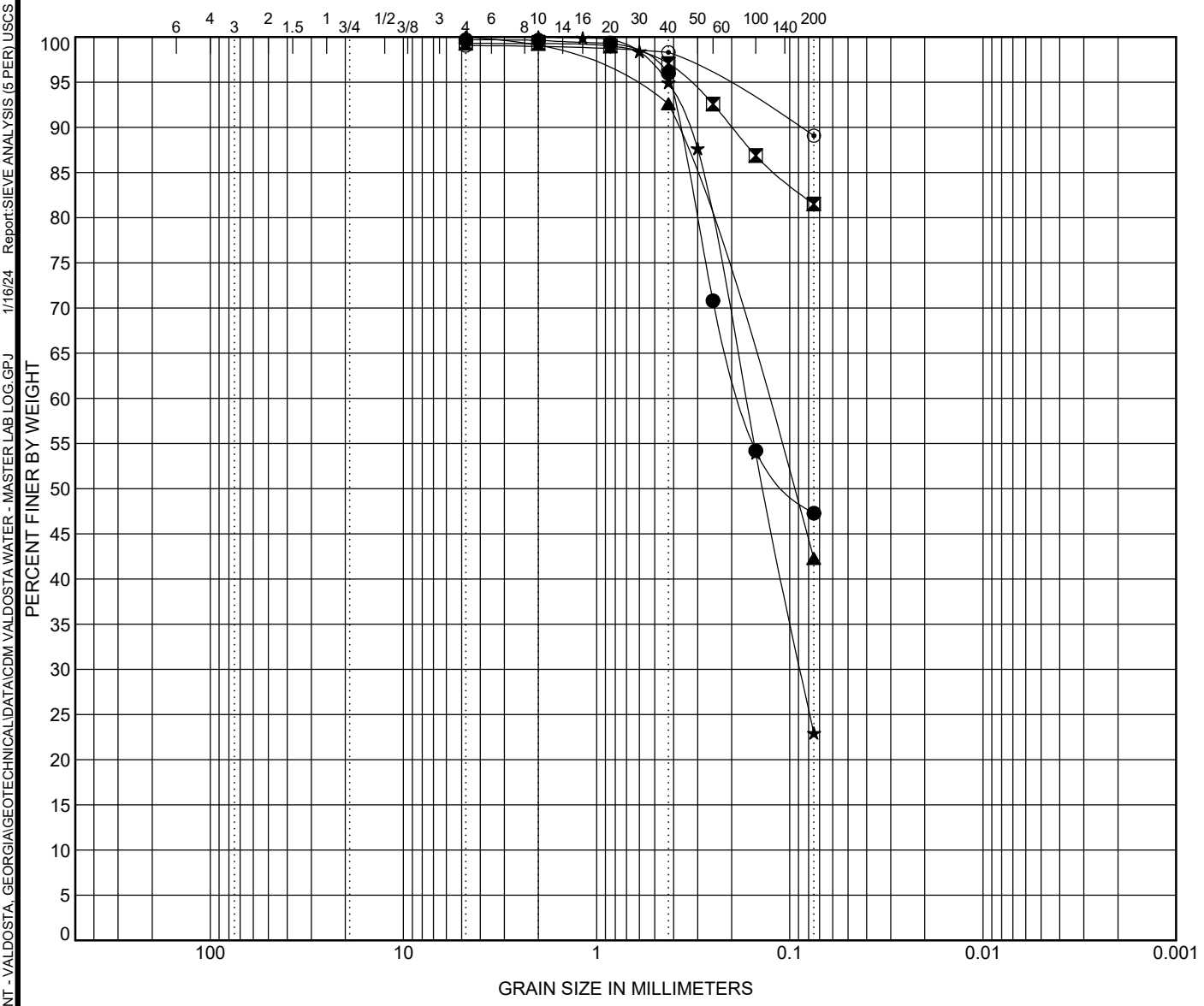
| | Sample ID | USCS Classification | LL | PL | PI | Cc | Cu |
|---|---|---|---|---|---|---|---|
| ● | **B-1 / 1 - 2.5 feet** | **SILTY SAND (SM)** | **NP** | **NP** | **NP** | | |
| ⊠ | **B-4 / 23.5 - 25 feet** | **CLAYEY SAND (SC)** | **38** | **16** | **22** | | |
| ▲ | **B-7 / 13.5 - 15 feet** | **SANDY LEAN CLAY (CL)** | **36** | **19** | **17** | | |
| ★ | **RB-1 / 3.5 - 5 feet** | **SANDY SILT (ML)** | **45** | **29** | **16** | | |
| ⊙ | **RB-3 / 1 - 2.5 feet** | **CLAYEY SAND (SC)** | **23** | **13** | **10** | | |

| | Sample ID | D100 | D50 | D30 | D10 | %Gravel | %Sand | %Silt | %Clay |
|---|---|---|---|---|---|---|---|---|---|
| ● | **B-1 / 1 - 2.5 feet** | **4.75** | **0.162** | **0.082** | | **0.0** | **72.4** | **27.6** | |
| ⊠ | **B-4 / 23.5 - 25 feet** | **4.75** | **0.261** | | | **0.0** | **60.5** | **39.5** | |
| ▲ | **B-7 / 13.5 - 15 feet** | **4.75** | | | | **0.0** | **38.6** | **61.4** | |
| ★ | **RB-1 / 3.5 - 5 feet** | **4.75** | | | | **0.0** | **35.0** | **65.0** | |
| ⊙ | **RB-3 / 1 - 2.5 feet** | **4.75** | **0.149** | | | **0.0** | **68.2** | **31.8** | |

# SIEVE ANALYSIS RESULTS

Client: CDM Smith
Project: Valdosta Water Treatment Plant
Location: Valdosta, Lowndes County, Georgia
Project Number: 23-07-02183.00

\\FS-LOCAL\PROJECTS\2023\07\23-07-02183.00 CDM SMITH- VALDOSTA WATER TREATMENT PLANT - VALDOSTA, GEORGIA\GEOTECHNICAL\DATA\CDM VALDOSTA WATER - MASTER LAB LOG.GPJ 1/16/24 Report:SIEVE ANALYSIS (5 PER) USCS




| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---|---|---|---|---|---|---|
| | coarse | fine | coarse | medium | fine | |

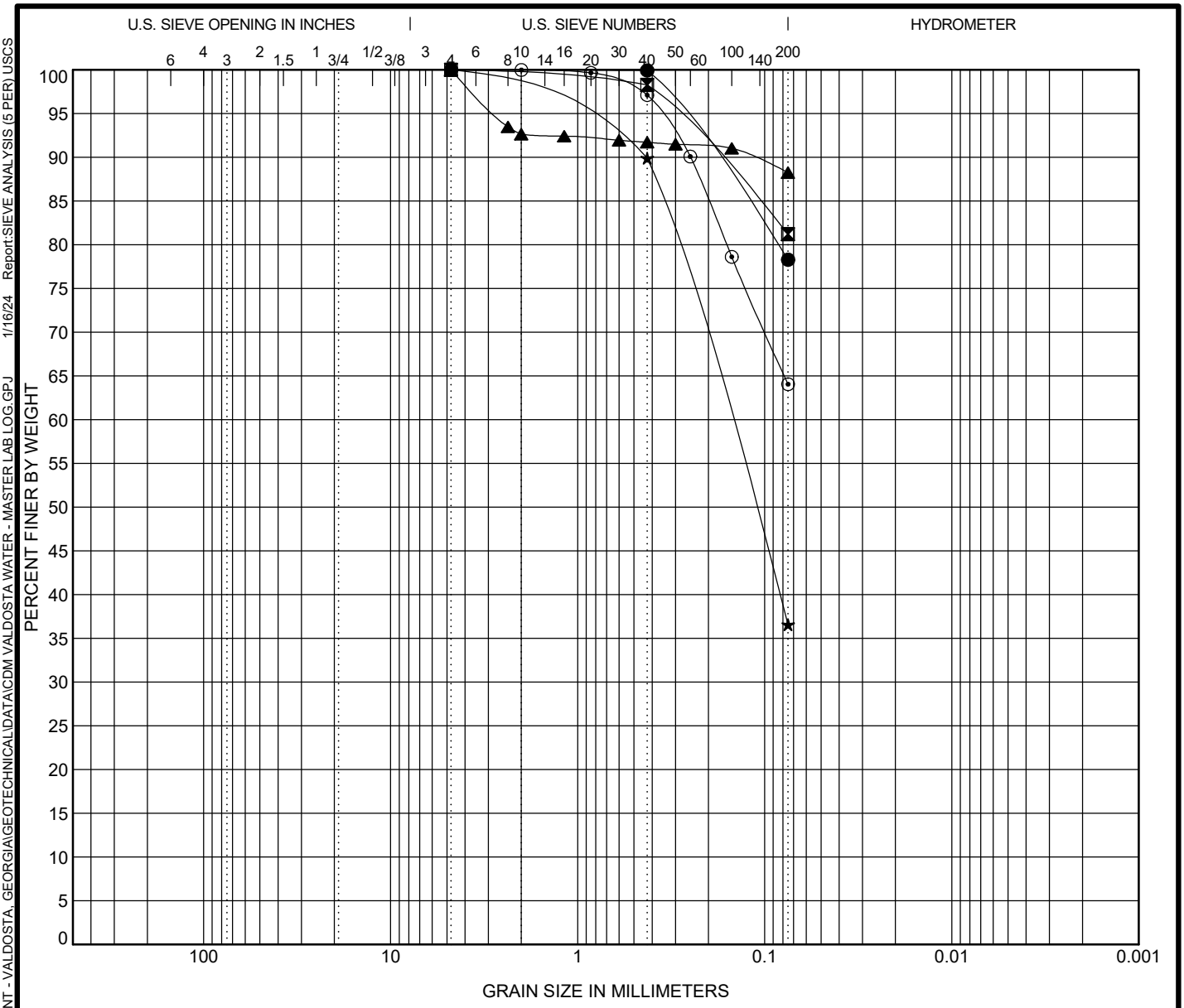
| | Sample ID | USCS Classification | LL | PL | PI | Cc | Cu |
|---|---|---|---|---|---|---|---|
| ● | **RB-4 / 3.5 - 5 feet** | **CLAYEY SAND (SC)** | **48** | **21** | **27** | | |
| ⊠ | **RB-5 / 1 - 2.5 feet** | **SILT with SAND (ML)** | **49** | **30** | **19** | | |
| ▲ | **TB-1 / 3.5 - 5 feet** | **CLAYEY SAND (SC)** | **29** | **15** | **14** | | |
| ★ | **TB-1 / 13 - 15 feet** | **CLAYEY SAND (SC)** | **25** | **14** | **11** | | |
| ⊙ | **TB-1 / 38.5 - 40 feet** | **FAT CLAY (CH)** | **81** | **28** | **53** | | |

| | Sample ID | D100 | D50 | D30 | D10 | %Gravel | %Sand | %Silt | %Clay |
|---|---|---|---|---|---|---|---|---|---|
| ● | **RB-4 / 3.5 - 5 feet** | **4.75** | **0.098** | | | **0.0** | **52.7** | **47.3** | |
| ⊠ | **RB-5 / 1 - 2.5 feet** | **4.75** | | | | **0.0** | **18.5** | **81.5** | |
| ▲ | **TB-1 / 3.5 - 5 feet** | **4.75** | **0.098** | | | **0.0** | **57.7** | **42.3** | |
| ★ | **TB-1 / 13 - 15 feet** | **2** | **0.137** | **0.088** | | **0.0** | **77.0** | **23.0** | |
| ⊙ | **TB-1 / 38.5 - 40 feet** | **4.75** | | | | **0.0** | **9.9** | **89.1** | |

# SIEVE ANALYSIS RESULTS

Client: CDM Smith
Project: Valdosta Water Treatment Plant
Location: Valdosta, Lowndes County, Georgia
Project Number: 23-07-02183.00

\\FS-LOCAL\PROJECTS\2023\07\23-07-02183.00 CDM SMITH- VALDOSTA WATER TREATMENT PLANT - VALDOSTA, GEORGIA\GEOTECHNICAL\DATA\CDM VALDOSTA WATER - MASTER LAB LOG.GPJ 1/16/24 Report:SIEVE ANALYSIS (5 PER) USCS




| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---|---|---|---|---|---|---|
| | coarse | fine | coarse | medium | fine | |

| | Sample ID | USCS Classification | LL | PL | PI | Cc | Cu |
|---|---|---|---|---|---|---|---|
| ● | **TB-1 / 58.5 - 60 feet** | **FAT CLAY with SAND (CH)** | **71** | **29** | **42** | | |
| ⊠ | **TB-3 / 28.5 - 30 feet** | **FAT CLAY with SAND (CH)** | **63** | **26** | **37** | | |
| ▲ | **TB-4 / 41 - 43 feet** | **FAT CLAY (CH)** | **114** | **30** | **84** | | |
| ★ | **TB-5 / 3.5 - 5 feet** | **CLAYEY SAND (SC)** | **22** | **12** | **10** | | |
| ⊙ | **W-2 / 6 - 7.5 feet** | **SANDY LEAN CLAY (CL)** | **45** | **24** | **21** | | |

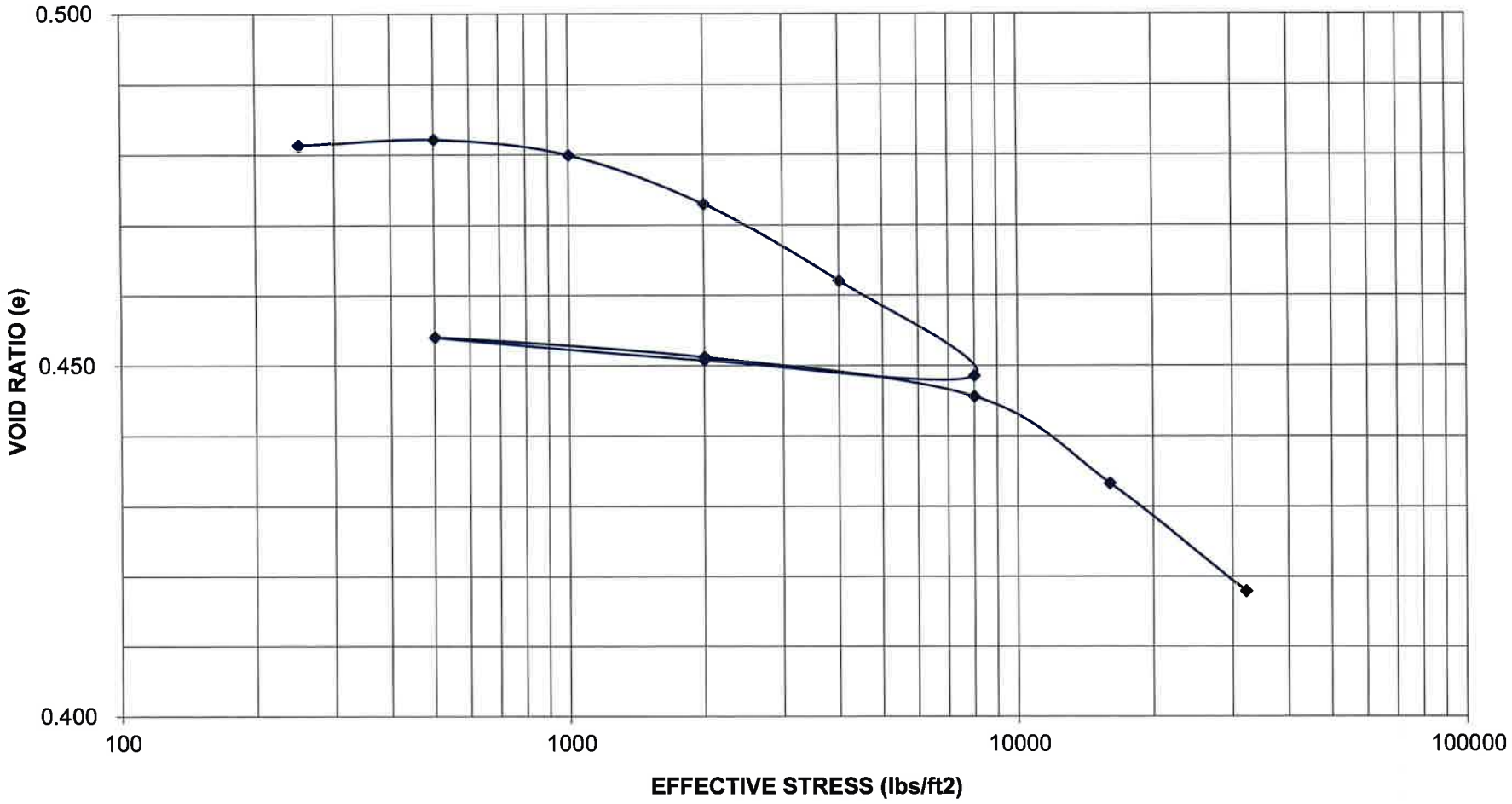
| | Sample ID | D100 | D50 | D30 | D10 | %Gravel | %Sand | %Silt | %Clay |
|---|---|---|---|---|---|---|---|---|---|
| ● | **TB-1 / 58.5 - 60 feet** | **4.75** | | | | **0.0** | **21.7** | **78.3** | |
| ⊠ | **TB-3 / 28.5 - 30 feet** | **4.75** | | | | **0.0** | **18.8** | **81.2** | |
| ▲ | **TB-4 / 41 - 43 feet** | **4.75** | | | | **0.0** | **11.8** | **88.2** | |
| ★ | **TB-5 / 3.5 - 5 feet** | **4.75** | **0.116** | | | **0.0** | **63.4** | **36.6** | |
| ⊙ | **W-2 / 6 - 7.5 feet** | **4.75** | | | | **0.0** | **35.9** | **64.1** | |

# SIEVE ANALYSIS RESULTS

Client: CDM Smith
Project: Valdosta Water Treatment Plant
Location: Valdosta, Lowndes County, Georgia
Project Number: 23-07-02183.00

\\FS-LOCAL\PROJECTS\2023\07\23-07-02183.00 CDM SMITH- VALDOSTA WATER TREATMENT PLANT - VALDOSTA, GEORGIA\GEOTECHNICAL\DATA\CDM VALDOSTA WATER - MASTER LAB LOG.GPJ 1/16/24 Report:SIEVE ANALYSIS (5 PER) USCS

**CDM Smith**
**Valdosta WTP**
**TB-1 (13.0'-15.0')**



**CDM Smith**
**Valdosta WTP**
**TB-4 (41.0'-43.0')**



**ALAMO ANALYTICAL LABORATORIES, LTD.**
**Main: 10526 Gulfdale • San Antonio, Texas 78216-3601 • (210) 340-8121 . Fax. (210) 340-8123**

REPORT NARRATIVE 1/17/2024

Asher Tchoya
TTL
3202 Gillionville Rd
Albany , GA - 31721
TEL: (229) 244-8619 Email: asher.tchoya@ttlusa.com
FAX:

RE: 23-07-02183.00 CDM Smith Valdosta WTP

Dear Asher Tchoya: Order No.: 2401023

Enclosed please find the analytical report for the sample/s received on 1/11/2024.

SAMPLE RECEIPT: Samples were received intact and with chain of custody documentation.
HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the Sample Acceptance Policy unless otherwise noted in the report.

If you have any questions regarding these test results call (210) 340-8121.

Thank you,



Reddy Gosala, Ph.D
Laboratory Director

**Report of Laboratory Analysis**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

NELAP Certificate# San Antonio : T104704367-22-19

**Date:** 17-Jan-24

# ALAMO ANALYTICAL LABORATORIES, LTD.

## Analytical Results Report

**CLIENT:** TTL
**Lab Order:** 2401023

**Project:** 23-07-02183.00 CDM Smith Valdosta WTP

| Alamo Lab ID | Client ID | Collection Date | Analyses | Matrix | Result | MDL | PQL | Units | DF | Qua |
|---|---|---|---|---|---|---|---|---|---|---|
| **TestName:** CORROSIVITY by pH | | | **TestNo:** SW9045D | **Date Analyzed** 1/16/2024 11:00:00 AM | | | | Initials: YK | | |
| 2401023-01A | TB 1 - 48.5 sm, gray | 1/3/2024 | pH at 25 o C | Solid | 9.1 | 0.07 | 0.1 | pH Units | 1 | |
| 2401023-02A | TB 3 - 13.5 sm, gray | 1/4/2024 | pH at 25 o C | Solid | 8.4 | 0.07 | 0.1 | pH Units | 1 | |
| 2401023-03A | TB 5 -28.5 sm, gray | 1/4/2024 | pH at 25 o C | Solid | 8.2 | 0.07 | 0.1 | pH Units | 1 | |
| **TestName:** RESISTIVITY | | | **TestNo:** SM2510B | **Date Analyzed** 1/16/2024 4:00:00 PM | | | | Initials: YK | | |
| 2401023-01A | TB 1 - 48.5 sm, gray | 1/3/2024 | Resistivity | Solid | 10800 | 0 | 0.0001 | ohms-cm | 1 | |
| 2401023-02A | TB 3 - 13.5 sm, gray | 1/4/2024 | Resistivity | Solid | 7300 | 0 | 0.0001 | ohms-cm | 1 | |
| 2401023-03A | TB 5 -28.5 sm, gray | 1/4/2024 | Resistivity | Solid | 20500 | 0 | 0.0001 | ohms-cm | 1 | |
| **TestName:** CHLORIDE | | | **TestNo:** M4500-CL B | **Date Analyzed** 1/17/2024 9:10:00 AM | | | | Initials: YK | | |
| 2401023-01A | TB 1 - 48.5 sm, gray | 1/3/2024 | Chloride | Solid | 100 | 2.57 | 5 | mg/Kg | 1 | |
| 2401023-02A | TB 3 - 13.5 sm, gray | 1/4/2024 | Chloride | Solid | 60 | 2.57 | 5 | mg/Kg | 1 | |
| 2401023-03A | TB 5 -28.5 sm, gray | 1/4/2024 | Chloride | Solid | 100 | 2.57 | 5 | mg/Kg | 1 | |
| **TestName:** SULFATE - TURBIDIMETRIC | | | **TestNo:** M4500-SO4 E | **Date Analyzed** 1/17/2024 11:00:00 AM | | | | Initials: YK | | |
| 2401023-01A | TB 1 - 48.5 sm, gray | 1/3/2024 | Sulfate | Solid | 4700 | 341 | 1000 | mg/Kg | 50 | |
| 2401023-02A | TB 3 - 13.5 sm, gray | 1/4/2024 | Sulfate | Solid | 23.3 | 6.82 | 20 | mg/Kg | 1 | |
| 2401023-03A | TB 5 -28.5 sm, gray | 1/4/2024 | Sulfate | Solid | 5860 | 341 | 1000 | mg/Kg | 50 | |

H Holding times for preparation or analysis excceeded; J - Analyte detected below quanititation limits

* Non-NELAP Standards ** Sub Contracted

Approved by: Reddy Gosala, Laboratory Direc

**Report of Laboratory Analysis**

Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

**ALAMO ANALYTICAL LABORATORIES, LTD.**

**Date:** *17-Jan-24*

**CLIENT:** TTL
**Work Order:** 2401023 **Project:** 23-07-02183.00 CDM Smith Valdosta WTP

# QC SUMMARY REPORT

| Analyte | BLK | SPK value | %REC LCS | MS | %REC MSD | RPD % | RPD Limit | Low - High Limit | Parent | DUP | RPD % | RPD Limit |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch ID:** CL_S-1/17/2024 | **TestName:** CHLORIDE | | | | | | | | | | | |
| **Run ID:** CL_240117A | **Test Code:** M4500-CL B | | **Units:** mg/Kg | | **Analysis Date:** | 1/17/2024 9:10:00 AM | | **Prep Date:** | 1/16/2024 4:20:00 P | | | |
| Chloride | <5 | 1000 | 96.0% | 90.0% | 94.0% | 4.000 | 30.0 | 80 - 120 | | | | |
| **Batch ID:** PH_S-1/16/2024 | **TestName:** CORROSIVITY by pH | | | | | | | | | | | |
| **Run ID:** PH_S_240116A | **Test Code:** SW9045D | | **Units:** pH Units | | **Analysis Date:** | 1/16/2024 11:00:00 AM | | **Prep Date:** | 1/16/2024 8:30:00 A | | | |
| pH at 25 o C | | 7 | 99.6% | | | | | 6.9 - 7.1 | 8.2 | 8.2 | 0.000 | 0.0 |
| **Batch ID:** RESIST-1/16/2024 | **TestName:** RESISTIVITY | | | | | | | | | | | |
| **Run ID:** COND_240116A | **Test Code:** SM2510B | | **Units:** ohms-cm | | **Analysis Date:** | 1/16/2024 4:00:00 PM | | **Prep Date:** | 1/16/2024 4:00:00 P | | | |
| Resistivity | | 707.7 | 100.4% | | | | | 90 - 110 | 20500.0 | 21100.0 | 3.000 | 10.0 |
| **Batch ID:** SO4_S-1/17/2024 | **TestName:** SULFATE - TURBIDIMETRIC | | | | | | | | | | | |
| **Run ID:** UV1_240116A | **Test Code:** M4500-SO4 E | | **Units:** mg/Kg | | **Analysis Date:** | 1/17/2024 11:00:00 AM | | **Prep Date:** | 1/16/2024 4:20:00 P | | | |
| Sulfate | <20 | 250 | 94.3% | 90.8% | 90.1% | 0.000 | 30.0 | 80 - 120 | | | | |

**Approved by:** bsreddy

**Laboratory QC Report**

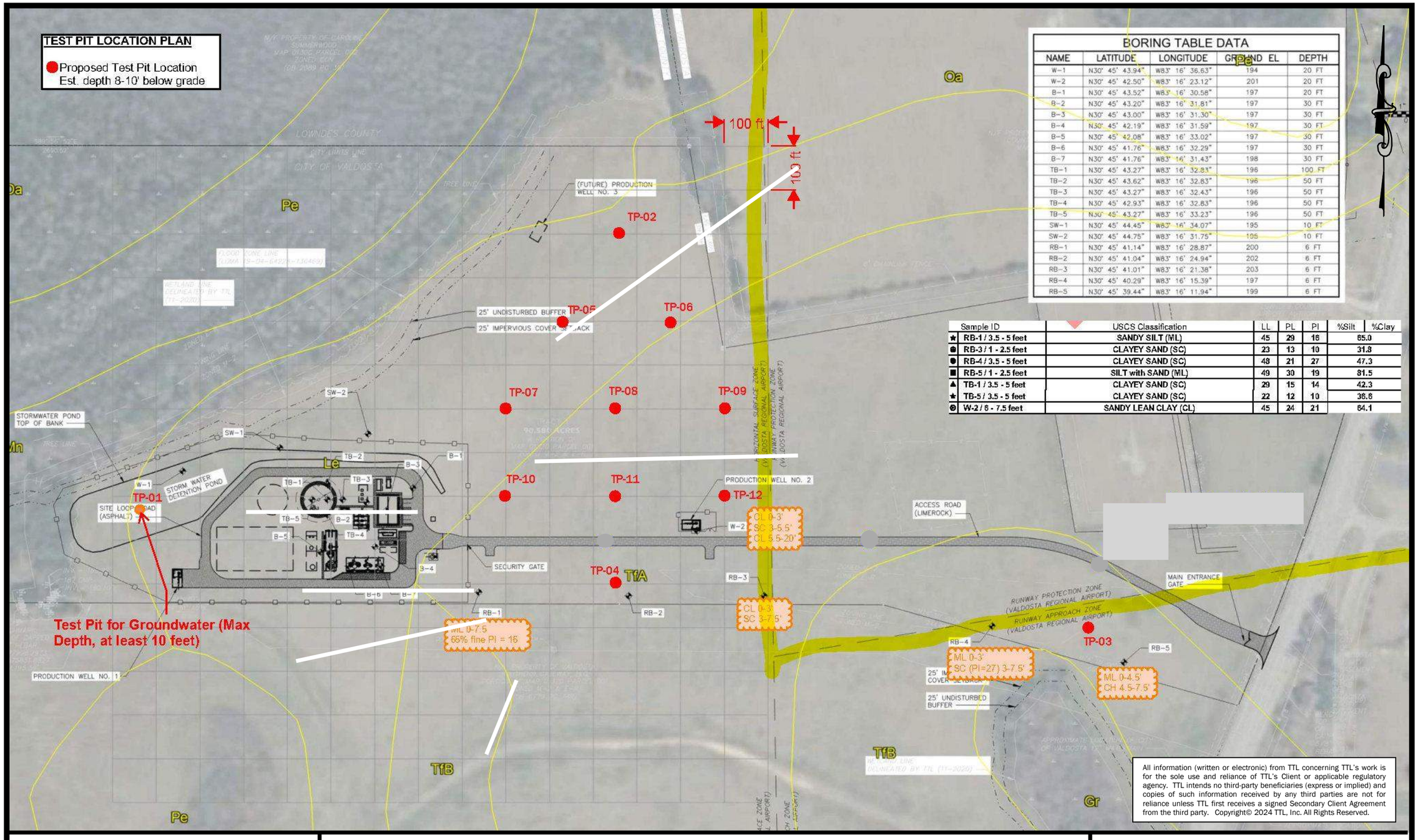
Note: The analysis contained in this report applies only to the samples tested and for the exclusive use of the addressed client. Reproduction of this report wholly or in part requires written permission of the client.

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# APPENDIX B – TEST PIT DATA

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| BORING TABLE DATA | | | | |
|---|---|---|---|---|
| NAME | LATITUDE | LONGITUDE | GROUND EL | DEPTH |
| W-1 | N30° 45' 43.94" | W83° 16' 36.63" | 194 | 20 FT |
| W-2 | N30° 45' 42.50" | W83° 16' 23.12" | 201 | 20 FT |
| B-1 | N30° 45' 43.52" | W83° 16' 30.58" | 197 | 20 FT |
| B-2 | N30° 45' 43.20" | W83° 16' 31.81" | 197 | 30 FT |
| B-3 | N30° 45' 43.00" | W83° 16' 31.30" | 197 | 30 FT |
| B-4 | N30° 45' 42.19" | W83° 16' 31.59" | 197 | 30 FT |
| B-5 | N30° 45' 42.08" | W83° 16' 33.02" | 197 | 30 FT |
| B-6 | N30° 45' 41.76" | W83° 16' 32.29" | 197 | 30 FT |
| B-7 | N30° 45' 41.76" | W83° 16' 31.43" | 198 | 30 FT |
| TB-1 | N30° 45' 43.27" | W83° 16' 32.83" | 196 | 100 FT |
| TB-2 | N30° 45' 43.62" | W83° 16' 32.83" | 196 | 50 FT |
| TB-3 | N30° 45' 43.27" | W83° 16' 32.43" | 196 | 50 FT |
| TB-4 | N30° 45' 42.93" | W83° 16' 32.83" | 196 | 50 FT |
| TB-5 | N30° 45' 43.27" | W83° 16' 33.23" | 196 | 50 FT |
| SW-1 | N30° 45' 44.45" | W83° 16' 34.07" | 195 | 10 FT |
| SW-2 | N30° 45' 44.75" | W83° 16' 31.75" | 195 | 10 FT |
| RB-1 | N30° 45' 41.14" | W83° 16' 28.87" | 200 | 6 FT |
| RB-2 | N30° 45' 41.04" | W83° 16' 24.94" | 202 | 6 FT |
| RB-3 | N30° 45' 41.01" | W83° 16' 21.38" | 203 | 6 FT |
| RB-4 | N30° 45' 40.29" | W83° 16' 15.39" | 197 | 6 FT |
| RB-5 | N30° 45' 39.44" | W83° 16' 11.94" | 199 | 6 FT |

| Sample ID | USCS Classification | LL | PL | PI | %Silt | %Clay |
|---|---|---|---|---|---|---|
| ★ RB-1 / 3.5 - 5 feet | SANDY SILT (ML) | 45 | 29 | 16 | 65.0 | |
| ● RB-3 / 1 - 2.5 feet | CLAYEY SAND (SC) | 23 | 13 | 10 | 31.8 | |
| ● RB-4 / 3.5 - 5 feet | CLAYEY SAND (SC) | 48 | 21 | 27 | 47.3 | |
| ■ RB-5 / 1 - 2.5 feet | SILT with SAND (ML) | 49 | 30 | 19 | 81.5 | |
| ▲ TB-1 / 3.5 - 5 feet | CLAYEY SAND (SC) | 29 | 15 | 14 | 42.3 | |
| ★ TB-5 / 3.5 - 5 feet | CLAYEY SAND (SC) | 22 | 12 | 10 | 36.6 | |
| ⊕ W-2 / 6 - 7.5 feet | SANDY LEAN CLAY (CL) | 45 | 24 | 21 | 64.1 | |

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TTL

# FIGURE 1
## Test Pit Location Plan

CDM SMITH
VALDOSTA WATER TREATMENT PLANT
Valdosta, Lowndes County, Georgia
TTL Project No.: 23-07-02183.00

**LEGEND**

● = Test Pit Location

*Map provided by CDM Smith.

**CDM Smith**
**Valdosta Water Treatment Plant**

Valdosta, Lowndes County, Georgia

**Log of Test Pit TP-01**



| | |
|---|---|
| Excavating Co.: *City of Valdosta* | **TTL** Project No.: *23-07-02183.00* |
| | Date Excavated: *5/15/2024* |
| Logged by: *A. Tchoua* | Test Pit Depth: *7 feet* |
| Equipment: *John Deere 310 SJ Backhoe Loader* | Ground Elevation: *Not Available* |
| | Coordinates: *Not Available* |
| No. of Samples: *0* | |

Remarks:

Water encountered at an approximate depth of 4 feet during excavation.

The test pit was excavated by the City of Valdosta using a 2.5 foot bucket. A desired depth of 10 feet was attempted; however, test pit would cave in with depth. The test pit was backfilled with soil cuttings upon completion.

▽ Water level at time of excavation.

| DEPTH (ft) | ELEVATION (ft) | GRAPHIC LOG | USCS CLASSIFICATION | MATERIALS DESCRIPTION | MOISTURE (%) | PPV (tsf) | REMARKS |
|---|---|---|---|---|---|---|---|
| | | | | TOPSOIL (8 inches) | | | |
| 1 | | | SP-SM | **COASTAL PLAIN:** POORLY GRADED SAND with SILT, medium to fine grained, gray and tan, wet (SP-SM) | | | - a grab sample was taken below 8 inches |
| 3 | | | SC | CLAYEY SAND, medium to fine grained, orange and gray, moist (SC) | | | - a grab sample was taken below 3 feet |
| 4 | | | | | ▽ | | - a grab sample was taken below 4 feet |
| 7 | | | | EXCAVATION TERMINATED AT 7 FEET. | | | |

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*This test pit log shall not be separated from the corresponding Instrument of Service; no third party may rely upon this test pit log or the corresponding Instrument of Service absent a written TTL Secondary Client Agreement.*

**CDM Smith**
**Valdosta Water Treatment Plant**

Valdosta, Lowndes County, Georgia

**Log of Test Pit TP-02**



| | |
|---|---|
| Excavating Co.: *City of Valdosta* | **TTL** Project No.: *23-07-02183.00* |
| | Date Excavated: *5/15/2024* |
| Logged by: *A. Tchoua* | Test Pit Depth: *7 feet* |
| Equipment: *John Deere 310 SJ Backhoe Loader* | Ground Elevation: *Not Available* |
| | Coordinates: *Not Available* |
| No. of Samples: *0* | |

Remarks:

Water encountered at an approximate depth of 3 feet during excavation.

The test pit was excavated by the City of Valdosta using a 2.5 foot bucket. A desired depth of 10 feet was attempted; however, test pit would cave in with depth. The test pit was backfilled with soil cuttings upon completion.

▽ Water level at time of excavation.

| DEPTH (ft) | ELEVATION (ft) | GRAPHIC LOG | USCS CLASSIFICATION | MATERIALS DESCRIPTION | MOISTURE (%) | PPV (tsf) | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | | TOPSOIL (6 Inches) | | | |
| 1 | | | SP-SM | **COASTAL PLAIN:** POORLY GRADED SAND with SILT, medium to fine grained, gray and tan, moist (SP-SM) | | | - a grab sample was taken below 6 inches |
| 2 | | | SC | CLAYEY SAND, medium to fine grained, gray, moist (SC) | | | - a grab sample was taken below 2 feet |
| 3 | | | | | ▽ | | - a grab sample was taken below 3 feet |
| 4 | | | | | | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | EXCAVATION TERMINATED AT 7 FEET. | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |

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*This test pit log shall not be separated from the corresponding Instrument of Service; no third party may rely upon this test pit log or the corresponding Instrument of Service absent a written TTL Secondary Client Agreement.*

**CDM Smith**
**Valdosta Water Treatment Plant**

Valdosta, Lowndes County, Georgia

**Log of Test Pit TP-03**



| | |
|---|---|
| Excavating Co.: *City of Valdosta* | **TTL** Project No.: *23-07-02183.00* |
| | Date Excavated: *5/16/2024* |
| Logged by: *A. Tchoua* | Test Pit Depth: *8 feet* |
| Equipment: *John Deere 310 SJ Backhoe Loader* | Ground Elevation: *Not Available* |
| | Coordinates: *Not Available* |
| No. of Samples: *0* | |

Remarks:

Water encountered at an approximate depth of 2 feet during excavation.

The test pit was excavated by the City of Valdosta using a 2.5 foot bucket. A desired depth of 10 feet was attempted; however, test pit would cave in with depth. The test pit was backfilled with soil cuttings upon completion.

▽ Water level at time of excavation.

| DEPTH (ft) | ELEVATION (ft) | GRAPHIC LOG | USCS CLASSIFICATION | MATERIALS DESCRIPTION | MOISTURE (%) | PPV (tsf) | REMARKS |
|---|---|---|---|---|---|---|---|
| | | | | TOPSOIL (6 inches) | | | - a grab sample was taken below 6 inches |
| 1 | | | SM | **COASTAL PLAIN:** SILTY SAND, medium to fine grained, brown, moist (SM) | | | - a grab sample was taken below 1 foot |
| | | | SC | CLAYEY SAND, medium to fine grained, tan/brown, moist (SC) | | | |
| 2 | | | | | ▽ | | - a grab sample was taken below 2 feet |
| 3 | | | ML | SANDY SILT, red-brown and gray, moist (ML) | | | - a grab sample was taken below 3 feet |
| 4 | | | CH | SANDY FAT CLAY, red-brown and gray, moist (CH) | | | - a grab sample was taken below 4 feet |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | EXCAVATION TERMINATED AT 8 FEET. | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |

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**CDM Smith**
**Valdosta Water Treatment Plant**

Valdosta, Lowndes County, Georgia

**Log of Test Pit TP-04**



| | |
|---|---|
| Excavating Co.: *City of Valdosta* | **TTL** Project No.: *23-07-02183.00* |
| | Date Excavated: *5/16/2024* |
| Logged by: *A. Tchoua* | Test Pit Depth: *7 feet* |
| Equipment: *John Deere 310 SJ Backhoe Loader* | Ground Elevation: *Not Available* |
| | Coordinates: *Not Available* |
| No. of Samples: *0* | |

Remarks:

Water encountered at an approximate depth of 2 feet during excavation.

The test pit was excavated by the City of Valdosta using a 2.5 foot bucket. A desired depth of 10 feet was attempted; however, test pit would cave in with depth. The test pit was backfilled with soil cuttings upon completion.

▽ Water level at time of excavation.

| DEPTH (ft) | ELEVATION (ft) | GRAPHIC LOG | USCS CLASSIFICATION | MATERIALS DESCRIPTION | MOISTURE (%) | PPV (tsf) | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | | TOPSOIL (6 inches) | | | - a grab sample was taken below 6 inches |
| 1 | | | SM | **COASTAL PLAIN:** SILTY SAND, medium to fine grained, brown and gray, moist (SM) | | | - a grab sample was taken below 1 foot |
| | | | SC | CLAYEY SAND, medium to fine grained, tan and brown, wet (SC) | | | |
| 2 | | | | | ▽ | | - a grab sample was taken below 2 feet |
| 3 | | | | | | | |
| 4 | | | CL | SANDY LEAN CLAY, red/white and brown, wet (CL) | | | - a grab sample was taken below 4 feet |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | EXCAVATION TERMINATED AT 7 FEET. | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |

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**CDM Smith**
**Valdosta Water Treatment Plant**

Valdosta, Lowndes County, Georgia

**Log of Test Pit TP-05**



| | |
|---|---|
| Excavating Co.: *City of Valdosta* | **TTL** Project No.: *23-07-02183.00* |
| | Date Excavated: *5/15/2024* |
| Logged by: *A. Tchoua* | Test Pit Depth: *7 feet* |
| Equipment: *John Deere 310 SJ Backhoe Loader* | Ground Elevation: *Not Available* |
| | Coordinates: *Not Available* |
| No. of Samples: *0* | |

Remarks:

Water encountered at an approximate depth of 2 feet during excavation.

The test pit was excavated by the City of Valdosta using a 2.5 foot bucket. A desired depth of 10 feet was attempted; however, test pit would cave in with depth. The test pit was backfilled with soil cuttings upon completion.

▽ Water level at time of excavation.

| DEPTH (ft) | ELEVATION (ft) | GRAPHIC LOG | USCS CLASSIFICATION | MATERIALS DESCRIPTION | MOISTURE (%) | PPV (tsf) | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | | TOPSOIL (6 Inches) | | | |
| 1 | | | SM | **COASTAL PLAIN:** SILTY SAND, medium to fine grained, gray and tan, moist (SM) | | | - a grab sample was taken below 6 inches |
| | | | SC-SM | SILTY CLAYEY SAND, medium to fine grained, tan and orange, wet (SC-SM) | | | - a grab sample was taken below 1 foot |
| 2 | | | SC | CLAYEY SAND, medium to fine grained, orange and gray, wet (SC) | ▽ | | - a grab sample was taken below 2 feet |
| 3 | | | | | | | |
| 4 | | | | | | | - a grab sample was taken below 4 feet |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | EXCAVATION TERMINATED AT 7 FEET. | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |

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**CDM Smith**
**Valdosta Water Treatment Plant**

Valdosta, Lowndes County, Georgia

**Log of Test Pit TP-06**



| | |
|---|---|
| Excavating Co.: *City of Valdosta* | **TTL** Project No.: *23-07-02183.00* |
| | Date Excavated: *5/16/2024* |
| Logged by: *A. Tchoua* | Test Pit Depth: *8 feet* |
| Equipment: *John Deere 310 SJ Backhoe Loader* | Ground Elevation: *Not Available* |
| | Coordinates: *Not Available* |
| No. of Samples: *0* | |

Remarks:

Water encountered at an approximate depth of 2 feet during excavation.

The test pit was excavated by the City of Valdosta using a 2.5 foot bucket. A desired depth of 10 feet was attempted; however, test pit would cave in with depth. The test pit was backfilled with soil cuttings upon completion.

▽ Water level at time of excavation.

| DEPTH (ft) | ELEVATION (ft) | GRAPHIC LOG | USCS CLASSIFICATION | MATERIALS DESCRIPTION | MOISTURE (%) | PPV (tsf) | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | | TOPSOIL (6 Inches) | | | |
| | | | SM | **COASTAL PLAIN:** SILTY SAND, medium to fine grained, gray and tan, moist (SM) | | | - a grab sample was taken below 6 inches |
| 1 | | | SC | CLAYEY SAND, medium to fine grained, gray and tan, wet (SC) | | | - a grab sample was taken below 1 foot |
| 2 | | | | | ▽ | | |
| 3 | | | | | | | |
| 4 | | | | - becomes orange and gray below 4 feet | | | - a grab sample was taken below 4 feet |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | EXCAVATION TERMINATED AT 8 FEET. | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |

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**CDM Smith**
**Valdosta Water Treatment Plant**

Valdosta, Lowndes County, Georgia

**Log of Test Pit TP-07**



| | |
|---|---|
| Excavating Co.: *City of Valdosta* | **TTL** Project No.: *23-07-02183.00* |
| | Date Excavated: *5/15/2024* |
| Logged by: *A. Tchoua* | Test Pit Depth: *9 feet* |
| Equipment: *John Deere 310 SJ Backhoe Loader* | Ground Elevation: *Not Available* |
| | Coordinates: *Not Available* |
| No. of Samples: *0* | |

Remarks:

Water encountered at an approximate depth of 4 feet during excavation.

The test pit was excavated by the City of Valdosta using a 2.5 foot bucket. A desired depth of 10 feet was attempted; however, test pit would cave in with depth. The test pit was backfilled with soil cuttings upon completion.

▽ Water level at time of excavation.

| DEPTH (ft) | ELEVATION (ft) | GRAPHIC LOG | USCS CLASSIFICATION | MATERIALS DESCRIPTION | MOISTURE (%) | PPV (tsf) | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | | TOPSOIL (6 Inches) | | | |
| 1 | | | SM | **COASTAL PLAIN:** SILTY SAND, medium to fine grained, tan and gray, moist (SM) | | | - a grab sample was taken below 6 inches |
| 2 | | | SC | CLAYEY SAND, medium to fine grained, orange-gray and tan, wet (SC) | | | - a grab sample was taken below 2 feet |
| 3 | | | | | | | |
| 4 | | | | - become red and white below 4 feet | ▽ | | - a grab sample was taken below 4 feet |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | EXCAVATION TERMINATED AT 9 FEET. | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |

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# CDM Smith
# Valdosta Water Treatment Plant

Valdosta, Lowndes County, Georgia

**Log of Test Pit TP-08**



| | |
|---|---|
| Excavating Co.: *City of Valdosta* | **TTL** Project No.: *23-07-02183.00* |
| | Date Excavated: *5/15/2024* |
| Logged by: *A. Tchoua* | Test Pit Depth: *8 feet* |
| Equipment: *John Deere 310 SJ Backhoe Loader* | Ground Elevation: *Not Available* |
| | Coordinates: *Not Available* |
| No. of Samples: *0* | |

Remarks:

Water encountered at an approximate depth of 3 feet during excavation.

The test pit was excavated by the City of Valdosta using a 2.5 foot bucket. A desired depth of 10 feet was attempted; however, test pit would cave in with depth. The test pit was backfilled with soil cuttings upon completion.

▽ Water level at time of excavation.

| DEPTH (ft) | ELEVATION (ft) | GRAPHIC LOG | USCS CLASSIFICATION | MATERIALS DESCRIPTION | MOISTURE (%) | PPV (tsf) | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | | TOPSOIL (6 Inches) | | | |
| 1 | | | SM | **COASTAL PLAIN:** SILTY SAND, medium to fine grained, gray and brown, moist (SM) | | | - a grab sample was taken below 6 inches |
| 2 | | | SC | CLAYEY SAND, medium to fine grained, brown and gray, wet (SC) | | | - a grab sample was taken below 2 feet |
| 3 | | | | | ▽ | | |
| 4 | | | CL | SANDY LEAN CLAY, red and gray, moist (CL) | | | - a grab sample was taken below 4 feet |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | EXCAVATION TERMINATED AT 8 FEET. | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |

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*This test pit log shall not be separated from the corresponding Instrument of Service; no third party may rely upon this test pit log or the corresponding Instrument of Service absent a written TTL Secondary Client Agreement.*

# CDM Smith
# Valdosta Water Treatment Plant

Valdosta, Lowndes County, Georgia

**Log of Test Pit TP-09**



| | |
|---|---|
| Excavating Co.: *City of Valdosta* | **TTL** Project No.: *23-07-02183.00* |
| | Date Excavated: *5/15/2024* |
| Logged by: *A. Tchoua* | Test Pit Depth: *8 feet* |
| Equipment: *John Deere 310 SJ Backhoe Loader* | Ground Elevation: *Not Available* |
| | Coordinates: *Not Available* |
| No. of Samples: *0* | |

Remarks:

Water encountered at an approximate depth of 5 feet during excavation.

The test pit was excavated by the City of Valdosta using a 2.5 foot bucket. A desired depth of 10 feet was attempted; however, test pit would cave in with depth. The test pit was backfilled with soil cuttings upon completion.

▽ Water level at time of excavation.

| DEPTH (ft) | ELEVATION (ft) | GRAPHIC LOG | USCS CLASSIFICATION | MATERIALS DESCRIPTION | MOISTURE (%) | PPV (tsf) | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | | TOPSOIL (6 Inches) | | | |
| 1 | | | SM | **COASTAL PLAIN:** SILTY SAND, medium to fine grained, brown and tan, moist (SM) | | | - a grab sample was taken below 6 inches |
| 2 | | | SC | CLAYEY SAND, medium to fine grained, orange and gray, wet (SC) | | | - a grab sample was taken below 2 feet |
| 3 | | | | | | | |
| 4 | | | CH | SANDY FAT CLAY, red and gray, wet (CH) | | | - a grab sample was taken below 4 feet |
| 5 | | | | | ▽ | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | EXCAVATION TERMINATED AT 8 FEET. | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |

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**CDM Smith**
**Valdosta Water Treatment Plant**

Valdosta, Lowndes County, Georgia

**Log of Test Pit**
**TP-10**

Page 1 of 1

| | |
|---|---|
| Excavating Co.: *City of Valdosta* | **TTL** Project No.: *23-07-02183.00* |
| | Date Excavated: *5/15/2024* |
| Logged by: *A. Tchoua* | Test Pit Depth: *8 feet* |
| Equipment: *John Deere 310 SJ Backhoe Loader* | Ground Elevation: *Not Available* |
| | Coordinates: *Not Available* |
| No. of Samples: *0* | |

Remarks:

Water encountered at an approximate depth of 4 feet during excavation.

The test pit was excavated by the City of Valdosta using a 2.5 foot bucket. A desired depth of 10 feet was attempted; however, test pit would cave in with depth. The test pit was backfilled with soil cuttings upon completion.

▽ Water level at time of excavation.

| DEPTH (ft) | ELEVATION (ft) | GRAPHIC LOG | USCS CLASSIFICATION | MATERIALS DESCRIPTION | MOISTURE (%) | PPV (tsf) | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | | TOPSOIL (8 inches) | | | - a grab sample was taken below 6 inches |
| 1 | | | SM | **COASTAL PLAIN:** SILTY SAND, medium to fine grained, brown and gray, moist (SM) | | | |
| 2 | | | SC | CLAYEY SAND, medium to fine grained, brown, moist (SC) | | | - a grab sample was taken below 2 feet |
| 3 | | | CL | SANDY LEAN CLAY, red-gray and brown, moist (CL) | | | - a grab sample was taken below 3 feet |
| 4 | | | | | ▽ | | |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | EXCAVATION TERMINATED AT 8 FEET. | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |

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*This test pit log shall not be separated from the corresponding Instrument of Service; no third party may rely upon this test pit log or the corresponding Instrument of Service absent a written TTL Secondary Client Agreement.*

**CDM Smith**
**Valdosta Water Treatment Plant**

Valdosta, Lowndes County, Georgia

**Log of Test Pit TP-11**



| | |
|---|---|
| Excavating Co.: *City of Valdosta* | **TTL** Project No.: *23-07-02183.00* |
| | Date Excavated: *5/16/2024* |
| Logged by: *A. Tchoua* | Test Pit Depth: *8 feet* |
| Equipment: *John Deere 310 SJ Backhoe Loader* | Ground Elevation: *Not Available* |
| | Coordinates: *Not Available* |
| No. of Samples: *0* | |

Remarks:

Water encountered at an approximate depth of 2 feet during excavation.

The test pit was excavated by the City of Valdosta using a 2.5 foot bucket. A desired depth of 10 feet was attempted; however, test pit would cave in with depth. The test pit was backfilled with soil cuttings upon completion.

▽ Water level at time of excavation.

| DEPTH (ft) | ELEVATION (ft) | GRAPHIC LOG | USCS CLASSIFICATION | MATERIALS DESCRIPTION | MOISTURE (%) | PPV (tsf) | REMARKS |
|---|---|---|---|---|---|---|---|
| 0 | | | | TOPSOIL (6 Inches) | | | |
| 1 | | | SC-SM | **COASTAL PLAIN:** SILTY CLAYEY SAND, medium to fine grained, tan and brown, moist (SM) | | | - a grab sample was taken below 6 inches |
| 2 | | | | | ▽ | | |
| 3 | | | SC | CLAYEY SAND, medium to fine grained, tan and orange, wet (SC) | | | - a grab sample was taken below 3 feet |
| 4 | | | CL | SANDY LEAN CLAY, red-white and orange, wet (CL) | | | - a grab sample was taken below 4 feet |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | EXCAVATION TERMINATED AT 8 FEET. | | | |
| 9 | | | | | | | |
| 10 | | | | | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |

X:\2023\07\23-07-02183.00 CDM SMITH- VALDOSTA WATER TREATMENT PLANT - VALDOSTA, GEORGIA\GEOTECHNICAL\REPORT\REVISIONS - 5-28-24\CDM TEST PIT - LAB LOG.GPJ 6/19/24 Report:TEST PIT LOG - LAT/LONG

*This test pit log shall not be separated from the corresponding Instrument of Service; no third party may rely upon this test pit log or the corresponding Instrument of Service absent a written TTL Secondary Client Agreement.*

**CDM Smith**
**Valdosta Water Treatment Plant**

Valdosta, Lowndes County, Georgia

**Log of Test Pit TP-12**



| | |
|---|---|
| Excavating Co.: *City of Valdosta* | **TTL** Project No.: *23-07-02183.00* |
| | Date Excavated: *5/16/2024* |
| Logged by: *A. Tchoua* | Test Pit Depth: *10 feet* |
| Equipment: *John Deere 310 SJ Backhoe Loader* | Ground Elevation: *Not Available* |
| | Coordinates: *Not Available* |
| No. of Samples: *0* | |

Remarks:

Water encountered at an approximate depth of 2 feet during excavation.

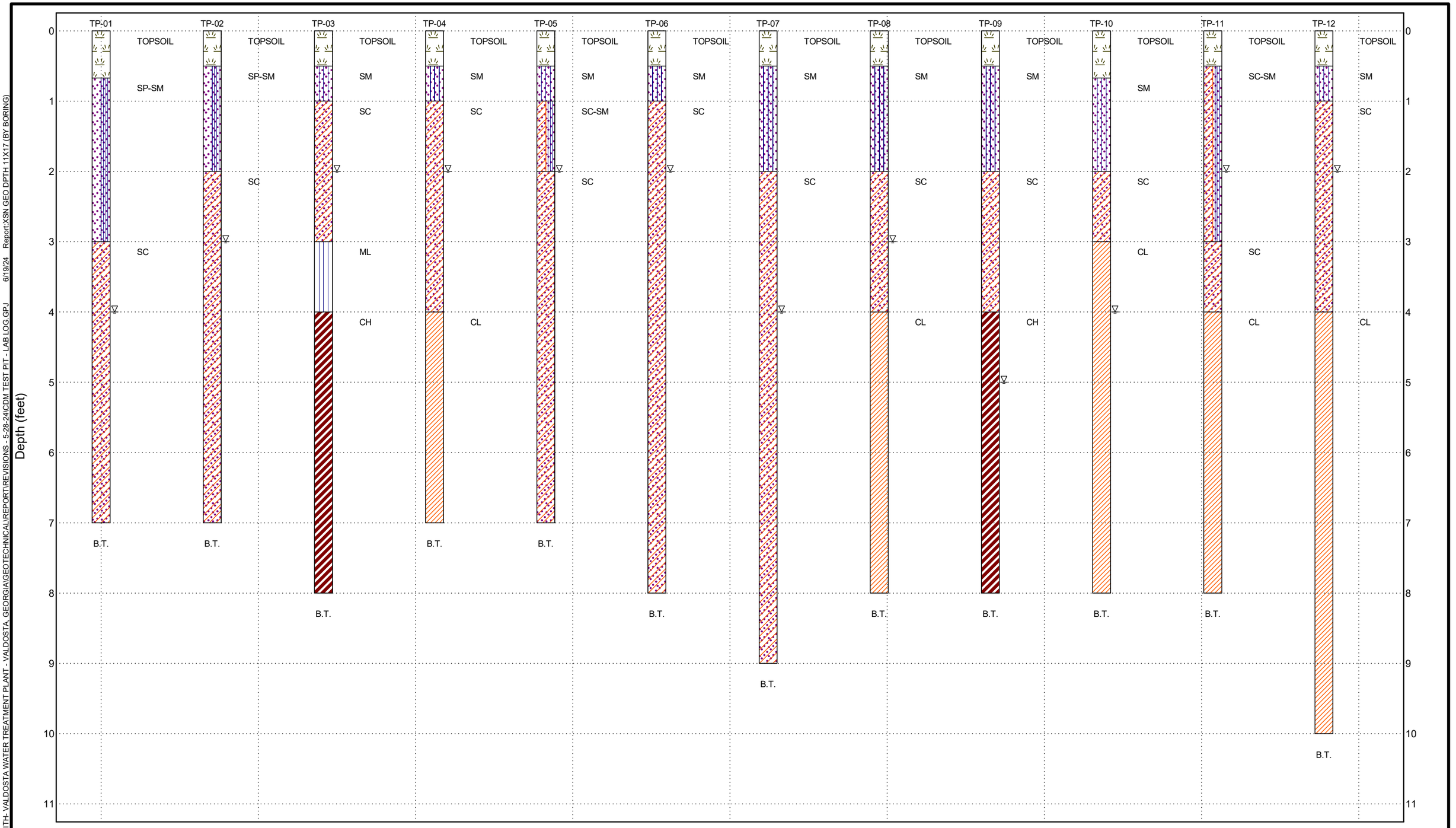
The test pit was excavated by the City of Valdosta using a 2.5 foot bucket. The test pit was backfilled with soil cuttings upon completion.

▽ Water level at time of excavation.

| DEPTH (ft) | ELEVATION (ft) | GRAPHIC LOG | USCS CLASSIFICATION | MATERIALS DESCRIPTION | MOISTURE (%) | PPV (tsf) | REMARKS |
|---|---|---|---|---|---|---|---|
| | | | | TOPSOIL (6 Inches) | | | - a grab sample was taken below 6 inches |
| 1 | | | SM | **COASTAL PLAIN:** SILTY SAND, medium to fine grained, brown-red and gray, with clay, moist (SM) | | | - a grab sample was taken below 1 foot |
| | | | SC | CLAYEY SAND, medium to fine grained, brown and red, wet (SC) | | | |
| 2 | | | | | ▽ | | - a grab sample was taken below 2 feet |
| 3 | | | | | | | - a grab sample was taken below 3 feet |
| 4 | | | CL | SANDY LEAN CLAY, red-gray and white, wet (CL) | | | - a grab sample was taken below 4 feet |
| 5 | | | | | | | |
| 6 | | | | | | | |
| 7 | | | | | | | |
| 8 | | | | | | | |
| 9 | | | | | | | |
| 10 | | | | EXCAVATION TERMINATED AT 10 FEET. | | | |
| 11 | | | | | | | |
| 12 | | | | | | | |
| 13 | | | | | | | |

X:\2023\07\23-07-02183.00 CDM SMITH- VALDOSTA WATER TREATMENT PLANT - VALDOSTA, GEORGIA\GEOTECHNICAL\REPORT\REVISIONS - 5-28-24\CDM TEST PIT - LAB LOG.GPJ 6/19/24 Report:TEST PIT LOG - LAT/LONG

*This test pit log shall not be separated from the corresponding Instrument of Service; no third party may rely upon this test pit log or the corresponding Instrument of Service absent a written TTL Secondary Client Agreement.*




X:\2023\07\23-07-02183.00 CDM SMITH- VALDOSTA WATER TREATMENT PLANT - VALDOSTA, GEORGIA\GEOTECHNICAL\REPORT\REVISIONS - 5-28-24\CDM TEST PIT - LAB LOG.GPJ 6/19/24 Report:XSN GEO DPTH 11X17 (BY BORING)

TTL

## SUBSURFACE CROSS-SECTION

Client: CDM Smith
Project: Valdosta Water Treatment Plant
Location: Valdosta, Lowndes County, Georgia
Project Number: 23-07-02183.00

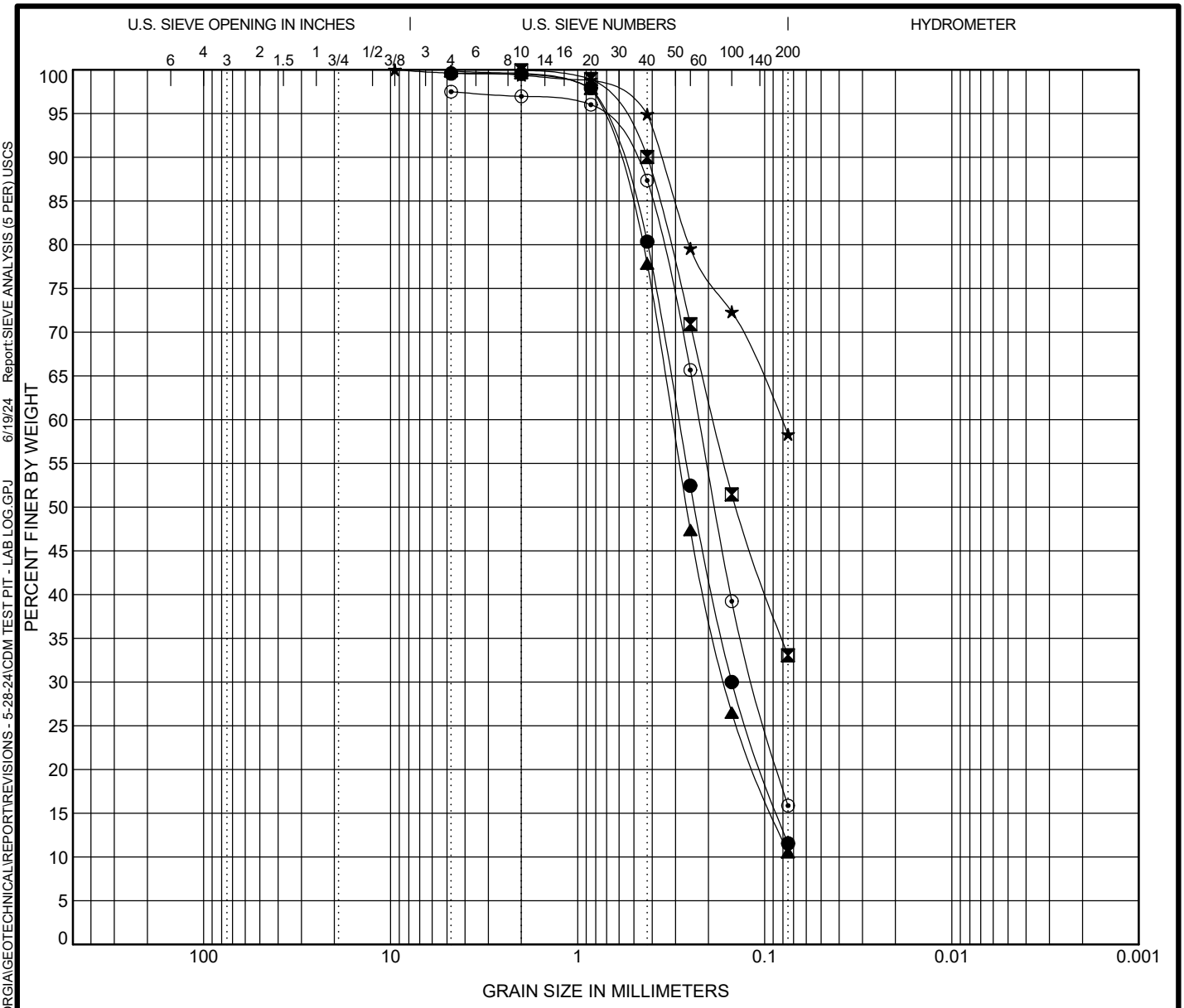
LEGEND: See Legend Key Sheet for explanation of symbols

N (bpf) | % Moisture | Classification | Material Symbol | Recovery% | Core Size | RQD%

B.T. = Boring Terminated A.R. = Auger Refusal

- Water level at time of boring
- Delayed water level
- Cave-in depth
- Perched water level.

Notes:
Vertical scale as shown. No horizontal scale.




| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---|---|---|---|---|---|---|
| | coarse | fine | coarse | medium | fine | |

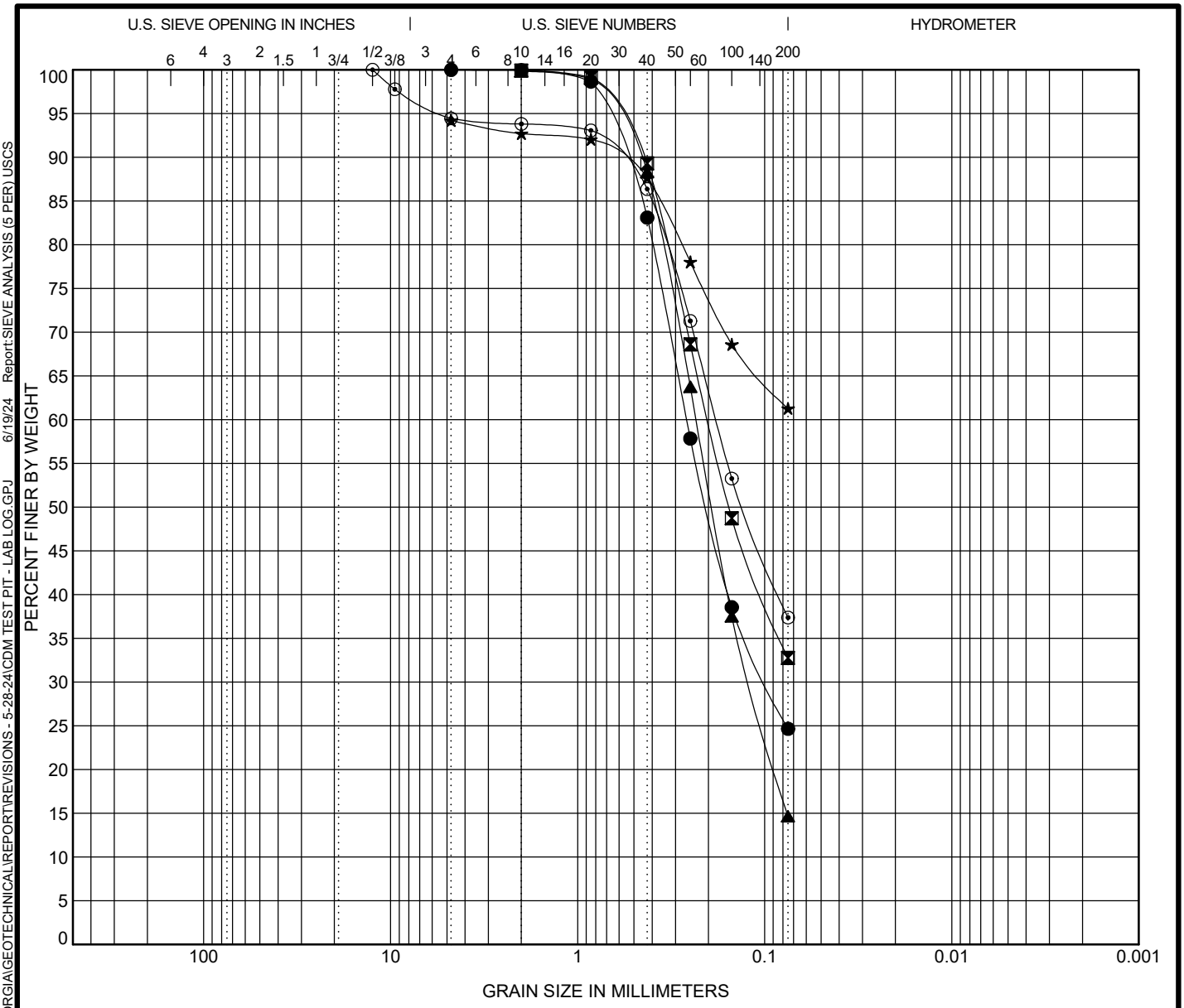
| | Sample ID | USCS Classification | LL | PL | PI | Cc | Cu |
|---|---|---|---|---|---|---|---|
| ● | **TP-01 / 0.67 - 3 feet** | **POORLY GRADED SAND with SILT (SP-SM)** | **NP** | **NP** | **NP** | **1.10** | **4.08** |
| ⊠ | **TP-01 / 3 - 4 feet** | **CLAYEY SAND (SC)** | **29** | **16** | **13** | | |
| ▲ | **TP-02 / 0.5 - 2 feet** | **POORLY GRADED SAND with SILT (SP-SM)** | **NP** | **NP** | **NP** | **1.17** | **4.25** |
| ★ | **TP-03 / 3 - 4 feet** | **SANDY SILT (ML)** | **47** | **32** | **15** | | |
| ⊙ | **TP-04 / 0.5 - 1 feet** | **SILTY SAND (SM)** | **NP** | **NP** | **NP** | | |

| | Sample ID | D100 | D50 | D30 | D10 | %Gravel | %Sand | %Silt | %Clay |
|---|---|---|---|---|---|---|---|---|---|
| ● | **TP-01 / 0.67 - 3 feet** | **4.75** | **0.236** | **0.15** | | **0.0** | **88.0** | **11.6** | |
| ⊠ | **TP-01 / 3 - 4 feet** | **2** | **0.142** | | | **0.0** | **66.9** | **33.1** | |
| ▲ | **TP-02 / 0.5 - 2 feet** | **4.75** | **0.262** | **0.163** | | **0.0** | **89.3** | **10.5** | |
| ★ | **TP-03 / 3 - 4 feet** | **9.5** | | | | **0.4** | **41.3** | **58.3** | |
| ⊙ | **TP-04 / 0.5 - 1 feet** | **4.75** | **0.185** | **0.114** | | **0.0** | **81.6** | **15.9** | |

# SIEVE ANALYSIS RESULTS

Client: CDM Smith
Project: Valdosta Water Treatment Plant
Location: Valdosta, Lowndes County, Georgia
Project Number: 23-07-02183.00

X:\2023\07\23-07-02183.00 CDM SMITH- VALDOSTA WATER TREATMENT PLANT - VALDOSTA, GEORGIA\GEOTECHNICAL\REPORT\REVISIONS - 5-28-24\CDM TEST PIT - LAB LOG.GPJ 6/19/24 Report:SIEVE ANALYSIS (5 PER) USCS




| COBBLES | GRAVEL | | SAND | | | SILT OR CLAY |
|---|---|---|---|---|---|---|
| | coarse | fine | coarse | medium | fine | |

| | Sample ID | USCS Classification | LL | PL | PI | Cc | Cu |
|---|---|---|---|---|---|---|---|
| ● | **TP-05 / 2 - 4 feet** | **CLAYEY SAND (SC)** | **25** | **17** | **8** | | |
| ⊠ | **TP-07 / 4 - 9 feet** | **CLAYEY SAND (SC)** | **32** | **17** | **15** | | |
| ▲ | **TP-09 / 0.5 - 2 feet** | **SILTY SAND (SM)** | **NP** | **NP** | **NP** | | |
| ★ | **TP-09 / 4 - 8 feet** | **SANDY FAT CLAY (CH)** | **51** | **28** | **23** | | |
| ⊙ | **TP-12 / 1 - 2 feet** | **CLAYEY SAND (SC)** | **32** | **19** | **13** | | |

| | Sample ID | D100 | D50 | D30 | D10 | %Gravel | %Sand | %Silt | %Clay |
|---|---|---|---|---|---|---|---|---|---|
| ● | **TP-05 / 2 - 4 feet** | **4.75** | **0.203** | **0.098** | | **0.0** | **75.3** | **24.7** | |
| ⊠ | **TP-07 / 4 - 9 feet** | **2** | **0.155** | | | **0.0** | **67.2** | **32.8** | |
| ▲ | **TP-09 / 0.5 - 2 feet** | **2** | **0.191** | **0.119** | | **0.0** | **85.2** | **14.7** | |
| ★ | **TP-09 / 4 - 8 feet** | **4.75** | | | | **0.0** | **32.9** | **61.3** | |
| ⊙ | **TP-12 / 1 - 2 feet** | **12.5** | **0.13** | | | **5.6** | **57.1** | **37.4** | |

# SIEVE ANALYSIS RESULTS

Client: CDM Smith
Project: Valdosta Water Treatment Plant
Location: Valdosta, Lowndes County, Georgia
Project Number: 23-07-02183.00

X:\2023\07\23-07-02183.00 CDM SMITH- VALDOSTA WATER TREATMENT PLANT - VALDOSTA, GEORGIA\GEOTECHNICAL\REPORT\REVISIONS - 5-28-24\CDM TEST PIT - LAB LOG.GPJ 6/19/24 Report:SIEVE ANALYSIS (5 PER) USCS

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# APPENDIX C – WELL COMPLETION REPORT

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FINAL REPORT

APRIL 2025

# City of Valdosta

# Water Treatment Plant No. 2 Production Wells No. 1 & 2

# Well Completion Report

Prepared for:

VALDOSTA

A City Without Limits

CDM Smith

*In accordance with Title 43, Chapter 19 of Official Coe of Georgia Annotated, this Well Completion Report for Upper Floridan Aquifer Production Wells PW-1 and PW-2, located at the City of Valdosta WTP 2 Site in Lowndes County, Georgia, has been prepared under the direct supervision of a Professional Geologist registered in the State of Georgia.*




4/17/25

Jason M. Mills, P.G.
CDM Smith Inc.
Georgia Registered Professional
Geologist No. 2010

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1.3 Chronology ..... 1-3

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**Appendix D Well Completion Reports**

**Appendix E Lithologic Logs**

**Appendix F Geophysical Logs**

**Appendix G Video Log**

**Appendix H Step Drawdown Test Aquifer Analysis**

**Appendix I Laboratory Analysis Reports**

# 1.0 Project Background and Well Construction

## 1.1 Background

The City of Valdosta (City) contracted with CDM Smith Inc. (CDM Smith) to provide engineering and hydrogeologic services to design, bid, and provide resident oversight of the construction of Production Well Nos. 1 and 2. The City's proposed Water Treatment Plant No. 2 (WTP) will be located at 3260 Madison Highway in Valdosta, Georgia. The WTP will be served by two Upper Floridan Aquifer (UFA) supply wells, each with a capacity of approximately 1,750 gallons per minute (gpm). The proposed WTP will provide an additional drinking water supply source for the City that provides additional capacity to meet increasing demands, improved water quality, distribution benefits, and operational reliability.

Under a prior agreement, CDM Smith also provided engineering and hydrogeologic services and part-time resident oversight during the construction of a test well (TW-1) near the planned WTP site to evaluate whether groundwater at the site is suitable for a public water supply (Mills and Polematidis, 2023). The testing and sampling results from TW-1 indicated that the subject property is suitable for water supply development. The location of Well Nos. 1 and 2 and TW-1 is presented on **Figure 1.1**.

On November 14, 2023, the City received the well construction permit from the Georgia Department of Natural Resources Environmental Protection Division (DNR EPD). Refer to **Appendix A** for a copy of the EPD approval letter.

## 1.2 Well Construction Introduction

From May 2024 to February 2025, CDM Smith observed the construction and testing of Well Nos. 1 and 2 on City-owned property adjacent to Valdosta Regional Airport west of Madison Highway and north of Race Track Road. The City contracted with Rowe Drilling Company, a division of A.C. Schultes (Rowe), a licensed Georgia water well drilling contractor, to construct the well. Drill cuttings were collected at 10-foot intervals (or at any change in lithology) for lithologic description by a geologist. Groundwater samples were collected for field and laboratory analyses during the step-drawdown test and molecular particulate (MPA) sampling, and video and geophysical logs were completed as part of the construction activities. The approximately 8-hour step drawdown test was performed to evaluate well performance and estimate aquifer hydraulic properties. MPA sampling involves the identification, sizing, and population estimates of microorganisms and organic or inorganic debris found in water.

The final construction of Well Nos. 1 and 2 was determined from the cuttings, geophysical and video logging, and groundwater quality and aquifer yield data obtained during drilling and testing activities. This report summarizes the construction and testing of Well Nos. 1 and 2. Chronological photographs collected during the construction activities are provided in **Appendix B**.

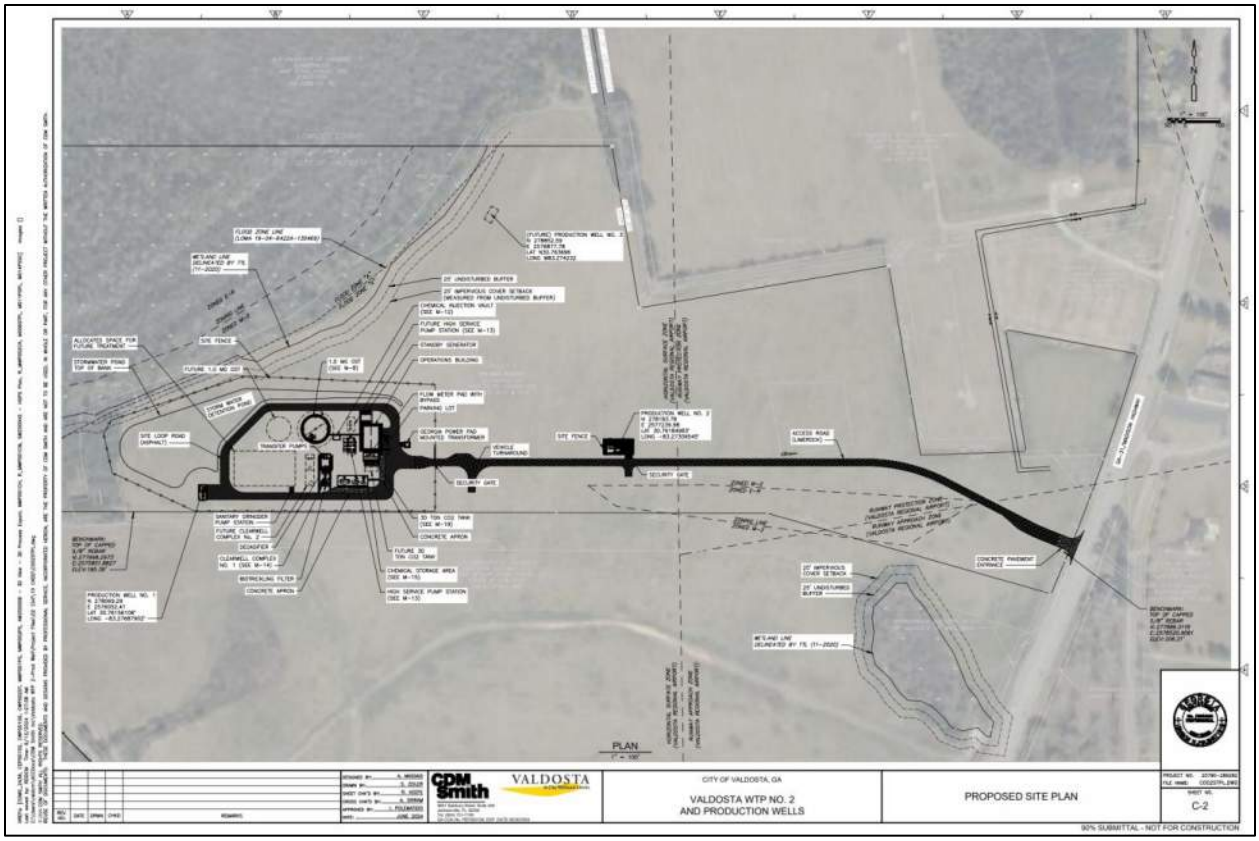



**Figure 1.1 Location of Well Nos. 1 and 2, and Test Well TW-1**

## 1.3 Chronology

A chronological summary of well construction activities is provided in **Tables 1.1** and **1.2** for Production Well No. 1 and Production Well No. 2, respectively.

**Table 1.1 Production Well No. 1 Construction Chronology**

| Start Date | End Date | Activity |
|---|---|---|
| 5/20/2024 | 5/23/2024 | Site mobilization and set up for construction |
| 5/23/2024 | 5/31/2024 | Drill 12.25-inch diameter pilot hole to 67 feet bls via direct mud rotary method |
| 5/31/2024 | - | Geophysical logging (XY Caliper [XYC], Gamma Ray [GR], Electric Log [EL]) of pilot hole to 65 feet bls |
| 6/24/2024 | 6/26/2024 | Ream pilot hole with 36-inch bit to 60 feet bls |
| 6/27/2024 | 6/28/2024 | Install and grout in place 30-inch OD steel surface casing to 60 feet bls with 115 sacks of cement |
| 8/13/2024 | 8/28/2024 | Install 24-inch OD steel intermediate casing via dual rotary method to 196 feet bls |
| 8/29/2024 | 9/2/2024 | Drill nominal 24-inch diameter borehole to 222 feet bls |
| 9/3/2024 | - | Geophysical logging (XYC, GR) of the ream hole to 222 feet bls |
| 9/4/2024 | 9/6/2024 | Install and grout in place 17.4-inch OD PVC final casing to 218 feet bls |
| 9/9/2024 | 9/13/2024 | Drill 11-inch diameter pilot hole to 450 feet bls via reverse air rotary method |
| 9/16/2024 | 9/18/2024 | Geophysical logging (XYC, GR, ER, Borehole Compensated Sonic with Variable Density Log [BHCS w/VDL], Static and Dynamic Flow logs, Static and Dynamic Fluid Conductivity and Temperature [FCT], Dynamic Video, and Cement Bond Log [CBL]) of pilot hole to 450 feet bls |
| 9/17/2024 | 9/27/2024 | Ream pilot hole to 450 feet bls |
| 9/30/2024 | 11/8/2024 | Develop well |
| 11/25/2024 | 11/26/2024 | Complete MPA sampling |
| 12/17/2024 | - | Perform step-drawdown test |
| 1/17/2025 | 1/18/2025 | Geophysical logging (XYC, GR, Dynamic Video) of open hole to 450 feet bls |
| 1/24/2025 | - | Perform plumbness and alignment testing of completed well |
| 2/3/2025 | 2/7/2025 | Complete temporary wellhead installation |

**Table 1.2 Production Well No. 2 Construction Chronology**

| Start Date | End Date | Activity |
|---|---|---|
| 6/17/2024 | - | Site mobilization and set up for construction |
| 6/18/2024 | 6/20/2024 | Drill 12.25-inch diameter pilot hole to 65 feet bls via direct mud rotary method |
| 6/24/2024 | - | Geophysical logging (XYC, GR, ER) of pilot hole to 65 feet bls |
| 6/25/2024 | 6/26/2024 | Ream pilot hole to 61 feet bls |
| 6/27/2024 | 6/28/2024 | Install and grout in place 30-inch OD steel surface casing to 61 feet bls with 133 sacks of cement |
| 9/30/2024 | 10/18/2024 | Install 24-inch OD steel intermediate casing via dual rotary method to 122 feet bls |
| 10/21/2024 | 10/24/2024 | Drill nominal 24-inch diameter borehole to 228 feet bls |
| 10/25/2024 | 10/28/2024 | Geophysical logging (XYC, GR) of reamed hole to 228 feet bls |
| 10/29/2024 | 11/4/2024 | Install and grout in place 17.4-inch OD PVC final casing to 224 feet bls |
| 11/5/2024 | 11/13/2024 | Drill 11-inch diameter pilot hole to 450 feet bls via reverse air rotary method |
| 11/20/2024 | 12/6/2024 | Geophysical logging (XYC, GR, ER, BHCS w/VDL, Static and Dynamic Flow/FCT, Dynamic Video, CBL) of pilot hole to 450 feet bls |

| Start Date | End Date | Activity |
|---|---|---|
| 12/9/2024 | 12/11/2024 | Ream pilot hole to 450 feet bls |
| 12/12/2024 | 12/13/2024 | Develop well |
| 1/3/2025 | - | Perform step-drawdown test |
| 1/8/2025 | - | Perform MPA Sampling |
| 1/17/2025 | 1/18/2025 | Geophysical logging (XYC, GR, Dynamic Video) of open hole to 450 feet bls |
| 1/24/25 | - | Perform plumbness and alignment testing of completed well |
| 2/3/2025 | 2/7/2025 | Complete temporary wellhead installation |

# 2.0 Construction Details

## 2.1 Well Construction Summary

CDM Smith provided engineering services and resident oversight during the construction and testing of Well Nos. 1 and 2. Well daily construction logs are included in **Appendix C**. The City contracted with Rowe, a licensed Georgia water well drilling contractor to install the production wells and perform the work. The Georgia DNR EPD Well Completion Reports are included in **Appendix D**.

CDM Smith developed a work plan/scope of work for testing and construction for Well Nos. 1 and 2 based on review of the available information on the local hydrogeology and existing well construction data from the recently constructed test well, TW-1 (Mills and Polematidis, 2023).

A pilot borehole was drilled in advance of the 30-inch OD steel casing seat to collect lithologic information, which was reviewed by a professional geologist. Reaming followed pilot hole drilling and testing to install and grout the 30-inch OD steel casing. Then, a 24-inch OD steel casing was installed via the dual rotary method through the Hawthorn Group and into the UFA. Once installed, a nominal 24-inch diameter borehole was drilled into competent rock within the UFA, and a 17.4-inch OD PVC final casing was installed and grouted in place. A pilot borehole was drilled and tested below the final casing to a total depth of 450 feet bls. The pilot hole was then reamed to nominal 15-inch diameter to complete the well.

The as-built drawings for Productions Well Nos. 1 and 2 are presented in **Figures 2.1** and **2.2.**

## 2.2 Drilling Methods

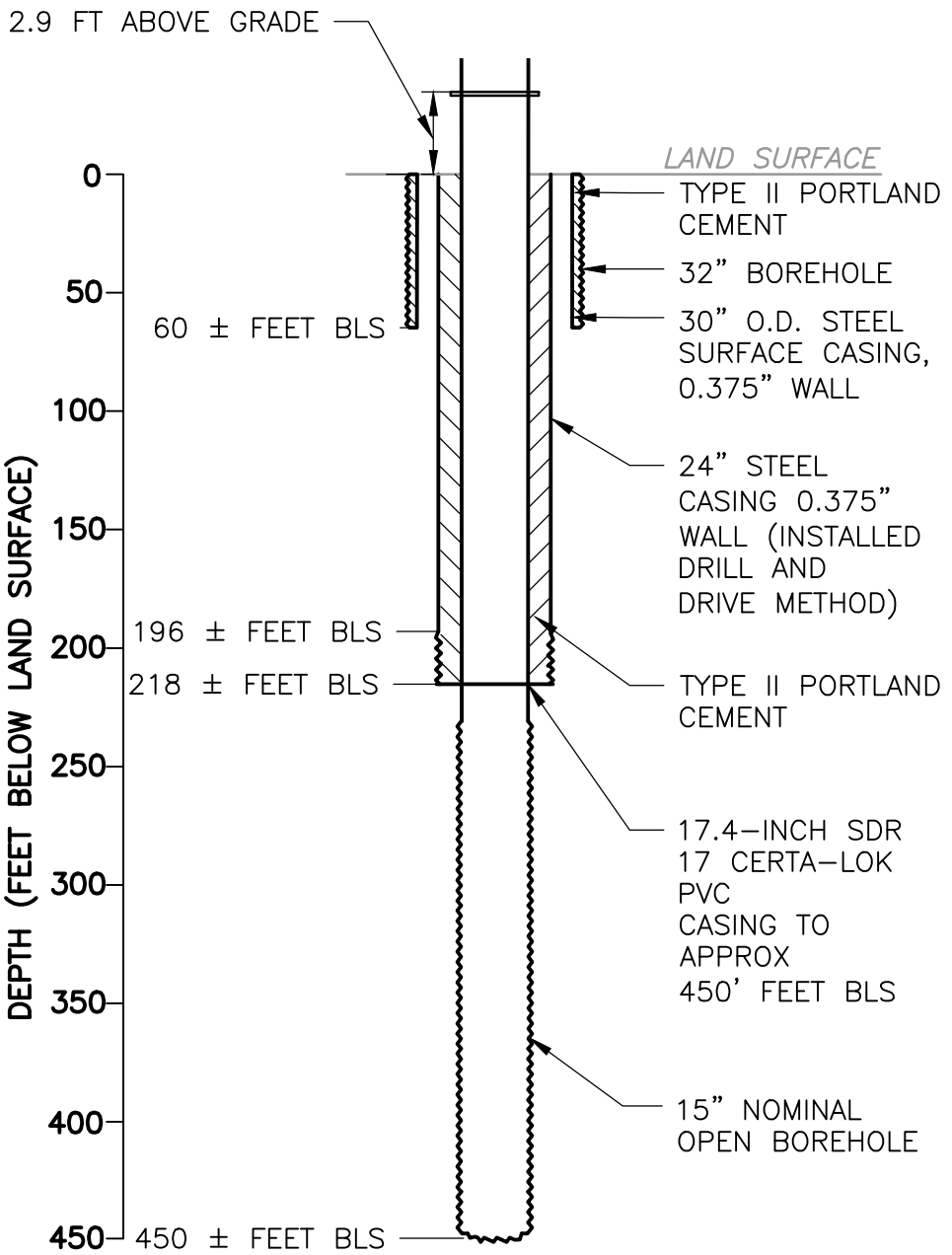
Mud rotary drilling methods were used through the undifferentiated surficial sediments and the Hawthorn Group with a water-based bentonite mud as the drilling fluid. This method was used to stabilize the borehole wall through unconsolidated sediments and to limit the swelling of clays. The reverse air drilling method was used below the Hawthorn Group to allow for the collection of representative groundwater samples through the target production zone.

During both mud-rotary and reverse air drilling, all drilling fluid and drill cuttings were contained in a closed circulation system. Produced water during reverse air drilling was stored in settling tanks and later diverted to the open field adjacent to the wellsite and allowed to infiltrate into the ground once the suspended sediments settled.

## 2.3 Pilot Hole Drilling

A 12.25-inch diameter pilot hole was drilled in advance of reaming for installation of the surface casing and the open hole completion to collect representative formation cuttings and perform geophysical logs. Formation samples were collected at 10-foot intervals or at noticeable changes in lithology. The geology and hydrogeology are discussed in **Section 4**.

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## LITHOLOGY

| | |
|---|---|
| 0'–80' | FEET BLS SILTY SAND, SANDY CLAY, CLAY |
| 80'–180' | FEET BLS SILTY SAND, SILTSTONE, SANDY CLAY WITH SILTSTONE, LIMESTONE |
| 180'–345' | FEET BLS LIMESTONE |
| 345'–450' | FEET BLS DOLOSTONE, DOLOMITIC LIMESTONE |

NOTE:

SEE SPECIFICATIONS FOR WELL CONSTRUCTION REQUIREMENTS.

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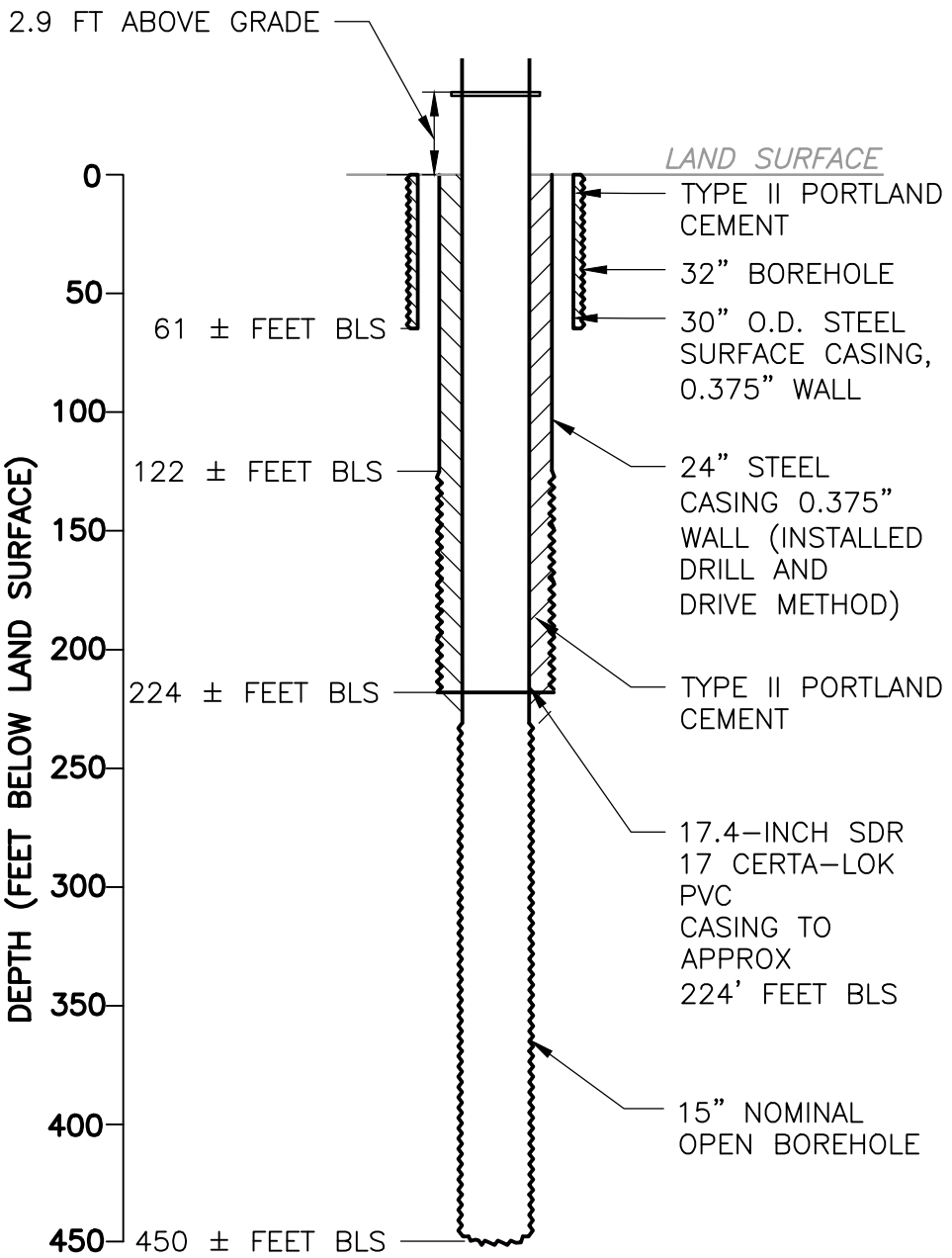
DATE OCT 2023

4651 Salisbury Road, Suite 420
Jacksonville, FL 32256
Tel: (904) 731-7109
FL COA No. EB-0000020

FIGURE TITLE: WELL NO. 1 CONSTRUCTION DETAILS CITY OF VALDOSTA, GA

FIGURE NO.: 2.1

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## LITHOLOGY

| | |
|---|---|
| 0'–80' | FEET BLS SILTY SAND, SANDY CLAY, CLAY |
| 80'–180' | FEET BLS SILTY SAND, SILTSTONE, SANDY CLAY WITH SILTSTONE, LIMESTONE |
| 180'–345' | FEET BLS LIMESTONE |
| 345'–450' | FEET BLS DOLOSTONE, DOLOMITIC LIMESTONE |

NOTE:

SEE SPECIFICATIONS FOR WELL CONSTRUCTION REQUIREMENTS.

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DATE OCT 2023

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FL COA No. EB-0000020

FIGURE TITLE: WELL NO. 2 CONSTRUCTION DETAILS CITY OF VALDOSTA, GA

FIGURE NO.: 2.2

## 2.4 Geophysical Logging

Geophysical logging was performed in each pilot borehole to define formation lithology and lithologic boundaries, assess water quality, infer the relative hydraulic conductivity of the formation materials, identify water producing units, and examine the seal provided by the casing and grout. Additional geophysical logging was performed in the reamed boreholes to ensure the boreholes were sufficiently large to facilitate casing and grout installation. The geophysical logging program is detailed in **Section 4**.

## 2.5 Casing Installation and Grouting

After reviewing the pilot hole data and reaming of each pilot hole interval to the required size and depth, a steel or PVC casing string was installed in the borehole to a depth selected by the Engineer. Two sizes of concentric steel casing strings and one polyvinyl chloride (PVC) casing string were installed as shown in Figures 2.1 and 2.2.

The factory-beveled ends of all steel casing joints were welded by pre-approved certified welders to required specifications. Each connection was made using a minimum of three weld passes. The joints were initially tack welded with the first welding pass being a root pass, which served as the initial weld between the joints. This weld was subsequently ground, cleaned, and inspected. Subsequent filler passes were performed to completely fill the beveled gap. Each pass was wire-brushed clean and inspected prior to the next pass.

The casing in each well was centralized in the borehole using centralizers of a material compatible with the material they were installed upon, attached at intervals 120 degrees apart around the circumference of the casing at the bottom of casing, and every 25 feet thereafter up to land surface.

For each size and type of casing, the theoretical collapse pressure for the casing was calculated using casing dimensions, the mud/fluid weight inside the casing, and the weight of the cement in the annular space. The first cement stage for each casing was neat cement (approximately 15.6 pounds per gallon (lbs/gal), with a yield of approximately 1.18 cubic feet per sack (ft3/sk), placed by the tremie grout method. Following tremie grouting, neat cement was placed into the annulus by the tremie method. Samples of cement were taken during each cementing stage and allowed to cure. Once the sample had cured, a tremie pipe was used to tag the top of the cured cement in the annulus and confirm the cement top depth and verify the cement had cured.

A summary of the casing installation and cementing program is presented in **Tables 2.1** and **2.2**

**Table 2.1 Well 1 Summary of Casing Installation and Cement Volumes**

| Casing Outside Diameter (inside diameter) | Set Depth | Cement Volume Used | Average Cement Weight |
|---|---|---|---|
| 30-inch (29.25-inch) | 60 feet bls | 5.3 cubic yards | 15.5 lbs/gal |
| 24-inch (23.25-inch) | 196 feet bls | - | - |
| 17.4-inch (16-inch) | 218 feet bls | 11.0 cubic yards | 15.5 lbs/gal |

**Table 2.2 Well 2 Summary of Casing Installation and Cement Volumes**

| Casing Outside Diameter (inside diameter) | Set Depth | Cement Volume Used | Average Cement Weight |
|---|---|---|---|
| | | | |
| 30-inch (29.25-inch) | 61 feet bls | 5.8 cubic yards | 15.5 lbs/gal |
| 24-inch (23.25-inch) | 122 feet bls | - | - |
| 17.4-inch (16-inch) | 224 feet bls | 14.5 cubic yards | 15.5 lbs/gal |

## 2.6 Groundwater Quality

Formation water quality samples were collected during step drawdown testing and MPA sampling. The samples were analyzed by a certified laboratory for Primary and Secondary drinking water standards, the major anions and cations as required by Georgia EPD standards, Perfluorooctanoic Acid (PFOA) and Perfluorooctyl Sulfonate (PFOS) and molecular particulates. Groundwater sampling is discussed further in Section 5.

## 2.7 Plumbness and Alignment Testing

On January 24, 2025, AC Schultes conducted an alignment test in accordance with AWWA Standard A100-06 (Water Wells). AC Schultes utilized a 40-foot-long dummy with six 15-inch diameter disks. Per AWWA standard and contract specifications, the dummy was run into the well down to approximately 220 feet. The dummy passed freely through the well casing with no obstructions, wedging, or binding.

Per AWWA Standard A100-06, the maximum allowable horizontal drift of a well is 0.0067 times the inside diameter of the well per foot of depth. The inside diameter of Production Well Nos. 1 and 2 is 15.02 inches. The Roscoe Moss plumbness standard is 6 inches per 100 feet (regardless of casing diameters). The results of the Plumbness and Alignment test at both wells were within both AWWA and Roscoe Moss acceptable standards for plumbness.

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# 3.0 Geology and Hydrogeology

## 3.1 Introduction

Production Well Nos. 1 and 2 were constructed on City-owned property where construction of a new WTP is planned. The formations and hydrogeologic units encountered during the construction of Production Well Nos. 1 and 2 are summarized below.

## 3.2 Geology

The formations penetrated during the construction of Production Well Nos. 1 and 2 range in age from Holocene to Miocene epochs. Lithologic descriptions are based on formation samples collected from the newly constructed well during pilot hole drilling. The lithologic logs are provided in **Appendix E**. The formations are described below as they were encountered from land surface to the total depth of the well.

### 3.2.1 Undifferentiated Deposits and Miccosukee Formation

The surficial deposits consist mostly of undifferentiated clastic clays and silts. The age of these deposits' ranges from Pleistocene to Holocene. The Miccosukee Formation is comprised of clay and sand of late-Pliocene age. The upper part primarily consists of clay, while the lower part, is predominantly coarse sand. These units extend from land surface to approximately 80 feet bls at both wells.

### 3.2.2 Hawthorn Group

The Hawthorn Group consists of early- to middle-Miocene-age sediments of the Coosawatchie, Jumping Gully and Chattahoochee Formations which lie unconformably above middle-Oligocene sediments. In general, the Hawthorn Group is comprised of interbedded clay, silt, and sand with some siltstone. Phosphorite and quartz are common accessory constituents throughout this unit. The base of the Hawthorn Group is marked by the first appearance of limestone in the cuttings. This unit was encountered in Production Well No. 1 from 81 feet to 196 feet bls, and in Production Well No. 2 from 84 feet to 200 feet bls.

### 3.2.3 Suwannee Limestone

The middle-Oligocene Suwannee Limestone underlies the Hawthorn Group. This unit is comprised of fossiliferous limestone (grainstone, wackestone and packstone) with occasional dolostone and dolomitic limestone. In Production Well No. 1, the Suwannee Limestone was encountered from 196 feet bls to the bottom of the borehole at 450 feet bls, with a thickness of 254 feet. In Production Well No. 2, the Suwannee Limestone was encountered from 200 feet bls to the bottom of the borehole at 450 feet bls, with a thickness of 250 feet.

## 3.3 Hydrogeology

### 3.3.1 Unnamed Pliocene Aquifer

The unnamed Pliocene aquifer is wholly contained within the sandy clays of the lower Miccosukee Formation from approximately 28 feet to at least 60 feet bls at Well No. 1 and from approximately 38 feet to at least 60 feet bls at Well No. 2. This freshwater aquifer is confined from above by the clays and

silts of the undifferentiated surficial sediments and confined from below by the clays of the upper Coosawatchie Formation.

### 3.3.2 Upper Floridan Aquifer

The Floridan aquifer system is a highly permeable carbonate aquifer that extends throughout Florida and parts of Georgia, South Carolina, and Alabama (Williams and Kuniansky, 2015). This aquifer system is generally divided into the Upper and Lower Floridan aquifers which are hydraulically separated by thick sequences of relatively lower permeability limestone, dolomitic limestone, and dolostone beds. Production Well Nos. 1 and 2 are completed within the Upper Floridan aquifer, of which the top was encountered at approximately 140 feet bls within the Hawthorn Group. This unit is approximately 300 feet thick at the WTP No. 2 site. Groundwater samples collected from the upper Floridan aquifer indicate that the aquifer contains fresh water suitable for use as an underground source of drinking water.

# 4.0 Hydrogeologic Testing

## 4.1 Introduction

Hydrogeologic testing during the construction of Production Well Nos. 1 and 2 consisted of lithologic logging of the formation cuttings, geophysical logging, and a step drawdown test. This testing program was performed to characterize the hydrogeology of the geologic units encountered during construction of the well. Data obtained from testing was used to select casing seat depths and identify transmissive zones with desirable water quality for use as a water supply.

## 4.2 Lithologic Sampling

Composite formation samples were collected during pilot hole drilling operations every 10 feet from land surface to the total depth of the well. Each sample was characterized for rock type, color, grain sizes and types, degree of induration, accessory constituents, fossil types and observed macroporosity. Lithologic sampling aided in understanding the overall physical characteristics of formations penetrated during drilling. Detailed lithologic logs are presented in **Appendix E**.

## 4.3 Geophysical Logging

### 4.3.1 Geophysical Log Definitions

The following definitions are provided to clarify what information is provided by specific standard geophysical logs:

**Caliper**: The caliper log measures the diameter of a borehole. The caliper log can provide information on structural features of a lithology, the consistency of the borehole diameter, washouts, swelling clays, and rock obstructions. Secondary porosity features, such as fractures and solution features may be apparent on the caliper log. This log may also provide information concerning the general mechanical strength of the formation.

**Gamma Ray**: The gamma ray log measures natural gamma radiation produced by the decay of Uranium daughter products in formation material. Rock formations that typically contain these products include clay and phosphate. These components are important to identifying and correlating geologic formations within and between wells, and yield information about the origins of formational layers.

**Electric**: Electric logs with short and long normal resistivity are used for identifying lithology and water quality changes. The short normal resistivity log measures the resistivity of the formation material and groundwater close to the borehole, while the long normal resistivity log depicts the electrical properties of the formation and groundwater deep into the formation.

**Spontaneous Potential** : The Spontaneous Potential (SP) log measures natural electrical potential differences between the formation and borehole fluids. Formation thickness, relative intrinsic permeability, and correlation of geologic units may be determined with this log.

**Borehole Compensated Sonic with Variable Density**: The BHCS log measures the travel time of sonic pulses to determine competency of the borehole. This log is strongly affected by porosity and the

mechanical strength of the formation. The more porous the borehole wall, the slower the travel time of the acoustic signal. The VDL provides a visual representation of the borehole along with important information about fractures and solution features, and the relative density of the formation.

**Fluid Conductivity and Temperature**: The FCT log provides information on water quality related to salinity of the groundwater. It can also measure the characteristics and movement of groundwater within the borehole under static and dynamic flowing conditions.

**Flowmeter**: The flowmeter log measures the rate of fluid movement in the borehole. The flowmeter can detect "crossflow", or water moving from one horizon to another due to pressure differentials, as well as identify producing intervals when the well is being pumped.

**Video**: The video log is used to verify the casing integrity (including joins and welds), provide visual evidence of the physical conditions of the borehole such as changes in lithology, voids and fractures or characteristics of the rock, such as, texture and porosity. In addition, the video log can verify information obtained from the geophysical logs.

**Cement Bond Log**: Cement bond logs are used to verify the presence of grout behind the well casing to determine the quality of the cement bond to the casing and formation.

## 4.3.2 Geophysical Logging Program

Rowe contracted with Colog to provide geophysical and video logging services. Geophysical logging was performed to assess the lithological and hydrogeological properties of the various formations penetrated during drilling, determine optimum casing seat depths, and examine the seal provided by the casing and grouting program. Geophysical logs were completed in the pilot hole after each stage of pilot hole drilling and in the reamed borehole before casing installation. The logs provide a continuous record of the geophysical properties of the subsurface formations and formation fluids within the borehole. The geophysical logging program for Production Well Nos. 1 and 2 are summarized in **Tables 4.1** and **4.2**, respectively, the geophysical logs are presented in digital format in **Appendix F** and the video logging is summarized in **Appendix G**.

## 4.3.3 Geophysical Log Interpretations

### 4.3.3.1 Production Well No. 1

The results of the geophysical logging performed in Production Well No. 1 are summarized in **Tables 4.3** through **4.11.**

The CBL performed on the 17.4-inch OD PVC final casing demonstrates good bonding over the entire length of the interval.

### 4.3.3.2 Production Well No. 2

The results of the geophysical logging performed in Production Well No. 2 are summarized in **Tables 4.12** through **4.20**.

The CBL performed on the 17.4-inch OD PVC final casing demonstrates good bonding over the entire length of the interval.

**Table 4.1 Production Well No. 1 Geophysical Logging Program**

| Date | Logged Interval (feet bls) | XY-Caliper | Gamma Ray | Borehole Compensated Sonic | Cement Bond Log | Electric | Fluid Temperature | Fluid Resistivity | Flowmeter | Video Survey Log | Purpose |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 5/31/2024 | 10 – 67 | X | X | | | X | | | | | 12.25-inch Diameter Pilot Hole to 67 feet bls |
| 9/3/2024 | 67 – 222 | X | X | | | | | | | | Nominal 22-inch Diameter Reamed Hole to 222 feet bls |
| 9/16/2024 to 9/18/2024 | 222 – 450 | X | X | X | X | X | X | X | X | X | 11-inch Diameter Pilot Hole to 450 feet bls |
| 1/17/2025 to 1/18/2025 | 222 – 450 | X | | | | | | | | X | Nominal 15-inch Diameter Reamed Hole to 450 feet bls |

**Table 4.2 Production Well No. 2 Geophysical Logging Program**

| Date | Logged Interval (feet bls) | XY-Caliper | Gamma Ray | Borehole Compensated Sonic | Cement Bond Log | Electric | Fluid Temperature | Fluid Resistivity | Flowmeter | Video Survey Log | Purpose |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 6/24/2024 | 10 – 62 | X | X | | | X | | | | | 12.25-inch Diameter Pilot Hole to 62 feet bls |
| 10/25/2024 to 10/28/2024 | 62 – 228 | X | X | | | | | | | | Nominal 22-inch Diameter Reamed Hole to 228 feet bls |
| 11/20/2024 to 12/6/2024 | 228 – 450 | X | X | X | X | X | X | X | X | X | 11-inch Diameter Pilot Hole to 450 feet bls |
| 1/17/2025 to 1/18/2025 | 228 – 450 | X | | | | | | | | X | Nominal 15-inch Diameter Reamed Hole to 450 feet bls |

**Table 4.3 Well No. 1 - 12.25-Inch Diameter Pilot Hole to 450 Feet bls XYC**

| Depth Interval (feet bls) | XYC (inches) | Comments |
|---|---|---|
| 20-220 | 24 | Small wash out |
| 22-28 | 14 | Trends towards bit size with depth |
| 28-33 | 24 | Large washout |
| 33-50 | 13 | Generally close to bit diameter |
| 196-222 | 24 | Generally close to bit diameter |
| 222-240 | 13 | Generally close to bit diameter with a small washout directly below the base of the 17.4-inch OD PVC casing |
| 240-306 | 17 | Borehole diameter increases gradually with depth; minor washouts |
| 306-322 | 14 | Borehole diameter decreases with depth |
| 322-450 | 13 | Generally close to bit diameter with occasional large voids. Voids occur between 348 feet to 360 feet, 397 feet to 399 feet, 422 feet to 426 feet bls |

*Note: Values approximated over depth interval*

**Table 4.4 Well No. 1 - 12.25-Inch Diameter Pilot Hole to 450 Feet bls GR**

| Depth Interval (feet bls) | GR (CPS) | Comments |
|---|---|---|
| 0-18 | 15 | Consistent, moderately low activity |
| 18-27 | 22 | Increase in activity, peak at 25 CPS |
| 27-34 | 17 | Moderately low activity |
| 34-48 | 25 | Consistent, moderate activity |
| 48-86 | 35 | Consistent, moderate activity, possibly top of Hawthorn |
| 86-96 | 50 | Large increase in activity, peak at 75 CPS |
| 96-126 | 25 | Activity fluctuates but remains moderate |
| 126-240 | 15 | Low to moderately low activity, activity decreases with depth. Spikes in activity at 182 feet and 196 feet bls interpreted to be the bottom of the Hawthorn |
| 240-252 | 12 | Moderately low activity, activity increases with depth |
| 252-254 | 10 | Low activity |
| 254-330 | 25 | Moderate activity, activity fluctuates |
| 330-360 | 35 | Activity fluctuates greatly. Spikes at 338 feet and 352 feet |
| 360-450 | 15 | Relatively stable, moderately low activity |

*Note: Values approximated over depth interval*

**Table 4.5 Well No. 1 - 12.25-Inch Diameter Pilot Hole to 450 Feet bls BHCS**

| Depth interval (feet bls) | DT (µsec/ft) | Sonic Porosity | Comments |
|---|---|---|---|
| 220-250 | 80 | 35 | Porosity and DT decrease to 236 feet bls then increase to 240 feet bls |
| 250-324 | 140 | 65 | Porosity and DT stable and moderately late |
| 324-350 | 60 | 35 | Significant and abrupt decrease to very low values on both curves |
| 350-380 | 140 | 65 | Porosity and DT stable and moderately late, possible void space or cavern |
| 380-400 | 10 | 10 | Porosity decreases to very low values |
| 400-418 | 30 | 40 | Both curves relatively stable and low |
| 418-426 | 45 | 60 | Abrupt increase in both curves to moderate values |
| 426-450 | 15 | 15 | Both curves relatively stable and low to moderately low |

*Note: Values approximated over depth interval*

**Table 4.6 Well No. 1 - 12.25-Inch Diameter Pilot Hole to 450 Feet bls VDL**

| Depth Interval (feet bls) | Comments |
|---|---|
| 220-250 | Early arrival times suggest dense, low porosity rock |
| 250-324 | Stable, moderate arrival times suggest less dense, higher porosity rock |
| 324-350 | Abrupt decrease in arrival times suggest lithology change |
| 350-380 | Decrease in arrival times, relatively stable, moderate arrival times |
| 380-400 | Decrease to very early arrival times suggest lithology change and dense low porosity rock |
| 400-418 | Slight increase in arrival times |
| 418-426 | Arrival times increase, suggest less dense rock with higher porosity |
| 426-450 | Arrival times decrease to very early then increase to moderately early |

*Note: Values approximated over depth interval*

**Table 4.7 Well No. 1 - 12.25-Inch Diameter Pilot Hole to 450 Feet bls Electric Log**

| Depth Interval (feet bls) | Comments |
|---|---|
| 0-28 | 64” resistivity moderately high, 16” resistivity moderately low, both curves relatively stable |
| 28-60 | Both curves decrease with depth quickly to low resistivity |
| 220-380 | All curves track relatively close together; resistivity slightly decreases. Spike in resistivity seen at 336 feet bls |
| 380-450 | All three curves increase to moderately high resistivity, some fluctuation, relatively stable |

*Note: Values approximated over depth interval*

**Table 4.8 Well No. 1 - 12.25-Inch Diameter Pilot Hole to 450 Feet bls SP**

| Depth Interval (feet bls) | Comments |
|---|---|
| 0-22 | Moderately low activity, increases with depth |
| 22-24 | Increase to moderately high activity |
| 24-60 | Stable, moderately high activity |
| 220-330 | Relatively stable and moderate activity |
| 330-360 | Gradual increase wit depth |
| 360-450 | Stable, moderate activity |

*Note: Values approximated over depth interval*

**Table 4.9 Well No. 1 - 12.25-Inch Diameter Pilot Hole to 450 Feet bls Static/Dynamic Fluid Conductivity**

| Depth interval (feet bls) | Static FC (µS/cm) | Dynamic FC (µS/cm) | Comments |
|---|---|---|---|
| 220- 226 | 600 | 750 | Static FC decreases with depth, Dynamic FCT stable |
| 226-252 | 500 | 750 | Both curves stable over interval |
| 252-294 | 600 | 750 | Static FC increases gradually with depth, Dynamic FC stable |
| 294-316 | 700 | 750 | Static FC increases in steps at 294 feet, 306 feet and 315 feet bls. Dynamic FC stable |
| 316-391 | 950 | 850 | Static FC increases slightly with depth, Dynamic FC increases between 352 feet and 358 feet bls and is stable over remainder of interval |
| 391-398 | 950 | 900 | Static FC stable, Dynamic FC increases over interval |
| 398-450 | 1,050 | 1,000 | Both curves increase gradually to bottom of pilot hole |

*Note: Values approximated over depth interval*

**Table 4.10 Well No. 1 - 12.25-Inch Diameter Pilot Hole to 450 Feet bls Static/Dynamic Temperature**

| Depth interval (feet bls) | Static Temp (°C) | Dynamic Temp (°C) | Comments |
|---|---|---|---|
| 220-450 | 25.5 | 24.5 | Static Temp decreases slightly below the bottom of the 17-4-inch OD PVC final casing between 220 feet and 240 feet bls, is stable to remainder of the interval. Dynamic Temp stable over interval |

*Note: Values approximated over depth interval*

**Table 4.11 Well No. 1 - 12.25-Inch Diameter Pilot Hole to 450 Feet bls Flow Analysis**

| Depth interval (feet bls) | Static Flow | Dynamic Flow (1,400 gpm) |
|---|---|---|
| 220-235 | Minimal flow | Flow increases |
| 235-306 | Minimal flow | Flow decreases gradually with depth |
| 306-320 | Minimal flow | Flow increases slightly and is stable |
| 320-350 | Minimal flow | Flow increases and is stable |
| 350-360 | Minimal flow | Most productive interval at 498 gpm |
| 360-390 | Minimal flow | Some fluctuation, Flow is relatively stable |
| 390-450 | Minimal flow | Flow decreases is relatively stable |

*Note: Values approximated over depth interval*

**Table 4.12 Well No. 2 - 12.25-Inch Diameter Pilot Hole to 450 Feet bls XYC**

| Depth Interval (feet bls) | XYC (inches) | Comments |
|---|---|---|
| 0-26 | 16 | Generally close to bit diameter |
| 26-30 | 22 | Small washout |
| 30-78 | 17 | Irregular borehole with many small fluctuations in diameter |
| 122-139 | 18 | Generally close to bit diameter with one washout between 128 feet and 130 feet bls |
| 139-152 | 25 | Diameter increases, possible moderately large void |
| 152-182 | 16 | Generally close to bit diameter with stable borehole diameter |
| 182-212 | - | Large washout, larger than the diameter of the XYC tool; maximum extent between 205 feet and 210 feet bls |
| 212-224 | 25 | Borehole diameter decreases with depth |
| 224-230 | 15 | Small washout below the base of the 17.4-inch OD PVC final casing |
| 230-248 | 12 | Generally close to bit diameter, stable borehole diameter |
| 248-284 | 22 | Sequence of moderate diameter washouts/voids and intervals close to bit diameter. Largest washouts at 256 feet, 269 feet and 279 feet bls |
| 284-312 | 12 | Close to bit diameter, stable borehole diameter |
| 312-340 | 16 | Washout/void at 313 feet bls, borehole diameter generally decreases with after void |
| 340-351 | 12 | Close to bit diameter, stable borehole diameter |
| 351-376 | 30 | Sequence of large diameter washout/voids, possible caverns. Largest at 356 feet, 368 feet and 375 feet bls |
| 376-450 | 14 | Generally close to bit diameter, stable borehole diameter |
| 0-26 | 16 | Generally close to bit diameter |
| 26-30 | 22 | Small washout |
| 30-78 | 17 | Irregular borehole with many small fluctuations in diameter |
| 122-139 | 18 | Generally close to bit diameter with one washout between 128 feet and 130 feet bls |

*Note: Values approximated over depth interval*

**Table 4.13 Well No. 2 - 12.25-Inch Diameter Pilot Hole to 450 Feet bls GR**

| Depth Interval (feet bls) | GR (CPS) | Comments |
|---|---|---|
| 0-62 | 60 | Activity fluctuates from moderately low to moderate, and generally increases with depth. Spikes at 10 feet, 19 feet, 35 feet, 42 feet and 57 feet bls |
| 62-76 | 35 | Stable, moderate activity |
| 76-92 | 70 | Large fluctuation in activity, spike at 84 feet bls at 75 CPS, smaller spike seen at 91 feet bls. Possible top of Hawthorn |
| 92-182 | 25 | Activity decreases with depth from moderate to very low |
| 182-200 | 35 | Activity increases to moderately low and moderate, fluctuates. Possible bottom of Hawthorn |
| 200-210 | 20 | Activity decreases to very low |
| 210-334 | 25 | Activity decreases with depth, fluctuates gradually between very low and moderately low |
| 334-350 | 25 | Activity becomes more consistently moderate |
| 350-360 | 20 | Activity fluctuations between low to moderately low |
| 360-370 | 30 | Low activity |
| 370-384 | 20 | Activity decreases with depth |
| 384-414 | 20 | Activity increases and fluctuates gradually at moderately low levels |
| 414-450 | 10 | Very low activity |

*Note: Values approximated over depth interval*

**Table 4.14 Well No. 2 - 12.25-Inch Diameter Pilot Hole to 450 Feet bls BHCS**

| Depth interval (feet bls) | DT (µsec/ft) | Sonic Porosity (pu) | Comments |
|---|---|---|---|
| 226-234 | 90 | 67 | Porosity and DT decrease to 228 feet bls then increase to 234 feet bls |
| 234-252 | 80 | 25 | Porosity and DT stable and moderately low |
| 252-330 | 130 | 60 | Porosity and DT both increase and remain relatively stable over interval |
| 330-346 | 105 | 35 | Porosity and DT both decrease then increase abruptly |
| 346-374 | 135 | 160 | Porosity and DT relatively stable and moderately high, possible void space or cavern |
| 374-392 | 90 | 35 | Porosity and DT quickly drop to very low values then spike to moderately high values then drop again to very low values |
| 392-422 | 40 | 10 | Porosity and DT very low and increase slightly with depth |
| 422-438 | 130 | 60 | Porosity and DT increase to moderate to moderately high values and decrease slightly with depth |

*Note: Values approximated over depth interval*

**Table 4.15 Well No. 2 - 12.25-Inch Diameter Pilot Hole to 450 Feet bls VDL**

| Depth Interval (feet bls) | Comments |
|---|---|
| 226-234 | Early arrival times suggest dense, low porosity rock |
| 234-386 | Stable, moderately late arrival times suggest less dense, higher porosity rock |
| 386-422 | Abrupt decrease in arrival times suggest lithology change |
| 422-440 | Increase in arrival times |

*Note: Values approximated over depth interval*

**Table 4.16 Well No. 2 - 12.25-Inch Diameter Pilot Hole to 450 Feet bls Electric Log**

| Depth Interval (feet bls) | Comments |
|---|---|
| 20-65 | Resistivity increases with distance from the borehole, all three curves decrease with depth from very high to very low resistivity values |
| 120-136 | Resistivity increases with distance from the borehole, all three curves moderately resistive and relatively stable |
| 136-220 | All curves track relatively close together; resistivity greatly decreases. Spike in resistivity seen at 189 feet bls |
| 224-243 | 64” resistivity stable and greater, 16” resistivity decreases with depth |
| 243-360 | All curves low resistivity and relatively stable. Minor spike at 343 feet bls |
| 360-398 | Resistivity increases with depth to very high values at 398 feet bls |
| 398-450 | Resistivity decreases with depth to moderately low values |

*Note: Values approximated over depth interval*

**Table 4.17 Well No. 2 - 12.25-Inch Diameter Pilot Hole to 450 Feet bls SP**

| Depth Interval (feet bls) | Comments |
|---|---|
| 20-22 | Moderately low activity |
| 22-42 | Increase with depth to moderately activity |
| 42-65 | Activity increases gradually with depth |
| 122-139 | Relatively stable, moderate activity, increases with depth |
| 139-224 | Stable, moderate activity, decreases slightly with depth |
| 224-250 | Increase with depth to moderately high activity |
| 250-450 | Relatively stable moderately high activity |

*Note: Values approximated over depth interval*

**Table 4.18 Well No. 2 - 12.25-Inch Diameter Pilot Hole to 450 Feet bls Static/Dynamic Fluid Conductivity**

| Depth interval (feet bls) | Static FC (µS/cm) | Dynamic FC (µS/cm) | Comments |
|---|---|---|---|
| 224- 360 | 525 | 550 | Static and Dynamic FC stable |
| 360-377 | 650 | 600 | Abrupt increase in Static FC between 360 feet and 362 feet bls. Dynamic FC increases between 360 feet and 377 feet bls |
| 377-450 | 700 | 650 | Static FC increases gradually with depth, short decrease between 440 feet and 443 feet bls. Dynamic FC increases gradually with depth, short decrease between 445 feet and 448 feet bls |

*Note: Values approximated over depth interval*

**Table 4.19 Well No. 2 - 12.25-Inch Diameter Pilot Hole to 450 Feet bls Static/Dynamic Temperature**

| Depth interval (feet bls) | Static Temp (°C) | Dynamic Temp (°C) | Comments |
|---|---|---|---|
| 224-450 | 25.5 | 25 | Static temp decreases slightly, Dynamic temp stable |

*Note: Values approximated over depth interval*

**Table 4.20 Well No. 2 - 12.25-Inch Diameter Pilot Hole to 450 Feet bls Flow Analysis**

| Depth interval (feet bls) | Static Flow | Dynamic Flow (1,400 gpm) |
|---|---|---|
| 224-232 | No flow | Flow decreases to minimal |
| 232-236 | No flow | Flow increases greatly to moderately high |
| 236-246 | No flow | Flow decreases slightly with depth |
| 246-280 | No flow | Flow decreases with depth to minimal |
| 280-330 | No flow | Minimal flow, relatively stable |
| 330-344 | No flow | Flow increases greatly to moderately high |
| 344-354 | Flow out of the borehole at 17 gpm | Flow decreases to minimal |
| 354-363 | Flow out of the borehole at 17 gpm | Flow increases to 1,028 gpm, most productive interval |
| 363-380 | Flow out of the borehole increases to 26 gpm | Flow decreases to minimal |
| 380-430 | Flow into the borehole at 11 gpm | Low flow |
| 430-450 | Flow into the borehole at 32 gpm | Low increases slightly to 40 gpm, remains relatively low |

*Note: Values approximated over depth interval*

# 4.4 Step Drawdown Testing

## 4.4.1 Well Development

Production Well Nos. 1 and 2 were developed by surging and uninterrupted over-pumping using a temporarily supplied vertical turbine pump at a rate of approximately 1,400 gpm. Development occurred between September 30, 2024, and November 8, 2024, on Well No. 1 and between December 12, 2024, and December 13, 2024, at Well No. 2. The well was developed until the produced water met well development criteria of a turbidity <1 NTU, and substantially free of sand (<5 milligrams per liter [mg/L] calculated from a Rossum Sand Tester).

## 4.4.2 Specific Capacity Results

At the completion of well development, a step drawdown test was performed to determine well performance and aquifer characteristics. The test consisted of an approximately 8-hour step drawdown test at approximately 75, 100, and 150 percent of the design capacity of the production well (1,500 gpm). The test was conducted in series without interruption, increasing the pumping rates in stages. Water levels were determined to the nearest 0.01 foot utilizing an In-Situ Level Troll data logger and field verified using an electric water level probe. The results of the step drawdown test are summarized in **Tables 4.21** and **4.22**. All measurements were taken in stilling wells (one for the data logger and one for manual measurements), which were set at the top of casing.

The specific capacity of a well is the rate of discharge of water per unit of drawdown and is expressed in gallons per minute per foot (gpm/ft). As Tables 4.21 and 4.22 show, specific capacity slightly varies with increasing pumping rates; this change is due to increasing frictional well loss. The average specific capacity from all three steps at Well No.1 is 934.92 gpm/ft and 2,281.38 gpm/ft at Well No. 2.

**Table 4.21 Specific Capacity and Step Test Summary for Production Well No. 1**

| Pumping Rate (gpm) | Time (min) | Percentage of Design Capacity | Drawdown (ft) | Specific Capacity (gpm/ft) |
|---|---|---|---|---|
| **Static water Level: 111.0 feet bls** | | | | |
| 1,092 | 130 | 73 | 0.9 | 1,220.11 |
| 1,484 | 187 | 99 | 1.6 | 925.19 |
| 2,138 | 178 | 143 | 3.2 | 659.47 |
| | | | **Average Specific Capacity** | **934.92** |

**Table 4.22 Specific Capacity and Step Test Summary for Production Well No. 2**

| Pumping Rate (gpm) | Time (min) | Percentage of Design Capacity | Drawdown (ft) | Specific Capacity (gpm/ft) |
|---|---|---|---|---|
| **Static Water Level: 110.94** | | | | |
| 1,042 | 120 | 69 | 0.4 | 2,909.5 |
| 1,578 | 185 | 105 | 0.7 | 2,152.8 |
| 1,944 | 204 | 130 | 1.1 | 1,781.85 |
| | | | **Average Specific Capacity** | **2,281.38** |

## 4.4.3 Transmissivity Solution and Well Loss Calculation

Transmissivity, the ability of an aquifer to transmit water, of the open hole section of the well can be estimated from specific capacity (Driscoll, 1986) in confined aquifers as follows:

$$Transmissivity\ (gpd/ft) = Specific\ Capacity\ (gpm/ft) * 2{,}000$$

From this relationship, using an average specific capacity of 934.92 gpm/ft for Well No. 1 and 2,281.38 gpm/ft for Well No. 2, approximate transmissivity results for Well No.1 are calculated at 1,869,840 gallons per day per foot (gpd/ft; 249,978 ft2/day) and 4,562,760 gpd/ft for Well No. 2. (609,994 ft2/day).

The recovery data following the final step of the step drawdown test was analyzed using the Theis step drawdown test method (Theis, 1935) for confined aquifers to accurately calculate transmissivity. Additionally, well loss calculations were performed using the Jacob-Rorabaugh method (Jacob-Rorabaugh, 1953).

During the recovery phase of the step drawdown test at Well No. 1, water levels rebounded to above static conditions. This could have occurred due to regional fluctuations within the aquifer during that time interval. Due to this over recovery, a value of 1 was added to the water levels measured by the data logger. This was done to correctly calculate transmissivity using the Theis step drawdown test method. The transmissivity results were calculated to be 1,878,000 gpd/ft. This result was compared to the transmissivity estimate using the Driscoll (1986) method for confined aquifers for validation. Comparison of the two values indicates that the analysis method is appropriate, and the results are valid and match closely.

Transmissivity results for Well No. 2 using the Theis step drawdown method were calculated to be 5,161,000 gpd/ft. This result was compared to the transmissivity estimate using the Driscoll (1986) method for confined aquifers for validation. While the Driscoll method can underestimate transmissivity values, the Theis step drawdown method can provide a more refined approach. Although comparison of the two values for Well No. 2 indicate different results, possibly an underestimation and an overestimation, they are both valid and both indicate a highly productive well.

Well loss is the additional drawdown in the well due to turbulent flow and other factors not related to the aquifer properties. The Jacob-Rorabaugh method was used to separate the total drawdown into aquifer loss and well loss components and determine the well efficiency. The well efficiency is defined as the ratio of the aquifer loss to the total drawdown, expressed as a percentage. Due to the extremely high yield of both wells, well loss is negligible.

The step drawdown test aquifer analysis for transmissivity using Theis for confined aquifers is presented in **Appendix H**.

## 4.4.4 Groundwater Quality Results

Groundwater samples were collected during step drawdown testing and analyzed by personnel from an FDEP certified laboratory (Advanced Environmental Laboratories (AEL), of Jacksonville, FL). Samples collected for Primary and Secondary Drinking Water parameters (primary inorganic contaminants, secondary contaminants, volatile organic contaminants, pesticides and PCBs, radionuclides) were handled by AEL in accordance with Chapter 391-3-5.18 and .19 of Georgia's Primary and Secondary Drinking Water Standards. Groundwater samples were also lab-analyzed for other parameters including total iron, pH, and total sulfides.

### 4.4.4.1 Field and Laboratory Parameters

On December 17, 2024, groundwater samples from Production Well 1 and on January 3, 2025, ground water samples from Production Well 2 were collected at the end of each of three steps of testing and were field analyzed by CDM Smith personnel for temperature, pH, conductivity, and turbidity. All field parameters remained stable for the duration of the test. **Tables 4.23** and **4.24** presents a summary of the field analytical results.

**Table 4.23 Production Well 1 Specific Capacity and Step Test Sumary Field Analytical Results**

| Step No. | Flow Rate (gpm) | % of Design Capacity | Water Level (ft bls) | Drawdown (ft) | Specific Capacity (gpm/ft) | Conductance (µS) | TDS (mg/L) | pH | Temp. (deg. F) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Sand Content (ppm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,092 | 73% | 111.90 | 0.9 | 1,220.11 | 190.8 | 248.0 | 8.36 | 63.77 | 0.8 | 2.16 | 0 |
| 2 | 1,484 | 99% | 112.60 | 1.6 | 925.19 | 217.6 | 282.8 | 8.14 | 68.45 | 2.94 | 3.71 | 0 |
| 3 | 2,138 | 143% | 114.20 | 3.2 | 659.47 | 186.1 | 242.0 | 8.20 | 70.97 | 2.5 | 2.08 | 0.15 |

**Table 4.24 Production Well 2 Specific Capacity and Step Test Sumary Field Analytical Results**

| Step No. | Flow Rate (gpm) | % of Design Capacity | Water Level (ft bls) | Drawdown (ft) | Specific Capacity (gpm/ft) | Conductance (µS) | TDS (mg/L) | pH | Temp. (deg. F) | Turbidity (NTU) | Dissolved Oxygen (mg/L) | Sand Content (ppm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1,042 | 69% | 111.30 | 0.4 | 2909.5 | 382 | 501 | - | 61.5 | 2.01 | 4.17 | 0.07 |
| 2 | 1,578 | 105% | 111.67 | 0.7 | 2,152.8 | 284 | 138 | - | 64.9 | 0.24 | 4.68 | 0.03 |
| 3 | 1,944 | 130% | 112.03 | 1.1 | 1,781.85 | 275 | 129 | - | 66.7 | 1.99 | 4.27 | 0.4 |

### 4.4.4.2 Primary and Secondary Drinking Water Standards

On November 7, 2024, groundwater samples from Production Well 1 and on January 7, 2025, ground water samples from Production Well 2 and analyzed for Georgia's primary and secondary drinking water standards as well as metals, hardness, alkalinity, conductance, PFOA and PFOS. The results of all lab analyses are provided in **Appendix I**. In summary, all parameters were either at or below their maximum contaminant level specified in Chapter 391-3-5.18 and .19 of Georgia's Primary and Secondary Drinking Water Standards.

### 4.4.4.3 MPA Sampling

From November 25, 2024, to November 26, 2024, Well No. 1 underwent MPA sampling and from January 7, 2025, to January 8, 2025, Well No. 2 underwent MPA sampling. Samples for MPA are collected by passing water through a cartridge filter with a nominal pore size of 1 micrometer (µm). In the laboratory, particles trapped on the cartridge filter are washed from the filter, concentrated to a small volume, and observed at 100 to 1,000 magnification using light microscopy. Comparing the particles in a water treatment plant's raw water and filtered water provides one tool in assessing the effectiveness of treatment and the ability to remove Giardia-sized and Cryptosporidium-sized material. The method is also used to detect surface water microorganisms in a groundwater source.

The MPA sampling procedure requires that the wells pump at normal flow rates (approximately 2.2 mgd) continuously for 12–24 hours. The sampling dates and total flow volume through the MPA apparatus for each well are presented below in **Table 4.25.** After laboratory analysis, Well Nos. 1 and 2 both received a score of 0: Low Risk per EPA Consensus Method. Complete laboratory results are included in Appendix I Laboratory Analysis Results.

**Table 4.25 Production Well Nos. 1 and 2 MPA Sampling Summary**

| Well No. | Dates of Sampling | Total Groundwater Volume Through MPA Apparatus (gal) | Flowrate During MPA Sampling (gpm) |
|---|---|---|---|
| No. 1 | 11/25/2024-11/26/2024 | 610 | 1,500 |
| No. 2 | 1/7/2025-1/8/2025 | 501 | 1,500 |

# 5.0 Summary and Conclusions

Construction of Production Well Nos. 1 and 2 was completed in February 2025. Based on geophysical logging, step drawdown testing, and groundwater analyses conducted on the well between December 2024, and February, 2025, the following conclusions regarding Production Well Nos. 1 and 2 were made:

- Results of geophysical logging and lithologic sample collection indicated that at this site, the Intermediate Confining Unit within the Hawthorn Formation ends, and the UFA begins at approximately 140 feet bls. Production Well No. 1 was appropriately cased to a depth of 218 feet bls and completed to a total depth of 450 feet bls. Production Well No. 2 was appropriately cased to a depth of 224 feet bls and completed to a total depth of 450 feet bls. The CBLs indicated that the well was sufficiently grouted and sealed. Based on other geophysical logs, Production Well Nos. 1 and 2 were installed satisfactorily per contract documents.
- During step testing, Production Well No. 1 was found to have an average specific capacity of 934.92 gpm/ft equating to a transmissivity of approximately 1,869,840 gpd/ft (249,978 ft2/day), and Production Well No. 2 was found to have an average specific capacity of 2,281.38 gpm/ft equating to a transmissivity of approximately 4,562,706 gpd/ft (609,994 ft2/day).
- Water quality was generally consistent throughout the borehole with no significant change of water quality with depth.
- Using the color video log, casing joints were observed to be properly flush with good seals and the open hole was clear without obstruction to the well's total depth.
- Based on the primary and secondary groundwater drinking standards sampling results, all parameters were either at or below their maximum contaminant level specified in (Chapter 391-3-5.18 and .19)
- Results of MPA sampling at Production Well Nos. 1 and 2 resulted in a score of 0: Low Risk per EPA Consensus Method.

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# 6.0 References

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Mills, J.M., and Polematidis, Y., 2023. *Technical Memorandum: Test Well Summary of Results.* CDM Smith.

Rorabaugh, M.J., 1953. *Graphical and Theoretical Analysis of Step-Drawdown Test of Artesian Well*, Proc. Amer. Soc. Civil Engrs., Vol. 79, separate no. 362, 23 pp.

Theis, C.V., 1935. *The Relation between the Lowering of the Piezometric Surface and the Rate and Duration of Discharge of a Well Using Ground-Water Storage*. American Geophysical Union Transactions, Vol. 16, Part 2, pp. 519–524.

U.S. Environmental Protection Agency, 1992. *Consensus Method for Determining Groundwater Under the Influence of Surface Water Using Microscopic Particulate Analysis (MPA)*. EPA 910/9-92-029.

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# Appendix A Permit

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

**Jeffrey W. Cown, Director**

**Southwest District**
2024 Newton Road
Albany, Georgia 31701
229-430-4144

November 14, 2023

Honorable Scott Matheson
City of Valdosta
sjmatheson@valdostacity.com

RE: **Permission to Drill Well #11 (Source 132) & Well #12 (Source 133)**
Valdosta Water System (WSID# 1850002)
Lowndes County, Georgia

Dear Mayor Matheson:

Plans and specifications for the above referenced project, submitted by CDM Smith, Inc., have been reviewed for compliance with the Rules for Safe Drinking Water (Rules) and the Minimum Standards for Public Water Systems v2021 (Minimum Standards). In addition, this office is in receipt of the approved preliminary Wellhead Protection evaluation. This project is hereby approved by the Drinking Water Program of the Environmental Protection Division, contingent upon the following conditions:

1. All pipe, gaskets, materials and related system components in contact with potable water shall be certified for conformance with the American National Standards Institute/National Sanitation Foundation Standard 61 (ANSI/NSF 61).

2. Any pipe, pipe fittings, plumbing fittings or fixtures, solder, or flux used in the installation or repair of a public water system must meet the new definition of lead-free meaning: (a) not containing more than 0.2 percent lead when used with respect to solder; and (b) not more than a weighted average of 0.25 percent lead when used with respect to the wetted surfaces of pipes, pipe fittings, plumbing fittings, and fixtures.

3. If applicable to your site, you must file a Notice of Intent (NOI) with the Division to be covered under the General Permit for Storm Water Discharges Associated with Construction Activities.

The approved project consists of the construction and installation of two (2) new sources of water supply constructed with 16" PVC casing and outer steel surface casings; as an alternative to PVC, 16" stainless steel may be used. Plans for all related treatment, valves, fittings, and appurtenances for the proposed sources of water supply to serve the Valdosta Water System in Lowndes County

will be submitted at a later date. Until such a time that Plan Approval is issued for the plans pertaining to all other appurtenances and construction beginning, the two (2) new sources of supply will need to be adequately and effectively sealed against the entrance of surface water and other contaminants.

This approval is valid for one (1) year from the date of this letter. If the construction has not begun by that date, the Division may choose to reevaluate the project with regard to the Rules and Regulations in effect at that time.

Please be reminded that the construction of the proposed wells must meet all the requirements of the Georgia Rules for Safe Drinking Water, Chapter 391-3-5. In accordance with Section 391-3-5-.05(6) of the Rules:

> "Upon completion of the installation of the public water system or any modification, the Owner must send to the Division a statement from the Engineer who prepared the plans and specifications that the system, as installed, is in accordance with the approved plans and specifications."

One (1) set of plans and specifications has been retained for our files. If you have any questions or concerns, please contact this office at (229) 430-4144.

Sincerely,

Reid Byrd

Reid Byrd
Environmental Engineer

Enclosure(s): Well Completion Data Form

JM

cc: Yanni Polematidis via email (PolematidisIM@cdmsmith.com)
Jason M. Mills via email (MillsJM@cdmsmith.com)
Anant Sriram via email (srirama@cdmsmith.com)
Bradley Eyre via email (beyre@valdostacity.com)
Phillip Walker via email (pwalker@valdostacity.com)
WS File – Lowndes County

# Appendix B Photo Log Well No. 1

# Photo Log

May 29, 2024

## Valdosta WTP No. 2
## Production Well No. 1

CDM Smith





Direct mud rotary drilling through surficial deposits





Gel used in drilling mud and circulation tank




Drilling mud in use

# Photo Log

August 19, 2024

## Valdosta WTP No. 2
## Production Well No. 1

CDM Smith




24 Inch Steel Intermediate Casing



60 feet of 24-inch casing being installed

# Photo Log

August 20, 2024

## Valdosta WTP No. 2
## Production Well No. 1

CDM Smith



Cleaning out drill bit assembly from being clogged with clay



Welding 24-inch intermediate casing to advance with dual rotary method



Drill bit clogged with clay

# Photo Log

September 3, 2024

## Valdosta WTP No. 2
## Production Well No. 1

CDM Smith



Colog geophysical logging truck set-up logging Well No. 1 from 0-222 feet bls

# Photo Log

September 4, 2024

## Valdosta WTP No. 2
## Production Well No. 1

CDM Smith



Cutting the 30-inch OD surface casing down to ground level at Well No.1




The stamp showing the information on the final casing: 17.4-inch OD SDR17 PVC NSF



17.4-inch OD SDR 17 PVC final casing being lifted with top-head drive. A plastic centralizer is installed on the casing



Picture showing the rubber O-ring installed in the female coupling of the 17.4-inch OD PVC casing



Installing the spline on the Certa-Lok casing

# Photo Log

September 16, 2024

## Valdosta WTP No. 2
## Production Well No. 1

CDM Smith



Langdale fuel truck onsite



Refilling black tank onsite with fuel



Sonic log deployed into well from Colog truck



Caliper log getting ready to be deployed into well. Resting at ground surface



Drill cuttings collected for lithologic logging

# Photo Log

September 17, 2024

## Valdosta WTP No. 2
## Production Well No. 1

CDM Smith



Camera tool attached and inside the well. Getting ready to deploy the tool downhole



FLOW Tool being used



Pump attached to piping (pipe farthest left) with cable wires next to piping



Drillers attaching piping to deploy pump



Drillers creating a drainpipe from PVC tubeing; will be used once pump is running

# Photo Log

September 18, 2024

## Valdosta WTP No. 2
## Production Well No. 1

CDM Smith



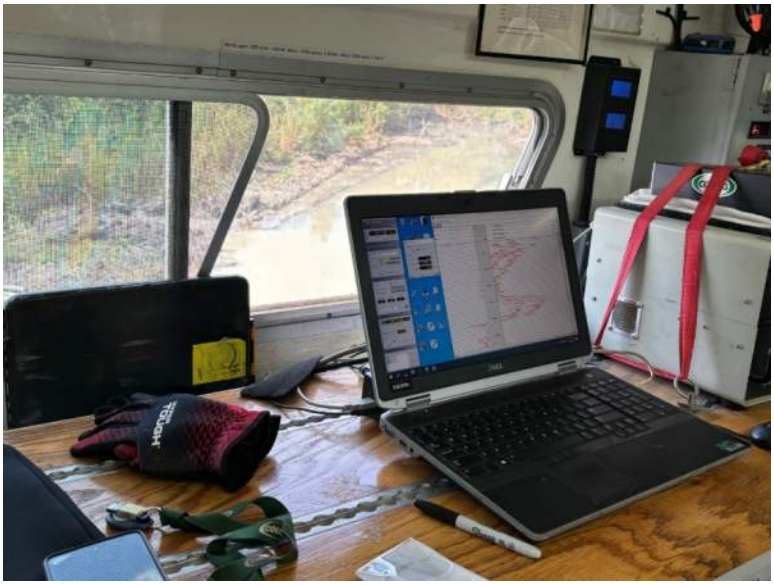

Drillers raising the drainpipe attachment for JG to use logging equipment



Drainage from pumping being directed into field next to well installation (east of well)



PVC drainage pipe attachments to well. JG determining if he can fit logger with pump in well



Dynamic Flow meter geophysical logs presented on computer



Flow meter after being pulled from the well. Brown resin rods are the centralizers attached to the logger.

# Photo Log

November 25, 2024

## Valdosta WTP No. 2
## Production Well No. 1

CDM Smith




Flowrate through discharge line



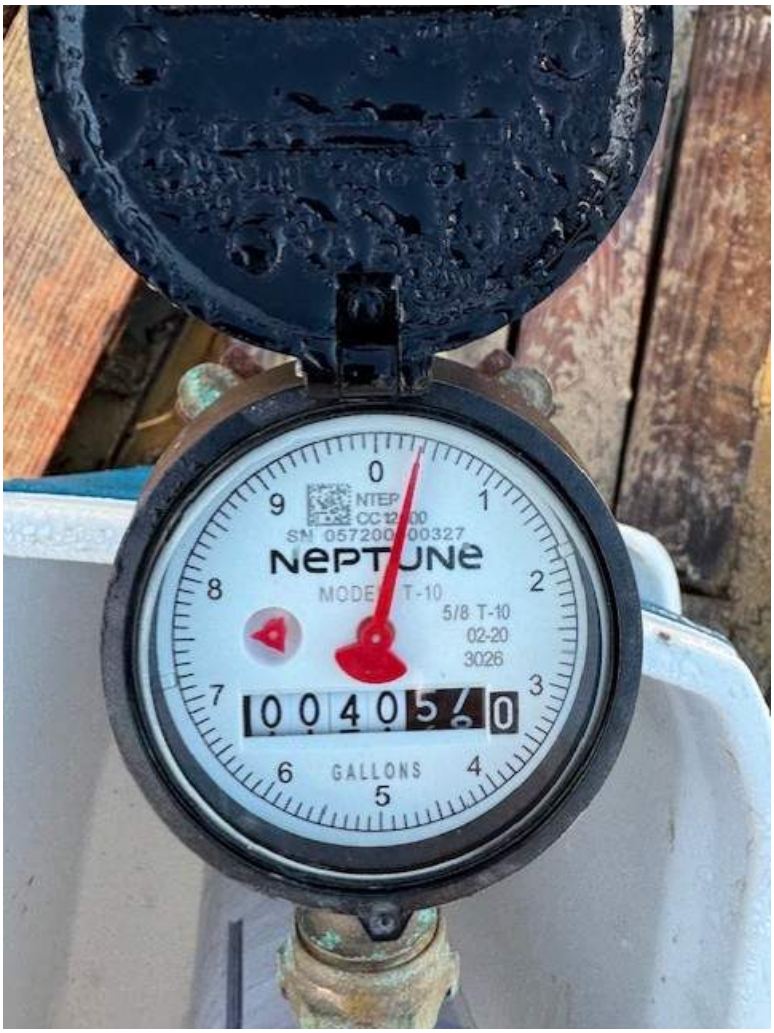

Totalizer on MPA sampling apparatus

# Photo Log

November 26, 2024

## Valdosta WTP No. 2
## Production Well No. 1

CDM Smith




Totalizer through MPA sampling apparatus, final reading

# Photo Log

December 12, 2024

## Valdosta WTP No. 2
## Production Well No. 1

CDM Smith




Initial totalizer reading on flowmeter on discharge line out of well




Sand content in Rossum Sand Tester at end of step drawdown test




Final totalizer reading at end of step drawdown test

# Photo Log

December 17, 2024

## Valdosta WTP No. 2
## Production Well No. 1

CDM Smith




Initial totalizer reading on flowmeter on discharge line out of well



Stilling well set-up during step drawdown test



Sand content in Rossum Sand Tester at end of step drawdown test




Final totalizer reading at end of step drawdown test

# Photo Log

January 17, 2025

## Valdosta WTP No. 2
## Production Well No. 1

CDM Smith



COLOG set up to commence logging the XYC first pass



XYC log first pass



XYC tool after modifications with threaded rod to extend the maximum diameter of the tool



Calibrating the modified XYC tool to 42-inches in diameter



Modified XYC tool with arms open

# Photo Log

January 18, 2025

## Valdosta WTP No. 2
## Production Well No. 1

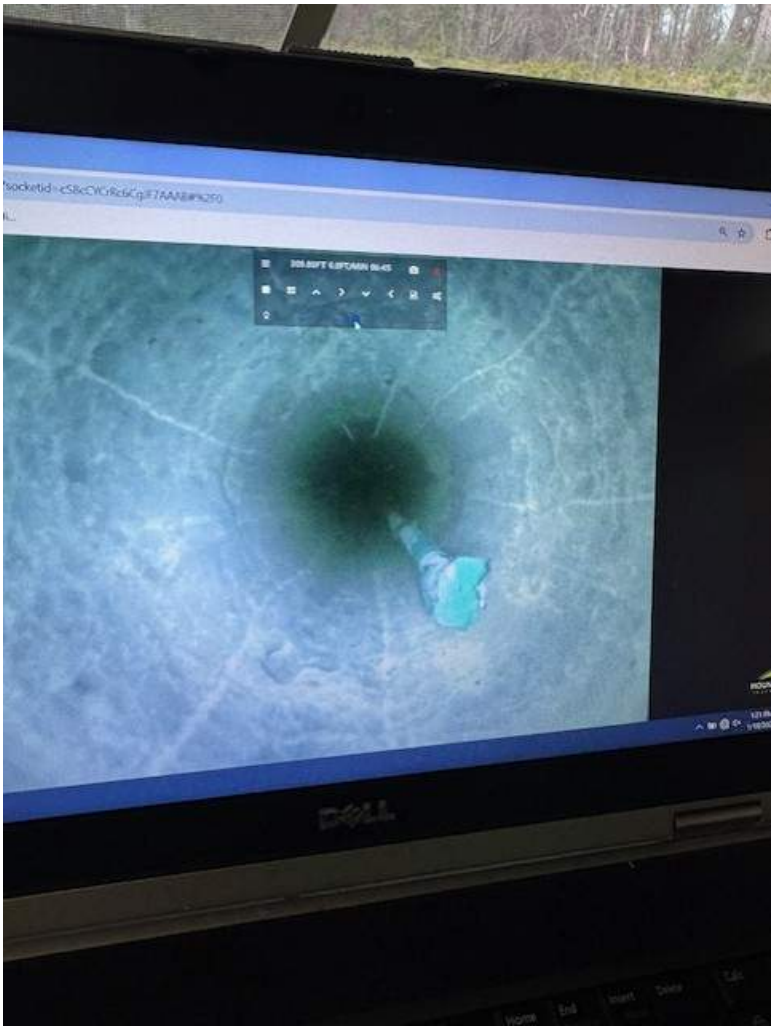
CDM Smith



Tripping in the downhole pump



Dynamic video logging set-up: camera tool and downhole pump both deployed in well



Possible stillwell encountered at approximately 310 feet bls

# Photo Log

January 24, 2025

## Valdosta WTP No. 2
## Production Well No. 1

CDM Smith



Retrieved fallen stilling well



Diameter of discs that will be used for the plumbness and alignment test



15-inch discs welded at beginning of first 20-foot drill pipe single (background) and beginning of second 20-foot drill pipe single (foreground)



15-inch discs welded at end of the second 20-foot drill pipe single

# Photo Log Well No. 2

# Photo Log

October 2, 2024

## Valdosta WTP No. 2
## Production Well No. 2

CDM Smith



Drain line from Well No. 1 for test pumping



Setting up drill rig at Well No. 2

p



Attaching first 24” steel pipe to drill rig



Welding the first and second steel piping together



Deploying down the third and final pipe of the day (60 ft bls)

# Photo Log

October 3, 2024

## Valdosta WTP No. 2
## Production Well No. 2

CDM Smith



Drill rig down and out of the way for crane to arrive onsite



Tab that was attached to pipes by welding for centralizing. (These are what will be removed when the crane pulls casing out)



Drain line is covered with dirt and gravel to create a drive path for vehicles



Generator located at Well No. 1

# Photo Log

October 4, 2024

## Valdosta WTP No. 2
## Production Well No. 2

CDM Smith




Crane onsite and attached holsters to pipe




Crane lifted piping enough to remove pipe in order for drillers to remove tabs



Tri-cone drill bit that will be used after pipe is rewelded to remaining piping in cavity



Ground at Well No. 2 after pumping water out of well

# Photo Log

October 7, 2024

## Valdosta WTP No. 2
## Production Well No. 2

CDM Smith



Re-welded the 4th pipe to the remaining 3 pipes in cavity




Attaching hose to generator so drillers can pump water while drilling



Driller welding tabs onto pipe in cavity. Attached with harness to drill rig



Lifting 4th pipe and attaching to drill rig to be attached to remaining 3 pipes in cavity



Flow meter attached to PVC drain line at Well No. 1

# Photo Log

October 8, 2024

## Valdosta WTP No. 2
## Production Well No. 2

CDM Smith



Second drill crew attaching drain line to well head



Drain line attached to well head. Generator next to well



Driving down 5th pipe

# Photo Log

November 7, 2024

## Valdosta WTP No. 2
## Production Well No. 2

CDM Smith



Driller pilot hole drilling at Well 2




Cuttings sample from 355 feet bls. Greenish gray clay visible



Pilot hole drilling at approximately 420 feet bls

# Photo Log

November 19, 2024

## Valdosta WTP No. 2
## Production Well No. 2

CDM Smith



Discharge line set-up at Well 2

# Photo Log

December 4, 2024

## Valdosta WTP No. 2
## Production Well No. 2

CDM Smith



Modified camera tool. Makeshift centralizers added above camera tool



Geophysical logging at Well 2



Contractor tripping in pump for the Dynamic video Surveyp




Rock obstruction in the well at approximately 338 feet bls. Camera tool is unable to continue downhole



Contractor tripping in pump for the Dynamic video Survey

# Photo Log

January 7, 2025

## Valdosta WTP No. 2
## Production Well No. 2

CDM Smith



End of discharge line. Note valve is placed downstream of flowmeter and MPA sampling apparatus



Contractor installing new motor on impeller housing and splicing motor wiring



Discharge line set-up at the wellhead




Totalizer and FR on the well discharge line at the start of MPA sampling




Totalizer on the MPA sampling apparatus at the start of MPA sampling



MPA sampling apparatus after commencing MPA sampling

# Photo Log

January 8, 2025

## Valdosta WTP No. 2
## Production Well No. 2

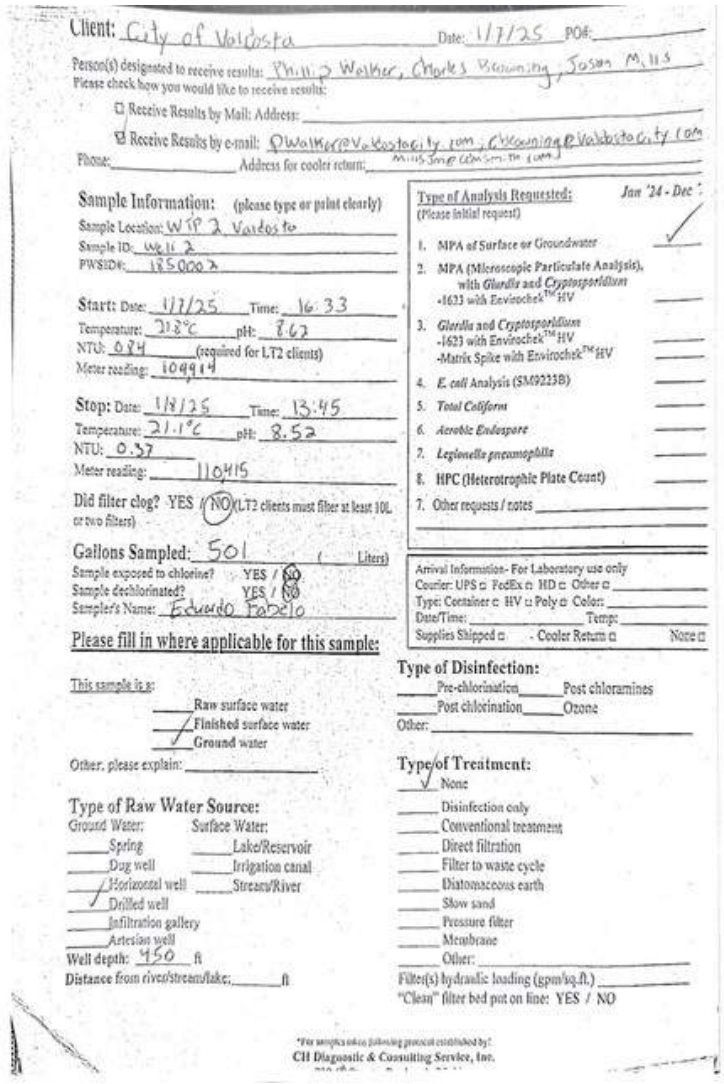
CDM Smith




MPA Filter ready for packing and shipment




Totalizer on the MPA sampling apparatus



Client: City of Valdosta Date: 1/7/25 PO#:

Person(s) designated to receive results: Phillip Walker, Charles Browning, Jason Mills

Please check how you would like to receive results:

☐ Receive Results by Mail: Address:

☑ Receive Results by e-mail: PWalker@Valdostacity.com; CBrowning@ValdostaCity.com; MillsJ@Colsom.com

Phone: Address for cooler return:

**Sample Information:** (please type or print clearly)

Sample Location: WTP 2 Valdosta

Sample ID: Well 2

PWSID#: 1850003

Start: Date: 1/7/25 Time: 16:33

Temperature: 21.8°C pH: 8.62

NTU: 0.84 (required for LT2 clients)

Meter reading: 104914

Stop: Date: 1/8/25 Time: 13:45

Temperature: 21.1°C pH: 8.52

NTU: 0.57

Meter reading: 110415

Did filter clog? YES / (NO) LT2 clients must filter at least 10L or two filters)

Gallons Sampled: 501 ( Liters)

Sample exposed to chlorine? YES / (NO)

Sample dechlorinated? YES / (NO)

Sampler's Name: Eduardo Padilla

**Type of Analysis Requested:** (Please initial request) Jan '24 - Dec '

1. MPA of Surface or Groundwater ✓
2. MPA (Microscopic Particulate Analysis), with *Giardia* and *Cryptosporidium* -1623 with Envirochek™ HV
3. *Giardia* and *Cryptosporidium* -1623 with Envirochek™ HV; -Matrix Spike with Envirochek™ HV
4. *E. coli* Analysis (SM9223B)
5. *Total Coliform*
6. *Aerobic Endospore*
7. *Legionella pneumophila*
8. HPC (Heterotrophic Plate Count)
7. Other requests / notes

Arrival Information- For Laboratory use only

Courier: UPS ☐ FedEx ☐ HD ☐ Other ☐

Type: Container ☐ HV ☐ Poly ☐ Color:

Date/Time: Temp:

Supplies Shipped ☐ - Cooler Return ☐ None ☐

**Please fill in where applicable for this sample:**

This sample is a:

- ___ Raw surface water
- ✓ Finished surface water
- ___ Ground water

Other, please explain:

**Type of Raw Water Source:**

Ground Water:
- ___ Spring
- ___ Dug well
- ✓ Horizontal well
- ___ Drilled well
- ___ Infiltration gallery
- ___ Artesian well

Surface Water:
- ___ Lake/Reservoir
- ___ Irrigation canal
- ___ Stream/River

Well depth: 450 ft

Distance from river/stream/lake: ___ ft

**Type of Disinfection:**

___ Pre-chlorination ___ Post chloramines

___ Post chlorination ___ Ozone

Other:

**Type of Treatment:**

- ✓ None
- ___ Disinfection only
- ___ Conventional treatment
- ___ Direct filtration
- ___ Filter to waste cycle
- ___ Diatomaceous earth
- ___ Slow sand
- ___ Pressure filter
- ___ Membrane
- ___ Other:

Filter(s) hydraulic loading (gpm/sq.ft.)

"Clean" filter bed put on line: YES / NO

*For samples taken following protocol established by:

CH Diagnostic & Consulting Service, Inc.

MPA sampling form

# Photo Log

January 17, 2025

## Valdosta WTP No. 2
## Production Well No. 2

CDM Smith



Contractor preparing to trip new pump into the well



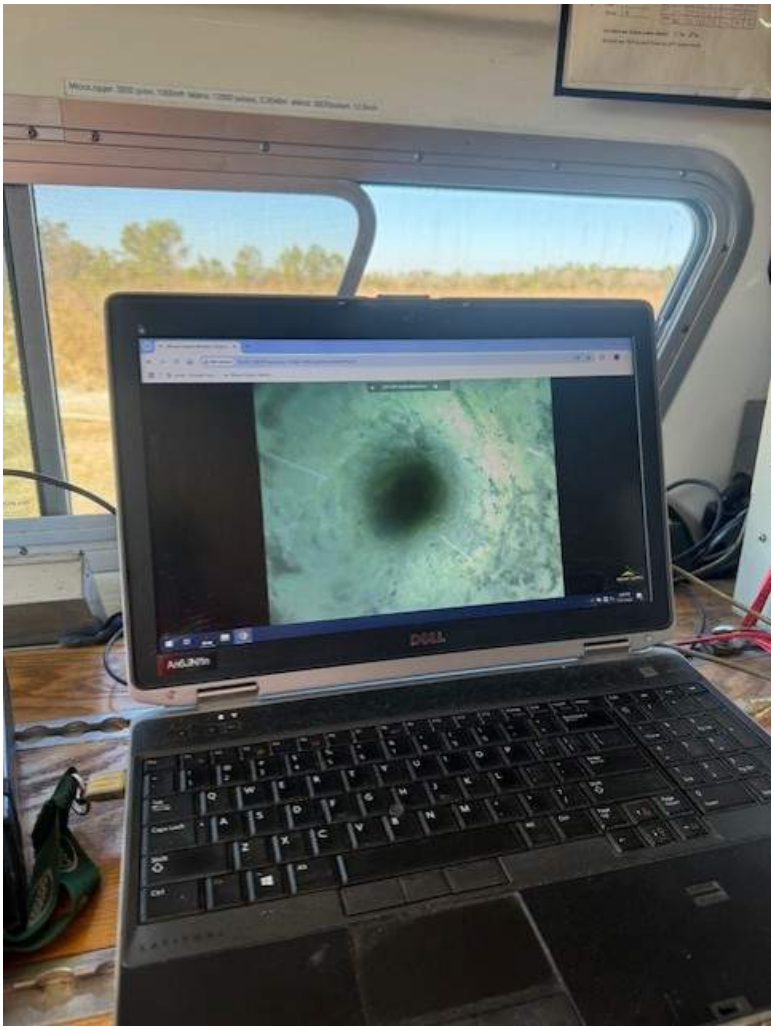
New pump with spliced wiring ready to be tripped in




Flowrate and totalizer during Dynamic video logging of the ream hole to 450 feet bls



Dynamic video logging set up. Camera tool and pump both in the well




Dynamic video log

# Photo Log

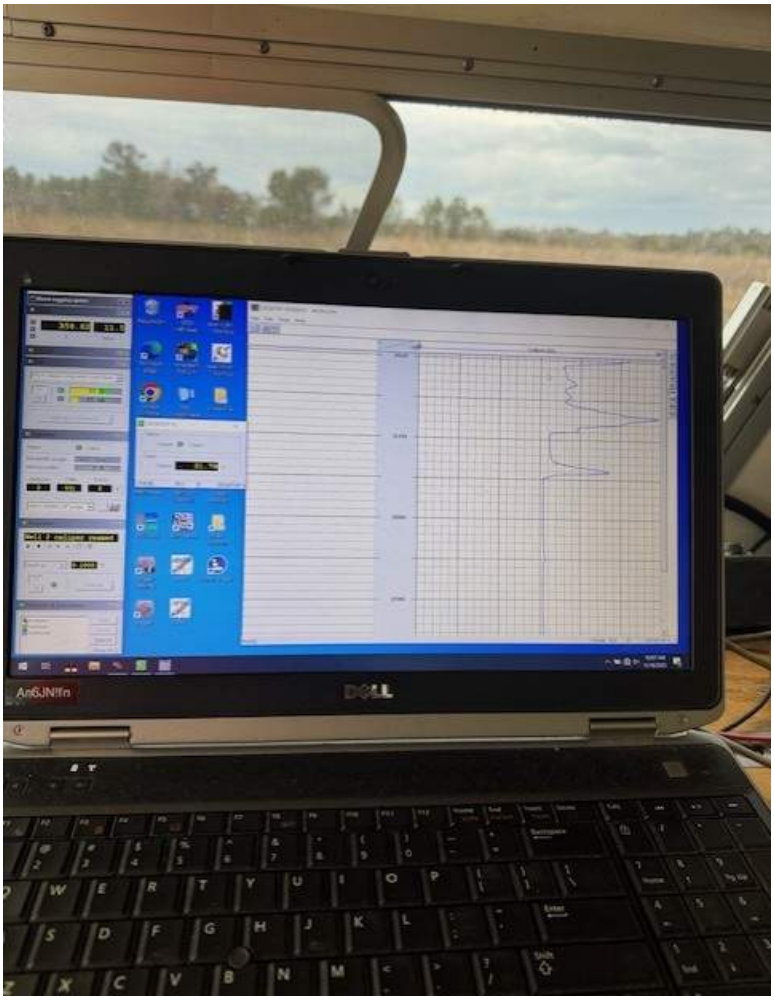
January 18, 2025

## Valdosta WTP No. 2
## Production Well No. 2

CDM Smith



XYC tool deployed downhole




XYC log in progress



XYC tool at surface after first pass







Calibrating XYC tool in pipes of various IDs

# Photo Log

January 24, 2025

## Valdosta WTP No. 2
## Production Well No. 2

CDM Smith



Diameter of discs that will be used for the plumbness and alignment test



15-inch discs welded at beginning of first 20-foot drill pipe single (background) and beginning of second 20-foot drill pipe single (foreground)



15-inch discs welded at end of the second 20-foot drill pipe single



Plumbness and alignment test in execution: 40-foot dummy with 15-inch disc being lowered downhole



Plumbness and alignment test in execution: 40-foot dummy with 15-inch disc being lowered downhole

# Appendix C Daily Construction Logs Well No. 1

# CITY OF VALDOSTA PRODUCTION WELL No. 1
# DAILY SHIFT REPORT

**City of Valdosta Southern Gateway Property**
**Production Well No. 1**
**Valdosta, GA**

DATE(S) & TIME(S): May 29, 2024
0830 – 1000

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | **X** | | | |

JOB NUMBER: 20790-289282

CONTRACTOR: A.C. Schultes (ACS)

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | **X** | | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | | | **X** |
| Wind | Still | Medium | High | |
| | | **X** | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | | | **X** | **1** |

## SHIFT SUMMARY

| | | | |
|---|---|---|---|
| OBSERVER: | Jorge Valdes (JV) | START DEPTH: | 20 |
| DRILLER: | ACS – Harvey | END DEPTH: | 45 |
| ACTIVITY: | Drill 12.25-inch diameter pilot hole with reverse mud rotary drilling method | | |
| SUBCONTRACTORS: | NA | | |
| FORMATION SAMPLES: | 20 – 40 feet below land surface (bls) | | |
| WATER SAMPLES: | NA | | |
| TESTING: | NA | | |

| TIME | DESCRIPTION |
|---|---|
| **0700** | **JV mobilized to project site from Jacksonville, FL.** |
| **0830** | **JV on site. Harvey and Marvin/ACS on site drilling 12.25-inch diameter pilot hole. Discussed activities from previous shift (5/29/24). ACS began pilot hole drilling using the reverse mud rotary drilling method. Driller reported issues maintaining circulation due to clay plugging off the drill bit but was able to slowly advance the pilot hole to 20 feet bls. Today he has been able to reach 24 feet bls but continues having issues with plugging off the drill bit. Mud weight (MW) is currently at 8.6 pounds per gallon (ppg). Driller unable to determine the mud viscosity (VIS) due to lack of equipment.** |
| **0840** | **JV visually estimated that the Marsh funnel VIS is approximately 40 seconds per quart (sec/qt). Discussed current fluid properties with driller, who indicated that they are also utilizing EZ-Mud Gold and Penetrol Dry drilling fluid additives to help deal with sticking clays.** |

**0900** **JV checked the returns for cuttings, but none were coming out. The driller is periodically working the drill string up and down to try to unplug the drill bit.**

**0920** **Driller reported losing circulation at approximately 25 feet bls due to the drill bit plugging off with sediment. JV recommended reviewing the current configuration and fluid properties to determine if this method is suitable for this application.**

**0930** **JV off site.**

**1345** **Phone call with Clay Caldwell/ACS for project update. They are currently at approximately 45 feet bls. JV reiterated the recommendation to review the current configuration and fluid properties to determine if this method is suitable for this application.**

**Photos**




QUIK-GEL




EZ-MUD® GOLD

# CITY OF VALDOSTA TEST WELL TW-1 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.1**
**Valdosta, GA**

DATE(S) & TIME(S): August 19, 2024
1230 – 1800

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | X | | | | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| Weather | Clear | Overcast | Rain | Heavy Rain |
|---|---|---|---|---|
| | X | X | | |
| **Temperature** | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | | X | |
| **Wind** | Still | Medium | High | |
| | | X | | |
| **Humidity** | Dry | Moderate | Humid | **Report No.** |
| | | | X | **2** |

## SHIFT SUMMARY

| | | | |
|---|---|---|---|
| OBSERVER: | Jason Mills (JM) | START DEPTH: | 0 |
| DRILLER: | AC Schultes | END DEPTH: | 60 |
| ACTIVITY: | Drill and Drive 24” steel casing | | |
| SUBCONTRACTORS: | NA | | |
| FORMATION SAMPLES: | NA | | |
| WATER SAMPLES: | NA | | |
| TESTING: | NA | | |

| TIME | DESCRIPTION |
|---|---|
| **1230** | **JM onsite at Well No. 1. AC Schultes has DR 24 drill rig set up. They were in the process of welding the 2nd and 3rd string of 24” steel casing. They already installed and welded strings 1 and 2 and advanced casing down. Southway Crane is onsite to support casing installation.** |
| **1345** | **AC Schultes advanced the 3rd string of casing down (60 feet bls) and started preparing for setting up the next string of casing.** |
| **1545** | **AC Schultes used the crane to pull up all three strings of casing to weld some centralizers at the base, lead casing. They will shut down for the day because they have to mobilize their water tank from Well No. 2 and get setup. JM offsite to the Hotel.** |




**24 Inch Steel Intermediate Casing**




**60 feet of 24-inch casing being installed.**

# CITY OF VALDOSTA TEST WELL TW-1 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.1**
**Valdosta, GA**

DATE(S) & TIME(S): August 20, 2024
0830 – 1800

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | X | | | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | X | X | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | | X | |
| Wind | Still | Medium | High | |
| | | X | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | | | X | **3** |

## SHIFT SUMMARY

| | | | |
|---|---|---|---|
| OBSERVER: | Jason Mills (JM) | START DEPTH: | 0 |
| DRILLER: | AC Schultes | END DEPTH: | 30 |
| ACTIVITY: | Drill and Drive 24-inch diameter steel casing | | |
| SUBCONTRACTORS: | NA | | |
| FORMATION SAMPLES: | NA | | |
| WATER SAMPLES: | NA | | |
| TESTING: | NA | | |

| TIME | DESCRIPTION |
|---|---|
| **0830** | **JM onsite at Well No. 1. AC Schultes has two man crew working on DR 24 drill rig preparing to center punch out the bottom of the 30-inch steel casing.** |
| **1010** | **AC Schultes started tripping into the well drill bit assembly to drill out the cement.** |
| **1020** | **Jason Barnes, Erica and Shakira onsite for media filming and interviewing.** |
| **1100** | **The City completed film shots and left the site.** |
| **1300** | **AC Schultes began drilling out the cement via reverse-air method but had to constantly add water to the well.** |
| **1500** | **The drillers completed drilling out the cement plug in the 30-inch steel casing. They added a 20-foot section of 24-inch diameter steel casing and began welding. They were in the process of welding the 2nd and 3rd string of 24" steel casing.** |
| **1600** | **Jason, Erica and Shakira returned to the site to film the drill rig conducting dual rotary drilling (drilling with bit and rods and simultaneously advancing the 24-inch casing).** |
| **1625** | **Jason, Erica and Shakira offsite.** |

**1735** **JM offsite. The drillers are having trouble with the clays from the formation clogging the drill bit and rods. They will continue to attempt to clear their drilling equipment from the clay.**



**Welding 24-inch intermediate casing to advance with dual rotary method.**



**Cleaning out drill bit assembly from being clogged with clay.**



**Drill bit clogged with clay.**

# CITY OF VALDOSTA TEST WELL TW-1 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.1**
**Valdosta, GA**

DATE(S) & TIME(S): August 21, 2024
0830 – 1630

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | X | | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | X | X | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | | X | |
| Wind | Still | Medium | High | |
| | | X | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | | | X | **4** |

## SHIFT SUMMARY

| | | | |
|---|---|---|---|
| OBSERVER: | Jason Mills (JM) | START DEPTH: | 30 |
| DRILLER: | AC Schultes | END DEPTH: | 85 |
| ACTIVITY: | Drill and Drive 24-inch diameter steel casing | | |
| SUBCONTRACTORS: | NA | | |
| FORMATION SAMPLES: | NA | | |
| WATER SAMPLES: | NA | | |
| TESTING: | NA | | |

| TIME | DESCRIPTION |
|---|---|
| **0930** | **JM onsite at Well No. 1. AC Schultes has two-man crew working on DR 24 drill rig advancing 24-inch steel intermediate casing. The crew worked until 2030 last night attempting to advance the casing but due to trouble with the clays in the formation clogging the reverse-air drilling, they only got to 80 feet bls. The crew is working on fixing leaks in the reverse-air system.** |
| **1000** | **Given that rig repairs and maintenance was being conducted, JM went back to the hotel to work.** |
| **1530** | **JM returned to the site. AC Schultes had only advanced the 24-inch casing to 85 feet bls. The formation at this depth had less clay and more sand and cemented sands. Rain showers nearby.** |
| **1600** | **Jason, Erica and Shakira returned to the site to film the drill rig conducting dual rotary drilling (drilling with bit and rods and simultaneously advancing the 24-inch casing).** |
| **1630** | **The drilling is extremely slow going due to constant clogging of the bit and rods from clay-clayey material. JM offsite to the hotel to work.** |

# CITY OF VALDOSTA TEST WELL TW-1 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.1**
**Valdosta, GA**

DATE(S) & TIME(S): August 22, 2024
0945 – 1730

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | | **X** | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | **X** | **X** | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | | **X** | |
| Wind | Still | Medium | High | |
| | | **X** | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | | | **X** | **5** |

## SHIFT SUMMARY

| | | | |
|---|---|---|---|
| OBSERVER: | Jason Mills (JM) | START DEPTH: | 85 |
| DRILLER: | AC Schultes | END DEPTH: | 120 |
| ACTIVITY: | Drill and Drive 24-inch diameter steel casing | | |
| SUBCONTRACTORS: | NA | | |
| FORMATION SAMPLES: | NA | | |
| WATER SAMPLES: | NA | | |
| TESTING: | NA | | |

| TIME | DESCRIPTION |
|---|---|
| **0945** | **JM onsite at Well No. 1. AC Schultes has two-man crew working on DR 24 drill rig advancing 24-inch steel intermediate casing. The crew was working on clearing the drill bit and drill rods from clays from the formation. The head driller went to get parts to fix the top head swivel. The bolts holding it secure were stripped and needed to be replaced.** |
| **1030** | **JM phoned Juan Cepeda of AC Schultes to discuss the problems with drilling and the slow progress. JM recommended getting the crew a pressure washer to help with cleaning efforts and removal of clay up in the drill bit and rods. Juan agreed and will have the driller purchase one. JM offsite to hotel to work.** |
| **1200** | **JM met with Jason Barnes to inform him of slow progress and drilling issues. AC Schultes indicated they may start working on Saturdays to try and make up lost time.** |
| **1325** | **JM onsite. The drillers were cleaning out the drill bit and rods with a pressure washer. They were also working on maintenance of the swivel to the top head drive.** |
| **1340** | **JM offsite to the hotel to work.** |

**1655** **JM returned to the site. The drillers had cleaned out the drilling assembly and advanced the 24-inch OD intermediate casing to 100 feet bls.**

**1730** **The drillers were welding the next 20 feet of casing (welding joints 5 and 6). JM offsite.**

# CITY OF VALDOSTA TEST WELL TW-1 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.1**
**Valdosta, GA**

DATE(S) & TIME(S): August 27, 2024
1630 – 1715

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | X | | | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | X | X | X | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | | | X |
| Wind | Still | Medium | High | |
| | | X | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | | | X | **6** |

## SHIFT SUMMARY

| | | | |
|---|---|---|---|
| OBSERVER: | Jason Mills (JM) | START DEPTH: | 120 |
| DRILLER: | AC Schultes | END DEPTH: | 180 |
| ACTIVITY: | Drill and Drive 24-inch diameter steel casing | | |
| SUBCONTRACTORS: | NA | | |
| FORMATION SAMPLES: | NA | | |
| WATER SAMPLES: | NA | | |
| TESTING: | NA | | |

| TIME | DESCRIPTION |
|---|---|
| **1630** | **JM onsite from Orlando. The drillers had advanced the 24-inch OD intermediate casing to 160 feet bls since Monday. They added the next 20 feet of casing (welding joints 8 and 9). The formation still had a lot of clay and clayey materials with increasing rock with depth.** |
| **1715** | **JM offsite to hotel.** |

# CITY OF VALDOSTA TEST WELL TW-1 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.1**
**Valdosta, GA**

DATE(S) & TIME(S): August 28, 2024
0945 – 1617

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | **X** | | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | **X** | **X** | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | | | **X** |
| Wind | Still | Medium | High | |
| | | **X** | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | | | **X** | **7** |

## SHIFT SUMMARY

| | | | |
|---|---|---|---|
| OBSERVER: | Jason Mills (JM) | START DEPTH: | 176 |
| DRILLER: | AC Schultes – Harvey (Driller) and Yessid (helper) | END DEPTH: | 190 |
| ACTIVITY: | Drill and Drive 24-inch diameter steel casing | | |
| SUBCONTRACTORS: | NA | | |
| FORMATION SAMPLES: | NA | | |
| WATER SAMPLES: | NA | | |
| TESTING: | NA | | |

| TIME | DESCRIPTION |
|---|---|
| **0945** | **JM onsite. The drillers have advanced the 24-inch OD intermediate casing to 180 feet bls since yesterday. JM reviewed drill cuttings and placed them in the chip tray.** |
| **1100** | **The drillers added the next 20 feet of casing (welding joints 9 and 10). JM offsite to hotel to work.** |
| **1440** | **JM back onsite. Drillers haven't drilled much past 180 feet bls.** |
| **1545** | **The drillers advanced the 24-inch casing down to 190 feet bls.** |
| **1617** | **JM offsite to hotel. Drill crew continuing with dual rotary drilling.** |

# CITY OF VALDOSTA TEST WELL TW-1 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.1**
**Valdosta, GA**

DATE(S) & TIME(S): August 29, 2024
0855 – 1730

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | | **X** | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | **X** | **X** | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | | | **X** |
| Wind | Still | Medium | High | |
| | | **X** | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | | | **X** | **8** |

## SHIFT SUMMARY

| | | | |
|---|---|---|---|
| OBSERVER: | Jason Mills (JM) | START DEPTH: | 190 |
| DRILLER: | AC Schultes – Harvey (Driller) and Yessid (helper) | END DEPTH: | 220 |
| ACTIVITY: | Drill and Drive 24-inch diameter steel casing and drill out open hole for final casing seat. | | |
| SUBCONTRACTORS: | NA | | |
| FORMATION SAMPLES: | NA | | |
| WATER SAMPLES: | NA | | |
| TESTING: | NA | | |

| TIME | DESCRIPTION |
|---|---|
| **0855** | **JM onsite. The drillers had advanced the 24-inch OD intermediate casing to 196 feet bls since yesterday. They could not advance the casing any deeper due to encountering hard limestone and chert. JM reviewed drill cuttings and instructed the drillers to continue drilling the open hole portion of the well in preparation for the final casing seat.** |
| **0955** | **JM offsite to the hotel to work on other projects.** |
| **1140** | **JM phoned Juan Cepeda (AC Schultes PM). Discussed continuing with open hole drilling down to target depth of ~230 feet bls. If the 24" casing can advance deeper after open hole drilling, then advance it to 210 feet, if the casing is still locked at 196 feet bls, then do not risk damaging the casing or the rig and leave at current depth.** |
| **1405** | **JM back onsite. Drillers haven't been able to advance the 24-inch casing any deeper than 196 feet bls. They drilled below the casing to a depth of 210 feet bls.** |
| **1430** | **JM offsite to hotel.** |
| **1640** | **JM onsite. The driller had drilled the open hole to 215 feet bls. JM reviewed the drill cuttings.** |

**1715** **Drilled to a depth of 216 feet bls. After further review of the drill cuttings, JM instructed Harvey (driller) to stop drilling at 220 feet bls. The rock is very competent, and JM made the field decision to stop after 220 feet.**

**1730** **JM phoned Juan Cepeda and discussed stopping drilling at 220 feet bls. Instructed Juan to prepare to set the final pvc casing to 220 feet bls. Juan said he will prepare for the final casing setting. Discussed batch cementing the casing. The first batch will be hand mixed to set a good cement seal at the base of the casing. They will tremie grout in the casing with multiple batches thereafter. Juan will send the collapse casing pressure on Tuesday of next week (Monday is Labor Day).**

# CITY OF VALDOSTA TEST WELL TW-1 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.1**
**Valdosta, GA**

DATE(S) & TIME(S): September 3, 2024
0800 – 1410

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | X | | | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | X | X | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | | | X |
| Wind | Still | Medium | High | |
| | | X | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | | | X | **9** |

## SHIFT SUMMARY

| | | | |
|---|---|---|---|
| OBSERVER: | Jason Mills (JM) | START DEPTH: | NA |
| DRILLER: | AC Schultes – Harvey (Driller) and Yessid (helper) | END DEPTH: | NA |
| ACTIVITY: | Geophysical Logging | | |
| SUBCONTRACTORS: | Colog | | |
| FORMATION SAMPLES: | NA | | |
| WATER SAMPLES: | NA | | |
| TESTING: | Gamma and caliper logs | | |

| TIME | DESCRIPTION |
|---|---|
| **0820** | **JM picked up rental car and left to travel to Valdosta.** |
| **1200** | **JM onsite. Jim Grace with Colog (geophysical logging company) is onsite. AC Schultes 2-man crew are tripping drill rods out of the well.** |
| **1220** | **JM offsite.** |
| **1330** | **JM back onsite. Colog was setup over the well logging.** |
| **1400** | **Colog completed gamma and caliper logs. The open borehole was near gauge at 24 inches in diameter. JM reviewed the logs for QAQC and requested edits to scale. Jim provides two paper copies and a jump drive with LAS and PDF files.** |
| **1410** | **AC Schultes did not have the elevators needed to install the final pvc casing and will have to travel back to Tallahassee to get them. JM offsite to work at the hotel on paper work.** |




**Colog geophysical logging truck setup logging Well No. 1 from 0-222 feet bls.**

# CITY OF VALDOSTA TEST WELL TW-1 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.1**
**Valdosta, GA**

DATE(S) & TIME(S): September 4, 2024
0820 – 1850

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | **X** | | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | **X** | **X** | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | | | **X** |
| Wind | Still | Medium | High | |
| | | **X** | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | | | **X** | **10** |

## SHIFT SUMMARY

| | | | |
|---|---|---|---|
| OBSERVER: | Jason Mills (JM) | START DEPTH: | NA |
| DRILLER: | AC Schultes – Harvey (Driller) and Yessid (helper) | END DEPTH: | NA |
| ACTIVITY: | 17.4 inch Outer Diameter (OD) PVC SDR 17 Final Casing Install | | |
| SUBCONTRACTORS: | NA | | |
| FORMATION SAMPLES: | NA | | |
| WATER SAMPLES: | NA | | |
| TESTING: | NA | | |

| TIME | DESCRIPTION |
|---|---|
| **0820** | **JM onsite. Jason Barnes phoned JM discussing project update and anticipated schedule.** |
| **0825** | **JM phoned Juan Cepeda requesting an updated schedule from AC Schultes. Juan indicated that he should be able to send out a new schedule by this Friday. The drillers are cutting the 30-inch surface casing off to ground level.** |
| **1100** | **The drillers completed cutting off the 30-inch surface casing to ground level. They began installing the plastic centralizers on the 17.4 OD pvc casings.** |
| **1200** | **The drillers completed installing the first 20-foot section of casing down the well. All sections of the SDR 17 casing are 20 feet in length up to the coupling length that does not overlap. Ring Power Service is onsite to replace the drill rig's throttle cable. The drillers used the top-head drive to lift the casing. JM requested that they clean the excess grease off that would smear onto the casing.** |
| **1230** | **JM offsite.** |
| **1308** | **JM onsite. The drillers were taking a lunch break.** |
| **1420** | **The drillers added a second section of casing on top of the first section. However, JM noticed they did not add the rubber O-ring to the female end of the casing as required by manufacturer. The drillers** |

**removed the two casing sections, added the O-ring and reinstalled connecting the two casings with the spline insert (Certa-Lok design).**

**1500** **Installed the third section of casing.**

**1600** **Installed the fourth section of casing.**

**1640** **Installed the fifth section of casing.**

**1710** **Installed the sixth section of casing.**

**1735** **Installed the seventh section of casing.**

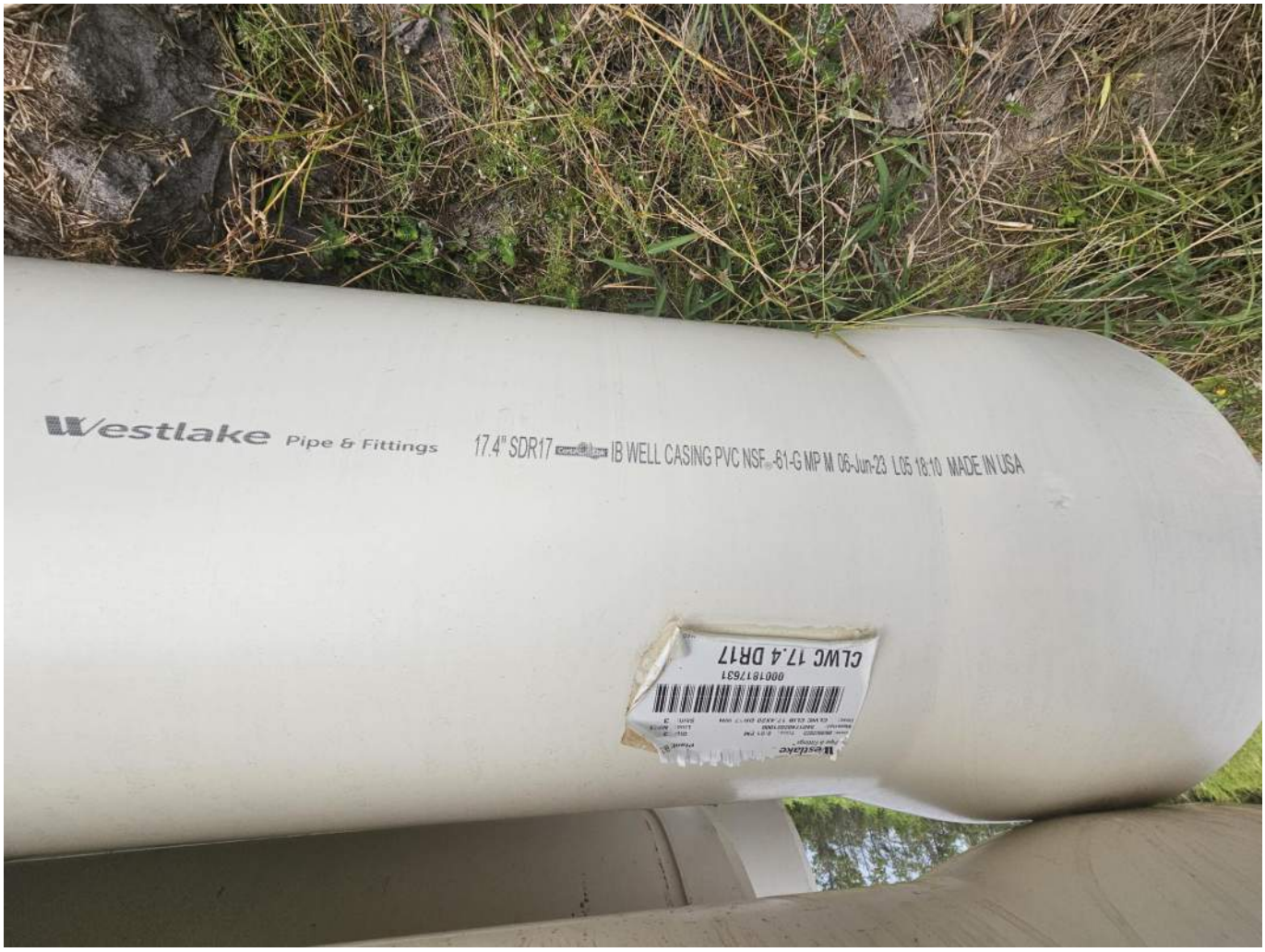
**1758** **Installed the eighth section of casing.**

**1845** **Installed the ninth section of casing. A total of 180 feet. JM and Harvey (driller) discussed how to complete the casing to get close to 220 feet bls.**

**1850** **JM offsite.**



**Cutting the 30-inch surface casing down to ground level at Well No.1.**




**The stamp showing the information on the final casing: 17.4” SDR17 PVC NSF**



**17.4 SDR 17 final casing being lifted with top-head drive. A plastic centralizer is installed on the casing.**




**Installing the final casing showing male and female ends.**



**Picture showing the rubber O-ring installed in the female coupling of the casing.**



**Installing the spline to the Certa-Lok casing.**

# CITY OF VALDOSTA WELL No.1 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.1**
**Valdosta, GA**

DATE(S) & TIME(S): September 16, 2024
0820 – 1850

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | X | | | | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | | X | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | | X | X |
| Wind | Still | Medium | High | |
| | X | | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | | | X | **12** |

## SHIFT SUMMARY

| | | | |
|---|---|---|---|
| OBSERVER: | Jessica Yaich (JY) | START DEPTH: | NA |
| DRILLER: | AC Schultes – Harvey (Driller) and Yessid (helper) | END DEPTH: | NA |
| ACTIVITY: | Tripping rods out and geophysical logging | | |
| SUBCONTRACTORS: | James Grace - Colog | | |
| FORMATION SAMPLES: | NA | | |
| WATER SAMPLES: | NA | | |
| TESTING: | NA | | |

| TIME | DESCRIPTION |
|---|---|
| **1110** | **JY onsite. Watching drillers trip pipe out of well.** |
| **1135** | **Superintendant for Rowe onsite.** |
| **1140** | **Langdale fuel is onsite to refill black tank next to the drill rig.** |
| **1145** | **Jason Mills (JM) onsite. Discussion with JM and JY about duties onsite and whats needed today.** |
| **1200** | **James Grace (JG) with Colog is onsite for geophysical logging.** |
| **1250** | **Drillers complete tripping pipe out of well.**<br>**JM offsite.** |
| **1300** | **JY gathering drill cuttings from 290-450 ft. to collect into container for lithologic logging. Container is labeled with correct depths of cuttings. JG begins setting up truck for geophysical logging.** |
| **1310** | **JG setting up sonic log equipment and begins deploying it down the well.** |
| **1335** | **Total depth of borehole is 453.25 ft. bgs. according to Sonic log.** |
| **1345** | **JG setting up resistivity log equipment while sonic equipment moves upwards in well.** |
| **1350** | **Superintendant for Rowe offsite.** |

**1510** **JG deploys resistivity log equipment down well and begins setting up caliper equipment in the meantime.**

**1530** **Superintendant for Rowe onsite.**

**1550** **Resistivity log is complete.**

**1600** **Deploying caliper log down well.**

**1610** **Caliper log is reading 11 in. at bottom of borehole until about 320 ft. bgs. where it changes to the correct spec measurement of 15 in. At 280 ft bgs. the caliper reading goes back to 11 in. Around 219 ft bgs., 15 in. is consistently seen within the PVC casing. Before casing was reached on caliper log, a large spike in caliper log was noticed and JG suggests it could be a possible washout of borehole sediment/rock.**

**1640** **JY offsite.**



**Langdale fuel truck onsite**



**Refilling black tank onsite with fuel**



**Sonic log deployed into well from Colog truck**



**Caliper log getting ready to deploy into well. Resting at ground surface.**



**Drill cuttings collected from today for lithologic logging.**

# CITY OF VALDOSTA WELL No.1 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.1**
**Valdosta, GA**

DATE(S) & TIME(S): September 17, 2024
0820 – 1850

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | X | | | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | X | | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | | X | X |
| Wind | Still | Medium | High | |
| | X | | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | | | X | **13** |

## SHIFT SUMMARY

| | | | |
|---|---|---|---|
| OBSERVER: | Jessica Yaich (JY) | START DEPTH: | NA |
| DRILLER: | AC Schultes – Harvey (Driller) and Yessid (helper) | END DEPTH: | NA |
| ACTIVITY: | Geophysical logging and deploying pump | | |
| | James Grace - Colog | | |
| FORMATION SAMPLES: | NA | | |
| WATER SAMPLES: | NA | | |
| TESTING: | NA | | |

| TIME | DESCRIPTION |
|---|---|
| **0700** | **JG onsite.** |
| **0710** | **Drillers onsite.** |
| **0720** | **JY onsite.** |
| **0725** | **JG deploying fluid temperature and fluid conductivity log equipment down the well. Changes in conductivity occurred around 302 feet, 316 feet and 324 feet bls.** |
| **0810** | **JG setting up static video log and deploying down well. Water depth at about 112 feet bls. Open borehole at 220 feet bls.** |
| **0855** | **Sammy Caldwell from ACS onsite.** |
| **0900** | **Water becomes clearer on video log around 340 feet bls. Large voids around 350 feet, 390 feet, 400 feet and 424 feet bls.** |
| **0915** | **Static video log completed.** |
| **1000** | **Spinner equipment for flow meter log deployed into well. Based off log, JG suggests there may be 2 flow zones past 300 feet bls.** |
| **1050** | **Another 2-person drill crew arrives with more supplies and pump wires.** |

**1055** **JG deployed video logger.**
**1220** **Drillers beginning to trip in pump and piping for dynamic logs.**
**1225** **JY offsite.**
**1310** **JY onsite.**
**1320** **JG and Sammy offsite.**
**1350** **JG and Sammy onsite.**
**1410** **Continue tripping steel piping and pump into well.**
**1650** **Completed tripping pipe and pump into well. The pump is placed at around 180 feet bls.**
**1700** **Drillers cutting PVC tubing to make drainpipe for when the well is pumped. Drillers stayed onsite to attach wires/cables for pump and the drainpipe. JG had to leave truck onsite since the video logger is attached from the truck into the well below the pump.**
**1710** **JY offsite**



**Video logger attached and inside the well. Getting ready to deploy the logger down the well.**




**FLOW Tool being used**



**Pump attached to piping (pipe farthest left) with cable wires next to piping.**




**Drillers attaching piping to deploy pump**




**Drillers creating a drainpipe from PVC tubes, will be used once pump is running.**

# CITY OF VALDOSTA WELL No.1 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.1**
**Valdosta, GA**

DATE(S) & TIME(S): September 18, 2024
0820 – 1850

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | **X** | | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | | **X** | | **X** |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | | **X** | **X** |
| Wind | Still | Medium | High | |
| | **X** | | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | | | **X** | **14** |

## SHIFT SUMMARY

| | | | |
|---|---|---|---|
| OBSERVER: | Jessica Yaich (JY) | START DEPTH: | NA |
| DRILLER: | AC Schultes – Harvey (Driller) and Yessid (helper) | END DEPTH: | NA |
| ACTIVITY: | Geophysical logging and deploying pump | | |
| | James Grace - Colog | | |
| FORMATION SAMPLES: | NA | | |
| WATER SAMPLES: | NA | | |
| TESTING: | NA | | |

| TIME | DESCRIPTION |
|---|---|
| **0800** | **Drillers, JG, and Sammy Caldwell (SC) onsite. Drillers attached equipment in a way where the logging equipment cannot be tripped out of the well, so they are trying to raise equipment without ruining the drain pipe they placed. Pump is installed and running.** |
| **0815** | **JY onsite.** |
| **0850** | **JG trying to set up his logging equipment now that the drillers raised the piping to allow enough room for the logging equipment to move past.** |
| **0910** | **JG setting up logging equipment for dynamic video. Computer says starting depth is 0 ft bls, however the logger is at 200 feet bls.** |
| **0920** | **Video logger stuck in washed out section of open borehole.** |
| **0925** | **Video logger centered again and deployed into borehole.** |
| **1020** | **Completed dynamic video log.** |
| **1030** | **JG setting up dynamic fluid resistivity and fluid temperature logger.** |
| **1130** | **JG setting up dynamic flow meter logger.** |
| **1150** | **Flow meter deployed into well.** |

**1320** **Completed dynamic flow meter log with multiple speeds.**
**1330** **JY received electronic copy of logs from JG.**
**1345** **JY offsite.**




**Drillers raising the drainpipe attachment for JG to use logging equipment.**



**Drainage from pumping being directed into field next to well installation (east of well).**



**PVC drainage pipe attachments to well. JG determining if he can fit logger with pump in well.**




**Dynamic Flow meter geophysical logs presented on computer.**



**Flow meter after being pulled from the well. Brown resin rods are the centralizers attached to the logger.**

# CITY OF VALDOSTA WELL No. 1 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.1**
**Valdosta, GA**

DATE(S) & TIME(S): November 25, 2024
1530-1630

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | X | | | | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | X | | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | X | X | |
| Wind | Still | Medium | High | |
| | X | | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | X | | | **15** |

**SHIFT SUMMARY**

OBSERVER: E. Fabelo/CDM
START DEPTH: 450
DRILLER: AC Schultes –Harvey and Yessid and Sammy Caldwell
END DEPTH: 450
ACTIVITY: Commence Molecular Particulate Analysis (MPA)

FORMATION SAMPLES: NA
WATER SAMPLES: NA

TESTING: MPA Sampling

| TIME | DESCRIPTION |
|---|---|
| **1530** | **E. Fabelo/CDM on site** |
| **1545** | **Set up MPA sampling apparatus at well No. 1; commence MPA sampling. Discharge out of apparatus is approximately 0.5 gallons per minute (gpm). Contractor raising discharge line from well to increase back pressure in the line and increase flow through MPA sampling apparatus** |
| **1600** | **Discharge out of sampling apparatus continues to be less than 1 gpm, contractor unable to increase flow through apparatus** |
| **1602** | **E. Fabelo/CDM measures water quality parameters. Temperature: 21.8 ° Celsius; pH: 8.08; Turbidity: 0.49 Nephelometric Turbidity Units** |
| **1630** | **E. Fabelo/CDM off site** |




Flowrate through discharge line




Totalizer on MPA sampling apparatus

ss

# CITY OF VALDOSTA WELL No. 1 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.1**
**Valdosta, GA**

DATE(S) & TIME(S): November 26, 2024
0800-0830

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | X | | | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | X | | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | X | X | |
| Wind | Still | Medium | High | |
| | X | | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | X | | | **16** |

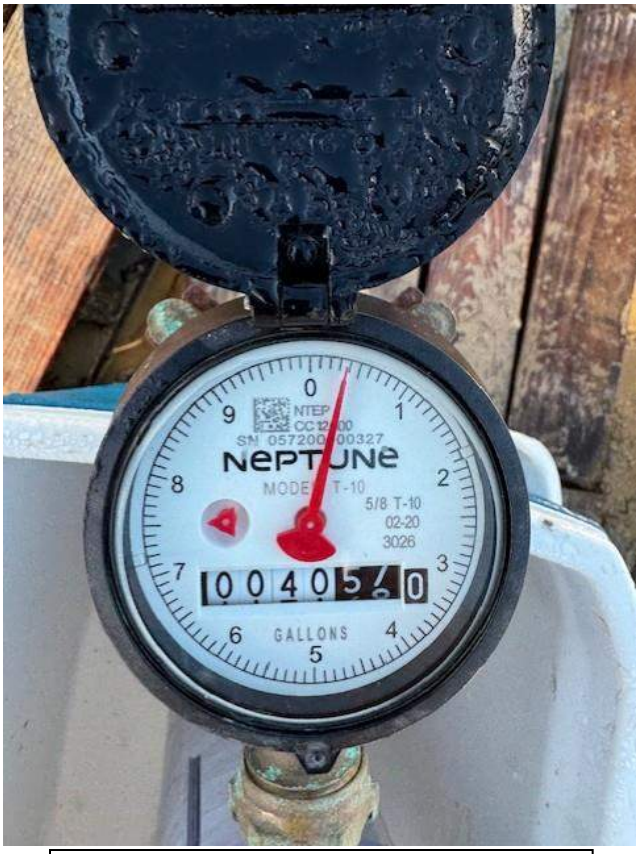
## SHIFT SUMMARY

OBSERVER: E. Fabelo/CDM
START DEPTH: 450
DRILLER: AC Schultes –Harvey and Yessid and Sammy Caldwell
END DEPTH: 450
ACTIVITY: Commence Molecular Particulate Analysis (MPA)

FORMATION SAMPLES: NA
WATER SAMPLES: MPA Sampling Well No. 1

TESTING: MPA Sampling

| TIME | DESCRIPTION |
|---|---|
| **0800** | **E. Fabelo/CDM on site** |
| **0805** | **Complete MPA sampling at well 1. Collect filter, breakdown equipment** |
| **0810** | **Check water quality parameters Check water quality parameters. Temperature: 21.7 ° Celsius; pH: 8.10; Turbidity: 0.40 Nephelometric Turbidity Units** |
| **0830** | **E. Fabelo/CDM off site** |




Totalizer through MPA sampling apparatus, final reading

# CITY OF VALDOSTA WELL No. 1 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.1**
**Valdosta, GA**

DATE(S) & TIME(S): December 12, 2024
0500-1415

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | | X | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | X | | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | X | X | | |
| Wind | Still | Medium | High | |
| | X | | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | X | | | **17** |

## SHIFT SUMMARY

OBSERVER: E. Fabelo/CDM
START DEPTH: 450
DRILLER: AC Schultes –R. Rodriguez, S. Caldwell
END DEPTH: 450
ACTIVITY: Perform step drawdown test, first attempt

FORMATION SAMPLES: NA
WATER SAMPLES: Step Drawdown Test Samples

TESTING: Step Drawdown Test

| TIME | DESCRIPTION |
|---|---|
| **0500** | **E. Fabelo/CDM and R. Rodriguez/AC Schultes on site** |
| **0516** | **E. Fabelo/CDM verifies static water level in well at 111.23 feet below land surface (bls). Transducer reading 111.89 feet bls. Totalizer: 6,143,000 gallons (gal). R. Rodriguez/AC Schultes preparing to commence the step drawdown test** |
| **0530** | **Commence phase one of the step drawdown test. Flowrate (FR): 1,100 gallons per minute (gpm)** |
| **0554** | **E. Fabelo/CDM measures water quality parameters: Temperature (temp): 18.1° Celsius (C); Specific conductance (SpC): 484 microsiemens per centimeter (µS/cm); Total dissolved solids (TDS): 316.4 milligrams per liter (mg/L); pH: 8.51; Turbidity: 0.7 Nephelometric Turbidity Units (NTU)** |
| **0630** | **Transducer water level: 112.87 feet bls** |
| **0705** | **E. Fabelo/CDM measures water quality parameters: temp: 16.6° C; SpC: 419.6 µS/cm; TDS: 272.8 mg/L; pH: 8.24; Turbidity: 0.65 NTU. S. Caldwell/AC Schultes on site** |
| **0726** | **Transducer water level: 112.51 feet bls. S. Caldwell/AC Schultes collects water quality samples for laboratory testing** |
| **0730** | **Commence phase two of the step drawdown test. FR: 1,500 gpm** |

| | |
|---|---|
| **0731** | **Transducer water level: 113.63 feet bls** |
| **0805** | **E. Fabelo/CDM measures water quality parameters: temp: 17.2° C; SpC: 420.2 µS/cm; TDS: 273.4 mg/L; pH: 8.21; Turbidity: 0.89 NTU** |
| **0830** | **Transducer water level: 113.36 feet bls** |
| **0930** | **Transducer water level: 113.48 feet bls. E. Fabelo/CDM measures water quality parameters: temp: 18.7° C; SpC: 434.8 µS/cm; TDS: 282.8 mg/L; pH: 8.24; Turbidity: 1.01 NTU** |
| **1029** | **Transducer water level: 113.52 feet bls. S. Caldwell/AC Schultes collects water quality samples for laboratory testing** |
| **1030** | **Commence phase three of the step drawdown test. FR: 2,200 gpm** |
| **1032** | **Transducer water level: 114.88 feet bls** |
| **1054** | **E. Fabelo/CDM measures water quality parameters: temp: 21.8° C; SpC: 410.9 µS/cm; TDS: 267.1 mg/L; pH: 8.14; Turbidity: 3.06 NTU** |
| **1130** | **Transducer water level: 115.45 feet bls. E. Fabelo/CDM measures water quality parameters: temp: 21.5° C; SpC: 372.2 µS/cm; TDS: 242.0 mg/L; pH: 8.21; Turbidity: 3.06 NTU** |
| **1235** | **Transducer water level: 115.54 feet bls. E. Fabelo/CDM measures water quality parameters: temp: 21.3° C; SpC: 381.1 µS/cm; TDS: 247.5 mg/L; pH: 8.19; Turbidity: 2.03 NTU** |
| **1332** | **E. Fabelo/CDM measures water quality parameters: temp: 21.8° C; SpC: 381.3 µS/cm; TDS: 348.0 mg/L; pH: 8.18; Turbidity: 2.03 NTU. S. Caldwell/AC Schultes collects water quality samples for laboratory testing** |
| **1335** | **Commence recovery phase of step drawdown test. FR: 0.0 gpm. Transducer will record water level data for an additional 5 hours. Totalizer: 6,930,000 gal** |
| **1415** | **E. Fabelo/CDM off site** |




Initial totalizer reading on flowmeter on discharge line out of well



Sand content in Rossum Sand Tester at end of step drawdown test




Final totalizer reading at end of step drawdown test

# CITY OF VALDOSTA WELL No. 1 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.1**
**Valdosta, GA**

DATE(S) & TIME(S): December 17, 2024
0530-1500

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | X | | | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | X | | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | X | X | |
| Wind | Still | Medium | High | |
| | X | | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | X | | | **18** |

**SHIFT SUMMARY**

OBSERVER: E. Fabelo/CDM
START DEPTH: 450
DRILLER: AC Schultes –Ed Bellamy, E.G. Bellamy, S. Caldwell and J. Cepada
END DEPTH: 450
ACTIVITY: Perform step drawdown test, second attempt

FORMATION SAMPLES: NA
WATER SAMPLES: Step Drawdown Test Samples

TESTING: Step Drawdown Test

| TIME | DESCRIPTION |
|---|---|
| 0530 | **E. Fabelo/CDM, Ed Bellamy and E.G. Bellamy/AC Schultes on site** |
| 0532 | **E. Fabelo/CDM verifies static water level in well at 110.88 feet below land surface (bls). Totalizer: 6,930,000 gallons (gal). Ed and E. G. Bellamy/AC Schultes preparing to commence the step drawdown test** |
| 0540 | **J. Cepada/AC Schultes on site with transducer connection device. Transducer reading 110.98 feet bls** |
| 0550 | **J. Cepada/AC Schultes off site** |
| 0600 | **Commence phase one of the step drawdown test. Flowrate (FR): 1,600 gallons per minute (gpm). E. Fabelo/CDM advises lowering FR to 1,100 gpm. Transducer water level reading: 114.17 feet bls** |
| 0603 | **FR: 1,100 gpm, transducer water level reading: 111.67 feet bls** |
| 0711 | **E. Fabelo/CDM measures water quality parameters: Temperature (temp): 21.2° Celsius (C); Specific conductance (SpC): 249.9 microsiemens per centimeter (µS/cm); Total dissolved solids (TDS): 162.4 milligrams per liter (mg/L); pH: 8.27; Turbidity: 0.36 Nephelometric Turbidity Units (NTU). E.** |

| | |
|---|---|
| | **Fabelo/CDM notices SpC and TDS are approximately 200 units less than they were during the first step drawdown test. These parameters were collected with a different YSI meter and the calibration on this meter could not be verifies before commencement of the test** |
| **0731** | **Transducer water level: 111.94 feet bls. S. Caldwell/AC Schultes on site** |
| **0808** | **Transducer water level: 111.91 feet bls. E. Fabelo/CDM measures water quality parameters: temp: 21.2° C; SpC: 283.9 µS/cm; TDS: 184.6 mg/L; pH: 8.02; Turbidity: 0.64 NTU. S. Caldwell/AC Schultes collects water quality sample for laboratory analysis** |
| **0810** | **Commence phase two of the step drawdown test. FR: 1,500 gpm** |
| **0812** | **Transducer water level: 112.62 feet bls** |
| **0837** | **Transducer water level: 112.58 feet bls. E. Fabelo/CDM measures water quality parameters: temp: 21.2° C; SpC: 279.4 µS/cm; TDS: 181.6 mg/L; pH: 7.86; Turbidity: 1.31 NTU** |
| **0930** | **Transducer water level: 112.58 feet bls. E. Fabelo/CDM measures water quality parameters: temp: 21.4° C; SpC: 276.8 µS/cm; TDS: 179.9 mg/L; pH: 7.81; Turbidity: 1.10 NTU** |
| **1030** | **Transducer water level: 112.55 feet bls. E. Fabelo/CDM measures water quality parameters: temp: 21.3° C; SpC: 274.6 µS/cm; TDS: 178.5 mg/L; pH: 7.81; Turbidity: 0.83 NTU** |
| **1117** | **Commence phase three of the step drawdown test. FR: 2,200 gpm. S. Caldwell/AC Schultes collects water quality sample for laboratory analysis** |
| **1120** | **Transducer water level: 114.34 feet bls** |
| **1137** | **E. Fabelo/CDM measures water quality parameters: temp: 21.7° C; SpC: 271.5 µS/cm; TDS: 176.5 mg/L; pH: 7.78; Turbidity: 4.03 NTU** |
| **1230** | **Transducer water level: 114.08 feet bls. E. Fabelo/CDM measures water quality parameters: temp: 22.0° C; SpC: 270.2 µS/cm; TDS: 175.6 mg/L; pH: 7.80; Turbidity: 2.37 NTU** |
| **1331** | **Transducer water level: 114.23 feet bls. E. Fabelo/CDM measures water quality parameters: temp: 21.7° C; SpC: 271.2 µS/cm; TDS: 176.3 mg/L; pH: 7.76; Turbidity: 2.61 NTU** |
| **1412** | **Transducer water level: 114.20 feet bls. S. Caldwell/AC Schultes collects water quality sample for laboratory analysis** |
| **1415** | **Commence recovery phase of step drawdown test. FR: 0.0 gpm. Transducer will record water level data for an additional 5 hours. Totalizer: 7,739,000 gal** |
| **1500** | **E. Fabelo/CDM and S. Caldwell/AC Schultes off site** |




Initial totalizer reading on flowmeter on discharge line out of well



Stilling well set-up during step drawdown test



Sand content in Rossum Sand Tester at end of step drawdown test




Final totalizer reading at end of step drawdown test

# CITY OF VALDOSTA WELL No. 1 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.1**
**Valdosta, GA**

DATE(S) & TIME(S): January 17, 2025
0700-1600

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | | | **X** | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | **X** | | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | **X** | **X** | | |
| Wind | Still | Medium | High | |
| | **X** | | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | **X** | | | **19** |

## SHIFT SUMMARY

OBSERVER: E. Fabelo/CDM

START DEPTH: 450

DRILLER: AC Schultes Sammy Caldwell, James Hurley, Tyler Tucker, Edison Ospina, Jonathan Sinestra
COLOG – Jim Grace

END DEPTH: 450

ACTIVITY: The contractor performed geophysical logging (XY Caliper [XYC]) of the completed well from the bottom of the 17-inch outside diameter (OD) polyvinyl chloride (PVC) final tubing to 450 feet below land surface (bls).

FORMATION SAMPLES: NA

WATER SAMPLES: NA

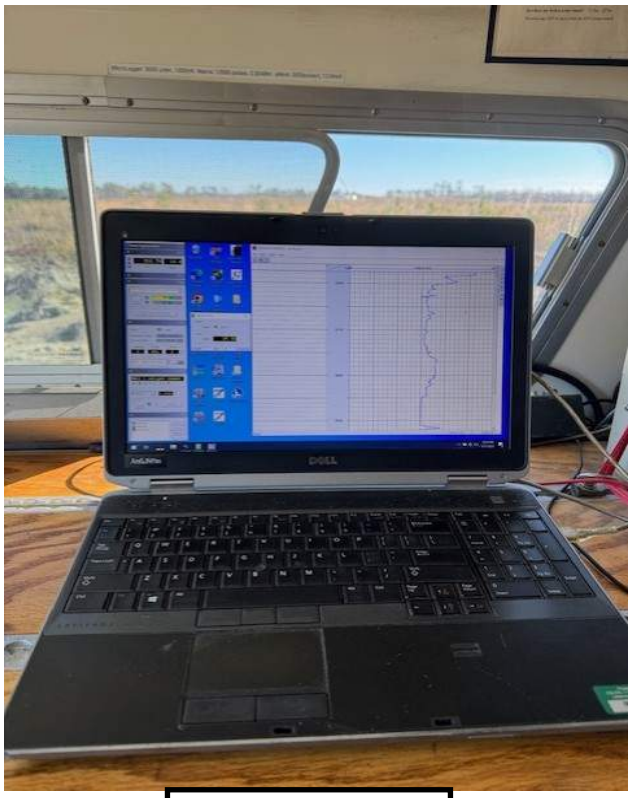
TESTING: Geophysical Logging

| TIME | DESCRIPTION |
|---|---|
| **0700** | **E. Fabelo/CDM on site** |
| **0730** | **J. Grace/COLOG on site to perform geophysical logging (XYC and Dynamic video) of the nominal 15-inch diameter open borehole from the bottom of the 17-inch outside diameter (OD) final PVC final tubing to the bottom of the borehole at 450 feet below land surface (bls)** |
| **0735** | **J. Grace/COLOG states the contractor did not communicate the type and nature of the logs to be performed today. The caliper and video logging equipment on site are not the correct equipment for a nominal 15-inch diameter borehole. The XYC tool arms have a maximum span of 16-inches and the video equipment does not have the correct centralizers for the diameter of the borehole.** |

| | |
|---|---|
| **0800** | **J. Grace/COLOG off site to hardware store. J. Grace will attempt to fabricate extensions for the XYC tool and new centralizers for the video equipment.** |
| **0850** | **J. Hurley, T. Tucker, E. Ospina and J. Sinestra/AC Schultes on site** |
| **0912** | **J. Grace/COLOG on site** |
| **0925** | **J. Grace commences setting up XYC tool. Tool will have a maximum span of 26-inches. J. Grace states that if that is not enough to accurately log the borehole, he will attach make-shift arm extenders purchased from a hardware store.** |
| **0943** | **Inside diameter (ID) of the 17-inch OD PVC final tubing confirmed at 15-inches. Measure well head stick-up at -3.1 feet bls** |
| **0946** | **Lower XYC tool downhole, pause, open caliper arms inside 17-inch OD PVC final tubing, tool reading 15.09-inches** |
| **0948** | **Zero XYC tool to land surface and lower downhole** |
| **0948** | **Pause lowering XYC tool to troubleshoot issue with depth readings** |
| **1001** | **Issue with depth readings resolved, resume lowering XYC tool downhole from land surface** |
| **1009** | **Tag bottom of the ream hole at 448.9 feet bls and open caliper arms** |
| **1013** | **Commence logging XYC uphole at 14.5 feet per minute (ft/min) – first pass** |
| **1030** | **Complete XYC first pass at 209 feet bls, close arms and trip tool out** |
| **1035** | **Tool at surface. XYC log exhibited several areas of two to three feet in height where the maximum span of the XYC tool was met, and possibly exceeded. J. Grace will rerun the log with the modified XYC tool.** |
| **1052** | **3-foot threaded rods were installed on each of the three caliper arms on the XYC tool extending each arm by 2.-inches XYC tool new length is 6.87-feet The threaded rods are attached with duct tape and hose clamps** |
| **1055** | **Calibrate XYC tool to 42-inches in diameter** |
| **1100** | **Lower XYC tool downhole, pause and verify calibration inside the 17-inch OD PVC final tubing, tool reading 15.08 inches** |
| **1103** | **Zero XYC tool to land surface and resume lower downhole** |
| **1113** | **Tag bottom of the ream hole at 448.64 feet bls** |
| **1115** | **Commence logging XYC uphole at 15.1 ft/min – second pass** |
| **1131** | **Complete XYC log at 200.0 feet bls** |
| **1136** | **Tool at surface, J. Grace rigging down logging equipment and preparing to mobilize to well No. 2** |
| **1525** | **J. Hurley and T. Tucker/AC Schultes off site** |
| **1530** | **J. Denson/AC Schultes on site to collect water samples for sulfide analysis at well No. 2** |
| **1600** | **E. Fabelo/CDM; J. Grace/COLOG; S. Caldwell, E. Ospina, J. Denson and J. Sinestra/AC Schultes off site** |



COLOG set up to commence logging the XYC first



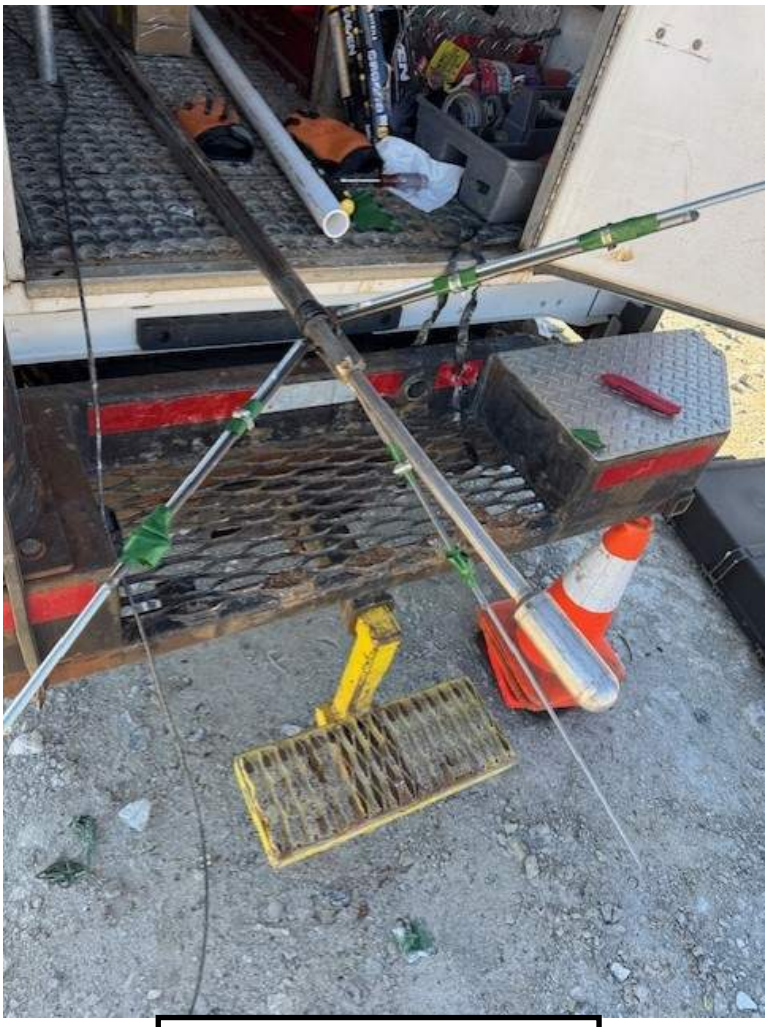
XYC log first pass



XYC tool after modifications with threaded rod to extend the maximum diameter of the tool



Calibrating the modified XYC tool to 42-inches in diameter



Modified XYC tool with arms open

# CITY OF VALDOSTA WELL No. 1 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.1**
**Valdosta, GA**

DATE(S) & TIME(S): January 18, 2025
0800-1330

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | | | | **X** |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | | **X** | **X** | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | **X** | | |
| Wind | Still | Medium | High | |
| | | **X** | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | | | **X** | **20** |

## SHIFT SUMMARY

OBSERVER: E. Fabelo/CDM

START DEPTH: 450

DRILLER: AC Schultes Sammy Caldwell, Tyler Tucker, Edison Ospina, Jonathan Sinestra
COLOG – Jim Grace

END DEPTH: 450

ACTIVITY: The contractor performed geophysical logging (Dynamic video survey) of the completed well from the bottom of the 17-inch outside diameter (OD) polyvinyl chloride (PVC) final tubing to 450 feet below land surface (bls).

FORMATION SAMPLES: NA

WATER SAMPLES: NA

TESTING: Geophysical Logging

| TIME | DESCRIPTION |
|---|---|
| **0800** | **E. Fabelo/CDM, J. Grace/COLOG and S. Caldwell/AC Schultes on site** |
| **0815** | **T. Tucker, E. Ospina and J. Sinestra/AC Schultes on site** |
| **1115** | **J. Grace preparing camera tool to perform Dynamic video survey** |
| **1121** | **Measure wellhead stick up at -3.05 feet bls, lower camera tool into well** |
| **1124** | **Zero camera tool to land surface and lower downhole** |
| **1128** | **Pause lowering camera tool downhole at 219 feet bls and prepare to trip in downhole pump** |
| **1200** | **Tripping in downhole pump** |
| **1245** | **Install temporary wellhead for discharge line** |

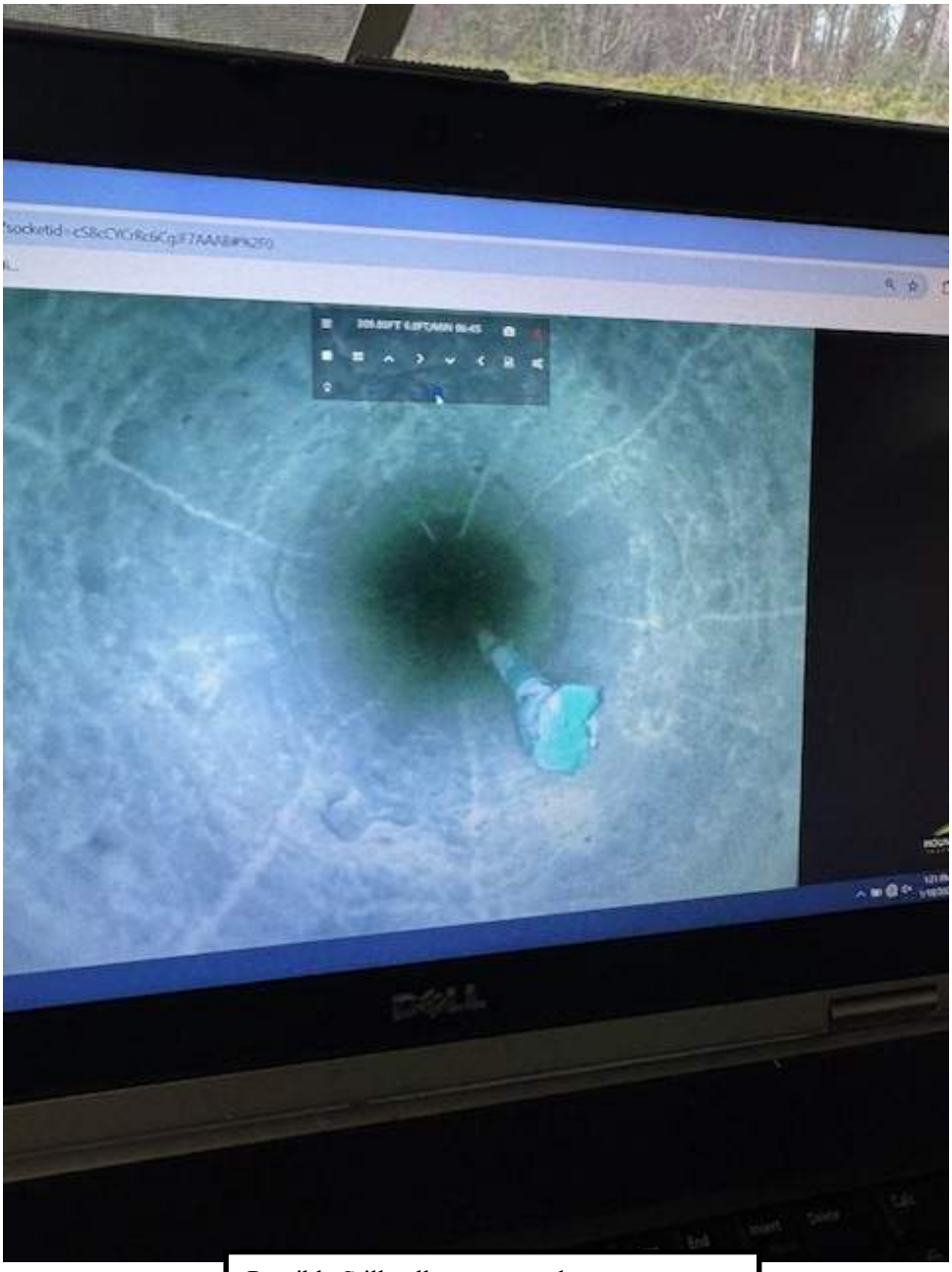
**1300** **Test pump functionality and prepare for logging**
**1308** **Turn pump on, flowrate approximately 1,400 gallons per minute**
**1310** **Commence logging Dynamic video downhole from 219 feet bls at 17.2 feet per minute**
**1317** **A string of PVC tubing approximately 140 feet long and 2-inches wide is encountered in the video log at approximately 310 feet bls. Possibly a fallen stillwell from the step drawdown test**
**1320** **Text with J. Mills about fallen stillwell.**
**1330** **E. Fabelo/CDM off site.**



Tripping in the downhole pump



Dynamic video logging set-up: camera tool and downhole pump both deployed in well



Possible Stillwell encountered at approximately 310 feet bls

# CITY OF VALDOSTA WELL No. 1 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.1**
**Valdosta, GA**

DATE(S) & TIME(S): January 24, 2025

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | | | **X** | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | **X** | **X** | **X** | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | **X** | **X** | | |
| Wind | Still | Medium | High | |
| | **X** | | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | **X** | | | **21** |

**SHIFT SUMMARY**

OBSERVER: E. Fabelo/CDM
START DEPTH: 450
DRILLER: AC Schultes
END DEPTH: 450

ACTIVITY: The contractor removed the fallen stilling well and performed the plumbness and alignment test over the cased portion of the well.

FORMATION SAMPLES: NA
WATER SAMPLES: NA

TESTING: Plumbness and Alignment

| TIME | DESCRIPTION |
|---|---|
| **1200** | **Contractor states they have removed the fallen stilling well** |
| **1700** | **Contractor states they have successfully performed the plumbness and alignment test using a 40-foot dummy with six (6) 15-inch discs. The dummy is constructed of two (2) 20-foot drill pipe singles. The first single has two (2) 15-inch discs welded at the beginning of the pipe. The second single has two (2) discs welded at the beginning and two (2) discs welded at the end of the pipe.** |



Retrieved fallen stilling well



Diameter of discs that will be used for the plumbness and alignment test



15-inch discs welded at beginning of first 20-foot drill pipe single (background) and beginning of second 20-foot drill pipe single (foreground)



15-inch discs welded at end of the second 20-foot drill pipe single





Plumbness and alignment test in execution: 40-foot dummy with 15-inch disc being lowered downhole

# Daily Construction Logs Well No. 2

# CITY OF VALDOSTA WELL No. 2 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.2**
**Valdosta, GA**

DATE(S) & TIME(S): October 2, 2024
0830-1700

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | X | | | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | X | | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | | X | X |
| Wind | Still | Medium | High | |
| | X | | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | | | X | **1** |

## SHIFT SUMMARY

OBSERVER: Jessica Yaich (JY)
START DEPTH: NA
DRILLER: AC Schultes – Harvey (Driller) and Yessid (helper)
END DEPTH: NA
ACTIVITY: Beginning construction of Well No. 2

FORMATION SAMPLES: NA
WATER SAMPLES: NA
TESTING: NA

| TIME | DESCRIPTION |
|---|---|
| **0830** | **Drillers and JY onsite. Confirmed with drillers that test pump is deployed in Well No. 1. Setting up drill rig at Well No. 2.** |
| **1000** | **Moving equipment around on site with excavator.** |
| **1030** | **Attaching 24" diameter steel pipe to rig (20 ft in length).** |
| **1045** | **Properly bolting down all studs on head attachment to pipe.** |
| **1200** | **Rowe offsite for lunch.** |
| **1240** | **JY offsite for lunch.** |
| **1300** | **Rowe onsite.** |
| **1310** | **JY onsite** |
| **1320** | **Welding tabs onto steel piping.** |
| **1510** | **Attaching 2nd 24" casing to rig and properly bolting down all studs to head attachment** |
| **1530** | **Welding steel casing together.** |
| **1545** | **Grinding down any bumps from welding.** |
| **1630** | **Attaching 3rd steel casing pipe.** |

**1645** **Welding casing together and grinding down any bumps or notches.**
**1700** **JY offsite**



**Drain line from Well No. 1 for test pumping**



**Setting up drill rig at Well No. 2**



**Attaching first 24” steel pipe to drill rig**



**Welding the first and second steel piping together**



**Deploying down the third and final pipe of the day (60 ft bgs)**

# CITY OF VALDOSTA WELL No.1 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.2**
**Valdosta, GA**

DATE(S) & TIME(S): October 3, 2024
0830 – 1415

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | | **X** | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | | **X** | | **X** |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | | **X** | **X** |
| Wind | Still | Medium | High | |
| | **X** | | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | | | **X** | **14** |

## SHIFT SUMMARY

OBSERVER: Jessica Yaich (JY)
START DEPTH: NA
DRILLER: AC Schultes – Harvey (Driller) and Yessid (helper)
END DEPTH: NA
ACTIVITY: Removing tabs from pipes

FORMATION SAMPLES: NA
WATER SAMPLES: NA
TESTING: NA

| TIME | DESCRIPTION |
|---|---|
| **0800** | **Drillers onsite** |
| **0830** | **JY onsite. Drillers are attaching 4th 24" diameter pipe and welding attachments to pipe in order to centralize casing down open cavity.** |
| **0940** | **Generator for test pump is delivered at Well No. 1.** |
| **0910** | **JG setting up log for dynamic video. Computer says starting depth is 0 ft bgs, however the logger is at 200 ft bgs.** |
| **1015** | **Sammy with Rowe onsite.** |
| **1040** | **Discussed with Sammy that a crane will be onsite to pull casing out of ground. Piping needs to be pulled so welded tabs can be removed.** |
| **1115** | **Rig is down for crane to arrive and set up over casing.** |
| **1120** | **Covering PVC drain line with dirt and gravel.** |
| **1155** | **JY offsite.** |
| **1235** | **JY onsite. While offsite drillers welded tabs onto top piece of casing above ground, so crane can attach ropes. Hydraulic services onsite to fix minor leak.** |

**1300** **Waiting for crane.**
**1415** **Crane onsite, will have to wait until tomorrow for correct size crane to arrive.**
**1440** **JY offsite.**



**Drill rig down and out of the way for crane to arrive onsite.**



**Tab that was attached to pipes by welding for centralizing. (These are what will be removed when the crane pulls casing out)**



**Drain line is covered with dirt and gravel to create a drive path for vehicles.**



**Generator located at Well No. 1.**

# CITY OF VALDOSTA WELL No.1 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.2**
**Valdosta, GA**

DATE(S) & TIME(S): October 4, 2024
0930 – 1430

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | | | **X** | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | **X** | | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | | **X** | **X** |
| Wind | Still | Medium | High | |
| | **X** | | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | | | **X** | **3** |

## SHIFT SUMMARY

OBSERVER: Jessica Yaich (JY)
START DEPTH: NA
DRILLER: AC Schultes – Harvey (Driller) and Yessid (helper)
END DEPTH: NA
ACTIVITY: Removing tabs from pipes

FORMATION SAMPLES: NA
WATER SAMPLES: NA
TESTING: NA

| TIME | DESCRIPTION |
|---|---|
| **0900** | **Crane onsite.** |
| **0930** | **JY onsite. Drillers are hooking up holsters to welded tabs on piping.** |
| **1000** | **Discussion with Rowe, crane is struggling to pull piping out of cavity. Piping is stuck in heavy clay making it exceed the weight limit for the crane.** |
| **1015** | **Drillers are circulating casing to release pressure. Discussion with Juan, tabs need to be removed in order for the casing to move through limestone.** |
| **1130** | **JY offsite.** |
| **1240** | **JY onsite. While offsite, 1 pipe was removed and tabs were removed from same pipe. Drillers pumped out water from well which released 16,000 lbs of pressure, so crane could pull piping out.** |
| **1300** | **Drillers cleaning up site, will re-weld piping onto 3 pipes down cavity. Crane removing holsters and preparing to leave the site.** |
| **1430** | **JY offsite.** |




**Crane onsite and attached holsters to pipe.**




**Crane lifted piping enough to remove pipe in order for drillers to remove tabs**



**Tri-cone drill bit that will be used after pipe is rewelded to remaining piping in cavity**



**Ground at Well No. 2 after pumping water out of well**

# CITY OF VALDOSTA WELL No.1 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.2**
**Valdosta, GA**

DATE(S) & TIME(S): October 7, 2024
0800-1500

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | **X** | | | | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | **X** | | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | | **X** | **X** |
| Wind | Still | Medium | High | |
| | **X** | | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | | | **X** | **4** |

## SHIFT SUMMARY

OBSERVER: Jessica Yaich (JY)
START DEPTH: NA
DRILLER: AC Schultes – Harvey (Driller) and Yessid (helper)
END DEPTH: NA
ACTIVITY: Reattaching 4th pipe and drilling

FORMATION SAMPLES: NA
WATER SAMPLES: NA
TESTING: NA

| TIME | DESCRIPTION |
|---|---|
| **0800** | **Drillers and JY onsite. Drillers performing maintenance on rig before setting up over cavity.** |
| **0845** | **Preparing to drill with tri-cone drill bit (24" diameter bit) and reattach steel casing.** |
| **1030** | **24" casing dropped about 3 feet in open cavity, drillers are welding tabs onto pipe in cavity to pull above ground surface.** |
| **1055** | **Casing pulled out of cavity above ground.** |
| **1120** | **Rewelding 4th pipe to piping in cavity.** |
| **1200** | **Flowmeter was brought onsite.** |
| **1230** | **JY offsite.** |
| **1310** | **JY onsite.** |
| **1400** | **Using 24" diameter drill bit to complete going down to 80 ft bls today.** |
| **1430** | **Begin drilling.** |
| **1500** | **JY offsite.** |



**Re-welded the 4th pipe to the remaining 3 pipes in cavity**




**Attaching hose to generator so drillers can pump water while drilling.**



**Driller welding tabs onto pipe in cavity. Attached with harness to drill rig.**



**Lifting 4th pipe and attaching to drill rig to be attached to remaining 3 pipes in cavity.**

# CITY OF VALDOSTA WELL No.1 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.2**
**Valdosta, GA**

DATE(S) & TIME(S): October 8, 2024
0830-1730

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | X | | | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | X | | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | | X | X |
| Wind | Still | Medium | High | |
| | X | | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | | | X | **5** |

## SHIFT SUMMARY

OBSERVER: Jessica Yaich (JY)
START DEPTH: NA
DRILLER: AC Schultes – Harvey (Driller) and Yessid (helper)
END DEPTH: NA
ACTIVITY: Continue drilling

FORMATION SAMPLES: NA
WATER SAMPLES: NA
TESTING: NA

| TIME | DESCRIPTION |
|---|---|
| **0730** | **Drillers onsite.** |
| **0830** | **JY onsite. Drillers got down to 80 ft bls last night. Currently attaching 5th pipe to steel casing in cavity. (This will be 100 ft bls once driven down into the ground)** |
| **0930** | **Second crew is at Well No. 1 setting up flow meter and drain line to well head.** |
| **1020** | **Brought excavator from Well 1 to 2 to hoist pipe up.** |
| **1110** | **Drilling 5th pipe into the cavity.** |
| **1235** | **JY offsite.** |
| **1330** | **JY onsite.** |
| **1400** | **Attaching 6th pipe. (Will make 120 ft bls)** |
| **1430** | **Welding pipes together.** |
| **1500** | **Driving piping down, continues to be slow process in thick clay interval. Pumping water in well to drive down.** |
| **1730** | **JY offsite.** |




**Flow meter attached to PVC drain line at Well No. 1**



**Second drill crew attaching drain line to well head**



**Drain line attached to well head. Generator next to well.**



**Driving down 5th pipe**

# CITY OF VALDOSTA WELL No.2 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.2**
**Valdosta, GA**

DATE(S) & TIME(S): November 7, 2024
0845-1810

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | | X | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | | X | X | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | | X | |
| Wind | Still | Medium | High | |
| | X | | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | | | X | **6** |

## SHIFT SUMMARY

OBSERVER: E. Fabelo/CDM
START DEPTH: 235
DRILLER: AC Schultes – Harvey (Driller) and Yessid (helper)
END DEPTH: 355
ACTIVITY: Pilot hole drilling from 235 feet to 355 feet below land surface (bls)

FORMATION SAMPLES: 230- 355 feet bls
WATER SAMPLES: NA

TESTING: NA

| TIME | DESCRIPTION |
|---|---|
| **0630** | **Drillers onsite** |
| **0845** | **E. Fabelo/CDM on site** |
| **0900** | **Driller states they are pilot hole drilling with an 11-inch diameter drill bit at 235 feet bls** |
| **0935** | **Kelly down, driller pauses pilot hole drilling to connect a 20-foot drill pipe single to the drill string** |
| **0945** | **Resume pilot hole drilling** |
| **1000** | **Continue drilling at approximately 245 feet bls** |
| **1031** | **Kelly down, driller pauses pilot hole drilling to connect a 20-foot drill pipe single to the drill string** |
| **1041** | **Resume pilot hole drilling. Approximate bit depth: 265 feet bls** |
| **1145** | **Contractor connecting a 20-foot drill pipe single to the drills string. Approximate bit depth: 295 feet bls** |
| **1221** | **Kelly down, driller pauses pilot hole drilling to connect a 20-foot drill pipe single to the drill string** |
| **1242** | **Crew performing site maintenance** |
| **1345** | **Crew resumes pilot hole drilling. Approximate bit depth: 320 feet bls** |

**1440** **Kelly down, driller pauses pilot hole drilling to connect a 20-foot drill pipe single to the drill string**
**1445** **Crew resumes pilot hole drilling. Approximate bit depth: 340 feet bls**
**1545** **Continue drilling at approximately 350 feet bls**
**1645** **Driller states he believes the bit is clogged, crew tripping out bit to unclog**
**1745** **Crew continues tripping out the drill string to inspect the bit**
**1800** **Crew has tripped out 11 20-foot drill pipe singles, driller states they will complete bit inspection tomorrow**
**1810** **All crews and E. Fabelo/CDM off site**



Driller pilot hole drilling at Well 2




Cuttings sample from 355 feet bls. Greenish gray clay visible

# CITY OF VALDOSTA WELL No.2 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.2**
**Valdosta, GA**

DATE(S) & TIME(S): November 12, 2024
0800-1815

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | X | | | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | X | | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | | X | |
| Wind | Still | Medium | High | |
| | X | | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | | X | | **7** |

## SHIFT SUMMARY

OBSERVER: E. Fabelo/CDM
START DEPTH: 385
DRILLER: AC Schultes – Harvey (Driller) and Yessid (helper)
END DEPTH: 425
ACTIVITY: Pilot hole drilling from 385 feet to 425 feet below land surface (bls)

FORMATION SAMPLES: 385- 425 feet bls
WATER SAMPLES: NA

TESTING: NA

| TIME | DESCRIPTION |
|---|---|
| **0630** | **Drillers onsite** |
| **0800** | **E. Fabelo/CDM on site. Drilling crew assisting a gravel delivery truck out of the mud** |
| **0815** | **Driller states they are pilot hole drilling with an 11-inch diameter drill bit at 385 feet bls** |
| **0915** | **Kelly down at 390 feet bls. Crew pauses pilot hole drilling to collect a water quality sample and connect a 20-foot drill pipe single to the drill string** |
| **0930** | **Resume pilot hole drilling** |
| **1015** | **Pause pilot hole drilling to add coolant to air compressor** |
| **1025** | **Resume pilot hole drilling** |
| **1130** | **Continue pilot hole drilling at approximately 400 feet bls** |
| **1230** | **Continue pilot hole drilling at approximately 405 feet bls** |
| **1350** | **Continue pilot hole drilling at approximately 410 feet bls** |
| **1430** | **Continue pilot hole drilling at approximately 412 feet bls** |



Observer's Initials
EF

| | |
|---|---|
| **1510** | **Kelly down at 415 feet bls. Crew pauses pilot hole drilling to collect a water quality sample and connect a 20-foot drill pipe single to the drills string** |
| **15:30** | **Resume pilot hole drilling** |
| **1640** | **Continue pilot hole drilling at approximately 423 feet bls** |
| **1730** | **Continue pilot hole drilling at approximately 425 feet bls** |
| **1815** | **E. Fabelo/CDM and crew offsite** |



Pilot hole drilling at approximately 420 feet bls

# CITY OF VALDOSTA WELL No.2 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.2**
**Valdosta, GA**

DATE(S) & TIME(S): November 13, 2024
0810-1800

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | X | | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | X | | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | | X | |
| Wind | Still | Medium | High | |
| | X | X | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | X | | | **8** |

## SHIFT SUMMARY

OBSERVER: E. Fabelo/CDM
START DEPTH: 425
DRILLER: AC Schultes – Harvey (Driller) and Yessid (helper)
END DEPTH: 450
ACTIVITY: Completed pilot hole drilling from 425 feet bls to 450 feet below land surface (bls)

FORMATION SAMPLES: 425- 450 feet bls
WATER SAMPLES: NA

TESTING: NA

| TIME | DESCRIPTION |
|---|---|
| 0630 | **Drillers onsite** |
| 0810 | **E. Fabelo/CDM on site.** |
| 0830 | **Driller states they are pilot hole drilling with an 11-inch diameter drill bit at 430 feet bls** |
| 0920 | **Kelly down at 435 feet bls, crew pauses pilot hole drilling, collects a water quality sample and connects a 20-foot drill pipe single to the drill string** |
| 0935 | **Resume pilot hole drilling** |
| 1017 | **Continue pilot hole drilling at approximately 440 feet bls** |
| 1045 | **Contractor states the pump in the well at well No. 1 is not working and will need to be removed from the well for further troubleshooting** |
| 1100 | **E. Fabelo/CDM off site** |
| 1300 | **Driller states they have reached final depth of this pilot hole interval at 450 feet bls** |
| 1645 | **E. Fabelo/CDM on site. Driller states they have been circulating the borehole** |
| 1735 | **Tripping out one 20-foot drill pipe single and shutting rig down** |



Observer's Initials EF

**1800 E. Fabelo/CDM and all crew off site**

# CITY OF VALDOSTA WELL No.2 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.2**
**Valdosta, GA**

DATE(S) & TIME(S): November 14, 2024
0810-1230

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | | X | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | X | X | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | | X | |
| Wind | Still | Medium | High | |
| | X | X | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | X | | | **9** |

## SHIFT SUMMARY

OBSERVER: E. Fabelo/CDM
START DEPTH: 450
DRILLER: AC Schultes – Harvey (Driller) and Yessid (helper)
END DEPTH: 450
ACTIVITY: Tripped 11-inch bit out of well and performed site maintenance.

FORMATION SAMPLES: NA
WATER SAMPLES: NA

TESTING: NA

| TIME | DESCRIPTION |
|---|---|
| **0630** | **Drillers onsite** |
| **1000** | **E. Fabelo/CDM on site** |
| **1005** | **Crew tripping out 11-inch diameter drill bit** |
| **1020** | **Bit at surface, crew preparing to move rig and perform site maintenance** |
| **1115** | **Rig moved south/southeast away from borehole, crew cleaning and organizing site in preparation for geophysical logging** |
| **1200** | **Crew continues cleaning and organizing site** |
| **1230** | **E. Fabelo/CDM and crews off site** |

# CITY OF VALDOSTA WELL No.2 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.2**
**Valdosta, GA**

DATE(S) & TIME(S): November 19, 2024
1030-1330

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | X | | | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | X | X | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | | X | |
| Wind | Still | Medium | High | |
| | X | X | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | X | | | **10** |

## SHIFT SUMMARY

OBSERVER: E. Fabelo/CDM
START DEPTH: 450
DRILLER: AC Schultes – Ed Bellamy, E.G. Bellamy, Jalen Denson
END DEPTH: 450
ACTIVITY: The contractor prepared to develop the well

FORMATION SAMPLES: NA
WATER SAMPLES: NA

TESTING: Water quality analysis

| TIME | DESCRIPTION |
|---|---|
| **1030** | **E. Fabelo/CDM on site. Contractor tripping in downhole pump to 140 feet below land surface (bls)** |
| **1100** | **Contractor completes tripping in downhole pump. Moves generator into place near wellhead** |
| **1120** | **Contractor assembling wellhead manifold** |
| **1205** | **Contractor commences well purge at approximately 1,400 gallons per minute (gpm). Discharge totalizer: 21,676,000 gallons** |
| **1207** | **Pause purge** |
| **1210** | **Purge well at approximately 1,400 gpm** |
| **1212** | **Pause purge** |
| **1214** | **Purge well at approximately 1,400 gpm** |
| **1216** | **Pause purge** |
| **1218** | **Purge well at approximately 1,400 gpm** |

| | |
|---|---|
| **1220** | **Pause purge** |
| **1225** | **Purge well at approximately 1,400 gpm** |
| **1227** | **Complete well purging** |
| **1230** | **Crew performing site maintenance** |
| **1250** | **Commence well development** |
| **1300** | **E. Fabelo/CDM checks water quality parameters. Temperature: 21.8° Celsius; pH: 8.03; Specific Conductance: 309.0 microsiemens per centimeter: Total dissolved solids: 200.9 milligrams per liter; Turbidity: 124 Nephelometric Turbidity Units** |
| **1305** | **Contractor pauses well development due to concerns the site is flooding. Contractor states they will return at 0700 with more hoses to extend discharge line further into the wetlands** |
| **1310** | **E. Fabelo/CDM and all crew off site** |



Discharge line set-up at Well 2

# CITY OF VALDOSTA WELL No.2 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.2**
**Valdosta, GA**

DATE(S) & TIME(S): November 20, 2024
0700-1845

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | **X** | | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes, COLOG

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | | **X** | **X** | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | **X** | **X** | |
| Wind | Still | Medium | High | |
| | **X** | | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | | | **X** | **11** |

## SHIFT SUMMARY

OBSERVER: E. Fabelo/CDM

START DEPTH: 450

DRILLER: AC Schultes – Ed Bellamy, E.G. Bellamy, Jalen Denson, Sammy Caldwell. COLOG- Jim Grace

END DEPTH: 450

ACTIVITY: The contractor developed the well and COLOG Geophysical Loggeing was on site to perform geophysical logging (Dynamic Fluid Conductivity and Temperature/Flowmeter [Dynamic FCT/FLOW], Gamma Ray [GR] and Dynamic Video Survey).

FORMATION SAMPLES: NA

WATER SAMPLES: NA

TESTING: Geophysical Logging

| TIME | DESCRIPTION |
|---|---|
| **0700** | **E. Fabelo/CDM and crew on site** |
| **0715** | **Contractor connecting hoses to well discharge line to extend discharge line further into wetlands** |
| **0720** | **Commence well development at approximately 1,400 gallons per minute (gpm)** |
| **0808** | **E. Fabelo/CDM checks water quality parameters. Temperature (Temp): 21.6° Celsius (C); pH: 8.25; Specific Conductance (SpC): 310.2 microsiemens per centimeter (µS/cm): Total dissolved solids (TDS): 201.7 milligrams per liter (mg/L); Turbidity: 20.8 Nephelometric Turbidity Unit (NTU)** |
| **0810** | **Discharge totalizer: 2,253,000 gallons** |

| | |
|---|---|
| **0909** | **Check water quality parameters. Temp: 21.8° C; pH: 8.15; SpC: 301.5 µS/cm; TDS: 196.0 mg/L; Turbidity: 18.9 NTU** |
| **1015** | **E. Fabelo/CDM checks sulfide content of discharge at 4.0 mg/L** |
| **1020** | **Check water quality parameters. Temp: 22.7° C; pH: 8.11; SpC: 298.5 µS/cm; TDS: 194.0 mg/L; Turbidity: 5.35 NTU** |
| **1110** | **Check water quality parameters. Temp: 22.3° C; pH: 8.12; SpC: 294.3 µS/cm; TDS: 191.3 mg/L; Turbidity: 10.6 NTU** |
| **1200** | **Check water quality parameters. Temp: 22.4° C; pH: 8.06; SpC: 296.6 µS/cm; TDS: 192.8 mg/L; Turbidity: 11.9 NTU** |
| **1245** | **Jim Grace/COLOG Geophysical Logging on site** |
| **1250** | **Check water quality parameters. Temp: 22.2° C; pH: 8.06; SpC: 299.0 µS/cm; TDS: 194.4 mg/L; Turbidity: 7.51 NTU. Geophysical logger preparing to perform geophysical logging Dynamic FCT and GR** |
| **1306** | **Measure wellhead stick up at 2.7 feet** |
| **1310** | **Lower FCT/GR tool into well** |
| **1317** | **Discharge totalizer: 2,670,200 gallons** |
| **1320** | **Trip FCT/GR tool out of well to recalibrate** |
| **1325** | **Lower FCT/GR tool downhole** |
| **1335** | **Geophysical logger encountering difficulties lowering FCT/GR tool around downhole pump. Moving FCT/GR tool up and down to move tool past obstruction** |
| **1342** | **Commence logging Dynamic FCT/GR downhole from 200 feet below land surface (bls) at 22 feet per minute (ft/min); FR approximately 1,400 gpm** |
| **1344** | **Slow line speed to 15.6 ft/min** |
| **1351** | **FCT/GR tool encountering obstructions/hangups at 327 feet, 355 feet, 371 feet, and 381 feet bls** |
| **1357** | **Tag bottom of the pilot hole at 454.4 feet bls. Complete Dynamic FCT and GR log, commence tripping FCT/GR tool out of the well** |
| **1405** | **FCT/GR tool at surface. Prepare for Dynamic FLOW logging** |
| **1422** | **Zero FLOW tool to surface. Totalizer: 2,758,300 gallons; FR: approximately 1,400 gpm** |
| **1428** | **Lower FLOW tool into well** |
| **1439** | **Commence logging Dynamic FLOW log downhole from 180 feet bls at 40 ft/min – first attempt** |
| **1446** | **Pause lowering FLOW log tool at 445.5 feet bls. Downhole log first attempt abandoned due to encountering obstructions** |
| **1447** | **Commence logging Dynamic FLOW log uphole at 40 ft/min – repeat pass** |
| **1455** | **Complete Dynamic FLOW log uphole repeat pass at 180 feet bls. Recommence Dynamic FLOW log downhole from 180 feet bls at 40 ft/min - second attempt** |
| **1501** | **Abandon Dynamic FLOW downhole log second attempt due to hitting obstructions, move FLOW tool to 180 feet bls** |
| **1505** | **Recommence Dynamic FLOW log downhole from 180 feet bls at 40 ft/min – third attempt** |
| **1509** | **Abandon Dynamic FLOW downhole log third attempt due to hitting obstructions, move FLOW tool to bottom of pilot hole. Geophysical logger states he cannot lower the FLOW tool downhole without encountering obstructions; cannot complete Dynamic FLOW log downhole; will log Dynamic FLOW uphole twice and perform stationary time drive logging over discrete intervals** |
| **1515** | **FLOW tool at 445 feet bls** |
| **1518** | **Commence logging Dynamic FLOW log uphole at 40.1 ft/min – main pass** |
| **1524** | **Complete Dynamic FLOW log uphole main pass at 180 feet bls and move FLOW tool back downhole** |
| **1535** | **Pause lowering FLOW log tool at 445.5 feet bls. Commence logging Dyanmic FLOW log uphole at 60 ft/min – repeat pass** |
| **1540** | **Complete Dynamic FLOW log uphole repeat pass at 180 feet bls and move FLOW tool back downhole** |
| **1545** | **Pause lowering FLOW log tool at 445.5 feet bls. Commence logging Dyanmic FLOW log uphole at 60 ft/min – main pass** |
| **1551** | **Complete Dynamic FLOW log uphole main pass at 180 feet bls and move FLOW tool back downhole** |
| **1600** | **Pause lowering FLOW tool at 430 feet bls. Commence 1-minute time drive Dynamic FLOW logging** |
| **1601** | **Complete 1-minute time drive logging at 430 feet bls, move FLOW tool to next time drive station** |
| **1604** | **FLOW tool at 380 feet bls. Commence 1-minute time drive Dynamic FLOW logging** |
| **1605** | **Complete 1-minute time drive logging at 380 feet bls, move FLOW tool to next time drive station** |
| **1606** | **FLOW tool at 370 feet bls. Commence 1-minute time drive Dynamic FLOW logging** |
| **1607** | **Complete 1-minute time drive logging at 370 feet bls, move FLOW tool to next time drive station** |
| **1609** | **FLOW tool at 350 feet bls. Commence 1-minute time drive Dynamic FLOW logging** |
| **1610** | **Complete 1-minute time drive logging at 350 feet bls, move FLOW tool to next time drive station** |

| | |
|---|---|
| **1611** | **FLOW tool at 320 feet bls. Commence 1-minute time drive Dynamic FLOW logging** |
| **1612** | **Complete 1-minute time drive logging at 320 feet bls, move FLOW tool to next time drive station** |
| **1614** | **FLOW tool at 240 feet bls. Commence 1-minute time drive Dynamic FLOW logging** |
| **1615** | **Complete 1-minute time drive logging at 240 feet bls, move FLOW tool to next time drive station** |
| **1616** | **FLOW tool at 180 feet bls. Commence 1-minute Dynamic FLOW time drive logging** |
| **1619** | **Complete 1-minute time drive logging at 180 feet bls, complete Dynamic FLOW log. Trip FLOW tool out of the well** |
| **1625** | **FLOW tool at surface, two blades are missing from the propeller. Prepare for Dynamic video survey** |
| **1630** | **Totalizer: 2,931,000 gallons** |
| **1633** | **Zero camera tool to land surface** |
| **1635** | **Lower camera tool into well** |
| **1658** | **Camera tool at surface. Unable to move camera tool past downhole pump, tool becomes trapped between pump impeller and casing sidewall. Geophysical logger will attempt to reconfigure the centralizers** |
| **1705** | **Lower camera tool into well** |
| **1714** | **Commence logging video survey downhole from 200 feet bls at 12 ft/min** |
| **1718** | **Generator supplying power to the downhole pump out of fuel and shuts down. Pump cuts off, pause video survey** |
| **1730** | **Crew has refueled generator. Generator will not start, crew troubleshooting the issue** |
| **1757** | **Generator started, downhole pump resumes pumping at approximately 1,400 gpm, resume video survey downhole from 245 feet bls** |
| **1759** | **Camera tool may be missing centralizers. Tool is sliding down borehole wall and encountering many obstructions. Geophysical logger moving wireline up and down by hand to move camera tool off borehole wall and past obstructions** |
| **1801** | **Camera hits large rock obstruction at approximately 279 feet bls** |
| **1823** | **Signal from camera lost at 370.7 feet bls. Abandon downhole video survey, trip camera tool out of the well** |
| **1831** | **Camera tool at surface. Tool is missing centralizers, and the camera lens has cracked open. Signal loss likely due to flooding of internal camera components. Logger states there are no auxiliary camera tools** |
| **1833** | **Shut off downhole pump. Totalizer: 3,043,3000 gallons. Geophysical logger breaking down logging equipment.** |
| **1835** | **Contractor states they will not remove downhole pump from the well tonight. 12-hour wait period for static borehole conditions commences** |
| **1845** | **E. Fabelo/CDM, J. Grace/COLOG geophysical logger and contractor off site** |

# CITY OF VALDOSTA WELL No.2 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.2**
**Valdosta, GA**

DATE(S) & TIME(S): November 21, 2024
0730-1545

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | | X | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes, COLOG

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | X | X | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | X | X | | |
| Wind | Still | Medium | High | |
| | | X | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | X | | | **12** |

## SHIFT SUMMARY

OBSERVER: E. Fabelo/CDM

START DEPTH: 450

DRILLER: AC Schultes – Ed Bellamy, E.G. Bellamy, Sammy Caldwell. COLOG - Jim Grace

END DEPTH: 450

ACTIVITY: COLOG Geophysical Loggering was on site to perform geophysical logging (Static Fluid Conductivity and Temperature/Flowmeter [Static FCT/FLOW], Electric Logs (EL), XY Caliper [XYC], Borehole Compensated Sonic with Variable Density Log [BHCS w/VDL], and Cement Bond Log [CBL]).

FORMATION SAMPLES: NA

WATER SAMPLES: NA

TESTING: Geophysical Logging

| TIME | DESCRIPTION |
|---|---|
| **0730** | **E. Fabelo/CDM and crew on site** |
| **0740** | **E. Grace/COLOG Geophysical Logging on site** |
| **0750** | **Geophysical logger preparing to conduct Static FCT logging** |
| **0755** | **Zero FCT tool to land surface** |
| **0800** | **Lower FCT tool downhole** |
| **0804** | **Pause lowering FCT tool at 200 feet below land surface (bls)** |

| | |
|---|---|
| **0807** | **Commence Static FCT logging downhole from 200 feet bls at 15.4 feet per minute (ft/min) – first attempt** |
| **0811** | **Abandon Static FCT log first attempt after getting FCT tool stuck. Move FCT tool to 200 feet bls** |
| **0813** | **Commence Static FCT logging downhole from 200 feet bls at 13 ft/min** |
| **0817** | **Decrease line speed to 11.7 ft/min** |
| **0821** | **Increase line speed to 12.6 ft/min** |
| **0835** | **Complete Static FCT log at 450.3 feet bls. E. Fabelo/CDM recommends verifying FCT tool calibration once at surface** |
| **0847** | **FCT tool at surface. Geophysical logger preparing to verify tool calibrations with a 1,000 microsiemens per centimeter (µS/cm) conductivity standard** |
| **0900** | **FCT tool not within acceptable calibration. J. Grace/COLOG geophysical logger states the COLOG home office will apply a formula to the conductance values collected during FCT logging to bring them to within calibration.** |
| **0913** | **Logger preparing for EL logs. Installed electrical probe approximately 15 feet to the southwest of the wellhead** |
| **0916** | **Zero EL tool to land surface** |
| **0918** | **Lower EL tool downhole** |
| **0926** | **Tag bottom of pilot hole at 453.45 feet bls** |
| **0929** | **Commence logging EL uphole at 18.8 ft/min** |
| **0942** | **Complete EL log at 200 feet bls** |
| **0950** | **EL tool at surface. Prepare to run XYC log** |
| **1000** | **XYC tool to land surface** |
| **1003** | **Lower XYC tool downhole** |
| **1006** | **Pause lowering XYC tool inside the 17-inch outside diameter (OD) polyvinyl chloride (PVC) tubing to verify tool calibrations using the inside diameter (ID) of the PVC tubing** |
| **1010** | **ID of 17-inch OD PVC tubing is 15-inches, XYC tool reading 20 inches. Logger recalibrating tool** |
| **1013** | **Calibrations reset, resume lowering XYC tool downhole** |
| **1021** | **Tag bottom of the pilot hole at 452.79 feet bls and open caliper arms** |
| **1028** | **Commence logging XYC uphole at 15 ft/min** |
| **1035** | **Decrease line speed to 11.1 ft/min** |
| **1051** | **Complete XYC log at 199.93 feet bls. E. Fabelo/CDM observes the real time digital read out of the caliper values and what's being recorded on the log do not match. J. Grace/geophysical logger states the logging program needs to be reset, but that all values are being recorded accurately** |
| **1100** | **XYC tool at surface** |
| **1120** | **Contractor tripping downhole pump out of well in preparation to trip in the BHCS w/VDL tool** |
| **1230** | **Contractor zeros BHCS w/VDL tool to land surface** |
| **1237** | **Lower BHCS w/VDL tool downhole** |
| **1244** | **Pause lowering BHCS w/VDL tool at 445.2 feet bls** |
| **1245** | **Commence logging BHCS w/VDL uphole at 5 ft/min** |
| **1315** | **Complete BHCS w/VDL log at 224 feet bls and commence logging CBL uphole from 224 feet bls at 5 ft/min** |
| **1400** | **BHCS w/VDL tool at surface, complete CBL. Prepare for Static FLOW logging** |
| **1419** | **Zero FLOW tool to land surface** |
| **1421** | **Lower FLOW tool downhole** |
| **1440** | **Pause lowering FLOW tool at 445 feet bls. Logger had difficulty lowering tool past obstructions to bottom of the well. Commence logging Static FLOW uphole at 40 ft/min** |
| **1447** | **Complete Static FLOW log at 179.72 feet bls, move FLOW tool downhole** |
| **1454** | **Pause lowering FLOW tool at 445 feet bls** |
| **1455** | **Commence logging Static FLOW uphole at 60.56 ft/min** |
| **1500** | **Complete Static FLOW log at 180.0 feet bls** |
| **1506** | **Logger unable to lower tool past obstructions in well and will trip FLOW tool out of well to verify its functionality** |
| **1510** | **FLOW tool at surface, propeller is bent and unable to spin, Static FLOW logging abandoned. Logger rigging down geophysical logging equipment** |
| **1545** | **E. Fabelo/CDM off site** |

# CITY OF VALDOSTA WELL No.2 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.2**
**Valdosta, GA**

DATE(S) & TIME(S): December 4, 2024
0720-1900

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | **X** | | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | **X** | **X** | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | **X** | **X** | | |
| Wind | Still | Medium | High | |
| | **X** | **X** | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | **X** | | | **13** |

## SHIFT SUMMARY

OBSERVER: E. Fabelo/CDM

START DEPTH: 450

DRILLER: AC Schultes – E.G. Bellamy, Jalen Denson, Sammy Caldwell and Tyler Tucker. COLOG - Jim Grace

END DEPTH: 450

ACTIVITY: COLOG Geophysical Loggers was on site to perform geophysical logging (Static Fluid Flowmeter [Static FLOW] and Static video survey.)

FORMATION SAMPLES: NA

WATER SAMPLES: NA

TESTING: Geophysical logging.

| TIME | DESCRIPTION |
|---|---|
| **0720** | **E. Fabelo/CDM and J. Grace/COLOG geophysical logger on site** |
| **0730** | **Logger setting up geophysical logging equipment** |
| **0735** | **S. Caldwell/AC Schultes on site** |
| **0745** | **Logger setting up camera tool in preparation to conduct Static video survey** |
| **0753** | **Logger suspends camera tool over well and zeros tool to land surface** |
| **0802** | **Logger configuring camera settings** |
| **0805** | **Lower camera tool downhole** |
| **0811** | **Commence logging Static video downhole from 224 feet below land surface (bls) at 10 feet per minute (ft/min) – first attempt** |

| | |
|---|---|
| **0812** | **Abandon Static video first attempt. Camera tool moving downhole against the borehole wall and getting stuck in voids/possible caverns or areas of washout. Logger tripping tool out of well to verify position of centralizers** |
| **0816** | **Camera tool at surface, centralizers are correctly placed. Logger lowering camera tool downhole** |
| **0820** | **Commence logging Static video downhole from 224 bls at 10 ft/min – second attempt** |
| **0822** | **Abandon Static video survey second attempt over concerns the camera will become damaged. Camera tool continues moving downhole against the borehole wall and getting stuck in voids/possible caverns or areas of washout. Tripping tool out of well** |
| **0830** | **Camera tool at surface. Logger measures diameter of centralizers at 10-inches; will install new centralizers with a diameter of 13-inches. Pilot hole was drilled with an 11-inch diameter drill bit and the borehole has intervals that are larger and smaller than gauge** |
| **0845** | **Logger zeros camera tool to land surface and runs tool downhole with 13-inch diameter centralizers** |
| **0848** | **Commence logging Static video downhole from 224 bls at 10 ft/min – third attempt** |
| **0850** | **Camera continues to move downhole against borehole wall and getting stuck in voids/possible caverns or areas of washout at 233 feet bls. Logger attempting to move camera tool past obstruction by moving wireline and up down by hand** |
| **0855** | **Abandon Static video survey third attempt over concerns the camera will become damaged. Camera tool continues moving downhole against borehole wall. Tripping camera tool out of well tool to reconfigure centralizers** |
| **0858** | **Camera tool at surface, logger installing 18-inch diameter centralizers on camera tool and will add centralizers above camera tool with a make-shift configuration of a plastic tube and spare logging parts. This will give the camera tool two sections of centralizers to help the tool move downhole in the center of the borehole** |
| **1045** | **Camera tool reconfigured with two sections of centralizers. Logger preparing to lower tool downhole** |
| **1051** | **Logger zeros camera tool to land surface and lowers tool downhole** |
| **1054** | **Commence logging Static video downhole from 224 bls at 10 ft/min – fourth attempt** |
| **1103** | **Abandon Static video survey fourth attempt, unable to move camera tool past 234 feet bls. Borehole appears to be smaller than gauge at this depth. Tripping tool out of well** |
| **1108** | **Camera tool at surface, logger adjusting diameter of centralizers** |
| **1124** | **Centralizers reconfigured with bottom centralizers set to 11-inches in diameter and top centralizers set to 9-inches in diameter** |
| **1125** | **Logger zeros camera tool to land surface and lowers tool downhole** |
| **1130** | **Commence logging Static video downhole from 224 bls at 10 ft/min – fifth attempt** |
| **1140** | **Camera tool hitting obstruction at approximately 322 feet bls. Logger moving wireline up and down by hand to move tool past obstruction** |
| **1142** | **Camera tool moved past obstruction at 322 feet bls and encounters obstruction at 327 feet bls. Logger moving wireline up and down by hand to move tool past obstruction** |
| **1145** | **Abandon Static video survey fifth attempt. At approximately 338.25 feet bls the borehole is blocked by a rock possibly fallen from an uphole section of the borehole. Tripping camera tool out of well** |
| **1155** | **Camera tool at surface. Logger states he will trip in the XY Caliper (XYC) tool in an attempt to dislodge the rock obstruction** |
| **1216** | **Logger zeros the XYC tool to land surface and lowers too downhole** |
| **1225** | **XYC tool at 450 feet bls. Rock obstruction presumed cleared. Logger opens caliper arms and will log an XYC pass to verify obstruction is fully cleared** |
| **1230** | **Commence logging XYC uphole – verification pass** |
| **1240** | **Complete XYC verification pass at 283 feet bls. Obstruction blocking the borehole appears to have been cleared. Trip XYC tool out of well** |
| **1246** | **XYC tool at surface** |
| **1250** | **Logger reassembling camera tool** |
| **1306** | **Logger zeros the camera tool to land surface and lowers tool downhole** |
| **1311** | **Commence logging Static video survey downhole from 224 feet bls – sixth attempt** |
| **1322** | **Camera tool getting stuck in a void at 320 feet and 322 feet bls but logger able to move camera tool out of void** |
| **1326** | **Camera tool getting stuck in void at 360 feet bls but logger able to move camera tool out of void** |
| **1336** | **Camera tool lightly tags bottom of the borehole at 453.53 feet bls. Complete Static video survey. Logger tripping camera tool out of the well** |
| **1345** | **Camera tool at surface, logger preparing to perform Static Flow logging** |
| **1414** | **Logger zeros FLOW tool to land surface and lowers tool downhole. Logger will only log time-drive stop counts, trolling Static logging completed on 11/21/24** |

| | |
|---|---|
| **1427** | **FLOW tool at 430 feet bls. Commence approximately 1-minute time drive Static FLOW logging** |
| **1430** | **Complete 1-minute time drive logging at 430 feet bls, move FLOW tool to next time drive station** |
| **1432** | **FLOW tool at 380 feet bls. Commence approximately 1-minute time drive Static FLOW logging** |
| **1434** | **Complete 1-minute time drive logging at 380 feet bls, move FLOW tool to next time drive station** |
| **1435** | **FLOW tool at 370 feet bls. Commence approximately 1-minute time drive Static FLOW logging** |
| **1437** | **Complete 1-minute time drive logging at 370 feet bls, move FLOW tool to next time drive station** |
| **1438** | **FLOW tool at 350 feet bls. Commence approximately 1-minute time drive Static FLOW logging** |
| **1440** | **Complete 1-minute time drive logging at 350 feet bls, move FLOW tool to next time drive station** |
| **1441** | **FLOW tool at 320 feet bls. Commence approximately 1-minute time drive Static FLOW logging** |
| **1442** | **Complete 1-minute time drive logging at 320 feet bls, move FLOW tool to next time drive station** |
| **1445** | **FLOW tool at 240 feet bls. Commence approximately 1-minute time drive Static FLOW logging** |
| **1446** | **Complete 1-minute time drive logging at 240 feet bls, move FLOW tool to next time drive station** |
| **1448** | **FLOW tool at 180 feet bls. Commence approximately 1-minute time drive Static FLOW logging** |
| **1449** | **Complete 1-minute time drive logging at 180 feet bls. Complete Static FLOW logging. Logger tripping FLOW tool out of well** |
| **1452** | **FLOW tool at surface** |
| **1500** | **Logger preparing camera tool for Dynamic video logging. E.G. Bellamy, Jalen Denson and Tyler Tucker/AC Schultes on site** |
| **1510** | **Logger tripping in camera tool to approximately 200 feet bls** |
| **1540** | **Contractor tripping in downhole pump to perform Dynamic video survey** |
| **1630** | **Contractor continues tripping in downhole pump** |
| **1645** | **Contractor installing wellhead stick-up on downhole pump string** |
| **1726** | **Contractor connecting discharge line to wellhead stick-up but is missing enough bolts to connect the flowmeter. S. Caldwell and T. Tucker/AC Schultes off site to purchase more bolts. Contractor connecting electrical connections from generator to downhole pump** |
| **1810** | **S. Caldwell and T. Tucker/AC Schultes on site with new bolts, contractor resumes connecting discharge line and flowmeter to wellhead** |
| **1822** | **Discharge line connected, contractor preparing to turn on downhole pump and verify functionality. Flowmeter totalizer: 3,043,300 gallons** |
| **1845** | **Contractor troubleshooting issue with downhole pump. Pump not turning on** |
| **1855** | **Contractor states they will have to trip the downhole pump out of the well to continue troubleshooting issue with pump. Work scheduled for tomorrow morning, 12/5/24** |
| **1900** | **E. Fabelo/CDM, J. Grace/COLOG, AC Schultes crew off site** |



J. Grace/COLOG geophysical logger with modified camera tool. Makeshift centralizers added above camera tool.



Geophysical logging at Well 2




Rock obstruction in the well at approximately 338 feet bls. Camera tool is unable to continue downhole.



Contractor tripping in pump for the Dynamic video Survey.




Flowmeter totalizer before Dynamic video logging. Reading: 3,043,300 gallons

# CITY OF VALDOSTA WELL No. 2 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.2**
**Valdosta, GA**

DATE(S) & TIME(S): January 03, 2025
0600-1655

| SSun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | | | **X** | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | **X** | **X** | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | **X** | **X** | | |
| Wind | Still | Medium | High | |
| | **X** | | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | **X** | | | **14** |

## SHIFT SUMMARY

OBSERVER: J. Mills/CDM
START DEPTH: 450
DRILLER: AC Schultes – Sammy Caldwell, Roberto Rodriguez
END DEPTH: 450
ACTIVITY: The contractor performed a step drawdown test

FORMATION SAMPLES: NA
WATER SAMPLES: Step Drawdown Test Samples

TESTING: Step Drawdown Test

| TIME | DESCRIPTION |
|---|---|
| **0600** | **J. Mills/CDM on site** |
| **0605** | **Call with S. Caldwell/AC Schultes. S. Caldwell informs crew worked late the night before and will come in at 0730 to commence the step drawdown test** |
| **0615** | **J. Mill/CDM off site to gas station** |
| **0720** | **J. Mills/CDM, S. Caldwell and R. Rodriguez/AC Schultes on site. Measure top of stilling well at -4 feet below land surface (bls). Measure water level in well at 116 feet bls, 120 feet below top of stilling well. Flowmeter totalizer: 71,000 gallons (gal). Commence step drawdown test then abandon test due to incorrect time and date settings** |
| **0815** | **Recommence step drawdown test with correct date and time. Totalizer: 76,000. Water level above probe: 24.05 feet (110.95 feet bls)** |
| **0820** | **Flowrate (FR) out of well: approximately 1,050 gallons per minute (gpm)** |
| **0827** | **Commence sand Rossum test** |

| | |
|---|---|
| **1012** | **Collect Step 1 water quality lab sample for** |
| **1015** | **Commence Step 2, increased FR to approximately 1,530 gpm, Totalizer prior to FR increase: 201,000 gal** |
| **1300** | **Collect Step 2 water quality sample** |
| **1315** | **Totalizer: 480,000 gal** |
| **1320** | **Commence Step 3, increase FR to approximately 2,700 gpm. Reset Sand Rossum test** |
| **1328** | **Downhole pump unexpectedly shuts off** |
| **1329** | **Pump restarted but continues tripping and shutting off** |
| **1351** | **Restart pump at 2,700 gpm** |
| **1430** | **Read and empty Sand Rossum tester** |
| **1515** | **Collect Step 3 water quality sample . S. Caldwell off site with water quality samples for lab analysis** |
| **1616** | **Commence recovery step of steo drawdown test. Totalizer: 835,000 gal** |
| **1646** | **Download data from datalogger** |
| **1655** | **J. Mills/CDM off site. R. Rodriguez will remain on site for 2-4 hour total recovery** |

# CITY OF VALDOSTA WELL No. 2 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.2**
**Valdosta, GA**

DATE(S) & TIME(S): January 7, 2025
1150-1710

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | X | | | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | X | | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | X | | | |
| Wind | Still | Medium | High | |
| | X | | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | X | | | **15** |

## SHIFT SUMMARY

OBSERVER: E. Fabelo/CDM

START DEPTH: 450

DRILLER: AC Schultes –Tyler Tucker, Jalen Denson, Sammy Caldwell, Roberto Rodriguez, James Hurley, Edison Ospino

END DEPTH: 450

ACTIVITY: Contractor prepared for and commenced Molecular Particulate Analysis (MPA) sampling

FORMATION SAMPLES: NA

WATER SAMPLES: NA

TESTING: MPA sampling

| TIME | DESCRIPTION |
|---|---|
| **1150** | **E. Fabelo/CDM on site** |
| **1155** | **No activity on site. Contractor states the motor on the downhole pump is not working. They are waiting on the arrival of a new pump motor** |
| **1225** | **New motor on site, contractor preparing for installation** |
| **1305** | **Contractor installing new motor on pump impeller housing and splicing motor wiring** |
| **1410** | **Commence tripping in downhole pump** |
| **1505** | **Continue tripping in downhole pump** |
| **1525** | **Install discharge line stick-up on wellhead** |
| **1600** | **Install motor wiring on generator** |

| | |
|---|---|
| **1615** | **Commence well development. Contractor setting flowrate (FR). E. Fabelo/CDM assembles MPA sampling apparatus and allows discharge to flow through to clean the apparatus before installation of the MPA filter. T. Tucker, J. Hurley, E. Ospino, J. Desnon/AC Schultes off site** |
| **1633** | **Commence MPA sampling. FR on well discharge set to approximately 1,500 gallons per minute (gpm); FR through MPA sampling apparatus set to 1 gpm. Totalizer on the discharge line: 950,000 gallons (gal); totalizer on MPA sampling apparatus: 109,914 gal** |
| **1645** | **E. Fabelo/CDM measures water quality parameters: Temperature: 21.8° Celsius; pH: 8.62; Turbidity: 0.84 Nephelometric Turbidity Units** |
| **1710** | **E. Fabelo/CDM and S. Caldwell/AC Schultes off site. R. Rodriguez/AC Schultes will remain on site for the duration of the 16-hour MPA sampling test** |



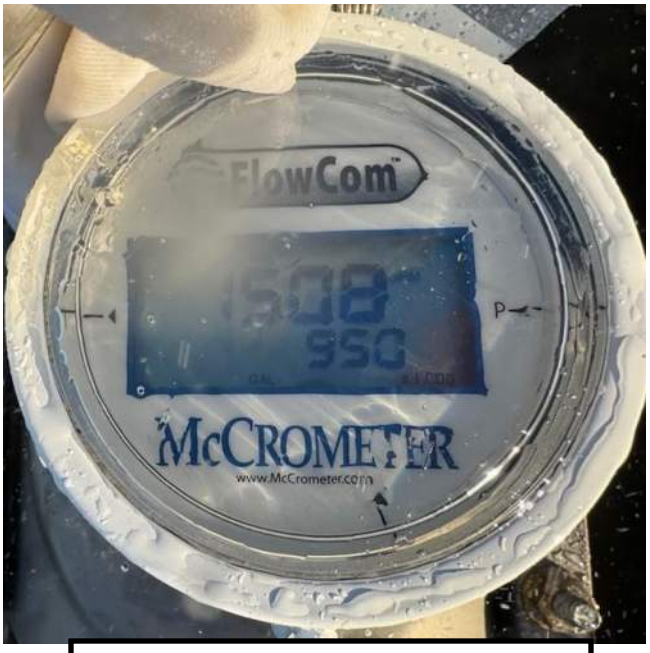
End of discharge line. Note valve is placed downstream of flowmeter and MPA sampling apparatus.



Contractor installing new motor on impeller housing and splicing motor wiring.



Discharge line set-up at the wellhead.




Totalizer and FR on the well discharge line at the start of MPA sampling.



Totalizer on the MPA sampling apparatus at the start of MPA sampling.



MPA sampling apparatus after commencing MPA sampling.

# CITY OF VALDOSTA WELL No. 2 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No. 2**
**Valdosta, GA**

DATE(S) & TIME(S): January 8, 2025
0745-1500

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | X | | | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | X | | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | X | X | | |
| Wind | Still | Medium | High | |
| | X | X | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | X | | | **16** |

## SHIFT SUMMARY

OBSERVER: E. Fabelo/CDM

START DEPTH: 450

DRILLER: AC Schultes – Sammy Caldwell and Roberto Rodriguez. Valdosta Water Treatment Plant (VWTP) 1 –Charles Browning. Advanced Environmental Laboratories (AEL)

END DEPTH: 450

ACTIVITY: The contractor completed Molecular Particulate Analysis (MPA) sampling, VWTP 1 was on site to collect water samples for Polyfluoroalkyl Substances (PFAS) analysis and AEL was on site to collect water samples for Primary and Secondary Drinking Water Standards

FORMATION SAMPLES: NA

WATER SAMPLES: PFAS, Primary and Secondary Drinking Water Standards

TESTING: MPA sampling

| TIME | DESCRIPTION |
|---|---|
| **0745** | **E. Fabelo/CDM and S. Caldwell/AC Schultes on site. R. Rodriguez/AC Schultes on site since yesterday** |
| **0750** | **E. Fabelo/CDM checks flowrate (FR) through MPA sampling apparatus. There is no flow, troubleshooting the issue** |
| **0755** | **Valve from discharge line to sampling apparatus became closed at some point in the night, only 85 gallons (gal) of discharge passed through the apparatus filter. E. Fabelo/CDM informs AC Schultes that the test will need to be extended until 500 gal of discharge have passed through the filter; reset FR** |

**at 1 gallon per minute (gpm) and continue MPA sampling. Totalizer on MPA sampling apparatus: 109,999 gal. Well discharge FR: approximately 1,500 gpm**

**0817** **AEL on site to collect water samples for Primary and Secondary Drinking Water Standards and commences sample collection**

**0827** **C. Browning/VWTP 1 on site to collect water samples for PFAS analysis**

**0838** **AEL completes sample collection. AEL off site**

**0840** **C. Browning/VWTP 1 commences sample collection**

**0850** **C. Browning/VWTP 1 completes sample collection. C. Browning/VWTP 1 off site**

**1000** **Continue monitoring MPA sampling**

**1100** **Continue monitoring MPA sampling**

**1200** **Continue monitoring MPA sampling**

**1300** **Continue monitoring MPA sampling**

**1338** **E. Fabelo/CDM measures water quality parameters: Temperature: 21.1° Celsius; pH: 8.52; Turbidity: 0.37 Nephelometric Turbidity Units**

**1345** **501 gal have passed through the MPA sampling apparatus and collect filter. Complete MPA Sampling. Totalizer on MPA sampling apparatus: 110,415 gal; Totalizer on the discharge line: 2,843,000 gal**

**1350** **E. Fabelo/CDM off site**

**1410** **E. Fabelo/CDM on site at VWTP 1 to package MPA sampling apparatus and filter for shipment to laboratory**

**1430** **E. Fabelo/CDM off site**

**1450** **E. Fabelo/CDM on site at the FedEx shipment facility. Equipment and filter shipped via overnight shipping, tracking No.: 8180 5026 3373**

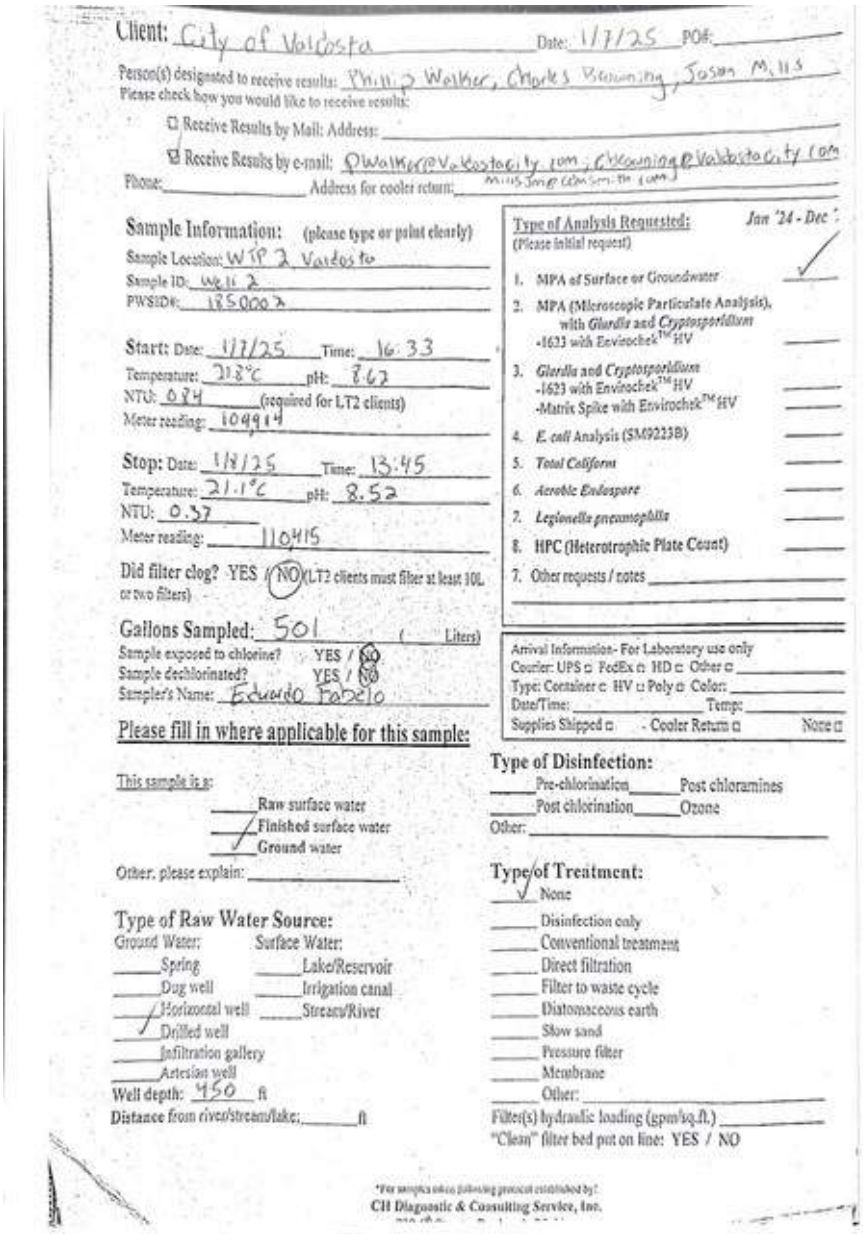
**1500** **E. Fabelo/CDM off site**




MPA Filter ready for packing and shipment



Totalizer on the MPA sampling apparatus



Client: City of Valdosta Date: 1/7/25 PO#:

Person(s) designated to receive results: Phillip Walker, Charles Benning, Jason Mills

Please check how you would like to receive results:

☐ Receive Results by Mail: Address:

☑ Receive Results by e-mail: pwalker@valdostacity.com; cbenning@valdostacity.com; mills_jm@colum.edu

Phone: Address for cooler return:

**Sample Information:** (please type or print clearly)

Sample Location: WTP 2 Valdosta

Sample ID: well 2

PWSID#: 1850002

**Start:** Date: 1/7/25 Time: 16:33

Temperature: 21.8°C pH: 7.67

NTU: 0.84 (required for LT2 clients)

Meter reading: 109914

**Stop:** Date: 1/8/25 Time: 13:45

Temperature: 21.1°C pH: 8.52

NTU: 0.37

Meter reading: 110415

Did filter clog? YES / (NO) (LT2 clients must filter at least 10L or two filters)

Gallons Sampled: 501 ( Liters)

Sample exposed to chlorine? YES / (NO)

Sample dechlorinated? YES / (NO)

Sampler's Name: Eduardo Fabelo

**Type of Analysis Requested:** (Please initial request) Jan '24 - Dec '

1. MPA of Surface or Groundwater ✓
2. MPA (Microscopic Particulate Analysis), with *Giardia* and *Cryptosporidium* -1623 with Envirochek™ HV
3. *Giardia* and *Cryptosporidium* -1623 with Envirochek™ HV; -Matrix Spike with Envirochek™ HV
4. *E. coli* Analysis (SM9223B)
5. *Total Coliform*
6. *Aerobic Endospore*
7. *Legionella pneumophilia*
8. HPC (Heterotrophic Plate Count)

Other requests / notes

Arrival Information- For Laboratory use only

Courier: UPS ☐ FedEx ☐ HD ☐ Other ☐

Type: Container ☐ HV ☐ Poly ☐ Color:

Date/Time: Temp:

Supplies Shipped ☐ - Cooler Return ☐ None ☐

**Please fill in where applicable for this sample:**

This sample is a:

- Raw surface water
- ✓ Finished surface water
- Ground water

Other, please explain:

**Type of Raw Water Source:**

Ground Water:
- Spring
- Dug well
- ✓ Horizontal well
- Drilled well
- Infiltration gallery
- Artesian well

Surface Water:
- Lake/Reservoir
- Irrigation canal
- Stream/River

Well depth: 450 ft

Distance from river/stream/lake: ft

**Type of Disinfection:**

- Pre-chlorination
- Post chloramines
- Post chlorination
- Ozone

Other:

**Type of Treatment:**

- ✓ None
- Disinfection only
- Conventional treatment
- Direct filtration
- Filter to waste cycle
- Diatomaceous earth
- Slow sand
- Pressure filter
- Membrane
- Other:

Filter(s) hydraulic loading (gpm/sq.ft.)

"Clean" filter bed put on line: YES / NO

*For samples taken following protocol established by:
CH Diagnostic & Consulting Service, Inc.

MPA sampling form

# CITY OF VALDOSTA WELL No. 2 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.2**
**Valdosta, GA**

DATE(S) & TIME(S): January 17, 2025
0700-1600

| Sun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | | | **X** | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | **X** | | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | **X** | **X** | | |
| Wind | Still | Medium | High | |
| | **X** | | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | **X** | | | **17** |

**SHIFT SUMMARY**

OBSERVER: E. Fabelo/CDM

START DEPTH: 450

DRILLER: AC Schultes – Sammy Caldwell, James Hurley, Tyler Tucker, Edison Ospina, Jonathan Sinestra
COLOG – Jim Grace

END DEPTH: 450

ACTIVITY: The contractor performed geophysical logging (Dynamic video) of the completed well from the bottom of the 17-inch outside diameter (OD) polyvinyl chloride (PVC) final tubing to 450 feet below land surface (bls).

FORMATION SAMPLES: NA

WATER SAMPLES: NA

TESTING: Geophysical Logging

| TIME | DESCRIPTION |
|---|---|
| **0700** | **E. Fabelo/CDM on site** |
| **0730** | **J. Grace/COLOG on site to perform geophysical logging (XYC and Dynamic video) of the nominal 15-inch diameter open borehole from the bottom of the 17-inch outside diameter (OD) PVC final tubing to the bottom of the borehole at 450 feet below land surface (bls)** |
| **0735** | **J. Grace/COLOG states the contractor did not communicate the type and nature of the logs to be performed today. The caliper and video logging equipment on site are not the correct equipment for a nominal 15-inch diameter borehole. The caliper arms have a maximum span of 16-inches and the video equipment does not have the correct centralizers for the diameter of the borehole.** |

**0800** J. Grace/COLOG off site to hardware store. J. Grace will attempt to fabricate extensions for the caliper tool and new centralizers for the video equipment.

**0850** J. Hurley, T. Tucker, E. Ospina and J. Sinestra/AC Schultes on site with crane

**0900** Contractor preparing crane

**0912** J. Grace/COLOG on site

**0910** Commence tripping downhole pump out of well

**1000** Continue tripping downhole pump out

**1146** Installing new pump on pump string and splicing wiring to generator. J. Grace preparing to perform the Dynamic video survey

**1240** J. Grace modified the camera tool by adding PVC tubing and another set of centralizers above the camera. This is to help centralize the camera tool in the borehole in areas of large wash out and possible deviations from plumb where the camera may come in contact with the borehole wall. Length of camera tool after modification: 7.8 feet. Measure well head stick up at -2.8 feet bls

**1245** Zero camera tool to land surface and lower tool downhole

**1249** Pause lowering camera tool downhole at 207 feet bls. J. Grace cutting a notch into the 17-inch OD PVC final tubing to allow for wireline access below the wellhead

**1252** Contractor tripping in downhole pump

**1400** Continue tripping in downhole pump

**1410** Installing wellhead and discharge line

**1455** Continue installing wellhead and discharge line. Test pump functionality, repair leaks on discharge line

**1500** Flowrate out of well is approximately 1,300 gallons per minute. Commence logging Dynamic video survey downhole from 207 feet bls at 18.5 feet per minute

**1524** Complete Dynamic video survey at 452.33 feet bls. Trip camera tool out of well

**1525** J. Hurley and T. Tucker/AC Schultes off site

**1530** J. Denson/AC Schultes on site to collect water samples for sulfide analysis

**1535** S. Caldwell and J. Denson collect water samples for sulfide analysis

**1540** Shut off downhole pump and commence site preparation for nightly shutdown

**1600** E. Fabelo/CDM; J. Grace/COLOG; S. Caldwell, E. Ospina, J. Denson and J. Sinestra/AC Schultes off site



Contractor preparing to trip new pump into the well



New pump with spliced wiring ready to be tripped in




Flowrate and totalizer during Dynamic video logging of the ream hole to 450 feet bls



Dynamic video logging set up. Camera tool and pump both in the well



Dynamic video log

# CITY OF VALDOSTA WELL No. 2 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.2**
**Valdosta, GA**

DATE(S) & TIME(S): January 18, 2025
0800-1330

| SSun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | | | | **X** |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | | **X** | **X** | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | | **X** | | |
| Wind | Still | Medium | High | |
| | | **X** | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | | | **X** | **18** |

## SHIFT SUMMARY

OBSERVER: E. Fabelo/CDM

START DEPTH: 450

DRILLER: AC Schultes – Sammy Caldwell, Tyler Tucker, Edison Ospina, Jonathan Sinestra
COLOG – Jim Grace

END DEPTH: 450

ACTIVITY: The contractor performed geophysical logging (XY Caliper [XYC])) of the completed well from the bottom of the 17-inch outside diameter (OD) polyvinyl chloride (PVC) final tubing to 450 feet below land surface (bls).

FORMATION SAMPLES: NA

WATER SAMPLES: NA

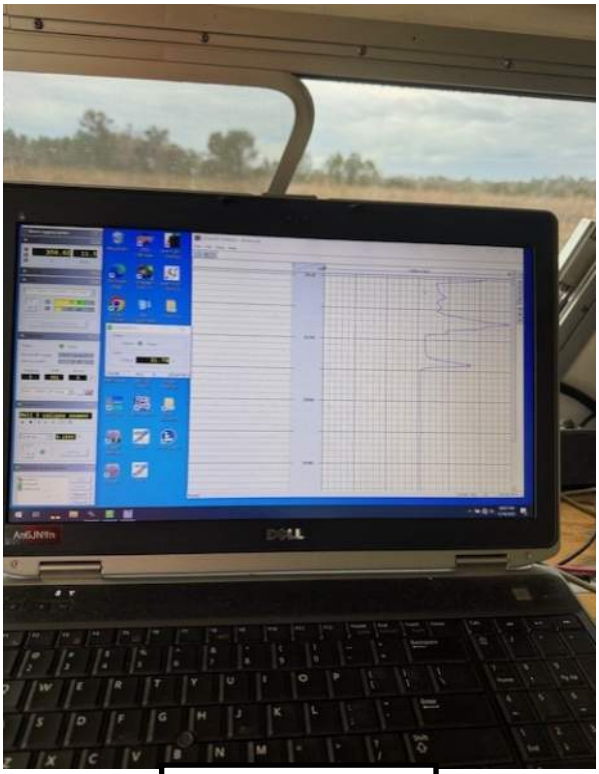
TESTING: Geophysical Logging

| TIME | DESCRIPTION |
|---|---|
| **0800** | **E. Fabelo/CDM, J. Grace/COLOG and S. Caldwell/SC Schultes on site** |
| **0815** | **T. Tucker, E. Ospina and J. Sinestra/AC Schultes on site** |
| **0820** | **Contractor preparing crane to trip out the downhole pump** |
| **0825** | **Crew removing wellhead** |
| **0840** | **Commence tripping out downhole pump** |
| **0920** | **Pump at surface, J. Grace tripping out camera tool** |
| **0922** | **Camera tool at surface, J. Grace rigging down camera equipment and preparing the perform XYC logging** |

| | |
|---|---|
| **0928** | **Lower XYC tool into well, zero tool to land surface, open arms and verify calibration inside the 17-inch OD PVC final tubing. Final tubing has an inside diameter (ID) of 15 inches, tool reading 14.5 inches, recalibrate tool.** |
| **0931** | **XYC tool now reading 15.01 inches, close caliper arms** |
| **0937** | **Lower XYC tool downhole** |
| **0944** | **Difficulty lowering tool past approximately 324 feet bls** |
| **0950** | **Resume lowering XYC tool downhole** |
| **0953** | **Tag bottom of the ream hole at 452.08 feet bls and open caliper arms** |
| **1000** | **Commence logging XYC uphole at 15.2 feet per minute (ft/min) – first pass. T. Tucker, E. Ospina and J. Sinestra moving generator, pump and pup string to well No. 1** |
| **1014** | **Complete XYC log at 205 feet bls. XYC tool is inside the 17-inch OD PVC final tubing. Final tubing has an ID of 15-inches, but tool is reading at 17-inches. J. Grace states he will check condition of caliper arms when XYC tool is at surface. Trip tool out of well** |
| **1018** | **Tool at surface, no damage to caliper arms or threaded rod extenders that were installed yesterday during XYC logging at well No. 1. Errors in tool read out could be due to bending of the threaded rod extenders. J. Grace will remove the threaded rod extenders, recalibrate tool and perform a second XYC pass** |
| **1027** | **Calibrate XYC tool without rod extenders inside pipes and tubing with IDs of 10-inches and 23-inches** |
| **1031** | **Lower XYC tool into well and verify calibration inside the 17-inch OD PVC final tubing, tool reading 14.5-inches, slightly smaller than the ID of 15-inches. J. Grace recalibrates tool, XYC tool now reads 15.02-inches** |
| **1035** | **Zero XYC tool to land surface and lower downhole** |
| **1042** | **Tag bottom of the reamhole at 452.14 feet bls, open caliper arms** |
| **1045** | **Commence logging XYC uphole at 16.6 ft/min – second pass** |
| **1100** | **Complete XYC log at 204.93 feet bls, close caliper arms and trip XYC tool out of well** |
| **1103** | **XYC tool at surface. J. Grace rigging down logging equipment and preparing to move to well No. 1. S. Caldwell covering wellhead with a bag** |
| **1330** | **E. Fabelo/CDM off site** |



XYC tool deployed downhole



XYC log in progress



XYC tool at surface after first pass







Calibrating XYC tool in pipes of various IDs

# CITY OF VALDOSTA WELL No. 2 DAILY SHIFT REPORT

**City of Valdosta WTP No. 2 Production Well No.2**
**Valdosta, GA**

DATE(S) & TIME(S): January 24, 2025
0800-1330

| SSun | Mon | Tue | Wed | Thur | Fri | Sat |
|---|---|---|---|---|---|---|
| | | | | | **X** | |

JOB NUMBER: 20790-289282

CONTRACTOR: AC Schultes

PROJECT TECHNICAL LEAD: JASON MILLS, P.G.

OWNER: City of Valdosta (COV)

| | | | | |
|---|---|---|---|---|
| Weather | Clear | Overcast | Rain | Heavy Rain |
| | **X** | **X** | | |
| Temperature | 32 - 50 | 50 - 70 | 70 – 85 | > 85 |
| | **X** | **X** | | |
| Wind | Still | Medium | High | |
| | **X** | | | |
| Humidity | Dry | Moderate | Humid | **Report No.** |
| | **X** | | | **19** |

**SHIFT SUMMARY**

OBSERVER: E. Fabelo/CDM
START DEPTH: 450
DRILLER: AC
END DEPTH: 450

ACTIVITY: The contractor performed the plumbness and alignment test over the cased portion of the well.

FORMATION SAMPLES: NA
WATER SAMPLES: NA

TESTING: Plumbness and Alignment

| TIME | DESCRIPTION |
|---|---|
| 1700 | **Contractor states they have successfully performed the plumbness and alignment test using a 40-foot dummy with six (6) 15-inch discs. The dummy is constructed of two (2) 20-foot drill pipe singles. The first single has two (2) 15-inch discs welded at the beginning of the pipe. The second single has two (2) discs welded at the beginning and two (2) discs welded at the end of the pipe.** |



Diameter of discs that will be used for the plumbness and alignment test



15-inch discs welded at end of the second 20-foot drill pipe single



15-inch discs welded at beginning of first 20-foot drill pipe single (background) and beginning of second 20-foot drill pipe single (foreground)

.





Plumbness and alignment test in execution: 40-foot dummy with 15-inch disc being lowered downhole

# Appendix D Well Completion Report

Georgia Environmental Protection Department of Natural Resources

**Georgia Department of Natural Resources**
**Environmental Protection Division**
2 Martin Luther King Jr. Drive SE, Suite 1152 East Tower, Atlanta, Georgia 30334
PHONE: (404) 656-4713

# Well Completion Data Form

Report Completion Date: 1-13-2025

For ☐ New Construction ☐ Under Repair/Modification ☒ Completed ☐ Abandoned Wells

## Property Owner Information

Property Owner Name: City of Valdosta Utilities Department | Phone: 229-259-3592 | Email: jbarnes@valdostacity.com

Company / Farm / Municipality / Water System Name: Valdosta Utilities Department

Address: 1016 Myrtle Street (No. and Street) | Valdosta (City) | GA (State) | 31601 (Zip)

## Well Contractor Information

Onsite Well Driller Name: William Jefferys | License No. 594 | Phone: 850-576-1271

Well Contractor Company Name: AC Schultes of Florida dba Rowe Drilling

Address: 7584 W Tennessee Street (No. and Street) | Tallahassee (City) | FL (State) | 32304 (Zip)

Drilling under direction of Professional Geologist or Engineer Name: _____ | License No.

## Well Information

☒ Public Drinking ☒ Municipal ☐ Industrial ☐ Agricultural / Irrigation Well ☐ Bore/core hole ☐ Dewatering
☐ Individual Drinking ☐ Geothermal ☐ Test / Monitoring ☐ Injection ☐ Other Well Type: _____

Well Application or Permit Number: _____ ☐ Permit/Concurrence Letter On-site
Facility or Public Water System ID: 1850002 Well Number: 1

County where well is located: Lowndes
Latitude: 30*45'42" N Longitude: 83*16'36" W Elevation: 195 NAVD 88

## Well Construction Description

### Well Drilling Information

Total depth of well: 450 ft. BLS
Static water level: 116 ft. BLS Date SWL measured: 1-13-2025
**Date Drilled:** _____ **Drilling Start Time:** _____

☒ Rotary ☐ Percussion ☐ Bored
☐ Jetted ☐ Auger ☐ Cable Tool
☐ Horizontal ☐ Hand-Driven ☐ Hydraulic Pt.
☐ Drilling Fluid Used Type Fluid: _____

### Drill Hole Diameter

Size 36 in., from 0 ft. to 60 ft.
Size 24 in., from 0 ft. to 218 ft.
Size 15 in., from 218 ft. to 450 ft.

### Grouting (☑ as applicable)

Method: ☐ Casing ☒ Tremie ☐ Packer ☐ Halliburton ☐ Under Pressure
Type: ☐ Bentonite ☒ Neat Cement ☐ Other: _____
☒ Present From 0 ft. to 60 ft. From 0 ft. to 218 ft.

### Casing Record (☑ as applicable)

Primary: ☒ Black Steel ☐ Galvanized ☐ Stainless ☐ PVC-NSF Rated
☐ PVC ☐ Not Cased ☒ Other: SDR 17 Certa-Lok
Secondary: ☐ Telescope ☐ Liner ☐ Surface Casing
Wall Thickness _____ in.
Weight per foot _____ SDR _____
Size: 30 in., from 0 ft. to 60 ft.
Size: 24 in., from 0 ft. to 196 ft.
Size: 17.4 in., from 0 ft. to 218 ft.
Size: _____ in., from _____ ft. to _____ ft.

### Permanent Pump Data (☑ as applicable)

Pump Type: _____
Pump Diameter: _____ Outlet size: _____
Motor HP: _____ Motor RPM: _____
Pump Capacity: _____ GPM Total Dynamic Head: _____ ft.
Pump Set at: _____ ft. Pump Disinfected: ☐ Yes ☐ No
Meter Installed: ☐ Yes ☐ No Meter Size & Rating: _____
Casing Vent: ☐ Yes ☐ No Sample Tap: ☐ Yes ☐ No
Air Line: ☐ Yes ☐ No Depth _____ ft. Diameter _____ in.
Chemigation check valve installed: ☐ Yes ☐ No

### Well Screen and Filter Pack (if installed)

Type material _____
Size: _____ in., from _____ ft. to _____ ft.
Size: _____ in., from _____ ft. to _____ ft.
Size: _____ in., from _____ ft. to _____ ft.
Size: _____ in., from _____ ft. to _____ ft.
Type Filter (Gravel) Pack _____ Disinfected: ☐ Yes ☐ No
Filter Pack from _____ ft. to _____ ft.
Filter Pack from _____ ft. to _____ ft.
Filter Pack to Formation Ratio: _____ Uniformity Coeff: _____

### Test Pump Data (☑ as applicable)

Date Tested: _____ Static water level: _____ ft. BLS
Test Pump Rated: _____ GPM _____ HP
Total Continuous Hours Tested: _____
Water Level Stabilized: ☐ Yes ☐ No
Hours before Stabilization: _____ Sustained Yield: _____ GPM
Total Drawdown: _____ ft. Specific Capacity: _____ GPM/ft.
Pumping Water Level: _____ ft.
Number of Minutes to Recover: _____
Well Developed: ☐ Yes ☐ No Well Disinfected: ☐ Yes ☐ No

Well Application or Permit Number: _____



| Well Construction Description (continued) | |
|---|---|
| **Protection from Pollutants (☑ if done)** | **Construction Techniques (☑ if done)** |
| ☐ Upgradient from pollutant sources | ☐ Drill cuttings, materials removed ☐ Well disinfected |
| ☐ >10 ft. sewer line ☐ > 50 ft. septic tank | ☐ Casing, liner pipe joints watertight ☐ Sanitary seal |
| ☐ >150 ft. seep pit ☐ > 100 ft. septic drain field | ☐ Grouted to 10 ft. (Individual) 20-50 ft. (Irrigation, Nonpublic) |
| ☐ > 100 ft. animal enclosure ☐ protected from runoff | ☐ Concrete Curbed/Pad > 4 in. thick, extend > 2 ft., sloped |
| ☐ casing > 2 ft. above floodplain or highest known flood | ☐ Gravel/Filter pack washed, disinfected |
| ☐ Water-bearing formations sealed if likely to be polluted | ☐ Casing material new or meets national standards |
| ☐ Health Dept. notified ☐ Health Dept. variance | ☐ Well screen – optimal development, low head loss & clog |
| | ☐ Drilling equipment steam cleaned |

# Driller's Well Log (lithologic stratigraphy)

| Feet (BLS) | | Type Material Encountered | Remarks | Indicate Water Bearing Zones |
|---|---|---|---|---|
| from | to | | | |
| 0 | 110 | Sandy Clay | fine, tannish gray | |
| 110 | 155 | Sandy Clay w/ siltstone | fine,lt brown to gray | |
| 155 | 450 | Limestone | light brown to gray | |
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(If more space is required, use additional sheets. If available, submit any additional pump test data or geophysical logs.)

This well was drilled and constructed (or plugged/abandoned, if applicable) in accordance with the Georgia Water Well Standards Act, O.C.G.A. 12-5-120 *et seq.*, Georgia Groundwater Use Act, O.C.G.A. 12-5-90 *et seq.* and 12-5-105 *et seq.*, Georgia Safe Drinking Water Act, O.C.G.A. 12-5-170 *et seq.*, and applicable Georgia Department of Natural Resources' rules, regulations and guidance documents.

I certify that this well was drilled to ANSI / AWWA Standard A100-06 (Water Wells): ☐ Yes ☐ No ☐ Not Applicable

**I certify that the information on this form (Pages 1 and 2) is correct and true to the best of my knowledge.**

| Signature of Licensed Well Contractor's Name | License Number | Date |
|---|---|---|
| | 594 | 1/13/25 |

| Signature of Licensed Geologist/Engineer's Name | License Number | Date |
|---|---|---|
| | | |

Georgia Environmental Protection Department of Natural Resources

**Georgia Department of Natural Resources**
**Environmental Protection Division**
2 Martin Luther King Jr. Drive SE, Suite 1152 East Tower, Atlanta, Georgia 30334
PHONE: (404) 656-4713

# Well Completion Data Form

Report Completion Date: 01-20-2025

For ☐ New Construction ☐ Under Repair/Modification ☒ Completed ☐ Abandoned Wells

## Property Owner Information

Property Owner Name: City of Valdosta Utilities Department | Phone: 229-259-3592 | Email: jbarnes@valdostacity.com

Company / Farm / Municipality / Water System Name: Valdosta Utilities Department

Address: 1016 Myrtle Street (No. and Street) | Valdosta (City) | GA (State) | 31601 (Zip)

## Well Contractor Information

Onsite Well Driller Name: William Jefferys | License No. 594 | Phone: 850-576-1271

Well Contractor Company Name: AC Schultes of Florida dba Rowe Drilling

Address: 7584 W Tennessee Street (No. and Street) | Tallahassee (City) | FL (State) | 32304 (Zip)

Drilling under direction of Professional Geologist or Engineer Name: _____ | License No.

## Well Information

☒ Public Drinking ☒ Municipal ☐ Industrial ☐ Agricultural / Irrigation Well ☐ Bore/core hole ☐ Dewatering
☐ Individual Drinking ☐ Geothermal ☐ Test / Monitoring ☐ Injection ☐ Other Well Type: _____

Well Application or Permit Number: _____ ☐ Permit/Concurrence Letter On-site
Facility or Public Water System ID: 1850002 Well Number: 2

County where well is located: Lowndes
Latitude: 30"45'42" N Longitude: 83"16'23" W Elevation: _____

## Well Construction Description

### Well Drilling Information

Total depth of well: 450 ft. BLS
Static water level: 116 ft. BLS Date SWL measured: 1-20-2025
**Date Drilled:** _____ **Drilling Start Time:** _____

☒ Rotary ☐ Percussion ☐ Bored
☐ Jetted ☐ Auger ☐ Cable Tool
☐ Horizontal ☐ Hand-Driven ☐ Hydraulic Pt.
☐ Drilling Fluid Used Type Fluid: _____

### Drill Hole Diameter

Size 36 in., from 0 ft. to 62 ft.
Size 24 in., from 63 ft. to 224 ft.
Size 15 in., from 122 ft. to 450 ft.

### Grouting (☑ as applicable)

Method: ☐ Casing ☒ Tremie ☐ Packer ☐ Halliburton ☒ Under Pressure
Type: ☐ Bentonite ☒ Neat Cement ☐ Other: _____
☒ Present From 0 ft. to 62 ft. From 0 ft. to 224 ft.

### Casing Record (☑ as applicable)

Primary: ☐ Black Steel ☐ Galvanized ☐ Stainless ☐ PVC-NSF Rated
☐ PVC ☐ Not Cased ☒ Other: SDR 17 Certa-Lok
Secondary: ☐ Telescope ☐ Liner ☒ Surface Casing
Wall Thickness 1.024 in.
Weight per foot 34.16 SDR _____
Size: 30 in., from 0 ft. to 62 ft.
Size: 24 in., from 0 ft. to 122 ft.
Size: 17.4 in., from 0 ft. to 224 ft.
Size: _____ in., from _____ ft. to _____ ft.

### Permanent Pump Data (☑ as applicable)

Pump Type: _____
Pump Diameter: _____ Outlet size: _____
Motor HP: _____ Motor RPM: _____
Pump Capacity: _____ GPM Total Dynamic Head: _____ ft.
Pump Set at: _____ ft. Pump Disinfected: ☐ Yes ☐ No
Meter Installed: ☐ Yes ☐ No Meter Size & Rating: _____
Casing Vent: ☐ Yes ☐ No Sample Tap: ☐ Yes ☐ No
Air Line: ☐ Yes ☐ No Depth _____ ft. Diameter _____ in.
Chemigation check valve installed: ☐ Yes ☐ No

### Well Screen and Filter Pack (if installed)

Type material _____
Size: _____ in., from _____ ft. to _____ ft.
Size: _____ in., from _____ ft. to _____ ft.
Size: _____ in., from _____ ft. to _____ ft.
Size: _____ in., from _____ ft. to _____ ft.
Type Filter (Gravel) Pack _____ Disinfected: ☐ Yes ☐ No
Filter Pack from _____ ft. to _____ ft.
Filter Pack from _____ ft. to _____ ft.
Filter Pack to Formation Ratio: _____ Uniformity Coeff: _____

### Test Pump Data (☑ as applicable)

Date Tested: _____ Static water level: _____ ft. BLS
Test Pump Rated: _____ GPM _____ HP
Total Continuous Hours Tested: _____
Water Level Stabilized: ☐ Yes ☐ No
Hours before Stabilization: _____ Sustained Yield: _____ GPM
Total Drawdown: _____ ft. Specific Capacity: _____ GPM/ft.
Pumping Water Level: _____ ft.
Number of Minutes to Recover: _____
Well Developed: ☐ Yes ☐ No Well Disinfected: ☐ Yes ☐ No



Well Application or Permit Number: _____

| Well Construction Description (continued) | |
|---|---|
| **Protection from Pollutants (☑ if done)** | **Construction Techniques (☑ if done)** |
| ☐ Upgradient from pollutant sources | ☐ Drill cuttings, materials removed ☐ Well disinfected |
| ☐ >10 ft. sewer line ☐ > 50 ft. septic tank | ☐ Casing, liner pipe joints watertight ☐ Sanitary seal |
| ☐ >150 ft. seep pit ☐ > 100 ft. septic drain field | ☐ Grouted to 10 ft. (Individual) 20-50 ft. (Irrigation, Nonpublic) |
| ☐ > 100 ft. animal enclosure ☐ protected from runoff | ☐ Concrete Curbed/Pad > 4 in. thick, extend > 2 ft., sloped |
| ☐ casing > 2 ft. above floodplain or highest known flood | ☐ Gravel/Filter pack washed, disinfected |
| ☐ Water-bearing formations sealed if likely to be polluted | ☐ Casing material new or meets national standards |
| ☐ Health Dept. notified ☐ Health Dept. variance | ☐ Well screen – optimal development, low head loss & clog |
| | ☐ Drilling equipment steam cleaned |

# Driller's Well Log (lithologic stratigraphy)

| Feet (BLS) | | Type Material Encountered | Remarks | Indicate Water Bearing Zones |
|---|---|---|---|---|
| from | to | | | |
| 0 | 140 | Sandy Clay | fine, tannish gray | |
| 140 | 335 | Limestone | white to light brown | |
| 335 | 450 | Dolostone with Limestone | brown to tan | |
| | | | | |
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(If more space is required, use additional sheets. If available, submit any additional pump test data or geophysical logs.)

This well was drilled and constructed (or plugged/abandoned, if applicable) in accordance with the Georgia Water Well Standards Act, O.C.G.A. 12-5-120 *et seq.*, Georgia Groundwater Use Act, O.C.G.A. 12-5-90 *et seq.* and 12-5-105 *et seq.*, Georgia Safe Drinking Water Act, O.C.G.A. 12-5-170 *et seq.*, and applicable Georgia Department of Natural Resources' rules, regulations and guidance documents.

I certify that this well was drilled to ANSI / AWWA Standard A100-06 (Water Wells): ☐ Yes ☐ No ☐ Not Applicable

**I certify that the information on this form (Pages 1 and 2) is correct and true to the best of my knowledge.**

| Signature of Licensed Well Contractor's Name | License Number | Date |
|---|---|---|
| | 594 | 1/20/25 |

| Signature of Licensed Geologist/Engineer's Name | License Number | Date |
|---|---|---|
| | | |

# Appendix E Lithologic Logs

| Depth | | Logged by | Description |
|---|---|---|---|
| From | To | | |
| 0 | 10 | JV | SANDY CLAY, tan, intergranular porosity, quartz crystal grain type, clay to fine grain size, soft, moderately cohesive, low plasticity, trace phosphatic |
| 10 | 20 | JV | SILTY SAND, tan, well sorted, quartz with trace phosphatic silt |
| 20 | 80 | | NO SAMPLE |
| 80 | 90 | JY | SANDY CLAY, tannish gray, intergranular porosity, crystal grain type, clay to fine grain size, moderately cohesive, medium plasticity, some fine grained quartz sand |
| 90 | 100 | JY | CLAYEY SAND, tan, intergranular porosity, crystal grain type, clay to fine grain size, low plasticity, abundant fine grained sand, pieces of gray clay |
| 100 | 110 | JY | SANDY CLAY, tannish gray, intergranular porosity, crystal grain type, clay to fine grain size, moderately cohesive, medium plasticity, some fine grained quartz sand |
| 110 | 115 | JY | SILTSTONE, light brown, intergranular porosity, crystal grain type, fine grain size, moderately indurated, well sorted, quartz |
| 115 | 125 | JY | SANDY CLAY WITH SILTSTONE, gray, intergranular porosity, crystal grain type, cay to fine grain size, cohesive, low plasticity, well sorted siltstone nodules |
| 125 | 140 | JY | SANDY CLAY, gray, intergranular porosity, crystal and skeletal grain type, clay to coarse grain size, cohesive, medium plasticity, minor amount of shell fragments |
| 140 | 155 | JY | SILTSTONE, dark gray, intergranular porosity, crystal grain type, fine grain size, well sorted fine grains, quartz |
| 155 | 180 | JY | LIMESTONE, light gray, wackestone, intergranular porosity, biogenic grain type, microcrystalline to fine grain size, moderately indurated with a calcilutite matrix, induration increases with depth |
| 180 | 190 | JY | LIMESTONE, light brown to gray, wackestone to mudstone, intergranular porosity, biogenic grain type, microcrystalline to fine grain size, moderately indurated with a calcilutite matrix |
| 190 | 205 | JY | LIMESTONE, light brown to white, wackestone to packstone, intergranular porosity, biogenic grain type, microcrystalline to fine grain size, moderately indurated with a calcilutite matrix |
| 205 | 230 | JY | LIMESTONE, light brown to white, packstone to grainstone, intergranular porosity, biogenic grain type, microcrystalline to coarse grain size, moderately indurated with a calcilutite matrix |
| 230 | 240 | JY | LIMESTONE, light brown to gray, packstone, intergranular porosity, biogenic grain type, microcrystalline to coarse grain size, moderately indurated with a calcilutite matrix |
| 240 | 260 | JY | LIMESTONE, light brown to white, packstone to grainstone, intergranular porosity, biogenic grain type, microcrystalline to coarse grain size, moderately indurated with a calcilutite matrix, trace siltstone |
| 260 | 320 | JY | LIMESTONE, light brown to white, packstone to grainstone, intergranular porosity, biogenic grain type, microcrystalline to coarse grain size, poor to moderately indurated with a calcilutite matrix |

| Depth | | Logged by | Description |
|---|---|---|---|
| From | To | | |
| 320 | 350 | JY | LIMESTONE, light brown, wackestone, intergranular porosity, biogenic grain type, microcrystalline to coarse grain size, poorly indurated with a calcilutite matrix |
| 350 | 360 | JY | DOLOMITIC LIMESTONE, medium brown, packstone, intergranular and intercrystalline porosity, biogenic and crystal grain types, microcrystalline to fine grain size, well indurated with a calcilutite matrix |
| 360 | 380 | JY | LIMESTONE, light brown to gray, packstone to grainstone, intergranular porosity, biogenic grain type, microcrystalline to fine grain size, moderately indurated with a calcilutite matrix, mollusk shell molds at approximately 370 feet bls |
| 380 | 390 | JY | LIMESTONE, light brown to gray, packstone to grainstone, intergranular porosity, biogenic grain type, microcrystalline to fine grain size, moderately indurated with a calcilutite matrix, trace amount of dolostone |
| 390 | 450 | JY | DOLOSTONE, brown, intercrystalline porosity, crystal grain type, microcrystalline to coarse grain size, well indurated with dolomitic cement |

| Depth | | Logged by | Description |
|---|---|---|---|
| From | To | | |
| 0 | 10 | | NO SAMPLE |
| 10 | 20 | | NO SAMPLE |
| 20 | 30 | | NO SAMPLE |
| 30 | 40 | | NO SAMPLE |
| 40 | 50 | | NO SAMPLE |
| 50 | 60 | | NO SAMPLE |
| 60 | 85 | JY | SANDY CLAY, tannish gray, intergranular porosity, crystal grain type, clay to fine grain size, moderately cohesive, medium plasticity, fine grained quartz sand, trace phosphatic silt |
| 85 | 100 | JY | CLAYEY SAND, tan, intergranular porosity, crystal grain type, clay to gravel grain size, low plasticity, abundant fine grained sand with gravel |
| 100 | 110 | JY | SANDY CLAY, tannish gray, intergranular porosity, crystal grain type, clay to fine grain size, moderately cohesive, medium plasticity, some fine grained sand |
| 110 | 115 | JY | Siltstone, light brown/gray, intergranular porosity, crystal grain type, silt grain size, moderately indurated, well sorted |
| 115 | 120 | JY | SANDY CLAY, tannish gray, intergranular porosity, crystal grain type, clay to medium grain size, moderately cohesive, low plasticity, some medium grained sand |
| 120 | 125 | JY | SANDY CLAY WITH SILTSTONE, light brown/gray, intergranular porosity, crystal grain type, silt to medium grain size, moderately indurated, well sorted |
| 125 | 140 | JY | SANDY CLAY, gray, intergranular porosity, crystal grain type, clay to medium grain size, cohesive, low plasticity, trace siltstone |
| 140 | 150 | JY | LIMESTONE, light gray, wackestone, intergranular porosity, biogenic grain type, microcrystalline to fine grain size, moderately indurated with a calcilutite matrix |
| 150 | 160 | JY | LIMESTONE, light brown to dark gray, wackestone to packstone, intergranular porosity, biogenic grain type, microcrystalline to fine grain size, moderately indurated with a calcilutite matrix |
| 160 | 175 | JY | LIMESTONE, light gray to white, packstone, intergranular porosity, biogenic grain type, microcrystalline to fine grain size, poorly indurated with a calcilutite matrix, white coloration increases with depth |
| 175 | 180 | JY | LIMESTONE, light brown to gray, wackestone to mudstone, intergranular porosity, biogenic grain type, microcrystalline to fine grain size, moderately to well indurated with a calcilutite matrix |
| 180 | 190 | JY | LIMESTONE, wackestone to packstone, light brown to white, medium to well induration |

| Depth | | Logged by | Description |
|---|---|---|---|
| From | To | | |
| 190 | 200 | JY | LIMESTONE, light brown, packstone to grainstone, intergranular porosity, biogenic grain type, microcrystalline to fine grain size, moderately indurated with a calcilutite matrix |
| 200 | 205 | JY | LIMESTONE, light brown to white, packstone to grainstone, intergranular porosity, biogenic grain type, microcrystalline to coarse grain size, moderately indurated with a calcilutite matrix |
| 205 | 230 | JY | LIMESTONE, light brown to white, packstone to grainstone, intergranular porosity, biogenic grain type, microcrystalline to coarse grain size, poorly to moderately indurated with a calcilutite matrix |
| 230 | 245 | EF | LIMESTONE, white to light brown, mudstone, intergranular porosity, biogenic grain type, microcrystalline to fine grain size, well indurated with a calcilutite matrix |
| 245 | 255 | EF | CLAYEY LIMESTONE, white to light greenish gray, mudstone, intergranular porosity, biogenic grain type, microcrystalline to fine grain size, well indurated with a calcilutite matrix, light grayish green clay (5%) |
| 255 | 265 | EF | LIMESTONE, white to light gray, packstone, intergranular and moldic porosity, biogenic and skeletal grain types, microcrystalline to coarse grain size, well indurated with a calcilutite matrix, indistinguishable benthic foraminifera |
| 265 | 285 | EF | LIMESTONE, white to light gray, mudstone to wackestone, intergranular porosity, biogenic grain type, microcrystalline to medium grain size, well indurated with a calcilutite matrix, light grayish green clay at 280 feet bls |
| 285 | 335 | EF | LIMESTONE, white to light gray, mudstone to packstone, intergranular porosity, biogenic and skeletal grain types, microcrystalline to coarse grain size, well indurated with a calcilutite matrix, echinoid spines, trace undistinguishable benthic foraminifera |
| 335 | 340 | EF | DOLOMITIC LIMESTONE, pale brown, wackestone to packstone, intergranular and intercrystalline porosity, biogenic and crystal grain types, microcrystalline to fine grain size, well indurated with dolomite cement and a calcilutite matrix |

| Depth | | Logged by | Description |
|---|---|---|---|
| From | To | | |
| 340 | 355 | EF | DOLOSTONE, brown, intercrystalline porosity, possibly low permeability, crystal grain type, cryptocrystalline grain size, trace limestone (10%) possible uphole cuttings |
| 355 | 370 | EF | DOLOMITIC LIMESTONE (50%), pale brown, wackestone to packstone, intergranular and moldic porosity, biogenic and crystal grain types, microcrystalline to fine grain size, well indurated with dolomitic cement and a calcilutite matrix trace greenish gray clay<br>LIMESTONE (25%), white to light gray, mudstone to packstone, intergranular and moldic porosity, biogenic and skeletal grain types, microcrystalline to coarse grain size, poorly indurated with a calcilutite matrix, mollusk shells and mollusk shell fragments, trace undistinguishable benthic foraminifera<br>DOLOSTONE (25%), brown, intercrystalline porosity, possibly low permeability, crystal grain type, cryptocrystalline grain size, well indurated with dolomitic cement, possible interbedded sequence, possible uphole cuttings |
| 370 | 375 | EF | DOLOSTONE, brown, intercrystalline and moldic porosity, possibly low permeability, crystal grain type, cryptocrystalline grain size, well indurated with dolomitic cement, calcite veins, possibly brecciated |
| 375 | 380 | EF | DOLOSTONE (75%), dark brown, intercrystalline and moldic porosity, possibly low permeability, crystal grain type, cryptocrystalline grain size, well indurated with dolomitic cement,<br>LIMESTONE (25%), white, mudstone to packstone, intergranular porosity, biogenic and skeletal grain types, microcrystalline to medium grain size, poorly to moderately indurated with a calcilutite matrix, possible interbedded sequence |
| 380 | 395 | EF | LIMESTONE, (85%), white, mudstone to packstone, intergranular porosity, biogenic and skeletal grain types, microcrystalline to medium grain size, poorly to moderately indurated with a calcilutite matrix<br>DOLOSTONE (15%), brown to tan, intercrystalline porosity, possibly low permeability, crystal grain type, cryptocrystalline grain size, well indurated with dolomitic cement, possible interbedded sequence |

| Depth | | Logged by | Description |
|---|---|---|---|
| From | To | | |
| 395 | 425 | EF | DOLOSTONE (80%), dark brown, intercrystalline and moldic porosity, possibly low permeability, crystal grain type, cryptocrystalline grain size, well indurated with dolomitic cement, dolostone increases with depth LIMESTONE (20%), white, mudstone to packstone, intergranular porosity, biogenic and skeletal grain types, microcrystalline to medium grain size, poorly to moderately indurated with a calcilutite matrix, possible interbedded sequence, limestone decreases with depth |
| 425 | 450 | EF | DOLOSTONE, brown to tan, intercrystalline, moldic, vuggy and pin-point vug porosity, crystal grain type, cryptocrystalline grain size, well indurated with dolomitic cement |

# Appendix F Geophysical Logs Well No. 1

# Geophysical Logs

Run 1: Pilot Hole
to 65 feet bls

## Valdosta WTP No. 2
## Production Well No. 1

CDM Smith

COLOG
borehole geophysics / hydrophysics

833 Hogback Drive
Golden, Colorado
80403
Office: 303.279.0171
Fax: 303.278.0135
www.colog.com

Company Rowe Drilling
Well Well 1
Project WPT2
County Lowndes
State GA

**COMPANY** Rowe Drilling
**WELL** Well 1
**PROJECT** WPT2
**COUNTY** Lowndes **STATE** GA

**LOCATION**

QTR SEC TWP RGE

**OTHER SERVICES**

**PERMANENT DATUM** **ELEVATION**

**LOG MEAS. FROM** Ground surface **ABOVE PERMANENT DATUM**

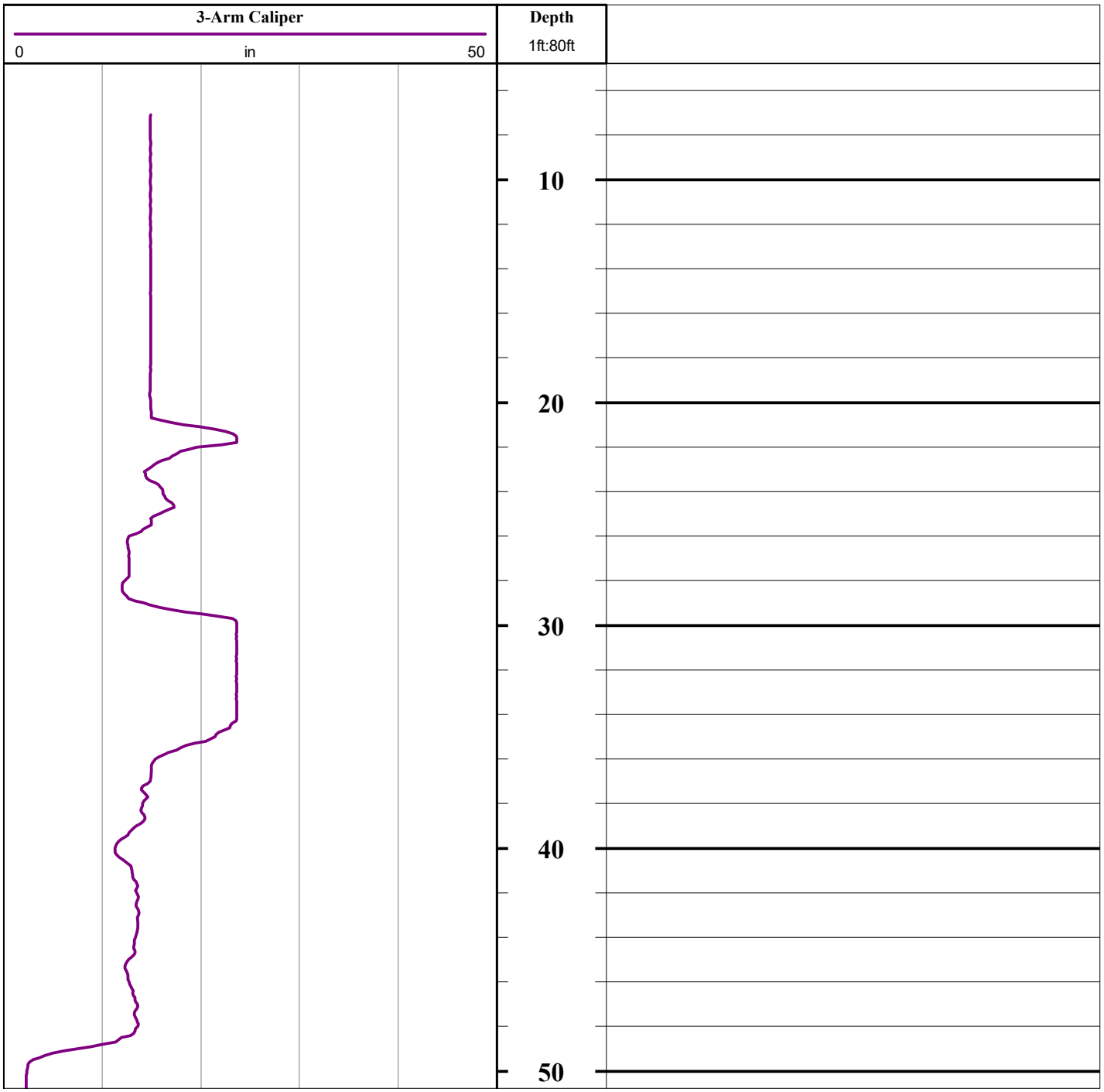
**DRILLING MEAS. FROM** ground surface

| | | | | |
|---|---|---|---|---|
| DATE ACQUIRED | 5-31-24 | | | |
| RUN NUMBER | 2 | | | |
| LOG TYPE | caliper | | | |
| DEPTH-DRILLER | | | | |
| DEPTH-LOGGER | 49.78' | | | |
| BTM LOG INTERVAL | 49.78' | | | |
| TOP LOG INTERVAL | 5.5' | | | |
| RECORDED BY | J Grace | | | |
| WITNESSED BY | | | | |
| PROBE TYPE, S/N | 2CAA 5837 | | | |
| LOGGING SPEED | 11 ft/min | | | |
| A.S.D.E./Sample Interval | 0.10 | | | |
| Fluid Level/Fluid Type | water/mud | | | |

| BOREHOLE RECORD | | | | CASING RECORD | | | |
|---|---|---|---|---|---|---|---|
| RUN No. | BIT | FROM | TO | SIZE | WGT. | FROM | TO |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

NA - Not Available, N/A - Not Applicable

COMMENTS


3-Arm Caliper
0
in
50
Depth
1ft:80ft
10
20
30
40
50

| 0 in 50 | 1ft:80ft | |
|---|---|---|
| **3-Arm Caliper** | **Depth** | |

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borehole geophysics / hydrophysics

810 Quail Street
Suite E
Lakewood, Colorado
80215
Office: 303.279.0171
Fax: 303.278.0135
www.colog.com

Company Rowe Drilling
Well Well # 1
Project Valdosta WPT 2
County Lowndes
State Georgia

**COMPANY** Rowe Drilling
**WELL** Well # 1
**PROJECT** Valdosta WPT 2
**COUNTY** Lowndes **STATE** Georgia

**LOCATION**

QTR SEC TWP RGE

**OTHER SERVICES**
Electric log
Caliper

**PERMANENT DATUM** **ELEVATION**

**LOG MEAS. FROM** Ground surface **ABOVE PERMANENT DATUM**

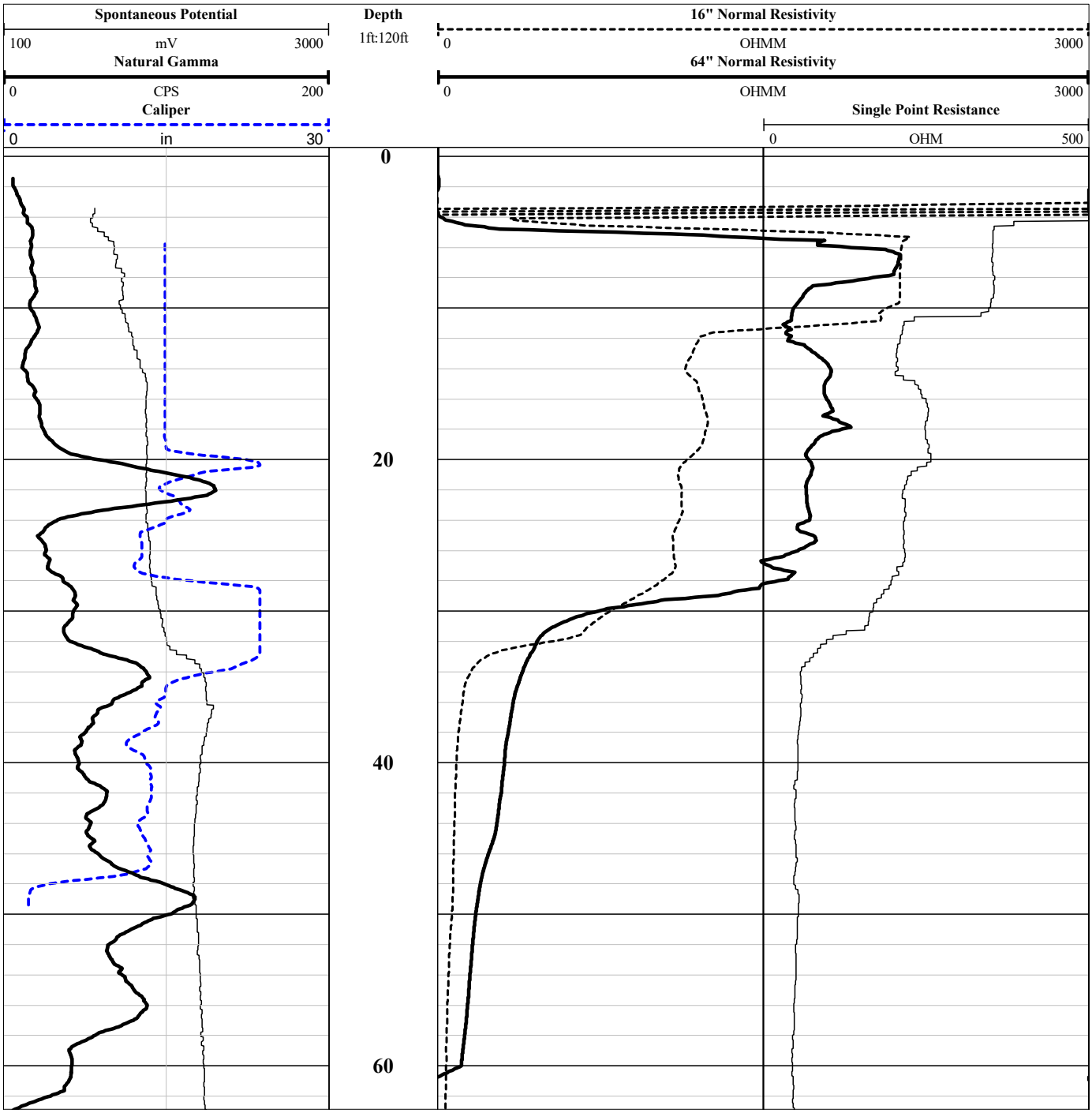
**DRILLING MEAS. FROM**

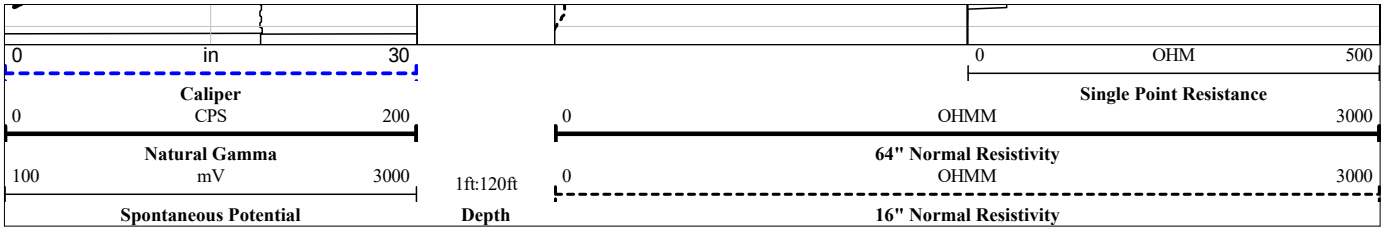
| | | | | |
|---|---|---|---|---|
| **DATE ACQUIRED** | 5-31-24 | 5-31-24 | 5-31-24 | |
| **RUN NUMBER** | 1 | 2 | 3 | |
| **LOG TYPE** | Electric log | 3-Arm Caliper | Electric log | |
| **DEPTH-DRILLER** | 65' | 65' | 65' | |
| **DEPTH-LOGGER** | 61.20' | 53.08' | 66.15' | |
| **BTM LOG INTERVAL** | 61.20' | 53.08' | 66.15' | |
| **TOP LOG INTERVAL** | 4.45' | 5.51' | 4.55' | |
| **RECORDED BY** | J Grace | J Grace | J Grace | |
| **WITNESSED BY** | | | | |
| **PROBE TYPE, S/N** | ELTG 5541 | 2CAA 5837 | ELTG 5541 | |
| **LOGGING SPEED** | 12 ft/min | 11 ft/min | 12ft/min | |
| **A.S.D.E. / Sample Interval** | 0.1 | 0.1 | 0.1 | |
| **Fluid Level / Fluid Type** | drill mud | drill mud | drill mud | |

| **BOREHOLE RECORD** | | | | **CASING RECORD** | | | |
|---|---|---|---|---|---|---|---|
| **RUN No.** | **BIT** | **FROM** | **TO** | **SIZE** | **WGT.** | **FROM** | **TO** |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

**NA - Not Available, N/A - Not Applicable**

**COMMENTS**


Spontaneous Potential
100
mV
3000
Natural Gamma
0
CPS
200
Caliper
0
in
30
Depth
1ft:120ft
0
20
40
60
16" Normal Resistivity
0
OHMM
3000
64" Normal Resistivity
0
OHMM
3000
Single Point Resistance
0
OHM
500


0
in
30
Caliper
0
CPS
200
Natural Gamma
100
mV
3000
Spontaneous Potential
1ft:120ft
Depth
0
OHM
500
Single Point Resistance
0
OHMM
3000
64" Normal Resistivity
0
OHMM
3000
16" Normal Resistivity

# Geophysical Logs

Run 2: Ream Hole to 230 feet bls

## Valdosta WTP No. 2
## Production Well No. 1

CDM Smith

COLOG
borehole geophysics / hydrophysics

810 Quail Street
Suite E
Lakewood, Colorado
80215
Office: 303.279.0171
Fax: 303.278.0135
www.colog.com

Company Rowe Drilling
Well Well # 1
Project Valdosta WPT 2
County Lowndes
State Georgia

**COMPANY** Rowe Drilling
**WELL** Well # 1
**PROJECT** Valdosta WPT 2
**COUNTY** Lowndes **STATE** Georgia

**LOCATION**

QTR SEC TWP RGE

**OTHER SERVICES**
Natural Gamma
Caliper

**PERMANENT DATUM** **ELEVATION**

**LOG MEAS. FROM** Ground surface **ABOVE PERMANENT DATUM**

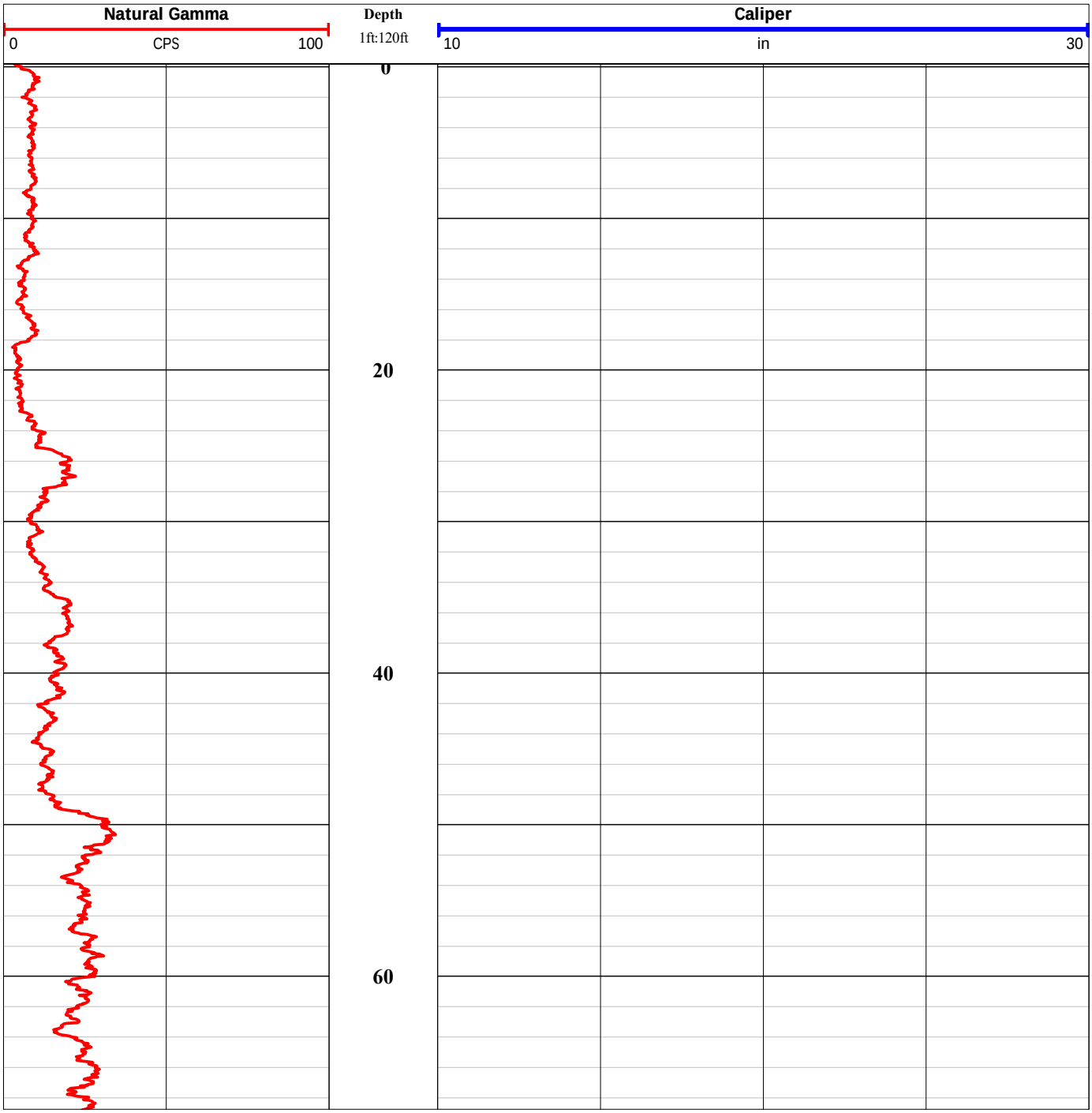
**DRILLING MEAS. FROM**

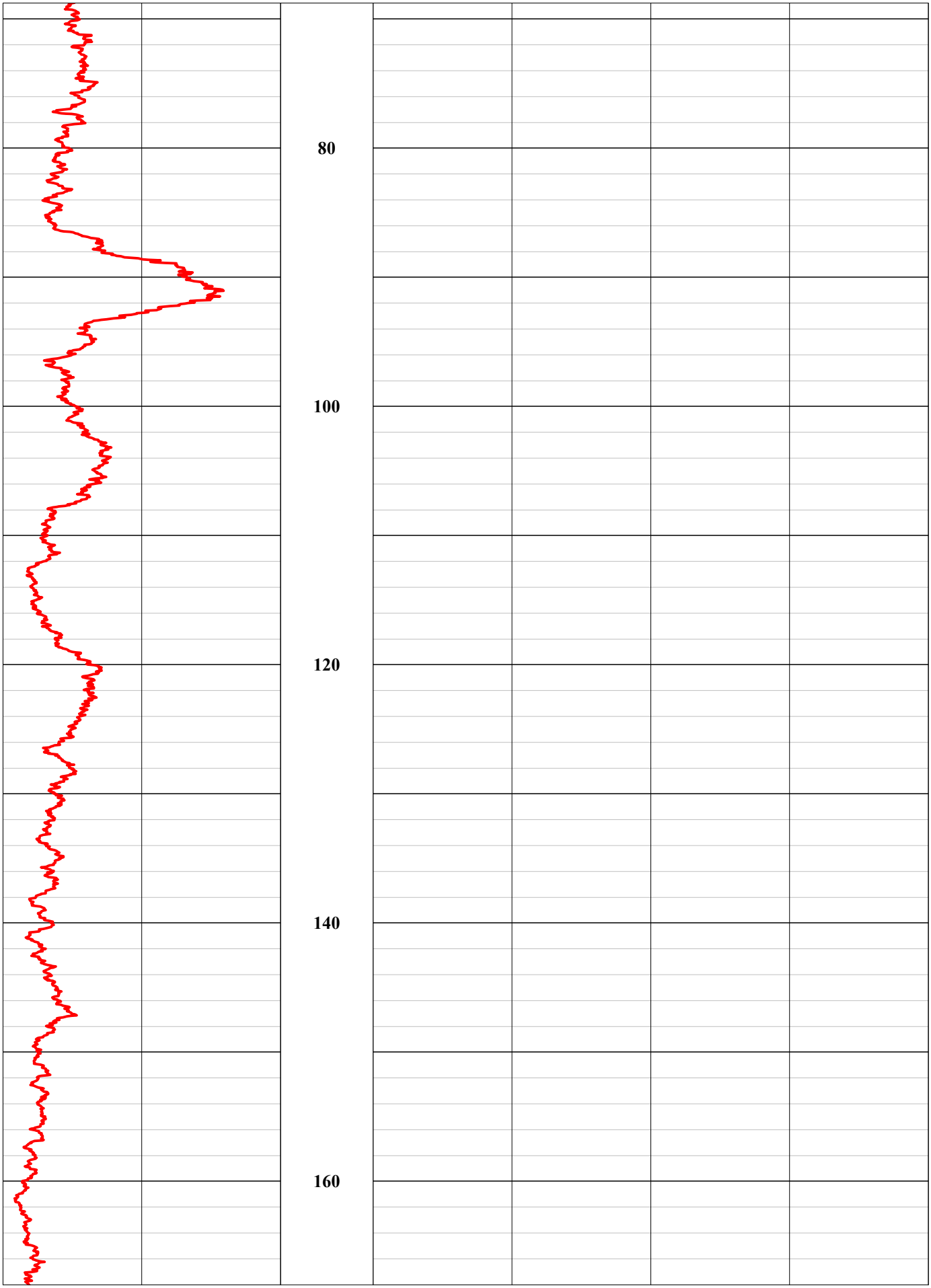
| | | | | |
|---|---|---|---|---|
| **DATE ACQUIRED** | 9-3-24 | 9-3-24 | | |
| **RUN NUMBER** | 1 | 2 | | |
| **LOG TYPE** | 3- Arm Caliper | Natural Gamma | | |
| **DEPTH-DRILLER** | 230' | 230' | | |
| **DEPTH-LOGGER** | 221.96' | 222.10' | | |
| **BTM LOG INTERVAL** | 221.96' | 222.10' | | |
| **TOP LOG INTERVAL** | 190' | 1.01" | | |
| **RECORDED BY** | J Grace | J Grace | | |
| **WITNESSED BY** | | | | |
| **PROBE TYPE, S/N** | 2PCA 5536 | TCDS 6016 | | |
| **LOGGING SPEED** | 10 ft/min | 12 ft/min | | |
| **A.S.D.E. / Sample Interval** | 0.1 | 0.1 | | |
| **Fluid Level / Fluid Type** | drill mud | drill mud | | |

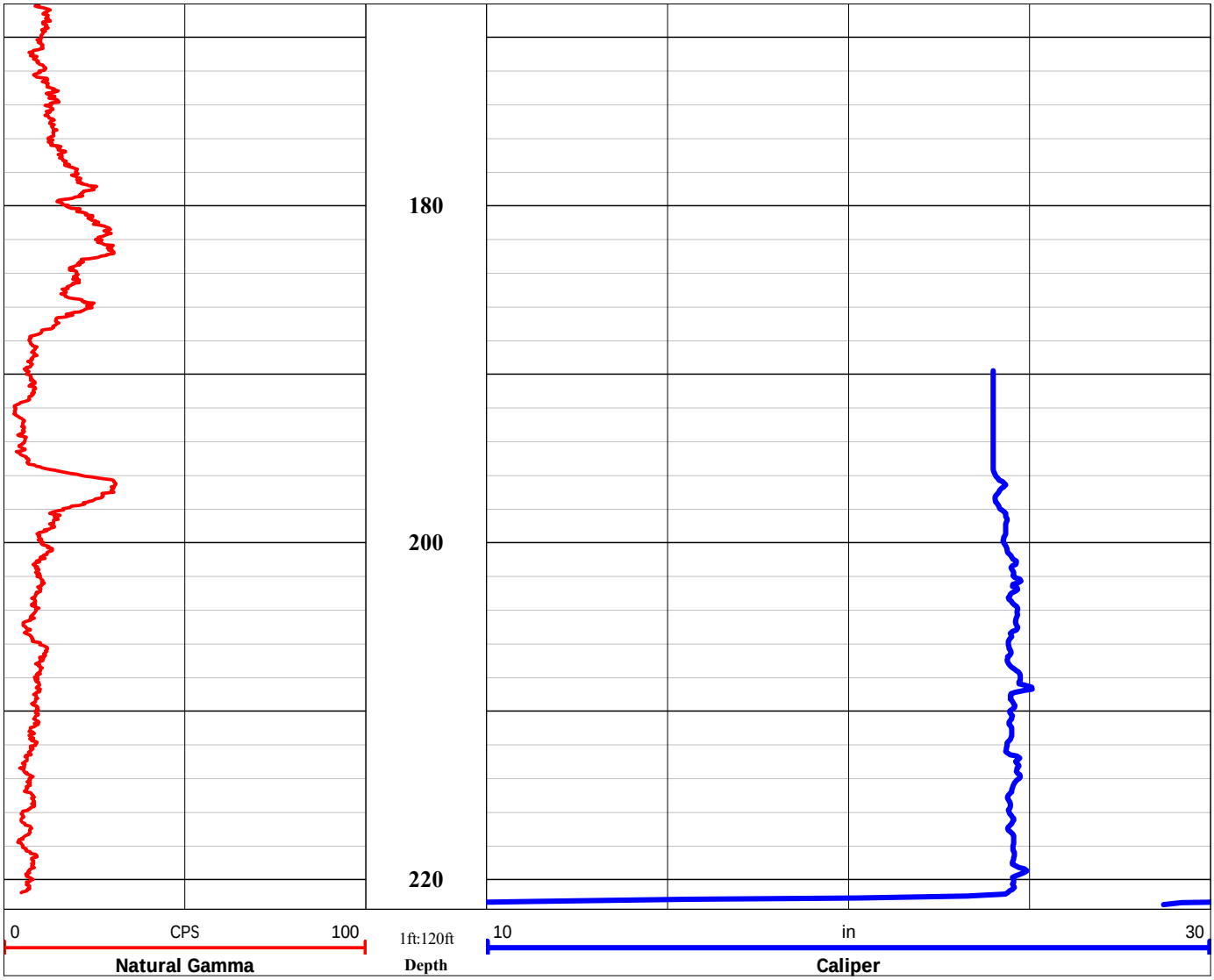
| **BOREHOLE RECORD** | | | | **CASING RECORD** | | | |
|---|---|---|---|---|---|---|---|
| **RUN No.** | **BIT** | **FROM** | **TO** | **SIZE** | **WGT.** | **FROM** | **TO** |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

**NA - Not Available, N/A - Not Applicable**

**COMMENTS**


Natural Gamma
0
CPS
100
Depth
1ft:120ft
0
20
40
60
Caliper
10
in
30


80
100
120
140
160


180
200
220
0
CPS
100
Natural Gamma
1ft:120ft
Depth
10
in
30
Caliper

# Geophysical Logs

Run 3: Pilot Hole
to 450 feet bls

## Valdosta WTP No. 2
## Production Well No. 1

CDM Smith

borehole geophysics / hydrophysics

810 Quail Street
Suite E
Lakewood, Colorado
80215
Office: 303.279.0171
Fax: 303.278.0135
www.colog.com

# Caliper

**Company** Rowe Drilling
**Well** Well # 1
**Project** Valdosta WPT 2
**County** Lowndes
**State** Georgia

**COMPANY** Rowe Drilling
**WELL** Well # 1 Pilot Hole
**PROJECT** Valdosta WPT 2
**COUNTY** Lowndes **STATE** Georgia

**LOCATION**

**QTR** **SEC** **TWP** **RGE**

**OTHER SERVICES**

Caliper

**PERMANENT DATUM**

**ELEVATION**

**LOG MEAS. FROM** Ground surface **ABOVE PERMANENT DATUM**

**DRILLING MEAS. FROM**

| | | | | |
|---|---|---|---|---|
| **DATE ACQUIRED** | | 9-16-24 | | |
| **RUN NUMBER** | | 2 | | |
| **LOG TYPE** | | 3-Arm Caliper | | |
| **DEPTH-DRILLER** | | 450' | | |
| **DEPTH-LOGGER** | | 453' | | |
| **BTM LOG INTERVAL** | | 453' | | |
| **TOP LOG INTERVAL** | | 180' | | |
| **RECORDED BY** | | J Grace | | |
| **WITNESSED BY** | | | | |
| **PROBE TYPE, S/N** | | 2CAA 5837 | | |
| **LOGGING SPEED** | | 14 ft/min | | |
| **A.S.D.E. / Sample Interval** | | 0.1 | | |
| **Fluid Level / Fluid Type** | | Water | | |

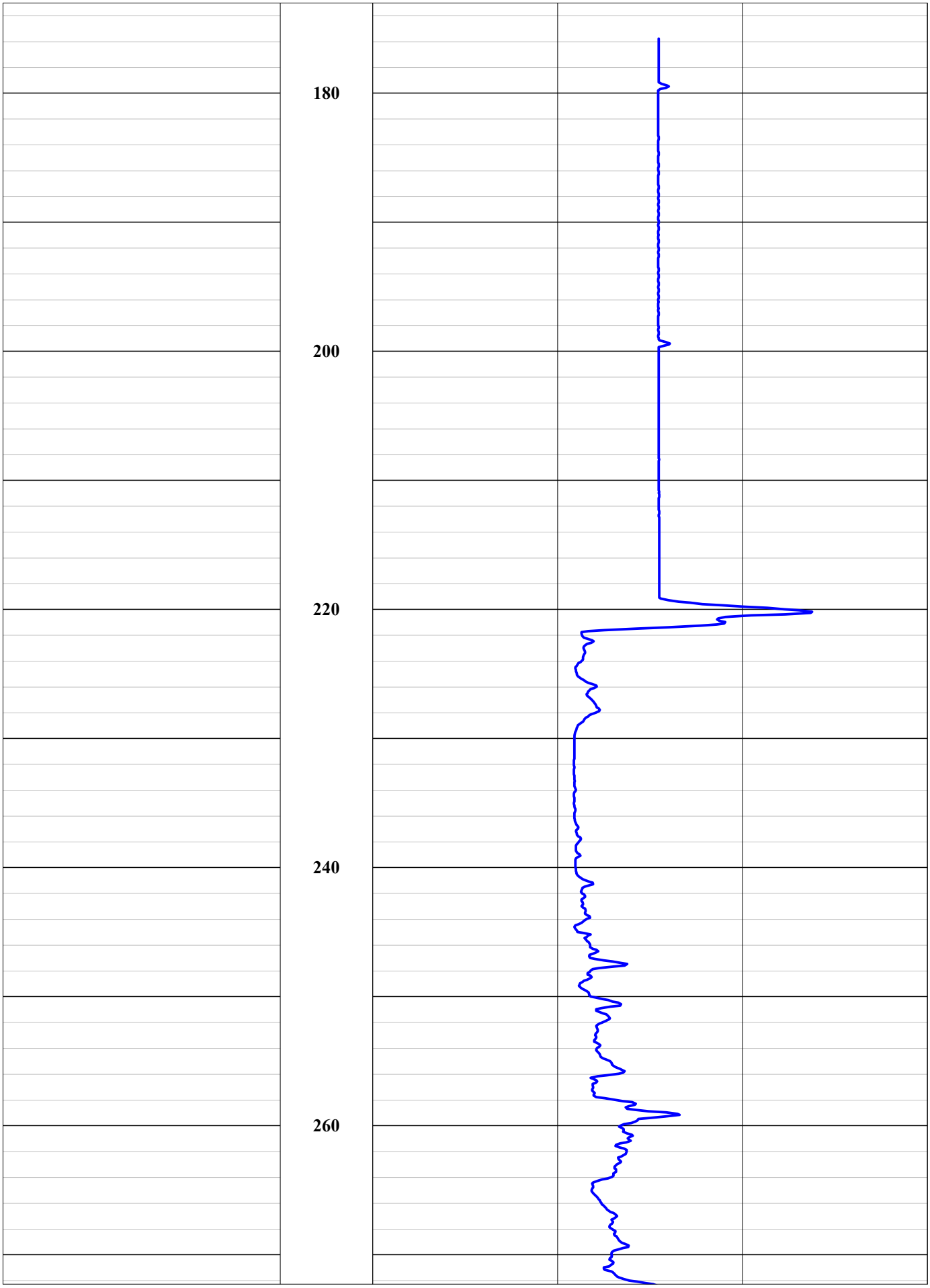
| **BOREHOLE RECORD** | | | | **CASING RECORD** | | | |
|---|---|---|---|---|---|---|---|
| **RUN No.** | **BIT** | **FROM** | **TO** | **SIZE** | **WGT.** | **FROM** | **TO** |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

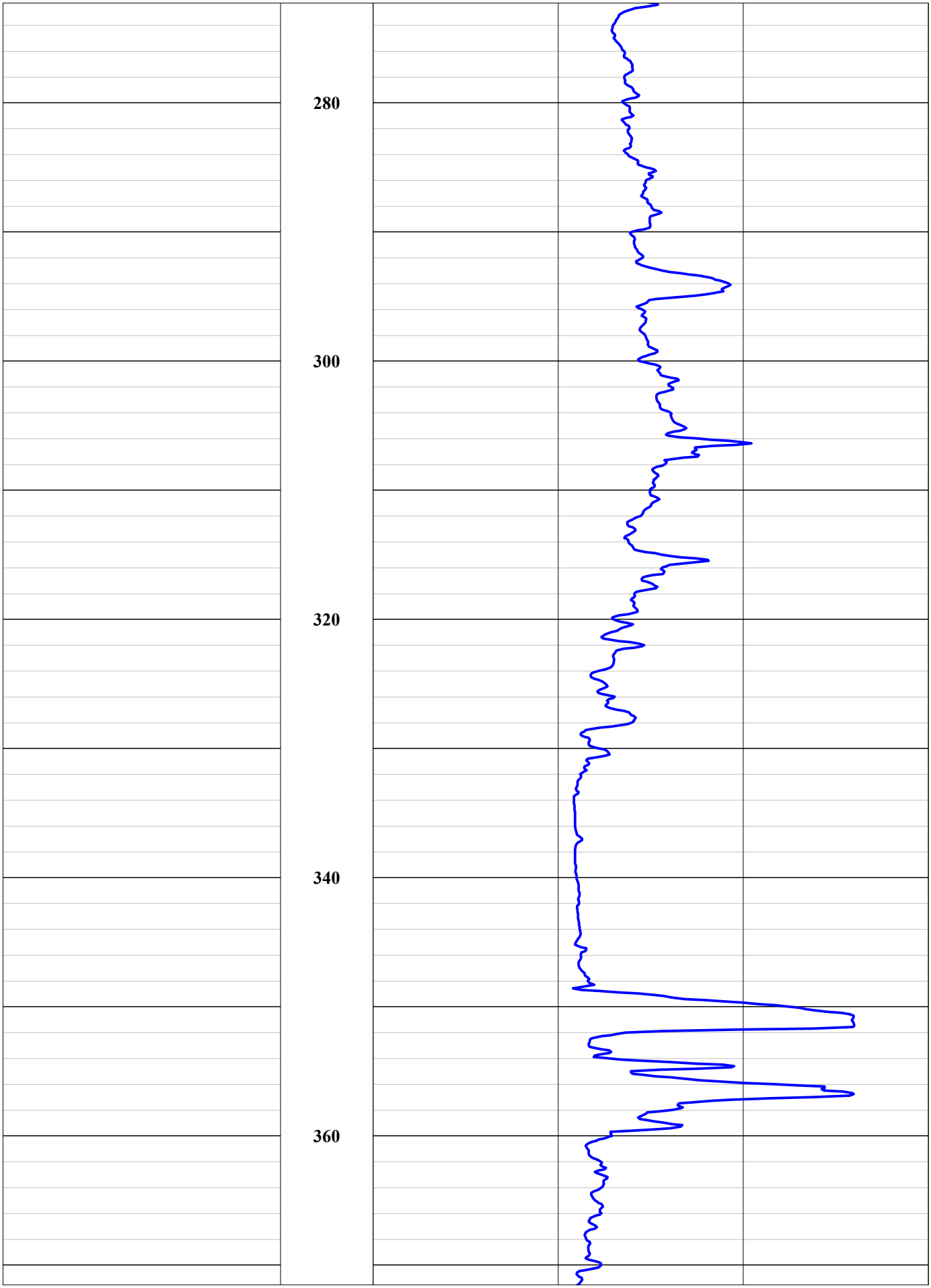
**NA - Not Available, N/A - Not Applicable**

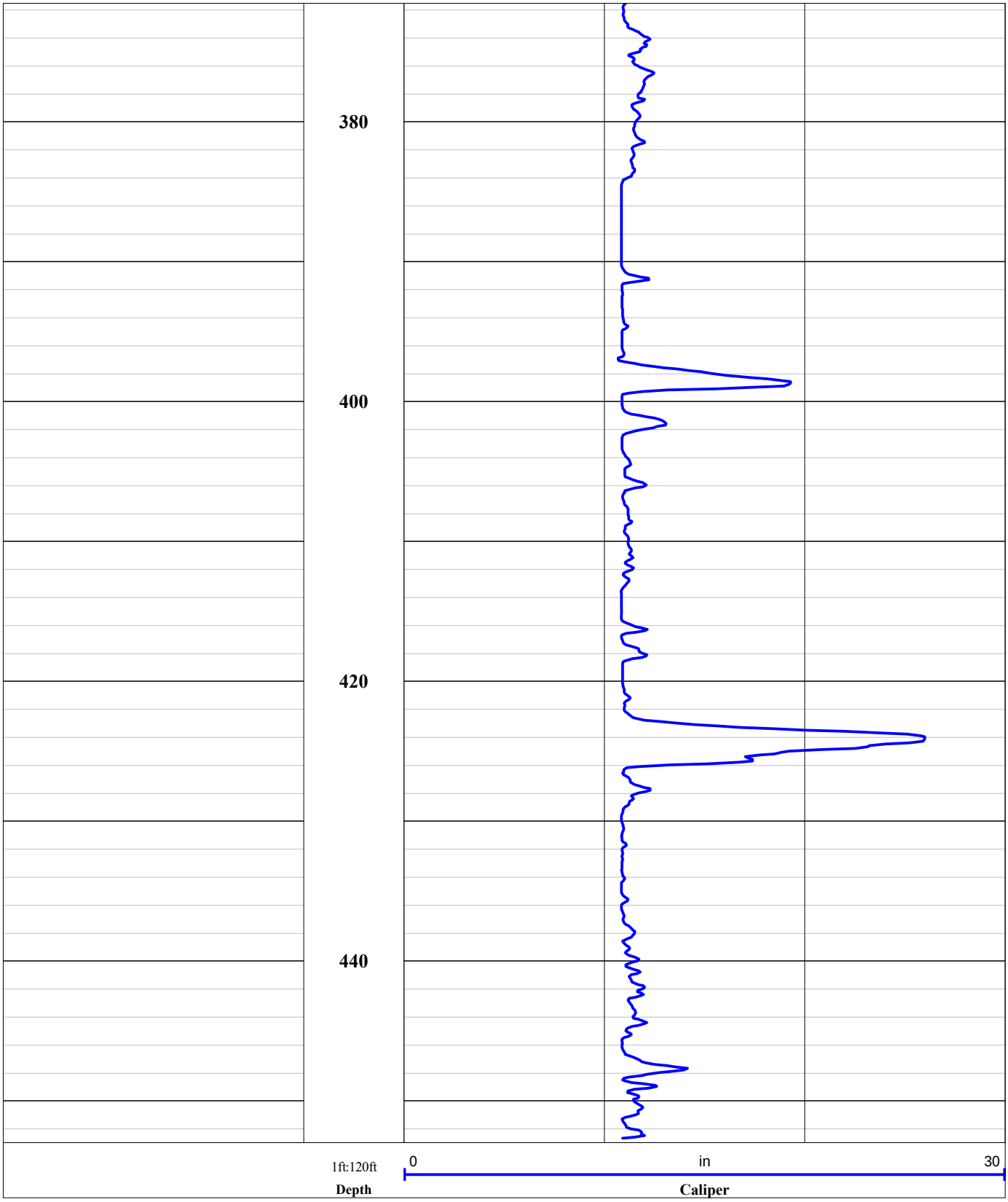
**COMMENTS**

| | Depth<br>1ft:120ft | Caliper<br>0 in 30 | | |
|---|---|---|---|---|
| | | | | |
| | 20 | | | |
| | | | | |
| | 40 | | | |
| | | | | |
| | 60 | | | |
| | | | | |
| | | | | |

| | | | | |
|---|---|---|---|---|
| | 80 | | | |
| | 100 | | | |
| | 120 | | | |
| | 140 | | | |
| | 160 | | | |


180
200
220
240
260


280
300
320
340
360


380
400
420
440
1ft:120ft
Depth
0
in
30
Caliper

COLOG

borehole geophysics / hydrophysics

833 Hogback Drive
Golden, CO 80403
Office: 303.279.0171
www.colog.com

# Full Waveform Sonic

Company Rowe Drilling
Well Well # 1
Project Valdosta WPT 2
County Lowndes
State Georgia

**COMPANY** Rowe Drilling
**WELL** Well # 1 Pilot Hole
**PROJECT** Valdosta WPT 2
**COUNTY** Lowndes **STATE** Georgia

**LOCATION**

**QTR** **SEC** **TWP** **RGE**

**OTHER SERVICES**

Electric log
Caliper

**PERMANENT DATUM** Ground Surface **ELEVATION** NA

**LOG MEAS. FROM** Ground surface 0.0 ft **ABOVE PERMANENT DATUM**

**DRILLING MEAS. FROM** Ground Surface

| | | | | |
|---|---|---|---|---|
| **DATE ACQUIRED** | 16 Sept 2024 | | | |
| **RUN NUMBER** | 3 | | | |
| **LOG TYPE** | Sonic | | | |
| **DEPTH-DRILLER** | 450 ft | | | |
| **DEPTH-LOGGER** | 453 ft | | | |
| **BTM LOG INTERVAL** | 453 ft | | | |
| **TOP LOG INTERVAL** | 113 ft | | | |
| **RECORDED BY** | J Grace | | | |
| **WITNESSED BY** | | | | |
| **PROBE TYPE, S/N** | TRSS | | | |
| **LOGGING SPEED** | 12 ft/min | | | |
| **A.S.D.E./Sample Interval** | 0.1 | | | |
| **Fluid Level / Fluid Type** | 113 ft / Water | | | |

**BOREHOLE RECORD**

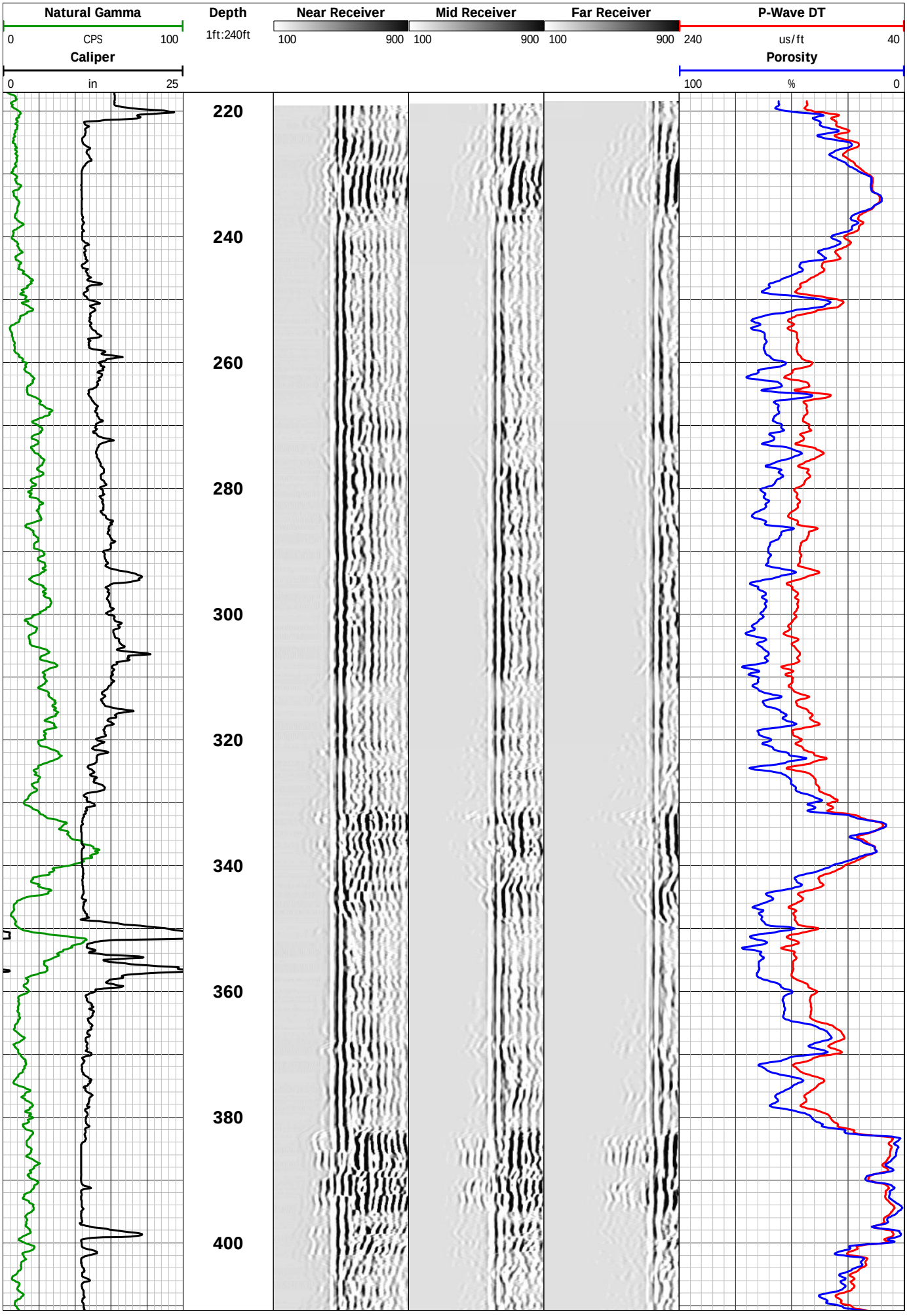
| RUN No. | BIT | FROM | TO |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

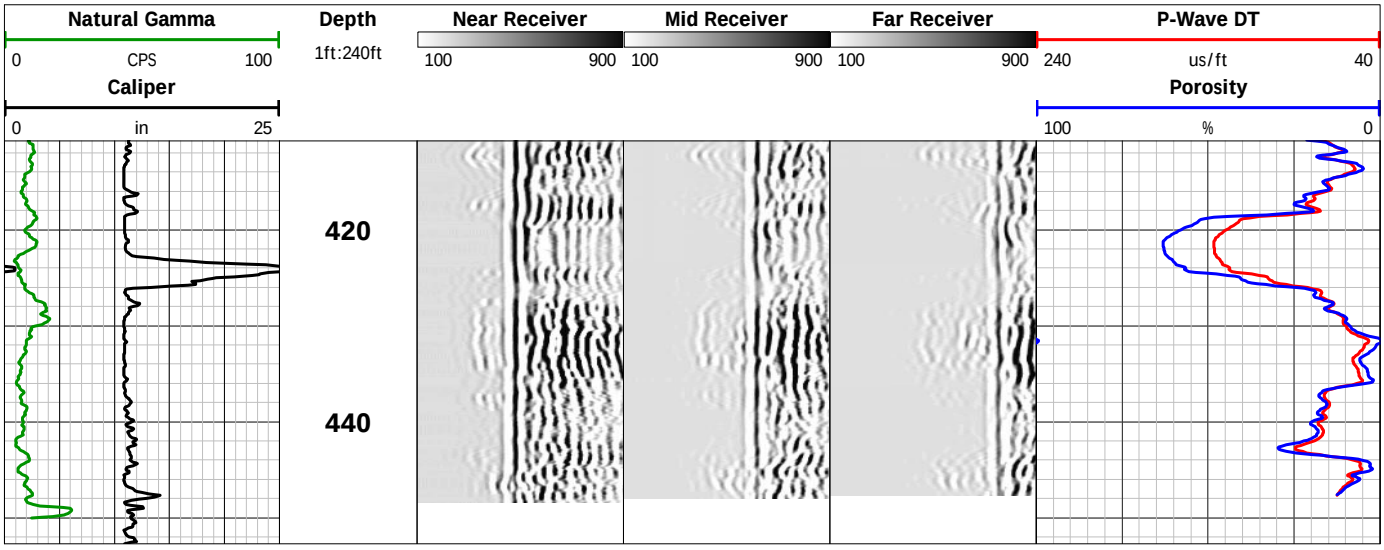
**CASING RECORD**

| SIZE | WGT. | FROM | TO |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

**NA - Not Available, N/A - Not Applicable**

**COMMENTS**


Natural Gamma
0
CPS
100
Caliper
0
in
25
Depth
1ft:240ft
220
240
260
280
300
320
340
360
380
400
Near Receiver
100
900
Mid Receiver
100
900
Far Receiver
100
900
P-Wave DT
240
us/ft
40
Porosity
100
%
0


Natural Gamma
0
CPS
100
Caliper
0
in
25
Depth
1ft:240ft
420
440
Near Receiver
100
900
Mid Receiver
100
900
Far Receiver
100
900
P-Wave DT
240
us/ft
40
Porosity
100
%
0

borehole geophysics / hydrophysics

833 Hogback Drive
Golden, CO 80403
Office: 303.279.0171
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# Casing Bond Log

Company Rowe Drilling
Well Well # 1 Pilot
Project Valdosta WPT 2
County Lowndes
State Georgia

**COMPANY** Rowe Drilling
**WELL** Well # 1 Pilot Hole
**PROJECT** Valdosta WPT 2
**COUNTY** Lowndes **STATE** Georgia

**LOCATION**

QTR SEC TWP RGE

**OTHER SERVICES**
Electric log
Caliper

**PERMANENT DATUM** Ground Surface **ELEVATION** NA

**LOG MEAS. FROM** Ground surface 0.0 ft **ABOVE PERMANENT DATUM**

**DRILLING MEAS. FROM** Ground Surface

| | | | | |
|---|---|---|---|---|
| **DATE ACQUIRED** | 16 Sept 2024 | | | |
| **RUN NUMBER** | 3 | | | |
| **LOG TYPE** | CBL | | | |
| **DEPTH-DRILLER** | 450 ft | | | |
| **DEPTH-LOGGER** | 453 ft | | | |
| **BTM LOG INTERVAL** | 219 ft | | | |
| **TOP LOG INTERVAL** | 113 ft | | | |
| **RECORDED BY** | J Grace | | | |
| **WITNESSED BY** | | | | |
| **PROBE TYPE, S/N** | TRSS | | | |
| **LOGGING SPEED** | 12 ft/min | | | |
| **A.S.D.E./Sample Interval** | 0.1 | | | |
| **Fluid Level / Fluid Type** | 113 ft / Water | | | |

**BOREHOLE RECORD**

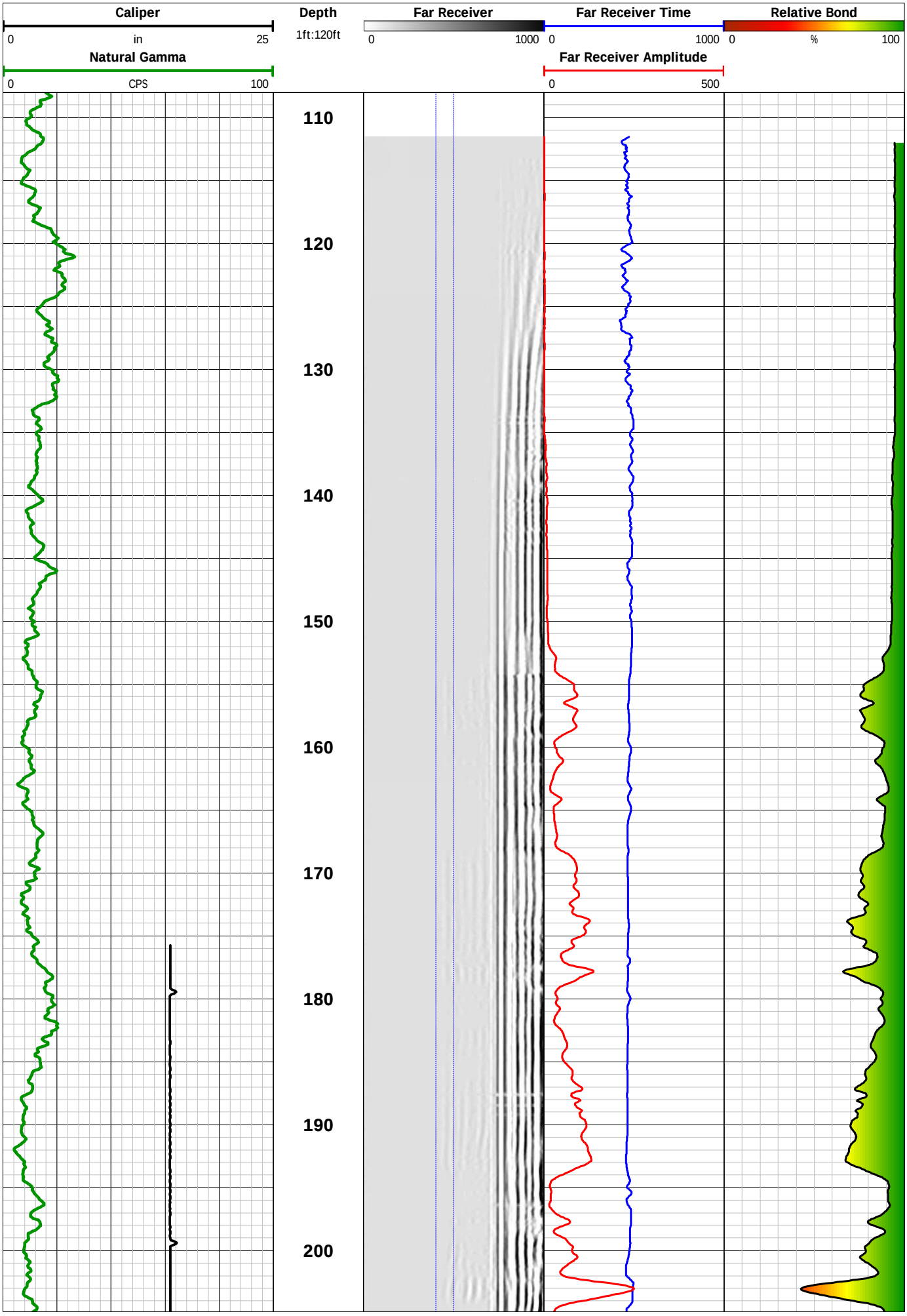
| RUN No. | BIT | FROM | TO |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

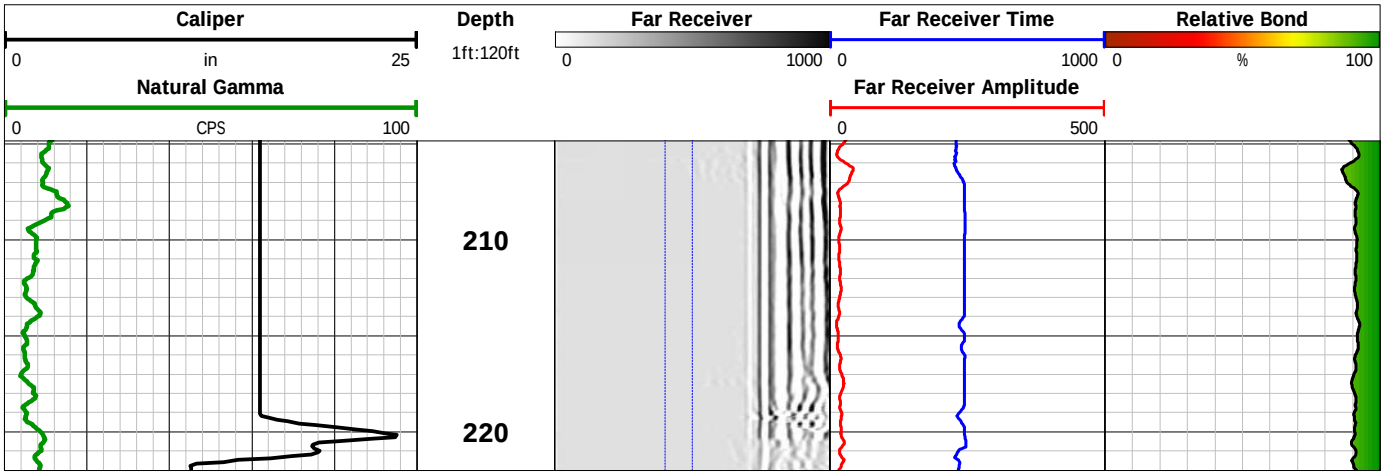
**CASING RECORD**

| SIZE | WGT. | FROM | TO |
|---|---|---|---|
| 16 in | | 0 | 219 ft |
| | | | |
| | | | |
| | | | |

**NA - Not Available, N/A - Not Applicable**

**COMMENTS**


Caliper
0
in
25
Natural Gamma
0
CPS
100
Depth
1ft:120ft
Far Receiver
0
1000
Far Receiver Time
0
1000
Far Receiver Amplitude
0
500
Relative Bond
0
%
100
110
120
130
140
150
160
170
180
190
200


Caliper
0
in
25
Natural Gamma
0
CPS
100
Depth
1ft:120ft
Far Receiver
0
1000
Far Receiver Time
0
1000
Far Receiver Amplitude
0
500
Relative Bond
0
%
100
210
220

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www.colog.com

# Electric Log
# Caliper

Company Rowe Drilling
Well Well # 1
Project Valdosta WPT 2
County Lowndes
State Georgia

**COMPANY** Rowe Drilling
**WELL** Well # 1 Pilot Hole
**PROJECT** Valdosta WPT 2
**COUNTY** Lowndes **STATE** Georgia

**LOCATION**

QTR SEC TWP RGE

**OTHER SERVICES**

Electric log
Caliper

**PERMANENT DATUM** Ground Surface **ELEVATION** NA

**LOG MEAS. FROM** Ground surface 0.0 ft **ABOVE PERMANENT DATUM**

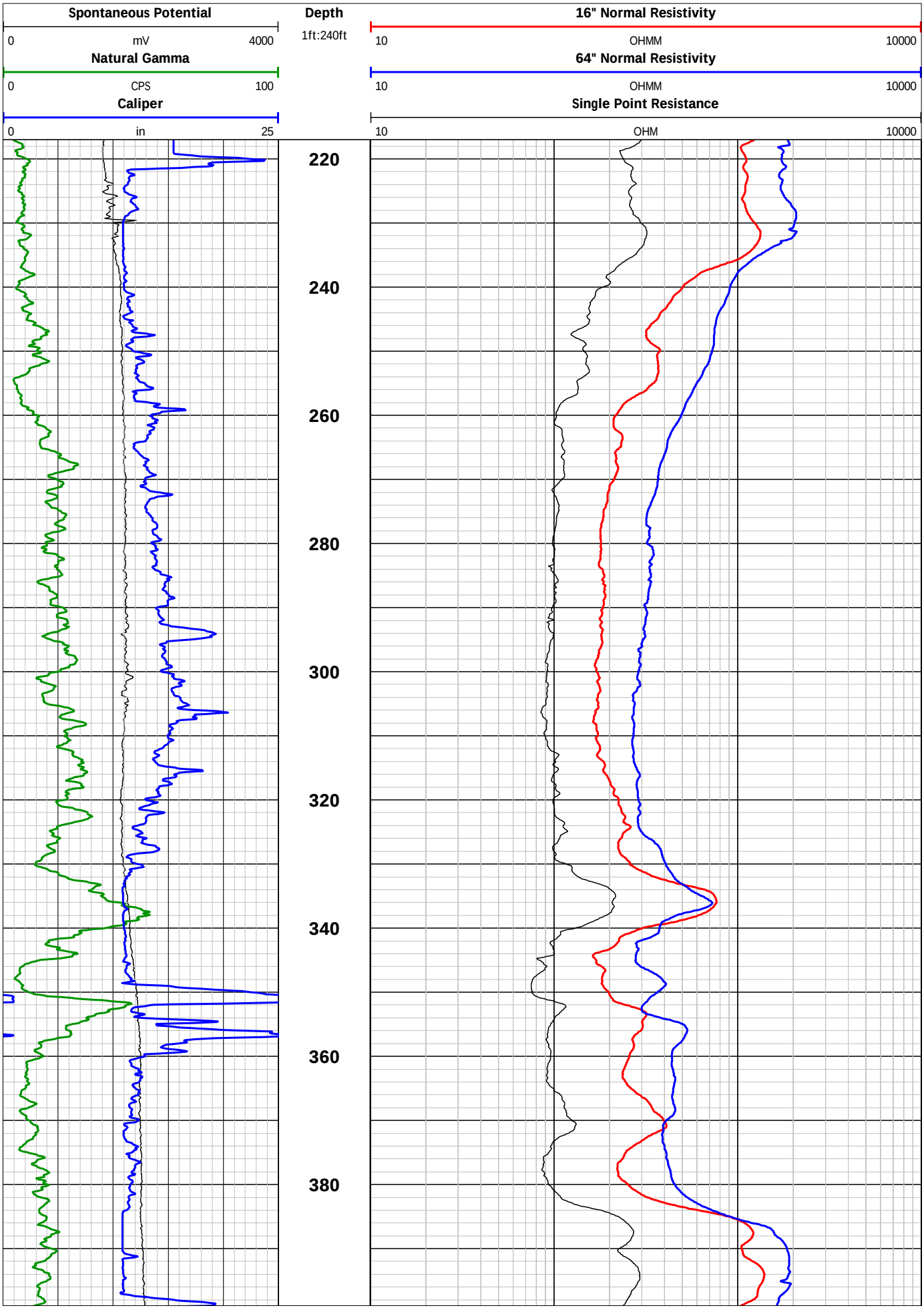
**DRILLING MEAS. FROM** Ground Surface

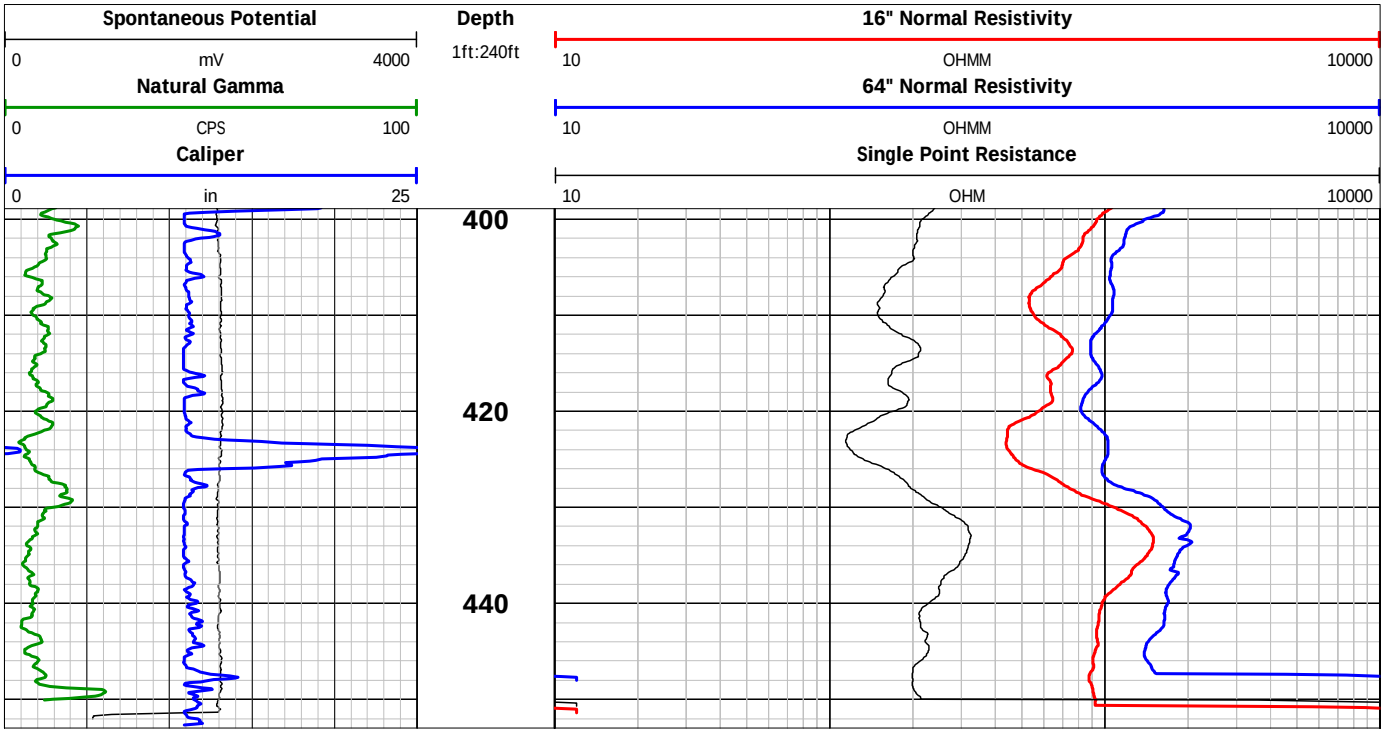
| | | | | |
|---|---|---|---|---|
| **DATE ACQUIRED** | 16 Sept 2024 | 16 Sept 2024 | | |
| **RUN NUMBER** | 1 | 2 | | |
| **LOG TYPE** | Electric log/Gamma | 3-Arm Caliper | | |
| **DEPTH-DRILLER** | 450' | 450' | | |
| **DEPTH-LOGGER** | 453' | 453' | | |
| **BTM LOG INTERVAL** | 453' | 453' | | |
| **TOP LOG INTERVAL** | 4' Gamma | 200' | | |
| **RECORDED BY** | J Grace | J Grace | | |
| **WITNESSED BY** | | | | |
| **PROBE TYPE, S/N** | ELTG 5541 | 2CAA 5837 | | |
| **LOGGING SPEED** | 15 ft/min | 14 ft/min | | |
| **A.S.D.E./Sample Interval** | 0.1 | 0.1 | | |
| **Fluid Level / Fluid Type** | Water | Water | | |

| **BOREHOLE RECORD** | | | | **CASING RECORD** | | | |
|---|---|---|---|---|---|---|---|
| **RUN No.** | **BIT** | **FROM** | **TO** | **SIZE** | **WGT.** | **FROM** | **TO** |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

**NA - Not Available, N/A - Not Applicable**

**COMMENTS**


Spontaneous Potential
0
mV
4000
Natural Gamma
0
CPS
100
Caliper
0
in
25
Depth
1ft:240ft
16" Normal Resistivity
10
OHMM
10000
64" Normal Resistivity
10
OHMM
10000
Single Point Resistance
10
OHM
10000
220
240
260
280
300
320
340
360
380


Spontaneous Potential
0
mV
4000
Natural Gamma
0
CPS
100
Caliper
0
in
25
Depth
1ft:240ft
400
420
440
16" Normal Resistivity
10
OHMM
10000
64" Normal Resistivity
10
OHMM
10000
Single Point Resistance
10
OHM
10000

borehole geophysics / hydrophysics

810 Quail Street
Suite E
Lakewood, Colorado
80215
Office: 303.279.0171
Fax: 303.278.0135
www.colog.com

# Caliper
# Fluid Temperature
# Fluid Conductivity

Company Rowe Drilling
Well Well # 1
Project Valdosta WPT 2
County Lowndes
State Georgia

**COMPANY** Rowe Drilling
**WELL** Well # 1 Pilot Hole
**PROJECT** Valdosta WPT 2
**COUNTY** Lowndes **STATE** Georgia

**LOCATION**

QTR SEC TWP RGE

**OTHER SERVICES**

Caliper
Fluid Temperature
fluid Conductivity

**PERMANENT DATUM** **ELEVATION**

**LOG MEAS. FROM** Ground surface **ABOVE PERMANENT DATUM**

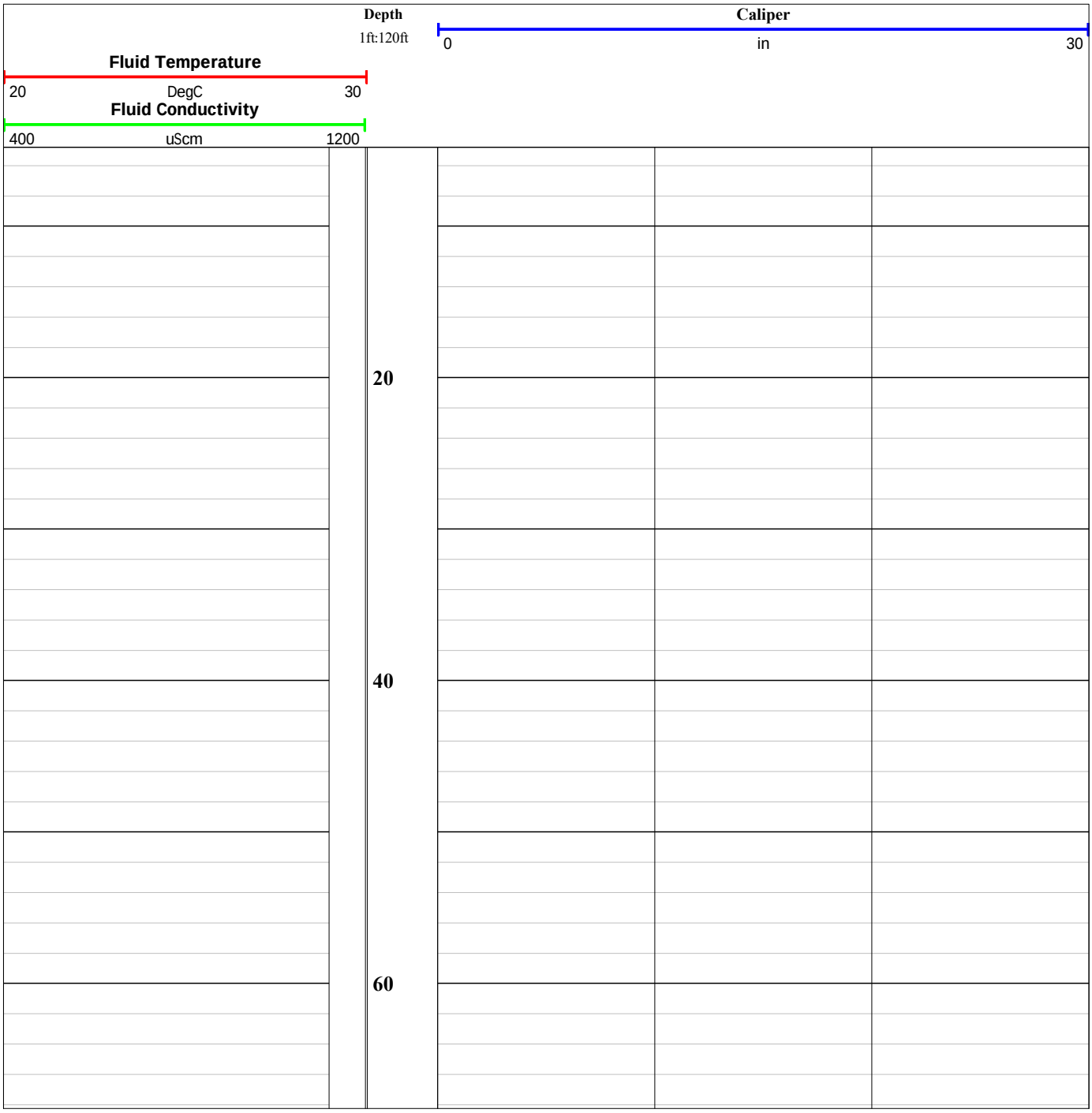
**DRILLING MEAS. FROM**

| | | | | |
|---|---|---|---|---|
| **DATE ACQUIRED** | 9-17-24 | 9-16-24 | | |
| **RUN NUMBER** | 1 | 2 | | |
| **LOG TYPE** | Temp Fluid Cond | 3-Arm Caliper | | |
| **DEPTH-DRILLER** | 450' | 450' | | |
| **DEPTH-LOGGER** | 453' | 453' | | |
| **BTM LOG INTERVAL** | 453' | 453' | | |
| **TOP LOG INTERVAL** | 180' | 180' | | |
| **RECORDED BY** | J Grace | J Grace | | |
| **WITNESSED BY** | | | | |
| **PROBE TYPE, S/N** | TCDS 3493 | 2CAA 5837 | | |
| **LOGGING SPEED** | 12 ft/min | 14 ft/min | | |
| **A.S.D.E. / Sample Interval** | 0.1 | 0.1 | | |
| **Fluid Level / Fluid Type** | Water | Water | | |

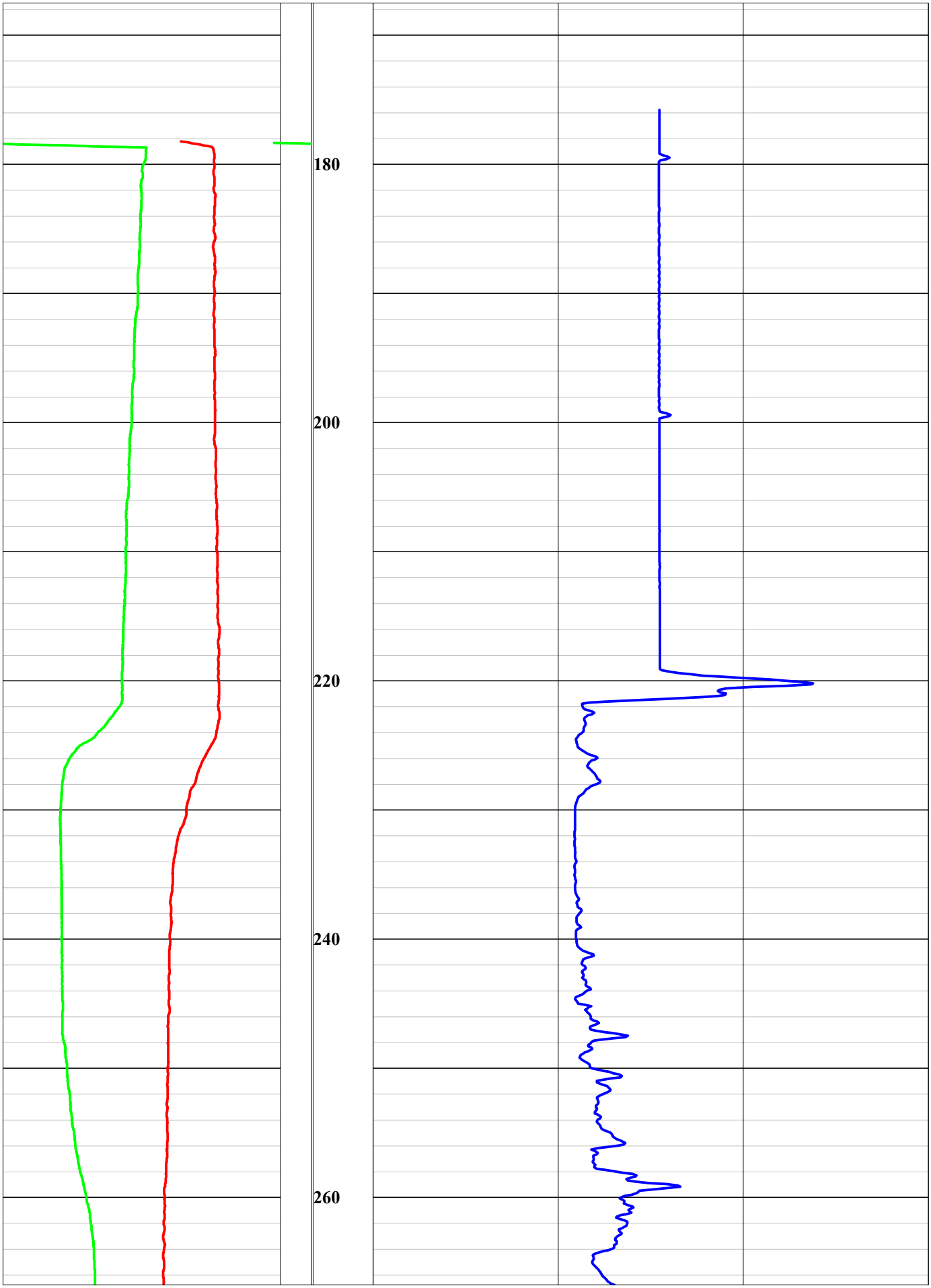
| **BOREHOLE RECORD** | | | | **CASING RECORD** | | | |
|---|---|---|---|---|---|---|---|
| **RUN No.** | **BIT** | **FROM** | **TO** | **SIZE** | **WGT.** | **FROM** | **TO** |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

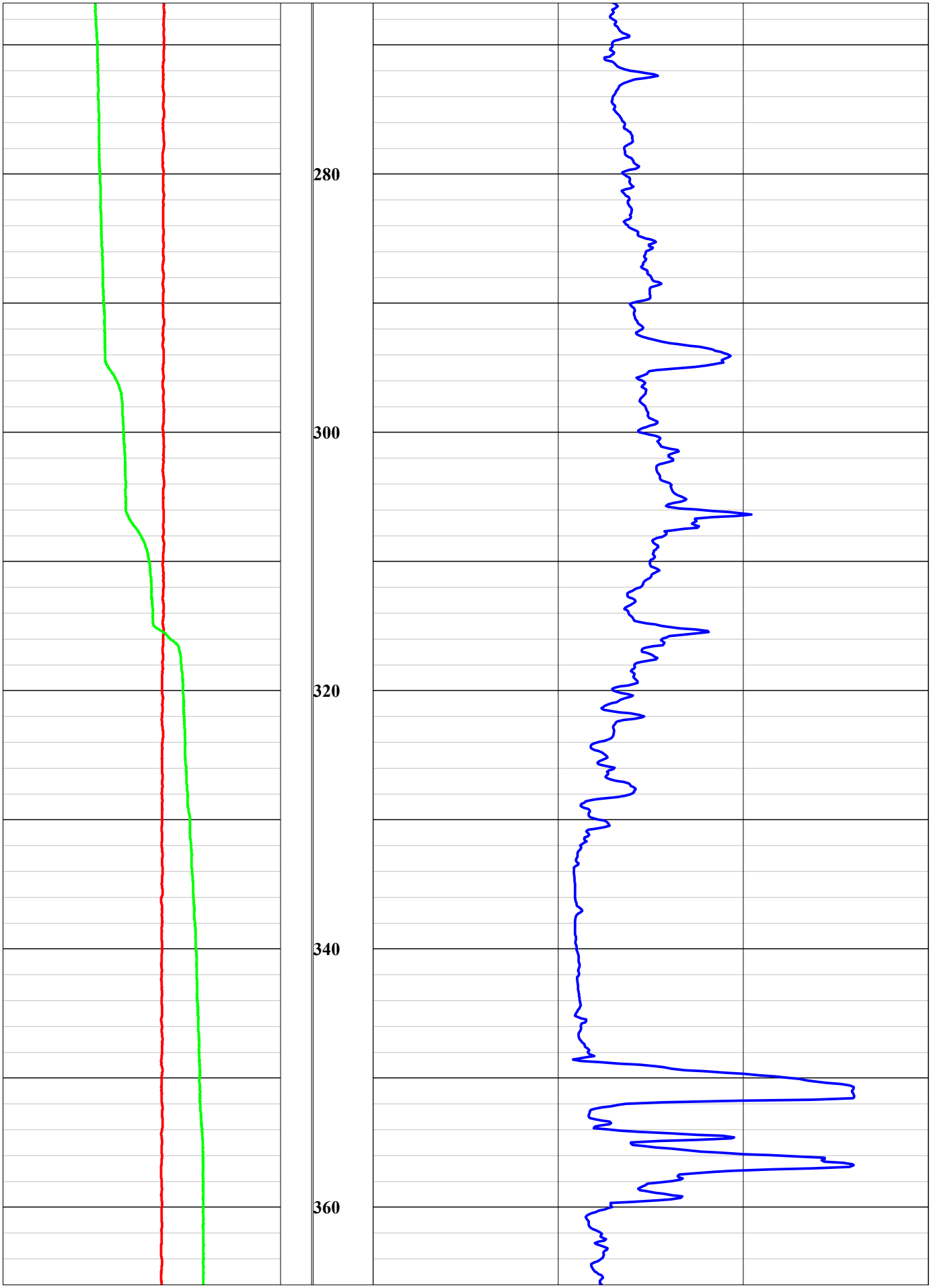
**NA - Not Available, N/A - Not Applicable**

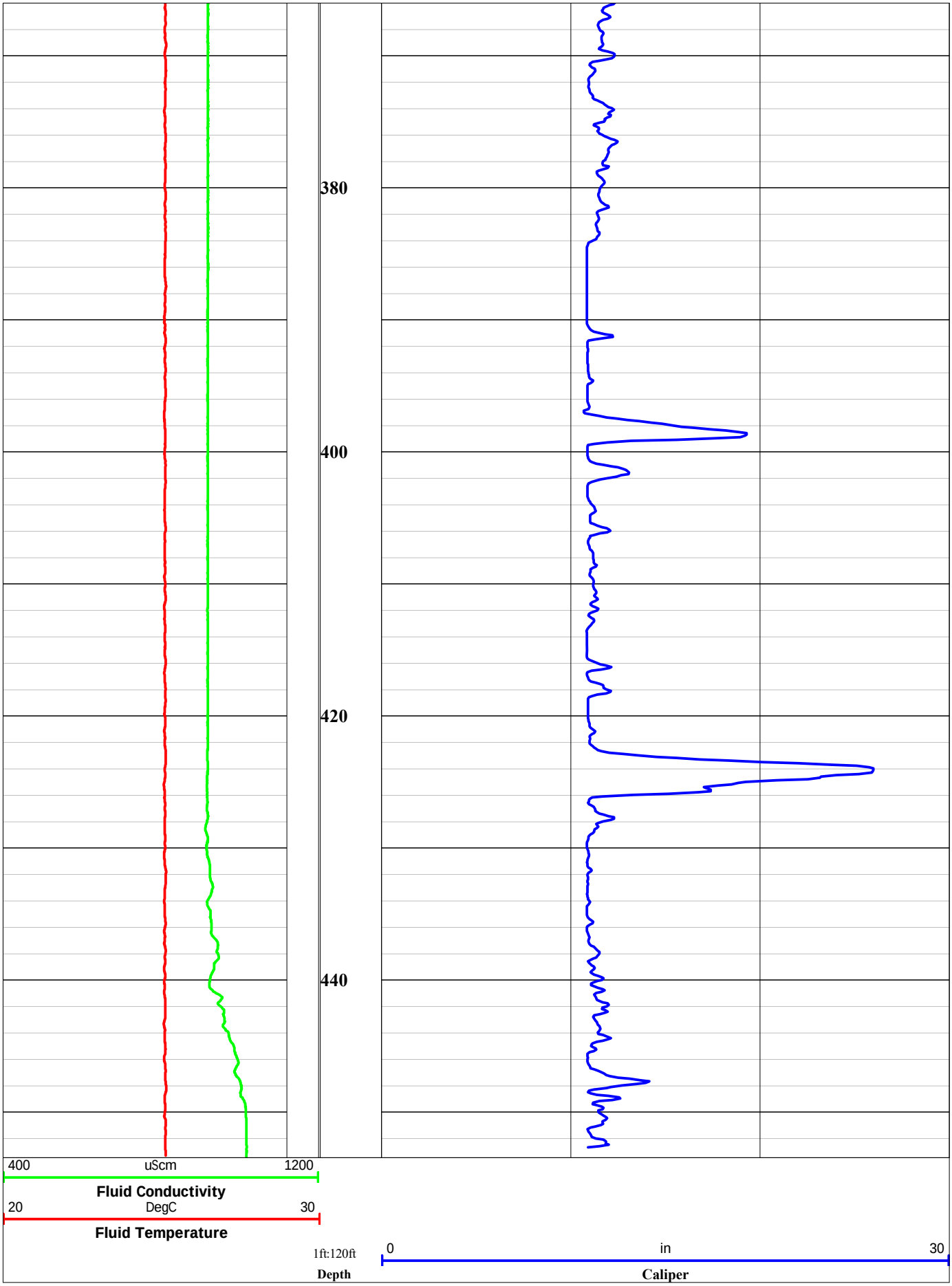
**COMMENTS**


Depth
1ft:120ft
Caliper
0
in
30
Fluid Temperature
20
DegC
30
Fluid Conductivity
400
uScm
1200
20
40
60

| | | | | | |
|---|---|---|---|---|---|
| | | | | | |
| | | 80 | | | |
| | | | | | |
| | | | | | |
| | | 100 | | | |
| | | | | | |
| | | 120 | | | |
| | | | | | |
| | | 140 | | | |
| | | | | | |
| | | 160 | | | |


180
200
220
240
260


280
300
320
340
360


380
400
420
440
400
uScm
1200
Fluid Conductivity
20
DegC
30
Fluid Temperature
1ft:120ft
Depth
0
in
30
Caliper

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www.colog.com

# Dynamic Teperature and Conductivity

Company Rowe Drilling
Well Well 1
Project WPT2
County Lowndes
State GA

**COMPANY** Rowe Drilling
**WELL** Well 1
**PROJECT** WPT2
**COUNTY** Lowndes **STATE** GA

**LOCATION**

QTR SEC TWP RGE

**OTHER SERVICES**

**PERMANENT DATUM** **ELEVATION**

**LOG MEAS. FROM** Ground Surface **ABOVE PERMANENT DATUM**

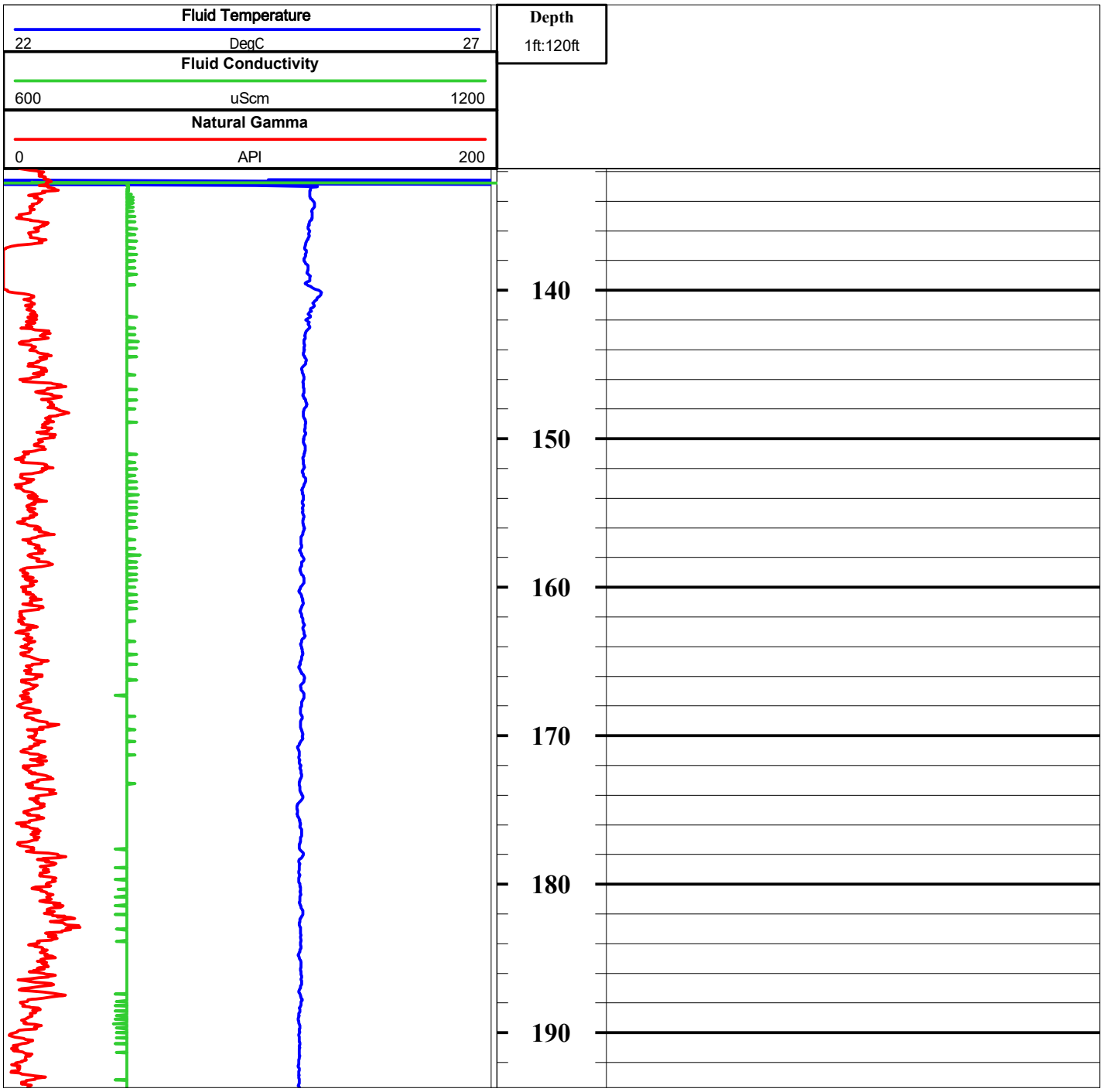
**DRILLING MEAS. FROM**

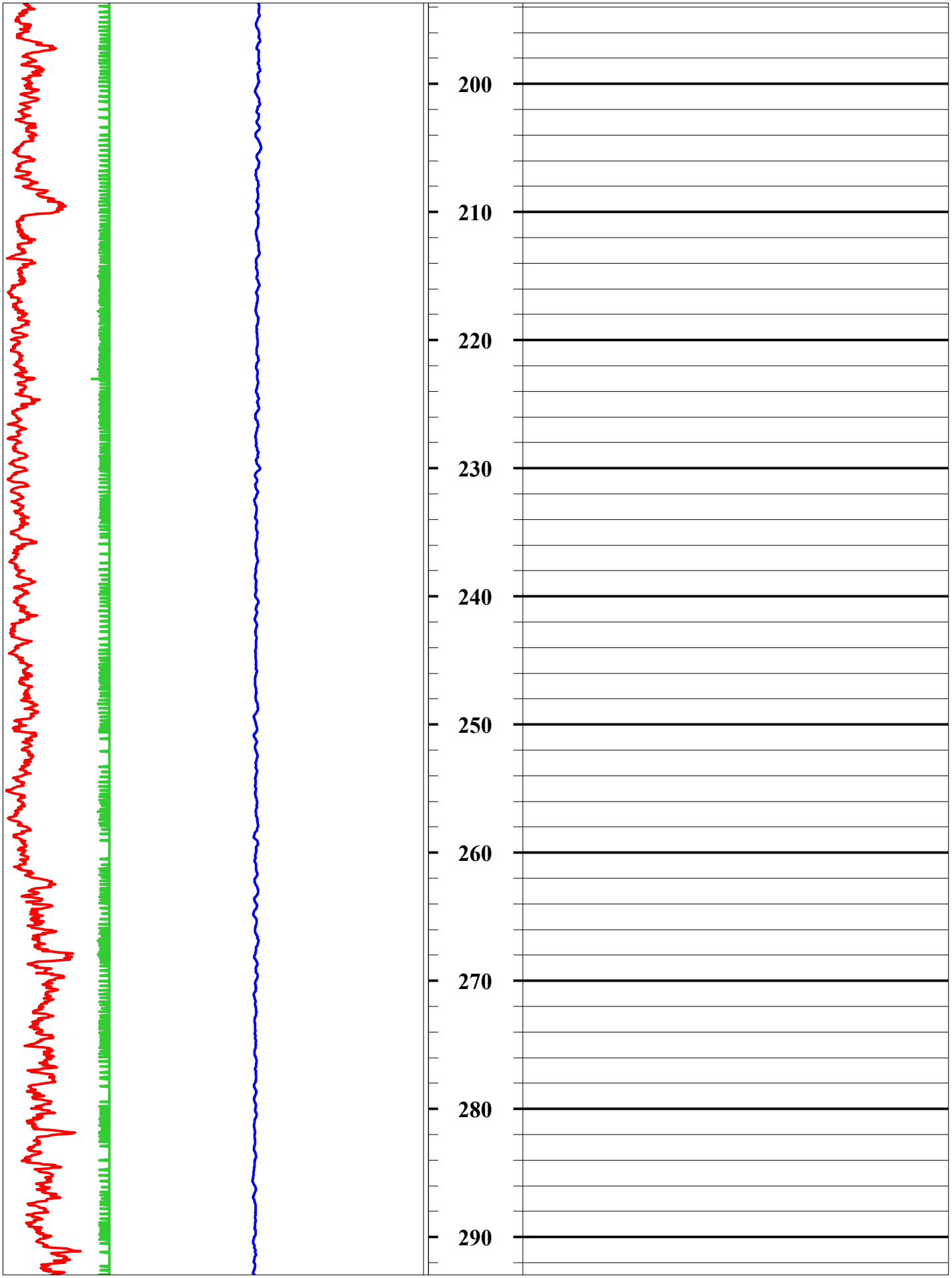
| | | | | |
|---|---|---|---|---|
| **DATE ACQUIRED** | 9-18-24 | | | |
| **RUN NUMBER** | 1 | | | |
| **LOG TYPE** | Temp/Conductivity | | | |
| **DEPTH-DRILLER** | 450' | | | |
| **DEPTH-LOGGER** | 453' | | | |
| **BTM LOG INTERVAL** | 453' | | | |
| **TOP LOG INTERVAL** | 130' | | | |
| **RECORDED BY** | J Grace | | | |
| **WITNESSED BY** | S Caldwell | | | |
| **PROBE TYPE, S/N** | TCDS 3463 | | | |
| **LOGGING SPEED** | 15 ft/min | | | |
| **A.S.D.E./Sample Interval** | 0.10 | | | |
| **Fluid Level/Fluid Type** | water | | | |

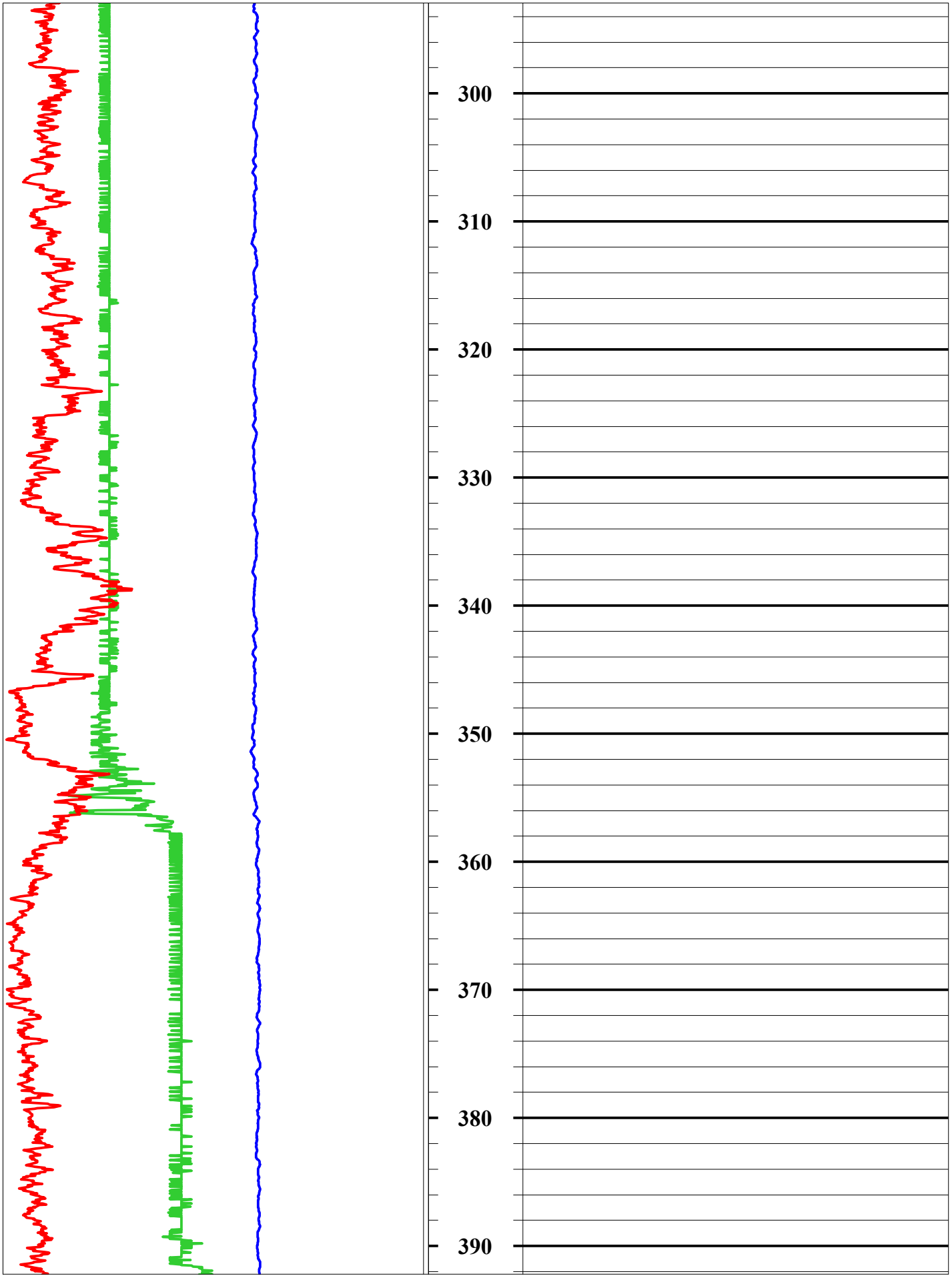
| **BOREHOLE RECORD** | | | | **CASING RECORD** | | | |
|---|---|---|---|---|---|---|---|
| **RUN No.** | **BIT** | **FROM** | **TO** | **SIZE** | **WGT.** | **FROM** | **TO** |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

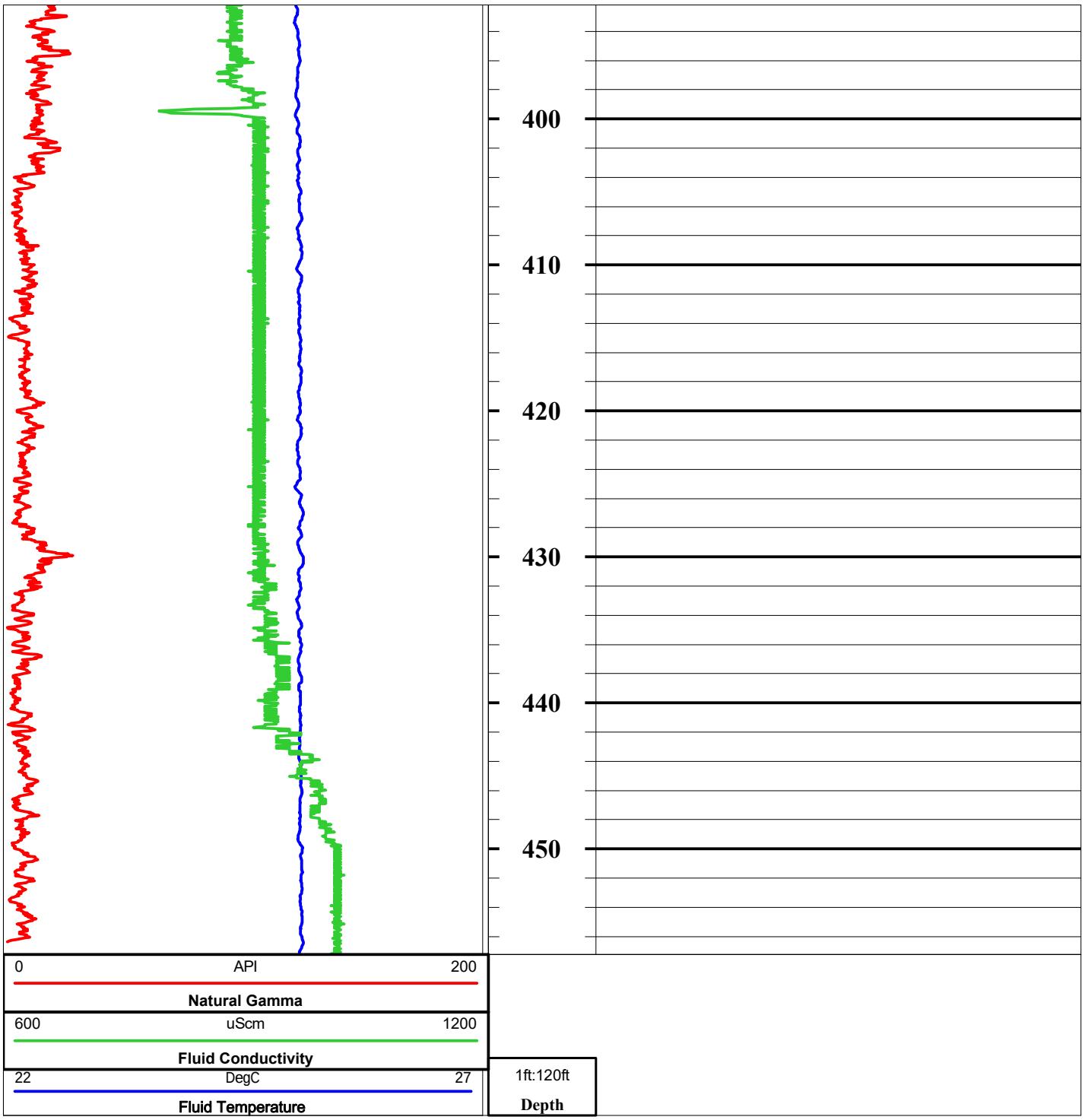
**NA - Not Available, N/A - Not Applicable**

**COMMENTS**


Fluid Temperature
22
DegC
27
Fluid Conductivity
600
uScm
1200
Natural Gamma
0
API
200
Depth
1ft:120ft
140
150
160
170
180
190


200
210
220
230
240
250
260
270
280
290


300
310
320
330
340
350
360
370
380
390


400
410
420
430
440
450
0
API
200
Natural Gamma
600
uScm
1200
Fluid Conductivity
22
DegC
27
Fluid Temperature
1ft:120ft
Depth

borehole geophysics / hydrophysics

Colog, Inc.
833 Hogback Drive
Golden, CO 80403
(303) 279-0171
www.colog.com

# Spinner Flow Meter
# Ambient 50 ft/min
# Pumping 30, 50, 60 ft/min

COMPANY Rowe Drilling
WELL Well 1
PROJECT WPT2
COUNTY Lowndes
STATE GA

**COMPANY** Rowe Drilling
**WELL** Well 1
**PROJECT** WPT2
**COUNTY** Lowndes **STATE** GA

**LOCATION**

**QTR** **SEC** **TWP** **RGE**

**OTHER SERVICES**

**PERMANENT DATUM** **ELEVATION**

**LOG MEAS. FROM** Ground surface **ABOVE PERMANENT DATUM**

**DRILLING MEAS. FROM**

| | | | | |
|---|---|---|---|---|
| **DATE ACQUIRED** | 9-18-24 | 9-18-24 | 9-18-24 | 9-18-24 |
| **RUN NUMBER** | 1 | 2 | 3 | 4 |
| **LOG TYPE** | Spinner FM | Spinner FM | Spinner FM | Spinner FM |
| **DEPTH-DRILLER** | 450' | 450' | 450' | 450' |
| **DEPTH-LOGGER** | 453' | 453' | 453' | 453' |
| **BTM LOG INTERVAL** | 449' | 449' | 449' | 449' |
| **TOP LOG INTERVAL** | 170' | 170' | 170' | 170' |
| **RECORDED BY** | J Grace | J Grace | J Grace | J Grace |
| **WITNESSED BY** | S Caldwell | S Caldwell | S Caldwell | S Caldwell |
| **PROBE TYPE, S/N** | SFM 6740 | SFM 6740 | SFM 6740 | SFM 6740 |
| **LOGGING SPEED** | 50 ft/min | 30 ft/min | 50 ft/min | 60 ft/min |
| **SAMPLE INTERVAL** | 0.2 | 0.2 | 0.2 | 0.2 |
| **FLUID LEVEL** | Water | Water | Water | Water |

| **BOREHOLE RECORD** | | | | **CASING RECORD** | | | |
|---|---|---|---|---|---|---|---|
| **RUN No.** | **BIT** | **FROM** | **TO** | **SIZE** | **WGT.** | **FROM** | **TO** |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

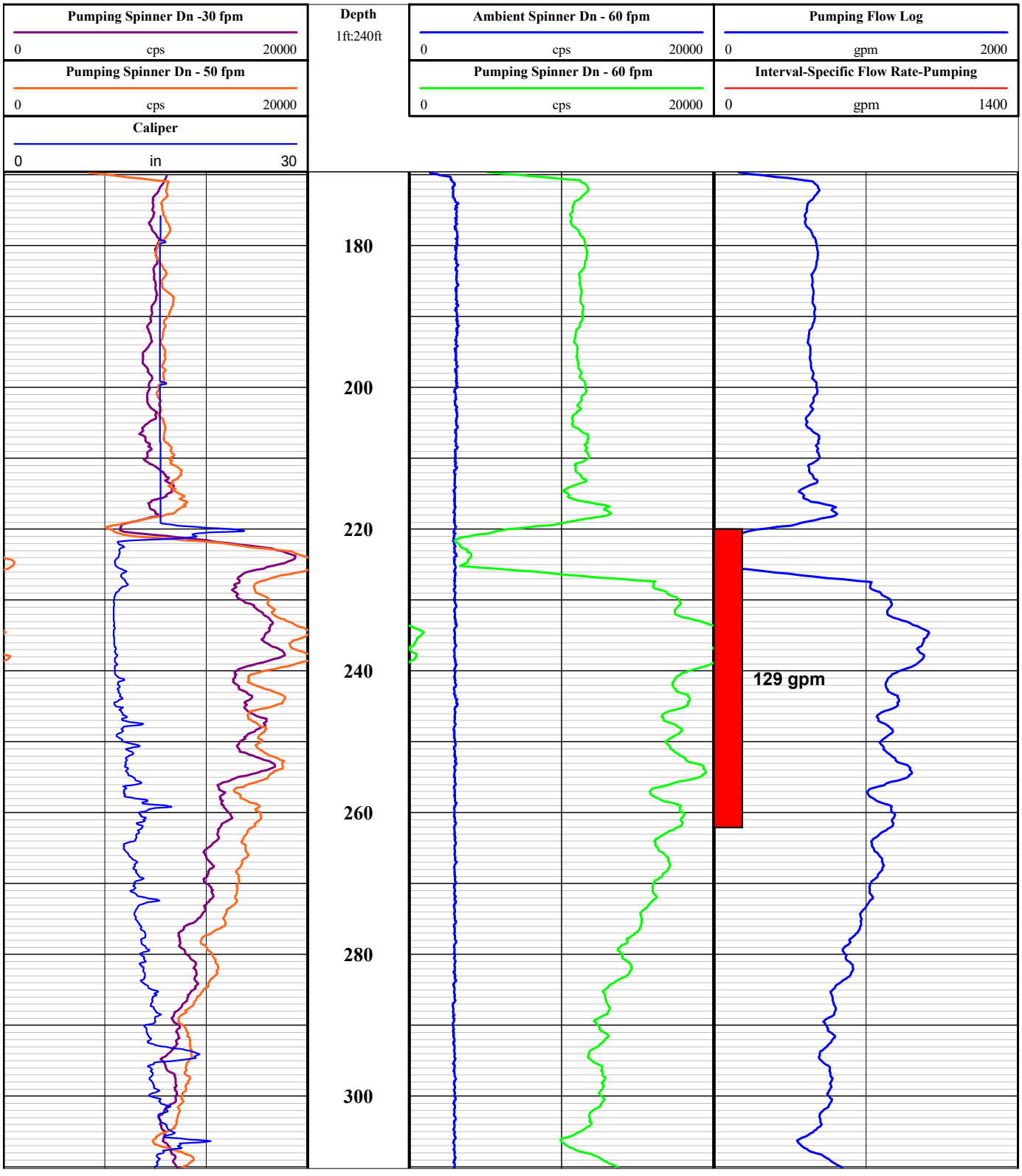
**NA - Not Available, N/A - Not Applicable**

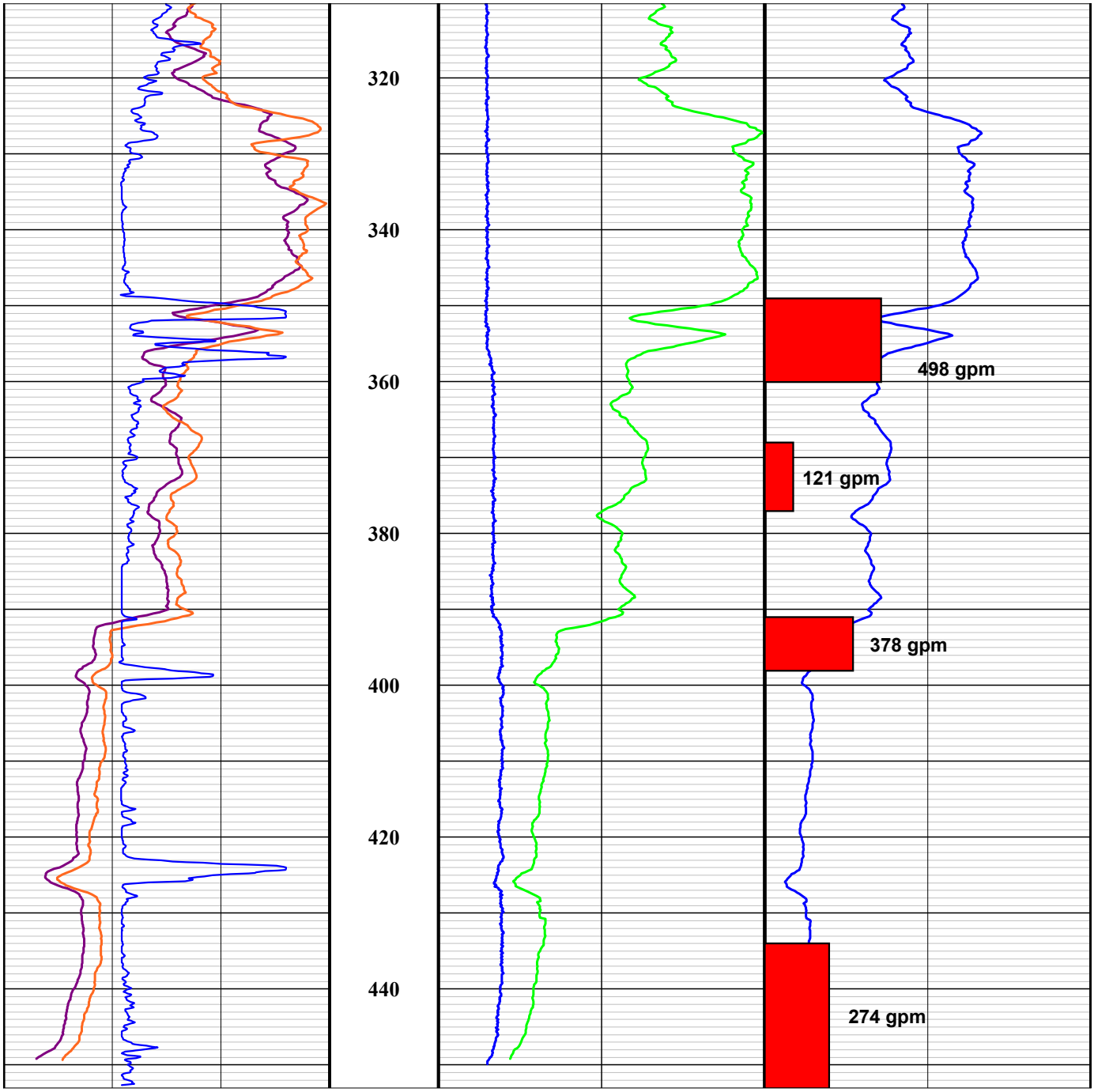
**COMMENTS**

Drillers report pumping at 1,400 GPM

15" casing to 220'.

Open Hole 220' to 453'. 11" diameter with large variations.


Pumping Spinner Dn -30 fpm
0
cps
20000
Pumping Spinner Dn - 50 fpm
0
cps
20000
Caliper
0
in
30
Depth
1ft:240ft
Ambient Spinner Dn - 60 fpm
0
cps
20000
Pumping Spinner Dn - 60 fpm
0
cps
20000
Pumping Flow Log
0
gpm
2000
Interval-Specific Flow Rate-Pumping
0
gpm
1400
180
200
220
240
260
280
300
129 gpm


320
340
360
380
400
420
440
498 gpm
121 gpm
378 gpm
274 gpm

# Geophysical Logs

## Run 4: Completed Well

**Valdosta WTP No. 2**
**Production Well No. 1**

CDM Smith

COLOG
borehole geophysics / hydrophysics

833 Hogback Drive
Golden, Colorado
80403
Office: 303.279.0171
Fax: 303.278.0135
www.colog.com

# 3-Arm Caliper
# Well 1 Reamed

Company Rowe Drilling
Well Well 1 Reamed
Project WPT2
County Loundes
State GA

**COMPANY** Rowe Drilling
**WELL** Well 1 Reamed
**PROJECT** WPT2
**COUNTY** Loundes **STATE** GA

**LOCATION**
Valdosta, GA

**QTR** **SEC** **TWP** **RGE**

**OTHER SERVICES**

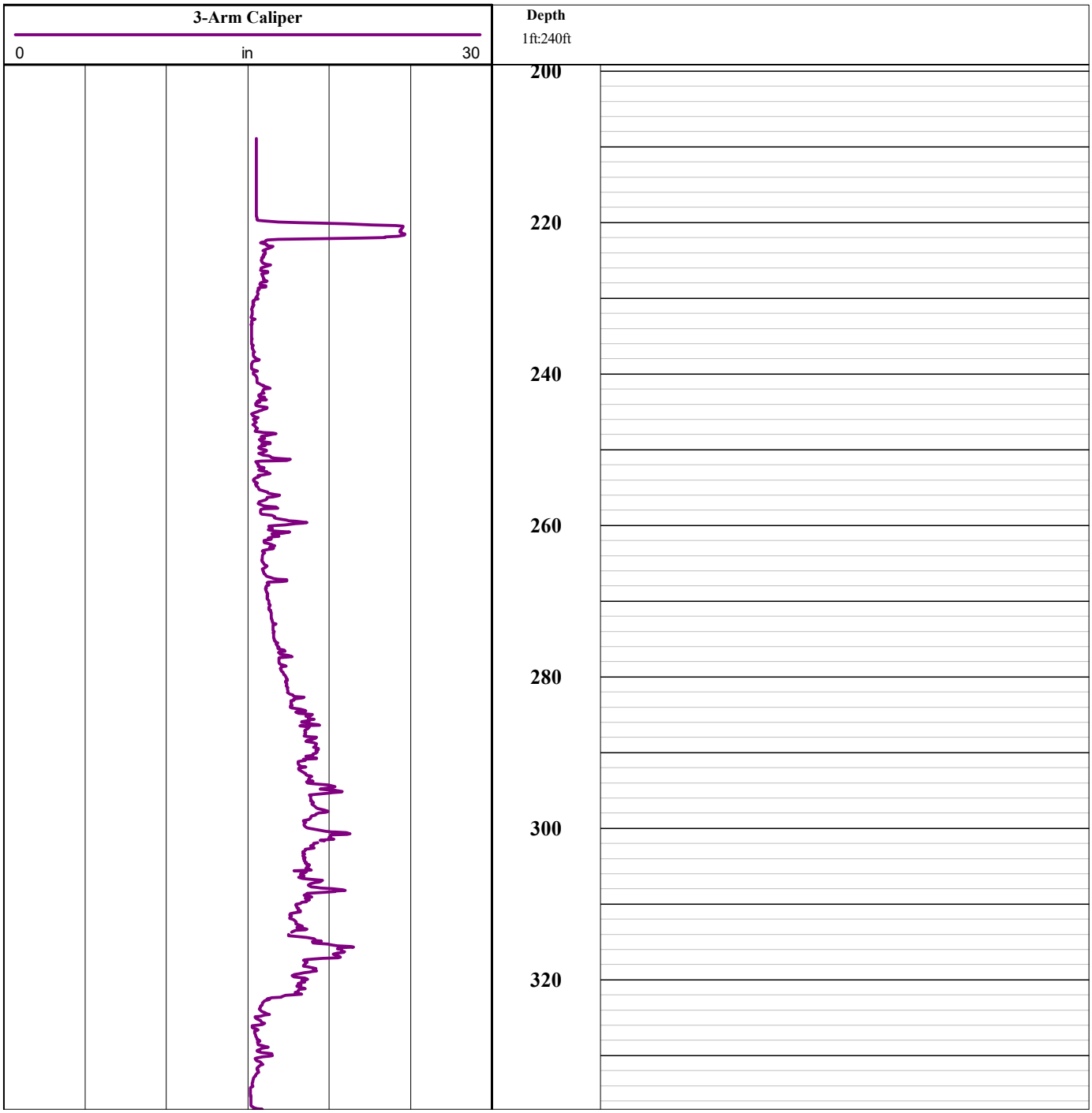
**PERMANENT DATUM** **ELEVATION**
**LOG MEAS. FROM** Ground surface **ABOVE PERMANENT DATUM**
**DRILLING MEAS. FROM** Ground surface

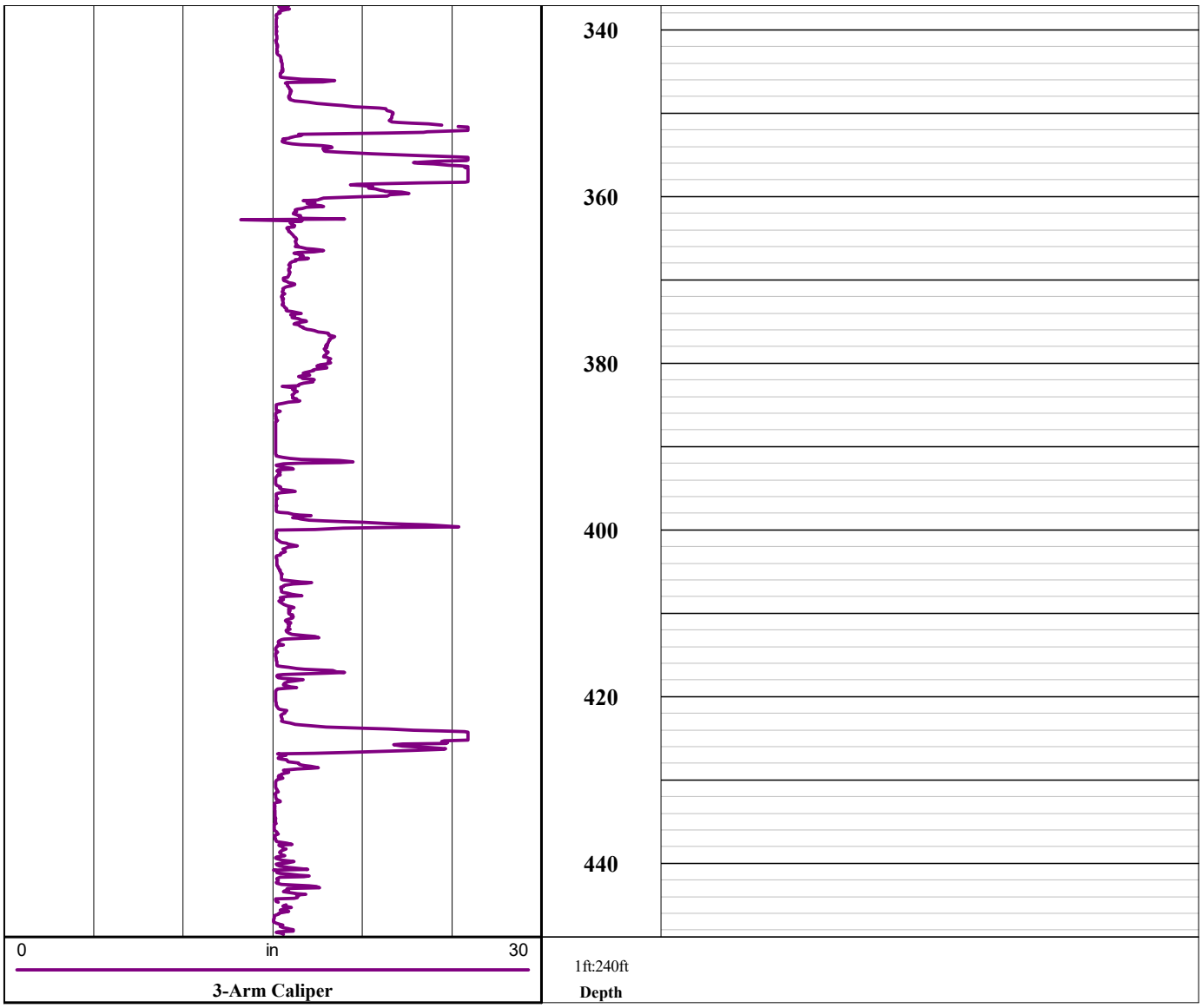
| | | | | |
|---|---|---|---|---|
| **DATE ACQUIRED** | 1-17-25 | 1-17-25 | | |
| **RUN NUMBER** | 1 | 2 | | |
| **LOG TYPE** | Caliper | Caliper -Arm Extensions | | |
| **DEPTH-DRILLER** | | | | |
| **DEPTH-LOGGER** | 448.99' | 448.64' | | |
| **BTM LOG INTERVAL** | 448.99' | 448.64' | | |
| **TOP LOG INTERVAL** | 200' | 200' | | |
| **RECORDED BY** | J Grace | J Grace | | |
| **WITNESSED BY** | D Fabelo | D Fabelo | | |
| **PROBE TYPE, S/N** | 2PCA 5536 | 2PCA 5536 | | |
| **LOGGING SPEED** | 15 ft/min | 15 ft/min | | |
| **A.S.D.E./Sample Interval** | 0.10 | 0.10 | | |
| **Fluid Level/Fluid Type** | water | water | | |

| **BOREHOLE RECORD** | | | | **CASING RECORD** | | | |
|---|---|---|---|---|---|---|---|
| **RUN No.** | **BIT** | **FROM** | **TO** | **SIZE** | **WGT.** | **FROM** | **TO** |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

**NA - Not Available, N/A - Not Applicable**

**COMMENTS**


3-Arm Caliper
0
in
30
Depth
1ft:240ft
200
220
240
260
280
300
320


340
360
380
400
420
440
0
in
30
3-Arm Caliper
1ft:240ft
Depth

# Geophysical Logs Well No. 2

# Geophysical Logs

Run 1: Pilot Hole
to 65 feet bls

**Valdosta WTP No. 2**
**Production Well No. 2**

CDM Smith

COLOG
borehole geophysics / hydrophysics

833 Hogback Drive
Golden, Colorado
80403
Office: 303.279.0171
Fax: 303.278.0135
www.colog.com

Company Rowe Drilling
Well Well 2
Project WPT2
County Lowndes
State GA

**COMPANY** Rowe Drilling
**WELL** Well 2
**PROJECT** WPT2
**COUNTY** Lowndes **STATE** GA

**LOCATION**

QTR SEC TWP RGE

**OTHER SERVICES**

**PERMANENT DATUM** **ELEVATION**

**LOG MEAS. FROM** ground surface **ABOVE PERMANENT DATUM**

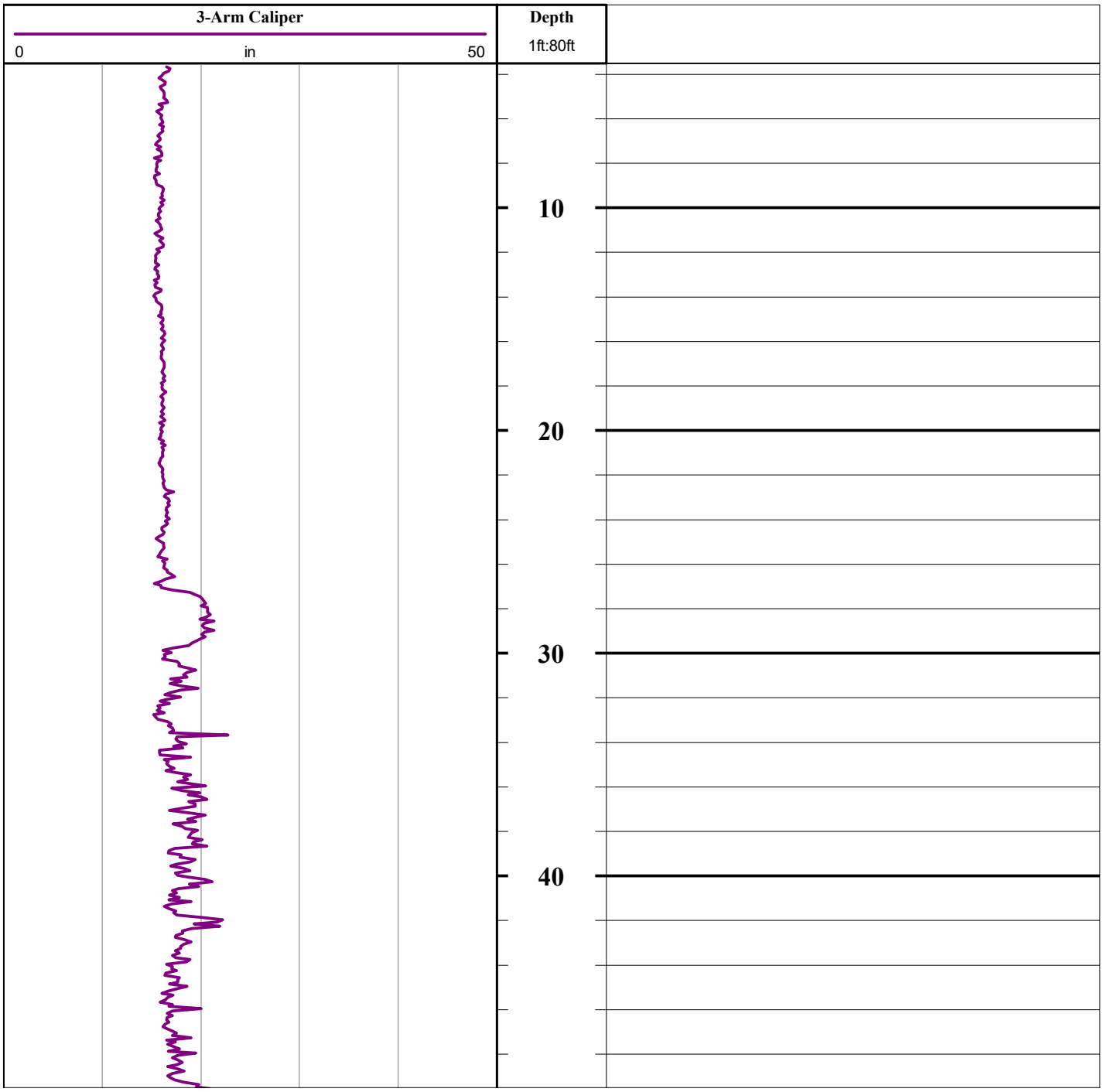
**DRILLING MEAS. FROM** ground surface

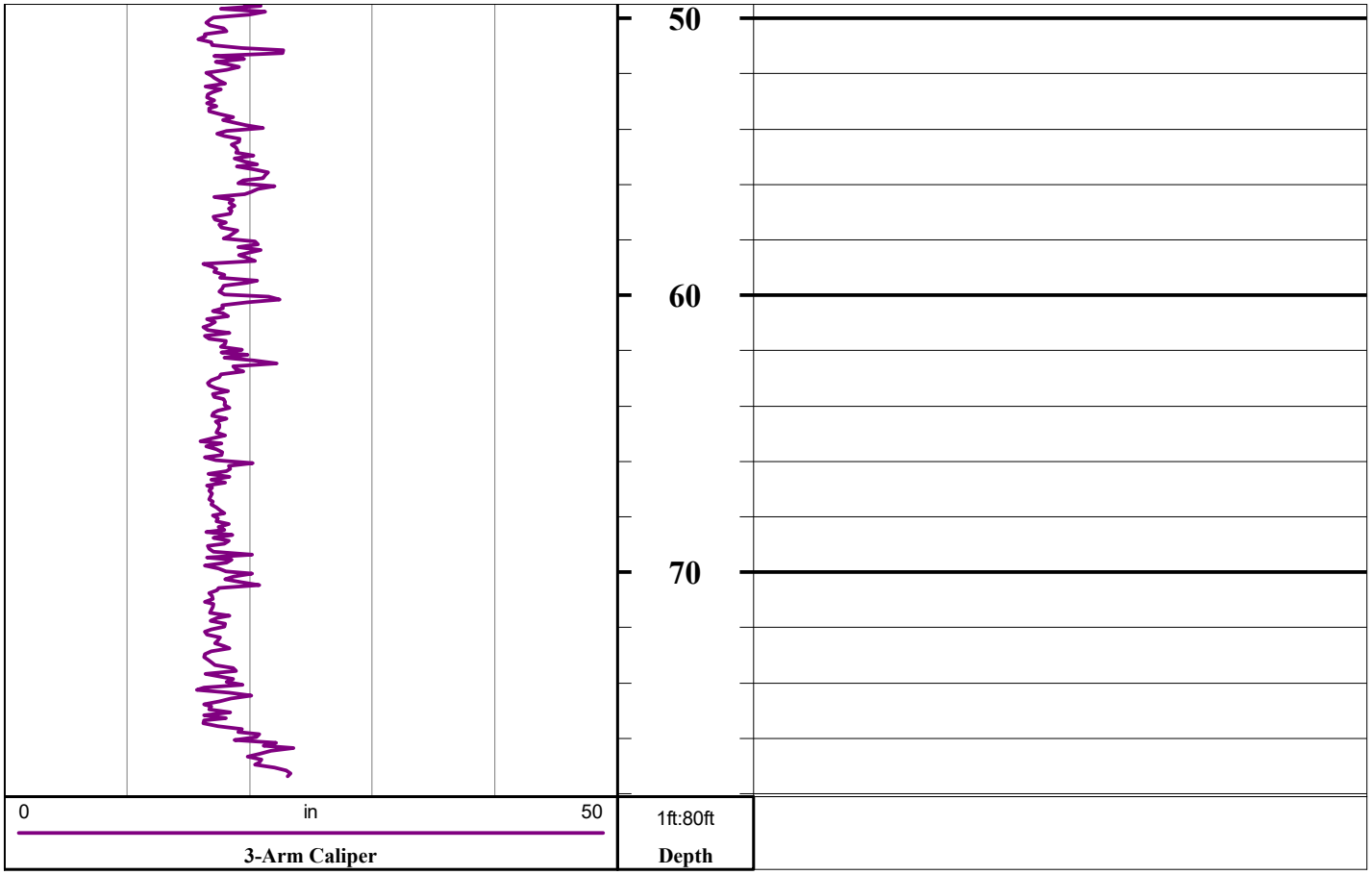
| | | | | |
|---|---|---|---|---|
| **DATE ACQUIRED** | 6-24-24 | 6-24-24 | | |
| **RUN NUMBER** | 1 | 2 | | |
| **LOG TYPE** | Elog | Caliper | | |
| **DEPTH-DRILLER** | 80' | 80' | | |
| **DEPTH-LOGGER** | 78.25' | 78.30' | | |
| **BTM LOG INTERVAL** | 78.25' | 78.30' | | |
| **TOP LOG INTERVAL** | 4.60' | 4.20' | | |
| **RECORDED BY** | J Grace | J Grace | | |
| **WITNESSED BY** | | | | |
| **PROBE TYPE, S/N** | ELTG 5541 | Comprobe 21101 | | |
| **LOGGING SPEED** | 15 ft/min | 12 ft/min | | |
| **A.S.D.E./Sample Interval** | 0.10 | 0.10 | | |
| **Fluid Level/Fluid Type** | water/ mud | | | |

| **BOREHOLE RECORD** | | | | **CASING RECORD** | | | |
|---|---|---|---|---|---|---|---|
| **RUN No.** | **BIT** | **FROM** | **TO** | **SIZE** | **WGT.** | **FROM** | **TO** |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

**NA - Not Available, N/A - Not Applicable**

**COMMENTS**


3-Arm Caliper
0
in
50
Depth
1ft:80ft
10
20
30
40


50
60
70
0
in
50
1ft:80ft
3-Arm Caliper
Depth

borehole geophysics / hydrophysics

833 Hogback Drive
Golden, Colorado
80403
Office: 303.279.0171
Fax: 303.278.0135
www.colog.com

Company Rowe Drilling
Well Well 2
Project WPT2
County Lowndes
State GA

**COMPANY** Rowe Drilling
**WELL** Well 2
**PROJECT** WPT2
**COUNTY** Lowndes **STATE** GA

**LOCATION**

QTR SEC TWP RGE

**OTHER SERVICES**

**PERMANENT DATUM** **ELEVATION**

**LOG MEAS. FROM** Ground surface **ABOVE PERMANENT DATUM**

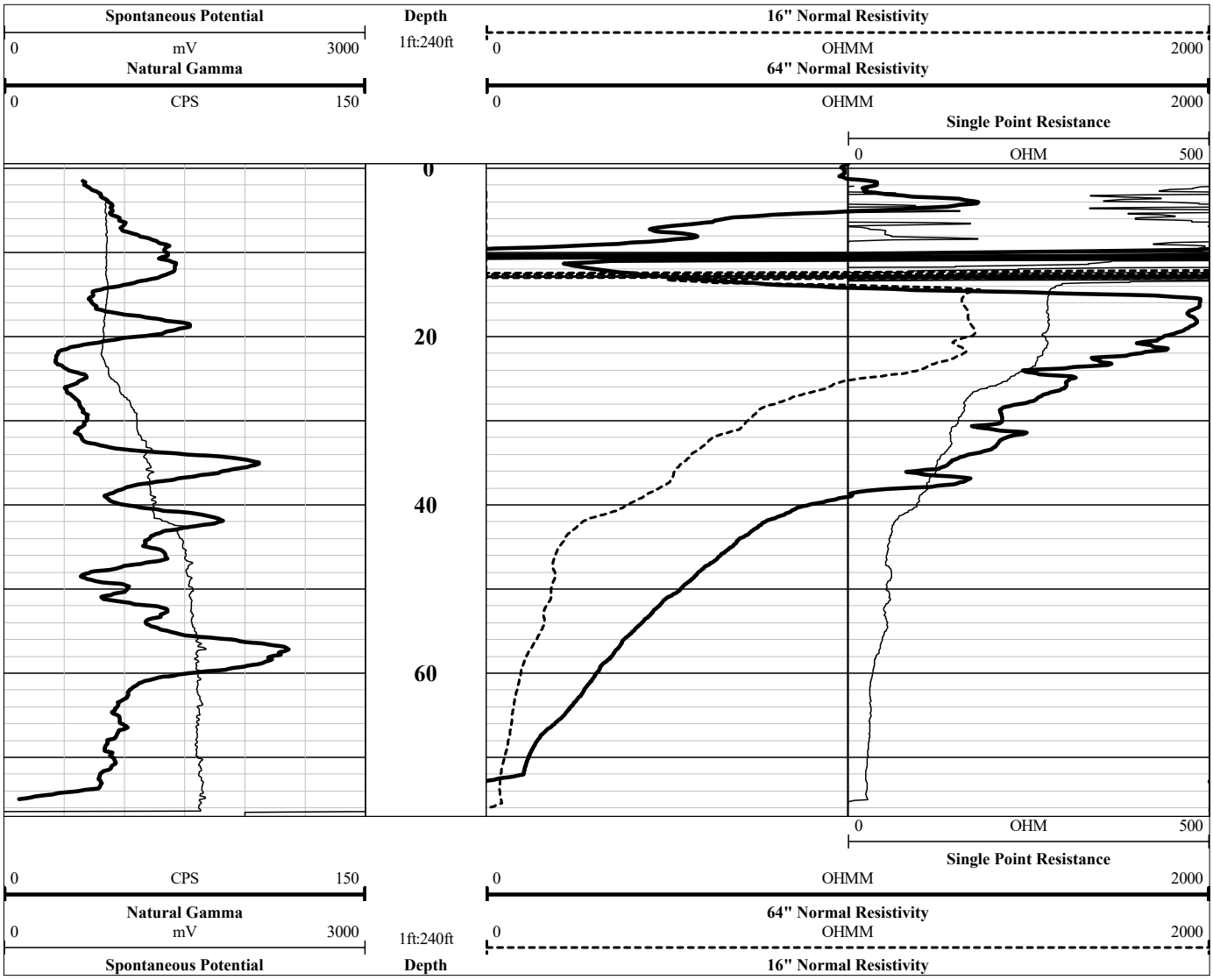
**DRILLING MEAS. FROM** Ground surface

| | | | | |
|---|---|---|---|---|
| DATE ACQUIRED | 6-24-24 | | | |
| RUN NUMBER | 1 | | | |
| LOG TYPE | Elog | | | |
| DEPTH-DRILLER | 80' | | | |
| DEPTH-LOGGER | 78.25' | | | |
| BTM LOG INTERVAL | 78.25' | | | |
| TOP LOG INTERVAL | 4.60' | | | |
| RECORDED BY | J Grace | | | |
| WITNESSED BY | | | | |
| PROBE TYPE, S/N | ELTG 5541 | | | |
| LOGGING SPEED | 15 ft/min | | | |
| A.S.D.E./Sample Interval | 0.10 | | | |
| Fluid Level/Fluid Type | water mud | | | |

| BOREHOLE RECORD | | | | CASING RECORD | | | |
|---|---|---|---|---|---|---|---|
| RUN No. | BIT | FROM | TO | SIZE | WGT. | FROM | TO |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

NA - Not Available, N/A - Not Applicable

COMMENTS


Spontaneous Potential
0
mV
3000
Natural Gamma
0
CPS
150
Depth
1ft:240ft
0
20
40
60
16" Normal Resistivity
0
OHMM
2000
64" Normal Resistivity
0
OHMM
2000
Single Point Resistance
0
OHM
500
Single Point Resistance
0
OHM
500
64" Normal Resistivity
0
OHMM
2000
16" Normal Resistivity
0
OHMM
2000
Natural Gamma
0
CPS
150
Spontaneous Potential
0
mV
3000
Depth
1ft:240ft

# Geophysical Logs

Run 2: Ream Hole to 230 feet bls

## Valdosta WTP No. 2
## Production Well No. 2

CDM Smith

borehole geophysics / hydrophysics

810 Quail Street
Suite E
Lakewood, Colorado
80215
Office: 303.279.0171
Fax: 303.278.0135
www.colog.com

# 3-Arm Caliper

Company Rowe Drilling
Well Well 2
Project WPT
County Lowndes
State GA

**COMPANY** Rowe Drilling
**WELL** Well 2
**PROJECT** WPT
**COUNTY** Lowndes **STATE** GA

**LOCATION**
Near Valdosta GA

QTR SEC TWP RGE

**OTHER SERVICES**
Electric Log

**PERMANENT DATUM** **ELEVATION**

**LOG MEAS. FROM** Ground surface **ABOVE PERMANENT DATUM**

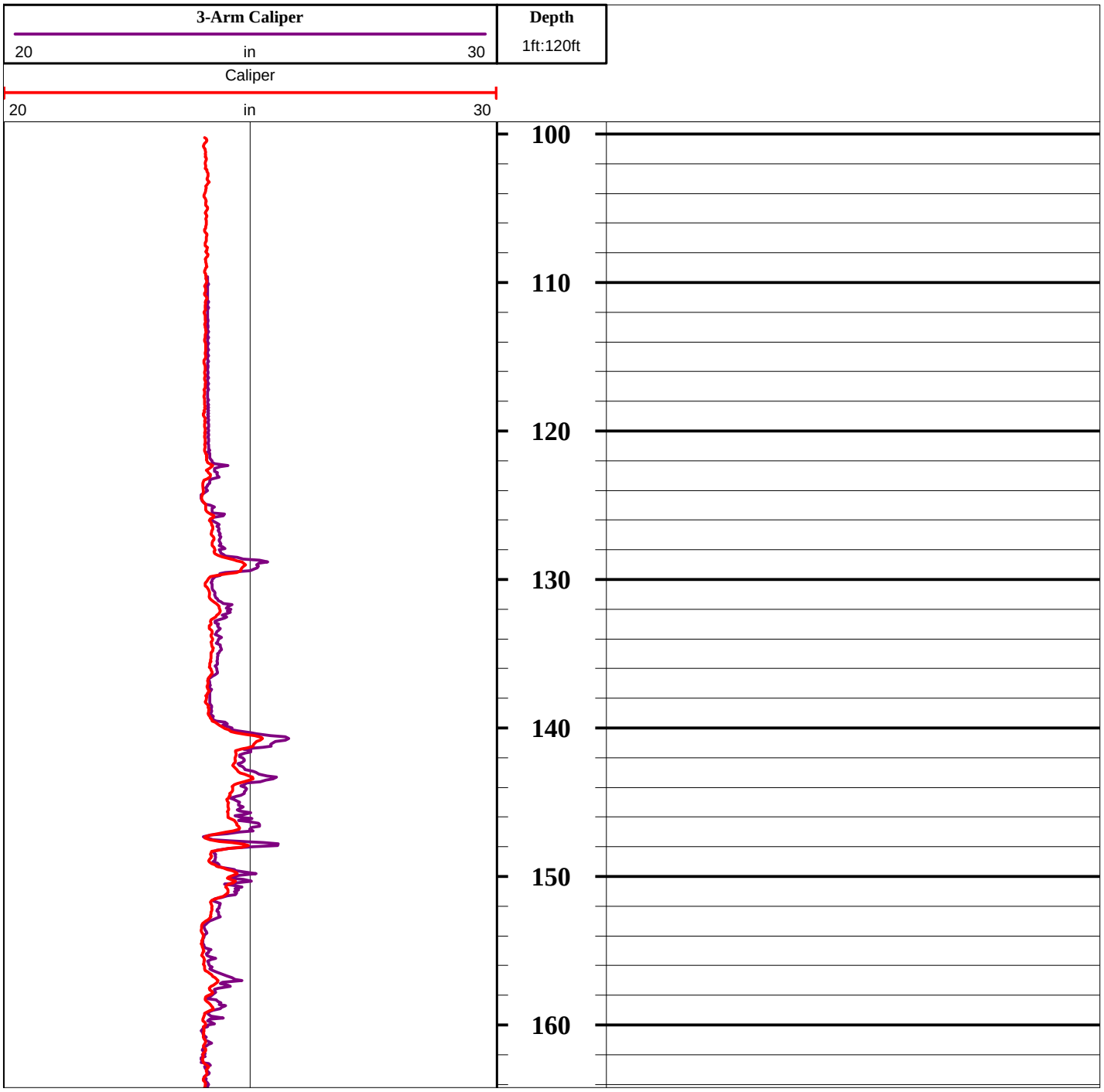
**DRILLING MEAS. FROM** Ground surface

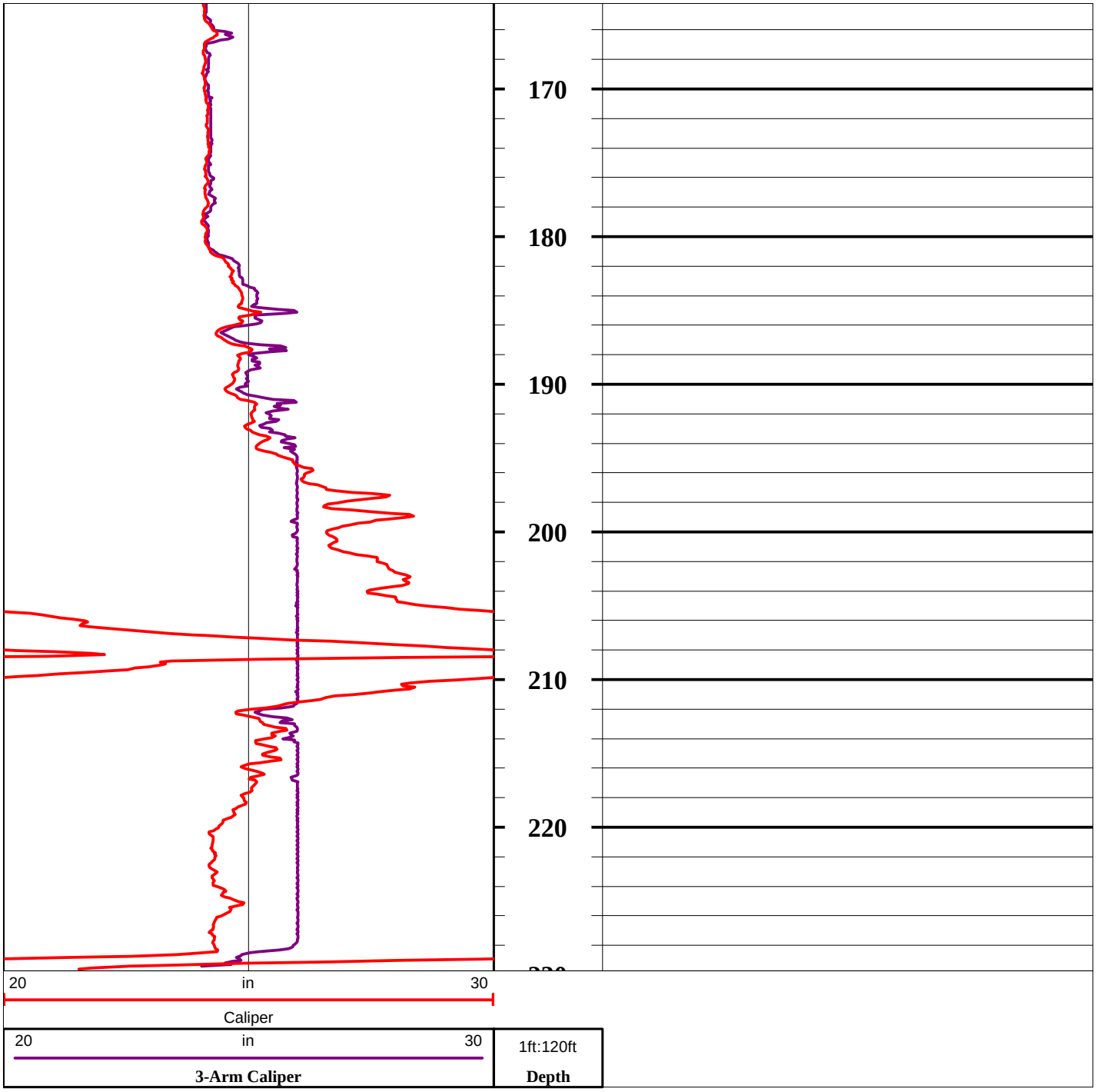
| | | | | |
|---|---|---|---|---|
| **DATE ACQUIRED** | 10-28-24 | 10-24-24 | | |
| **RUN NUMBER** | 1 | 2 | | |
| **LOG TYPE** | Caliper | Caliper | | |
| **DEPTH-DRILLER** | 230' | 230' | | |
| **DEPTH-LOGGER** | 229.79' | 229.90' | | |
| **BTM LOG INTERVAL** | 229.79' | 229.90' | | |
| **TOP LOG INTERVAL** | 100.6' | 109.9' | | |
| **RECORDED BY** | J Grace | J Grace | | |
| **WITNESSED BY** | | | | |
| **PROBE TYPE, S/N** | Comprobe 21101 | 2PCA 5536 | | |
| **LOGGING SPEED** | 12 ft/min | 12 ft/min | | |
| **A.S.D.E. / Sample Interval** | 0.10 | 0.10 | | |
| **Fluid Level / Fluid Type** | water | water | | |

| **BOREHOLE RECORD** | | | | **CASING RECORD** | | | |
|---|---|---|---|---|---|---|---|
| **RUN No.** | **BIT** | **FROM** | **TO** | **SIZE** | **WGT.** | **FROM** | **TO** |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

**NA - Not Available, N/A - Not Applicable**

**COMMENTS**


3-Arm Caliper
20
in
30
Depth
1ft:120ft
Caliper
20
in
30
100
110
120
130
140
150
160


170
180
190
200
210
220
20
in
30
Caliper
20
in
30
3-Arm Caliper
1ft:120ft
Depth

borehole geophysics / hydrophysics

810 Quail Street
Suite E
Lakewood, Colorado
80215
Office: 303.279.0171
Fax: 303.278.0135
www.colog.com

# Electric Log

Company Rowe Drilling
Well Well 2
Project WPT
County Lowndes
State GA

**COMPANY** Rowe Drilling
**WELL** Well 2
**PROJECT** WPT
**COUNTY** Lowndes **STATE** GA

**LOCATION**
Near Valdosta GA

QTR SEC TWP RGE

**OTHER SERVICES**
Caliper

**PERMANENT DATUM** **ELEVATION**

**LOG MEAS. FROM** Ground surface **ABOVE PERMANENT DATUM**

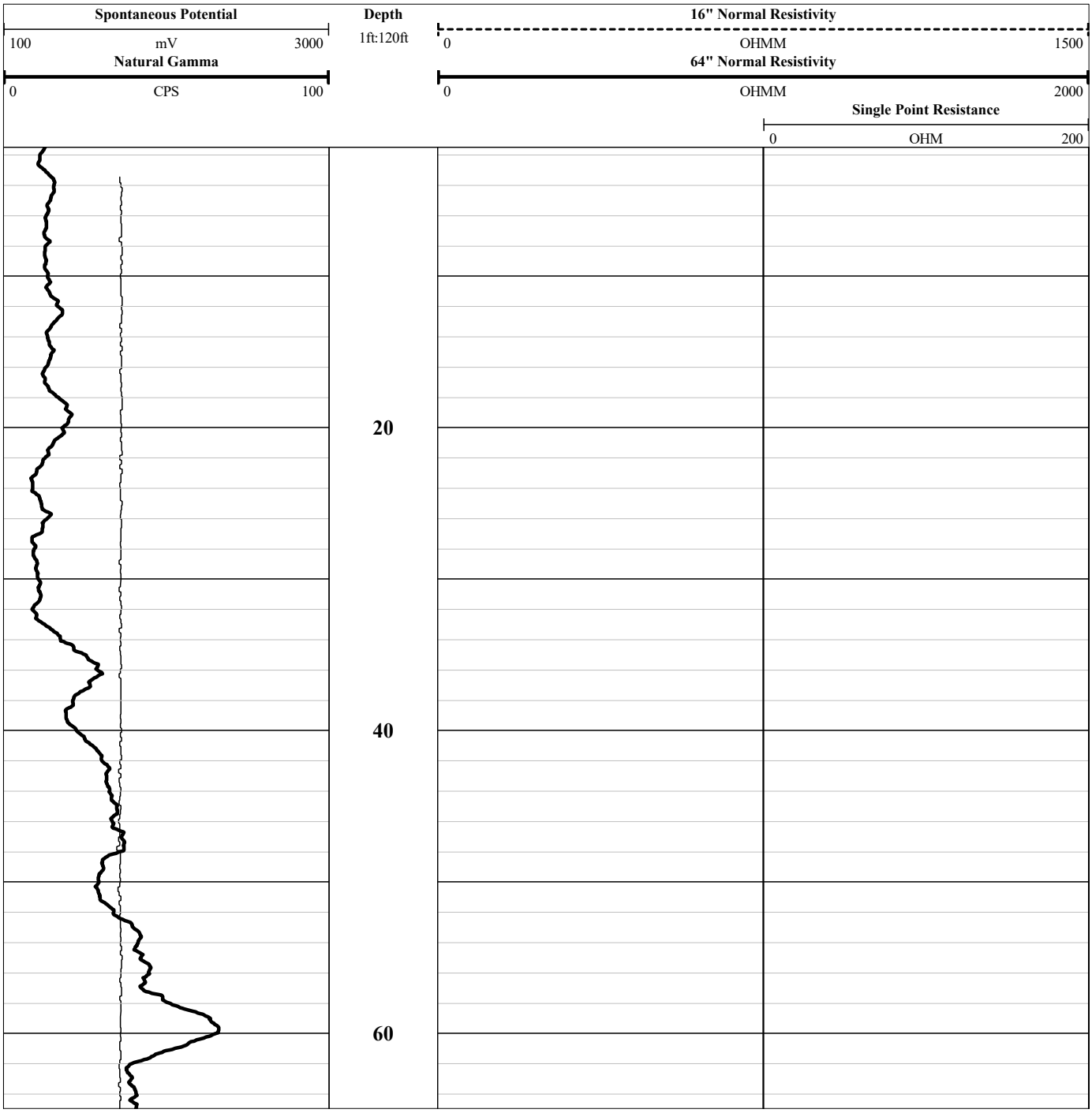
**DRILLING MEAS. FROM** Ground surface

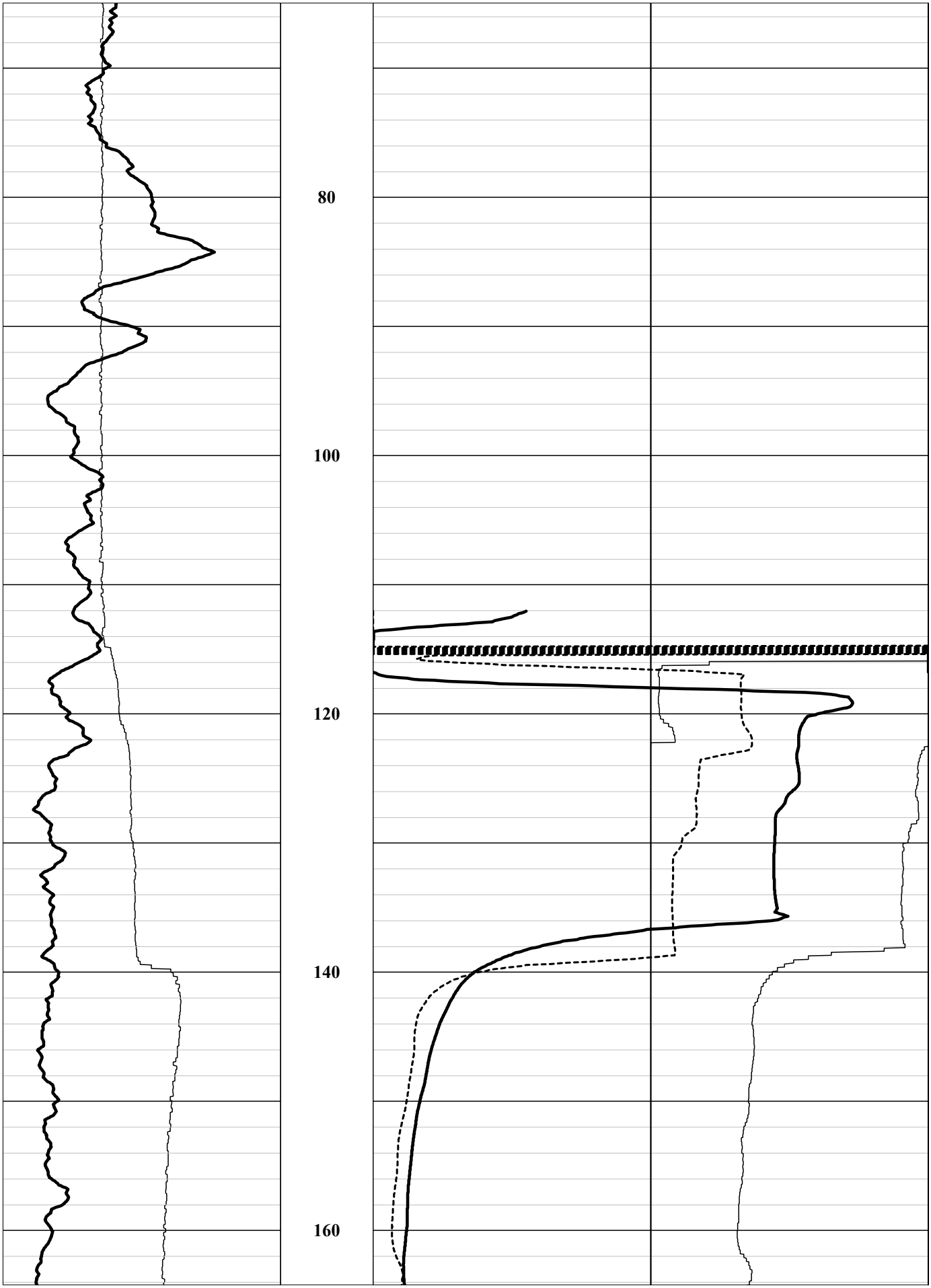
| | | | | |
|---|---|---|---|---|
| **DATE ACQUIRED** | 10-24-24 | | | |
| **RUN NUMBER** | 1 | | | |
| **LOG TYPE** | E-log | | | |
| **DEPTH-DRILLER** | 230' | | | |
| **DEPTH-LOGGER** | 229.86' | | | |
| **BTM LOG INTERVAL** | 229.86' | | | |
| **TOP LOG INTERVAL** | 4.64' | | | |
| **RECORDED BY** | J Grace | | | |
| **WITNESSED BY** | | | | |
| **PROBE TYPE, S/N** | ELTG 5541 | | | |
| **LOGGING SPEED** | 15 ft/min | | | |
| **A.S.D.E. / Sample Interval** | 0.10 | | | |
| **Fluid Level / Fluid Type** | water | | | |

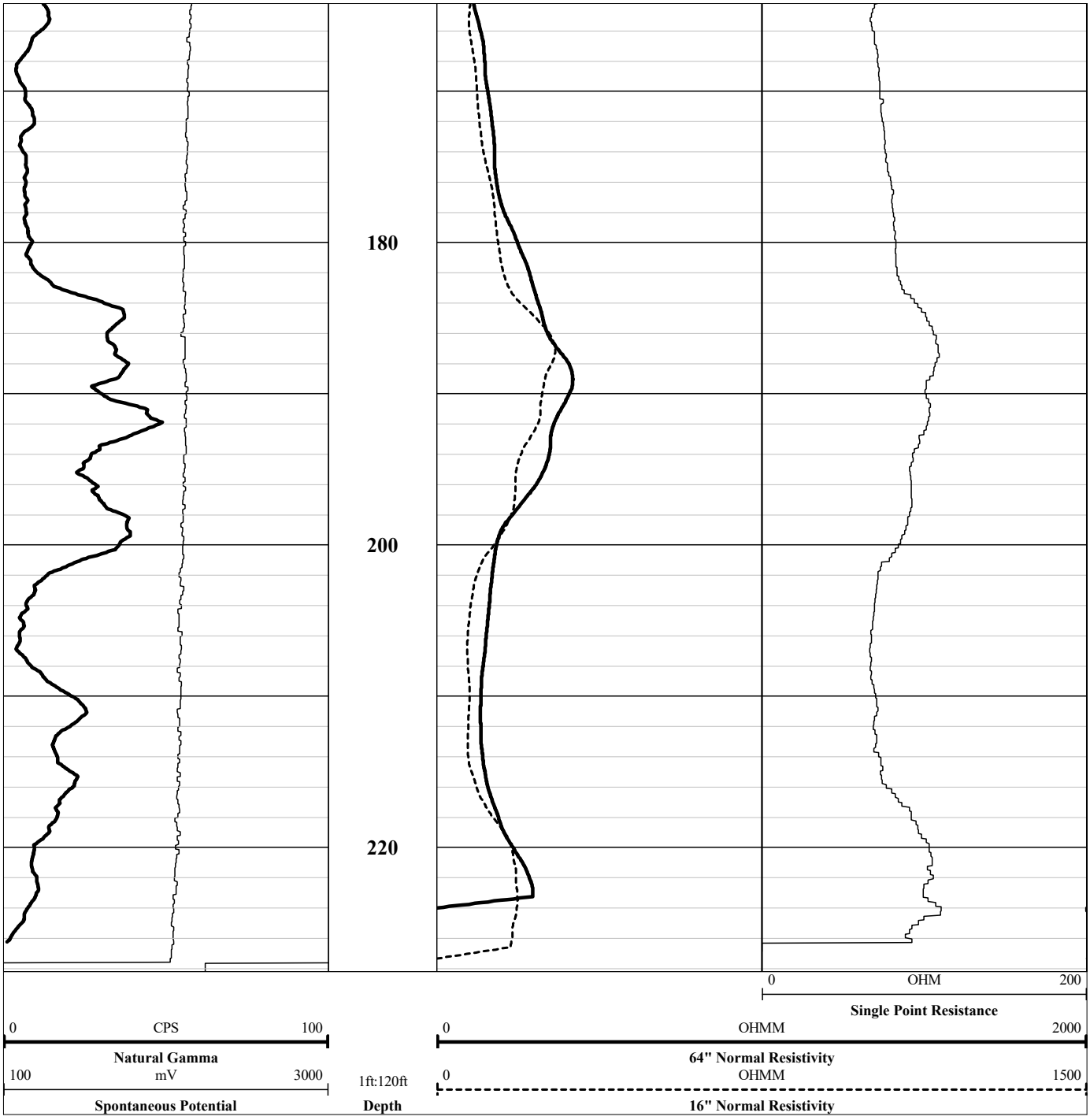
| **BOREHOLE RECORD** | | | | **CASING RECORD** | | | |
|---|---|---|---|---|---|---|---|
| **RUN No.** | **BIT** | **FROM** | **TO** | **SIZE** | **WGT.** | **FROM** | **TO** |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

**NA - Not Available, N/A - Not Applicable**

**COMMENTS**


Spontaneous Potential
100
mV
3000
Natural Gamma
0
CPS
100
Depth
1ft:120ft
16" Normal Resistivity
0
OHMM
1500
64" Normal Resistivity
0
OHMM
2000
Single Point Resistance
0
OHM
200
20
40
60


80
100
120
140
160


180
200
220
0
OHM
200
Single Point Resistance
0
CPS
100
Natural Gamma
0
OHMM
2000
64" Normal Resistivity
100
mV
3000
Spontaneous Potential
1ft:120ft
Depth
0
OHMM
1500
16" Normal Resistivity

# Geophysical Logs

Run 3: Pilot Hole
to 450 feet bls

**Valdosta WTP No. 2**
**Production Well No. 2**

CDM Smith

COLOG
borehole geophysics / hydrophysics

833 Hogback Drive
Golden, Colorado
80403
Office: 303.279.0171
Fax: 303.278.0135
www.colog.com

# 3-Arm Caliper

Company Rowe Drilling
Well Well 2
Project WPT2
County Lowdnes
State GA

**COMPANY** Rowe Drilling
**WELL** Well 2
**PROJECT** WPT 2
**COUNTY** Lowdnes **STATE** GA

**LOCATION**

QTR SEC TWP RGE

**OTHER SERVICES**

**PERMANENT DATUM** **ELEVATION**

**LOG MEAS. FROM** Ground surface **ABOVE PERMANENT DATUM**

**DRILLING MEAS. FROM**

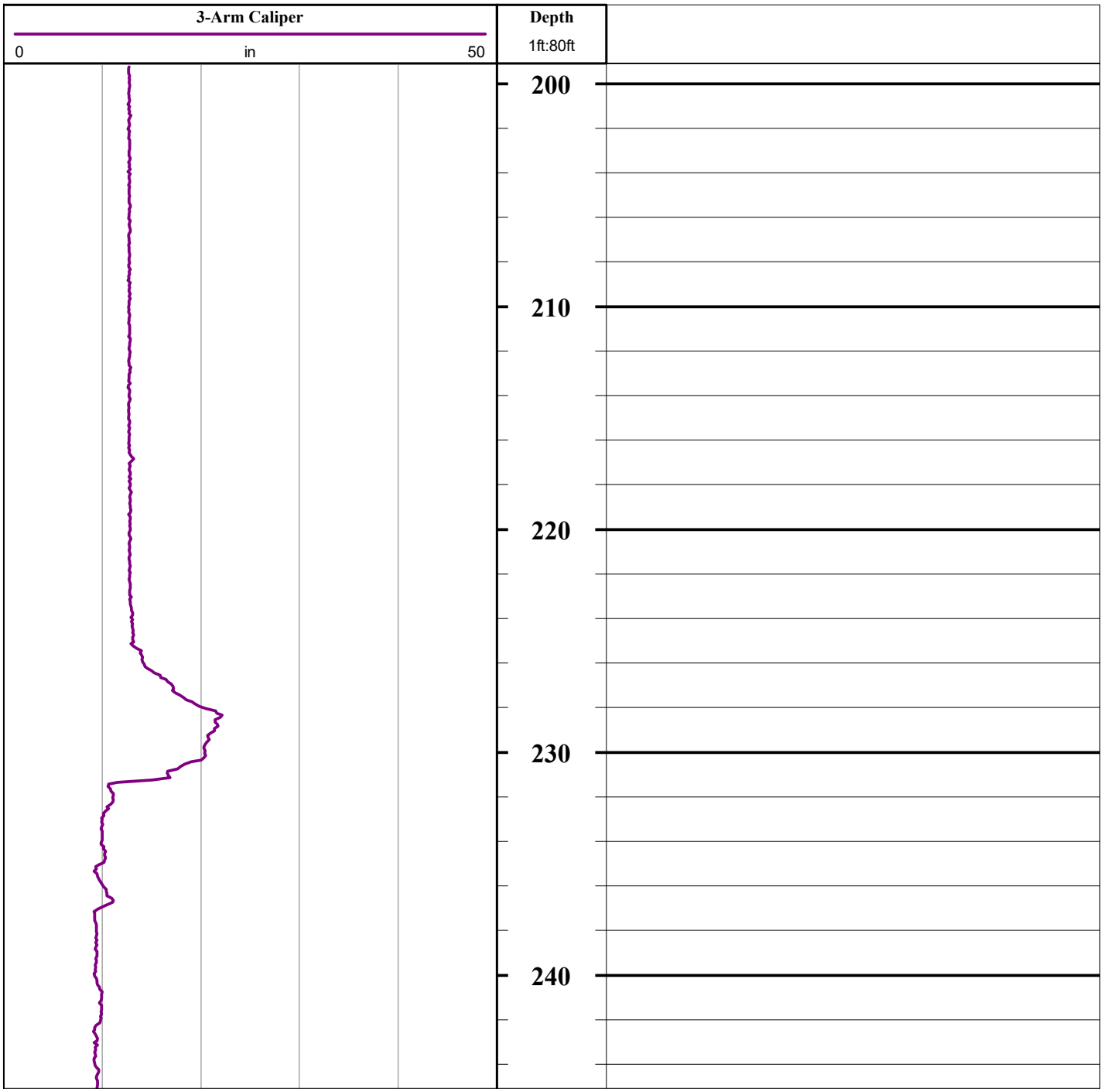
| | | | | |
|---|---|---|---|---|
| DATE ACQUIRED | 11-22-24 | | | |
| RUN NUMBER | 3 | | | |
| LOG TYPE | Caliper | | | |
| DEPTH-DRILLER | 454 | | | |
| DEPTH-LOGGER | 454' | | | |
| BTM LOG INTERVAL | 454' | | | |
| TOP LOG INTERVAL | 200' | | | |
| RECORDED BY | J Grace | | | |
| WITNESSED BY | S Caldwell | | | |
| PROBE TYPE, S/N | Comp 21101 | | | |
| LOGGING SPEED | 12 ft min | | | |
| A.S.D.E./Sample Interval | 0.10 | | | |
| Fluid Level/Fluid Type | water | | | |

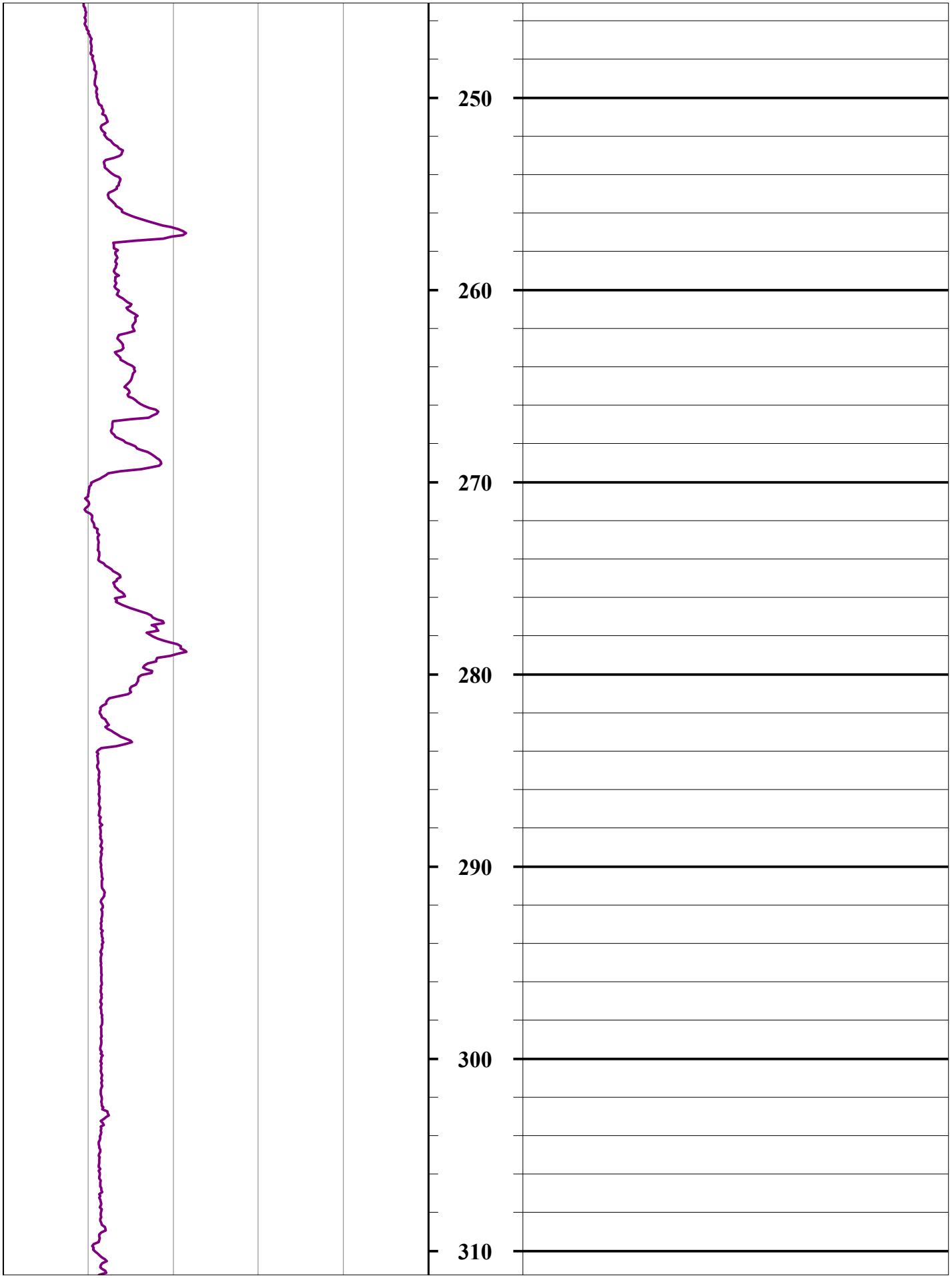
| BOREHOLE RECORD | | | | CASING RECORD | | | |
|---|---|---|---|---|---|---|---|
| RUN No. | BIT | FROM | TO | SIZE | WGT. | FROM | TO |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

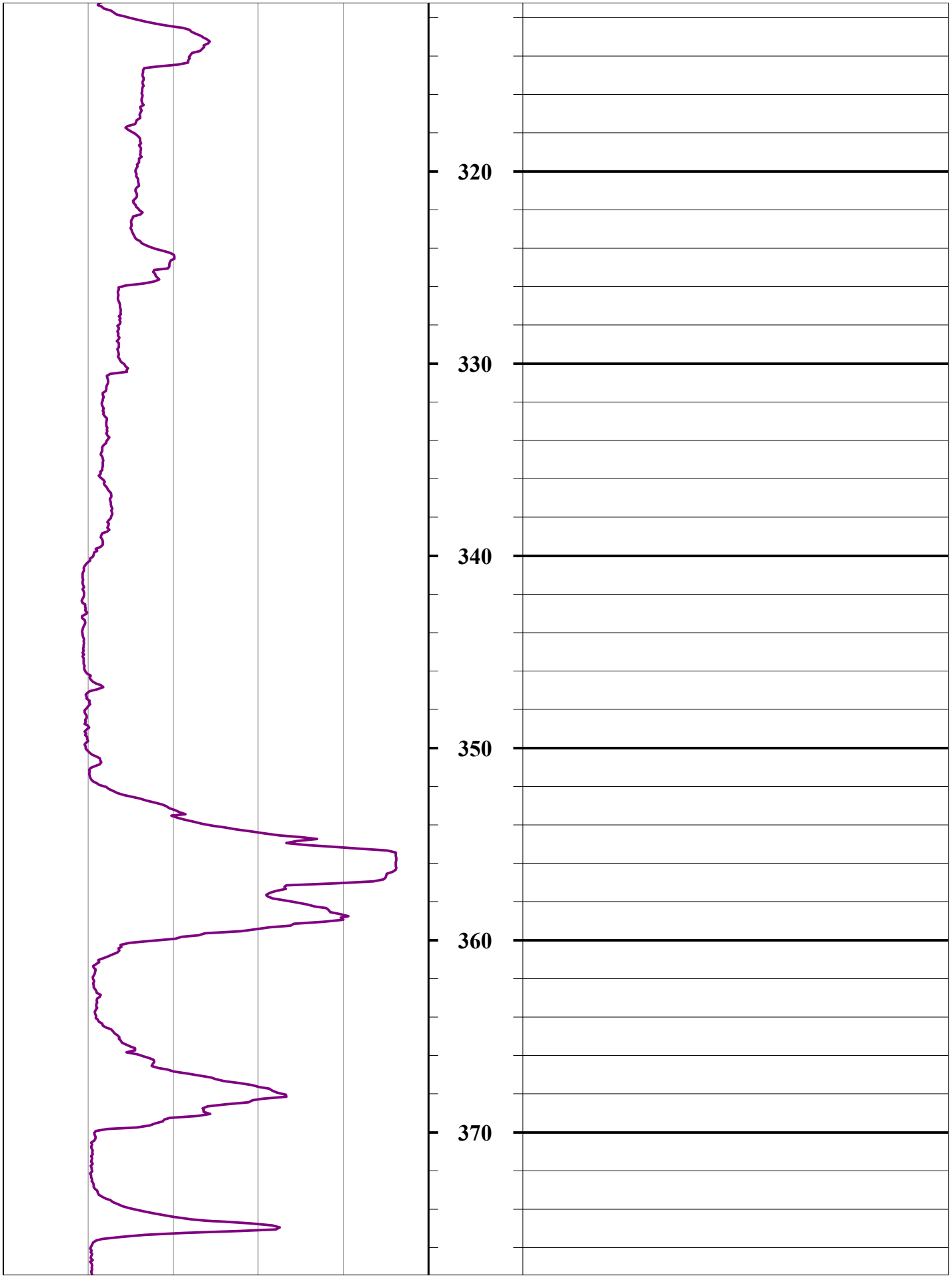
**NA - Not Available, N/A - Not Applicable**

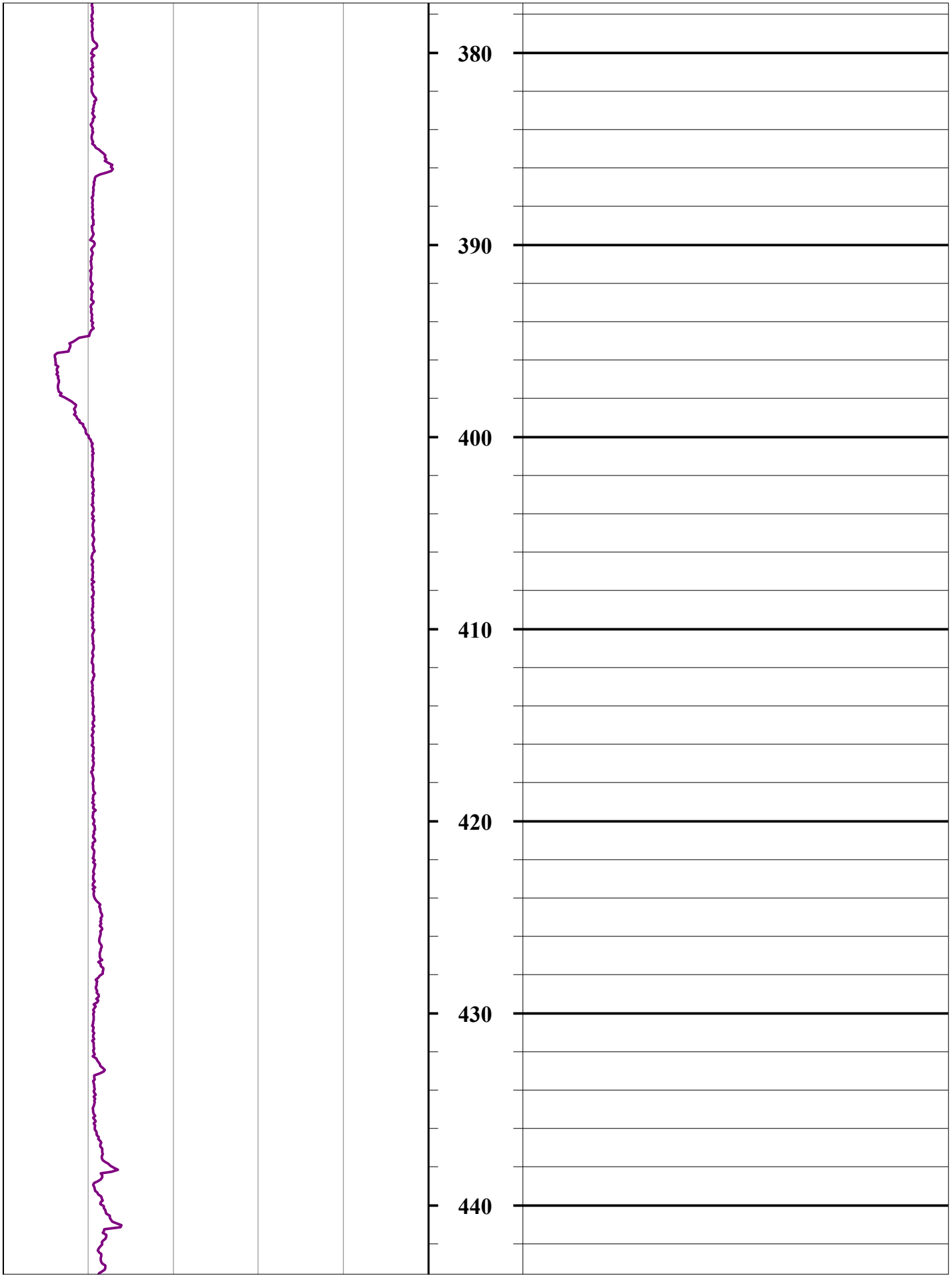
**COMMENTS**

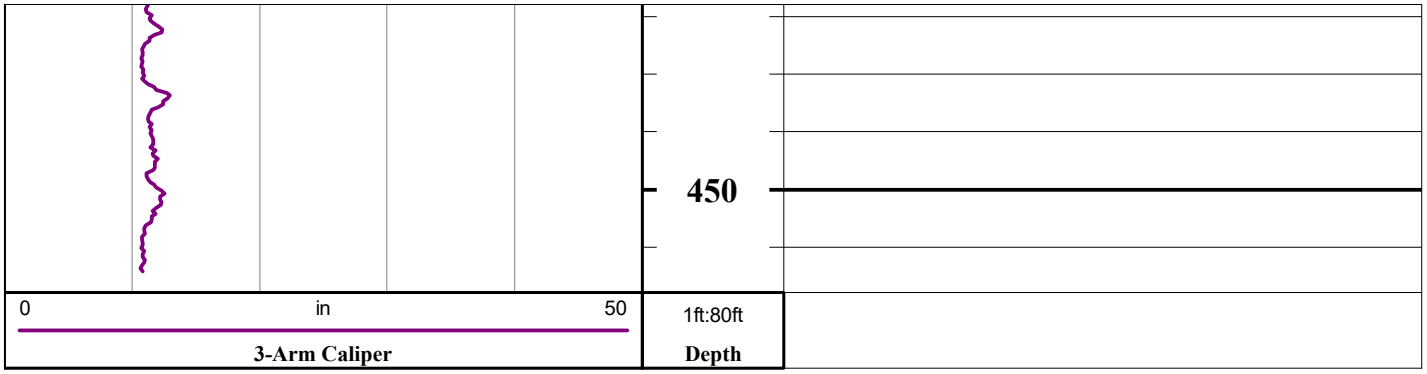
Pumping at 1,400 GPM


3-Arm Caliper
0
in
50
Depth
1ft:80ft
200
210
220
230
240


250
260
270
280
290
300
310


320
330
340
350
360
370


380
390
400
410
420
430
440


450
0
in
50
1ft:80ft
3-Arm Caliper
Depth

COLOG
borehole geophysics / hydrophysics

833 Hogback Drive
Golden, CO 80403
Office: 303.279.0171
www.colog.com

# Full Waveform Sonic

Company Rowe Drilling
Well Well # 2
Project Valdosta WPT 2
County Lowndes
State Georgia

**COMPANY** Rowe Drilling
**WELL** Well # 2
**PROJECT** Valdosta WPT 2
**COUNTY** Lowndes **STATE** Georgia

**LOCATION**

**QTR** **SEC** **TWP** **RGE**

**OTHER SERVICES**
Electric log
Caliper

**PERMANENT DATUM** Ground Surface **ELEVATION** NA

**LOG MEAS. FROM** Ground Surface 0.0 ft **ABOVE PERMANENT DATUM**

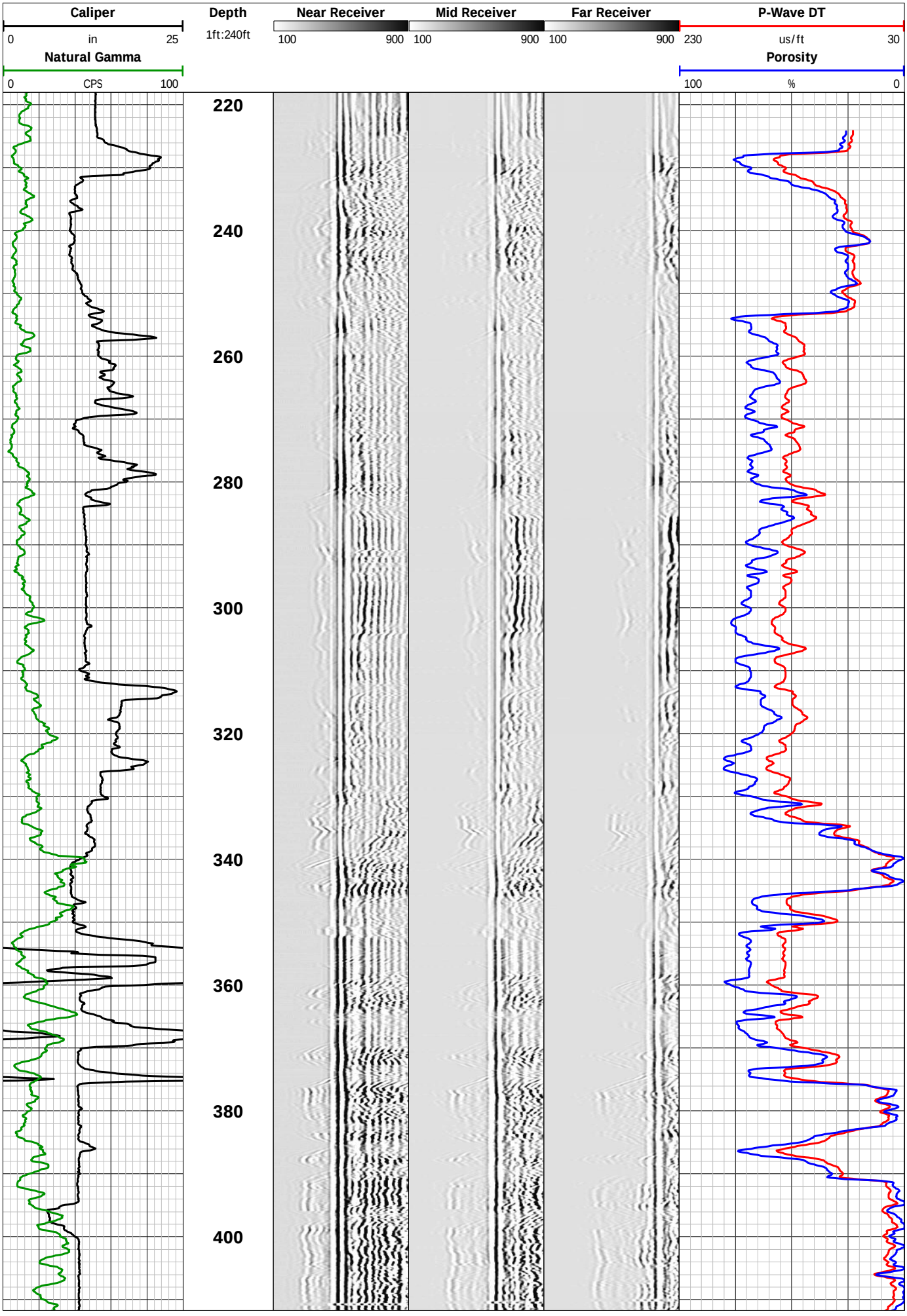
**DRILLING MEAS. FROM** Ground Surface

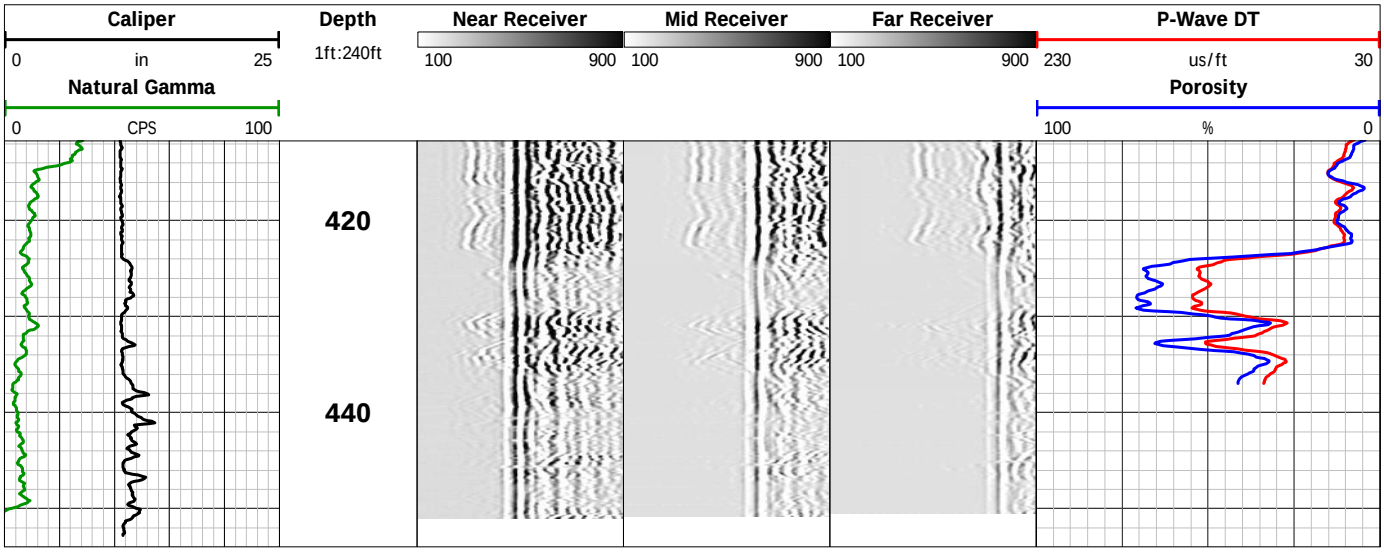
| | | | | |
|---|---|---|---|---|
| **DATE ACQUIRED** | 20 Nov 2024 | | | |
| **RUN NUMBER** | 3 | | | |
| **LOG TYPE** | Sonic | | | |
| **DEPTH-DRILLER** | 450 ft | | | |
| **DEPTH-LOGGER** | 452 ft | | | |
| **BTM LOG INTERVAL** | 451 ft | | | |
| **TOP LOG INTERVAL** | 118 ft | | | |
| **RECORDED BY** | J Grace | | | |
| **WITNESSED BY** | | | | |
| **PROBE TYPE, S/N** | TRSS | | | |
| **LOGGING SPEED** | 12 ft/min | | | |
| **A.S.D.E./Sample Interval** | -0.4 ft | | | |
| **Fluid Level / Fluid Type** | 118 ft | | | |

| BOREHOLE RECORD | | | | CASING RECORD | | | |
|---|---|---|---|---|---|---|---|
| **RUN No.** | **BIT** | **FROM** | **TO** | **SIZE** | **WGT.** | **FROM** | **TO** |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

**NA - Not Available, N/A - Not Applicable**

**COMMENTS**


Caliper
0
in
25
Natural Gamma
0
CPS
100
Depth
1ft:240ft
220
240
260
280
300
320
340
360
380
400
Near Receiver
100
900
Mid Receiver
100
900
Far Receiver
100
900
P-Wave DT
230
us/ft
30
Porosity
100
%
0


Caliper
0
in
25
Natural Gamma
0
CPS
100
Depth
1ft:240ft
420
440
Near Receiver
100
900
Mid Receiver
100
900
Far Receiver
100
900
P-Wave DT
230
us/ft
30
Porosity
100
%
0

COLOG

borehole geophysics / hydrophysics

833 Hogback Drive
Golden, CO 80403
Office: 303.279.0171
www.colog.com

# Casing Bond Log

Company Rowe Drilling
Well Well # 2
Project Valdosta WPT 2
County Lowndes
State Georgia

**COMPANY** Rowe Drilling
**WELL** Well # 2
**PROJECT** Valdosta WPT 2
**COUNTY** Lowndes **STATE** Georgia

**LOCATION**

**QTR** **SEC** **TWP** **RGE**

**OTHER SERVICES**

Electric log
Caliper

**PERMANENT DATUM** Ground Surface **ELEVATION** NA

**LOG MEAS. FROM** Ground Surface 0.0 ft **ABOVE PERMANENT DATUM**

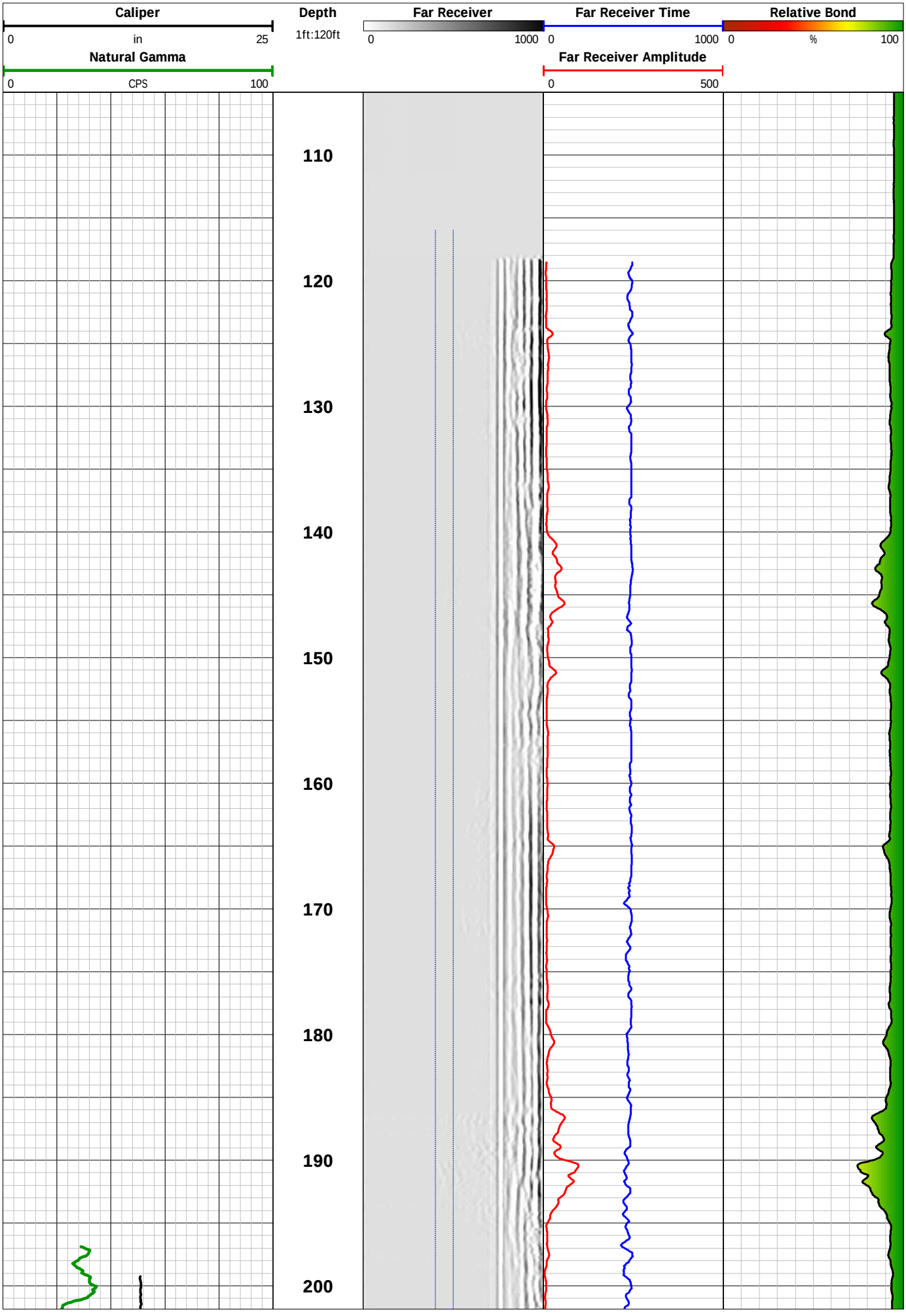
**DRILLING MEAS. FROM** Ground Surface

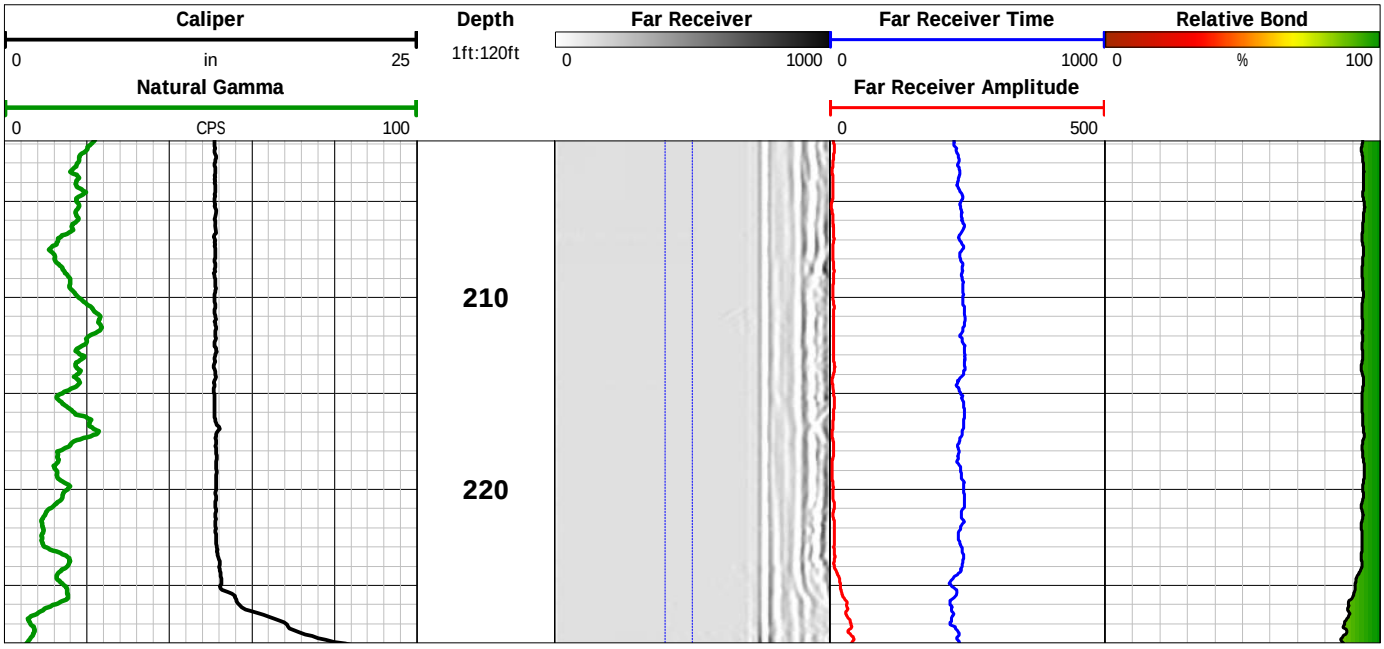
| | | | | |
|---|---|---|---|---|
| **DATE ACQUIRED** | 20 Nov 2024 | | | |
| **RUN NUMBER** | 3 | | | |
| **LOG TYPE** | Sonic | | | |
| **DEPTH-DRILLER** | 450 ft | | | |
| **DEPTH-LOGGER** | 452 ft | | | |
| **BTM LOG INTERVAL** | 451 ft | | | |
| **TOP LOG INTERVAL** | 118 ft | | | |
| **RECORDED BY** | J Grace | | | |
| **WITNESSED BY** | | | | |
| **PROBE TYPE, S/N** | TRSS | | | |
| **LOGGING SPEED** | 12 ft/min | | | |
| **A.S.D.E./Sample Interval** | -0.4 ft | | | |
| **Fluid Level / Fluid Type** | 118 ft | | | |

| BOREHOLE RECORD | | | | CASING RECORD | | | |
|---|---|---|---|---|---|---|---|
| **RUN No.** | **BIT** | **FROM** | **TO** | **SIZE** | **WGT.** | **FROM** | **TO** |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

**NA - Not Available, N/A - Not Applicable**

**COMMENTS**


Caliper
0
in
25
Natural Gamma
0
CPS
100
Depth
1ft:120ft
Far Receiver
0
1000
Far Receiver Time
0
1000
Far Receiver Amplitude
0
500
Relative Bond
0
%
100
110
120
130
140
150
160
170
180
190
200


Caliper
0
in
25
Natural Gamma
0
CPS
100
Depth
1ft:120ft
210
220
Far Receiver
0
1000
Far Receiver Time
0
1000
Far Receiver Amplitude
0
500
Relative Bond
0
%
100

borehole geophysics / hydrophysics

833 Hogback Drive
Golden, Colorado
80403
Office: 303.279.0171
Fax: 303.278.0135
www.colog.com

# Electric Log

Company Rowe Drilling
Well Well 2
Project WPT2
County Lowdnes
State GA

**COMPANY** Rowe Drilling
**WELL** Well 2
**PROJECT** WPT 2
**COUNTY** Lowdnes **STATE** GA

**LOCATION**

QTR SEC TWP RGE

**OTHER SERVICES**

**PERMANENT DATUM** **ELEVATION**

**LOG MEAS. FROM** Ground surface **ABOVE PERMANENT DATUM**

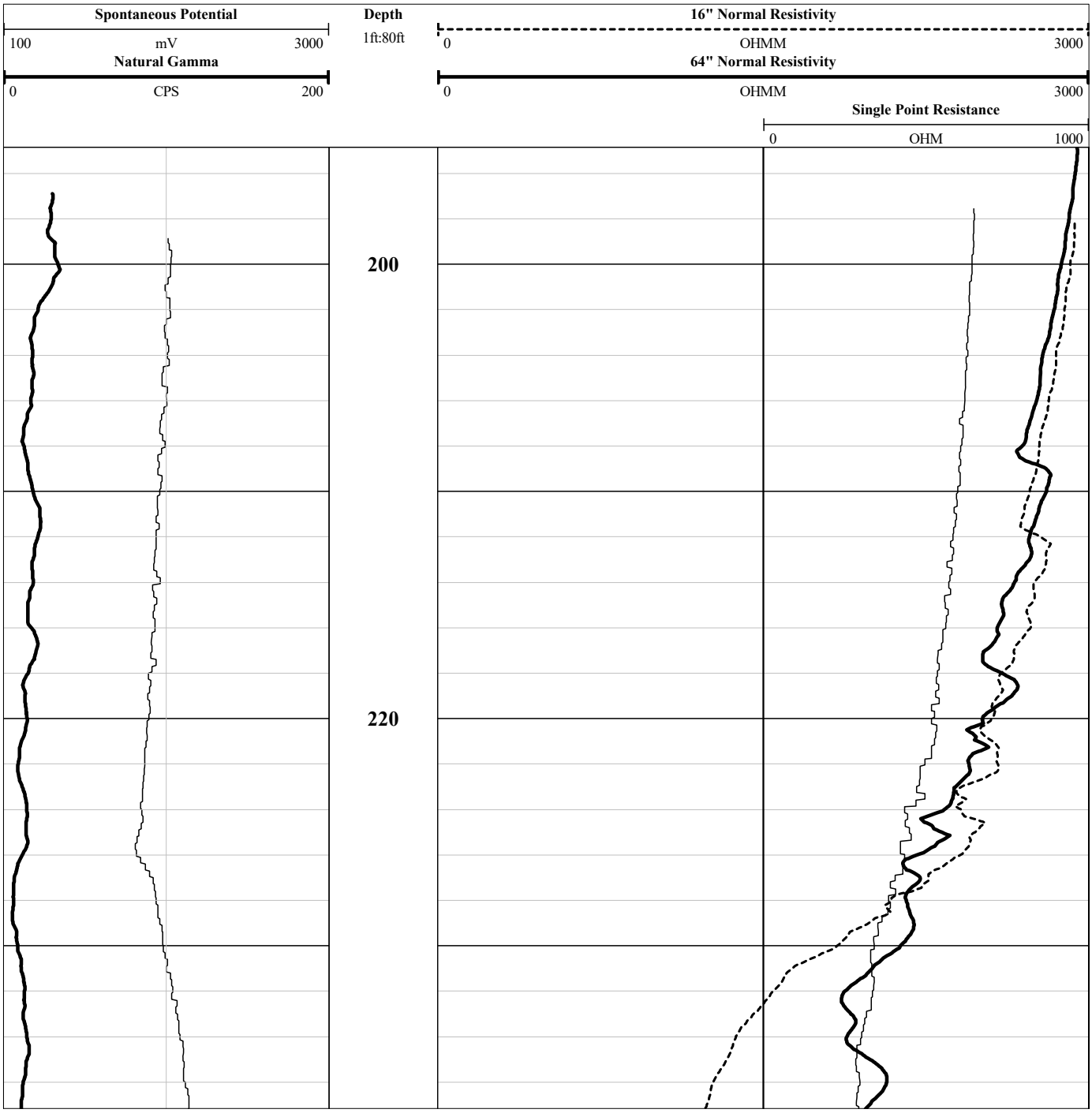
**DRILLING MEAS. FROM**

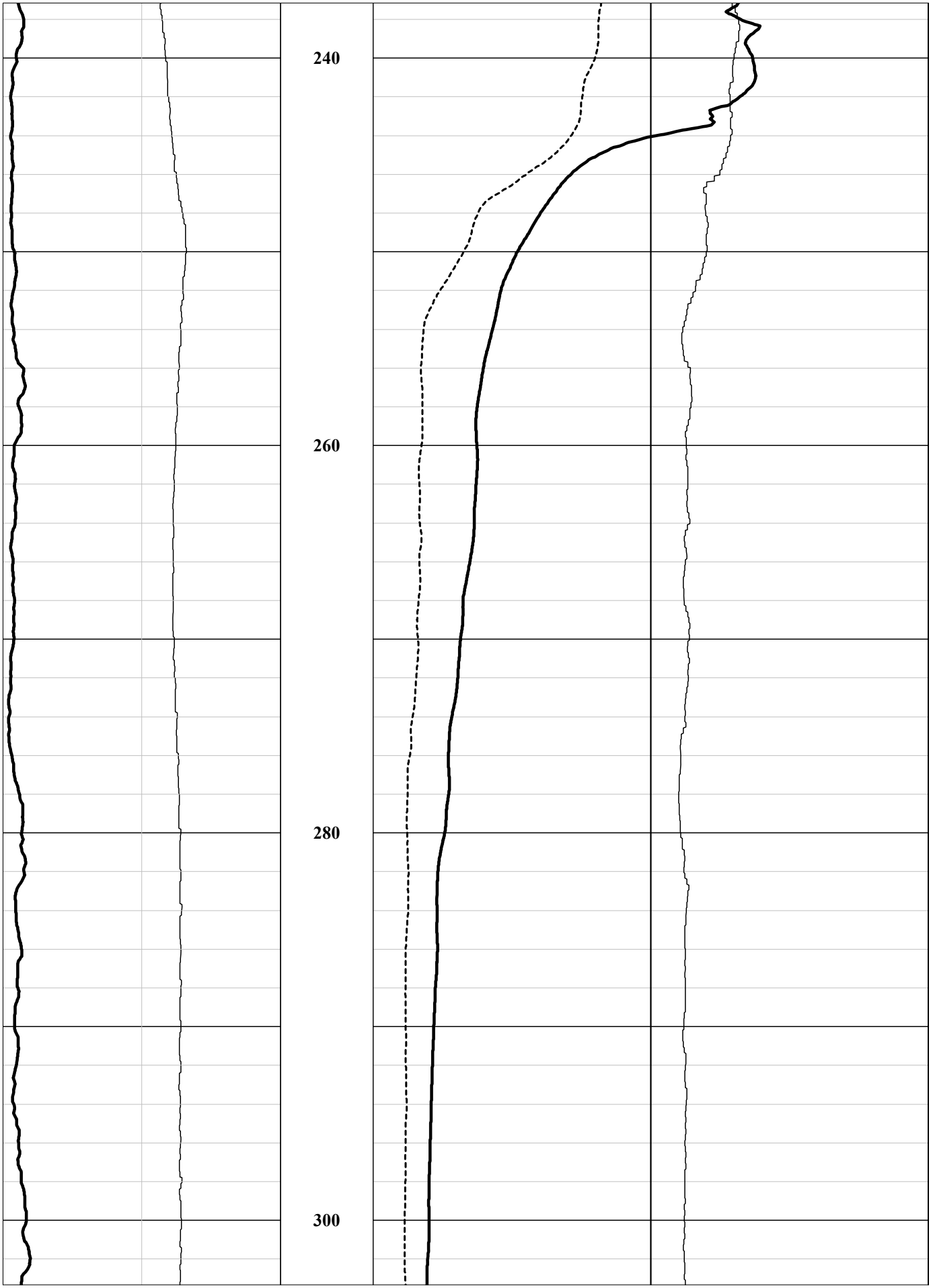
| | | | | |
|---|---|---|---|---|
| DATE ACQUIRED | 11-22-24 | | | |
| RUN NUMBER | 3 | | | |
| LOG TYPE | E-log | | | |
| DEPTH-DRILLER | 454 | | | |
| DEPTH-LOGGER | 454' | | | |
| BTM LOG INTERVAL | 454' | | | |
| TOP LOG INTERVAL | 200' | | | |
| RECORDED BY | J Grace | | | |
| WITNESSED BY | S Caldwell | | | |
| PROBE TYPE, S/N | ELTG 5541 | | | |
| LOGGING SPEED | 18 ft min | | | |
| A.S.D.E./Sample Interval | 0.10 | | | |
| Fluid Level/Fluid Type | water | | | |

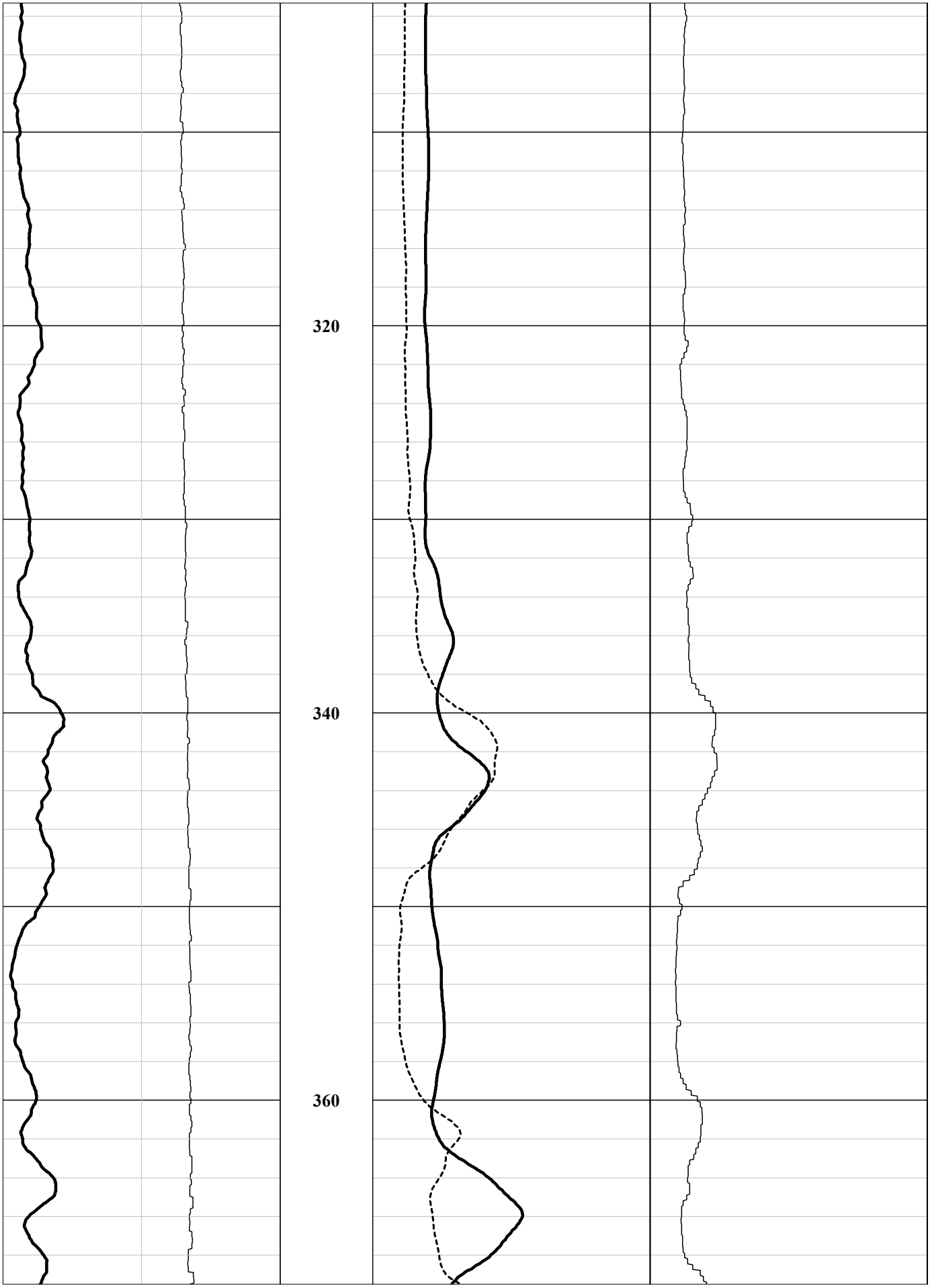
| BOREHOLE RECORD | | | | CASING RECORD | | | |
|---|---|---|---|---|---|---|---|
| RUN No. | BIT | FROM | TO | SIZE | WGT. | FROM | TO |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

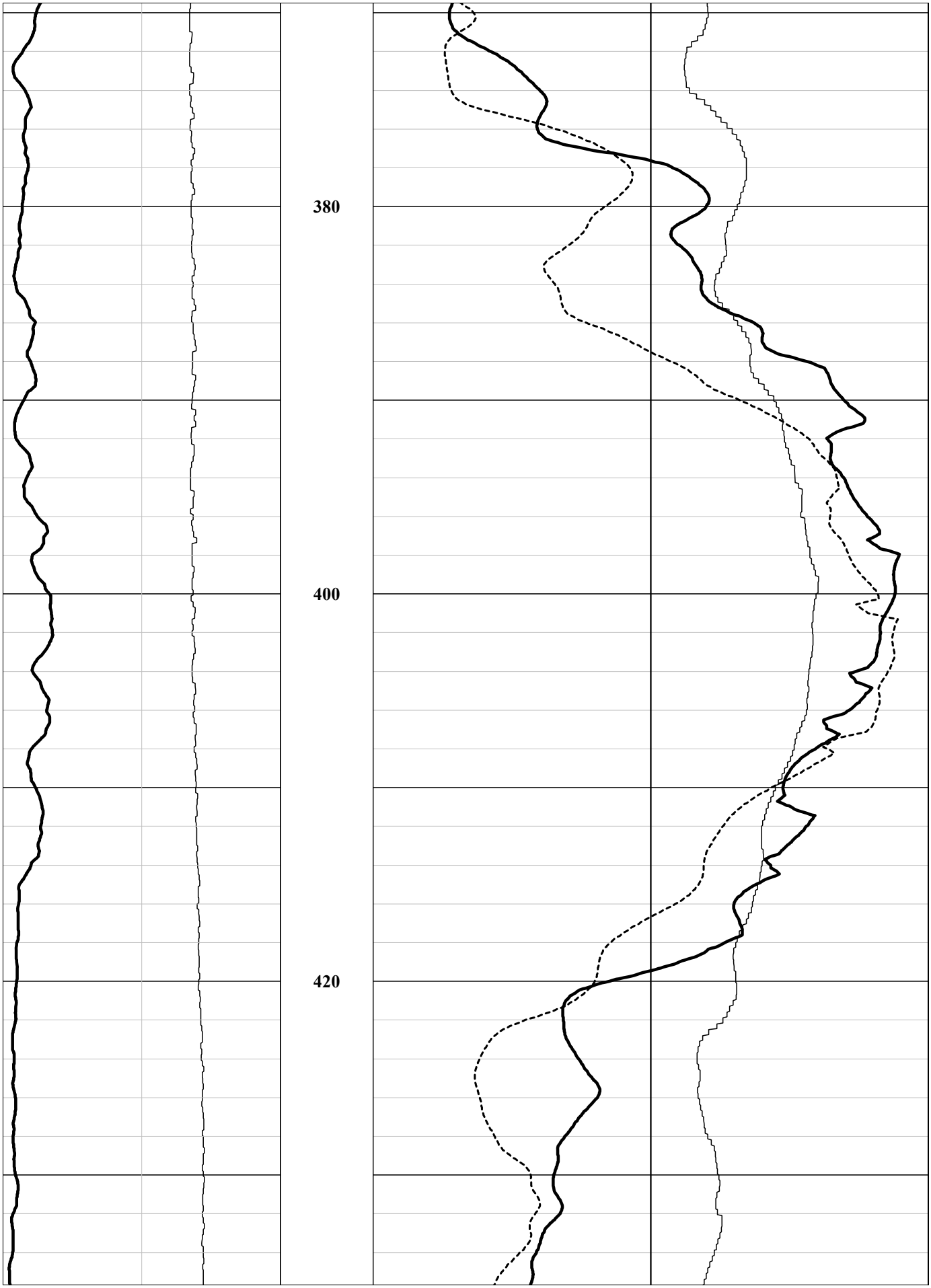
NA - Not Available, N/A - Not Applicable

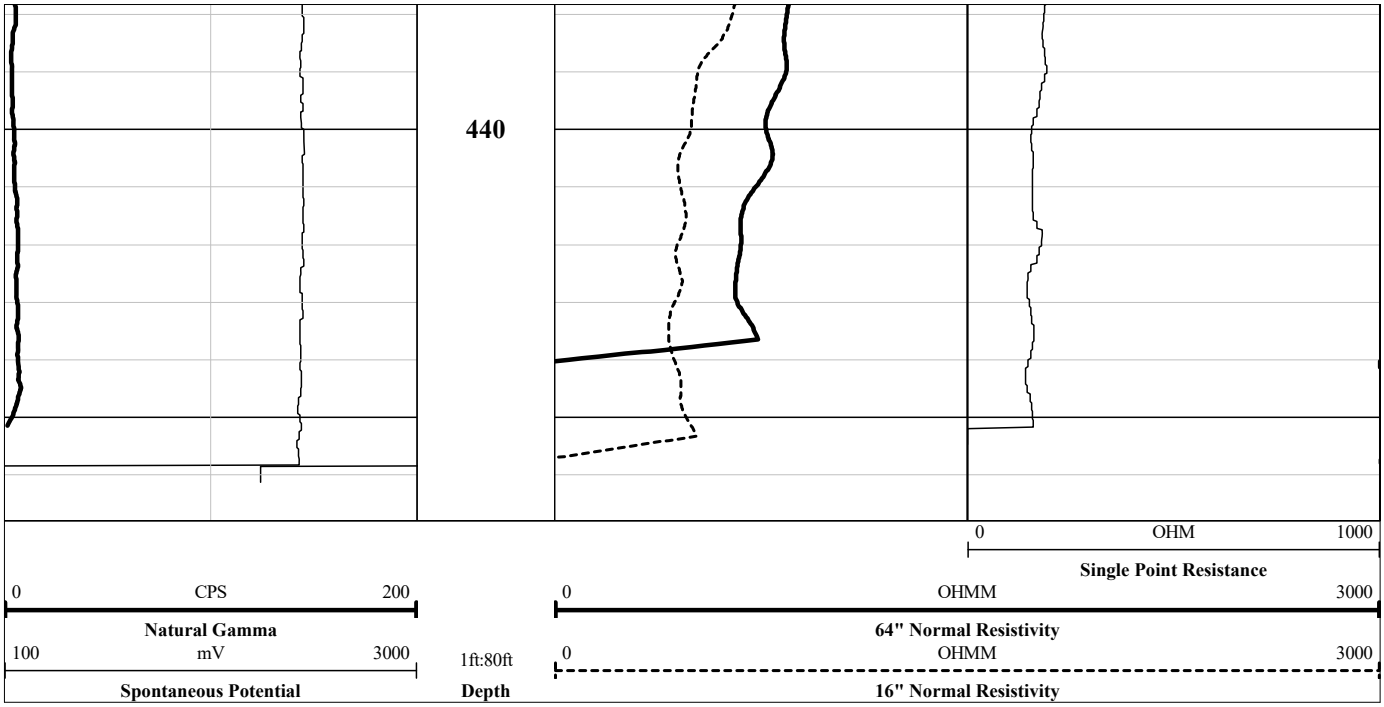
COMMENTS


Spontaneous Potential
100
mV
3000
Natural Gamma
0
CPS
200
Depth
1ft:80ft
16" Normal Resistivity
0
OHMM
3000
64" Normal Resistivity
0
OHMM
3000
Single Point Resistance
0
OHM
1000
200
220


240
260
280
300


320
340
360


380
400
420


440
0
OHM
1000
Single Point Resistance
0
CPS
200
Natural Gamma
0
OHMM
3000
64" Normal Resistivity
100
mV
3000
Spontaneous Potential
1ft:80ft
Depth
0
OHMM
3000
16" Normal Resistivity

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833 Hogback Drive
Golden, Colorado
80403
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Fax: 303.278.0135
www.colog.com

# Static Temperature Fluid Conductivity Log

Company Rowe Drilling
Well Well 2
Project WPT2
County Lowdnes
State GA

**COMPANY** Rowe Drilling
**WELL** Well 2
**PROJECT** WPT 2
**COUNTY** Lowdnes **STATE** GA

**LOCATION**

QTR SEC TWP RGE

**OTHER SERVICES**

**PERMANENT DATUM** **ELEVATION**

**LOG MEAS. FROM** Ground surface **ABOVE PERMANENT DATUM**

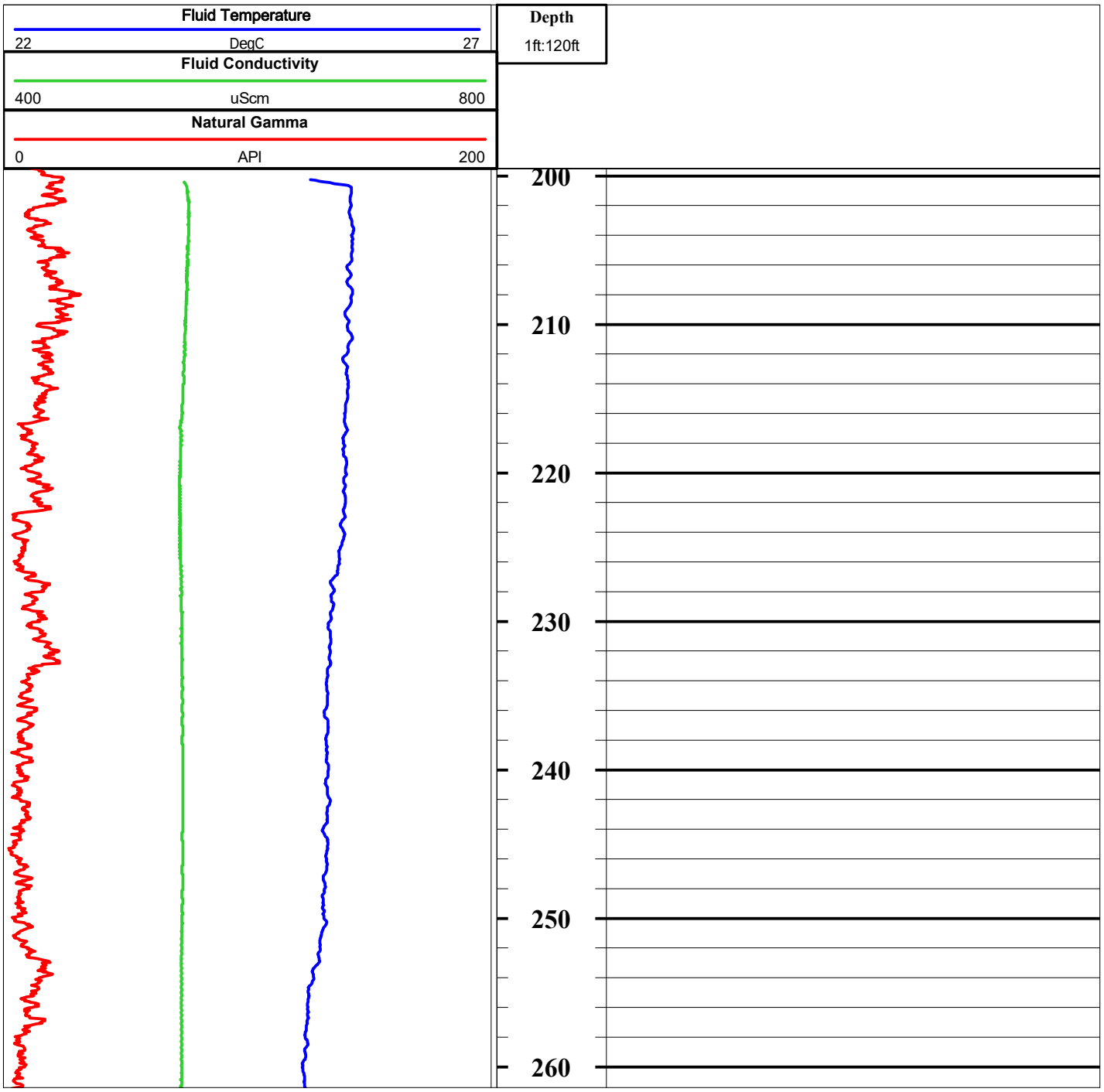
**DRILLING MEAS. FROM**

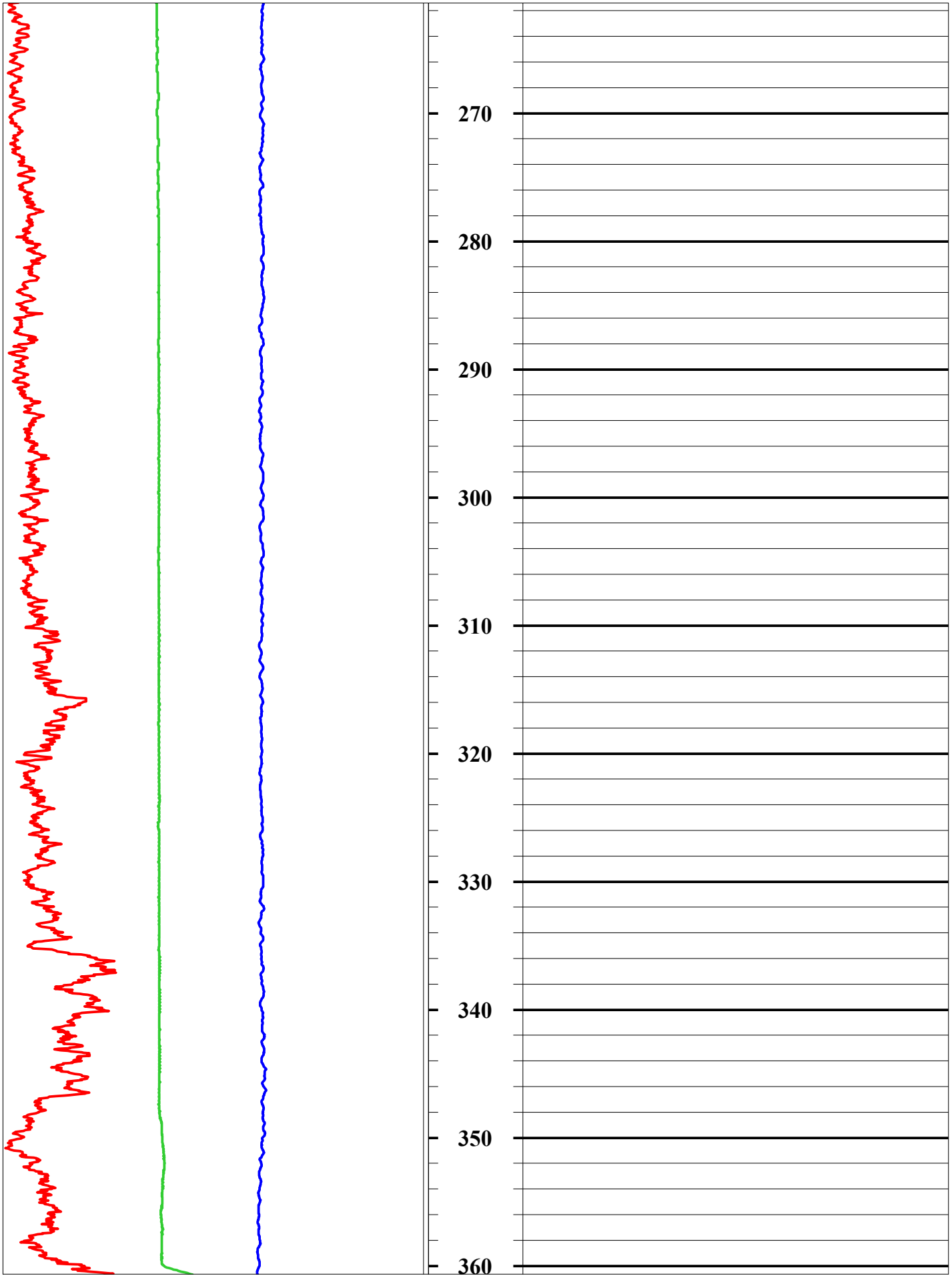
| | | | | |
|---|---|---|---|---|
| DATE ACQUIRED | 11-21-24 | | | |
| RUN NUMBER | 1 | | | |
| LOG TYPE | FTC | | | |
| DEPTH-DRILLER | 454 | | | |
| DEPTH-LOGGER | 455' | | | |
| BTM LOG INTERVAL | 455' | | | |
| TOP LOG INTERVAL | 200' | | | |
| RECORDED BY | J Grace | | | |
| WITNESSED BY | S Caldwell | | | |
| PROBE TYPE, S/N | TCDS 3463 | | | |
| LOGGING SPEED | 12-15 ft min | | | |
| A.S.D.E./Sample Interval | 0.10 | | | |
| Fluid Level/Fluid Type | water | | | |

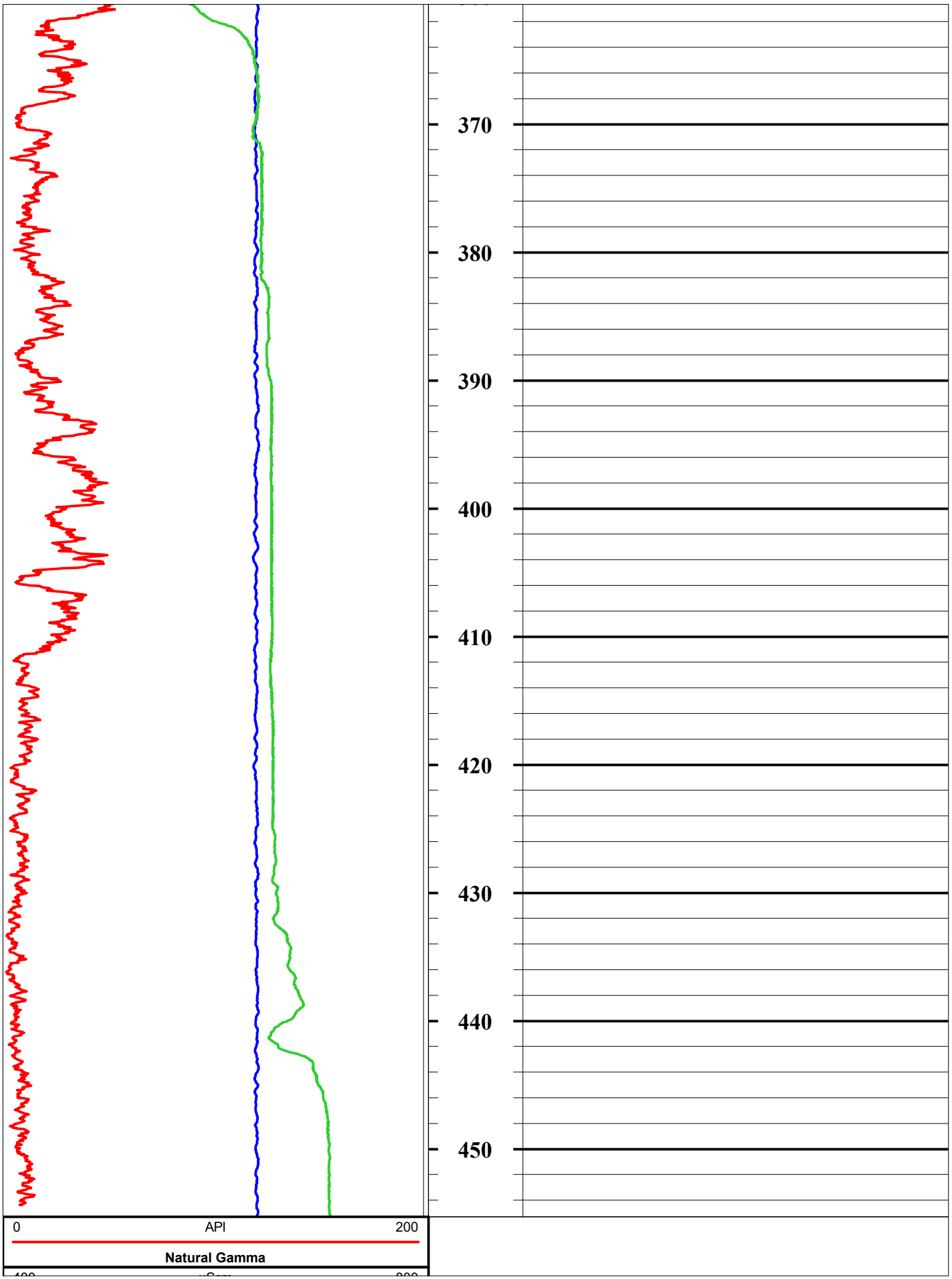
| BOREHOLE RECORD | | | | CASING RECORD | | | |
|---|---|---|---|---|---|---|---|
| RUN No. | BIT | FROM | TO | SIZE | WGT. | FROM | TO |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

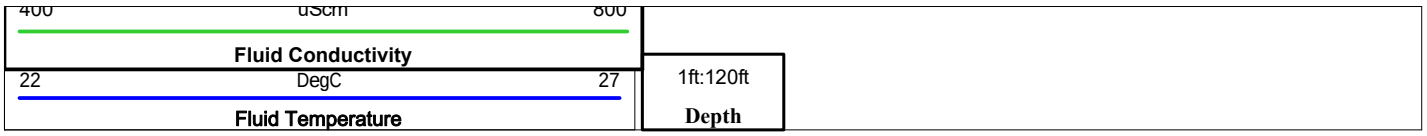
NA - Not Available, N/A - Not Applicable

COMMENTS


Fluid Temperature
22
DegC
27
Fluid Conductivity
400
uScm
800
Natural Gamma
0
API
200
Depth
1ft:120ft
200
210
220
230
240
250
260


270
280
290
300
310
320
330
340
350
360


370
380
390
400
410
420
430
440
450
0
API
200
Natural Gamma


400
uScm
800
Fluid Conductivity
22
DegC
27
Fluid Temperature
1ft:120ft
Depth

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833 Hogback Drive
Golden, Colorado
80403
Office: 303.279.0171
Fax: 303.278.0135
www.colog.com

# Dynamic Temperature Fluid Conductivity Log

Company Rowe Drilling
Well Well 2
Project WPT2
County Lowdnes
State GA

**COMPANY** Rowe Drilling
**WELL** Well 2
**PROJECT** WPT 2
**COUNTY** Lowdnes **STATE** GA

**LOCATION**

QTR SEC TWP RGE

**OTHER SERVICES**

**PERMANENT DATUM** **ELEVATION**

**LOG MEAS. FROM** Ground surface **ABOVE PERMANENT DATUM**

**DRILLING MEAS. FROM**

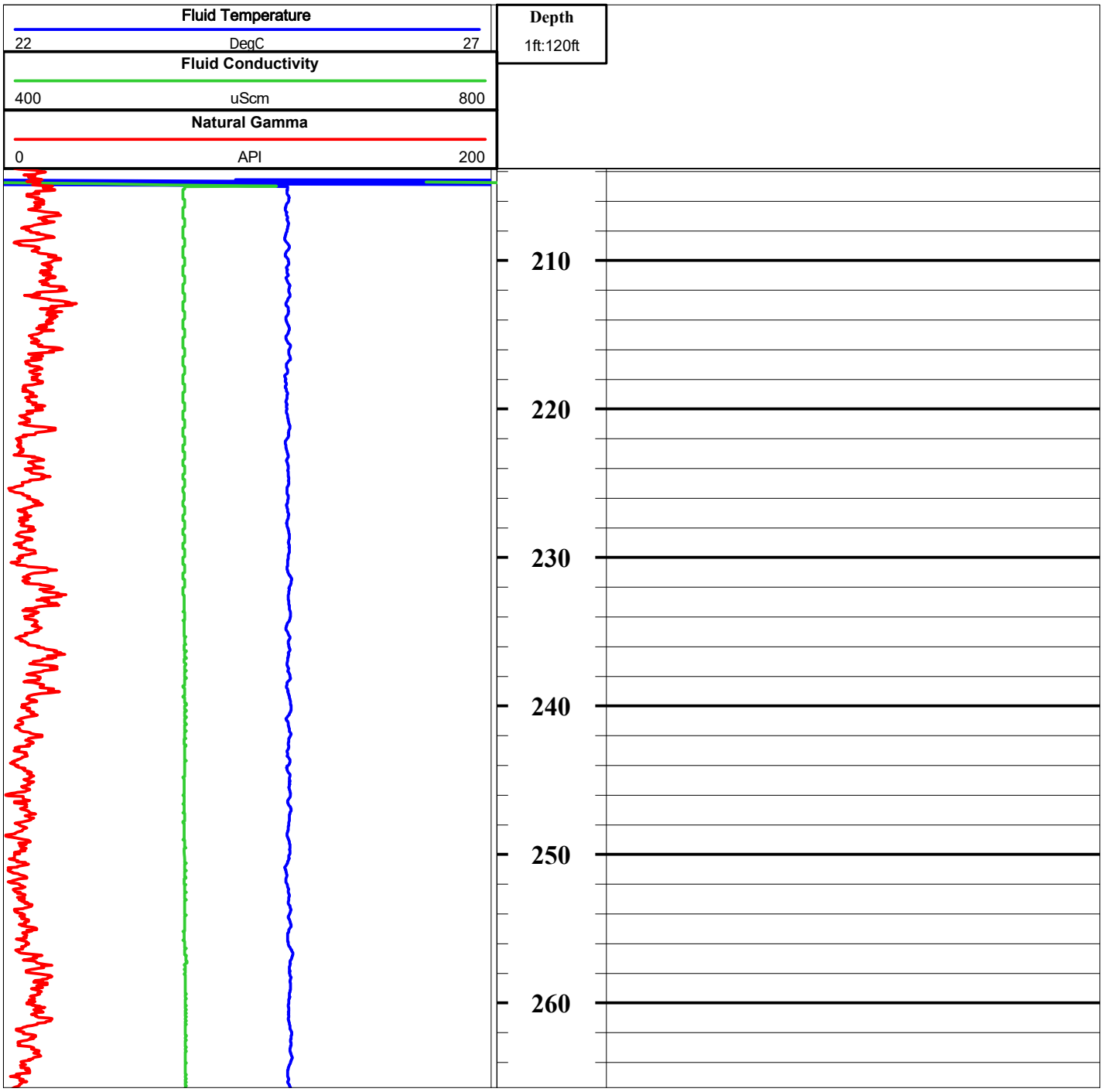
| | | | | |
|---|---|---|---|---|
| DATE ACQUIRED | 11-22-24 | | | |
| RUN NUMBER | 1 | | | |
| LOG TYPE | FTC | | | |
| DEPTH-DRILLER | 454 | | | |
| DEPTH-LOGGER | 455' | | | |
| BTM LOG INTERVAL | 455' | | | |
| TOP LOG INTERVAL | 200' | | | |
| RECORDED BY | J Grace | | | |
| WITNESSED BY | S Caldwell | | | |
| PROBE TYPE, S/N | TCDS 3463 | | | |
| LOGGING SPEED | 12-15 ft min | | | |
| A.S.D.E./Sample Interval | 0.10 | | | |
| Fluid Level/Fluid Type | water | | | |

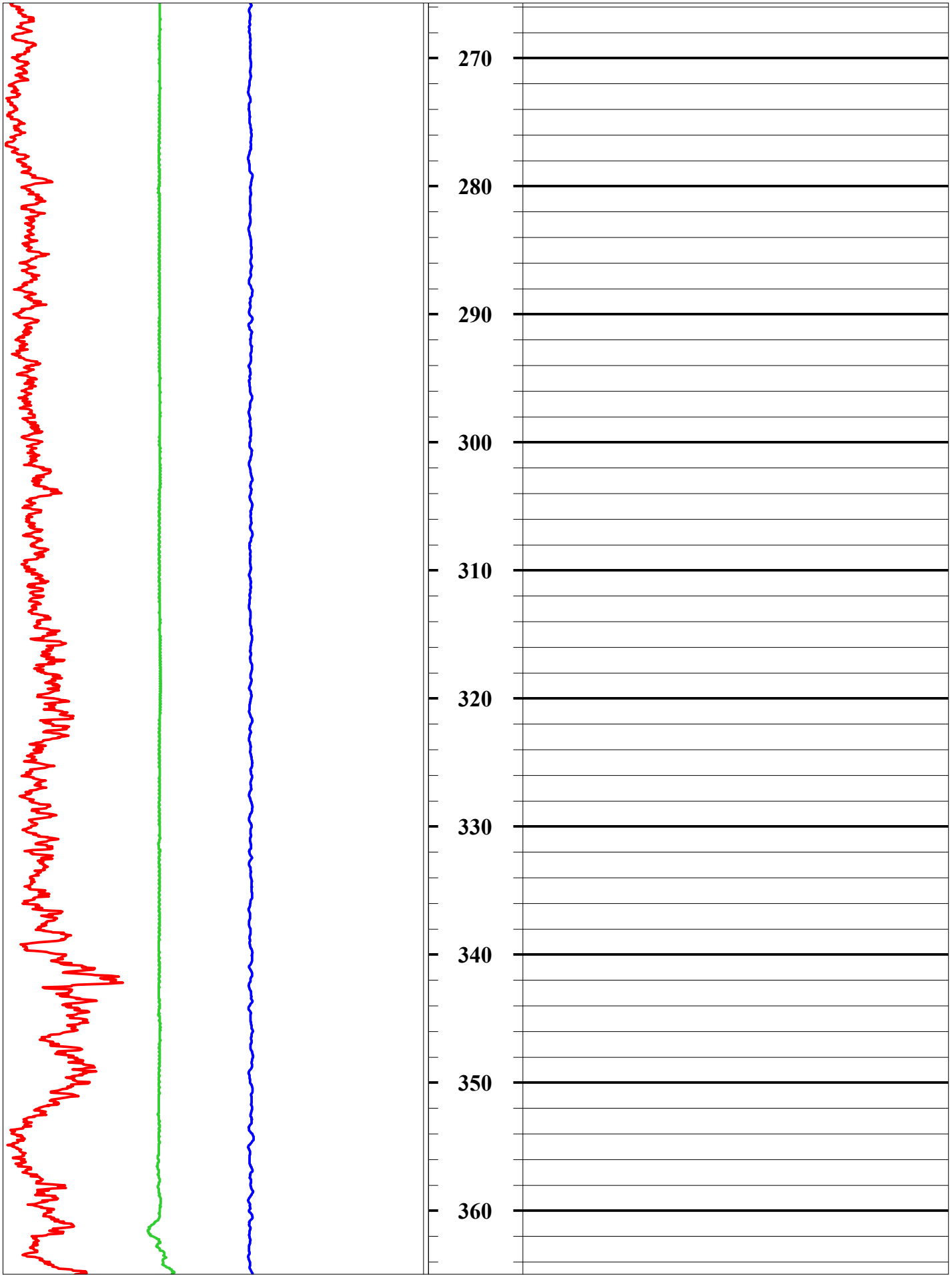
| BOREHOLE RECORD | | | | CASING RECORD | | | |
|---|---|---|---|---|---|---|---|
| RUN No. | BIT | FROM | TO | SIZE | WGT. | FROM | TO |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

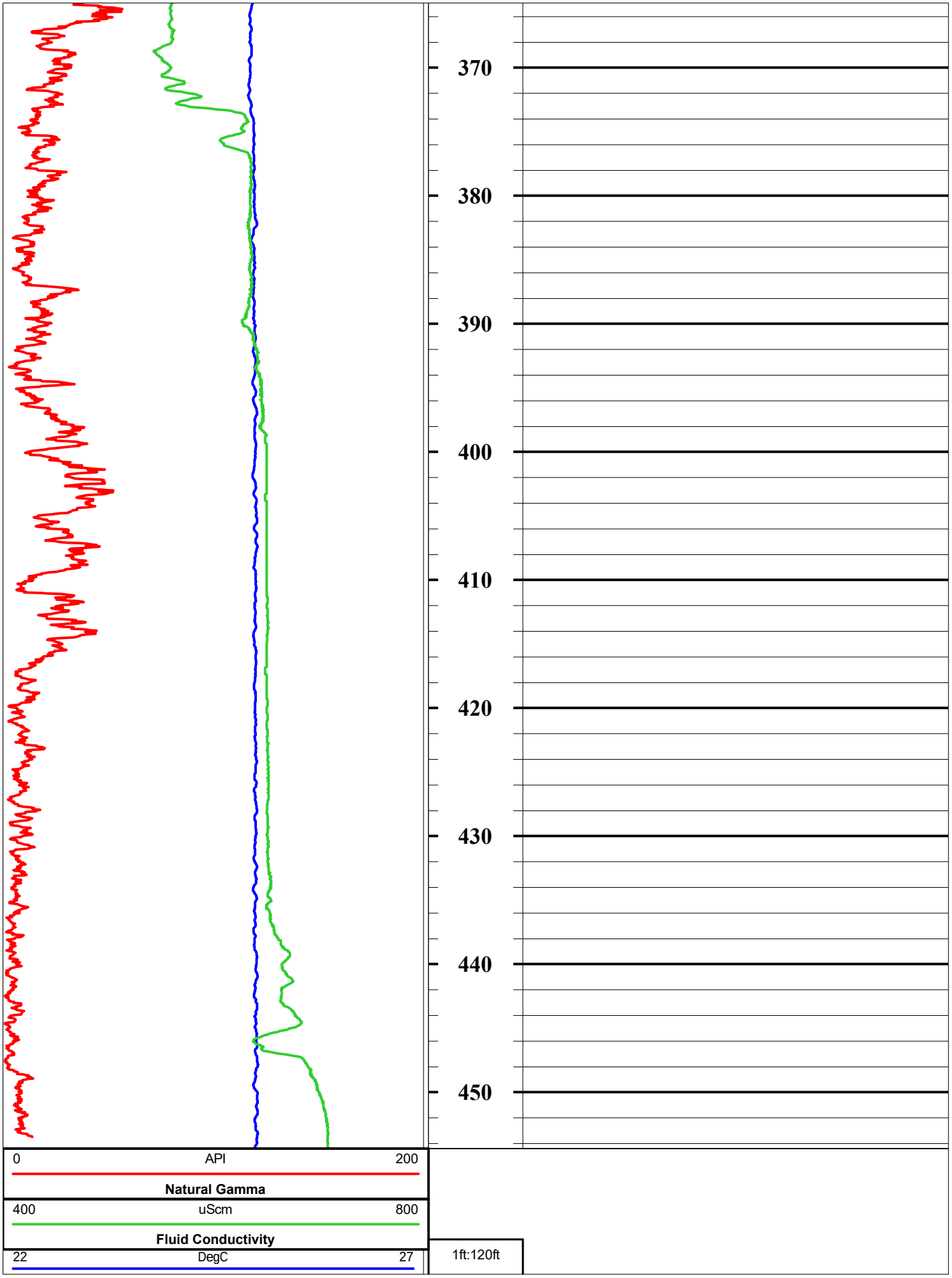
NA - Not Available, N/A - Not Applicable

**COMMENTS**

Pumping at 1,400 GPM


Fluid Temperature
22
DegC
27
Fluid Conductivity
400
uScm
800
Natural Gamma
0
API
200
Depth
1ft:120ft
210
220
230
240
250
260


270
280
290
300
310
320
330
340
350
360


370
380
390
400
410
420
430
440
450
0
API
200
Natural Gamma
400
uScm
800
Fluid Conductivity
22
DegC
27
1ft:120ft

| Fluid Temperature | Depth | |
|---|---|---|

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Golden, CO 80403
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# Spinner Flow Meter
# Stop Counts
# Ambient & Pumping

# 3-Arm Caliper

Company Rowe Drilling
Well Well 2
Project WPT2
County Lowndes
State GA

**COMPANY** Rowe Drilling
**WELL** Well 2
**PROJECT** WPT2
**COUNTY** Lowndes **STATE** GA

**LOCATION**

QTR SEC TWP RGE

**OTHER SERVICES**

Fluid Temperature & Cond.
Electric Resistivity
3-Arm Caliper
Sonic CBL

**PERMANENT DATUM** **ELEVATION**

**LOG MEAS. FROM** **ABOVE PERMANENT DATUM**

**DRILLING MEAS. FROM** Ground Surface

| | | | | |
|---|---|---|---|---|
| DATE ACQUIRED | 12-4-24 | | | |
| RUN NUMBER | Multiple | | | |
| LOG TYPE | Spinner FM | | | |
| DEPTH-DRILLER | | | | |
| DEPTH-LOGGER | Multiple | | | |
| BTM LOG INTERVAL | | | | |
| TOP LOG INTERVAL | | | | |
| RECORDED BY | J Grace | | | |
| WITNESSED BY | | | | |
| PROBE TYPE, S/N | SFM 6740 | | | |
| LOGGING SPEED | NA | | | |
| A.S.D.E./Sample Interval | | | | |
| Fluid Level / Fluid Type | | | | |

| BOREHOLE RECORD | | | | CASING RECORD | | | |
|---|---|---|---|---|---|---|---|
| RUN No. | BIT | FROM | TO | SIZE | WGT. | FROM | TO |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

NA - Not Available, N/A - Not Applicable

## COMMENTS

Static and Dynamic Spinner FM Stop Counts

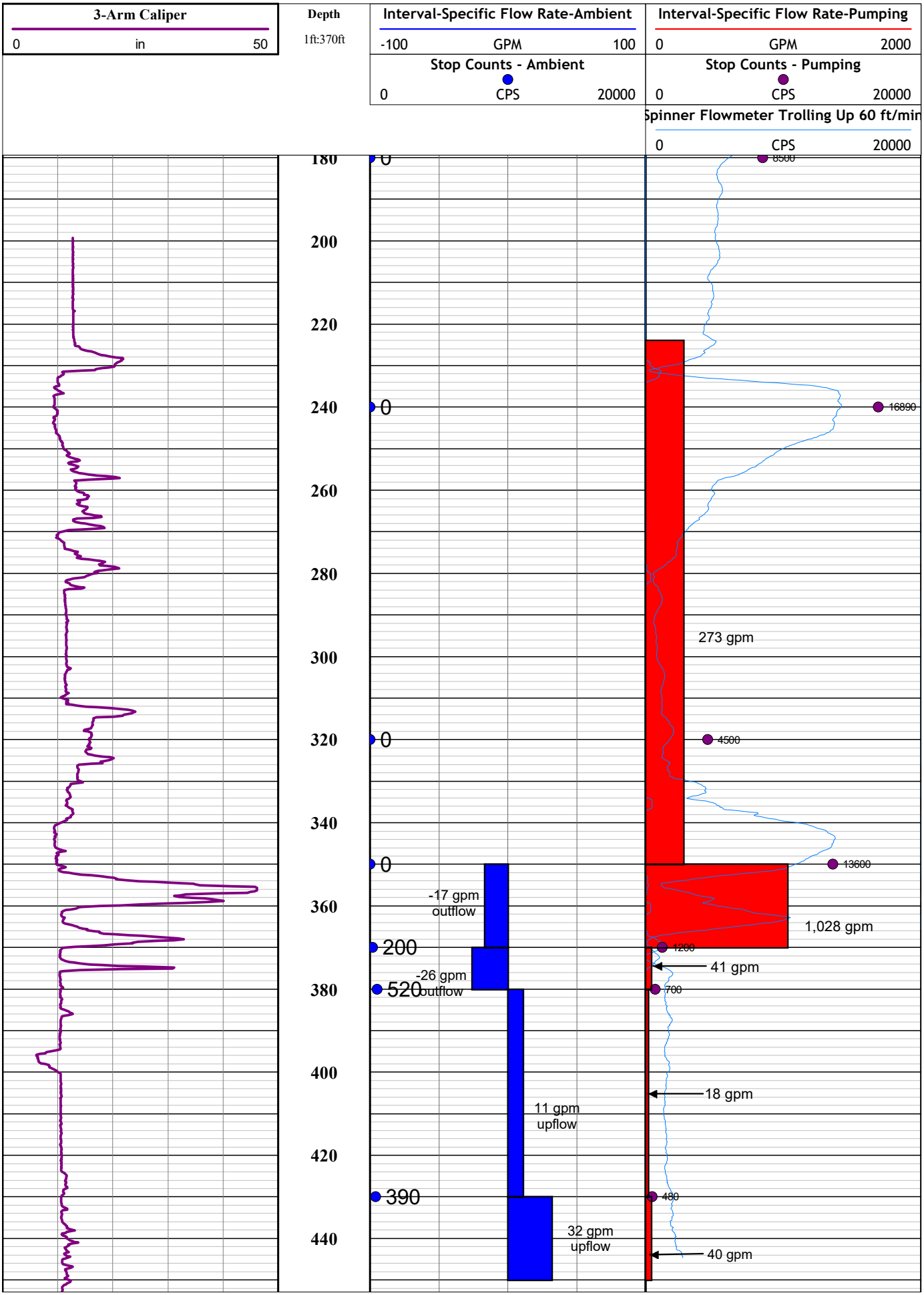
Stop counts at 180', 240', 320', 350', 370', 380' and 430'

Pumping was conducted an an average rate of 1,400 gpm.

The following formula was used to convert stop counts in CPS to GPM:
y = 0.0829(x) + 0

Identified Water-Bearing Intervals Under Pumping Conditions:
1. 240 - 350 feet: 273 gpm inflow
2. 350 - 370 feet: 1,028 gpm inflow
3. 370 - 380 feet: 41 gpm inflow
4. 380 - 430 feet: 18 gpm inflow
5. 430 - 450 feet (TD): 40 gpm inflow

Special Circumstances: the field engineer reported having trouble optaining a continuous trolling log down or up with the spinner flowmeter due to to the washouts in the borehole hanging up the probe. It was determined that stop counts are the best way to characterize the flow in the borehole under ambient and pumping conditions.


3-Arm Caliper
0
in
50
Depth
1ft:370ft
Interval-Specific Flow Rate-Ambient
-100
GPM
100
Stop Counts - Ambient
0
CPS
20000
Interval-Specific Flow Rate-Pumping
0
GPM
2000
Stop Counts - Pumping
0
CPS
20000
Spinner Flowmeter Trolling Up 60 ft/min
0
CPS
20000
180
200
220
240
260
280
300
320
340
360
380
400
420
440
0
0
0
200
520
390
8500
16890
4500
13600
1200
700
480
273 gpm
1,028 gpm
41 gpm
18 gpm
40 gpm
-17 gpm
outflow
-26 gpm
outflow
11 gpm
upflow
32 gpm
upflow

# Geophysical Logs

## Run 4: Completed Well

**Valdosta WTP No. 2**
**Production Well No. 2**

CDM Smith

borehole geophysics / hydrophysics

833 Hogback Drive
Golden, Colorado
80403
Office: 303.279.0171
Fax: 303.278.0135
www.colog.com

# 3-Arm Caliper
# Well 2 Reamed

Company Rowe Drilling
Well Well 2 Reamed
Project WPT2
County Loundes
State GA

**COMPANY** Rowe Drilling
**WELL** Well 2 Reamed
**PROJECT** WPT2
**COUNTY** Loundes **STATE** GA

**LOCATION**
Valdosta, GA

**QTR** **SEC** **TWP** **RGE**

**OTHER SERVICES**

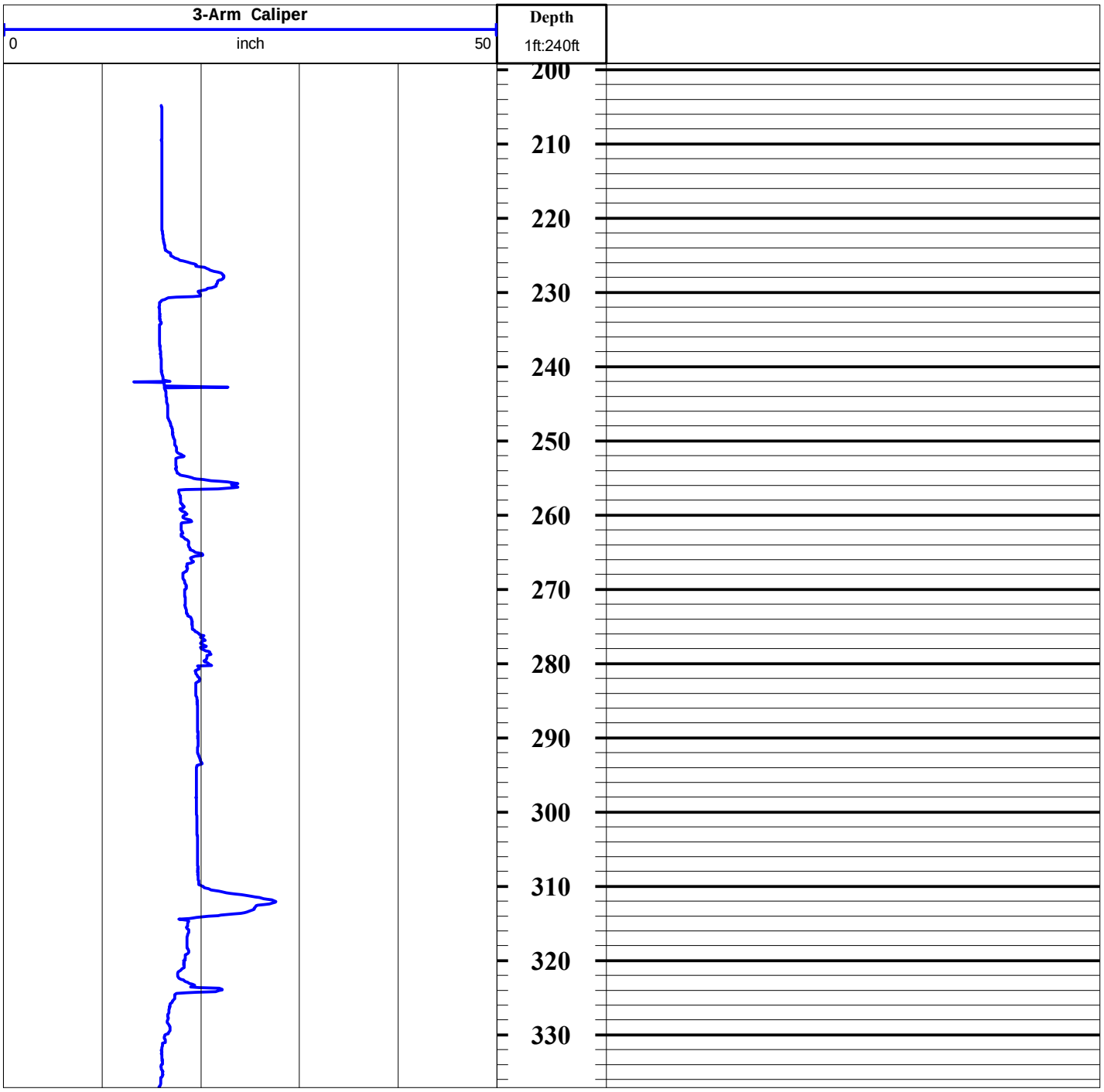
**PERMANENT DATUM** **ELEVATION**
**LOG MEAS. FROM** Ground surface **ABOVE PERMANENT DATUM**
**DRILLING MEAS. FROM** Ground surface

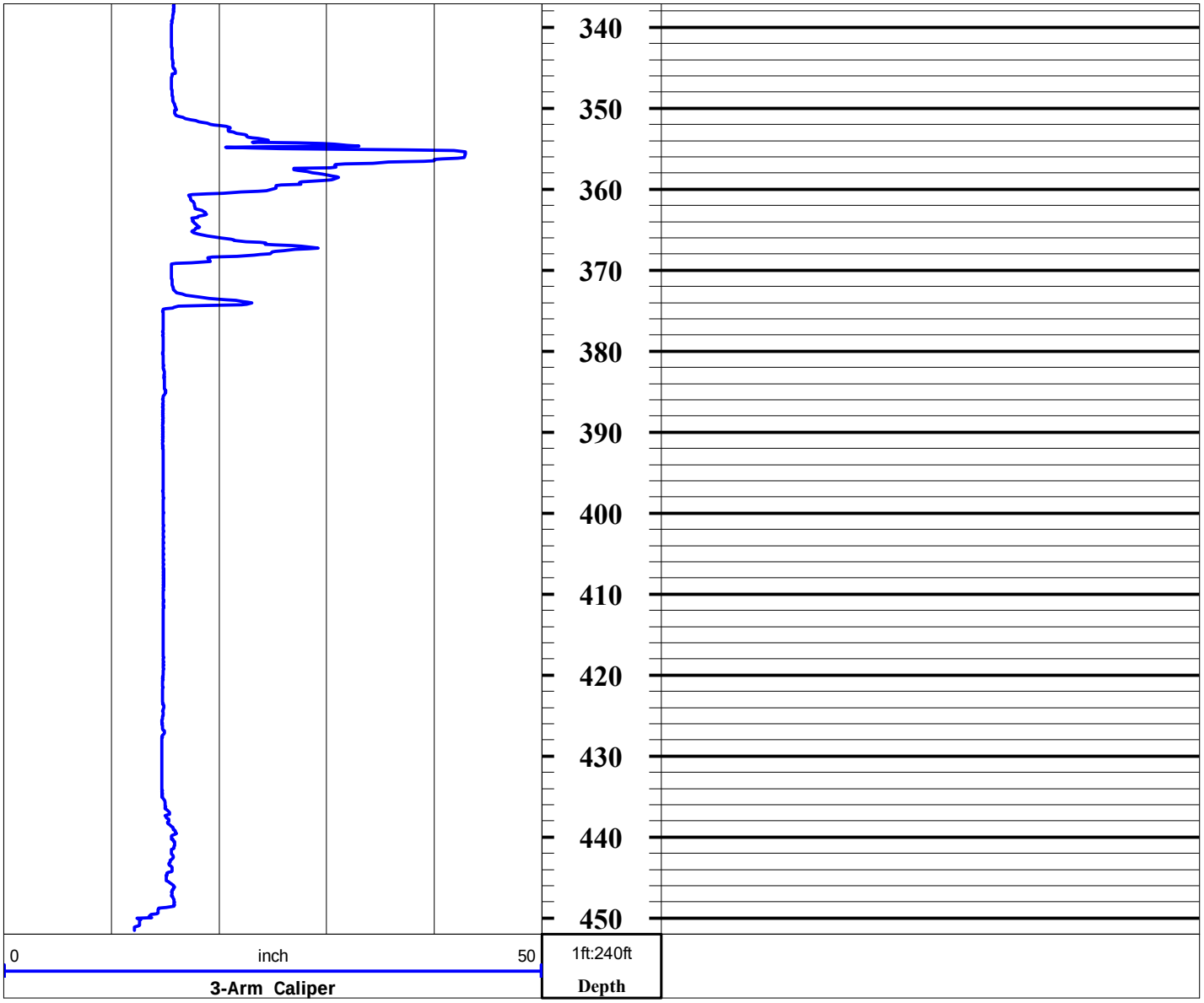
| | | | | |
|---|---|---|---|---|
| **DATE ACQUIRED** | 1-17-25 | 1-17-25 | | |
| **RUN NUMBER** | 1 | 2 | | |
| **LOG TYPE** | Caliper | Caliper -Arm Extensions | | |
| **DEPTH-DRILLER** | | | | |
| **DEPTH-LOGGER** | 448.99' | 448.64' | | |
| **BTM LOG INTERVAL** | 448.99' | 448.64' | | |
| **TOP LOG INTERVAL** | 200' | 200' | | |
| **RECORDED BY** | J Grace | J Grace | | |
| **WITNESSED BY** | D Fabelo | D Fabelo | | |
| **PROBE TYPE, S/N** | 2PCA 5536 | 2PCA 5536 | | |
| **LOGGING SPEED** | 15 ft/min | 15 ft/min | | |
| **A.S.D.E./Sample Interval** | 0.10 | 0.10 | | |
| **Fluid Level/Fluid Type** | water | water | | |

| **BOREHOLE RECORD** | | | | **CASING RECORD** | | | |
|---|---|---|---|---|---|---|---|
| **RUN No.** | **BIT** | **FROM** | **TO** | **SIZE** | **WGT.** | **FROM** | **TO** |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

**NA - Not Available, N/A - Not Applicable**

**COMMENTS**


3-Arm Caliper
0
inch
50
Depth
1ft:240ft
200
210
220
230
240
250
260
270
280
290
300
310
320
330


340
350
360
370
380
390
400
410
420
430
440
450
0
inch
50
3-Arm Caliper
1ft:240ft
Depth

# Appendix G Video Log Well No. 1

# Video Log

Completed Well

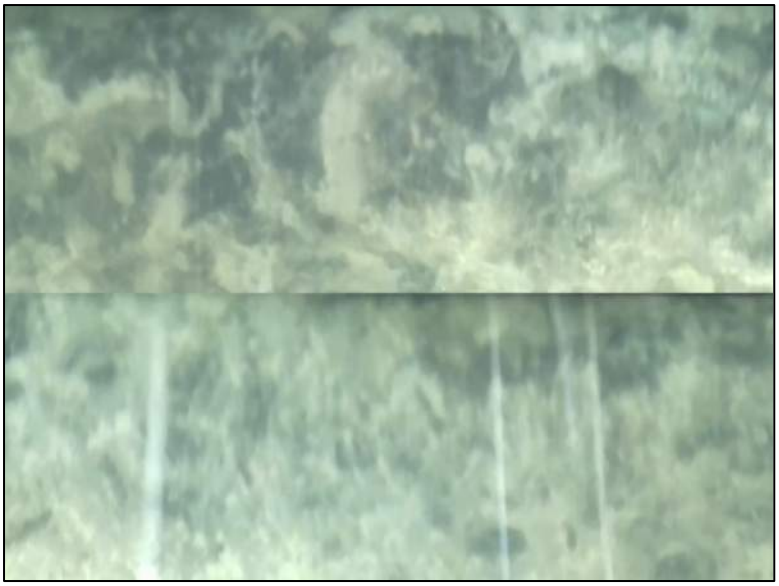
## Valdosta WTP No. 2
## Production Well No. 1

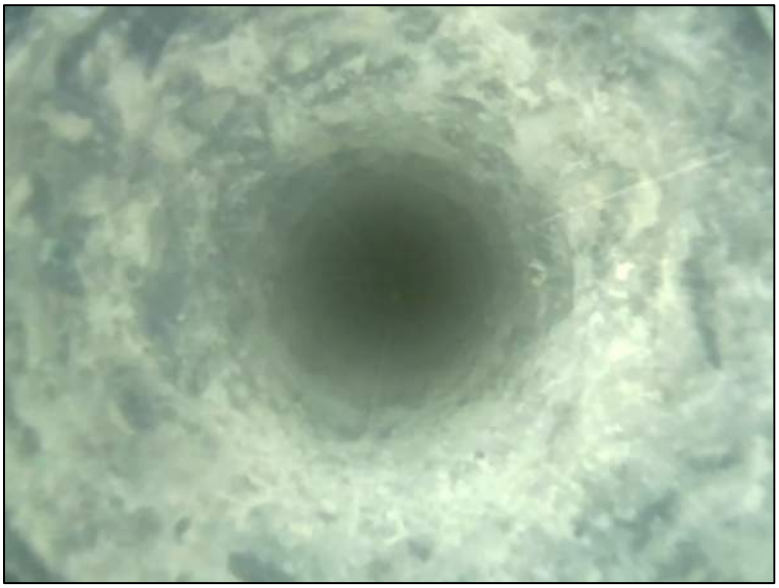
CDM Smith



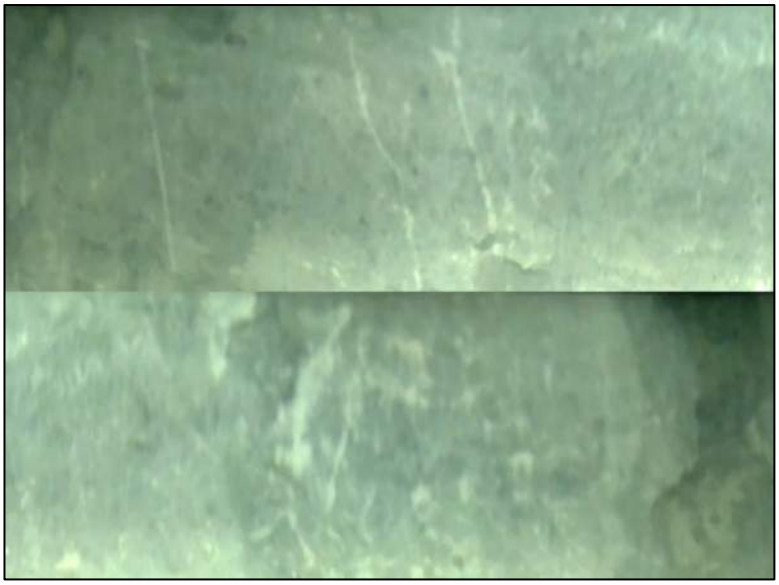


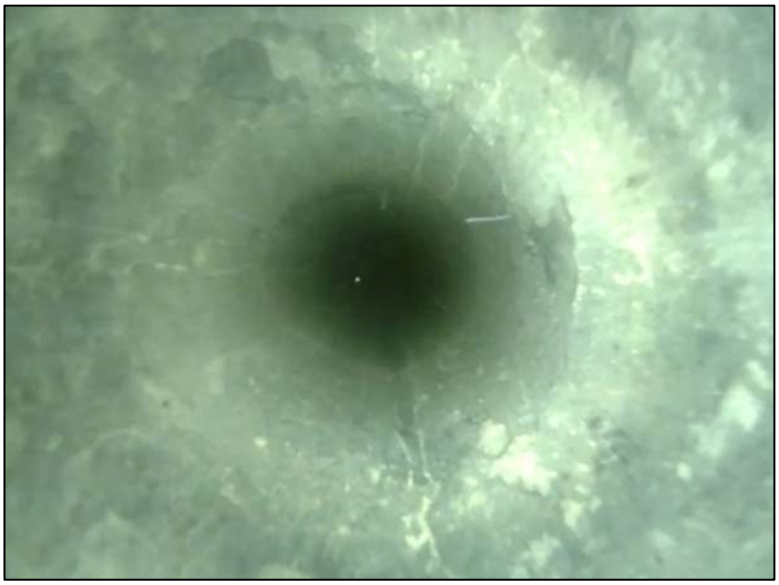
218 feet bls: Bottom of casing





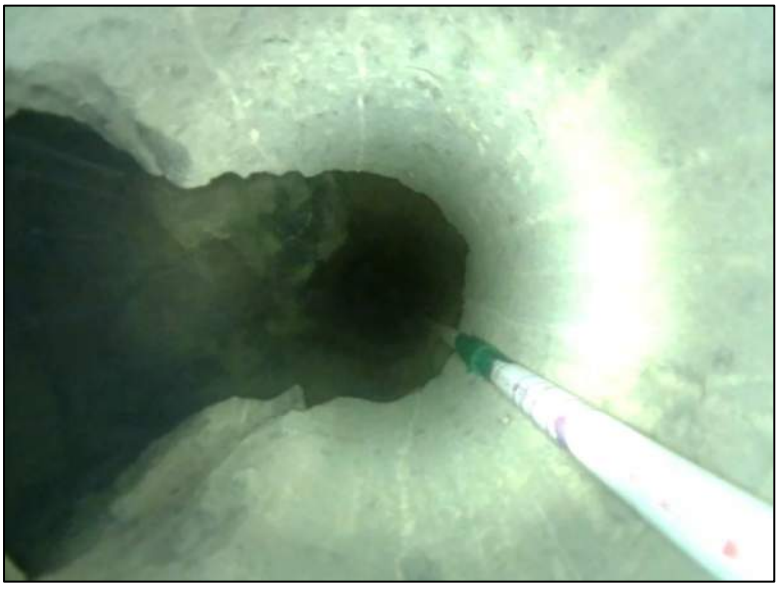
250 feet bls: Close to 15-inch bit diameter limestone borehole



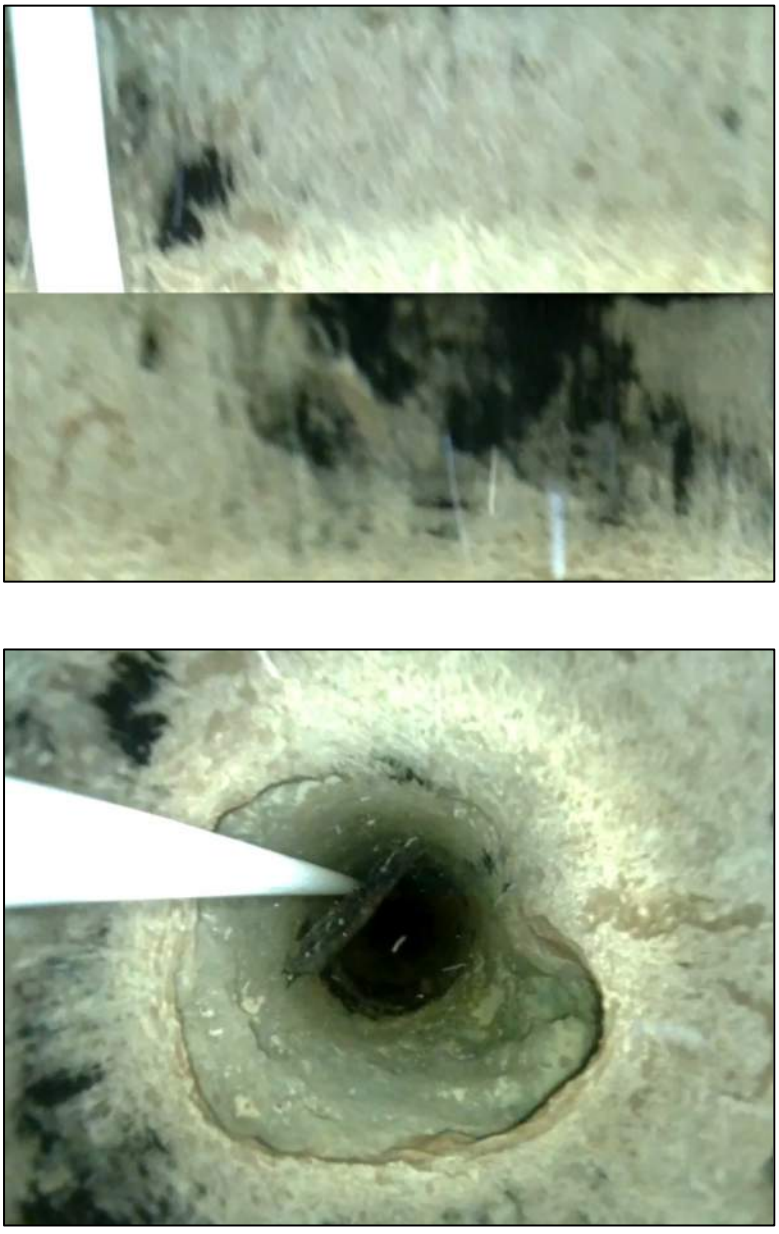


300 feet bls: Limestone





348 feet bls: A large cavern opens within limestone. Fallen stilling well from step drawdown testing visible. Stilling well removed on 1/25/2025



400 feet bls: Irregular borehole in dolostone. Stilling well and debris visible





452 feet bls: bottom of well

# Appendix G Video Log Well No. 2

# Video Log

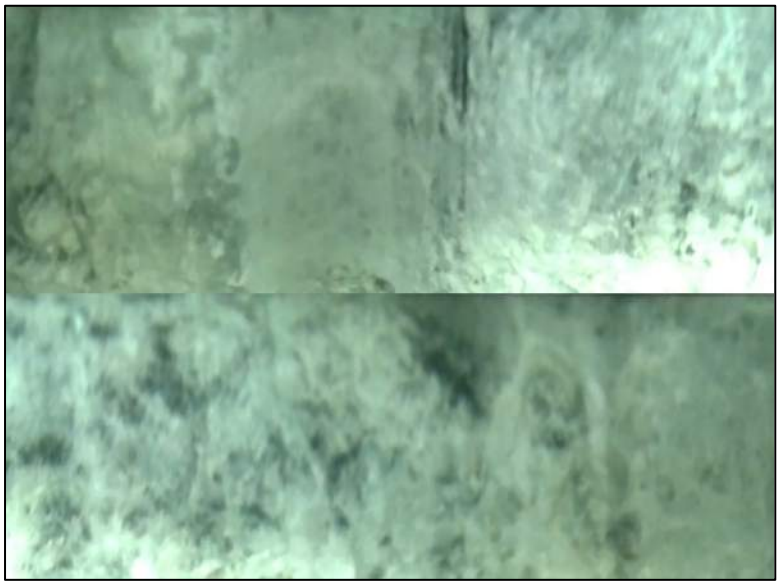
Completed Well

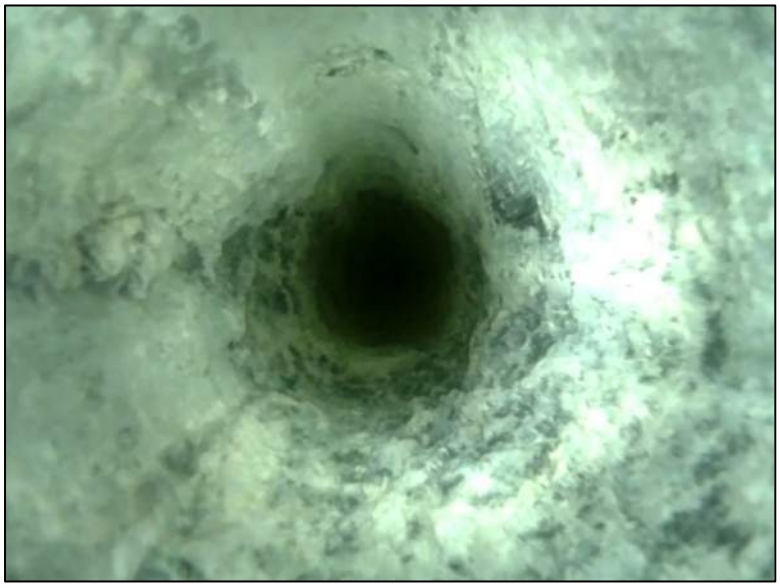
## Valdosta WTP No. 2
## Production Well No. 2

CDM Smith



224 feet bls: Bottom of the 17.4-inch OD PVC casing





250 feet bls: Close to 15-inch bit diameter limestone borehole





350 feet bls: Fracture and possible cavern in limestone



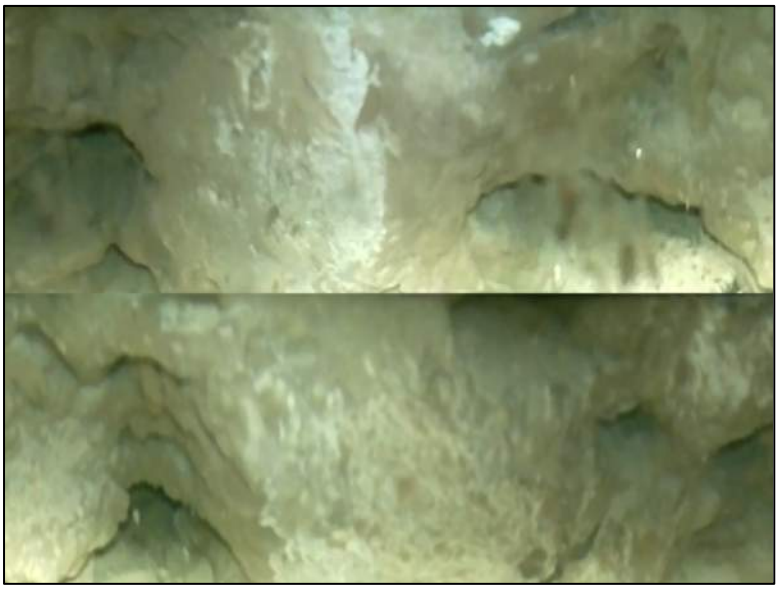


355 feet bls: Large cavern in dolomitic limestone





400 feet bls: Close to 15-inch diameter bit in dolostone

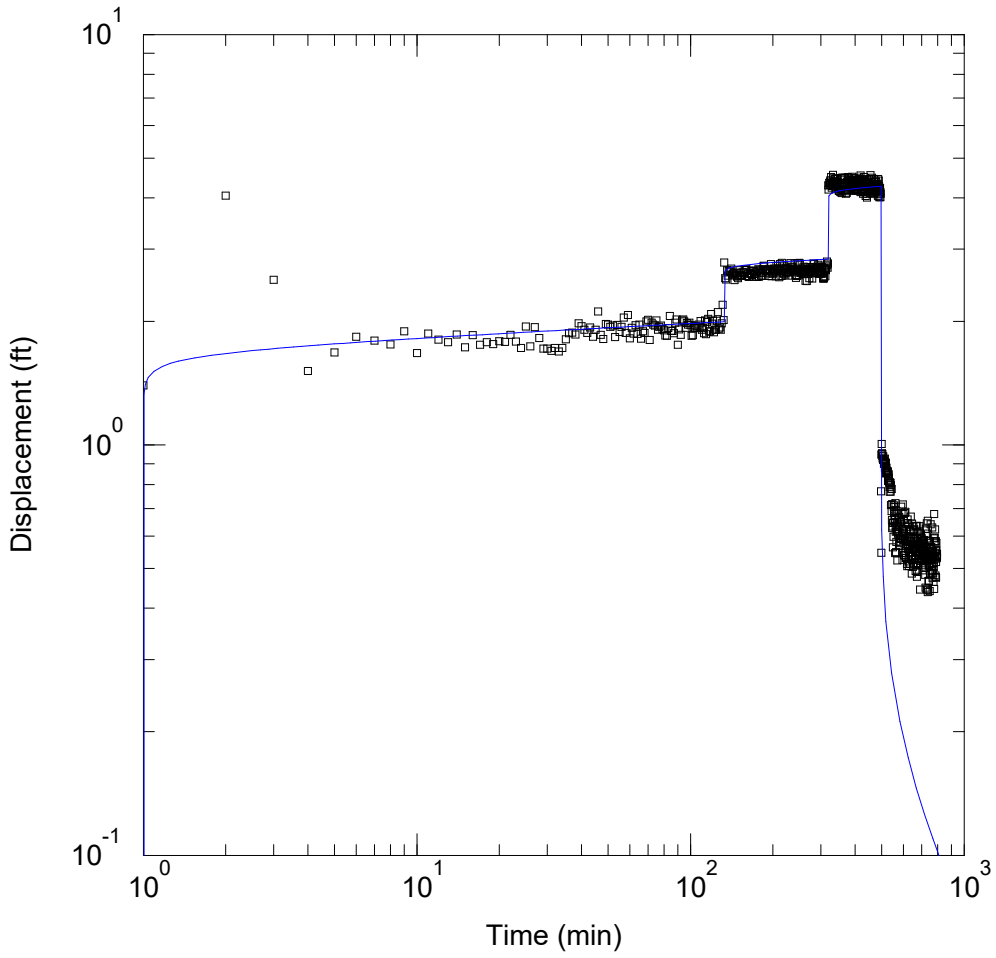




453 feet bls: Bottom of well

# Appendix H Step Drawdown Test Aquifer Analysis

CDM Smith




## WELL TEST ANALYSIS

### PROJECT INFORMATION

Company: CDM Smith
Client: City of Valdosta
Project: 289282
Location: WTP 2
Test Well: Well 1
Test Date: 12/17/24

### AQUIFER DATA

Saturated Thickness: 232. ft

Anisotropy Ratio (Kz/Kr): 1.

### WELL DATA

Pumping Wells

| Well Name | X (ft) | Y (ft) |
|---|---|---|
| Well 1 | 0 | 0 |

Observation Wells

| Well Name | X (ft) | Y (ft) |
|---|---|---|
| ▫ Well 1 | 0 | 0 |

### SOLUTION

Aquifer Model: Confined

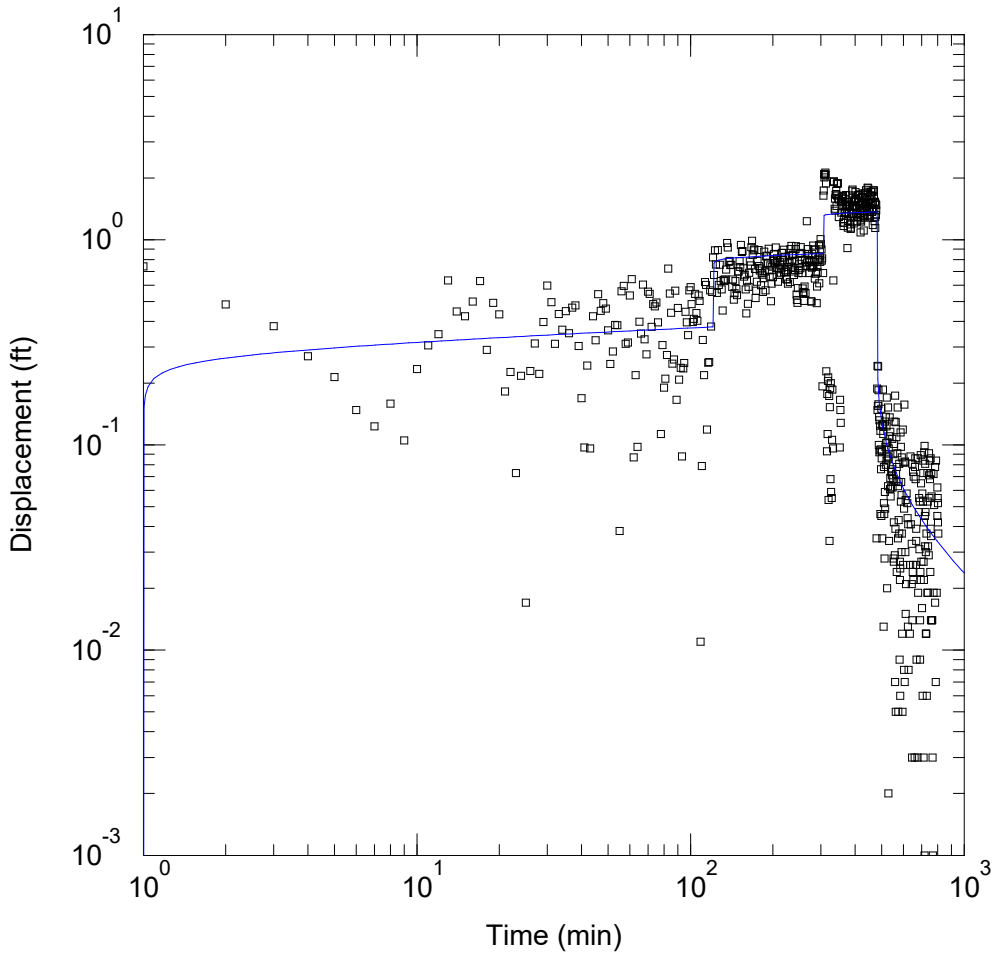
Solution Method: Theis (Step Test)

T = 1.878E+6 gal/day/ft
Sw = 0.
P = 2.147

S = 2.427E-8
C = 2.342E-6 $min^2/ft^5$

Step Test Model: Jacob-Rorabaugh
Time (t) = 1. min Rate (Q) in cu. ft/min

$s(t) = -0.001539Q + 2.342E\text{-}6Q^{2.147}$
W.E. = -1.#IO% (Q from last step)




## WELL TEST ANALYSIS

### PROJECT INFORMATION

Company: CDM Smith
Client: City of Valdosta
Project: 289282
Location: WTP 2
Test Well: Well 2
Test Date: 1/3/2025

### AQUIFER DATA

Saturated Thickness: 226. ft

Anisotropy Ratio (Kz/Kr): 1.

### WELL DATA

Pumping Wells

| Well Name | X (ft) | Y (ft) |
|---|---|---|
| Well 2 | 0 | 0 |

Observation Wells

| Well Name | X (ft) | Y (ft) |
|---|---|---|
| Well 2 | 0 | 0 |

### SOLUTION

Aquifer Model: Confined

Solution Method: Theis (Step Test)

T = 5.161E+6 gal/day/ft
Sw = 0.
P = 3.

S = 3.623
C = 4.93E-8 $min^2/ft^5$

Step Test Model: Jacob-Rorabaugh
Time (t) = 1. min Rate (Q) in cu. ft/min

$s(t) = -0.003329Q + 4.93E\text{-}8Q^{3.}$
W.E. = -1.#IO% (Q from last step)

# Appendix H Laboratory Analysis Reports Well No. 1

# Laboratory Analysis

Step Drawdown Test

## Valdosta WTP No. 2
## Production Well No. 1

CDM Smith

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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403699)

January 23, 2025

Sammy Caldwell
Rowe Drilling
7584 W Tennessee St
Tallahassee, FL 32304

RE: Workorder: S2403699 WATER TREATMENT PLANT

Dear Sammy Caldwell:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday December 17, 2024. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

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

Sincerely,

Tim Preston
TPreston@AELLab.com



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**Workorder:** WATER TREATMENT PLANT (S2403699)

## Sample Summary

| Lab ID | Sample ID | Matrix | Method | Date Collected | Date Received | Analytes Reported | Basis |
|---|---|---|---|---|---|---|---|
| S2403699001 | STEP 1 WELL #1 WTP2 VALDOSTA | DW | EPA 300.0 | 12/17/2024 08:10 | 12/17/2024 16:17 | 3 | NA |
| S2403699001 | STEP 1 WELL #1 WTP2 VALDOSTA | DW | SM 2510 B | 12/17/2024 08:10 | 12/17/2024 16:17 | 1 | NA |
| S2403699001 | STEP 1 WELL #1 WTP2 VALDOSTA | DW | SM 2540 C | 12/17/2024 08:10 | 12/17/2024 16:17 | 1 | NA |
| S2403699001 | STEP 1 WELL #1 WTP2 VALDOSTA | DW | SM 4500H+B | 12/17/2024 08:10 | 12/17/2024 16:17 | 1 | NA |



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403699)

## Workorder Summary

### Task Comments

**S2403699001 (STEP 1 WELL #1 WTP2 VALDOSTA) - WCAs/5255 - .PH,SM4500H+B, Drinking Water**

Q|Missed Hold Time



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403699)

## Analytical Results Qualifiers

### Parameter Qualifiers

| | |
|---|---|
| U | The compound was analyzed for but not detected. |
| I | The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit. |
| Q | Missed Hold Time |

### Lab Qualifiers

| | |
|---|---|
| S | DOH Certification #E811095 (FL NELAC) AEL-Tallahassee |
| T | DOH Certification #E84589 (FL NELAC) AEL-Tampa |



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403699)

## Analytical Results

**Lab ID:** S2403699001 **Date Collected:** 12/17/2024 08:10 **Matrix:** Drinking Water
**Sample ID:** STEP 1 WELL #1 WTP2 VALDOSTA **Date Received:** 12/17/2024 16:17

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| **WET CHEMISTRY (EPA 300.0)** | | | | | | | | |
| Chloride | **3.9 I** | mg/L | 5.0 | 2.0 | 1 | 12/19/2024 20:51 | 12/19/2024 20:51 | S |
| | | | | | | | | |
| Sulfate | **100** | mg/L | 5.0 | 2.0 | 1 | 12/19/2024 20:51 | 12/19/2024 20:51 | S |
| **WET CHEMISTRY (SM 2510 B)** | | | | | | | | |
| Conductivity | **420** | umhos/cm @ 25.0°C | 2.0 | 2.0 | 1 | 12/23/2024 11:45 | 12/23/2024 11:45 | T |
| **WET CHEMISTRY (SM 2540 C)** | | | | | | | | |
| Total Dissolved Solids | **310** | mg/L | 10 | 10 | 1 | 12/19/2024 18:49 | 12/19/2024 18:49 | S |
| **WET CHEMISTRY (SM 4500H+B)** | | | | | | | | |
| pH | **7.78** | SU | | | 1 | 12/18/2024 15:00 | 12/18/2024 15:00 | S |

### Analysis Results Comments

**pH**

Q|Missed Hold Time



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403699)

## QC Results

**QC Batch:** WCAs/5255
**Preparation Method:** SM 4500H+B
**Associated Lab IDs:** S2403699001
**Analysis Method:** SM 4500H+B

**Sample Duplicate (5623571); Original (S2403699001); Parent Lab Sample (S2403699001)**

| Parameter | Original | Duplicate | Units | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|
| pH | 7.78 | 7.78 | SU | 0 | 10 | S |



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403699)

## QC Results

**QC Batch:** WCAs/5259
**Preparation Method:** SM 2540 C
**Associated Lab IDs:** S2403699001
**Analysis Method:** SM 2540 C

**Method Blank(5626214)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| Total Dissolved Solids | 10 U | mg/L | 10 | 10 | S |

**Lab Control Sample (5626215)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Total Dissolved Solids | mg/L | 330 | 310 | 94 | 85 - 115 | S |

**Sample Duplicate (5626216); Original (S2403699001); Parent Lab Sample (S2403699001)**

| Parameter | Original | Duplicate | Units | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|
| Total Dissolved Solids | 314 | 344 | mg/L | 9 | 10 | S |



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403699)

## QC Results

**QC Batch:** WCAs/5355
**Preparation Method:** EPA 300.0
**Associated Lab IDs:** S2403699001
**Analysis Method:** EPA 300.0

**Method Blank(5664402)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| Fluoride | 0.20 U | mg/L | 0.50 | 0.20 | S |
| Chloride | 2.0 U | mg/L | 5.0 | 2.0 | S |
| Sulfate | 2.0 U | mg/L | 5.0 | 2.0 | S |

**Lab Control Sample (5664403)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| **Fluoride** | mg/L | 2 | 0 | **0** | 90 - 110 | S |
| Chloride | mg/L | 20 | 19 | 96 | 90 - 110 | S |
| Sulfate | mg/L | 20 | 22 | 110 | 90 - 110 | S |

### QC Result Comments

**Lab Control Sample - 5664403 - Fluoride**

J3|Lab QC Failure



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403699)

## QC Results

**QC Batch:** WCAt/35777
**Preparation Method:** SM 2510 B
**Associated Lab IDs:** S2403699001
**Analysis Method:** SM 2510 B

**Method Blank(5629188)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| Conductivity | 2.0 U | umhos/cm @ 25.0°C | 2.0 | 2.0 | T |

**Lab Control Sample (5629189)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Conductivity | umhos/c | 700 | 730 | 104 | 85 - 115 | T |

**Sample Duplicate (5629190); Original (S2403699001); Parent Lab Sample (S2403699001)**

| Parameter | Original | Duplicate | Units | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|
| Conductivity | 415.8 | 414.8 | umhos/cm | 0 | 10 | T |



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403699)

## QC Cross Reference

| Lab ID | Sample ID | Prep Batch | Prep Method |
|---|---|---|---|
| **WCAs/5255 - SM 4500H+B** | | | |
| S2403699001 | STEP 1 WELL #1 WTP2 VALDOSTA | | |
| **WCAs/5259 - SM 2540 C** | | | |
| S2403699001 | STEP 1 WELL #1 WTP2 VALDOSTA | | |
| **WCAs/5355 - EPA 300.0** | | | |
| S2403699001 | STEP 1 WELL #1 WTP2 VALDOSTA | | |
| **WCAt/35777 - SM 2510 B** | | | |
| S2403699001 | STEP 1 WELL #1 WTP2 VALDOSTA | | |



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☐ **Fort Myers:** 13100 Westlinks Terrace, Ste. 10, FL 33913 • 239.674.8130 • Lab ID: E84492
☐ **Jacksonville:** 6681 Southpoint Pkwy., FL 32216 • 904.363.9350 • Lab ID: E82574
☑ **Tallahassee:** 2639 North Monroe St., Suite D, FL 32303 • 850.219.6274 • Lab ID: E811095
☐ **Gainesville:** 4965 SW 41st Blvd., FL 32608 • 352.377.2349 • Lab ID: E82001
☐ **Miramar:** 10200 USA Today Way, FL 33025 • 954.889.2288 • Lab ID: E82535
☐ **Tampa:** 9610 Princess Palm Ave., FL 33619 • 813.630.9616 • Lab ID: E84589

Page ____ of ____

| | |
|---|---|
| Client Name: Rowe Drilling | Project Name: Water Treatment Plant |
| Address: 7584 W. Tennessee St | Project Number: R-0327 |
| Tallahassee, FL 32304 | PO Number: |
| Phone: 850-576-1271 | FDEP Facility No: |
| FAX: | FDEP Facility Addr: |
| Contact: Juan Cepeda | |
| Sampled By: Sammy Caldwell | Special Instructions: |
| Turn Around Time: Standard (Rush) | |
| AEL Profile #: | ADaPT. EQuIS Other |

| SAMPLE ID | SAMPLE DESCRIPTION | Grab Comp | SAMPLING DATE | SAMPLING TIME | MATRIX | NO. COUNT | BOTTLE SIZE & TYPE | 300.0 - Cl, SO4 | TDS | pH | Specific Conductance | ~~Sulfide~~ | | | | | | LABORATORY I.D. NUMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ANALYSIS REQUIRED | | | | | | | | | | | | | | | | | |
| | Preservation | | | | | | | none | none | none | none | ZnAC | | | | | | |
| | Field-Filtered? | | | | | | | | | | | | | | | | | |
| Step 1 | Well #1 WTP2 Valdosta | X | 12/17/24 | 9:10am | GW | | | X | X | X | X | | | | | | | 001 |

*S2403699*

Matrix Code: **WW** = wastewater **SW** = surface water **GW** = ground water **DW** = drinking water **O** = oil **A** = air **SO** = soil **SL** = sludge

**Preservation Code:** I = ice H=(HCl) S = ($H_2SO_4$) N = ($HNO_3$) T = (Sodium Thiosulfate)

Received on Ice ☑ Yes ☐ No ☑ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked

Temp. when received (observed) 3.3 °C Temp. when received (corrected) 3.3 °C

DCN: AD-D051web Form last revised 08/07/2019

Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A (S: 1V) F: 1A

| | Relinquished by: | Date | Time | Received by: | Date | Time |
|---|---|---|---|---|---|---|
| 1 | Sammy Caldwell | 12/17 | 4:17 | | 12/17/24 | 16:17 |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |

**FOR DRINKING WATER USE:**

(When PWS Information not otherwise supplied) PWS ID:

Contact Person:

Supplier of Water:

Site-Address:

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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403700)

January 23, 2025

Sammy Caldwell
Rowe Drilling
7584 W Tennessee St
Tallahassee, FL 32304

RE: Workorder: S2403700 WATER TREATMENT PLANT

Dear Sammy Caldwell:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday December 17, 2024. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

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

Sincerely,

Tim Preston
TPreston@AELLab.com



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403700)

## Sample Summary

| Lab ID | Sample ID | Matrix | Method | Date Collected | Date Received | Analytes Reported | Basis |
|---|---|---|---|---|---|---|---|
| S2403700001 | STEP 2 WELL #1 WTP2 VALDOSTA | DW | EPA 300.0 | 12/17/2024 11:10 | 12/17/2024 16:17 | 3 | NA |
| S2403700001 | STEP 2 WELL #1 WTP2 VALDOSTA | DW | SM 2510 B | 12/17/2024 11:10 | 12/17/2024 16:17 | 1 | NA |
| S2403700001 | STEP 2 WELL #1 WTP2 VALDOSTA | DW | SM 2540 C | 12/17/2024 11:10 | 12/17/2024 16:17 | 1 | NA |
| S2403700001 | STEP 2 WELL #1 WTP2 VALDOSTA | DW | SM 4500-S D | 12/17/2024 11:10 | 12/17/2024 16:17 | 2 | NA |
| S2403700001 | STEP 2 WELL #1 WTP2 VALDOSTA | DW | SM 4500H+B | 12/17/2024 11:10 | 12/17/2024 16:17 | 1 | NA |



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403700)

## Workorder Summary

### Task Comments

**S2403700001 (STEP 2 WELL #1 WTP2 VALDOSTA) - WCAs/5255 - .PH,SM4500H+B, Drinking Water**

Q|Missed Hold Time



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403700)

## Analytical Results Qualifiers

### Parameter Qualifiers

| | |
|---|---|
| U | The compound was analyzed for but not detected. |
| I | The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit. |
| Q | Missed Hold Time |

### Lab Qualifiers

| | |
|---|---|
| S | DOH Certification #E811095 (FL NELAC) AEL-Tallahassee |
| T | DOH Certification #E84589 (FL NELAC) AEL-Tampa |



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403700)

## Analytical Results

**Lab ID:** S2403700001 **Date Collected:** 12/17/2024 11:10 **Matrix:** Drinking Water
**Sample ID:** STEP 2 WELL #1 WTP2 VALDOSTA **Date Received:** 12/17/2024 16:17

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| **WET CHEMISTRY (EPA 300.0)** | | | | | | | | |
| Chloride | **4.0 I** | mg/L | 5.0 | 2.0 | 1 | 12/19/2024 20:24 | 12/19/2024 20:24 | S |
| | | | | | | | | |
| Sulfate | **82** | mg/L | 5.0 | 2.0 | 1 | 12/19/2024 20:24 | 12/19/2024 20:24 | S |
| **WET CHEMISTRY (SM 2510 B)** | | | | | | | | |
| Conductivity | **380** | umhos/cm @ 25.0°C | 2.0 | 2.0 | 1 | 12/23/2024 11:45 | 12/23/2024 11:45 | T |
| **WET CHEMISTRY (SM 2540 C)** | | | | | | | | |
| Total Dissolved Solids | **330** | mg/L | 10 | 10 | 1 | 12/19/2024 18:49 | 12/19/2024 18:49 | S |
| **WET CHEMISTRY (SM 4500-S D)** | | | | | | | | |
| Hydrogen Sulfide | **49 I** | ug/L | 53 | 14 | 1 | 12/20/2024 13:20 | 12/20/2024 13:20 | T |
| Sulfide | **46 I** | ug/L | 50 | 13 | 1 | 12/20/2024 13:20 | 12/20/2024 13:20 | T |
| **WET CHEMISTRY (SM 4500H+B)** | | | | | | | | |
| pH | **7.92** | SU | | | 1 | 12/18/2024 15:00 | 12/18/2024 15:00 | S |

### Analysis Results Comments

**pH**

Q|Missed Hold Time



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403700)

## QC Results

**QC Batch:** WCAs/5255
**Preparation Method:** SM 4500H+B
**Associated Lab IDs:** S2403700001
**Analysis Method:** SM 4500H+B

**Sample Duplicate (5623571); Original (S2403699001); Parent Lab Sample (S2403700001)**

| Parameter | Original | Duplicate | Units | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|
| pH | 7.78 | 7.78 | SU | 0 | 10 | S |



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403700)

## QC Results

**QC Batch:** WCAs/5259
**Preparation Method:** SM 2540 C
**Associated Lab IDs:** S2403700001
**Analysis Method:** SM 2540 C

**Method Blank(5626214)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| Total Dissolved Solids | 10 U | mg/L | 10 | 10 | S |

**Lab Control Sample (5626215)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Total Dissolved Solids | mg/L | 330 | 310 | 94 | 85 - 115 | S |

**Sample Duplicate (5626216); Original (S2403699001); Parent Lab Sample (S2403700001)**

| Parameter | Original | Duplicate | Units | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|
| Total Dissolved Solids | 314 | 344 | mg/L | 9 | 10 | S |



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403700)

## QC Results

**QC Batch:** WCAs/5353
**Preparation Method:** EPA 300.0
**Associated Lab IDs:** S2403700001
**Analysis Method:** EPA 300.0

**Method Blank(5664037)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| Fluoride | 0.20 U | mg/L | 0.50 | 0.20 | S |
| Chloride | 2.0 U | mg/L | 5.0 | 2.0 | S |
| Sulfate | 2.0 U | mg/L | 5.0 | 2.0 | S |

**Lab Control Sample (5664038)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Fluoride | mg/L | 2 | 2.2 | 110 | 90 - 110 | S |
| Chloride | mg/L | 20 | 18 | 92 | 90 - 110 | S |
| Sulfate | mg/L | 20 | 22 | 110 | 90 - 110 | S |



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403700)

## QC Results

**QC Batch:** WCAt/35777
**Preparation Method:** SM 2510 B
**Associated Lab IDs:** S2403700001
**Analysis Method:** SM 2510 B

**Method Blank(5629188)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| Conductivity | 2.0 U | umhos/cm @ 25.0°C | 2.0 | 2.0 | T |

**Lab Control Sample (5629189)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Conductivity | umhos/c | 700 | 730 | 104 | 85 - 115 | T |

**Sample Duplicate (5629190); Original (S2403699001); Parent Lab Sample (S2403700001)**

| Parameter | Original | Duplicate | Units | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|
| Conductivity | 415.8 | 414.8 | umhos/cm | 0 | 10 | T |



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403700)

## QC Results

**QC Batch:** WCAt/35781
**Preparation Method:** SM 4500-S D
**Associated Lab IDs:** S2403700001
**Analysis Method:** SM 4500-S D

**Method Blank(5629634)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| Sulfide | 13 U | ug/L | 50 | 13 | T |

**Lab Control Sample (5629636)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Sulfide | ug/L | 400 | 370 | 93 | 90 - 110 | T |

**Matrix Spike (5629637); Matrix Spike Duplicate (5629638); Original (J2418686001); Parent Lab Sample (J2418686001)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Sulfide | ug/L | 400 | 390 | 93 | 90 - 110 | 390 | 93 | 0 | 10 | T |

**Matrix Spike (5629641); Matrix Spike Duplicate (5629642); Original (L2401828001); Parent Lab Sample (L2401828001)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Dup Result | Dup Recovery | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|---|---|---|---|
| Sulfide | ug/L | 400 | 380 | 92 | 90 - 110 | 380 | 91 | 1 | 10 | T |



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403700)

## QC Cross Reference

| Lab ID | Sample ID | Prep Batch | Prep Method |
|---|---|---|---|
| **WCAs/5255 - SM 4500H+B** | | | |
| S2403700001 | STEP 2 WELL #1 WTP2 VALDOSTA | | |
| **WCAs/5259 - SM 2540 C** | | | |
| S2403700001 | STEP 2 WELL #1 WTP2 VALDOSTA | | |
| **WCAs/5353 - EPA 300.0** | | | |
| S2403700001 | STEP 2 WELL #1 WTP2 VALDOSTA | | |
| **WCAt/35777 - SM 2510 B** | | | |
| S2403700001 | STEP 2 WELL #1 WTP2 VALDOSTA | | |
| **WCAt/35781 - SM 4500-S D** | | | |
| S2403700001 | STEP 2 WELL #1 WTP2 VALDOSTA | | |



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☐ **Jacksonville:** 6681 Southpoint Pkwy., FL 32216 • 904.363.9350 • Lab ID: E82574
☑ **Tallahassee:** 2639 North Monroe St., Suite D, FL 32303 • 850.219.6274 • Lab ID: E811095
☐ **Gainesville:** 4965 SW 41st Blvd., FL 32608 • 352.377.2349 • Lab ID: E82001
☐ **Miramar:** 10200 USA Today Way, FL 33025 • 954.889.2288 • Lab ID: E82535
☐ **Tampa:** 9610 Princess Palm Ave., FL 33619 • 813.630.9616 • Lab ID: E84589



| | |
|---|---|
| Client Name: | Rowe Drilling |
| Address: | 7584 W. Tennessee St |
| | Tallahassee, FL 32304 |
| Phone: | 850-576-1271 |
| FAX: | |
| Contact: | Juan Cepeda |
| Sampled By: | Sammy Caldwell |
| Turn Around Time: | Standard (Rush) |
| AEL Profile #: | |

| | |
|---|---|
| Project Name: | Water Treatment Plant |
| Project Number: | R-0327 |
| PO Number: | |
| FDEP Facility No: | |
| FDEP Facility Addr: | |
| Special Instructions: | |
| ADaPT | EQuIS Other |

| SAMPLE ID | SAMPLE DESCRIPTION | Grab Comp | SAMPLING DATE | SAMPLING TIME | MATRIX | NO. COUNT | BOTTLE SIZE & TYPE | ANALYSIS REQUIRED: 300.0 - Cl, SO4 | TDS | pH | Specific Conductance | ~~Sulfide~~ Sulfide | LABORATORY I.D. NUMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Preservation | | | | | | | none | none | none | none | ZnAC | |
| | Field-Filtered? | | | | | | | | | | | | |
| Step 2 | Well #1 WTP2 Valdosta | X | 12/11/24 | 11:10 AM | GW | | | X | X | X | X | X | 001 |

* S 2 4 0 3 7 0 0 *

**Matrix Code:** **WW** = wastewater **SW** = surface water **GW** = ground water **DW** = drinking water **O** = oil **A** = air **SO** = soil **SL** = sludge

**Preservation Code:** I = ice H=(HCl) S = ($H_2SO_4$) N = ($HNO_3$) T = (Sodium Thiosulfate)

Received on Ice ☑ Yes ☐ No ☑ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked

Temp. when received (observed) 3.3 °C Temp. when received (corrected) 3.3 °C

DCN: AD-D051web Form last revised 08/07/2019

Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A (S: 1V) F: 1A

| | Relinquished by: | Date | Time | Received by: | Date | Time |
|---|---|---|---|---|---|---|
| 1 | [signature] | 12/11 | 4:17 | [signature] | 12/11/24 | 16:17 |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |

**FOR DRINKING WATER USE:**

(When PWS Information not otherwise supplied) PWS ID:

Contact Person:

Supplier of Water:

Site-Address:

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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403701)

January 23, 2025

Sammy Caldwell
Rowe Drilling
7584 W Tennessee St
Tallahassee, FL 32304

RE: Workorder: S2403701 WATER TREATMENT PLANT

Dear Sammy Caldwell:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday December 17, 2024. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

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

Sincerely,

Tim Preston
TPreston@AELLab.com



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403701)

## Sample Summary

| Lab ID | Sample ID | Matrix | Method | Date Collected | Date Received | Analytes Reported | Basis |
|---|---|---|---|---|---|---|---|
| S2403701001 | STEP 3 WELL #1 WTP2 VALDOSTA | DW | EPA 300.0 | 12/17/2024 14:10 | 12/17/2024 16:17 | 3 | NA |
| S2403701001 | STEP 3 WELL #1 WTP2 VALDOSTA | DW | SM 2510 B | 12/17/2024 14:10 | 12/17/2024 16:17 | 1 | NA |
| S2403701001 | STEP 3 WELL #1 WTP2 VALDOSTA | DW | SM 2540 C | 12/17/2024 14:10 | 12/17/2024 16:17 | 1 | NA |
| S2403701001 | STEP 3 WELL #1 WTP2 VALDOSTA | DW | SM 4500H+B | 12/17/2024 14:10 | 12/17/2024 16:17 | 1 | NA |



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403701)

## Workorder Summary

### Task Comments

**S2403701001 (STEP 3 WELL #1 WTP2 VALDOSTA) - WCAs/5255 - .PH,SM4500H+B, Drinking Water**

Q|Missed Hold Time



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403701)

## Analytical Results Qualifiers

### Parameter Qualifiers

| | |
|---|---|
| U | The compound was analyzed for but not detected. |
| I | The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit. |
| Q | Missed Hold Time |

### Lab Qualifiers

| | |
|---|---|
| S | DOH Certification #E811095 (FL NELAC) AEL-Tallahassee |
| T | DOH Certification #E84589 (FL NELAC) AEL-Tampa |



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403701)

## Analytical Results

**Lab ID:** S2403701001 **Date Collected:** 12/17/2024 14:10 **Matrix:** Drinking Water
**Sample ID:** STEP 3 WELL #1 WTP2 VALDOSTA **Date Received:** 12/17/2024 16:17

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| **WET CHEMISTRY (EPA 300.0)** | | | | | | | | |
| Chloride | **4.0 I** | mg/L | 5.0 | 2.0 | 1 | 12/19/2024 20:24 | 12/19/2024 20:24 | S |
| | | | | | | | | |
| Sulfate | **72** | mg/L | 5.0 | 2.0 | 1 | 12/19/2024 20:24 | 12/19/2024 20:24 | S |
| **WET CHEMISTRY (SM 2510 B)** | | | | | | | | |
| Conductivity | **350** | umhos/cm @ 25.0°C | 2.0 | 2.0 | 1 | 12/27/2024 09:00 | 12/27/2024 09:00 | T |
| **WET CHEMISTRY (SM 2540 C)** | | | | | | | | |
| Total Dissolved Solids | **280** | mg/L | 10 | 10 | 1 | 12/19/2024 18:49 | 12/19/2024 18:49 | S |
| **WET CHEMISTRY (SM 4500H+B)** | | | | | | | | |
| pH | **7.92** | SU | | | 1 | 12/18/2024 15:00 | 12/18/2024 15:00 | S |

### Analysis Results Comments

**pH**

Q|Missed Hold Time



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403701)

## QC Results

**QC Batch:** WCAs/5255
**Preparation Method:** SM 4500H+B
**Associated Lab IDs:** S2403701001
**Analysis Method:** SM 4500H+B

**Sample Duplicate (5623571); Original (S2403699001); Parent Lab Sample (S2403701001)**

| Parameter | Original | Duplicate | Units | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|
| pH | 7.78 | 7.78 | SU | 0 | 10 | S |



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403701)

## QC Results

**QC Batch:** WCAs/5259
**Preparation Method:** SM 2540 C
**Associated Lab IDs:** S2403701001
**Analysis Method:** SM 2540 C

**Method Blank(5626214)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| Total Dissolved Solids | 10 U | mg/L | 10 | 10 | S |

**Lab Control Sample (5626215)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Total Dissolved Solids | mg/L | 330 | 310 | 94 | 85 - 115 | S |

**Sample Duplicate (5626216); Original (S2403699001); Parent Lab Sample (S2403701001)**

| Parameter | Original | Duplicate | Units | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|
| Total Dissolved Solids | 314 | 344 | mg/L | 9 | 10 | S |



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403701)

## QC Results

**QC Batch:** WCAs/5355
**Preparation Method:** EPA 300.0
**Associated Lab IDs:** S2403701001
**Analysis Method:** EPA 300.0

**Method Blank(5664402)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| Fluoride | 0.20 U | mg/L | 0.50 | 0.20 | S |
| Chloride | 2.0 U | mg/L | 5.0 | 2.0 | S |
| Sulfate | 2.0 U | mg/L | 5.0 | 2.0 | S |

**Lab Control Sample (5664403)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| **Fluoride** | mg/L | 2 | 0 | **0** | 90 - 110 | S |
| Chloride | mg/L | 20 | 19 | 96 | 90 - 110 | S |
| Sulfate | mg/L | 20 | 22 | 110 | 90 - 110 | S |

### QC Result Comments

**Lab Control Sample - 5664403 - Fluoride**

J3|Lab QC Failure



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403701)

## QC Results

**QC Batch:** WCAt/35869
**Preparation Method:** SM 2510 B
**Associated Lab IDs:** S2403701001
**Analysis Method:** SM 2510 B

**Method Blank(5633434)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| Conductivity | 2.0 U | umhos/cm @ 25.0°C | 2.0 | 2.0 | T |

**Lab Control Sample (5633435)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Conductivity | umhos/c | 700 | 700 | 100 | 85 - 115 | T |

**Sample Duplicate (5633436); Original (S2403701001); Parent Lab Sample (S2403701001)**

| Parameter | Original | Duplicate | Units | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|
| Conductivity | 354.3 | 349.6 | umhos/cm | 1 | 10 | T |



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2403701)

## QC Cross Reference

| Lab ID | Sample ID | Prep Batch | Prep Method |
|---|---|---|---|
| **WCAs/5255 - SM 4500H+B** | | | |
| S2403701001 | STEP 3 WELL #1 WTP2 VALDOSTA | | |
| **WCAs/5259 - SM 2540 C** | | | |
| S2403701001 | STEP 3 WELL #1 WTP2 VALDOSTA | | |
| **WCAs/5355 - EPA 300.0** | | | |
| S2403701001 | STEP 3 WELL #1 WTP2 VALDOSTA | | |
| **WCAt/35869 - SM 2510 B** | | | |
| S2403701001 | STEP 3 WELL #1 WTP2 VALDOSTA | | |



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Page ____ of ____

| | | | |
|---|---|---|---|
| Client Name: | Rowe Drilling | Project Name: | Water Treatment Plant |
| Address: | 7584 W. Tennessee St | Project Number: | R-0327 |
| | Tallahassee, FL 32304 | PO Number: | |
| Phone: | 850-576-1271 | FDEP Facility No: | |
| FAX: | | FDEP Facility Addr: | |
| Contact: | Juan Cepeda | | |
| Sampled By: | Sammy Caldwell | Special Instructions: | |
| Turn Around Time: | Standard Rush | | |
| AEL Profile #: | | ADaPT EQuIS Other | |

| SAMPLE ID | SAMPLE DESCRIPTION | Grab Comp | SAMPLING DATE | SAMPLING TIME | MATRIX | NO. COUNT | BOTTLE SIZE & TYPE | ANALYSIS REQUIRED: 300.0 - Cl, SO4 | TDS | pH | Specific Conductance | ~~Sulfide~~ | LABORATORY I.D. NUMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Preservation | none | none | none | none | ZnAC | |
| | | | | | | | Field-Filtered? | | | | | | |
| Step 3 | Well #1 WTP2 Valdosta | X | 12/7/24 | 2:10 pm | GW | | | X | X | X | X | [redacted] | 001 |

*S2403701*

**Matrix Code:** WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge **Preservation Code:** I = ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Received on Ice ☑ Yes ☐ No ☑ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked Temp. when received (observed) 33 °C Temp. when received (corrected) 33 °C

DCN: AD-D051web Form last revised 08/07/2019 Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A (S: 1V) F: 1A

| | Relinquished by: | Date | Time | Received by: | Date | Time |
|---|---|---|---|---|---|---|
| 1 | Sammy Caldwell | 12/7 | 4:17 | | 12/9/24 | 16:17 |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |

**FOR DRINKING WATER USE:**
(When PWS Information not otherwise supplied) PWS ID:
Contact Person:
Supplier of Water:
Site-Address:

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**FINAL**

**Workorder:** Valdosta Well (S2500555)

March 04, 2025

Tom Salter
Rowe Drilling
7584 W Tennessee St
Tallahassee, FL 32304

RE: Workorder: S2500555 Valdosta Well

Dear Tom Salter:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday February 25, 2025. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

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

Sincerely,

Tim Preston
TPreston@AELLab.com



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**FINAL**

**Workorder:** Valdosta Well (S2500555)

## Sample Summary

| Lab ID | Sample ID | Matrix | Method | Date Collected | Date Received | Analytes Reported | Basis |
|---|---|---|---|---|---|---|---|
| S2500555001 | Well #1 | DW | SM 5910B | 02/24/2025 11:00 | 02/25/2025 13:13 | 1 | NA |
| S2500555001 | Well #1 | DW | SM 9223B | 02/24/2025 11:00 | 02/25/2025 13:13 | 4 | NA |



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**FINAL**

**Workorder:** Valdosta Well (S2500555)

## Workorder Summary

### Task Comments



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NELAP Accredited E811095

Advanced Environmental Laboratories, Inc.
2639 N Monroe St Suite D Tallahassee, FL 32303
Payments: P.O. Box 551580 Jacksonville, FL 32255-1580
Phone: (850) 219-6274
Fax: (850) 219-6275

**FINAL**

**Workorder:** Valdosta Well (S2500555)

## Analytical Results Qualifiers

### Parameter Qualifiers

| | |
|---|---|
| U | The compound was analyzed for but not detected. |
| I | The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit. |

### Lab Qualifiers

| | |
|---|---|
| S | DOH Certification #E811095 (FL NELAC) AEL-Tallahassee |
| T | DOH Certification #E84589 (FL NELAC) AEL-Tampa |



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Fax: (850) 219-6275

**FINAL**

**Workorder:** Valdosta Well (S2500555)

## Analytical Results

**Lab ID:** S2500555001 **Date Collected:** 02/24/2025 11:00 **Matrix:** Drinking Water
**Sample ID:** Well #1 **Date Received:** 02/25/2025 13:13

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| **Microbiology (SM 9223B)** | | | | | | | | |
| Coliform Total | Absent | | 1.0 | 1.0 | 1 | 02/24/2025 16:00 | 02/24/2025 16:00 | S |
| | | | | | | | | |
| E. Coli | Absent | | 1.0 | 1.0 | 1 | 02/24/2025 16:00 | 02/24/2025 16:00 | S |
| | | | | | | | | |
| **WET CHEMISTRY (SM 5910B)** | | | | | | | | |
| UV 254 | **0.15** | cm-1 | 0.0050 | 0.0050 | 1 | 02/26/2025 09:11 | 02/26/2025 09:11 | T |



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Fax: (850) 219-6275

**FINAL**

**Workorder:** Valdosta Well (S2500555)

## QC Results

**QC Batch:** MICs/2408
**Preparation Method:** SM 9223B
**Associated Lab IDs:** S2500555001
**Analysis Method:** SM 9223B

**Method Blank(5720092)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| **Coliform Total** | a | | 1.0 | 1.0 | S |
| E. Coli | a | | 1.0 | 1.0 | S |



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Fax: (850) 219-6275

**FINAL**

**Workorder:** Valdosta Well (S2500555)

## QC Results

**QC Batch:** MICs/2409
**Preparation Method:** SM 9223B
**Associated Lab IDs:** S2500555001

**Analysis Method:** SM 9223B

**Method Blank(5725989)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| **Coliform Total** | Absent | | 1.0 | 1.0 | S |
| E. Coli | Absent | | 1.0 | 1.0 | S |



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Fax: (850) 219-6275

**FINAL**

**Workorder:** Valdosta Well (S2500555)

## QC Results

**QC Batch:** WCAt/37589
**Preparation Method:** SM 5910B
**Associated Lab IDs:** S2500555001
**Analysis Method:** SM 5910B

**Method Blank(5717589)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| UV 254 | 0.0050 U | cm-1 | 0.0050 | 0.0050 | T |

**Sample Duplicate (5717590); Original (S2500556001); Parent Lab Sample (S2500555001)**

| Parameter | Original | Duplicate | Units | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|
| UV 254 | .1625 | 0.162 | cm-1 | 0 | 20 | T |



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Phone: (850) 219-6274
Fax: (850) 219-6275

**FINAL**

**Workorder:** Valdosta Well (S2500555)

## QC Cross Reference

| Lab ID | Sample ID | Prep Batch | Prep Method |
|---|---|---|---|
| **MICs/2408 - SM 9223B** | | | |
| S2500555001 | Well #1 | | |
| **MICs/2409 - SM 9223B** | | | |
| S2500555001 | Well #1 | | |
| **WCAt/37589 - SM 5910B** | | | |
| S2500555001 | Well #1 | | |



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Advanced Environmental Laboratories, Inc.

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☐ **Fort Myers:** 13100 Westlinks Terrace, Ste. 10 • Fort Myers, FL 33913 • 239.674.8130 • Fax 239.674.8128
☐ **Jacksonville:** 6681 Southpoint Pkwy. • Jacksonville, FL 32216 • 904.363.9350 • Fax 904.363.9354
☐ **Tallahassee:** 2639 North Monroe St., Suite D, Tallahassee, FL 32303 • 850.219.6274 • Fax 850.219.6275
☐ **Gainesville:** 4965 SW 41st Blvd. • Gainesville, FL 32608 • 352.377.2349 • Fax 352.395.6639
☐ **Miramar:** 10200 USA Today Way, Miramar, FL 33025 • 954.889.2288 • Fax 954.889.2281
☐ **Tampa:** 9610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9616 • Fax 813.630.4327



| | |
|---|---|
| Client Name: Rowe Drilling | Project Name: Valdosta Well |
| Address: 7584 W. Tennessee St | Project Number: |
| Tallahassee, FL 31304 | PO Number: |
| Phone: 850-576-1271 | FDEP Facility No: |
| FAX: | FDEP Facility Address: |
| Contact: Sammy Caldwell | |
| Sampled By: | Special Instructions: |
| Turn Around Time: ☐ STANDARD ☐ RUSH | |
| AEL Profile #: | ☐ ADaPT ☐ EQuIS ☐ Other |

| SAMPLE ID | SAMPLE DESCRIPTION | Grab Comp | SAMPLING DATE | SAMPLING TIME | MATRIX | NO. COUNT |
|---|---|---|---|---|---|---|
| 1 | Well #1 | | 2/24/2025 | ~~8:00~~ 11:20 | | |

| BOTTLE SIZE & TYPE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ANALYSIS REQUIRED | EPA 1613 - 2,3,7,8 - TCDD | Chlorine | Chlorine Dioxide | Totla Coliforms | UV254 | pH | 200.7 - Na, Mg, K, Ca, Fe HARDNESS | 300 - Cl, SO4 | Alkalinity/Cond | TDS | LABORATORY I.D. NUMBER |
| Preservation | None | None | None | Na Thi | None | | | | | | |
| Field-Filtered? | | | | | | | | | | | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |




**Matrix Code:** **WW** = wastewater **SW** = surface water **GW** = ground water **DW** = drinking water **O** = oil **A** = air **SO** = soil **SL** = sludge

**Preservation Code:** I = ice H=(HCl) S = ($H_2SO_4$) N = ($HNO_3$) T = (Sodium Thiosulfate)

Received on Ice ☐ Yes ☐ No ☐ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked Temp. when received (observed) 3.0 °C Temp. when received (corrected) _____ °C

DCN: AD-051 Form last revised 06/19/2017 Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

| | Relinquished by: | Date | Time | Received by: | Date | Time |
|---|---|---|---|---|---|---|
| 1 | | 2/24/25 | 11:20 | | 2/24/25 | 11:20 |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |

**FOR DRINKING WATER USE:**
(When PWS Information not otherwise supplied) PWS ID:_____
Contact Person:_____ Phone :_____
Supplier of Water:_____
Site-Address:_____

Laboratory ID: E87753

# National Testing Laboratories, Ltd

556 South Mansfield, Ypsilanti, MI, 48197-5166
(440) 449-2525, Fax: (440) 449-8585

## ANALYTICAL REPORTS

**SAMPLE CODE: 476669**

**3/4/2025**

**Customer:** Advanced Environmental Labs. Inc.
Mikelle Chong
10200 USA Today Way
Miramar, FL 33025

**Source:** Well #1, PO# S-PO-30300

**Date/Time Received:** 2/26/2025 10:25

**Collected by:** Client

The results herein conform to TNI and ISO/IEC 17025:2017 standards, where applicable. These results may be used for compliance purposes, as required, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Chlorine, Chloramine and Chlorine Dioxide hold time is immediate, therefore results should be considered an estimate.

| Fed Id # | Contaminant | Method | Standard | Units | LRL | Level Detected | DF | Date/Time Sampled | | Date Prepped | Date/Time Analyzed | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | **Inorganic Analytes - Other** | | | | | | | |
| 1006 | Chloramine as Cl2 | 4500Cl-G | 4.0 | mg/L | 0.05 | ND | 1 | 2/24/2025 | 11:30 | | 3/3/2025 | 16:46 |
| 1000 | Chlorine - Total | 4500Cl-G | -- | mg/L | 0.10 | ND | 1 | 2/24/2025 | 11:30 | | 3/3/2025 | 16:46 |
| 1012 | Chlorine as Cl2 | 4500Cl-G | 4.0 | mg/L | 0.05 | ND | 1 | 2/24/2025 | 11:30 | | 3/3/2025 | 16:43 |
| 1008 | Chlorine Dioxide as Cl02 | 4500Cl02D | 0.8 | mg/L | 0.1 | ND | 1 | 2/24/2025 | 11:30 | | 3/3/2025 | 16:43 |

| Analyst | Tests |
|---|---|
| DHG | 4500Cl-G,4500Cl02D |



Sarah Buchanan, Project Manager

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# Laboratory Analysis

## Primary and Secondary Drinking Water Standards

**Valdosta WTP No. 2**
**Production Well No. 1**

CDM Smith

# Florida Department of Environmental Protection
# Safe Drinking Water Program Laboratory Reporting Format

**PUBLIC WATER SYSTEM INFORMATION** (to be completed by sampler – please type or print legibly)

System Name: _____ PWS I.D. #: _____

System Type (check one): ☐ Community ☐ Nontransient Noncommunity ☐ Transient Noncommunity

Address: _____

City: _____ ZIP Code: _____

Phone #: _____ Fax #: _____ E-Mail Address: _____

**SAMPLE INFORMATION** (to be completed by sampler)

Sample Number: S2403270001 Sample Date: 11/07/2024 Sample Time: 10:30 AM PM (Circle One)

Sample Location (be specific): Well Location Code: _____

Disinfectant Residual (Required when reporting results for trihalomethanes and haloacetic acids _____ mg/L Field pH: _____

Sample Type (Check Only One)

- ☐ Distribution
- ☐ Entry Point (to Distribution)
- ☐ Plant Tap (not for compliance with 62-550
- ☐ Raw (at well or intake)
- ☐ Max Residence Time
- ☐ Ave Residence Time
- ☐ Near First Customer

Reason(s) for Sample (Check all that apply)

- ☐ Routine Compliance with 62-550
- ☐ Confirmation of MCL Exceedance*
- ☐ Composite of Multiple Sites*
- ☐ Other: _____
- ☐ Replacement (of Invalidated Sample)
- ☐ Special (not for compliance with 62-550)
- ☐ Clearance (permitting)

Sampling Procedure Used or Other Comments: _____

*See 62-550(6) for requirements and restrictions. And 62-550.512(3) for nitrate or nitrite exceedances.

*See 62-550.550(4) for requirements and attach a results page for each site.

**SAMPLER CERTIFICATION**

I _____ (Print Name) , _____ (Print Title) , do HEREBY CERTIFY that the above public water system and sample collection information is complete and correct.

Signature: _____ Date: _____

Certified Operator # _____ Phone # _____ Sampler's Fax #: _____

Sampler's E-mail: _____



*Results must be reported with appropraite qualifers in accordance with Florida Administration Code Rule 62-160, Table1. Results qualified with A, F, H, N, O, T, Z, ?, *, are unacceptable for compliance with 62-550. Results qualified with a J, Q, R, or Y must be accompanied by written justification and will be evaluated on a case by case basis. To avoid a monitoring violation, unacceptable results must be replaced with acceptable results from samples collected during the same monitoring period.

# Florida Department of Environmental Protection
# Safe Drinking Water Program Laboratory Reporting Format

**LABORATORY CERTIFICATION INFORMATION** (to be completed by lab – please type or print legibly)

Lab Name: Advanced Environmental Laboratories, Inc. Florida DOH Certification #: E811095 Certification Expiration Date: 06/30/2025

**ATTACH CURRENT DOH ANALYTE SHEET***

Address: 2639 N Monroe St Suite D, Tallahassee, FL 32303 Phone #: (850) 219-6274

Were any analyses subcontracted ☑ Yes ☐ No If yes, please provide DOH certification number(s): E84025,E84589,SUBc,E82535,E82001

**ATTACH DOH ANALYTE SHEET FOR EACH SUBCONTRACTED LAB**

**ANALYSIS INFORMATION** (to be completed by lab) Date Sample(s) Received: 11/07/2024

PWS ID: (From Page 1): _____ Sample Number (From Page 1): S2403270001 Lab Assigned Report # Or Job ID: S2403270

Group(s) Analyzed & Results attached for compliance with Chapter 62-550, F.A.C. (Check all that apply):

| Inorganics | Synthetic Organics | Volatile Organics | Disinfection Byproducts | Radionuclides | Secondaries |
|---|---|---|---|---|---|
| ☐ All except Asbestos | ☐ All 30 | ☑ All 21 | ☑ Trihalomethanes | ☐ Single Sample | ☑ All 14 |
| ☑ Partial | ☑ All Except Dioxin | ☐ Partial | ☑ Haloacetic Acids | ☐ Qtrly Composite* | ☐ Partial |
| ☐ Nitrate | ☑ Partial | | ☑ Chlorite | | |
| ☐ Nitrite | ☐ Dioxin Only | | ☑ Bromate | | |
| ☐ Asbestos | | | | | |

## LAB CERTIFICATION

I, Tim Preston (Print Name), Lab Manager (Print Title), do HEREBY CERTIFY that all attached analytical data are correct and unless noted meet all requirements of the National Environmental Laboratory Accreditation Conference (NELAC).

Signature: _____ Date: 12/17/2024

* Failure to provide a valid and current Florida DOH lab certification number and a current Analyte Sheet for the attached analysis results will result in rejection of the report, possible enforcement against the public water system for failure to sample, and may result in notification of the DOH Bureau of Laboratory Services.

** Please provide radiological sample dates & locations for each quarter.

**CONFIRMATION & NOTIFICATION IS REQUIRED WITHIN 24 HRS FOR NITRATE OR NITRITE MCL EXCEEDANCES**

**NON-DETECTS ARE TO BE REPORTED AS THE MDL WITH "U" QUALIFIER.** (Non-detects reported as "BDL" or with a "<" are not acceptable.)

**COMPLIANCE DETERMINATION** (to be completed by DEP or DOH -- attach notes as necessary)

Sample Collection & Analysis Satisfactory: ☐ Yes ☐ No _____ Replacement Sample or Report Requested (circle or highlight group(s) above)

Person Notified: _____ Date Notified: _____ DEP/DOH Reviewing Official: _____



*Results must be reported with appropraite qualifers in accordance with Florida Administration Code Rule 62-160, Table1. Results qualified with A, F, H, N, O, T, Z, ?, *, are unacceptable for compliance with 62-550. Results qualified with a J, Q, R, or Y must be accompanied by written justification and will be evaluated on a case by case basis. To avoid a monitoring violation, unacceptable results must be replaced with acceptable results from samples collected during the same monitoring period.

# Florida Department of Environmental Protection
# Safe Drinking Water Program Laboratory Reporting Format

## INORGANIC CONTAMINANTS
62-550.310(1)

Report Number / Job ID: S2403270001

PWS ID (From Page 1): _____

| Contam ID | Contam Name | MCL | Units | Analysis Result | Qualifier* | Analytical Method | Lab MDL | Analysis Date | Analysis Time | DOH Lab Certification # |
|---|---|---|---|---|---|---|---|---|---|---|
| 1005 | Arsenic | 0.01 | mg/L | 0.00034 | I | EPA 200.8 | 0.00025 | 11/26/2024 | 15:39 | E82574 |
| 1010 | Barium | 2 | mg/L | 0.031 | | EPA 200.7 | 0.0030 | 12/02/2024 | 13:35 | E82574 |
| 1015 | Cadmium | 0.005 | mg/L | 0.00025 | U | EPA 200.8 | 0.00025 | 11/26/2024 | 15:39 | E82574 |
| 1020 | Chromium | 0.1 | mg/L | 0.0022 | | EPA 200.8 | 0.00050 | 11/26/2024 | 15:39 | E82574 |
| 1024 | Cyanide | 0.2 | mg/L | 0.0040 | U | SM 4500-CN-E | 0.0040 | 11/17/2024 | 12:42 | E84589 |
| 1025 | Fluoride | 4 | mg/L | 0.20 | U | EPA 300.0 | 0.20 | 11/07/2024 | 18:07 | E811095 |
| 1030 | Lead | 0.015 | mg/L | 0.00050 | U | EPA 200.8 | 0.00050 | 11/26/2024 | 15:39 | E82574 |
| 1035 | Mercury | 0.002 | mg/L | 0.000011 | U | EPA 245.1 | 0.000011 | 11/21/2024 | 14:17 | E82574 |
| 1036 | Nickel | 0.1 | mg/L | 0.0012 | U | EPA 200.8 | 0.0012 | 11/26/2024 | 15:39 | E82574 |
| 1045 | Selenium | 0.05 | mg/L | 0.0012 | U | EPA 200.8 | 0.0012 | 11/26/2024 | 15:39 | E82574 |
| 1052 | Sodium | 160 | mg/L | 3.4 | | EPA 200.7 | 0.80 | 12/03/2024 | 20:01 | E82574 |
| 1074 | Antimony | 0.006 | mg/L | 0.0010 | U | EPA 200.8 | 0.0010 | 11/26/2024 | 15:39 | E82574 |
| 1075 | Beryllium | 0.004 | mg/L | 0.0020 | U | EPA 200.7 | 0.0020 | 12/02/2024 | 13:35 | E82574 |
| 1085 | Thallium | 0.002 | mg/L | 0.00025 | U | EPA 200.8 | 0.00025 | 11/26/2024 | 15:39 | E82574 |



*Results must be reported with appropraite qualifers in accordance with Florida Administration Code Rule 62-160, Table1. Results qualified with A, F, H, N, O, T, Z, ?, *, are unacceptable for compliance with 62-550. Results qualified with a J, Q, R, or Y must be accompanied by written justification and will be evaluated on a case by case basis. To avoid a monitoring violation, unacceptable results must be replaced with acceptable results from samples collected during the same monitoring period.

# Florida Department of Environmental Protection
# Safe Drinking Water Program Laboratory Reporting Format

## SECONDARY CONTAMINANTS
62-550.320

Report Number / Job ID: S2403270001

PWS ID (From Page 1):

| Contam ID | Contam Name | MCL | Units | Analysis Result | Qualifier* | Analytical Method | Lab MDL | Analysis Date | Analysis Time | DOH Lab Certification # |
|---|---|---|---|---|---|---|---|---|---|---|
| 1002 | Aluminum | 0.2 | mg/L | 0.022 | I | EPA 200.7 | 0.020 | 12/02/2024 | 13:35 | E82574 |
| 1017 | Chloride | 250 | mg/L | 3.9 | I | EPA 300.0 | 2.0 | 11/07/2024 | 18:07 | E811095 |
| 1022 | Copper | 1 | mg/L | 0.0010 | U | EPA 200.8 | 0.0010 | 12/04/2024 | 16:52 | E82574 |
| 1025 | Fluoride | 2 | mg/L | 0.20 | U | EPA 300.0 | 0.20 | 11/07/2024 | 18:07 | E811095 |
| 1028 | Iron | 0.3 | mg/L | 0.20 | U | EPA 200.7 | 0.20 | 12/02/2024 | 13:35 | E82574 |
| 1028 | Iron | 0.3 | mg/L | 0.20 | U | EPA 200.7 | 0.20 | 12/04/2024 | 17:49 | E82574 |
| 1032 | Manganese | 0.05 | mg/L | 0.012 | | EPA 200.8 | 0.0010 | 11/26/2024 | 15:39 | E82574 |
| 1050 | Silver | 0.1 | mg/L | 0.00050 | U | EPA 200.8 | 0.00050 | 11/26/2024 | 15:39 | E82574 |
| 1055 | Sulfate | 250 | mg/L | 67 | | EPA 300.0 | 2.0 | 11/07/2024 | 18:07 | E811095 |
| 1095 | Zinc | 5 | mg/L | 0.050 | U | EPA 200.7 | 0.050 | 12/02/2024 | 13:35 | E82574 |
| 1905 | Color | 15 | CU | 15 | | SM 2120 B | 5.0 | 11/07/2024 | 15:28 | E811095 |
| | | | | | | | | | | |
| 1920 | Odor | 3 | TON | 71 | | SM 2150 B | 1.0 | 11/07/2024 | 15:54 | E811095 |
| 1925 | pH (field pH from page 1) | 6.5 - 8.5 | | 7.72 | Q | SM 4500H+B | | 11/07/2024 | 15:10 | E811095 |
| 1930 | Total Dissolved Solids | 500 | mg/L | 280 | | SM 2540 C | 10 | 11/08/2024 | 14:52 | E811095 |
| 2905 | Foaming Agents | 0.5 | mg/L | 0.040 | U | SM 5540 C | 0.040 | 11/08/2024 | 13:22 | E82001 |



*Results must be reported with appropraite qualifers in accordance with Florida Administration Code Rule 62-160, Table1. Results qualified with A, F, H, N, O, T, Z, ?, *, are unacceptable for compliance with 62-550. Results qualified with a J, Q, R, or Y must be accompanied by written justification and will be evaluated on a case by case basis. To avoid a monitoring violation, unacceptable results must be replaced with acceptable results from samples collected during the same monitoring period.

# Florida Department of Environmental Protection
# Safe Drinking Water Program Laboratory Reporting Format

## DISINFECTION BYPRODUCTS
62-550.310(3)

Report Number / Job ID: S2403270001

Disinfectant Residual (mg/L): _____

PWS ID (From Page 1): _____

| Contam ID | Contam Name | MCL | Units | Analysis Result | Qualifier* | Analytical Method | Lab MDL | Regulatory MRL** | Analysis Date | Analysis Time | DOH Lab Certification # |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1009 | Chlorite | 1000 | ug/L | 0.95 | U | EPA 300.1 | 0.95 | 20*** | 11/12/2024 | 02:40 | E84589 |
| 1011 | Bromate | 10 | ug/L | 0.40 | U | EPA 300.1 | 0.40 | 5.0 or 1.0** | 11/12/2024 | 02:40 | E84589 |

| Contam ID | Contam Name | MCL | Units | Analysis Result | Qualifier* | Analytical Method | Lab MDL | Regulatory MRL** | Analysis Date | Analysis Time | DOH Lab Certification # |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2450 | Monochloroacetic Acid | N/A | ug/L | 0.98 | U | EPA 552.2 | 0.98 | 2 | 11/19/2024 | 16:31 | E84589 |
| 2451 | Dichloroacetic Acid | N/A | ug/L | 0.42 | U | EPA 552.2 | 0.42 | 1 | 11/19/2024 | 16:31 | E84589 |
| 2452 | Trichloroacetic Acid | N/A | ug/L | 0.94 | U | EPA 552.2 | 0.94 | 1 | 11/19/2024 | 16:31 | E84589 |
| 2453 | Monobromoacetic Acid | N/A | ug/L | 0.41 | U | EPA 552.2 | 0.41 | 1 | 11/19/2024 | 16:31 | E84589 |
| 2454 | Dibromoacetic Acid | N/A | ug/L | 0.74 | U | EPA 552.2 | 0.74 | 1 | 11/19/2024 | 16:31 | E84589 |
| 2456 | Total Haloacetic Acids (HAA5) | 60 | ug/L | 0.98 | U | EPA 552.2 | 0.98 | --- | 11/19/2024 | 16:31 | E84589 |

| Contam ID | Contam Name | MCL | Units | Analysis Result | Qualifier* | Analytical Method | Lab MDL | Regulatory MRL** | Analysis Date | Analysis Time | DOH Lab Certification # |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2941 | Chloroform | N/A | ug/L | 0.39 | U | EPA 524.2 | 0.39 | 1 | 11/18/2024 | 15:33 | E82535 |
| 2942 | Bromoform | N/A | ug/L | 0.26 | U | EPA 524.2 | 0.26 | 1 | 11/18/2024 | 15:33 | E82535 |
| 2943 | Bromodichloromethane | N/A | ug/L | 0.44 | U | EPA 524.2 | 0.44 | 1 | 11/18/2024 | 15:33 | E82535 |
| 2944 | Dibromochloromethane | N/A | ug/L | 0.32 | U | EPA 524.2 | 0.32 | 1 | 11/18/2024 | 15:33 | E82535 |
| 2950 | Total Trihalomethanes (TTHM) | 80 | ug/L | 0.44 | U | EPA 524.2 | 0.44 | --- | 11/18/2024 | 15:33 | E82535 |

** Laboratories are required to adhere to the minimum reporting level (MRL) requirements of 40 CFR 141.131(b)(2)(iv).

*** Applicable to monitoring as prescribed in 40 CFR 141.132.(b)(2)(i)(B) and (b)(2)(ii).

**** Laboratories that use EPA Methods 317.0 Revision 2.0, 326.0 or 321.8 must meet a 1.0 µg/L MRL for bromate.

**Note:** Do not round values. Report results to the accuracy, precision, and sensitivity of the analytical method used.



*Results must be reported with appropraite qualifers in accordance with Florida Administration Code Rule 62-160, Table1. Results qualified with A, F, H, N, O, T, Z, ?, *, are unacceptable for compliance with 62-550. Results qualified with a J, Q, R, or Y must be accompanied by written justification and will be evaluated on a case by case basis. To avoid a monitoring violation, unacceptable results must be replaced with acceptable results from samples collected during the same monitoring period.

# Florida Department of Environmental Protection
# Safe Drinking Water Program Laboratory Reporting Format

## VOLATILE ORGANICS
62-550.310(4)(a)

Report Number / Job ID: S2403270001

PWS ID (From Page 1): _____

| Contam ID | Contam Name | MCL | Units | Analysis Result | Qualifier* | Analytical Method | Lab MDL | RDL | Analysis Date | Analysis Time | DOH Lab Certification # |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2378 | 1,2,4-Trichlorobenzene | 70 | ug/L | 0.45 | U | EPA 524.2 | 0.45 | 0.5 | 11/12/2024 | 23:31 | E82574 |
| 2380 | cis-1,2-Dichloroethylene | 70 | ug/L | 0.40 | U | EPA 524.2 | 0.40 | 0.5 | 11/12/2024 | 23:31 | E82574 |
| 2955 | Xylenes (total) | 10000 | ug/L | 0.49 | U | EPA 524.2 | 0.49 | 0.5 | 11/12/2024 | 23:31 | E82574 |
| 2964 | Dichloromethane | 5 | ug/L | 0.38 | U | EPA 524.2 | 0.38 | 0.5 | 11/12/2024 | 23:31 | E82574 |
| 2968 | o-Dichlorobenzene | 600 | ug/L | 0.31 | U | EPA 524.2 | 0.31 | 0.5 | 11/12/2024 | 23:31 | E82574 |
| 2969 | para-Dichlorobenzene | 75 | ug/L | 0.37 | U | EPA 524.2 | 0.37 | 0.5 | 11/12/2024 | 23:31 | E82574 |
| 2976 | Vinyl Chloride | 1 | ug/L | 0.42 | U | EPA 524.2 | 0.42 | 0.5 | 11/12/2024 | 23:31 | E82574 |
| 2977 | 1,1-Dichloroethylene | 7 | ug/L | 0.44 | U | EPA 524.2 | 0.44 | 0.5 | 11/12/2024 | 23:31 | E82574 |
| 2979 | trans-1,2-Dichloroethylene | 100 | ug/L | 0.40 | U | EPA 524.2 | 0.40 | 0.5 | 11/12/2024 | 23:31 | E82574 |
| 2980 | 1,2-Dichloroethane | 3 | ug/L | 0.41 | U | EPA 524.2 | 0.41 | 0.5 | 11/12/2024 | 23:31 | E82574 |
| 2981 | 1,1,1-Trichloroethane | 200 | ug/L | 0.28 | U | EPA 524.2 | 0.28 | 0.5 | 11/12/2024 | 23:31 | E82574 |
| 2982 | Carbon tetrachloride | 3 | ug/L | 0.38 | U | EPA 524.2 | 0.38 | 0.5 | 11/12/2024 | 23:31 | E82574 |
| 2983 | 1,2-Dichloropropane | 5 | ug/L | 0.16 | U | EPA 524.2 | 0.16 | 0.5 | 11/12/2024 | 23:31 | E82574 |
| 2984 | Trichloroethylene | 3 | ug/L | 0.39 | U | EPA 524.2 | 0.39 | 0.5 | 11/12/2024 | 23:31 | E82574 |
| 2985 | 1,1,2-Trichloroethane | 5 | ug/L | 0.24 | U | EPA 524.2 | 0.24 | 0.5 | 11/12/2024 | 23:31 | E82574 |
| 2987 | Tetrachloroethylene | 3 | ug/L | 0.36 | U | EPA 524.2 | 0.36 | 0.5 | 11/12/2024 | 23:31 | E82574 |
| 2989 | Monochlorobenzene | 100 | ug/L | 0.32 | U | EPA 524.2 | 0.32 | 0.5 | 11/12/2024 | 23:31 | E82574 |
| 2990 | Benzene | 1 | ug/L | 0.27 | U | EPA 524.2 | 0.27 | 0.5 | 11/12/2024 | 23:31 | E82574 |
| 2991 | Toluene | 1000 | ug/L | 0.29 | U | EPA 524.2 | 0.29 | 0.5 | 11/12/2024 | 23:31 | E82574 |
| 2992 | Ethylbenzene | 700 | ug/L | 0.32 | U | EPA 524.2 | 0.32 | 0.5 | 11/12/2024 | 23:31 | E82574 |
| 2996 | Styrene | 100 | ug/L | 0.31 | U | EPA 524.2 | 0.31 | 0.5 | 11/12/2024 | 23:31 | E82574 |

**Note:** Results indicating non-detection with a reported lab MDL > .5 µg/L will not be accepted for compliance.



*Results must be reported with appropraite qualifers in accordance with Florida Administration Code Rule 62-160, Table1. Results qualified with A, F, H, N, O, T, Z, ?, *, are unacceptable for compliance with 62-550. Results qualified with a J, Q, R, or Y must be accompanied by written justification and will be evaluated on a case by case basis. To avoid a monitoring violation, unacceptable results must be replaced with acceptable results from samples collected during the same monitoring period.

# Florida Department of Environmental Protection
# Safe Drinking Water Program Laboratory Reporting Format

## SYNTHETIC ORGANICS

62-550.310(4)(b)

Report Number / Job ID: S2403270001 PWS ID (From Page 1): _____

| Contam ID | Contam Name | MCL | Units | Analysis Result | Qualifier* | Analytical Method | Lab MDL | RDL | Extraction Date | Analysis Date | Analysis Time | DOH Lab Certification # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2005 | Endrin | 2 | ug/L | 0.0072 | U | EPA 508 | 0.0072 | 0.01 | 11/11/2024 | 11/12/2024 | 21:43 | E82574 |
| 2010 | Lindane | 0.2 | ug/L | 0.0074 | U | EPA 508 | 0.0074 | 0.02 | 11/11/2024 | 11/12/2024 | 21:43 | E82574 |
| 2015 | Methoxychlor | 40 | ug/L | 0.0071 | U | EPA 508 | 0.0071 | 0.1 | 11/11/2024 | 11/12/2024 | 21:43 | E82574 |
| 2020 | Toxaphene | 3 | ug/L | 0.13 | U | EPA 508 | 0.13 | 1 | 11/11/2024 | 11/12/2024 | 21:43 | E82574 |
| 2031 | Dalapon | 200 | ug/L | 0.90 | U | EPA 515.3 | 0.90 | 1 | 11/12/2024 | 11/16/2024 | 02:50 | E82574 |
| 2032 | Diquat | 20 | ug/L | 0.37 | U | EPA 549.2 | 0.37 | 0.4 | 11/11/2024 | 11/13/2024 | 20:15 | E82574 |
| 2033 | Endothall | 100 | ug/L | 6.0 | U | EPA 548.1 | 6.0 | 9 | 11/11/2024 | 11/20/2024 | 18:46 | E82574 |
| 2034 | Glyphosate | 700 | ug/L | 5.9 | U | EPA 547 | 5.9 | 6 | | 11/15/2024 | 06:22 | E82574 |
| 2035 | Di(2-ethylhexyl)adipate | 400 | ug/L | 0.50 | U | EPA 525.2 | 0.50 | 0.6 | 11/18/2024 | 11/28/2024 | 03:32 | E82574 |
| 2036 | Oxamyl (Vydate) | 200 | ug/L | 1.8 | U | EPA 531.1 | 1.8 | 2 | | 11/21/2024 | 08:59 | E82574 |
| 2037 | Simazine | 4 | ug/L | 0.060 | U | EPA 525.2 | 0.060 | 0.07 | 11/18/2024 | 11/28/2024 | 03:32 | E82574 |
| 2039 | Di(2-ethylhexyl)phthalate | 6 | ug/L | 0.50 | U | EPA 525.2 | 0.50 | 0.6 | 11/18/2024 | 11/28/2024 | 03:32 | E82574 |
| 2040 | Picloram | 500 | ug/L | 0.090 | U | EPA 515.3 | 0.090 | 0.1 | 11/12/2024 | 11/16/2024 | 02:50 | E82574 |
| 2041 | Dinoseb | 7 | ug/L | 0.18 | U | EPA 515.3 | 0.18 | 0.2 | 11/12/2024 | 11/16/2024 | 02:50 | E82574 |
| 2042 | Hexachlorocyclopentadinene | 50 | ug/L | 0.020 | U | EPA 508 | 0.020 | 0.1 | 11/11/2024 | 11/12/2024 | 21:43 | E82574 |
| 2046 | Carbofuran | 40 | ug/L | 0.67 | U | EPA 531.1 | 0.67 | 0.9 | | 11/21/2024 | 08:59 | E82574 |
| 2050 | Atrazine | 3 | ug/L | 0.090 | U | EPA 525.2 | 0.090 | 0.1 | 11/18/2024 | 11/28/2024 | 03:32 | E82574 |
| 2051 | Alachlor | 2 | ug/L | 0.15 | U | EPA 525.2 | 0.15 | 0.2 | 11/18/2024 | 11/28/2024 | 03:32 | E82574 |
| 2065 | Heptachlor | 0.4 | ug/L | 0.0063 | U | EPA 508 | 0.0063 | 0.04 | 11/11/2024 | 11/12/2024 | 21:43 | E82574 |
| 2067 | Heptachlor Epoxide | 0.2 | ug/L | 0.0054 | U | EPA 508 | 0.0054 | 0.02 | 11/11/2024 | 11/12/2024 | 21:43 | E82574 |
| 2105 | 2,4-D | 70 | ug/L | 0.095 | U | EPA 515.3 | 0.095 | 0.1 | 11/12/2024 | 11/16/2024 | 02:50 | E82574 |
| 2110 | 2,4,5-TP (Silvex) | 50 | ug/L | 0.090 | U | EPA 515.3 | 0.090 | 0.2 | 11/12/2024 | 11/16/2024 | 02:50 | E82574 |
| 2274 | Hexachlorobenzene | 1 | ug/L | 0.0066 | U | EPA 508 | 0.0066 | 0.1 | 11/11/2024 | 11/12/2024 | 21:43 | E82574 |
| 2306 | Benzo(a)pyrene | 0.2 | ug/L | 0.015 | U | EPA 525.2 | 0.015 | 0.02 | 11/18/2024 | 11/28/2024 | 03:32 | E82574 |
| 2326 | Pentachlorophenol | 1 | ug/L | 0.038 | U | EPA 515.3 | 0.038 | 0.04 | 11/12/2024 | 11/16/2024 | 02:50 | E82574 |
| 2383 | Polychlorinated biphenyls (PCBs) | 0.5 | ug/L | 0.097 | U | EPA 508 | 0.097 | 0.1 | 11/11/2024 | 11/12/2024 | 21:43 | E82574 |
| 2931 | Dibromochloropropane | 0.2 | ug/L | 0.0061 | U | EPA 504.1 | 0.0061 | 0.02 | 11/18/2024 | 11/19/2024 | 03:46 | E82574 |
| 2946 | Ethylene Dibromide (EDB) | 0.02 | ug/L | 0.0090 | U | EPA 504.1 | 0.0090 | 0.01 | 11/18/2024 | 11/19/2024 | 03:46 | E82574 |
| 2959 | Chlordane | 2 | ug/L | 0.055 | U | EPA 508 | 0.055 | 0.2 | 11/11/2024 | 11/12/2024 | 21:43 | E82574 |

**Note:** Results indicating non-detection with a reported lab MDL >50% of the MCL will not be accepted for compliance.



*Results must be reported with appropraite qualifers in accordance with Florida Administration Code Rule 62-160, Table1. Results qualified with A, F, H, N, O, T, Z, ?, *, are unacceptable for compliance with 62-550. Results qualified with a J, Q, R, or Y must be accompanied by written justification and will be evaluated on a case by case basis. To avoid a monitoring violation, unacceptable results must be replaced with acceptable results from samples collected during the same monitoring period.

# Florida Department of Environmental Protection
# Safe Drinking Water Program Laboratory Reporting Format

## OTHER CONTAMINANTS

Report Number / Job ID: S2403270001

PWS ID (From Page 1): _____

| Contam ID | Contam Name | MCL | Units | Analysis Result | Qualifier* | Analytical Method | Lab MDL | Analysis Date | Analysis Time | DOH Lab Certification # |
|---|---|---|---|---|---|---|---|---|---|---|
| | Alkalinity, Bicarbonate | N/A | mg/L | 90 | | SM 2320B | 5.0 | 11/16/2024 | 16:09 | E84589 |
| | Alkalinity, Carbonate | N/A | mg/L | 5.0 | U | SM 2320B | 5.0 | 11/16/2024 | 16:09 | E84589 |
| | Alkalinity, Total | N/A | mg/L | 91 | | SM 2320B | 5.0 | 11/16/2024 | 16:09 | E84589 |
| | Chloramine | N/A | mg/L | 0.65 | | Chloramine | 0.050 | 11/19/2024 | 12:32 | |
| | Chlorate | N/A | mg/L | .00065 | U | EPA 300.1 | .00065 | 11/12/2024 | 02:40 | E84589 |
| | Conductivity | N/A | umhos/cm | 350 | | EPA 120.1 | 2.0 | 11/19/2024 | 17:37 | E82574 |
| | Corrosivity | N/A | SU | 7.8 | Q | SW9045C | | 11/13/2024 | 12:50 | |
| | Hydrogen Sulfide | N/A | mg/L | .041 | I | SM 4500-S D | .014 | 11/13/2024 | 13:51 | E84589 |
| | Sulfide | N/A | mg/L | .039 | I | SM 4500-S D | .013 | 11/13/2024 | 13:51 | E84589 |
| | Total Hardness (as CaCO3) | N/A | mg/L | 150 | | EPA 200.7 | 0.91 | 12/02/2024 | 13:35 | |
| | Total Organic Carbon | N/A | mg/L | 2.9 | | SM 5310B | 0.50 | 11/11/2024 | 23:06 | E82001 |
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*Results must be reported with appropraite qualifers in accordance with Florida Administration Code Rule 62-160, Table1. Results qualified with A, F, H, N, O, T, Z, ?, *, are unacceptable for compliance with 62-550. Results qualified with a J, Q, R, or Y must be accompanied by written justification and will be evaluated on a case by case basis. To avoid a monitoring violation, unacceptable results must be replaced with acceptable results from samples collected during the same monitoring period.

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☐ Tampa: 9610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9616 • Fax 813.630.4327



Client Name: Rusha Drilling
Address:
Phone:
FAX:
Contact:
Sampled By:
Turn Around Time: ☐ STANDARD ☐ RUSH
AEL Profile #:

Project Name:
Project Number:
PO Number:
FDEP Facility No:
FDEP Facility Address:
Special Instructions:
☐ ADaPT ☐ EQuIS ☐ Other

| SAMPLE ID | SAMPLE DESCRIPTION | Grab Comp | SAMPLING DATE | SAMPLING TIME | MATRIX | NO. COUNT |
|---|---|---|---|---|---|---|
| 1 | UBLL | C | 11/2/19 | 1030 | W | |

| ANALYSIS REQUIRED | BOTTLE SIZE & TYPE | EPA 200.7/200.8/245.1 | Cyanide | EPA 300 - F, NO3, NO2 | EPA 524 - VOCs | EPA 515 | EPA 508 | EPA 531.1 | EPA 525.2 | EPA 549 | EPA 547 | LABORATORY I.D. NUMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Preservation | | HNO3 | NaOH | NONE | HCL | None | None | | | Na Thio | Na Thio | |
| Field-Filtered? | | | | | | | | | | | | |
| | | X | X | X | X | X | X | X | X | X | X | |

*S2403270*

**Matrix Code:** WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge

**Preservation Code:** I = ice H=(HCl) S = ($H_2SO_4$) N = ($HNO_3$) T = (Sodium Thiosulfate)

Received on Ice ☐ Yes ☐ No ☐ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked Temp. when received (observed) 3.1 °C Temp. when received (corrected)_____ °C

DCN: AD-051 Form last revised 06/19/2017 Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

| | Relinquished by: | Date | Time | Received by: | Date | Time |
|---|---|---|---|---|---|---|
| 1 | | 11/2/19 | 1030 | | 11/2/19 | 1030 |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |

**FOR DRINKING WATER USE:**
(When PWS Information not otherwise supplied) PWS ID:_____
Contact Person:_____ Phone :_____
Supplier of Water:_____
Site-Address:_____

Advanced Environmental Laboratories, Inc.

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☐ Gainesville: 4965 SW 41st Blvd. • Gainesville, FL 32608 • 352.377.2349 • Fax 352.395.6639
☐ Miramar: 10200 USA Today Way, Miramar, FL 33025 • 954.889.2288 • Fax 954.889.2281
☐ Tampa: 9610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9616 • Fax 813.630.4327



Client Name:
Address:
Phone:
FAX:
Contact:
Sampled By:
Turn Around Time: ☐ STANDARD ☐ RUSH
AEL Profile #:

Project Name:
Project Number:
PO Number:
FDEP Facility No:
FDEP Facility Address:
Special Instructions:
☐ ADaPT ☐ EQuIS ☐ Other

| SAMPLE ID | SAMPLE DESCRIPTION | Grab Comp | SAMPLING DATE | SAMPLING TIME | MATRIX | NO. COUNT | BOTTLE SIZE & TYPE | EPA 504.1 | EPA 548 | Color | Odor | pH | TDS | MBAS | RAD 226/228 | Gross Alpha | | LABORATORY I.D. NUMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ANALYSIS REQUIRED | | | | | | | | | | | | | | | | | |
| | Preservation | | | | | | | Na Thio | Na Thio | None | None | None | None | None | | | | |
| | Field-Filtered? | | | | | | | | | | | | | | | | | |
| 1 | WELL | | 11/7/24 | 1030 | W | | | X | X | X | X | X | X | X | X | X | X | |
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**Matrix Code:** **WW** = wastewater **SW** = surface water **GW** = ground water **DW** = drinking water **O** = oil **A** = air **SO** = soil **SL** = sludge

**Preservation Code:** I = Ice H=(HCl) S = ($H_2SO_4$) N = ($HNO_3$) T = (Sodium Thiosulfate)

Received on Ice ☐ Yes ☐ No ☐ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked

Temp. when received (observed) 3.1 °C Temp. when received (corrected)_____°C

DCN: AD-051 Form last revised: 06/19/2017

Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

| | Relinquished by: | Date | Time | Received by: | Date | Time |
|---|---|---|---|---|---|---|
| 1 | | 11/7/24 | 1030 | | 11/7/24 | 1030 |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |

**FOR DRINKING WATER USE:**
(When PWS Information not otherwise supplied) PWS ID:_____
Contact Person:_____ Phone :_____
Supplier of Water:_____
Site Address:_____

Advanced Environmental Laboratories, Inc.

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☐ Tampa: 9610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9616 • Fax 813.630.4327



Client Name:

Address:

Phone:

FAX:

Contact:

Sampled By:

Turn Around Time: ☐ STANDARD ☐ RUSH

AEL Profile #:

Project Name:

Project Number:

PO Number:

FDEP Facility No:

FDEP Facility Address:

Special Instructions:

☐ ADaPT ☐ EQuIS ☐ Other

| SAMPLE ID | SAMPLE DESCRIPTION | Grab Comp | SAMPLING DATE | SAMPLING TIME | MATRIX | NO. COUNT | BOTTLE SIZE & TYPE | ANALYSIS REQUIRED: Asbestos | 3001 - Bromate, chlorite | Chloroamines, Chlorine Dioxide | HAA5s | THMs | Stontium 90, Tritium | Uranium | Corrosivity | | | LABORATORY I.D. NUMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | Preservation: None | None | None | NH4CL | Na Thi | None | | | | | |
| | | | | | | | | Field-Filtered? | | | | | | | | | | |
| 1 | WELL | | 11/7/24 | 1630 | W | | | X | X | X | X | X | X | X | X | | | |
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**Matrix Code:** **WW** = wastewater **SW** = surface water **GW** = ground water **DW** = drinking water **O** = oil **A** = air **SO** = soil **SL** = sludge

**Preservation Code:** I = ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Received on Ice ☐ Yes ☐ No ☐ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked

Temp. when received (observed) 3.1 °C Temp. when received (corrected) _____ °C

DCN: AD-051 Form last revised 06/19/2017

Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

| | Relinquished by: | Date | Time | Received by: | Date | Time |
|---|---|---|---|---|---|---|
| 1 | | 11/7/24 | 1030 | | 11/7/24 | 1030 |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |

**FOR DRINKING WATER USE:**

(When PWS Information not otherwise supplied) PWS ID: _____

Contact Person: _____ Phone : _____

Supplier of Water: _____

Site-Address: _____

Advanced Environmental Laboratories, Inc.

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☐ Tampa: 9610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9616 • Fax 813.630.4327



Client Name:
Address:
Phone:
FAX:
Contact:
Sampled By:
Turn Around Time: ☐ STANDARD ☐ RUSH
AEL Profile #:

Project Name:
Project Number:
PO Number:
FDEP Facility No:
FDEP Facility Address:
Special Instructions:

☐ ADaPT ☐ EQuIS ☐ Other

| SAMPLE ID | SAMPLE DESCRIPTION | Grab Comp | SAMPLING DATE | SAMPLING TIME | MATRIX | NO. COUNT | BOTTLE SIZE & TYPE | Alkalinity Bicarbonate | Alkalinity Carbonate | Hydrogen Sulfide, Sulfide | Spec Conductance | Total Harness | Dissolved Iron | TOC | | | | LABORATORY I.D. NUMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ANALYSIS REQUIRED | | | | | | | | | | | | | | | | | |
| | Preservation | | | | | | | None | None | None | NH4CL | Na Thi | None | | | | | |
| | Field-Filtered? | | | | | | | | | | | | | | | | | |
| 1 | WELL | | 11/7/24 | 1030 | W | | | X | X | X | X | X | X | X | | | | |
| | | | | | | | | | | | | | | | | | | |
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**Matrix Code:** **WW** = wastewater **SW** = surface water **GW** = ground water **DW** = drinking water **O** = oil **A** = air **SO** = soil **SL** = sludge

**Preservation Code:** I = ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Received on Ice ☐ Yes ☐ No ☐ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked Temp. when received (observed) 3.1 °C Temp. when received (corrected) _____ °C

DCN: AD-051 Form last revised 06/19/2017

Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

| | Relinquished by: | Date | Time | Received by: | Date | Time |
|---|---|---|---|---|---|---|
| 1 | | 11/7/24 | 1030 | | 11/7/24 | 1030 |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |

**FOR DRINKING WATER USE:**

(When PWS Information not otherwise supplied) PWS ID: _____

Contact Person: _____ Phone: _____

Supplier of Water: _____

Site-Address: _____

EMSL Analytical, Inc.
3303 PARKWAY CENTER COURT Orlando, FL 32808
Phone/Fax: (407) 599-5887 / (407) 599-9063
http://www.EMSL.com / orlandolab@emsl.com

EMSL Order ID: 342424341
Customer ID: AEVL42
Customer PO:
Project ID:

**Attn:** Tim Preston
Advanced Environmental Lab. Inc.
2639 N. Monroe St.
Suite D
Tallahassee, FL 32303
**Proj:** S2403270 Valdosta Well

Phone: (850) 219-6274
Fax:
Received: 11/08/2024
Analyzed: 11/20/2024

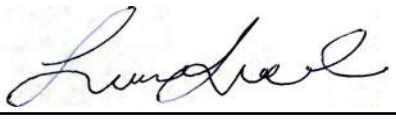
# Test Report: Determination of Asbestos Structures >10µm in Drinking Water Performed by the 100.2 Method (EPA 600/R-94/134)

| Sample ID Client / EMSL | Sample Filtration Date/Time | Original Sample Vol. Filtered (ml) | Effective Filter Area (mm²) | Area Analyzed (mm²) | ASBESTOS Asbestos Types | Fibers Detected | Analytical Sensitivity | Concentration | Confidence Limits |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | MFL (million fibers per liter) | | |
| Well 342424341-0001 | 11/8/2024 10:30 AM | 100 | 1288 | 0.0635 | None Detected | ND | 0.20 | <0.20 | 0.00 - 0.75 |

*Collection Date/Time:* *11/07/2024 10:30 AM*

Analyzed at 11/20/24 12:09pm

Analyst(s)
Jason Stuhr (1)



Laura Vera, Asbestos Supervisor
or Other Approved Signatory

Any questions please contact Laura Vera.

Initial report from: 11/21/2024 15:53:16

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. Estimation of uncertainty is available on request. Sample collection performed by the client. Pre-cleaned sample containers are available for purchase from EMSL. Note if sample containers are provided by the client, acceptable bottle blank level is defined as ≤0.01MFL for >=10um fibers. ND=None Detected. No Fibers Detected: the value will be reported as less than 369% of the concentration equivalent to one fiber. 1 to 4 fibers: The result will be reported as less than the corresponding upper 95% confidence limit (Poisson),5 to 30 fibers: Mean and 95% confidence intervals will be reported on the basis of the Poisson assumption. When more than 30 fibers are counted, both the Gaussian 95% confidence interval and the Poisson 95% confidence interval will be calculated. The large of these two intervals will be selected for data reporting. When the Gaussian 95% confidence interval is selected for data reporting, the Poisson will also be noted.

Samples analyzed by EMSL Analytical, Inc. Orlando, FL NELAC FL DOH E87804, EPA No. FL01176

# Florida Department of Environmental Protection
# Safe Drinking Water Program Laboratory Reporting Format

**LABORATORY CERTIFICATION INFORMATION** (to be completed by lab – please type or print legibly)

Lab Name: **KNL Environmental Testing** Florida DOH Certification #: **E84025** Certification Expiration Date: **June Renewal**

ATTACH CURRENT DOH ANALYTE SHEET*

Address: **3202 N. Florida Ave. Tampa, FL 33603** Phone #: **813-229-2879**

Were any analyses subcontracted? ☐Yes ☒No If yes, please provide DOH certification number(s): _____

ATTACH DOH ANALYTE SHEET FOR EACH SUBCONTRACTED LAB*

**ANALYSIS INFORMATION** (to be completed by lab) Date Sample(s) Received: 11-14-24

PWS ID (From Pg 1): _____ Sample # (From Pg 1): 524032700001 Lab Assigned Report # or Job ID: 24-19886

Group(s) Analyzed & Results attached for compliance with Chapter 62-550, F.A.C. (Check all that apply):

| Inorganics | Synthetic Organics | Volatile Organics | Disinfection Byproducts | Radionuclides | Secondaries |
|---|---|---|---|---|---|
| ☐All Except Asbestos | ☐All 30 | ☐All 21 | ☐Trihalomethanes | ☒Single Sample | ☐All 14 |
| ☐Partial | ☐All Except Dioxin | ☐Partial | ☐Haloacetic Acids | ☐Qtrly Composite** | ☐Partial |
| ☐Nitrate | ☐Partial | | ☐Chlorite | | |
| ☐Nitrite | ☐Dioxin Only | | ☐Bromate | | |
| ☐Asbestos | | | | | |

## LAB CERTIFICATION

I, **Thomas Weeks** (Print Name), **Laboratory Director** (Print Title), do HEREBY CERTIFY that all attached analytical data are correct and unless noted meet all requirements of the National Environmental Laboratory Accreditation Conference (NELAC).

Signature: _____ Date: 12-17-24

* Failure to provide a valid and current Florida DOH lab certification number and a current Analyte Sheet for the attached analysis results will result in rejection of the report, possible enforcement against the public water system for failure to sample, and may result in notification of the DOH Bureau of Laboratory Services.

** Please provide radiological sample dates & locations for each quarter.

**CONFIRMATION & NOTIFICATION IS REQUIRED WITHIN 24 HRS FOR NITRATE OR NITRITE MCL EXCEEDANCES**
**NON-DETECTS ARE TO BE REPORTED AS THE MDL WITH A "U" QUALIFIER.** (Non-detects reported as "BDL" or with a "<" are not acceptable.)

**COMPLIANCE DETERMINATION** (to be completed by DEP or DOH -- attach notes as necessary)

Sample Collection & Analysis Satisfactory: ☐Yes ☐No _____ Replacement Sample or Report Requested (circle or highlight group(s) above)

Person Notified: _____ Date Notified: _____ DEP/DOH Reviewing Official: _____

KNL Laboratory Services, Inc.
2742 N. Florida Ave.
P.O. Box 1833
Tampa, FL 33601

Ph: (813) 229-2879 Fax: (813) 229-0002

# Florida Department of Environmental Protection
# Safe Drinking Water Program Laboratory Reporting Format

RADIONUCLIDES
62-550.310(6)
Client ID: AEL-Tallahassee // S2403270001

KNL Report Number/Job ID: 24.19886
PWS ID(From Page 1):

| Contam ID | Contam Name | MCL | Units | Analysis Result | Qualifier * | Analytical Method | Lab MDL | RDL | Analysis Error | Analysis Date | Analysis Time | DOH Lab Certification # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4000 | Gross Alpha (excl.Uranium) ** | 15 | pCi/L | 7.4 | | EPA 900.0 | 1.5 | 3 | 1.6 | 11-22-24 | 0751 | E84025 |
| 4002 | Gross Alpha (incl Uranium) | *** | pCi/L | 7.7 | | EPA 900.0 | 1.5 | 3 | 1.6 | 11-22-24 | 0751 | E84025 |
| 4006 | Combined Uranium (U-234, U-235 & U-238) **** | 20 | pCi/L | 0.3 | I | EPA 908.0 | 0.2 | .67 | 0.2 | 12-6-24 | 1643 | E84025 |
| | | 30 | ug/L | 0.4 | I | Calc | 0.3 | 1 | 0.3 | Calc | Calc | E84025 |
| 4020 | Radium-226 | 5 | pCi/L | 3.4 | | EPA 903.0 ***** | 0.2 | 1 | 0.3 | 11-28-24 | 2128 | E84025 |
| 4030 | Radium-228 | | pCi/L | 0.6 | U | EPA Ra-05 | 0.6 | 1 | 0.5 | 11-26-24 | 1616 | E84025 |

Reporting Format 62-550.730
Effective January 1995, Revised February 2010.

* Qualifier Codes: U = indicates that the compound was analyzed for but not detected.
I = the reported value is between the laboratory detection limit and the laboratory practical quantitation limit.

** If the result exceeds 5 pCi/L, a measurement for radium-226 is required. Uranium is reported separately under Contam ID 4006.

*** If the results exceed 5 pCi/L, a measurement for radium-226 is required. If the results exceed 15 pCi/L, a measurement for Combined Uranium must be reported separately. The DEP/DOH will subtract the U value from the Gross Alpha (ID 4002) to determine compliance with MCL for Gross Alpha (Excl.U) of 15 pCi/L. If the result for ID 4002 Gross Alpha (incl.Uranium) does not exceed 15 pCi/L, Combined Uranium need not be measured nor reported.

**** If using Uranium testing methods ASTM D5174 or EPA 200.8 only, then Analysis Error need not be reported.

***** 95% carrier recovery



Test results meet all requirements of the 2016 TNI standards. Statement of estimated uncertainty available upon request. Test results refer only to sample(s) listed.
Contact person: Thomas Weeks (813) 229-2879

Approved by: Thomas J. Weeks
Laboratory Director

PO! S-PO-28786

# Chain of Custody

**Document:** 372221 - HBN 293709

**Results Requested By:** 11/25/2024

| Report To | Subcontract To |
|---|---|
| Advanced Environmental Laboratories, Inc.<br>2639 N Monroe St Suite D<br>Tallahassee, FL 32303<br>Phone (850) 219-6274<br>Fax (850) 219-6275 | KNL-FL<br>KNL Laboratory Services, Inc.<br>2742 North Florida Avenue<br>Tampa, FL 33602 |

| Item | Sample ID | Collect Date/Time | Lab ID | Matrix | Preserved Containers: HNO3 | Requested Analysis: Gross Alpha. EPA 900. Drinking Water | Radium 226. EPA 903.1. Drinking Water | Radium 228. EPA Ra-05. Drinking Water | Uranium. EPA 908. Drinking Water | LAB USE ONLY |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Well | 11/07/2024 10:30 | S2403270001 | Drinking Water | 2 | | | | | 24.19886 |

| Report | Electronic Data Deliverables | Comments |
|---|---|---|
| ☐ Standard (Results Only)<br>☐ Standard with Batch QC<br>☐ CLP<br>☐ Other _____ | ☐ Stage 2A<br>☐ Stage 2B<br>☐ Stage 3<br>☐ Other _____ | S2403270 Valdosta Well Tim Preston TPreston@AELLab.com |

**Preservative**

HNO3 = HNO3

| Transfers | Released By | Date/Time | Received By | Date/Time |
|---|---|---|---|---|
| 1 | | 11/14/24 1520 | | 11.14.24 1520 |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |



POWERED BY HORIZON v.13.1.0

GEL Laboratories LLC
a member of The GEL Group INC

2040 Savage Road | Charleston, SC 29407
843.556.8171
gel.com

December 06, 2024

Mikelle Chong
Advanced Environmental Laboratories, Inc. (AEL)
10200 USA Today Way
Miramar, Florida 33025

Re: Routine Analysis
Work Order: 696962

Dear Mikelle Chong:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on November 21, 2024. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The sample was delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 1614.

Sincerely,

Abagail Martin for
Delaney Stonesmith
Project Manager

Purchase Order: S-PO-28785
Enclosures

**GEL LABORATORIES LLC**
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

# Certificate of Analysis Report
for

AELS001 Advanced Environmental Laboratories, Inc.

Client SDG: 696962 GEL Work Order: 696962

**The Qualifiers in this report are defined as follows:**

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a Tracer compound

** Analyte is a surrogate compound

U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Delaney Stonesmith.

Reviewed by 

**GEL LABORATORIES LLC**
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

# *Certificate of Analysis*

Report Date: December 6, 2024

Company : Advanced Environmental Laboratories, Inc. (AEL)
Address : 10200 USA Today Way

Miramar, Florida 33025
Contact: Mikelle Chong
Project: Routine Analysis

| | | | |
|---|---|---|---|
| Client Sample ID: | Well | Project: | AELS00422 |
| Sample ID: | 696962001 | Client ID: | AELS001 |
| Matrix: | Drinking Water (Potable) | | |
| Collect Date: | 07-NOV-24 10:30 | | |
| Receive Date: | 21-NOV-24 | | |
| Collector: | Client | | |

| Parameter | Qualifier | Result | DL | RL | Units | PF | DF | Analyst | Date | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rad Gas Flow Proportional Counting | | | | | | | | | | | | |
| GFPC, Sr90, Drinking Water EPA 905.0 "As Received" | | | | | | | | | | | | |
| Strontium-90 | U | ND | 0.782 | 2.00 | pCi/L | | | HH3 | 12/02/24 | 1352 | 2711540 | 1 |
| Rad Liquid Scintillation Analysis | | | | | | | | | | | | |
| Tritium in Drinking Water EPA 906.0 "As Received" | | | | | | | | | | | | |
| Tritium | U | ND | 459 | 1000 | pCi/L | | | KXA1 | 12/05/24 | 1734 | 2711139 | 2 |

The following Analytical Methods were performed:

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | EPA 905.0 | |
| 2 | EPA 906.0 | |

| Surrogate/Tracer Recovery | Test | Result | Nominal | Recovery% | Acceptable Limits |
|---|---|---|---|---|---|
| Strontium Carrier | GFPC, Sr90, Drinking Water EPA 905.0 "As Received" | | | 87.3 | (25%-125%) |

**Notes:**

*Column headers are defined as follows:*

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

# GEL LABORATORIES LLC
2040 Savage Road Charleston, SC 29407 - (843) 556-8171 - www.gel.com


## *QC Summary*

**Report Date: December 6, 2024**



**Advanced Environmental Laboratories, Inc. (AEL)**
**10200 USA Today Way**
**Miramar, Florida**

**Contact:** **Mikelle Chong**

**Workorder:** **696962**

| Parmname | NOM | Sample | Qual | QC | Units | RPD% | REC% | Range | Anlst | Date | Time |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gas Flow** | | | | | | | | | | | |
| Batch 2711540 | | | | | | | | | | | |
| QC1205931100 697230001 DUP | | | | | | | | | | | |
| Strontium-90 | U | -0.120 | U | 0.533 | pCi/L | N/A | | N/A | HH3 | 12/02/24 | 13:51 |
| QC1205931102 LCS | | | | | | | | | | | |
| Strontium-90 | 5.49 | | | 5.49 | pCi/L | | 100 | (90%-110%) | | 12/02/24 | 18:23 |
| QC1205931099 MB | | | | | | | | | | | |
| Strontium-90 | | | U | 0.451 | pCi/L | | | | | 12/02/24 | 13:51 |
| QC1205931101 697230001 MS | | | | | | | | | | | |
| Strontium-90 | 27.7 U | -0.120 | | 27.7 | pCi/L | | 99.7 | (80%-120%) | | 12/02/24 | 13:51 |
| **Rad Liquid Scintillation** | | | | | | | | | | | |
| Batch 2711139 | | | | | | | | | | | |
| QC1205930074 696962001 DUP | | | | | | | | | | | |
| Tritium | U | 85.5 | U | -84.8 | pCi/L | N/A | | N/A | KXA1 | 12/05/24 | 18:07 |
| QC1205930076 LCS | | | | | | | | | | | |
| Tritium | 4660 | | | 4370 | pCi/L | | 93.7 | (90%-110%) | | 12/05/24 | 18:41 |
| QC1205930073 MB | | | | | | | | | | | |
| Tritium | | | U | -83.8 | pCi/L | | | | | 12/05/24 | 17:51 |
| QC1205930075 696962001 MS | | | | | | | | | | | |
| Tritium | 4670 U | 85.5 | | 4900 | pCi/L | | 105 | (80%-120%) | | 12/05/24 | 18:24 |

**Notes:**

The Qualifiers in this report are defined as follows:

X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier

H Analytical holding time was exceeded

## *QC Summary*

**Workorder:** **696962**



| Parmname | NOM | Sample | Qual | QC | Units | RPD% | REC% | Range | Anlst | Date | Time |
|---|---|---|---|---|---|---|---|---|---|---|---|

| | |
|---|---|
| < | Result is less than value reported |
| > | Result is greater than value reported |
| UI | Gamma Spectroscopy--Uncertain identification |
| BD | Results are either below the MDC or tracer recovery is low |
| h | Preparation or preservation holding time was exceeded |
| R | Sample results are rejected |
| ^ | RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry. |
| N/A | RPD or %Recovery limits do not apply. |
| ND | Analyte concentration is not detected above the detection limit |
| M | M if above MDC and less than LLD |
| NJ | Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier |
| FA | Failed analysis. |
| UJ | Gamma Spectroscopy--Uncertain identification |
| Q | One or more quality control criteria have not been met. Refer to the applicable narrative or DER. |
| K | Analyte present. Reported value may be biased high. Actual value is expected to be lower. |
| UL | Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias. |
| L | Analyte present. Reported value may be biased low. Actual value is expected to be higher. |
| N1 | See case narrative |
| Y | Other specific qualifiers were required to properly define the results. Consult case narrative. |
| ** | Analyte is a Tracer compound |
| F | Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier |
| J | Value is estimated |
| U | Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD. |
| M | REMP Result > MDC/CL and < RDL |
| J | See case narrative for an explanation |
| G | Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier. |
| FG | Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier. |
| XG | Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier. |

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

696962

Advanced Environmental Laboratories, Inc.

☐ **Altamonte Springs:** 380 Northlake Blvd., Ste. 1048 • Altamonte Springs, FL 32701 • 407.937.1594 • Fax 407.937.1597
☐ **Fort Myers:** 13100 Westlinks Terrace, Ste. 10 • Fort Myers, FL 33913 • 239.674.8130 • Fax 239.674.8128
☐ **Jacksonville:** 6681 Southpoint Pkwy. • Jacksonville, FL 32216 • 904.363.9350 • Fax 904.363.9354
☐ **Tallahassee:** 2639 North Monroe St., Suite D, Tallahassee, FL 32303 • 850.219.6274 • Fax 850.219.6275
☐ **Gainesville:** 4965 SW 41st Blvd. • Gainesville, FL 32608 • 352.377.2349 • Fax 352.395.6639
☐ **Miramar:** 10200 USA Today Way, Miramar, FL 33025 • 954.889.2288 • Fax 954.889.2281
☐ **Tampa:** 9610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9616 • Fax 813.630.4327



Client Name: AEL Tallahassee
Address: 2846 North Monroe St
Tallahassee FL 32303
Phone: 850-219-6274
FAX:
Contact: Tim Preston
Sampled By:
Turn Around Time: ☐ STANDARD ☐ RUSH
AEL Profile #:

Project: Valdosta Well
Project Number:
PO Number: S-PO-28785
FDEP Facility No:
FDEP Facility Address:
Special Instructions:
☐ ADaPT ☐ EQuIS ☐ Other

| SAMPLE ID | SAMPLE DESCRIPTION | Grab Comp | SAMPLING DATE | SAMPLING TIME | MATRIX | NO. COUNT | BOTTLE SIZE & TYPE | ANALYSIS REQUIRED: Tritium | ANALYSIS REQUIRED: Strontium-90 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Preservation | None | None |
| | | | | | | | Field-Filtered? | | |
| | Well | | 11/7/2024 | 10:30 | DW | 1 | | X | X |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
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| | | | | | | | | | |
| | | | | | | | | | |

**Matrix Code:** **WW** = wastewater **SW** = surface water **GW** = ground water **DW** = drinking water **O** = oil **A** = air **SO** = soil **SL** = sludge

**Preservation Code:** I = ice H=(HCl) S = ($H_2SO_4$) N = ($HNO_3$) T = (Sodium Thiosulfate)

Received on Ice ☐ Yes ☐ No ☐ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked Temp. when received (observed)_____ °C Temp. when received (corrected) 1 °C

DCN: AD-051 Form last revised 06/19/2017

Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

| | Relinquished by: | Date | Time | Received by: | Date | Time |
|---|---|---|---|---|---|---|
| 1 | | 11/21/24 | 1500 | | 11/21/24 | 945 |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |

**FOR DRINKING WATER USE:**
(When PWS Information not otherwise supplied) PWS ID:_____
Contact Person:_____ Phone :_____
Supplier of Water:_____
Site-Address:_____

GEL | Laboratories LLC

# SAMPLE RECEIPT & REVIEW FORM

| | |
|---|---|
| Client: AELS | SDG/AR/COC/Work Order: 696962 |
| Received By: Stacy Boone | Date Received: 11.21.24 |
| Carrier and Tracking Number | Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other<br>7701 0631 9518 |

| Suspected Hazard Information | Yes | No | *If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation. |
|---|---|---|---|
| A) Shipped as a DOT Hazardous? | | ✓ | Hazard Class Shipped: UN#: If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___ No___ |
| B) Did the client designate the samples are to be received as radioactive? | | ✓ | COC notation or radioactive stickers on containers equal client designation. |
| C) Did the RSO classify the samples as radioactive? | | ✓ | Maximum Net Counts Observed* (Observed Counts - Area Background Counts): ___ CPM / mR/Hr<br>Classified as: Rad 1 Rad 2 Rad 3 |
| D) Did the client designate samples are hazardous? | | ✓ | COC notation or hazard labels or shipper documentation received. |
| E) Did the RSO identify possible hazards? | | ✓ | If D or E is yes, select Hazards below.<br>PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: |

| | Sample Receipt Criteria | Yes | NA | No | Comments/Qualifiers (Required for Non-Conforming Items) |
|---|---|---|---|---|---|
| 1 | Shipping containers received intact and sealed? | ✓ | | | Circle Applicable: Seals broken Damaged container Leaking container Other (describe) |
| 2 | Chain of custody documents included with shipment? | ✓ | | | Circle Applicable: Client contacted and provided COC COC created upon receipt |
| 3 | Samples requiring cold preservation within (0 ≤ 6 deg. C)?* | ✓ | | | Preservation Method: Wet Ice Ice Packs Dry Ice None Other:<br>*all temperatures are recorded in Celsius TEMP: 1° |
| 4 | Daily check performed and passed on IR temperature gun? | ✓ | | | Temperature Device Serial #: IR2-24<br>Secondary Temperature Device Serial # (If Applicable): |
| 5 | Sample containers intact and sealed? | ✓ | | | Circle Applicable: Seals broken Damaged container Leaking container Other (describe) |
| 6 | Samples requiring chemical preservation at proper pH? | ✓ | | | Sample ID's and Containers Affected: |
| 7 | Do any samples require Volatile Analysis? | | | ✓ | If Preservation added, Lot#:<br>If Yes, are Encores or Soil Kits present for solids? Yes___ No___ NA___(If yes, take to VOA Freezer)<br>Do liquid VOA vials contain acid preservation? Yes___ No___ NA___(If unknown, select No)<br>Are liquid VOA vials free of headspace? Yes___ No___ NA___<br>Sample ID's and containers affected: |
| 8 | Samples received within holding time? | ✓ | | | ID's and tests affected: |
| 9 | Sample ID's on COC match ID's on bottles? | | | ✓ | ID's and containers affected:<br>NO ID ON BOTTLE |
| 10 | Date & time on COC match date & time on bottles? | | | ✓ | Circle Applicable: No dates on containers No times on containers COC missing info Other (describe) |
| 11 | Number of containers received match number indicated on COC? | ✓ | | | Circle Applicable: No container count on COC Other (describe) |
| 12 | Are sample containers identifiable as GEL provided by use of GEL labels? | | | ✓ | |
| 13 | COC form is properly signed in relinquished/received sections? | ✓ | | | Circle Applicable: Not relinquished Other (describe) |

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials AM Date 11/22/24 Page 1 of 1

GL-CHL-SR-001 Rev 7

**List of current GEL Certifications as of 06 December 2024**

| State | Certification |
|---|---|
| Alabama | 42200 |
| Alaska | 17-018 |
| Alaska Drinking Water | SC00012 |
| Arkansas | 88-00651 |
| CLIA | 42D0904046 |
| California | 2940 |
| Colorado | SC00012 |
| Connecticut | PH-0169 |
| DoD ELAP/ ISO17025 A2LA | 2567.01 |
| Florida NELAP | E87156 |
| Foreign Soils Permit | P330-15-00283, P330-15-00253 |
| Georgia | SC00012 |
| Georgia SDWA | 967 |
| Hawaii | SC00012 |
| Idaho | SC00012 |
| Illinois NELAP | 200029 |
| Indiana | C-SC-01 |
| Kansas NELAP | E-10332 |
| Kentucky SDWA | KY90129 |
| Kentucky Wastewater | KY90129 |
| Louisiana Drinking Water | LA024 |
| Louisiana NELAP | 03046 (AI33904) |
| Maine | 2023019 |
| Maryland | 270 |
| Massachusetts | M-SC012 |
| Massachusetts PFAS Approv | Letter |
| Michigan | 9976 |
| Mississippi | SC00012 |
| Nebraska | NE-OS-26-13 |
| Nevada | NV-C24-00175 |
| New Hampshire NELAP | 205424 |
| New Jersey NELAP | SC002 |
| New Mexico | SC00012 |
| New York NELAP | 11501 |
| North Carolina | 233 |
| North Carolina SDWA | 45709 |
| North Dakota | R-158 |
| Oklahoma | 2023-152 |
| Pennsylvania NELAP | 68-00485 |
| Puerto Rico | SC00012 |
| S. Carolina Radiochem | 10120002 |
| Sanitation Districts of L | 9255651 |
| South Carolina Chemistry | 10120001 |
| Tennessee | TN 02934 |
| Texas NELAP | T104704235 |
| Utah NELAP | SC000122024-44 |
| Vermont | VT87156 |
| Virginia NELAP | 460202 |
| Washington | C780 |

**Radiochemistry**
**Technical Case Narrative**
**Advanced Environmental Laboratories, Inc.**
**SDG #: 696962**

**Product:** **GFPC, Sr90, Drinking Water EPA 905.0**
**Analytical Method:** EPA 905.0
**Analytical Procedure:** GL-RAD-A-029 REV# 18
**Analytical Batch:** 2711540

The following samples were analyzed using the above methods and analytical procedure(s).

| GEL Sample ID# | Client Sample Identification |
|---|---|
| 696962001 | Well |
| 1205931099 | Method Blank (MB) |
| 1205931100 | 697230001(NonSDG) Sample Duplicate (DUP) |
| 1205931101 | 697230001(NonSDG) Matrix Spike (MS) |
| 1205931102 | Laboratory Control Sample (LCS) |

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Technical Information**

**Recounts**
Sample 1205931102 (LCS) was recounted due to high recovery. The recount is reported.

**Product:** **Tritium in Drinking Water EPA 906.0**
**Analytical Method:** EPA 906.0
**Analytical Procedure:** GL-RAD-A-050 REV# 12
**Analytical Batch:** 2711139

The following samples were analyzed using the above methods and analytical procedure(s).

| GEL Sample ID# | Client Sample Identification |
|---|---|
| 696962001 | Well |
| 1205930073 | Method Blank (MB) |
| 1205930074 | 696962001(Well) Sample Duplicate (DUP) |
| 1205930075 | 696962001(Well) Matrix Spike (MS) |
| 1205930076 | Laboratory Control Sample (LCS) |

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures

for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Preparation Information**

**Preservation Information**
Sample was received preserved and run as such. 696962001 (Well).

**Technical Information**

**Recounts**
Samples 1205930075 (WellMS) and 1205930076 (LCS) were recounted due to low recovery. The recounts are reported. Samples 1205930073 (MB), 1205930074 (WellDUP) and 696962001 (Well) were recounted due to the quench number being outside the calibration range. The recounts are reported.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

# GEORGIA DEPARTMENT OF NATURAL RESOURCES
# ENVIRONMENTAL PROTECTION DIVISION

5804 Peachtree Corners East, Norcross, GA 30092-3403
(678) 248-7384

## LABORATORY REPORT

**The GA EPD Labs are accepting UCMR5 and PFAS samples**
**Email Mark Tolbert at mark.tolbert@dnr.ga.gov for more information**

TO: Mr. JASON BARNES
1016 Myrtle Street
VALDOSTA, GA 31601

Sample ID: AL76542
Facility Name: valdosta WTP#1
Site ID: 1850002
Location ID: WTP#1
Location Descr: WTP#2

| | |
|---|---|
| Date Collected: | 11/7/2024 |
| Time Collected: | 9:50 |
| Sample Collector: | A. MASSAIS |
| Chlorination: | T |
| Sample Type: | |
| Received By: | SFK |
| Date Received: | 11/12/2024 |
| Time Received: | 11:00 AM |
| Project: | PFAS-REV |
| Reporting Date: | 12/12/2024 |
| Received Temperature: | 0.0 °C |

| ANALYTE | PARAMETER CODE | NOTE | EPA METHOD | RESULT | UNITS | QUALIFIER | RL | ANALYST | ANALYSIS DATE | MCL or *QC Range* |
|---|---|---|---|---|---|---|---|---|---|---|
| **EPA 533 Sample Results QC Batch 213553** | | | | | | | | | | |
| PFBS | 2801 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 11/15/2024 | |
| PFHpA | 2802 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 11/15/2024 | |
| PFHxS | 2803 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 11/15/2024 | |
| PFNA | 2804 | | EPA 533 | Not Detected | ng/L | | 4 | GG | 11/15/2024 | |
| PFOS | 2805 | | EPA 533 | Not Detected | ng/L | | 4 | GG | 11/15/2024 | |
| PFOA | 2806 | | EPA 533 | Not Detected | ng/L | | 4 | GG | 11/15/2024 | |
| PFDA | 2807 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 11/15/2024 | |
| PFDoA | 2808 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 11/15/2024 | |
| PFHxA | 2809 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 11/15/2024 | |
| PFUnA | 2812 | | EPA 533 | Not Detected | ng/L | | 2 | GG | 11/15/2024 | |
| 11C1-PF3OUdS | 2813 | | EPA 533 | Not Detected | ug/L | | 5 | GG | 11/15/2024 | |
| 9C1-PF3ONS | 2814 | | EPA 533 | Not Detected | ug/L | | 2 | GG | 11/15/2024 | |
| ADONA | 2815 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 11/15/2024 | |
| HFPO-DA | 2816 | | EPA 533 | Not Detected | ug/L | | 5 | GG | 11/15/2024 | |
| PFBA | 2819 | | EPA 533 | Not Detected | ug/L | | 5 | GG | 11/15/2024 | |
| 6:2 FTS | 2820 | | EPA 533 | Not Detected | ug/L | | 5 | GG | 11/15/2024 | |
| 4:2 FTS | 2821 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 11/15/2024 | |
| 8:2 FTS | 2822 | | EPA 533 | Not Detected | ug/L | | 5 | GG | 11/15/2024 | |
| PFMPA | 2823 | | EPA 533 | Not Detected | ug/L | | 4 | GG | 11/15/2024 | |
| PFPeA | 2824 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 11/15/2024 | |
| PFMBA | 2825 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 11/15/2024 | |
| PFEESA | 2826 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 11/15/2024 | |
| NFDHA | 2827 | | EPA 533 | Not Detected | ug/L | | 20 | GG | 11/15/2024 | |
| PFPeS | 2828 | | EPA 533 | Not Detected | ug/L | | 4 | GG | 11/15/2024 | |
| PFHpS | 2829 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 11/15/2024 | |
| 13C2-4:2 FTS IDA | ID42 | | EPA 533 | 138 | % | | | GG | 11/15/2024 | |
| 13C2-6:2 FTS IDA | ID62 | | EPA 533 | 136 | % | | | GG | 11/15/2024 | |

ug/L: micrograms/liter
mg/L: milligrams/liter
mg/kg: milligrams/kilogram
ug/kg: micrograms/kilogram
ug/g: micrograms/gram
ppm: parts per million
ppb: parts per billion
org/L: organisms/liter

<: less than
MCL: Maximum Contaminant Level
RL: Reporting Limit
LSPC: result less than lower specification
USPC: result greater than upper specification
TIE: Tentatively Identified or Estimated
VIOL: Violation (result exceeds MCL)

**Laboratory Contacts:**

| | | | |
|---|---|---|---|
| Lab Director: | Mark Tolbert | 470-524-0577 | Mark.Tolbert@dnr.ga.gov |
| Inorganics: | Venus Singh | 470-524-2556 | Venus.Singh@dnr.ga.gov |
| Metals: | Shene Jones | 470-524-0544 | Shene.Jones@dnr.ga.gov |
| Organics: | Mary Bowman | 470-524-0639 | Mary.Bowman@dnr.ga.gov |
| GC Mass Spec: | Ralph Schulz | 470-524-0684 | Ralph.Schulz@dnr.ga.gov |
| Microbiology: | Mary Bowman | 470-524-0709 | Mary.Bowman@dnr.ga.gov |

| ANALYTE | PARAMETER CODE | NOTE | EPA METHOD | RESULT | UNITS | QUALIFIER | RL | ANALYST | ANALYSIS DATE | MCL or QC Range | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 13C2-8:2 FTS IDA | ID82 | | EPA 533 | 120 | % | | | GG | 11/15/2024 | | |
| 13C4-PFBA IDA | IDBA | | EPA 533 | 103 | % | | | GG | 11/15/2024 | | |
| 13C3-PFBS IDA | IDBS | | EPA 533 | 103 | % | | | GG | 11/15/2024 | | |
| 13C6-PFDA IDA | IDDA | | EPA 533 | 93.6 | % | | | GG | 11/15/2024 | | |
| 13C5-PFPeA IDA | IDEA | | EPA 533 | 134 | % | | | GG | 11/15/2024 | | |
| 13C8-PFOA IDA | IDFA | | EPA 533 | 96.6 | % | | | GG | 11/15/2024 | | |
| 13C8-PFOS IDA | IDFS | | EPA 533 | 94.7 | % | | | GG | 11/15/2024 | | |
| 13C9-PFNA IDA | IDNA | | EPA 533 | 94.7 | % | | | GG | 11/15/2024 | | |
| 13C2-PFDoA IDA | IDOA | | EPA 533 | 89.9 | % | | | GG | 11/15/2024 | | |
| 13C4-PFHpA IDA | IDPA | | EPA 533 | 97.5 | % | | | GG | 11/15/2024 | | |
| 13C3-HFPO-DA IDA | IDPO | | EPA 533 | 95 | % | | | GG | 11/15/2024 | | |
| 13C7-PFUnA IDA | IDUA | | EPA 533 | 94.4 | % | | | GG | 11/15/2024 | | |
| 13C5-PFHxA IDA | IDXA | | EPA 533 | 98.6 | % | | | GG | 11/15/2024 | | |
| 13C3-PFHxS IDA | IDXS | | EPA 533 | 104 | % | | | GG | 11/15/2024 | | |
| **PFAS 537 QC Batch 213514** | | | | | | | | | | | |
| Surrogate 13C2_PFDA | | | EPA 537.1 | 39.9 | ng/L | | 4 | SLZ | 11/15/2024 | *2.8 to* | *5.2* |
| Surrogate 13C2-PFHxA | | | EPA 537.1 | 34.1 | ng/L | | 4 | SLZ | 11/15/2024 | *2.8 to* | *5.2* |
| Surrogate 13C3-HFPO-DA | | | EPA 537.1 | 33.8 | ng/L | | 4 | SLZ | 11/15/2024 | *2.8 to* | *5.2* |
| Surrogate d5-NEtFOSAA | | | EPA 537.1 | 161 | ng/L | | 4 | SLZ | 11/15/2024 | *11.2 to* | *20.8* |
| 11Cl-PF3OUdS | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| 9Cl-PF3ONS | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| ADONA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| HFPO-DA (GenX) | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| N-EtFOSSA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| N-MeFOSSA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFBS | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFDA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFDoDA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFHpA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFHxA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFHxS | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFNA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFOA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFOS | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFTeDA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFTrDA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFUnDA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |

COMMENTS: $LS537 - EPA 537.1 - Insufficient sample for MS/MSD analysis. 7-112024-199

ug/L: micrograms/liter
mg/L: milligrams/liter
mg/kg: milligrams/kilogram
ug/kg: micrograms/kilogram
ug/g: micrograms/gram
ppm: parts per million
ppb: parts per billion
org/L: organisms/liter

<: less than
MCL: Maximum Contaminant Level
RL: Reporting Limit
LSPC: result less than lower specification
USPC: result greater than upper specification
TIE: Tentatively Identified or Estimated
VIOL: Violation (result exceeds MCL)

**Laboratory Contacts:**

| | | | |
|---|---|---|---|
| Lab Director: | Mark Tolbert | 470-524-0577 | Mark.Tolbert@dnr.ga.gov |
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| Organics: | Mary Bowman | 470-524-0639 | Mary.Bowman@dnr.ga.gov |
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# GEORGIA DEPARTMENT OF NATURAL RESOURCES
# ENVIRONMENTAL PROTECTION DIVISION

5804 Peachtree Corners East, Norcross, GA 30092-3403
(678) 248-7384

## LABORATORY REPORT

**The GA EPD Labs are accepting UCMR5 and PFAS samples**
**Email Mark Tolbert at mark.tolbert@dnr.ga.gov for more information**

TO: Mr. PHILLIP WALKER
P.O. Box 1125
VALDOSTA, GA 31603

Sample ID: AL76542
Facility Name: valdosta WTP#1
Site ID: 1850002
Location ID: WTP#1
Location Descr: WTP#2

| | |
|---|---|
| Date Collected: | 11/7/2024 |
| Time Collected: | 9:50 |
| Sample Collector: | A. MASSAIS |
| Chlorination: | T |
| Sample Type: | |
| Received By: | SFK |
| Date Received: | 11/12/2024 |
| Time Received: | 11:00 AM |
| Project: | PFAS-REV |
| Reporting Date: | 12/12/2024 |
| Received Temperature: | 0.0 °C |

| ANALYTE | PARAMETER CODE | NOTE | EPA METHOD | RESULT | UNITS | QUALIFIER | RL | ANALYST | ANALYSIS DATE | MCL or *QC Range* |
|---|---|---|---|---|---|---|---|---|---|---|
| **EPA 533 Sample Results QC Batch 213553** | | | | | | | | | | |
| PFBS | 2801 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 11/15/2024 | |
| PFHpA | 2802 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 11/15/2024 | |
| PFHxS | 2803 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 11/15/2024 | |
| PFNA | 2804 | | EPA 533 | Not Detected | ng/L | | 4 | GG | 11/15/2024 | |
| PFOS | 2805 | | EPA 533 | Not Detected | ng/L | | 4 | GG | 11/15/2024 | |
| PFOA | 2806 | | EPA 533 | Not Detected | ng/L | | 4 | GG | 11/15/2024 | |
| PFDA | 2807 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 11/15/2024 | |
| PFDoA | 2808 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 11/15/2024 | |
| PFHxA | 2809 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 11/15/2024 | |
| PFUnA | 2812 | | EPA 533 | Not Detected | ng/L | | 2 | GG | 11/15/2024 | |
| 11C1-PF3OUdS | 2813 | | EPA 533 | Not Detected | ug/L | | 5 | GG | 11/15/2024 | |
| 9C1-PF3ONS | 2814 | | EPA 533 | Not Detected | ug/L | | 2 | GG | 11/15/2024 | |
| ADONA | 2815 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 11/15/2024 | |
| HFPO-DA | 2816 | | EPA 533 | Not Detected | ug/L | | 5 | GG | 11/15/2024 | |
| PFBA | 2819 | | EPA 533 | Not Detected | ug/L | | 5 | GG | 11/15/2024 | |
| 6:2 FTS | 2820 | | EPA 533 | Not Detected | ug/L | | 5 | GG | 11/15/2024 | |
| 4:2 FTS | 2821 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 11/15/2024 | |
| 8:2 FTS | 2822 | | EPA 533 | Not Detected | ug/L | | 5 | GG | 11/15/2024 | |
| PFMPA | 2823 | | EPA 533 | Not Detected | ug/L | | 4 | GG | 11/15/2024 | |
| PFPeA | 2824 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 11/15/2024 | |
| PFMBA | 2825 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 11/15/2024 | |
| PFEESA | 2826 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 11/15/2024 | |
| NFDHA | 2827 | | EPA 533 | Not Detected | ug/L | | 20 | GG | 11/15/2024 | |
| PFPeS | 2828 | | EPA 533 | Not Detected | ug/L | | 4 | GG | 11/15/2024 | |
| PFHpS | 2829 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 11/15/2024 | |
| 13C2-4:2 FTS IDA | ID42 | | EPA 533 | 138 | % | | | GG | 11/15/2024 | |
| 13C2-6:2 FTS IDA | ID62 | | EPA 533 | 136 | % | | | GG | 11/15/2024 | |

ug/L: micrograms/liter
mg/L: milligrams/liter
mg/kg: milligrams/kilogram
ug/kg: micrograms/kilogram
ug/g: micrograms/gram
ppm: parts per million
ppb: parts per billion
org/L: organisms/liter

<: less than
MCL: Maximum Contaminant Level
RL: Reporting Limit
LSPC: result less than lower specification
USPC: result greater than upper specification
TIE: Tentatively Identified or Estimated
VIOL: Violation (result exceeds MCL)

**Laboratory Contacts:**

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| GC Mass Spec: | Ralph Schulz | 470-524-0684 | Ralph.Schulz@dnr.ga.gov |
| Microbiology: | Mary Bowman | 470-524-0709 | Mary.Bowman@dnr.ga.gov |

| ANALYTE | PARAMETER CODE | NOTE | EPA METHOD | RESULT | UNITS | QUALIFIER | RL | ANALYST | ANALYSIS DATE | MCL or QC Range | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 13C2-8:2 FTS IDA | ID82 | | EPA 533 | 120 | % | | | GG | 11/15/2024 | | |
| 13C4-PFBA IDA | IDBA | | EPA 533 | 103 | % | | | GG | 11/15/2024 | | |
| 13C3-PFBS IDA | IDBS | | EPA 533 | 103 | % | | | GG | 11/15/2024 | | |
| 13C6-PFDA IDA | IDDA | | EPA 533 | 93.6 | % | | | GG | 11/15/2024 | | |
| 13C5-PFPeA IDA | IDEA | | EPA 533 | 134 | % | | | GG | 11/15/2024 | | |
| 13C8-PFOA IDA | IDFA | | EPA 533 | 96.6 | % | | | GG | 11/15/2024 | | |
| 13C8-PFOS IDA | IDFS | | EPA 533 | 94.7 | % | | | GG | 11/15/2024 | | |
| 13C9-PFNA IDA | IDNA | | EPA 533 | 94.7 | % | | | GG | 11/15/2024 | | |
| 13C2-PFDoA IDA | IDOA | | EPA 533 | 89.9 | % | | | GG | 11/15/2024 | | |
| 13C4-PFHpA IDA | IDPA | | EPA 533 | 97.5 | % | | | GG | 11/15/2024 | | |
| 13C3-HFPO-DA IDA | IDPO | | EPA 533 | 95 | % | | | GG | 11/15/2024 | | |
| 13C7-PFUnA IDA | IDUA | | EPA 533 | 94.4 | % | | | GG | 11/15/2024 | | |
| 13C5-PFHxA IDA | IDXA | | EPA 533 | 98.6 | % | | | GG | 11/15/2024 | | |
| 13C3-PFHxS IDA | IDXS | | EPA 533 | 104 | % | | | GG | 11/15/2024 | | |
| **PFAS 537 QC Batch 213514** | | | | | | | | | | | |
| Surrogate 13C2_PFDA | | | EPA 537.1 | 39.9 | ng/L | | 4 | SLZ | 11/15/2024 | *2.8 to* | *5.2* |
| Surrogate 13C2-PFHxA | | | EPA 537.1 | 34.1 | ng/L | | 4 | SLZ | 11/15/2024 | *2.8 to* | *5.2* |
| Surrogate 13C3-HFPO-DA | | | EPA 537.1 | 33.8 | ng/L | | 4 | SLZ | 11/15/2024 | *2.8 to* | *5.2* |
| Surrogate d5-NEtFOSAA | | | EPA 537.1 | 161 | ng/L | | 4 | SLZ | 11/15/2024 | *11.2 to* | *20.8* |
| 11Cl-PF3OUdS | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| 9Cl-PF3ONS | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| ADONA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| HFPO-DA (GenX) | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| N-EtFOSSA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| N-MeFOSSA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFBS | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFDA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFDoDA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFHpA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFHxA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFHxS | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFNA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFOA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFOS | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFTeDA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFTrDA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFUnDA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |

COMMENTS: $LS537 - EPA 537.1 - Insufficient sample for MS/MSD analysis. 7-112024-199

ug/L: micrograms/liter
mg/L: milligrams/liter
mg/kg: milligrams/kilogram
ug/kg: micrograms/kilogram
ug/g: micrograms/gram
ppm: parts per million
ppb: parts per billion
org/L: organisms/liter

<: less than
MCL: Maximum Contaminant Level
RL: Reporting Limit
LSPC: result less than lower specification
USPC: result greater than upper specification
TIE: Tentatively Identified or Estimated
VIOL: Violation (result exceeds MCL)

**Laboratory Contacts:**

| | | | |
|---|---|---|---|
| Lab Director: | Mark Tolbert | 470-524-0577 | Mark.Tolbert@dnr.ga.gov |
| Inorganics: | Venus Singh | 470-524-2556 | Venus.Singh@dnr.ga.gov |
| Metals: | Shene Jones | 470-524-0544 | Shene.Jones@dnr.ga.gov |
| Organics: | Mary Bowman | 470-524-0639 | Mary.Bowman@dnr.ga.gov |
| GC Mass Spec: | Ralph Schulz | 470-524-0684 | Ralph.Schulz@dnr.ga.gov |
| Microbiology: | Mary Bowman | 470-524-0709 | Mary.Bowman@dnr.ga.gov |

# Florida Department of Environmental Protection
# Safe Drinking Water Program Laboratory Reporting Format

**PUBLIC WATER SYSTEM INFORMATION** (to be completed by sampler – please type or print legibly)

System Name: _____ PWS I.D. #: _____

System Type (check one): ☐Community ☐Nontransient Noncommunity ☐Transient Noncommunity

Address: _____

City: _____ ZIP Code: _____

Phone # _____ Fax #: _____ E-Mail Address: _____

SAMPLE INFORMATION (to be completed by sampler)

Sample Number: Well #1 Sample Date: 02/24/2025 Sample Time: 1100 (AM) PM (Circle One)

Sample Location (be specific) : _____ Location Code: _____

Disinfectant Residual (Required when reporting results for trihalomethanes and haloacetic acids): _____ mg/L Field pH: _____

Sample Type (Check Only One)

☐Distribution
☐Entry Point (to Distribution)
☐Plant Tap (not for compliance with 62-550)
☐Raw (at well or intake)
☐Max Residence Time
☐Ave Residence Time
☐Near First Customer

Reason(s) for Sample (Check all that apply)

☐Routine Compliance with 62-550
☐Confirmation of MCL Exceedance*
☐Composite of Multiple Sites**
☐Other: _____

☐Replacement (of Invalidated Sample)
☐Special (not for compliance with 62-550)
☐Clearance (permitting)

Sampling Procedure Used or Other Comments:

_____

*See 62-550.500(6) for requirements and restrictions. And 62-550.512(3) for nitrate or nitrite exceedances.

**See 62-550.550(4) for requirements and attach a results page for each site.

## SAMPLER CERTIFICATION

I, _____ (Print Name), _____ (Print Title), do HEREBY CERTIFY that the above public water system and sample collection information is complete and correct.

Signature: _____ Date: _____

Certified Operator #: _____ Phone #: _____ Sampler's Fax #: _____

Sampler's E-mail: _____

# Florida Department of Environmental Protection
# Safe Drinking Water Program Laboratory Reporting Format

**LABORATORY CERTIFICATION INFORMATION** (to be completed by lab – please type or print legibly)

Lab Name: Cape Fear Analytical, LLC Florida DOH Certification #: E871081 Certification Expiration Date: June 30, 2025

**ATTACH CURRENT DOH ANALYTE SHEET***

Address: 3306 Kitty Hawk Rd. Ste.120 Wilmington NC, 28405 Phone #: 910-795-0421

Were any analyses subcontracted? ☐ Yes ☒ No If yes, please provide DOH certification number(s): _____

**ATTACH DOH ANALYTE SHEET FOR EACH SUBCONTRACTED LAB***

**ANALYSIS INFORMATION** (to be completed by lab) Date Sample(s) Received: 02/26/2025

PWS ID (From Page 1): _____ Sample Number (From Page 1): Well #1 Lab Assigned Report # or Job ID: WO23699

Group(s) Analyzed & Results attached for compliance with Chapter 62-550, F.A.C. (Check all that apply):

| Inorganics | Synthetic Organics | Volatile Organics | Disinfection Byproducts | Radionuclides | Secondaries |
|---|---|---|---|---|---|
| ☐ All Except Asbestos | ☐ All 30 | ☐ All 21 | ☐ Trihalomethanes | ☐ Single Sample | ☐ All 14 |
| ☐ Partial | ☐ All Except Dioxin | ☐ Partial | ☐ Haloacetic Acids | ☐ Qtrly Composite** | ☐ Partial |
| ☐ Nitrate | ☐ Partial | | ☐ Chlorite | | |
| ☐ Nitrite | ☒ Dioxin Only | | ☐ Bromate | | |
| ☐ Asbestos | | | | | |

## LAB CERTIFICATION

I, Christopher K. Cornwell (Print Name), Lab Director (Print Title), do HEREBY CERTIFY that all attached analytical data are correct and unless noted meet all requirements of the National Environmental Laboratory Accreditation Conference (NELAC).

Signature: _____ Date: 03/17/2025

* Failure to provide a valid and current Florida DOH lab certification number and a current Analyte Sheet for the attached analysis results will result in rejection of the report, possible enforcement against the public water system for failure to sample, and may result in notification of the DOH Bureau of Laboratory Services.

** Please provide radiological sample dates & locations for each quarter.

**CONFIRMATION & NOTIFICATION IS REQUIRED WITHIN 24 HRS FOR NITRATE OR NITRITE MCL EXCEEDANCES**

**NON-DETECTS ARE TO BE REPORTED AS THE MDL WITH A "U" QUALIFIER.** **(Non-detects reported as "BDL" or with a "<" are not acceptable.)**

**COMPLIANCE DETERMINATION** (to be completed by DEP or DOH -- attach notes as necessary)

Sample Collection & Analysis Satisfactory: ☐ Yes ☐ No _____ Replacement Sample or Report Requested (circle or highlight group(s) above)

Person Notified: _____ Date Notified: _____ DEP/DOH Reviewing Official: _____

# Florida Department of Environmental Protection
# Safe Drinking Water Program Laboratory Reporting Format

SYNTHETIC ORGANICS

Report Number / Job ID: WO23699 PWS ID (from Page 1): Well #1 .

62-550.310(4)(b)

| Contam ID | Contam Name | MCL | Units | Analysis Result | Qualifier* | Analytical Method | Lab MDL | RDL | Extraction Date | Analysis Date | Analysis Time | DOH Lab Certification # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2005 | Endrin | 2 | µg/L | | | | | 0.01 | | | | E |
| 2010 | Lindane | 0.2 | µg/L | | | | | 0.02 | | | | E |
| 2015 | Methoxychlor | 40 | µg/L | | | | | 0.1 | | | | E |
| 2020 | Toxaphene | 3 | µg/L | | | | | 1 | | | | E |
| 2031 | Dalapon | 200 | µg/L | | | | | 1 | | | | E |
| 2032 | Diquat | 20 | µg/L | | | | | 0.4 | | | | E |
| 2033 | Endothall | 100 | µg/L | | | | | 9 | | | | E |
| 2034 | Glyphosate | 700 | µg/L | | | | | 6 | | | | E |
| 2035 | Di(2-ethylhexyl)adipate | 400 | µg/L | | | | | 0.6 | | | | E |
| 2036 | Oxamyl (Vydate) | 200 | µg/L | | | | | 2 | | | | E |
| 2037 | Simazine | 4 | µg/L | | | | | 0.07 | | | | E |
| 2039 | Di(2-ethylhexyl)phthalate | 6 | µg/L | | | | | 0.6 | | | | E |
| 2040 | Picloram | 500 | µg/L | | | | | 0.1 | | | | E |
| 2041 | Dinoseb | 7 | µg/L | | | | | 0.2 | | | | E |
| 2042 | Hexachlorocyclopentadinene | 50 | µg/L | | | | | 0.1 | | | | E |
| 2046 | Carbofuran | 40 | µg/L | | | | | 0.9 | | | | E |
| 2050 | Atrazine | 3 | µg/L | | | | | 0.1 | | | | E |
| 2051 | Alachlor | 2 | µg/L | | | | | 0.2 | | | | E |
| 2063 | 2,3,7,8-TCDD (Dioxin) | 0.03 | ng/L | 0.00392 | U | EPA1613 | 0.00392 | 0.005 | 03/04/2025 | 03/11/2025 | 0110 | E871081 |
| 2065 | Heptachlor | 0.4 | µg/L | | | | | 0.04 | | | | E |
| 2067 | Heptachlor Epoxide | 0.2 | µg/L | | | | | 0.02 | | | | E |
| 2105 | 2,4-D | 70 | µg/L | | | | | 0.1 | | | | E |
| 2110 | 2,4,5-TP (Silvex) | 50 | µg/L | | | | | 0.2 | | | | E |
| 2274 | Hexachlorobenzene | 1 | µg/L | | | | | 0.1 | | | | E |
| 2306 | Benzo(a)pyrene | 0.2 | µg/L | | | | | 0.02 | | | | E |
| 2326 | Pentachlorophenol | 1 | µg/L | | | | | 0.04 | | | | E |
| 2383 | Polychlorinated biphenyls (PCBs) | 0.5 | µg/L | | | | | 0.1 | | | | E |
| 2931 | Dibromochloropropane | 0.2 | µg/L | | | | | 0.02 | | | | E |
| 2946 | Ethylene Dibromide (EDB) | 0.02 | µg/L | | | | | 0.01 | | | | E |
| 2959 | Chlordane | 2 | µg/L | | | | | 0.2 | | | | E |



*Results must be reported with appropriate qualifiers in accordance with Florida Administrative Code Rule 62-160, Table 1. Results qualified with A, F, H, N, O, T, Z, ?, *, are unacceptable for compliance with 62-550. Results qualified with a J, Q, R, or Y must be accompanied by written justification and will be evaluated on a case by case basis. To avoid a monitoring violation, unacceptable results must be replaced with acceptable results from samples collected during the same monitoring period.

# Laboratory Analysis

## Molecular Particulate Analysis (MPA) Sampling

**Valdosta WTP No. 2**
**Production Well No. 1**

CDM Smith

# INVOICE

**Remittance Address:**
CH Diagnostic and Consulting Services, Inc.
730 6th Street
Berthoud, CO 80513
970-532-2078

**Invoice Number** 20240274
**Invoice Date** 12/2/2024
**PO Number**
**Contract Number**

**Customer:** 20091790
City of Valdosta Water Treatment Plant
Attn: Philip Walker
PO Box 1125
Valdosta, GA 31603

**Please include Invoice number with payment.**

**Invoice Due Date: January 04, 2025**

| Description of Services | Quantity | Unit Price | Discount | Amount |
|---|---|---|---|---|
| Ground MPA | 2 | $425.00 | 0.00% | $850.00 |
| Polypropylene Wound Filter Cartridge | 3 | $15.00 | 0.00% | $45.00 |

***We appreciate your business!***

**Invoice Total** **$895.00**

# ANALYSIS FOR WATERBORNE PARTICULATES

**CH Diagnostic and Consulting Service, Inc.**
**512 5th Street, Berthoud, CO 80513**
**P: (970) 532-2078 F: (970) 532-3358**

**Invoice 20240274**

**Customer 20091790**
City of Valdosta Water Treatment Plant
PO Box 1125
Valdosta, GA 31603
**PWSID# 1850002**

**Laboratory Information**
Federal Express; 11/28/2024; 1030 Hrs; 2.8°C
Results submitted by:

| | | | |
|---|---|---|---|
| **Sample Identification:** | WTP #2, Valdosta, Well 1 | | |
| **Sample Information:** | SOURCE: Drilled Well; 450' deep; Unchlorinated; pH 8.08 —» pH 8.10; 21.8°C —» 21.7°C; 0.49 NTU —» 0.40 NTU | | |
| **Sample Date & Time:** | 11/25/2024 03:44 PM —» 11/26/2024 07:52 AM | **Sampler:** | Eduardo Fabelo |
| **Amount:** | 2309.607 L (610.2 gal) | **Filter Color:** White | **Filter Type:** Polypropylene wound cartridge |
| **Date/Time Eluted:** | 11/28/2024 12:00 AM | **Centrifugate:** | 0.00432 mL/100 L |

**RESULTS OF MICROSCOPIC PARTICULATE ANALYSIS**

Amount of sample assayed: 460 L

| | |
|---|---|
| Amorphous Debris | clay (1-2 µm), silt (2-50 µm), sand (50-2000 µm) |
| Algae | ND |
| Diatoms | ND |
| Plant debris | ND |
| Rotifers | ND |
| Nematodes | ND |
| Pollen (pine) | 1/100 Gal |
| Ameba | ND |
| Ciliates | ND |
| Colorless Flagellates | ND |
| Crustaceans | ND |
| Other Arthropods | ND |
| Other | ND |

*Giardia* and Coccidia are none detected (ND) by MPA unless reported under "Other".

This sample was analyzed for particulates following the Environmental Protection Agency Consensus Method for Determining Groundwaters Under the Direct Influence of Surface Water Using Microscopic Particulate Analysis (MPA). 1992. USEPA, Port Orchard, WA, EPA 910/9-92-029. All limitations stated in the methods apply. If HV capsule or foam filter was received, method was modified by filtering sample through a Pall Envirochek™ HV capsule or IDEXX Filta-Max™ filter at the sample site. If *Giardia* and *Cryptosporidium* Analysis was also performed, particulate extraction was modified.

COMMENTS: Score: 0-Low Risk per EPA Consensus Method referenced above.

# Laboratory Analysis

## Perfluorooctanoic Acid (PFOA) and Perfluorooctyl Sulfonate (PFOS)

**Valdosta WTP No. 2**
**Production Well No. 1**

CDM Smith

# GEORGIA DEPARTMENT OF NATURAL RESOURCES
# ENVIRONMENTAL PROTECTION DIVISION

5804 Peachtree Corners East, Norcross, GA 30092-3403
(678) 248-7384

## LABORATORY REPORT

**The GA EPD Labs are accepting UCMR5 and PFAS samples**
**Email Mark Tolbert at mark.tolbert@dnr.ga.gov for more information**

TO: Mr. JASON BARNES
1016 Myrtle Street
VALDOSTA, GA 31601

Sample ID: AL76542
Facility Name: valdosta WTP#1
Site ID: 1850002
Location ID: WTP#1
Location Descr: WTP#2

| | |
|---|---|
| Date Collected: | 11/7/2024 |
| Time Collected: | 9:50 |
| Sample Collector: | A. MASSAIS |
| Chlorination: | T |
| Sample Type: | |
| Received By: | SFK |
| Date Received: | 11/12/2024 |
| Time Received: | 11:00 AM |
| Project: | PFAS-REV |
| Reporting Date: | 12/12/2024 |
| Received Temperature: | 0.0 °C |

| ANALYTE | PARAMETER CODE | NOTE | EPA METHOD | RESULT | UNITS | QUALIFIER | RL | ANALYST | ANALYSIS DATE | MCL or *QC Range* |
|---|---|---|---|---|---|---|---|---|---|---|
| **EPA 533 Sample Results QC Batch 213553** | | | | | | | | | | |
| PFBS | 2801 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 11/15/2024 | |
| PFHpA | 2802 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 11/15/2024 | |
| PFHxS | 2803 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 11/15/2024 | |
| PFNA | 2804 | | EPA 533 | Not Detected | ng/L | | 4 | GG | 11/15/2024 | |
| PFOS | 2805 | | EPA 533 | Not Detected | ng/L | | 4 | GG | 11/15/2024 | |
| PFOA | 2806 | | EPA 533 | Not Detected | ng/L | | 4 | GG | 11/15/2024 | |
| PFDA | 2807 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 11/15/2024 | |
| PFDoA | 2808 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 11/15/2024 | |
| PFHxA | 2809 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 11/15/2024 | |
| PFUnA | 2812 | | EPA 533 | Not Detected | ng/L | | 2 | GG | 11/15/2024 | |
| 11C1-PF3OUdS | 2813 | | EPA 533 | Not Detected | ug/L | | 5 | GG | 11/15/2024 | |
| 9C1-PF3ONS | 2814 | | EPA 533 | Not Detected | ug/L | | 2 | GG | 11/15/2024 | |
| ADONA | 2815 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 11/15/2024 | |
| HFPO-DA | 2816 | | EPA 533 | Not Detected | ug/L | | 5 | GG | 11/15/2024 | |
| PFBA | 2819 | | EPA 533 | Not Detected | ug/L | | 5 | GG | 11/15/2024 | |
| 6:2 FTS | 2820 | | EPA 533 | Not Detected | ug/L | | 5 | GG | 11/15/2024 | |
| 4:2 FTS | 2821 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 11/15/2024 | |
| 8:2 FTS | 2822 | | EPA 533 | Not Detected | ug/L | | 5 | GG | 11/15/2024 | |
| PFMPA | 2823 | | EPA 533 | Not Detected | ug/L | | 4 | GG | 11/15/2024 | |
| PFPeA | 2824 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 11/15/2024 | |
| PFMBA | 2825 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 11/15/2024 | |
| PFEESA | 2826 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 11/15/2024 | |
| NFDHA | 2827 | | EPA 533 | Not Detected | ug/L | | 20 | GG | 11/15/2024 | |
| PFPeS | 2828 | | EPA 533 | Not Detected | ug/L | | 4 | GG | 11/15/2024 | |
| PFHpS | 2829 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 11/15/2024 | |
| 13C2-4:2 FTS IDA | ID42 | | EPA 533 | 138 | % | | | GG | 11/15/2024 | |
| 13C2-6:2 FTS IDA | ID62 | | EPA 533 | 136 | % | | | GG | 11/15/2024 | |

ug/L: micrograms/liter
mg/L: milligrams/liter
mg/kg: milligrams/kilogram
ug/kg: micrograms/kilogram
ug/g: micrograms/gram
ppm: parts per million
ppb: parts per billion
org/L: organisms/liter

<: less than
MCL: Maximum Contaminant Level
RL: Reporting Limit
LSPC: result less than lower specification
USPC: result greater than upper specification
TIE: Tentatively Identified or Estimated
VIOL: Violation (result exceeds MCL)

**Laboratory Contacts:**

| | | | |
|---|---|---|---|
| Lab Director: | Mark Tolbert | 470-524-0577 | Mark.Tolbert@dnr.ga.gov |
| Inorganics: | Venus Singh | 470-524-2556 | Venus.Singh@dnr.ga.gov |
| Metals: | Shene Jones | 470-524-0544 | Shene.Jones@dnr.ga.gov |
| Organics: | Mary Bowman | 470-524-0639 | Mary.Bowman@dnr.ga.gov |
| GC Mass Spec: | Ralph Schulz | 470-524-0684 | Ralph.Schulz@dnr.ga.gov |
| Microbiology: | Mary Bowman | 470-524-0709 | Mary.Bowman@dnr.ga.gov |

| ANALYTE | PARAMETER CODE | NOTE | EPA METHOD | RESULT | UNITS | QUALIFIER | RL | ANALYST | ANALYSIS DATE | MCL or QC Range | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 13C2-8:2 FTS IDA | ID82 | | EPA 533 | 120 | % | | | GG | 11/15/2024 | | |
| 13C4-PFBA IDA | IDBA | | EPA 533 | 103 | % | | | GG | 11/15/2024 | | |
| 13C3-PFBS IDA | IDBS | | EPA 533 | 103 | % | | | GG | 11/15/2024 | | |
| 13C6-PFDA IDA | IDDA | | EPA 533 | 93.6 | % | | | GG | 11/15/2024 | | |
| 13C5-PFPeA IDA | IDEA | | EPA 533 | 134 | % | | | GG | 11/15/2024 | | |
| 13C8-PFOA IDA | IDFA | | EPA 533 | 96.6 | % | | | GG | 11/15/2024 | | |
| 13C8-PFOS IDA | IDFS | | EPA 533 | 94.7 | % | | | GG | 11/15/2024 | | |
| 13C9-PFNA IDA | IDNA | | EPA 533 | 94.7 | % | | | GG | 11/15/2024 | | |
| 13C2-PFDoA IDA | IDOA | | EPA 533 | 89.9 | % | | | GG | 11/15/2024 | | |
| 13C4-PFHpA IDA | IDPA | | EPA 533 | 97.5 | % | | | GG | 11/15/2024 | | |
| 13C3-HFPO-DA IDA | IDPO | | EPA 533 | 95 | % | | | GG | 11/15/2024 | | |
| 13C7-PFUnA IDA | IDUA | | EPA 533 | 94.4 | % | | | GG | 11/15/2024 | | |
| 13C5-PFHxA IDA | IDXA | | EPA 533 | 98.6 | % | | | GG | 11/15/2024 | | |
| 13C3-PFHxS IDA | IDXS | | EPA 533 | 104 | % | | | GG | 11/15/2024 | | |
| **PFAS 537 QC Batch 213514** | | | | | | | | | | | |
| Surrogate 13C2_PFDA | | | EPA 537.1 | 39.9 | ng/L | | 4 | SLZ | 11/15/2024 | *2.8 to* | *5.2* |
| Surrogate 13C2-PFHxA | | | EPA 537.1 | 34.1 | ng/L | | 4 | SLZ | 11/15/2024 | *2.8 to* | *5.2* |
| Surrogate 13C3-HFPO-DA | | | EPA 537.1 | 33.8 | ng/L | | 4 | SLZ | 11/15/2024 | *2.8 to* | *5.2* |
| Surrogate d5-NEtFOSAA | | | EPA 537.1 | 161 | ng/L | | 4 | SLZ | 11/15/2024 | *11.2 to* | *20.8* |
| 11Cl-PF3OUdS | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| 9Cl-PF3ONS | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| ADONA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| HFPO-DA (GenX) | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| N-EtFOSSA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| N-MeFOSSA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFBS | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFDA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFDoDA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFHpA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFHxA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFHxS | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFNA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFOA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFOS | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFTeDA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFTrDA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFUnDA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |

COMMENTS: $LS537 - EPA 537.1 - Insufficient sample for MS/MSD analysis. 7-112024-199

ug/L: micrograms/liter
mg/L: milligrams/liter
mg/kg: milligrams/kilogram
ug/kg: micrograms/kilogram
ug/g: micrograms/gram
ppm: parts per million
ppb: parts per billion
org/L: organisms/liter

<: less than
MCL: Maximum Contaminant Level
RL: Reporting Limit
LSPC: result less than lower specification
USPC: result greater than upper specification
TIE: Tentatively Identified or Estimated
VIOL: Violation (result exceeds MCL)

**Laboratory Contacts:**

| | | | |
|---|---|---|---|
| Lab Director: | Mark Tolbert | 470-524-0577 | Mark.Tolbert@dnr.ga.gov |
| Inorganics: | Venus Singh | 470-524-2556 | Venus.Singh@dnr.ga.gov |
| Metals: | Shene Jones | 470-524-0544 | Shene.Jones@dnr.ga.gov |
| Organics: | Mary Bowman | 470-524-0639 | Mary.Bowman@dnr.ga.gov |
| GC Mass Spec: | Ralph Schulz | 470-524-0684 | Ralph.Schulz@dnr.ga.gov |
| Microbiology: | Mary Bowman | 470-524-0709 | Mary.Bowman@dnr.ga.gov |

# GEORGIA DEPARTMENT OF NATURAL RESOURCES
# ENVIRONMENTAL PROTECTION DIVISION

5804 Peachtree Corners East, Norcross, GA 30092-3403
(678) 248-7384

## LABORATORY REPORT

**The GA EPD Labs are accepting UCMR5 and PFAS samples**
**Email Mark Tolbert at mark.tolbert@dnr.ga.gov for more information**

TO: Mr. PHILLIP WALKER
P.O. Box 1125
VALDOSTA, GA 31603

Sample ID: AL76542
Facility Name: valdosta WTP#1
Site ID: 1850002
Location ID: WTP#1
Location Descr: WTP#2

| | |
|---|---|
| Date Collected: | 11/7/2024 |
| Time Collected: | 9:50 |
| Sample Collector: | A. MASSAIS |
| Chlorination: | T |
| Sample Type: | |
| Received By: | SFK |
| Date Received: | 11/12/2024 |
| Time Received: | 11:00 AM |
| Project: | PFAS-REV |
| Reporting Date: | 12/12/2024 |
| Received Temperature: | 0.0 °C |

| ANALYTE | PARAMETER CODE | NOTE | EPA METHOD | RESULT | UNITS | QUALIFIER | RL | ANALYST | ANALYSIS DATE | MCL or *QC Range* |
|---|---|---|---|---|---|---|---|---|---|---|
| **EPA 533 Sample Results QC Batch 213553** | | | | | | | | | | |
| PFBS | 2801 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 11/15/2024 | |
| PFHpA | 2802 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 11/15/2024 | |
| PFHxS | 2803 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 11/15/2024 | |
| PFNA | 2804 | | EPA 533 | Not Detected | ng/L | | 4 | GG | 11/15/2024 | |
| PFOS | 2805 | | EPA 533 | Not Detected | ng/L | | 4 | GG | 11/15/2024 | |
| PFOA | 2806 | | EPA 533 | Not Detected | ng/L | | 4 | GG | 11/15/2024 | |
| PFDA | 2807 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 11/15/2024 | |
| PFDoA | 2808 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 11/15/2024 | |
| PFHxA | 2809 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 11/15/2024 | |
| PFUnA | 2812 | | EPA 533 | Not Detected | ng/L | | 2 | GG | 11/15/2024 | |
| 11C1-PF3OUdS | 2813 | | EPA 533 | Not Detected | ug/L | | 5 | GG | 11/15/2024 | |
| 9C1-PF3ONS | 2814 | | EPA 533 | Not Detected | ug/L | | 2 | GG | 11/15/2024 | |
| ADONA | 2815 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 11/15/2024 | |
| HFPO-DA | 2816 | | EPA 533 | Not Detected | ug/L | | 5 | GG | 11/15/2024 | |
| PFBA | 2819 | | EPA 533 | Not Detected | ug/L | | 5 | GG | 11/15/2024 | |
| 6:2 FTS | 2820 | | EPA 533 | Not Detected | ug/L | | 5 | GG | 11/15/2024 | |
| 4:2 FTS | 2821 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 11/15/2024 | |
| 8:2 FTS | 2822 | | EPA 533 | Not Detected | ug/L | | 5 | GG | 11/15/2024 | |
| PFMPA | 2823 | | EPA 533 | Not Detected | ug/L | | 4 | GG | 11/15/2024 | |
| PFPeA | 2824 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 11/15/2024 | |
| PFMBA | 2825 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 11/15/2024 | |
| PFEESA | 2826 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 11/15/2024 | |
| NFDHA | 2827 | | EPA 533 | Not Detected | ug/L | | 20 | GG | 11/15/2024 | |
| PFPeS | 2828 | | EPA 533 | Not Detected | ug/L | | 4 | GG | 11/15/2024 | |
| PFHpS | 2829 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 11/15/2024 | |
| 13C2-4:2 FTS IDA | ID42 | | EPA 533 | 138 | % | | | GG | 11/15/2024 | |
| 13C2-6:2 FTS IDA | ID62 | | EPA 533 | 136 | % | | | GG | 11/15/2024 | |

ug/L: micrograms/liter
mg/L: milligrams/liter
mg/kg: milligrams/kilogram
ug/kg: micrograms/kilogram
ug/g: micrograms/gram
ppm: parts per million
ppb: parts per billion
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<: less than
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| Microbiology: | Mary Bowman | 470-524-0709 | Mary.Bowman@dnr.ga.gov |

| ANALYTE | PARAMETER CODE | NOTE | EPA METHOD | RESULT | UNITS | QUALIFIER | RL | ANALYST | ANALYSIS DATE | MCL or QC Range | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 13C2-8:2 FTS IDA | ID82 | | EPA 533 | 120 | % | | | GG | 11/15/2024 | | |
| 13C4-PFBA IDA | IDBA | | EPA 533 | 103 | % | | | GG | 11/15/2024 | | |
| 13C3-PFBS IDA | IDBS | | EPA 533 | 103 | % | | | GG | 11/15/2024 | | |
| 13C6-PFDA IDA | IDDA | | EPA 533 | 93.6 | % | | | GG | 11/15/2024 | | |
| 13C5-PFPeA IDA | IDEA | | EPA 533 | 134 | % | | | GG | 11/15/2024 | | |
| 13C8-PFOA IDA | IDFA | | EPA 533 | 96.6 | % | | | GG | 11/15/2024 | | |
| 13C8-PFOS IDA | IDFS | | EPA 533 | 94.7 | % | | | GG | 11/15/2024 | | |
| 13C9-PFNA IDA | IDNA | | EPA 533 | 94.7 | % | | | GG | 11/15/2024 | | |
| 13C2-PFDoA IDA | IDOA | | EPA 533 | 89.9 | % | | | GG | 11/15/2024 | | |
| 13C4-PFHpA IDA | IDPA | | EPA 533 | 97.5 | % | | | GG | 11/15/2024 | | |
| 13C3-HFPO-DA IDA | IDPO | | EPA 533 | 95 | % | | | GG | 11/15/2024 | | |
| 13C7-PFUnA IDA | IDUA | | EPA 533 | 94.4 | % | | | GG | 11/15/2024 | | |
| 13C5-PFHxA IDA | IDXA | | EPA 533 | 98.6 | % | | | GG | 11/15/2024 | | |
| 13C3-PFHxS IDA | IDXS | | EPA 533 | 104 | % | | | GG | 11/15/2024 | | |
| **PFAS 537 QC Batch 213514** | | | | | | | | | | | |
| Surrogate 13C2_PFDA | | | EPA 537.1 | 39.9 | ng/L | | 4 | SLZ | 11/15/2024 | *2.8 to* | *5.2* |
| Surrogate 13C2-PFHxA | | | EPA 537.1 | 34.1 | ng/L | | 4 | SLZ | 11/15/2024 | *2.8 to* | *5.2* |
| Surrogate 13C3-HFPO-DA | | | EPA 537.1 | 33.8 | ng/L | | 4 | SLZ | 11/15/2024 | *2.8 to* | *5.2* |
| Surrogate d5-NEtFOSAA | | | EPA 537.1 | 161 | ng/L | | 4 | SLZ | 11/15/2024 | *11.2 to* | *20.8* |
| 11Cl-PF3OUdS | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| 9Cl-PF3ONS | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| ADONA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| HFPO-DA (GenX) | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| N-EtFOSSA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| N-MeFOSSA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFBS | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFDA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFDoDA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFHpA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFHxA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFHxS | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFNA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFOA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFOS | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFTeDA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFTrDA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |
| PFUnDA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 11/15/2024 | | |

COMMENTS: $LS537 - EPA 537.1 - Insufficient sample for MS/MSD analysis. 7-112024-199

ug/L: micrograms/liter
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# Appendix I Laboratory Analysis Reports Well No. 2

# Laboratory Analysis

Step Drawdown Test

## Valdosta WTP No. 2
## Production Well No. 2

CDM Smith

Advanced Environmental Laboratories, Inc.
2639 N Monroe St Suite D Tallahassee, FL 32303
Payments: P.O. Box 551580 Jacksonville, FL 32255-1580
Phone: (850) 219-6274
Fax: (850) 219-6275

**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2500026)

January 31, 2025

Tom Salter
Rowe Drilling
7584 W Tennessee St
Tallahassee, FL 32304

RE: Workorder: S2500026 WATER TREATMENT PLANT

Dear Tom Salter:

Enclosed are the analytical results for sample(s) received by the laboratory on Friday January 3, 2025. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

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

Sincerely,

Tim Preston
TPreston@AELLab.com



**Certificate of Analysis**
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Phone: (850) 219-6274
Fax: (850) 219-6275

**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2500026)

## Sample Summary

| Lab ID | Sample ID | Matrix | Method | Date Collected | Date Received | Analytes Reported | Basis |
|---|---|---|---|---|---|---|---|
| S2500026001 | STEP 1 | DW | EPA 300.0 | 01/03/2025 10:12 | 01/03/2025 17:05 | 3 | NA |
| S2500026001 | STEP 1 | DW | SM 2510 B | 01/03/2025 10:12 | 01/03/2025 17:05 | 1 | NA |
| S2500026001 | STEP 1 | DW | SM 2540 C | 01/03/2025 10:12 | 01/03/2025 17:05 | 1 | NA |
| S2500026001 | STEP 1 | DW | SM 4500H+B | 01/03/2025 10:12 | 01/03/2025 17:05 | 1 | NA |
| S2500026002 | STEP 2 | DW | EPA 300.0 | 01/03/2025 13:00 | 01/03/2025 17:05 | 3 | NA |
| S2500026002 | STEP 2 | DW | SM 2510 B | 01/03/2025 13:00 | 01/03/2025 17:05 | 1 | NA |
| S2500026002 | STEP 2 | DW | SM 2540 C | 01/03/2025 13:00 | 01/03/2025 17:05 | 1 | NA |
| S2500026002 | STEP 2 | DW | SM 4500H+B | 01/03/2025 13:00 | 01/03/2025 17:05 | 1 | NA |
| S2500026003 | STEP 3 | DW | EPA 300.0 | 01/03/2025 15:15 | 01/03/2025 17:05 | 3 | NA |
| S2500026003 | STEP 3 | DW | SM 2510 B | 01/03/2025 15:15 | 01/03/2025 17:05 | 1 | NA |
| S2500026003 | STEP 3 | DW | SM 2540 C | 01/03/2025 15:15 | 01/03/2025 17:05 | 1 | NA |
| S2500026003 | STEP 3 | DW | SM 4500H+B | 01/03/2025 15:15 | 01/03/2025 17:05 | 1 | NA |



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Fax: (850) 219-6275

**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2500026)

## Workorder Summary

### Task Comments

**S2500026001 (STEP 1) - WCAs/5290 - .PH,SM4500H+B, Drinking Water**

Q|Missed Hold Time

**S2500026002 (STEP 2) - WCAs/5290 - .PH,SM4500H+B, Drinking Water**

Q|Missed Hold Time

**S2500026003 (STEP 3) - WCAs/5290 - .PH,SM4500H+B, Drinking Water**

Q|Missed Hold Time



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2500026)

## Analytical Results Qualifiers

### Parameter Qualifiers

| | |
|---|---|
| U | The compound was analyzed for but not detected. |
| I | The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit. |
| Q | Missed Hold Time |

### Lab Qualifiers

| | |
|---|---|
| S | DOH Certification #E811095 (FL NELAC) AEL-Tallahassee |
| T | DOH Certification #E84589 (FL NELAC) AEL-Tampa |



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2500026)

## Analytical Results

**Lab ID:** S2500026001 **Date Collected:** 01/03/2025 10:12 **Matrix:** Drinking Water
**Sample ID:** STEP 1 **Date Received:** 01/03/2025 17:05

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| **WET CHEMISTRY (EPA 300.0)** | | | | | | | | |
| Chloride | **4.8 I** | mg/L | 5.0 | 2.0 | 1 | 01/30/2025 21:35 | 01/30/2025 21:35 | S |
| Sulfate | **39** | mg/L | 5.0 | 2.0 | 1 | 01/30/2025 21:35 | 01/30/2025 21:35 | S |
| **WET CHEMISTRY (SM 2510 B)** | | | | | | | | |
| Conductivity | **290** | umhos/cm @ 25.0°C | 2.0 | 2.0 | 1 | 01/07/2025 11:00 | 01/07/2025 11:00 | T |
| **WET CHEMISTRY (SM 2540 C)** | | | | | | | | |
| Total Dissolved Solids | **260** | mg/L | 10 | 10 | 1 | 01/06/2025 13:46 | 01/06/2025 13:46 | S |
| **WET CHEMISTRY (SM 4500H+B)** | | | | | | | | |
| pH | **7.67** | SU | | | 1 | 01/06/2025 09:57 | 01/06/2025 09:57 | S |

### Analysis Results Comments

**pH**

Q|Missed Hold Time



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2500026)

## Analytical Results

**Lab ID:** S2500026002 **Date Collected:** 01/03/2025 13:00 **Matrix:** Drinking Water
**Sample ID:** STEP 2 **Date Received:** 01/03/2025 17:05

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| **WET CHEMISTRY (EPA 300.0)** | | | | | | | | |
| Chloride | **4.8 I** | mg/L | 5.0 | 2.0 | 1 | 01/30/2025 22:02 | 01/30/2025 22:02 | S |
| Sulfate | **38** | mg/L | 5.0 | 2.0 | 1 | 01/30/2025 22:02 | 01/30/2025 22:02 | S |
| **WET CHEMISTRY (SM 2510 B)** | | | | | | | | |
| Conductivity | **290** | umhos/cm @ 25.0°C | 2.0 | 2.0 | 1 | 01/07/2025 11:00 | 01/07/2025 11:00 | T |
| **WET CHEMISTRY (SM 2540 C)** | | | | | | | | |
| Total Dissolved Solids | **220** | mg/L | 10 | 10 | 1 | 01/06/2025 13:46 | 01/06/2025 13:46 | S |
| **WET CHEMISTRY (SM 4500H+B)** | | | | | | | | |
| pH | **7.65** | SU | | | 1 | 01/06/2025 09:57 | 01/06/2025 09:57 | S |

### Analysis Results Comments

**pH**

Q|Missed Hold Time



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2500026)

## Analytical Results

**Lab ID:** S2500026003 **Date Collected:** 01/03/2025 15:15 **Matrix:** Drinking Water
**Sample ID:** STEP 3 **Date Received:** 01/03/2025 17:05

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| **WET CHEMISTRY (EPA 300.0)** | | | | | | | | |
| Chloride | **4.8 I** | mg/L | 5.0 | 2.0 | 1 | 01/30/2025 22:29 | 01/30/2025 22:29 | S |
| Sulfate | **38** | mg/L | 5.0 | 2.0 | 1 | 01/30/2025 22:29 | 01/30/2025 22:29 | S |
| **WET CHEMISTRY (SM 2510 B)** | | | | | | | | |
| Conductivity | **290** | umhos/cm @ 25.0°C | 2.0 | 2.0 | 1 | 01/07/2025 11:00 | 01/07/2025 11:00 | T |
| **WET CHEMISTRY (SM 2540 C)** | | | | | | | | |
| Total Dissolved Solids | **210** | mg/L | 10 | 10 | 1 | 01/06/2025 13:46 | 01/06/2025 13:46 | S |
| **WET CHEMISTRY (SM 4500H+B)** | | | | | | | | |
| pH | **7.83** | SU | | | 1 | 01/06/2025 09:57 | 01/06/2025 09:57 | S |

### Analysis Results Comments

**pH**

Q|Missed Hold Time



**Certificate of Analysis**

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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2500026)

## QC Results

**QC Batch:** WCAs/5290 **Analysis Method:** SM 4500H+B
**Preparation Method:** SM 4500H+B
**Associated Lab IDs:** S2500026001, S2500026002, S2500026003

**Sample Duplicate (5641030); Original (S2500026001); Parent Lab Sample (S2500026001, S2500026002, S2500026003)**

| Parameter | Original | Duplicate | Units | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|
| pH | 7.67 | 7.67 | SU | 0 | 10 | S |



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2500026)

## QC Results

**QC Batch:** WCAs/5292
**Preparation Method:** SM 2540 C
**Associated Lab IDs:** S2500026001, S2500026002, S2500026003
**Analysis Method:** SM 2540 C

**Method Blank(5641475)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| Total Dissolved Solids | 10 U | mg/L | 10 | 10 | S |

**Lab Control Sample (5641476)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Total Dissolved Solids | mg/L | 330 | 380 | 114 | 85 - 115 | S |

**Sample Duplicate (5641477); Original (S2500026001); Parent Lab Sample (S2500026001, S2500026002, S2500026003)**

| Parameter | Original | Duplicate | Units | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|
| Total Dissolved Solids | 256 | 282 | mg/L | 10 | 10 | S |



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Payments: P.O. Box 551580 Jacksonville, FL 32255-1580
Phone: (850) 219-6274
Fax: (850) 219-6275

**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2500026)

## QC Results

**QC Batch:** WCAs/5395
**Preparation Method:** EPA 300.0
**Associated Lab IDs:** S2500026001, S2500026002, S2500026003
**Analysis Method:** EPA 300.0

**Method Blank(5678937)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| Fluoride | 0.20 U | mg/L | 0.50 | 0.20 | S |
| Chloride | 2.0 U | mg/L | 5.0 | 2.0 | S |
| Sulfate | 2.0 U | mg/L | 5.0 | 2.0 | S |

**Lab Control Sample (5678938)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| **Fluoride** | mg/L | 2 | 0 | **0** | 90 - 110 | S |
| Chloride | mg/L | 20 | 18 | 90 | 90 - 110 | S |
| Sulfate | mg/L | 20 | 20 | 99 | 90 - 110 | S |

### QC Result Comments

**Lab Control Sample - 5678938 - Fluoride**

J3|Lab QC Failure



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2500026)

## QC Results

**QC Batch:** WCAt/36113
**Preparation Method:** SM 2510 B
**Associated Lab IDs:** S2500026001, S2500026002, S2500026003
**Analysis Method:** SM 2510 B

**Method Blank(5642851)**

| Parameter | Results | Units | PQL | MDL | Lab |
|---|---|---|---|---|---|
| Conductivity | 2.0 U | umhos/cm @ 25.0°C | 2.0 | 2.0 | T |

**Lab Control Sample (5642852)**

| Parameter | Units | Spiked Amount | Spike Result | Spike Recovery | Control Limits | Lab |
|---|---|---|---|---|---|---|
| Conductivity | umhos/c | 700 | 730 | 104 | 85 - 115 | T |

**Sample Duplicate (5642853); Original (T2500353001); Parent Lab Sample (S2500026001, S2500026002, S2500026003)**

| Parameter | Original | Duplicate | Units | RPD | RPD Limit | Lab |
|---|---|---|---|---|---|---|
| Conductivity | 479 | 472 | umhos/cm | 1 | 10 | T |



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**FINAL**

**Workorder:** WATER TREATMENT PLANT (S2500026)

## QC Cross Reference

| Lab ID | Sample ID | Prep Batch | Prep Method |
|---|---|---|---|
| **WCAs/5290 - SM 4500H+B** | | | |
| S2500026001 | STEP 1 | | |
| S2500026002 | STEP 2 | | |
| S2500026003 | STEP 3 | | |
| **WCAs/5292 - SM 2540 C** | | | |
| S2500026001 | STEP 1 | | |
| S2500026002 | STEP 2 | | |
| S2500026003 | STEP 3 | | |
| **WCAs/5395 - EPA 300.0** | | | |
| S2500026001 | STEP 1 | | |
| S2500026002 | STEP 2 | | |
| S2500026003 | STEP 3 | | |
| **WCAt/36113 - SM 2510 B** | | | |
| S2500026001 | STEP 1 | | |
| S2500026002 | STEP 2 | | |
| S2500026003 | STEP 3 | | |



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☐ Fort Myers: 13100 Westlinks Terrace, Ste. 10, FL 33913 • 239.674.8130 • Lab ID: E84492
☐ Jacksonville: 6681 Southpoint Pkwy., FL 32216 • 904.363.9350 • Lab ID: E82574
☑ Tallahassee: 2639 North Monroe St., Suite D, FL 32303 • 850.219.6274 • Lab ID: E811095
☐ Gainesville: 4955 SW 41st Blvd., FL 32608 • 352.377.2349 • Lab ID: E82001
☐ Miramar: 10200 USA Today Way, FL 33025 • 954.889.2288 • Lab ID: E82535
☐ Tampa: 9610 Princess Palm Ave., FL 33619 • 813.630.9616 • Lab ID: E84589

Page ____ of ____

Client Name: Rowe Drilling
Address: 7584 W. Tenn. Street
Tallahassee, Fl. 32304
Phone: 850-576-1271
FAX:
Contact: Juan Cepeda
Sampled By: Sammy Caldwell
Turn Around Time: Standard (Rush)
AEL Profile #:

Project Name: Water Treatment Plant
Project Number: R-0327
PO Number:
FDEP Facility No:
FDEP Facility Addr:
Special Instructions:
ADaPT EQuIS Other

| SAMPLE ID | SAMPLE DESCRIPTION | Grab Comp | SAMPLING DATE | SAMPLING TIME | MATRIX | NO. COUNT | BOTTLE SIZE & TYPE | ANALYSIS REQUIRED: Conductivity | 300.0 - Cl, SO4 | TDS | pH | LABORATORY I.D. NUMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Preservation | none | none | none | none | |
| | | | | | | | Field-Filtered? | | | | | |
| Step 1 | Well #2 WTP Valdosta | X | 1/3/25 | 10:12am | GW | | | X | X | X | X | |
| Step 2 | " " | X | 1/3/25 | 1:08pm | GW | | | X | X | X | X | |
| Step 3 | " " | X | 1/3/25 | 3:15pm | GW | | | X | X | X | X | |

* S 2 5 0 0 0 2 6 *

Matrix Code: WW = wastewater SW = surface water GW = ground water DW = drinking water O = oil A = air SO = soil SL = sludge

Preservation Code: I = ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfat

Received on Ice ☑ Yes ☐ No ☐ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked

Temp. when received (observed) 3.1 °C Temp. when received (corrected) ____ °C

DCN: AD-D051web Form last revised 08/07/2019

Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

| | Relinquished by: | Date | Time | Received by: | Date | Time |
|---|---|---|---|---|---|---|
| 1 | [signature] | 1/3/25 | 5:05 | [signature] | 1/3/25 | 17:05 |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |

**FOR DRINKING WATER USE:**

(When PWS Information not otherwise supplied) PWS ID: ____

Contact Person: ____

Supplier of Water: ____

Site-Address: ____

Advanced Environmental Laboratories, Inc.
2639 N Monroe St Suite D Tallahassee, FL 32303
Payments: P.O. Box 551580 Jacksonville, FL 32255-1580
Phone: (850) 219-6274
Fax: (850) 219-6275

**FINAL**

**Workorder:** Valdosta Well (S2500556)

March 04, 2025

Tom Salter
Rowe Drilling
7584 W Tennessee St
Tallahassee, FL 32304

RE: Workorder: S2500556 Valdosta Well

Dear Tom Salter:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday February 25, 2025. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report. The analytical results for the samples contained in this report were submitted for analysis as outlined by the Chain of Custody and results pertain only to these samples.

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

Sincerely,

Tim Preston
TPreston@AELLab.com



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Phone: (850) 219-6274
Fax: (850) 219-6275

**FINAL**

**Workorder:** Valdosta Well (S2500556)

## Sample Summary

| Lab ID | Sample ID | Matrix | Method | Date Collected | Date Received | Analytes Reported | Basis |
|---|---|---|---|---|---|---|---|
| S2500556001 | Well #2 | DW | SM 5910B | 02/24/2025 15:30 | 02/25/2025 13:24 | 1 | NA |
| S2500556001 | Well #2 | DW | SM 9223B | 02/24/2025 15:30 | 02/25/2025 13:24 | 2 | NA |



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**FINAL**

**Workorder:** Valdosta Well (S2500556)

## Workorder Summary

### Task Comments



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**FINAL**

**Workorder:** Valdosta Well (S2500556)

## Analytical Results Qualifiers

### Parameter Qualifiers

| | |
|---|---|
| U | The compound was analyzed for but not detected. |
| I | The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit. |

### Lab Qualifiers

| | |
|---|---|
| S | DOH Certification #E811095 (FL NELAC) AEL-Tallahassee |
| T | DOH Certification #E84589 (FL NELAC) AEL-Tampa |



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Fax: (850) 219-6275

**FINAL**

**Workorder:** Valdosta Well (S2500556)

## Analytical Results

**Lab ID:** S2500556001 **Date Collected:** 02/24/2025 15:30 **Matrix:** Drinking Water
**Sample ID:** Well #2 **Date Received:** 02/25/2025 13:24

| Parameter | Results | Units | PQL | MDL | DF | Prepared | Analyzed | Lab |
|---|---|---|---|---|---|---|---|---|
| **Microbiology (SM 9223B)** | | | | | | | | |
| Coliform Total | Absent | | 1.0 | 1.0 | 1 | 02/24/2025 16:00 | 02/24/2025 16:00 | S |
| E. Coli | Absent | | 1.0 | 1.0 | 1 | 02/24/2025 16:00 | 02/24/2025 16:00 | S |
| **WET CHEMISTRY (SM 5910B)** | | | | | | | | |
| UV 254 | **0.16** | cm-1 | 0.0050 | 0.0050 | 1 | 02/26/2025 09:11 | 02/26/2025 09:11 | T |



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**FINAL**

**Workorder:** Valdosta Well (S2500556)

## QC Cross Reference

| Lab ID | Sample ID | Prep Batch | Prep Method |
|---|---|---|---|
| **MICs/2409 - SM 9223B** | | | |
| S2500556001 | Well #2 | | |
| **WCAt/37589 - SM 5910B** | | | |
| S2500556001 | Well #2 | | |



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☐ **Tampa:** 9610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9616 • Fax 813.630.4327



Client Name: Rowe Drilling
Address: 7584 W. Tennessee St
Tallahassee, FL 31304
Phone: 850-576-1271
FAX:
Contact: Sammy Caldwell
Sampled By:
Turn Around Time: ☐ STANDARD ☐ RUSH
AEL Profile #:

Project Name: Valdosta Well
Project Number:
PO Number:
FDEP Facility No:
FDEP Facility Address:
Special Instructions:
☐ ADaPT ☐ EQuIS ☐ Other

| SAMPLE ID | SAMPLE DESCRIPTION | Grab Comp | SAMPLING DATE | SAMPLING TIME | MATRIX | NO. COUNT |
|---|---|---|---|---|---|---|
| 1 | Well #2 | | 2/24/2025 | ~~11:00~~ 15:30 | | |

| BOTTLE SIZE & TYPE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ANALYSIS REQUIRED | EPA 1613 - 2,3,7,8 - TCDD | Chlorine | Chlorine Dioxide | Totla Coliforms | UV254 | pH | 200.7 - Al, Mn, Mg, K, Ca, Fe, Hard | 300 - Cl, SO4 | Alkalinity/Cond | TDS | LABORATORY I.D. NUMBER |
| Preservation | None | None | None | Na Thi | None | | | | | | |
| Field-Filtered? | | | | | | | | | | | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |




**Matrix Code:** **WW** = wastewater **SW** = surface water **GW** = ground water **DW** = drinking water **O** = oil **A** = air **SO** = soil **SL** = sludge

**Preservation Code:** I = ice H=(HCl) S = (H2SO4) N = (HNO3) T = (Sodium Thiosulfate)

Received on Ice ☐ Yes ☐ No ☐ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked

Temp. when received (observed) 2.5 °C Temp. when received (corrected) _____ °C

DCN: AD-051 Form last revised 06/19/2017

Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

| | Relinquished by: | Date | Time | Received by: | Date | Time |
|---|---|---|---|---|---|---|
| 1 | | 2/24/25 | 1530 | | 2/24/25 | 1530 |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |

**FOR DRINKING WATER USE:**
(When PWS Information not otherwise supplied) PWS ID: _____
Contact Person: _____ Phone : _____
Supplier of Water: _____
Site-Address: _____

Laboratory ID: E87753

# National Testing Laboratories, Ltd

556 South Mansfield, Ypsilanti, MI, 48197-5166
(440) 449-2525, Fax: (440) 449-8585

## ANALYTICAL REPORTS

**SAMPLE CODE: 476670**

**3/4/2025**

**Customer:** Advanced Environmental Labs. Inc.
Mikelle Chong
10200 USA Today Way
Miramar, FL 33025

**Source:** Well #2, PO # S-PO-30299

**Date/Time Received:** 2/26/2025 10:25

**Collected by:** Client

The results herein conform to TNI and ISO/IEC 17025:2017 standards, where applicable. These results may be used for compliance purposes, as required, unless otherwise narrated in the body of the report. The uncertainty of the test results are available upon request. All Dates and Times are reported as U.S. Eastern Time.

**Legend:**

Any 'Level Detected' marked with an asterisk (*) indicates that the value has exceeded the EPA Maximum Contaminant Level (MCL) or one of the Standards of Quality.

**"ND"** This contaminant was not detected at or above our lower reporting limit (LRL)

**"NA"** Not Analyzed

**"Standard"** This column indicates either the Maximum Contaminant Level (MCL) for EPA Primary Standards or the guideline values for EPA Secondary Standards.

**"LRL"** This column indicates the Lower Reporting Limit, which is the lowest level that the laboratory can detect a contaminant.

**"DF"** This column indicates the contaminant dilution factor.

**Report Notes:**

Chlorine, Chloramine and Chlorine Dioxide hold time is immediate, therefore results should be considered an estimate.

| Fed Id # | Contaminant | Method | Standard | Units | LRL | Level Detected | | DF | Date/Time Sampled | | Date Prepped | Date/Time Analyzed | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Inorganic Analytes - Other** | | | | | | | | | | | | | |
| 1006 | Chloramine as Cl2 | 4500Cl-G | 4.0 | mg/L | 0.10 | ND | J6 | 2 | 2/24/2025 | 15:30 | | 3/3/2025 | 17:06 |
| 1000 | Chlorine - Total | 4500Cl-G | -- | mg/L | 0.20 | ND | J6 | 2 | 2/24/2025 | 15:30 | | 3/3/2025 | 17:06 |
| 1012 | Chlorine as Cl2 | 4500Cl-G | 4.0 | mg/L | 0.10 | ND | J6 | 2 | 2/24/2025 | 15:30 | | 3/3/2025 | 17:03 |
| 1008 | Chlorine Dioxide as Cl02 | 4500Cl02D | 0.8 | mg/L | 0.1 | ND | | 1 | 2/24/2025 | 15:30 | | 3/3/2025 | 16:57 |

Qualifiers:

J6: Estimated value, the laboratory fortified matrix recovery was below the method acceptance limits. Sample matrix interference suspected.

| Analyst | Tests |
|---|---|
| DHG | 4500Cl-G,4500Cl02D |

Sarah Buchanan, Project Manager

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# Laboratory Analysis

## Primary and Secondary Drinking Water Standards

**Valdosta WTP No. 2**
**Production Well No. 2**

CDM Smith

# Florida Department of Environmental Protection
# Safe Drinking Water Program Laboratory Reporting Format

**PUBLIC WATER SYSTEM INFORMATION** (to be completed by sampler – please type or print legibly)

System Name: _____ PWS I.D. #: _____

System Type (check one): ☐ Community ☐ Nontransient Noncommunity ☐ Transient Noncommunity

Address: _____

City: _____ ZIP Code: _____

Phone #: _____ Fax #: _____ E-Mail Address: _____

**SAMPLE INFORMATION** (to be completed by sampler)

Sample Number: S2500052001 Sample Date: 01/08/2025 Sample Time: 08:30 AM PM (Circle One)

Sample Location (be specific): Well Location Code: _____

Disinfectant Residual (Required when reporting results for trihalomethanes and haloacetic acids _____ mg/L Field pH: _____

Sample Type (Check Only One)

- ☐ Distribution
- ☐ Entry Point (to Distribution)
- ☐ Plant Tap (not for compliance with 62-550
- ☐ Raw (at well or intake)
- ☐ Max Residence Time
- ☐ Ave Residence Time
- ☐ Near First Customer

Reason(s) for Sample (Check all that apply)

- ☐ Routine Compliance with 62-550
- ☐ Confirmation of MCL Exceedance*
- ☐ Composite of Multiple Sites*
- ☐ Other: _____
- ☐ Replacement (of Invalidated Sample)
- ☐ Special (not for compliance with 62-550)
- ☐ Clearance (permitting)

Sampling Procedure Used or Other Comments: _____

*See 62-550(6) for requirements and restrictions. And 62-550.512(3) for nitrate or nitrite exceedances.

*See 62-550.550(4) for requirements and attach a results page for each site.

**SAMPLER CERTIFICATION**

I _____ (Print Name) , _____ (Print Title) , do HEREBY CERTIFY that the above public water system and sample collection information is complete and correct.

Signature: _____ Date: _____

Certified Operator # _____ Phone # _____ Sampler's Fax #: _____

Sampler's E-mail: _____



*Results must be reported with appropraite qualifers in accordance with Florida Administration Code Rule 62-160, Table1. Results qualified with A, F, H, N, O, T, Z, ?, *, are unacceptable for compliance with 62-550. Results qualified with a J, Q, R, or Y must be accompanied by written justification and will be evaluated on a case by case basis. To avoid a monitoring violation, unacceptable results must be replaced with acceptable results from samples collected during the same monitoring period.

# Florida Department of Environmental Protection
# Safe Drinking Water Program Laboratory Reporting Format

**LABORATORY CERTIFICATION INFORMATION** (to be completed by lab – please type or print legibly)

Lab Name: Advanced Environmental Laboratories, Inc. Florida DOH Certification #: E811095 Certification Expiration Date: 06/30/2025

**ATTACH CURRENT DOH ANALYTE SHEET***

Address: 2639 N Monroe St Suite D, Tallahassee, FL 32303 Phone #: (850) 219-6274

Were any analyses subcontracted ☑ Yes ☐ No If yes, please provide DOH certification number(s): E84025,E84589,E82535,SUBo,E82001

**ATTACH DOH ANALYTE SHEET FOR EACH SUBCONTRACTED LAB**

**ANALYSIS INFORMATION** (to be completed by lab) Date Sample(s) Received: 01/08/2025

PWS ID: (From Page 1): _____ Sample Number (From Page 1): S2500052001 Lab Assigned Report # Or Job ID: S2500052

Group(s) Analyzed & Results attached for compliance with Chapter 62-550, F.A.C. (Check all that apply):

| Inorganics | Synthetic Organics | Volatile Organics | Disinfection Byproducts | Radionuclides | Secondaries |
|---|---|---|---|---|---|
| ☑ All except Asbestos | ☐ All 30 | ☑ All 21 | ☑ Trihalomethanes | ☐ Single Sample | ☑ All 14 |
| ☐ Partial | ☑ All Except Dioxin | ☐ Partial | ☑ Haloacetic Acids | ☐ Qtrly Composite* | ☐ Partial |
| ☑ Nitrate | ☑ Partial | | ☑ Chlorite | | |
| ☑ Nitrite | ☐ Dioxin Only | | ☑ Bromate | | |
| ☐ Asbestos | | | | | |

## LAB CERTIFICATION

I, Tim Preston (Print Name), _____ (Print Title), do HEREBY CERTIFY that all attached analytical data are correct and unless noted meet all requirements of the National Environmental Laboratory Accreditation Conference (NELAC).

Signature: _____ Date: 02/19/2025

* Failure to provide a valid and current Florida DOH lab certification number and a current Analyte Sheet for the attached analysis results will result in rejection of the report, possible enforcement against the public water system for failure to sample, and may result in notification of the DOH Bureau of Laboratory Services.

** Please provide radiological sample dates & locations for each quarter.

**CONFIRMATION & NOTIFICATION IS REQUIRED WITHIN 24 HRS FOR NITRATE OR NITRITE MCL EXCEEDANCES**

**NON-DETECTS ARE TO BE REPORTED AS THE MDL WITH "U" QUALIFIER.** (Non-detects reported as "BDL" or with a "<" are not acceptable.)

**COMPLIANCE DETERMINATION** (to be completed by DEP or DOH -- attach notes as necessary)

Sample Collection & Analysis Satisfactory: ☐ Yes ☐ No _____ Replacement Sample or Report Requested (circle or highlight group(s) above)

Person Notified: _____ Date Notified: _____ DEP/DOH Reviewing Official: _____



*Results must be reported with appropraite qualifers in accordance with Florida Administration Code Rule 62-160, Table1. Results qualified with A, F, H, N, O, T, Z, ?, *, are unacceptable for compliance with 62-550. Results qualified with a J, Q, R, or Y must be accompanied by written justification and will be evaluated on a case by case basis. To avoid a monitoring violation, unacceptable results must be replaced with acceptable results from samples collected during the same monitoring period.

# Florida Department of Environmental Protection
# Safe Drinking Water Program Laboratory Reporting Format

## INORGANIC CONTAMINANTS
62-550.310(1)

Report Number / Job ID: S2500052001

PWS ID (From Page 1): _____

| Contam ID | Contam Name | MCL | Units | Analysis Result | Qualifier* | Analytical Method | Lab MDL | Analysis Date | Analysis Time | DOH Lab Certification # |
|---|---|---|---|---|---|---|---|---|---|---|
| 1040 | Nitrate (as N) | 10 | mg/L | 0.050 | U | EPA 300.0 | 0.050 | 01/22/2025 | 18:53 | E82535 |
| 1041 | Nitrite (as N) | 1 | mg/L | 0.050 | U | EPA 300.0 | 0.050 | 01/22/2025 | 18:53 | E82535 |
| 1005 | Arsenic | 0.01 | mg/L | 0.00025 | U | EPA 200.8 | 0.00025 | 01/16/2025 | 12:01 | E82574 |
| 1010 | Barium | 2 | mg/L | 0.032 | | EPA 200.7 | 0.0030 | 01/13/2025 | 17:24 | E82535 |
| 1015 | Cadmium | 0.005 | mg/L | 0.00025 | U | EPA 200.8 | 0.00025 | 01/16/2025 | 12:01 | E82574 |
| 1020 | Chromium | 0.1 | mg/L | 0.00050 | U | EPA 200.8 | 0.00050 | 01/16/2025 | 12:01 | E82574 |
| 1024 | Cyanide | 0.2 | mg/L | 0.0040 | U | SM 4500-CN-E | 0.0040 | 01/18/2025 | 11:50 | E84589 |
| 1025 | Fluoride | 4 | mg/L | 0.20 | I | EPA 300.0 | 0.050 | 01/22/2025 | 18:53 | E82535 |
| 1030 | Lead | 0.015 | mg/L | 0.00050 | U | EPA 200.8 | 0.00050 | 01/16/2025 | 12:01 | E82574 |
| 1035 | Mercury | 0.002 | mg/L | 0.000040 | I | EPA 245.1 | 0.000025 | 01/29/2025 | 15:06 | E82535 |
| 1036 | Nickel | 0.1 | mg/L | 0.0012 | U | EPA 200.8 | 0.0012 | 01/16/2025 | 12:01 | E82574 |
| 1045 | Selenium | 0.05 | mg/L | 0.0012 | U | EPA 200.8 | 0.0012 | 01/16/2025 | 12:01 | E82574 |
| 1052 | Sodium | 160 | mg/L | 3.6 | | EPA 200.7 | 0.80 | 01/13/2025 | 17:24 | E82535 |
| 1074 | Antimony | 0.006 | mg/L | 0.0010 | U | EPA 200.8 | 0.0010 | 01/16/2025 | 12:01 | E82574 |
| 1075 | Beryllium | 0.004 | mg/L | 0.0020 | U | EPA 200.7 | 0.0020 | 01/13/2025 | 17:24 | E82535 |
| 1085 | Thallium | 0.002 | mg/L | 0.00025 | U | EPA 200.8 | 0.00025 | 01/16/2025 | 12:01 | E82574 |



*Results must be reported with appropraite qualifers in accordance with Florida Administration Code Rule 62-160, Table1. Results qualified with A, F, H, N, O, T, Z, ?, *, are unacceptable for compliance with 62-550. Results qualified with a J, Q, R, or Y must be accompanied by written justification and will be evaluated on a case by case basis. To avoid a monitoring violation, unacceptable results must be replaced with acceptable results from samples collected during the same monitoring period.

# Florida Department of Environmental Protection
# Safe Drinking Water Program Laboratory Reporting Format

## SECONDARY CONTAMINANTS
62-550.320

Report Number / Job ID: S2500052001

PWS ID (From Page 1): _____

| Contam ID | Contam Name | MCL | Units | Analysis Result | Qualifier* | Analytical Method | Lab MDL | Analysis Date | Analysis Time | DOH Lab Certification # |
|---|---|---|---|---|---|---|---|---|---|---|
| 1002 | Aluminum | 0.2 | mg/L | 0.024 | U | EPA 200.7 | 0.024 | 01/13/2025 | 17:24 | E82535 |
| 1017 | Chloride | 250 | mg/L | 4.3 | I | EPA 300.0 | 0.50 | 01/22/2025 | 18:53 | E82535 |
| 1022 | Copper | 1 | mg/L | 0.0010 | U | EPA 200.8 | 0.0010 | 01/16/2025 | 12:01 | E82574 |
| 1025 | Fluoride | 2 | mg/L | 0.20 | I | EPA 300.0 | 0.050 | 01/22/2025 | 18:53 | E82535 |
| 1028 | Iron | 0.3 | mg/L | 0.038 | U | EPA 200.7 | 0.038 | 01/13/2025 | 17:24 | E82535 |
| 1028 | Iron | 0.3 | mg/L | 0.038 | U | EPA 200.7 | 0.038 | 01/23/2025 | 12:20 | E82535 |
| 1032 | Manganese | 0.05 | mg/L | 0.0091 | | EPA 200.8 | 0.0010 | 01/16/2025 | 12:01 | E82574 |
| 1050 | Silver | 0.1 | mg/L | 0.00050 | U | EPA 200.8 | 0.00050 | 01/16/2025 | 12:01 | E82574 |
| 1055 | Sulfate | 250 | mg/L | 36 | | EPA 300.0 | 0.50 | 01/22/2025 | 18:53 | E82535 |
| 1095 | Zinc | 5 | mg/L | 0.050 | U | EPA 200.7 | 0.050 | 01/13/2025 | 17:24 | E82535 |
| 1905 | Color | 15 | CU | 20 | | SM 2120 B | 5.0 | 01/09/2025 | 09:59 | E811095 |
| 1920 | Odor | 3 | TON | 1.0 | U | SM 2150 B | 1.0 | 01/08/2025 | 15:31 | E811095 |
| 1925 | pH (field pH from page 1) | 6.5 - 8.5 | | 7.83 | Q | SM 4500H+B | | 01/08/2025 | 17:45 | E811095 |
| 1930 | Total Dissolved Solids | 500 | mg/L | 180 | J | SM 2540 C | 10 | 01/12/2025 | 15:53 | E811095 |
| 2905 | Foaming Agents | 0.5 | mg/L | 0.045 | I | SM 5540 C | 0.040 | 01/09/2025 | 10:00 | E82001 |



*Results must be reported with appropraite qualifers in accordance with Florida Administration Code Rule 62-160, Table1. Results qualified with A, F, H, N, O, T, Z, ?, *, are unacceptable for compliance with 62-550. Results qualified with a J, Q, R, or Y must be accompanied by written justification and will be evaluated on a case by case basis. To avoid a monitoring violation, unacceptable results must be replaced with acceptable results from samples collected during the same monitoring period.

# Florida Department of Environmental Protection
# Safe Drinking Water Program Laboratory Reporting Format

## DISINFECTION BYPRODUCTS
62-550.310(3)

Report Number / Job ID: S2500052001

Disinfectant Residual (mg/L): _____

PWS ID (From Page 1): _____

| Contam ID | Contam Name | MCL | Units | Analysis Result | Qualifier* | Analytical Method | Lab MDL | Regulatory MRL** | Analysis Date | Analysis Time | DOH Lab Certification # |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1009 | Chlorite | 1000 | ug/L | 0.95 | U | EPA 300.1 | 0.95 | 20*** | 01/10/2025 | 01:37 | E84589 |
| 1011 | Bromate | 10 | ug/L | 0.40 | U | EPA 300.1 | 0.40 | 5.0 or 1.0** | 01/10/2025 | 01:37 | E84589 |

| Contam ID | Contam Name | MCL | Units | Analysis Result | Qualifier* | Analytical Method | Lab MDL | Regulatory MRL** | Analysis Date | Analysis Time | DOH Lab Certification # |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2450 | Monochloroacetic Acid | N/A | ug/L | 0.98 | U | EPA 552.2 | 0.98 | 2 | 01/15/2025 | 21:08 | E84589 |
| 2451 | Dichloroacetic Acid | N/A | ug/L | 0.42 | U | EPA 552.2 | 0.42 | 1 | 01/15/2025 | 21:08 | E84589 |
| 2452 | Trichloroacetic Acid | N/A | ug/L | 0.94 | U | EPA 552.2 | 0.94 | 1 | 01/15/2025 | 21:08 | E84589 |
| 2453 | Monobromoacetic Acid | N/A | ug/L | 0.41 | U | EPA 552.2 | 0.41 | 1 | 01/15/2025 | 21:08 | E84589 |
| 2454 | Dibromoacetic Acid | N/A | ug/L | 0.74 | U | EPA 552.2 | 0.74 | 1 | 01/15/2025 | 21:08 | E84589 |
| 2456 | Total Haloacetic Acids (HAA5) | 60 | ug/L | 0.98 | U | EPA 552.2 | 0.98 | --- | 01/15/2025 | 21:08 | E84589 |

| Contam ID | Contam Name | MCL | Units | Analysis Result | Qualifier* | Analytical Method | Lab MDL | Regulatory MRL** | Analysis Date | Analysis Time | DOH Lab Certification # |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2941 | Chloroform | N/A | ug/L | 0.39 | U | EPA 524.2 | 0.39 | 1 | 01/14/2025 | 18:26 | E82535 |
| 2942 | Bromoform | N/A | ug/L | 0.26 | U | EPA 524.2 | 0.26 | 1 | 01/14/2025 | 18:26 | E82535 |
| 2943 | Bromodichloromethane | N/A | ug/L | 0.14 | U | EPA 524.2 | 0.14 | 1 | 01/14/2025 | 18:26 | E82535 |
| 2944 | Dibromochloromethane | N/A | ug/L | 0.32 | U | EPA 524.2 | 0.32 | 1 | 01/14/2025 | 18:26 | E82535 |
| 2950 | Total Trihalomethanes (TTHM) | 80 | ug/L | 0.39 | U | EPA 524.2 | 0.39 | --- | 01/14/2025 | 18:26 | E82535 |

** Laboratories are required to adhere to the minimum reporting level (MRL) requirements of 40 CFR 141.131(b)(2)(iv).

*** Applicable to monitoring as prescribed in 40 CFR 141.132.(b)(2)(i)(B) and (b)(2)(ii).

**** Laboratories that use EPA Methods 317.0 Revision 2.0, 326.0 or 321.8 must meet a 1.0 µg/L MRL for bromate.

**Note:** Do not round values. Report results to the accuracy, precision, and sensitivity of the analytical method used.



*Results must be reported with appropraite qualifers in accordance with Florida Administration Code Rule 62-160, Table1. Results qualified with A, F, H, N, O, T, Z, ?, *, are unacceptable for compliance with 62-550. Results qualified with a J, Q, R, or Y must be accompanied by written justification and will be evaluated on a case by case basis. To avoid a monitoring violation, unacceptable results must be replaced with acceptable results from samples collected during the same monitoring period.

# Florida Department of Environmental Protection
# Safe Drinking Water Program Laboratory Reporting Format

## VOLATILE ORGANICS
62-550.310(4)(a)

Report Number / Job ID: S2500052001

PWS ID (From Page 1): _____

| Contam ID | Contam Name | MCL | Units | Analysis Result | Qualifier* | Analytical Method | Lab MDL | RDL | Analysis Date | Analysis Time | DOH Lab Certification # |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2378 | 1,2,4-Trichlorobenzene | 70 | ug/L | 0.45 | U | EPA 524.2 | 0.45 | 0.5 | 01/21/2025 | 18:22 | E82574 |
| 2380 | cis-1,2-Dichloroethylene | 70 | ug/L | 0.40 | U | EPA 524.2 | 0.40 | 0.5 | 01/21/2025 | 18:22 | E82574 |
| 2955 | Xylenes (total) | 10000 | ug/L | 0.49 | U | EPA 524.2 | 0.49 | 0.5 | 01/21/2025 | 18:22 | E82574 |
| 2964 | Dichloromethane | 5 | ug/L | 0.38 | U | EPA 524.2 | 0.38 | 0.5 | 01/21/2025 | 18:22 | E82574 |
| 2968 | o-Dichlorobenzene | 600 | ug/L | 0.31 | U | EPA 524.2 | 0.31 | 0.5 | 01/21/2025 | 18:22 | E82574 |
| 2969 | para-Dichlorobenzene | 75 | ug/L | 0.37 | U | EPA 524.2 | 0.37 | 0.5 | 01/21/2025 | 18:22 | E82574 |
| 2976 | Vinyl Chloride | 1 | ug/L | 0.42 | U | EPA 524.2 | 0.42 | 0.5 | 01/21/2025 | 18:22 | E82574 |
| 2977 | 1,1-Dichloroethylene | 7 | ug/L | 0.44 | U | EPA 524.2 | 0.44 | 0.5 | 01/21/2025 | 18:22 | E82574 |
| 2979 | trans-1,2-Dichloroethylene | 100 | ug/L | 0.40 | U | EPA 524.2 | 0.40 | 0.5 | 01/21/2025 | 18:22 | E82574 |
| 2980 | 1,2-Dichloroethane | 3 | ug/L | 0.41 | U | EPA 524.2 | 0.41 | 0.5 | 01/21/2025 | 18:22 | E82574 |
| 2981 | 1,1,1-Trichloroethane | 200 | ug/L | 0.28 | U | EPA 524.2 | 0.28 | 0.5 | 01/21/2025 | 18:22 | E82574 |
| 2982 | Carbon tetrachloride | 3 | ug/L | 0.38 | U | EPA 524.2 | 0.38 | 0.5 | 01/21/2025 | 18:22 | E82574 |
| 2983 | 1,2-Dichloropropane | 5 | ug/L | 0.16 | U | EPA 524.2 | 0.16 | 0.5 | 01/21/2025 | 18:22 | E82574 |
| 2984 | Trichloroethylene | 3 | ug/L | 0.39 | U | EPA 524.2 | 0.39 | 0.5 | 01/21/2025 | 18:22 | E82574 |
| 2985 | 1,1,2-Trichloroethane | 5 | ug/L | 0.24 | U | EPA 524.2 | 0.24 | 0.5 | 01/21/2025 | 18:22 | E82574 |
| 2987 | Tetrachloroethylene | 3 | ug/L | 0.36 | U | EPA 524.2 | 0.36 | 0.5 | 01/21/2025 | 18:22 | E82574 |
| 2989 | Monochlorobenzene | 100 | ug/L | 0.32 | U | EPA 524.2 | 0.32 | 0.5 | 01/21/2025 | 18:22 | E82574 |
| 2990 | Benzene | 1 | ug/L | 0.27 | U | EPA 524.2 | 0.27 | 0.5 | 01/21/2025 | 18:22 | E82574 |
| 2991 | Toluene | 1000 | ug/L | 0.29 | U | EPA 524.2 | 0.29 | 0.5 | 01/21/2025 | 18:22 | E82574 |
| 2992 | Ethylbenzene | 700 | ug/L | 0.32 | U | EPA 524.2 | 0.32 | 0.5 | 01/21/2025 | 18:22 | E82574 |
| 2996 | Styrene | 100 | ug/L | 0.31 | U | EPA 524.2 | 0.31 | 0.5 | 01/21/2025 | 18:22 | E82574 |

**Note:** Results indicating non-detection with a reported lab MDL > .5 µg/L will not be accepted for compliance.



*Results must be reported with appropraite qualifers in accordance with Florida Administration Code Rule 62-160, Table1. Results qualified with A, F, H, N, O, T, Z, ?, *, are unacceptable for compliance with 62-550. Results qualified with a J, Q, R, or Y must be accompanied by written justification and will be evaluated on a case by case basis. To avoid a monitoring violation, unacceptable results must be replaced with acceptable results from samples collected during the same monitoring period.

# Florida Department of Environmental Protection
# Safe Drinking Water Program Laboratory Reporting Format

## SYNTHETIC ORGANICS

62-550.310(4)(b)

Report Number / Job ID: S2500052001 PWS ID (From Page 1): _____

| Contam ID | Contam Name | MCL | Units | Analysis Result | Qualifier* | Analytical Method | Lab MDL | RDL | Extraction Date | Analysis Date | Analysis Time | DOH Lab Certification # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2005 | Endrin | 2 | ug/L | 0.0073 | U | EPA 508 | 0.0073 | 0.01 | 01/13/2025 | 01/17/2025 | 22:45 | E82574 |
| 2010 | Lindane | 0.2 | ug/L | 0.0075 | U | EPA 508 | 0.0075 | 0.02 | 01/13/2025 | 01/17/2025 | 22:45 | E82574 |
| 2015 | Methoxychlor | 40 | ug/L | 0.0072 | U | EPA 508 | 0.0072 | 0.1 | 01/13/2025 | 01/17/2025 | 22:45 | E82574 |
| 2020 | Toxaphene | 3 | ug/L | 0.13 | U | EPA 508 | 0.13 | 1 | 01/13/2025 | 01/17/2025 | 22:45 | E82574 |
| 2031 | Dalapon | 200 | ug/L | 0.90 | U | EPA 515.3 | 0.90 | 1 | 01/14/2025 | 01/20/2025 | 15:03 | E82574 |
| 2032 | Diquat | 20 | ug/L | 0.37 | UJ | EPA 549.2 | 0.37 | 0.4 | 01/13/2025 | 01/15/2025 | 18:42 | E82574 |
| 2033 | Endothall | 100 | ug/L | 6.0 | U | EPA 548.1 | 6.0 | 9 | 01/10/2025 | 01/14/2025 | 08:26 | E82574 |
| 2034 | Glyphosate | 700 | ug/L | 5.9 | U | EPA 547 | 5.9 | 6 | | 01/10/2025 | 20:48 | E82574 |
| 2035 | Di(2-ethylhexyl)adipate | 400 | ug/L | 0.50 | U | EPA 525.2 | 0.50 | 0.6 | 01/13/2025 | 01/15/2025 | 22:09 | E82574 |
| 2036 | Oxamyl (Vydate) | 200 | ug/L | 1.8 | U | EPA 531.1 | 1.8 | 2 | | 01/09/2025 | 20:27 | E82574 |
| 2037 | Simazine | 4 | ug/L | 0.060 | U | EPA 525.2 | 0.060 | 0.07 | 01/13/2025 | 01/15/2025 | 22:09 | E82574 |
| 2039 | Di(2-ethylhexyl)phthalate | 6 | ug/L | 0.50 | U | EPA 525.2 | 0.50 | 0.6 | 01/13/2025 | 01/15/2025 | 22:09 | E82574 |
| 2040 | Picloram | 500 | ug/L | 0.090 | U | EPA 515.3 | 0.090 | 0.1 | 01/14/2025 | 01/20/2025 | 15:03 | E82574 |
| 2041 | Dinoseb | 7 | ug/L | 0.18 | U | EPA 515.3 | 0.18 | 0.2 | 01/14/2025 | 01/20/2025 | 15:03 | E82574 |
| 2042 | Hexachlorocyclopentadinene | 50 | ug/L | 0.020 | U | EPA 508 | 0.020 | 0.1 | 01/13/2025 | 01/17/2025 | 22:45 | E82574 |
| 2046 | Carbofuran | 40 | ug/L | 0.67 | U | EPA 531.1 | 0.67 | 0.9 | | 01/09/2025 | 20:27 | E82574 |
| 2050 | Atrazine | 3 | ug/L | 0.090 | U | EPA 525.2 | 0.090 | 0.1 | 01/13/2025 | 01/15/2025 | 22:09 | E82574 |
| 2051 | Alachlor | 2 | ug/L | 0.15 | U | EPA 525.2 | 0.15 | 0.2 | 01/13/2025 | 01/15/2025 | 22:09 | E82574 |
| 2065 | Heptachlor | 0.4 | ug/L | 0.0063 | U | EPA 508 | 0.0063 | 0.04 | 01/13/2025 | 01/17/2025 | 22:45 | E82574 |
| 2067 | Heptachlor Epoxide | 0.2 | ug/L | 0.0055 | U | EPA 508 | 0.0055 | 0.02 | 01/13/2025 | 01/17/2025 | 22:45 | E82574 |
| 2105 | 2,4-D | 70 | ug/L | 0.095 | U | EPA 515.3 | 0.095 | 0.1 | 01/14/2025 | 01/20/2025 | 15:03 | E82574 |
| 2110 | 2,4,5-TP (Silvex) | 50 | ug/L | 0.090 | U | EPA 515.3 | 0.090 | 0.2 | 01/14/2025 | 01/20/2025 | 15:03 | E82574 |
| 2274 | Hexachlorobenzene | 1 | ug/L | 0.0066 | U | EPA 508 | 0.0066 | 0.1 | 01/13/2025 | 01/17/2025 | 22:45 | E82574 |
| 2306 | Benzo(a)pyrene | 0.2 | ug/L | 0.015 | U | EPA 525.2 | 0.015 | 0.02 | 01/13/2025 | 01/15/2025 | 22:09 | E82574 |
| 2326 | Pentachlorophenol | 1 | ug/L | 0.038 | U | EPA 515.3 | 0.038 | 0.04 | 01/14/2025 | 01/20/2025 | 15:03 | E82574 |
| 2383 | Polychlorinated biphenyls (PCBs) | 0.5 | ug/L | 0.098 | U | EPA 508 | 0.098 | 0.1 | 01/13/2025 | 01/17/2025 | 22:45 | E82574 |
| 2931 | Dibromochloropropane | 0.2 | ug/L | 0.0061 | U | EPA 504.1 | 0.0061 | 0.02 | 01/17/2025 | 01/18/2025 | 01:00 | E82574 |
| 2946 | Ethylene Dibromide (EDB) | 0.02 | ug/L | 0.0091 | U | EPA 504.1 | 0.0091 | 0.01 | 01/17/2025 | 01/18/2025 | 01:00 | E82574 |
| 2959 | Chlordane | 2 | ug/L | 0.056 | U | EPA 508 | 0.056 | 0.2 | 01/13/2025 | 01/17/2025 | 22:45 | E82574 |

**Note:** Results indicating non-detection with a reported lab MDL >50% of the MCL will not be accepted for compliance.



*Results must be reported with appropraite qualifers in accordance with Florida Administration Code Rule 62-160, Table1. Results qualified with A, F, H, N, O, T, Z, ?, *, are unacceptable for compliance with 62-550. Results qualified with a J, Q, R, or Y must be accompanied by written justification and will be evaluated on a case by case basis. To avoid a monitoring violation, unacceptable results must be replaced with acceptable results from samples collected during the same monitoring period.

# Florida Department of Environmental Protection
# Safe Drinking Water Program Laboratory Reporting Format

## OTHER CONTAMINANTS

Report Number / Job ID: S2500052001

PWS ID (From Page 1): _____

| Contam ID | Contam Name | MCL | Units | Analysis Result | Qualifier* | Analytical Method | Lab MDL | Analysis Date | Analysis Time | DOH Lab Certification # |
|---|---|---|---|---|---|---|---|---|---|---|
| | Alkalinity, Bicarbonate | N/A | mg/L | 91 | | SM 2320B | 5.0 | 01/11/2025 | 17:38 | E84589 |
| | Alkalinity, Carbonate | N/A | mg/L | 5.0 | U | SM 2320B | 5.0 | 01/11/2025 | 17:38 | E84589 |
| | Alkalinity, Total | N/A | mg/L | 91 | | SM 2320B | 5.0 | 01/11/2025 | 17:38 | E84589 |
| | Bromide | N/A | mg/L | 0.10 | U | EPA 300.1 | 0.10 | 01/10/2025 | 01:37 | E84589 |
| | Calcium | N/A | mg/L | 40 | | EPA 200.7 | 0.20 | 01/13/2025 | 17:24 | E82535 |
| | Chlorate | N/A | mg/L | .00065 | U | EPA 300.1 | .00065 | 01/10/2025 | 01:37 | E84589 |
| | Conductivity | N/A | umhos/cm | 270 | | EPA 120.1 | 2.0 | 01/29/2025 | 10:59 | E82574 |
| | Corrosivity | N/A | SU | 7.9 | Q | SW9045C | | 01/15/2025 | 16:29 | |
| | Hydrogen Sulfide | N/A | mg/L | .12 | | SM 4500-S D | .014 | 01/10/2025 | 13:50 | E84589 |
| | Magnesium | N/A | mg/L | 9.5 | | EPA 200.7 | 0.080 | 01/13/2025 | 17:24 | E82535 |
| | Nitrate + Nitrite | N/A | mg/L | 0.050 | U | EPA 300.0 | 0.050 | 01/22/2025 | 18:53 | E82535 |
| | Potassium | N/A | mg/L | 0.55 | I | EPA 200.7 | 0.50 | 01/13/2025 | 17:24 | E82535 |
| | Silica as SiO2 | N/A | mg/L | 20 | | EPA 200.7 | 0.11 | 01/13/2025 | 17:24 | E82535 |
| | | | | | | | | | | |
| | Sulfide | N/A | mg/L | .12 | | SM 4500-S D | .013 | 01/10/2025 | 13:50 | E84589 |
| | Total Hardness (as CaCO3) | N/A | mg/L | 140 | | EPA 200.7 | | 01/13/2025 | 17:24 | E82535 |
| | Total Organic Carbon | N/A | mg/L | 3.3 | | SM 5310B | 0.50 | 01/22/2025 | 14:47 | E82001 |
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*Results must be reported with appropraite qualifers in accordance with Florida Administration Code Rule 62-160, Table1. Results qualified with A, F, H, N, O, T, Z, ?, *, are unacceptable for compliance with 62-550. Results qualified with a J, Q, R, or Y must be accompanied by written justification and will be evaluated on a case by case basis. To avoid a monitoring violation, unacceptable results must be replaced with acceptable results from samples collected during the same monitoring period.

Advanced Environmental Laboratories, Inc.

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☐ **Fort Myers:** 13100 Westlinks Terrace, Ste. 10 • Fort Myers, FL 33913 • 239.674.8130 • Fax 239.674.8128
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☐ **Miramar:** 10200 USA Today Way, Miramar, FL 33025 • 954.889.2288 • Fax 954.889.2281
☐ **Tampa:** 9610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9616 • Fax 813.630.4327



| | |
|---|---|
| Client Name: Rowe Drilling | Project Name: |
| Address: 7584 W. Tennessee St | Project Number: |
| Tallahassee, FL 31304 | PO Number: |
| Phone: 850-576-1271 | FDEP Facility No: |
| FAX: | FDEP Facility Address: |
| Contact: | |
| Sampled By: | Special Instructions: |
| Turn Around Time: ☐ STANDARD ☐ RUSH | |
| AEL Profile #: | ☐ADaPT ☐ EQuIS ☐ Other |

*S2500052*

| SAMPLE ID | SAMPLE DESCRIPTION | Grab Comp | SAMPLING DATE | SAMPLING TIME | MATRIX | NO. COUNT | BOTTLE SIZE & TYPE | EPA 200.7/200.8/245.1 | Cyanide | EPA 300 - F, NO3, NO2 | EPA 524 - VOCs | EPA 515 | EPA 508 | EPA 531.1 | EPA 525.2 | EPA 549 | EPA 547 | LABORATORY I.D. NUMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ANALYSIS REQUIRED | | | | | | | | | | | | | | | | | |
| | Preservation | | | | | | | HNO3 | NaOH | NONE | HCL | None | None | | | Na Thio | Na Thio | |
| | Field-Filtered? | | | | | | | | | | | | | | | | | |
| 1 | Well | | 1/8/25 | 830 | | | | 1 | 1 | 1 | 3 | 1 | 1 | 2 | 1 | 1 | 2 | 001 |
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**Matrix Code:** **WW** = wastewater **SW** = surface water **GW** = ground water **DW** = drinking water **O** = oil **A** = air **SO** = soil **SL** = sludge

**Preservation Code:** I = ice H=(HCl) S = ($H_2SO_4$) N = ($HNO_3$) T = (Sodium Thiosulfate)

Received on Ice ☑ Yes ☐ No ☑ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked Temp. when received (observed) 4.9 °C Temp. when received (corrected) _____ °C

DCN: AD-051 Form last revised 06/19/2017 Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

| | Relinquished by: | Date | Time | Received by: | Date | Time |
|---|---|---|---|---|---|---|
| 1 | | 1/8/25 | 830 | | 1/8/25 | 830 |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |

**FOR DRINKING WATER USE:**
(When PWS Information not otherwise supplied) PWS ID: _____
Contact Person: _____ Phone : _____
Supplier of Water: _____
Site-Address: _____

Advanced Environmental Laboratories, Inc.

☐ **Altamonte Springs:** 380 Northlake Blvd., Ste. 1048 • Altamonte Springs, FL 32701 • 407.937.1594 • Fax 407.937.1597
☐ **Fort Myers:** 13100 Westlinks Terrace, Ste. 10 • Fort Myers, FL 33913 • 239.674.8130 • Fax 239.674.8128
☐ **Jacksonville:** 6681 Southpoint Pkwy. • Jacksonville, FL 32216 • 904.363.9350 • Fax 904.363.9354
☑ **Tallahassee:** 2639 North Monroe St., Suite D, Tallahassee, FL 32303 • 850.219.6274 • Fax 850.219.6275
☐ **Gainesville:** 4965 SW 41st Blvd. • Gainesville, FL 32608 • 352.377.2349 • Fax 352.395.6639
☐ **Miramar:** 10200 USA Today Way, Miramar, FL 33025 • 954.889.2288 • Fax 954.889.2281
☐ **Tampa:** 9610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9616 • Fax 813.630.4327



Client Name: Rowe Drilling
Address: 7584 W. Tennessee St
Tallahassee FL 32304
Phone: 850-576-1271
FAX:
Contact:
Sampled By:
Turn Around Time: ☐ STANDARD ☐ RUSH
AEL Profile #:

Project Name:
Project Number:
PO Number:
FDEP Facility No:
FDEP Facility Address:
Special Instructions:
☐ ADaPT ☐ EQuIS ☐ Other

| SAMPLE ID | SAMPLE DESCRIPTION | Grab Comp | SAMPLING DATE | SAMPLING TIME | MATRIX | NO. COUNT | BOTTLE SIZE & TYPE | ANALYSIS REQUIRED: EPA 504.1 | EPA 548 | Color | Odor | pH | TDS | MBAS | RAD 226/228 | Gross Alpha | Asbestos | LABORATORY I.D. NUMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Preservation | | | | | | | Na Thio | Na Thio | None | None | None | None | None | | | | |
| | Field-Filtered? | | | | | | | | | | | | | | | | | |
| 1 | Well | | 1/8/25 | 830 | | 16 | | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 001 |

**Matrix Code:** **WW** = wastewater **SW** = surface water **GW** = ground water **DW** = drinking water **O** = oil **A** = air **SO** = soil **SL** = sludge

**Preservation Code:** I = ice H=(HCl) S = ($H_2SO_4$) N = ($HNO_3$) T = (Sodium Thiosulfate)

Received on Ice ☑ Yes ☐ No ☑ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked

Temp. when received (observed) 4.9 °C Temp. when received (corrected) _____ °C

DCN: AD-051 Form last revised 06/19/2017

Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

| | Relinquished by: | Date | Time | Received by: | Date | Time |
|---|---|---|---|---|---|---|
| 1 | | 1/8/25 | 830 | | 1/8/25 | 830 |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |

**FOR DRINKING WATER USE:**
(When PWS Information not otherwise supplied) PWS ID: _____
Contact Person: _____ Phone: _____
Supplier of Water: _____
Site-Address: _____

Advanced Environmental Laboratories, Inc.

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☐ **Jacksonville:** 6681 Southpoint Pkwy. • Jacksonville, FL 32216 • 904.363.9350 • Fax 904.363.9354
☑ **Tallahassee:** 2639 North Monroe St., Suite D, Tallahassee, FL 32303 • 850.219.6274 • Fax 850.219.6275
☐ **Gainesville:** 4965 SW 41st Blvd. • Gainesville, FL 32608 • 352.377.2349 • Fax 352.395.6639
☐ **Miramar:** 10200 USA Today Way, Miramar, FL 33025 • 954.889.2288 • Fax 954.889.2281
☐ **Tampa:** 9610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9616 • Fax 813.630.4327



Client Name: Rowe Drilling
Address: 7584 W. Tennessee St
Tallahassee FL 32304
Phone: 850-576-1271
FAX:
Contact:
Sampled By:
Turn Around Time: ☐ STANDARD ☐ RUSH
AEL Profile #:

Project Name:
Project Number:
PO Number:
FDEP Facility No:
FDEP Facility Address:
Special Instructions:
☐ ADaPT ☐ EQuIS ☐ Other

| SAMPLE ID | SAMPLE DESCRIPTION | Grab Comp | SAMPLING DATE | SAMPLING TIME | MATRIX | NO. COUNT | BOTTLE SIZE & TYPE | ANALYSIS REQUIRED: Chloroamines, Chlorine Dioxide | Bromate, Chlorite | Chlorine | Haloacetic Acids (HAA5) | THMS | Stonium 90, Trtitium | Uranium | Corrosivity | Alkalinity | Sulfide/Hydrogen Sulfide | LABORATORY I.D. NUMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Preservation | None | None | None | Am Cl | Na Thi | Am Cl | | | | | |
| | | | | | | | Field-Filtered? | | | | | | | | | | | |
| 1 | Well | | 1/8/25 | 830 | | 16 | | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 001 |

**Matrix Code:** **WW** = wastewater **SW** = surface water **GW** = ground water **DW** = drinking water **O** = oil **A** = air **SO** = soil **SL** = sludge

**Preservation Code:** I = ice H=(HCl) S = ($H_2SO_4$) N = ($HNO_3$) T = (Sodium Thiosulfate)

Received on Ice ☑ Yes ☐ No ☑ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked

Temp. when received (observed) 4.9 °C Temp. when received (corrected) _____ °C

DCN: AD-051 Form last revised 06/19/2017

Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A S: 1V F: 1A

| | Relinquished by: | Date | Time | Received by: | Date | Time |
|---|---|---|---|---|---|---|
| 1 | | 1/8/25 | 830 | | 1/8/25 | 830 |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |

**FOR DRINKING WATER USE:**
(When PWS Information not otherwise supplied) PWS ID: _____
Contact Person: _____ Phone: _____
Supplier of Water: _____
Site-Address: _____

Advanced Environmental Laboratories, Inc.

☐ Altamonte Springs: 380 Northlake Blvd., Ste. 1048 • Altamonte Springs, FL 32701 • 407.937.1594 • Fax 407.937.1597
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☐ Jacksonville: 6681 Southpoint Pkwy. • Jacksonville, FL 32216 • 904.363.9350 • Fax 904.363.9354
☑ Tallahassee: 2639 North Monroe St., Suite D, Tallahassee, FL 32303 • 850.219.6274 • Fax 850.219.6275
☐ Gainesville: 4965 SW 41st Blvd. • Gainesville, FL 32608 • 352.377.2349 • Fax 352.395.6639
☐ Miramar: 10200 USA Today Way, Miramar, FL 33025 • 954.889.2288 • Fax 954.889.2281
☐ Tampa: 9610 Princess Palm Ave. • Tampa, FL 33619 • 813.630.9616 • Fax 813.630.4327



Client Name: Rowe Drilling
Address: 7584 W. Tennessee St
Tallahassee FL 32304
Phone: 850-576-1271
FAX:
Contact:
Sampled By:
Turn Around Time: ☐ STANDARD ☐ RUSH
AEL Profile #:

Project Name:
Project Number:
PO Number:
FDEP Facility No:
FDEP Facility Address:
Special Instructions:
☐ ADaPT ☐ EQuIS ☐ Other

| SAMPLE ID | SAMPLE DESCRIPTION | Grab Comp | SAMPLING DATE | SAMPLING TIME | MATRIX | NO. COUNT | BOTTLE SIZE & TYPE | ANALYSIS REQUIRED: Spec Conductivity | Hardness | Dissolved Iron | TOC | | | | | | | | LABORATORY I.D. NUMBER |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | Preservation | None | None | None | HCL | | | | | | | | |
| | | | | | | | Field-Filtered? | | | | | | | | | | | | |
| 1 | Well | | 1/8/25 | 830 | | | | 1 | 1 | 1 | 1 | | | | | | | | 001 |
| | | | | | | | | | | | | | | | | | | | |
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**Matrix Code:** **WW** = wastewater **SW** = surface water **GW** = ground water **DW** = drinking water **O** = oil **A** = air **SO** = soil **SL** = sludge

**Preservation Code:** I = ice H=(HCl) S = ($H_2SO_4$) N = ($HNO_3$) T = (Sodium Thiosulfate)

Received on Ice ☑ Yes ☐ No ☑ Temp taken from sample ☐ Temp from blank ☐ Where required, pH checked

Temp. when received (observed) 4.9 °C Temp. when received (corrected) _____ °C

DCN: AD-051 Form last revised: 06/19/2017

Device used for measuring Temp by unique identifier (circle IR temp gun used) J: 9A G: LT-1 LT-2 T: 10A A: 3A M: 3A (S: 1V) F: 1A

| | Relinquished by: | Date | Time | Received by: | Date | Time |
|---|---|---|---|---|---|---|
| 1 | | 1/8/25 | 830 | | 1/8/25 | 832 |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |

**FOR DRINKING WATER USE:**
(When PWS Information not otherwise supplied) PWS ID: _____
Contact Person: _____ Phone: _____
Supplier of Water: _____
Site-Address: _____

EMSL Analytical, Inc.
3303 PARKWAY CENTER COURT Orlando, FL 32808
Phone/Fax: (407) 599-5887 / (407) 599-9063
http://www.EMSL.com / orlandolab@emsl.com

| | |
|---|---|
| EMSL Order ID: | 342500430 |
| Customer ID: | AEVL42 |
| Customer PO: | S-PO-29619 |
| Project ID: | |

**Attn:** Tim Preston
Advanced Environmental Lab. Inc.
2639 N. Monroe St.
Suite D
Tallahassee, FL 32303
**Proj:** S2500052 Valdosta Well

Phone: (850) 219-6274
Fax:
Received: 01/09/2025
Analyzed: 01/23/2025

# Test Report: Determination of Asbestos Structures >10µm in Drinking Water Performed by the 100.2 Method (EPA 600/R-94/134)

| Sample ID Client / EMSL | Sample Filtration Date/Time | Original Sample Vol. Filtered (ml) | Effective Filter Area (mm²) | Area Analyzed (mm²) | ASBESTOS Asbestos Types | Fibers Detected | Analytical Sensitivity | Concentration | Confidence Limits |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | MFL (million fibers per liter) | |
| Well<br>342500430-0001 | 1/9/2025<br>10:47 AM | 100 | 1288 | 0.0744 | None Detected | ND | 0.17 | <0.17 | 0.00 - 0.64 |

*Collection Date/Time:* *01/08/2025*

Analzed on 1/23/25 9:51 am

Analyst(s)
Jason Stuhr (1)

Laura Vera, Asbestos Supervisor
or Other Approved Signatory

Any questions please contact Laura Vera.

Initial report from: 01/23/2025 09:52:46

EMSL maintains liability limited to cost of analysis. Interpretation and use of test results are the responsibility of the client. This report relates only to the samples reported above, and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. The report reflects the samples as received. Results are generated from the field sampling data (sampling volumes and areas, locations, etc.) provided by the client on the Chain of Custody. Samples are within quality control criteria and met method specifications unless otherwise noted. Estimation of uncertainty is available on request. Sample collection performed by the client. Pre-cleaned sample containers are available for purchase from EMSL. Note if sample containers are provided by the client, acceptable bottle blank level is defined as ≤0.01MFL for >=10um fibers. ND=None Detected. No Fibers Detected: the value will be reported as less than 369% of the concentration equivalent to one fiber. 1 to 4 fibers: The result will be reported as less than the corresponding upper 95% confidence limit (Poisson),5 to 30 fibers: Mean and 95% confidence intervals will be reported on the basis of the Poisson assumption. When more than 30 fibers are counted, both the Gaussian 95% confidence interval and the Poisson 95% confidence interval will be calculated. The large of these two intervals will be selected for data reporting. When the Gaussian 95% confidence interval is selected for data reporting, the Poisson will also be noted.

Samples analyzed by EMSL Analytical, Inc. Orlando, FL NELAC FL DOH E87804, EPA No. FL01176

# Florida Department of Environmental Protection
# Safe Drinking Water Program Laboratory Reporting Format

**LABORATORY CERTIFICATION INFORMATION** (to be completed by lab – please type or print legibly)

Lab Name: **KNL Environmental Testing** Florida DOH Certification #: **E84025** Certification Expiration Date: **June Renewal**

**ATTACH CURRENT DOH ANALYTE SHEET***

Address: **3202 N. Florida Ave. Tampa, FL 33603** Phone #: **813-229-2879**

Were any analyses subcontracted? ☐Yes ☒No If yes, please provide DOH certification number(s): _____

**ATTACH DOH ANALYTE SHEET FOR EACH SUBCONTRACTED LAB***

**ANALYSIS INFORMATION** (to be completed by lab) Date Sample(s) Received: 1-9-25

PWS ID (From Pg 1): _____ Sample # (From Pg 1): S2500052001 Lab Assigned Report # or Job ID: 25.294

Group(s) Analyzed & Results attached for compliance with Chapter 62-550, F.A.C. (Check all that apply):

| Inorganics | Synthetic Organics | Volatile Organics | Disinfection Byproducts | Radionuclides | Secondaries |
|---|---|---|---|---|---|
| ☐All Except Asbestos | ☐All 30 | ☐All 21 | ☐Trihalomethanes | ☒Single Sample | ☐All 14 |
| ☐Partial | ☐All Except Dioxin | ☐Partial | ☐Haloacetic Acids | ☐Qtrly Composite** | ☐Partial |
| ☐Nitrate | ☐Partial | | ☐Chlorite | | |
| ☐Nitrite | ☐Dioxin Only | | ☐Bromate | | |
| ☐Asbestos | | | | | |

## LAB CERTIFICATION

I, **Thomas J. Weeks** (Print Name), **Laboratory Director** (Print Title), do HEREBY CERTIFY that all attached analytical data are correct and unless noted meet all requirements of the National Environmental Laboratory Accreditation Conference (NELAC).

Signature: _____ Date: 1-30-25

* Failure to provide a valid and current Florida DOH lab certification number and a current Analyte Sheet for the attached analysis results will result in rejection of the report, possible enforcement against the public water system for failure to sample, and may result in notification of the DOH Bureau of Laboratory Services.

** Please provide radiological sample dates & locations for each quarter.

**CONFIRMATION & NOTIFICATION IS REQUIRED WITHIN 24 HRS FOR NITRATE OR NITRITE MCL EXCEEDANCES**
**NON-DETECTS ARE TO BE REPORTED AS THE MDL WITH A "U" QUALIFIER.** (Non-detects reported as "BDL" or with a "<" are not acceptable.)

**COMPLIANCE DETERMINATION** (to be completed by DEP or DOH – attach notes as necessary)

Sample Collection & Analysis Satisfactory: ☐Yes ☐No _____ Replacement Sample or Report Requested (circle or highlight group(s) above)

Person Notified: _____ Date Notified: _____ DEP/DOH Reviewing Official: _____

KNL Laboratory Services, Inc.
2742 N. Florida Ave.
P.O. Box 1833
Tampa, FL 33601

Ph: (813) 229-2879 Fax: (813) 229-0002

## Florida Department of Environmental Protection
## Safe Drinking Water Program Laboratory Reporting Format

RADIONUCLIDES
62-550.310(6)
KNL Report Number/Job ID: 25.294
PWS ID(From Page 1):
Client ID: AEL-Tallahassee // Well // S2500052001

| Contam ID | Contam Name | MCL | Units | Analysis Result | Qualifier * | Analytical Method | Lab MDL | RDL | Analysis Error | Analysis Date | Analysis Time | DOH Lab Certification # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4000 | Gross Alpha (excl.Uranium) ** | 15 | pCi/L | 6.6 | | EPA 900.0 | 1.1 | 3 | 1.5 | 1-14-25 | 0820 | E84025 |
| 4002 | Gross Alpha (incl Uranium) | *** | pCi/L | 6.6 | | EPA 900.0 | 1.1 | 3 | 1.5 | 1-14-25 | 0820 | E84025 |
| 4006 | Combined Uranium (U-234, U-235 & U-238) **** | 20 | pCi/L | 0.4 | U | EPA 908.0 | 0.4 | .67 | 0.3 | 1-29-25 | 0759 | E84025 |
| | | 30 | ug/L | 0.6 | U | Calc | 0.6 | 1 | 0.4 | Calc | Calc | E84025 |
| 4020 | Radium-226 | 5 | pCi/L | 3.3 | | EPA 903.0 ***** | 0.4 | 1 | 0.7 | 1-17-25 | 1254 | E84025 |
| 4030 | Radium-228 | | pCi/L | 1.8 | I | EPA Ra-05 | 0.6 | 1 | 0.5 | 1-17-25 | 1251 | E84025 |

Reporting Format 62-550.730
Effective January 1995, Revised February 2010.

* Qualifier Codes: U = indicates that the compound was analyzed for but not detected.
I = the reported value is between the laboratory detection limit and the laboratory practical quantitation limit.

** If the result exceeds 5 pCi/L, a measurement for radium-226 is required. Uranium is reported separately under Contam ID 4006.

*** If the results exceed 5 pCi/L, a measurement for radium-226 is required. If the results exceed 15 pCi/L, a measurement for Combined Uranium must be reported separately. The DEP/DOH will subtract the U value from the Gross Alpha (ID 4002) to determine compliance with MCL for Gross Alpha (Excl.U) of 15 pCi/L. If the result for ID 4002 Gross Alpha (incl.Uranium) does not exceed 15 pCi/L, Combined Uranium need not be measured nor reported.

**** If using Uranium testing methods ASTM D5174 or EPA 200.8 only, then Analysis Error need not be reported.

***** 86% carrier recovery



Test results meet all requirements of the 2016 TNI standards. Statement of estimated uncertainty available upon request. Test results refer only to sample(s) listed.
Contact person: Thomas Weeks (813) 229-2879

Approved by: Thomas J. Weeks
Laboratory Director

1-21-25

# Chain of Custody

5-PO-24618

**Document:** 387903 - HBN 305655

**Results Requested By:** 1/26/2025

| Report To | Subcontract To |
|---|---|
| Advanced Environmental Laboratories, Inc.<br>2639 N Monroe St Suite D<br>Tallahassee, FL 32303<br>Phone (850) 219-6274<br>Fax (850) 219-6275 | KNL-FL<br>KNL Laboratory Services, Inc.<br>2742 North Florida Avenue<br>Tampa, FL 33602 |

| Item | Sample ID | Collect Date/Time | Lab ID | Matrix | Preserved Containers: 4C | Preserved Containers: HNO3 | Requested Analysis: Gross Alpha. EPA 900. Drinking Water | Requested Analysis: IC.E300.0.Water | Requested Analysis: Radium 226. EPA 903.1. Drinking Water | Requested Analysis: Radium 228. EPA Ra-05. Drinking Water | Requested Analysis: Uranium. EPA 908. Drinking Water | LAB USE ONLY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Well | 01/08/2025 08:30 | S2500052001 | Drinking Water | 1 | 3 | | | | | | 25.294 |

| Report | Electronic Data Deliverables |
|---|---|
| ☐ Standard (Results Only) | ☐ Stage 2A |
| ☐ Standard with Batch QC | ☐ Stage 2B |
| ☐ CLP | ☐ Stage 3 |
| ☐ Other _____ | ☐ Other _____ |

**Comments**

S2500052 VALDOSTA WELL Tim Preston TPreston@AELLab.com

**Preservative**

4C = 4 degrees C
HNO3 = HNO3

| Transfers | Released By | Date/Time | Received By | Date/Time |
|---|---|---|---|---|
| 1 | | | KNL | 1-9-25 1415 P |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |



POWERED BY HORIZON v.13.1.0

GEL Laboratories LLC
a member of The GEL Group INC

2040 Savage Road | Charleston, SC 29407
843.556.8171
gel.com

January 30, 2025

Mikelle Chong
Advanced Environmental Laboratories, Inc. (AEL)
10200 USA Today Way
Miramar, Florida 33025

Re: Routine Analysis
Work Order: 704794
SDG: S2500052

Dear Mikelle Chong:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on January 17, 2025. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

The sample was delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 1614.

Sincerely,

Abagail Martin for
Delaney Stonesmith
Project Manager

Purchase Order: S-PO-29617
Enclosures

**GEL LABORATORIES LLC**
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

# Certificate of Analysis Report
for

AELS001 Advanced Environmental Laboratories, Inc.

Client SDG: S2500052 GEL Work Order: 704794

**The Qualifiers in this report are defined as follows:**

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a Tracer compound

** Analyte is a surrogate compound

U Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the Certificate of Analysis.

The designation ND, if present, appears in the result column when the analyte concentration is not detected above the limit as defined in the 'U' qualifier above.

This data report has been prepared and reviewed in accordance with GEL Laboratories LLC standard operating procedures. Please direct any questions to your Project Manager, Delaney Stonesmith.

Reviewed by _____

**GEL LABORATORIES LLC**
2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

# *Certificate of Analysis*

Report Date: January 30, 2025

| | |
|---|---|
| Company : | Advanced Environmental Laboratories, Inc. (AEL) |
| Address : | 10200 USA Today Way<br>Miramar, Florida 33025 |
| Contact: | Mikelle Chong |
| Project: | Routine Analysis |

| | | | |
|---|---|---|---|
| Client Sample ID: | Well | Project: | AELS00422 |
| Sample ID: | 704794001 | Client ID: | AELS001 |
| Matrix: | Drinking Water (Potable) | | |
| Collect Date: | 08-JAN-25 08:30 | | |
| Receive Date: | 17-JAN-25 | | |
| Collector: | Client | | |

| Parameter | Qualifier | Result | DL | RL | Units | PF | DF | Analyst | Date | Time | Batch | Method |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rad Gas Flow Proportional Counting | | | | | | | | | | | | |
| GFPC, Sr90, Drinking Water EPA 905.0 "As Received" | | | | | | | | | | | | |
| Strontium-90 | U | ND | 1.26 | 2.00 | pCi/L | | | HH3 | 01/28/25 | 1735 | 2737098 | 1 |

The following Analytical Methods were performed:

| Method | Description | Analyst Comments |
|---|---|---|
| 1 | EPA 905.0 | |

| Surrogate/Tracer Recovery | Test | Result | Nominal | Recovery% | Acceptable Limits |
|---|---|---|---|---|---|
| Strontium Carrier | GFPC, Sr90, Drinking Water EPA 905.0 "As Received" | | | 72.1 | (25%-125%) |

**Notes:**

*Column headers are defined as follows:*

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

## *QC Summary*

**Report Date: January 30, 2025**



**Advanced Environmental Laboratories, Inc. (AEL)**
**10200 USA Today Way**
**Miramar, Florida**

**Contact:** **Mikelle Chong**

**Workorder:** **704794**

| Parmname | NOM | Sample | Qual | QC | Units | RPD% | REC% | Range | Anlst | Date | Time |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Rad Gas Flow** | | | | | | | | | | | |
| Batch 2737098 | | | | | | | | | | | |
| QC1205981525 704770001 DUP | | | | | | | | | | | |
| Strontium-90 | U | 0.618 | U | 0.472 | pCi/L | N/A | | N/A | HH3 | 01/28/25 | 17:35 |
| QC1205981527 LCS | | | | | | | | | | | |
| Strontium-90 | 5.43 | | | 6.06 | pCi/L | | 112 * | (90%-110%) | | 01/28/25 | 17:35 |
| QC1205981524 MB | | | | | | | | | | | |
| Strontium-90 | | | U | -0.105 | pCi/L | | | | | 01/28/25 | 17:35 |
| QC1205981526 704770001 MS | | | | | | | | | | | |
| Strontium-90 | 27.1 U | 0.618 | | 28.7 | pCi/L | | 106 | (80%-120%) | | 01/27/25 | 15:31 |

**Notes:**

The Qualifiers in this report are defined as follows:

- X Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- H Analytical holding time was exceeded
- < Result is less than value reported
- > Result is greater than value reported
- UI Gamma Spectroscopy--Uncertain identification
- BD Results are either below the MDC or tracer recovery is low
- h Preparation or preservation holding time was exceeded
- R Sample results are rejected
- ^ RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.
- N/A RPD or %Recovery limits do not apply.
- ND Analyte concentration is not detected above the detection limit
- M M if above MDC and less than LLD
- NJ Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier
- FA Failed analysis.
- UJ Gamma Spectroscopy--Uncertain identification
- Q One or more quality control criteria have not been met. Refer to the applicable narrative or DER.

## *QC Summary*

**Workorder:** **704794**



| Parmname | NOM | Sample | Qual | QC | Units | RPD% | REC% | Range | Anlst | Date | Time |
|---|---|---|---|---|---|---|---|---|---|---|---|

| | |
|---|---|
| K | Analyte present. Reported value may be biased high. Actual value is expected to be lower. |
| UL | Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias. |
| L | Analyte present. Reported value may be biased low. Actual value is expected to be higher. |
| N1 | See case narrative |
| Y | Other specific qualifiers were required to properly define the results. Consult case narrative. |
| ** | Analyte is a Tracer compound |
| F | Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier |
| J | Value is estimated |
| U | Analyte was analyzed for, but not detected above the MDL, MDA, MDC or LOD. |
| M | REMP Result > MDC/CL and < RDL |
| J | See case narrative for an explanation |
| G | Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier. |
| FG | Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier. |
| XG | Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier. |

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.
^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.
* Indicates that a Quality Control parameter was not within specifications.
For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

# Chain of Custody

704794

5-PO-29617

**Document:** 389399 - HBN 306808

**Results Requested By:** 1/26/2025

| Report To | Subcontract To |
|---|---|
| Advanced Environmental Laboratories, Inc.<br>2639 N Monroe St Suite D<br>Tallahassee, FL 32303<br>Phone (850) 219-6274<br>Fax (850) 219-6275 | Delaney Stone<br>GEL Laboratories LLC<br>2040 Savage Rd<br>Charleston, SC 29407<br>Phone (843)769-7385 |

| Item | Sample ID | Collect Date/Time | Lab ID | Matrix | Preserved Containers: 4C | Chlorine Dioxide, WA | Chlorine,Total,SM4500-Cl-G,Aqueous | IC,E300.0,Water | Odor,SM2150B,DW | Odor,SM2150B,Water | Strontium 90, EPA 905.0 | LAB USE ONLY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Well | 01/08/2025 08:30 | S2500052001 | Drinking Water | 2 | | | | | | | |

**Report**

- ☐ Standard (Results Only)
- ☐ Standard with Batch QC
- ☐ CLP
- ☐ Other _____

**Electronic Data Deliverables**

- ☐ Stage 2A
- ☐ Stage 2B
- ☐ Stage 3
- ☐ Other _____

**Comments**

S2500052 VALDOSTA WELL Tim Preston TPreston@AELLab.com

**Preservative**

4C = 4 degrees C

| Transfers | Released By | Date/Time | Received By | Date/Time |
|---|---|---|---|---|
| 1 | | | M. | 1/17/25 925 |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |



POWERED BY HORIZON v.13.1.0

GEL Laboratories LLC

# SAMPLE RECEIPT & REVIEW FORM

| | |
|---|---|
| Client: AELS | SDG/AR/COC/Work Order: 704794 |
| Received By: MLS | Date Received: 1·17·25 |
| Carrier and Tracking Number | Circle Applicable: FedEx Express FedEx Ground UPS Field Services Courier Other<br>7714 3257 5364 |

| Suspected Hazard Information | Yes | No | *If Net Counts > 100cpm on samples not marked "radioactive", contact the Radiation Safety Group for further investigation. |
|---|---|---|---|
| A)Shipped as a DOT Hazardous? | | √ | Hazard Class Shipped: UN#:<br>If UN2910, Is the Radioactive Shipment Survey Compliant? Yes___ No___ |
| B) Did the client designate the samples are to be received as radioactive? | | √ | COC notation or radioactive stickers on containers equal client designation. |
| C) Did the RSO classify the samples as radioactive? | | √ | Maximum Net Counts Observed* (Observed Counts - Area Background Counts): Ø (PM) mR/Hr<br>Classified as: Rad 1 Rad 2 Rad 3 |
| D) Did the client designate samples are hazardous? | | √ | COC notation or hazard labels on containers equal client designation. |
| E) Did the RSO identify possible hazards? | | √ | If D or E is yes, select Hazards below.<br>PCB's Flammable Foreign Soil RCRA Asbestos Beryllium Other: |

| | Sample Receipt Criteria | Yes | NA | No | Comments/Qualifiers (Required for Non-Conforming Items) |
|---|---|---|---|---|---|
| 1 | Shipping containers received intact and sealed? | √ | | | Circle Applicable: Seals broken Damaged container Leaking container Other (describe) |
| 2 | Chain of custody documents included with shipment? | √ | | | Circle Applicable: Client contacted and provided COC COC created upon receipt |
| 3 | Samples requiring cold preservation within (0 ≤ 6 deg. C)* | | | √ | Preservation Method: Wet Ice Ice Packs Dry Ice None Other:<br>*all temperatures are recorded in Celsius TEMP: 3 |
| 4 | Daily check performed and passed on IR temperature gun? | √ | | | Temperature Device Serial #: IR1-25<br>Secondary Temperature Device Serial # (If Applicable): |
| 5 | Sample containers intact and sealed? | √ | | | Circle Applicable: Seals broken Damaged container Leaking container Other (describe) |
| 6 | Samples requiring chemical preservation at proper pH? | √ | | | Sample ID's and Containers Affected:<br>If Preservation added, Lot#: |
| 7 | Do any samples require Volatile Analysis? | | | √ | If Yes, are Encores or Soil Kits present for solids? Yes___ No___ NA_" (If yes, take to VOA Freezer)<br>Do liquid VOA vials contain acid preservation? Yes___ No___ NA___(If unknown, select No)<br>Are liquid VOA vials free of headspace? Yes___ No___ NA___<br>Sample ID's and containers affected: |
| 8 | Samples received within holding time? | √ | | | ID's and tests affected: |
| 9 | Sample ID's on COC match ID's on bottles? | √ | | | ID's and containers affected: |
| 10 | Date & time on COC match date & time on bottles? | √ | | | Circle Applicable: No dates on containers No times on containers COC missing info Other (describe) |
| 11 | Number of containers received match number indicated on COC? MLS | X | | √ | Circle Applicable: No container count on COC Other (describe)<br>COC says 2 only received 1 |
| 12 | Are sample containers identifiable as GEL provided by use of GEL labels? | | | √ | |
| 13 | COC form is properly signed in relinquished/received sections? MLS | √ | | √ | Circle Applicable: Not relinquished Other (describe) |

Comments (Use Continuation Form if needed):

PM (or PMA) review: Initials AM Date 1/20/25 Page 1 of 1

**List of current GEL Certifications as of 30 January 2025**

| State | Certification |
|---|---|
| Alabama | 42200 |
| Alaska | 17-018 |
| Alaska Drinking Water | SC00012 |
| Arkansas | 88-00651 |
| CLIA | 42D0904046 |
| California | 2940 |
| Colorado | SC00012 |
| Connecticut | PH-0169 |
| DoD ELAP/ ISO17025 A2LA | 2567.01 |
| Florida NELAP | E87156 |
| Foreign Soils Permit | 525-24-281-19660 |
| Georgia | SC00012 |
| Georgia SDWA | 967 |
| Hawaii | SC00012 |
| Idaho | SC00012 |
| Illinois NELAP | 200029 |
| Indiana | C-SC-01 |
| Kansas NELAP | E-10332 |
| Kentucky SDWA | KY90129 |
| Kentucky Wastewater | KY90129 |
| Louisiana Drinking Water | LA024 |
| Louisiana NELAP | 03046 (AI33904) |
| Maine | 2023019 |
| Maryland | 270 |
| Massachusetts | M-SC012 |
| Massachusetts PFAS Approv | Letter |
| Michigan | 9976 |
| Mississippi | SC00012 |
| Nebraska | NE-OS-26-13 |
| Nevada | NV-C24-00175 |
| New Hampshire NELAP | 205424 |
| New Jersey NELAP | SC002 |
| New Mexico | SC00012 |
| New York NELAP | 11501 |
| North Carolina | 233 |
| North Carolina SDWA | 45709 |
| North Dakota | R-158 |
| Oklahoma | 2023-152 |
| Pennsylvania NELAP | 68-00485 |
| Puerto Rico | SC00012 |
| S. Carolina Radiochem | 10120002 |
| Sanitation Districts of L | 9255651 |
| South Carolina Chemistry | 10120001 |
| Tennessee | TN 02934 |
| Texas NELAP | T104704235 |
| Utah NELAP | SC000122024-45 |
| Vermont | VT87156 |
| Virginia NELAP | 460202 |
| Washington | C780 |

**Radiochemistry**
**Technical Case Narrative**
**Advanced Environmental Laboratories, Inc.**
**SDG #: S2500052**
**Work Order #: 704794**

**Product:** **GFPC, Sr90, Drinking Water EPA 905.0**
**Analytical Method:** EPA 905.0
**Analytical Procedure:** GL-RAD-A-029 REV# 18
**Analytical Batch:** 2737098

The following samples were analyzed using the above methods and analytical procedure(s).

| GEL Sample ID# | Client Sample Identification |
|---|---|
| 704794001 | Well |
| 1205981524 | Method Blank (MB) |
| 1205981525 | 704770001(NonSDG) Sample Duplicate (DUP) |
| 1205981526 | 704770001(NonSDG) Matrix Spike (MS) |
| 1205981527 | Laboratory Control Sample (LCS) |

The samples in this SDG were analyzed on an "as received" basis.

**Data Summary:**

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

**Quality Control (QC) Information**

**Laboratory Control Sample (LCS) Recovery**
The Laboratory Control Sample does not meet the drinking water recovery requirement. However, the matrix spike meets the requirement showing that the method was in control during the analysis.

| Sample | Analyte | Value |
|---|---|---|
| 1205981527 (LCS) | Strontium-90 | 112* (90%-110%) |

**Technical Information**

**Recounts**
Sample 1205981527 (LCS) was recounted due to low recovery. The recount is reported. Samples 1205981524 (MB), 1205981525 (Non SDG 704770001DUP) and 704794001 (Well) were recounted due to high MDCs. The recounts are reported.

**Certification Statement**

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

# Florida Department of Environmental Protection
# Safe Drinking Water Program Laboratory Reporting Format

**PUBLIC WATER SYSTEM INFORMATION** (to be completed by sampler – please type or print legibly)

System Name: _____ PWS I.D. #: _____

System Type (check one): ☐Community ☐Nontransient Noncommunity ☐Transient Noncommunity

Address: _____

City: _____ ZIP Code: _____

Phone # _____ Fax #: _____ E-Mail Address: _____

SAMPLE INFORMATION (to be completed by sampler)

Sample Number: Well #2 Sample Date: 02/24/2025 Sample Time: 1530 AM (PM) (Circle One)

Sample Location (be specific) : _____ Location Code: _____

Disinfectant Residual (Required when reporting results for trihalomethanes and haloacetic acids): _____ mg/L Field pH: _____

Sample Type (Check Only One)

☐Distribution
☐Entry Point (to Distribution)
☐Plant Tap (not for compliance with 62-550)
☐Raw (at well or intake)
☐Max Residence Time
☐Ave Residence Time
☐Near First Customer

Reason(s) for Sample (Check all that apply)

☐Routine Compliance with 62-550
☐Confirmation of MCL Exceedance*
☐Composite of Multiple Sites**
☐Other: _____

☐Replacement (of Invalidated Sample)
☐Special (not for compliance with 62-550)
☐Clearance (permitting)

Sampling Procedure Used or Other Comments:

_____

*See 62-550.500(6) for requirements and restrictions. And 62-550.512(3) for nitrate or nitrite exceedances.

**See 62-550.550(4) for requirements and attach a results page for each site.

## SAMPLER CERTIFICATION

I, _____ (Print Name), _____ (Print Title), do HEREBY CERTIFY that the above public water system and sample collection information is complete and correct.

Signature: _____ Date: _____

Certified Operator #: _____ Phone #: _____ Sampler's Fax #: _____

Sampler's E-mail: _____

# Florida Department of Environmental Protection
# Safe Drinking Water Program Laboratory Reporting Format

**LABORATORY CERTIFICATION INFORMATION** (to be completed by lab – please type or print legibly)

Lab Name: Cape Fear Analytical, LLC Florida DOH Certification #: E871081 Certification Expiration Date: June 30, 2025

**ATTACH CURRENT DOH ANALYTE SHEET***

Address: 3306 Kitty Hawk Rd. Ste.120 Wilmington NC, 28405 Phone #: 910-795-0421

Were any analyses subcontracted? ☐ Yes ☒ No If yes, please provide DOH certification number(s): _____

**ATTACH DOH ANALYTE SHEET FOR EACH SUBCONTRACTED LAB***

**ANALYSIS INFORMATION** (to be completed by lab) Date Sample(s) Received: 02/26/2025

PWS ID (From Page 1): _____ Sample Number (From Page 1): Well #2 Lab Assigned Report # or Job ID: WO23700

Group(s) Analyzed & Results attached for compliance with Chapter 62-550, F.A.C. (Check all that apply):

| Inorganics | Synthetic Organics | Volatile Organics | Disinfection Byproducts | Radionuclides | Secondaries |
|---|---|---|---|---|---|
| ☐ All Except Asbestos | ☐ All 30 | ☐ All 21 | ☐ Trihalomethanes | ☐ Single Sample | ☐ All 14 |
| ☐ Partial | ☐ All Except Dioxin | ☐ Partial | ☐ Haloacetic Acids | ☐ Qtrly Composite** | ☐ Partial |
| ☐ Nitrate | ☐ Partial | | ☐ Chlorite | | |
| ☐ Nitrite | ☒ Dioxin Only | | ☐ Bromate | | |
| ☐ Asbestos | | | | | |

## LAB CERTIFICATION

I, Christopher K. Cornwell (Print Name), Lab Director (Print Title), do HEREBY CERTIFY that all attached analytical data are correct and unless noted meet all requirements of the National Environmental Laboratory Accreditation Conference (NELAC).

Signature: _____ Date: 03/17/2025

* Failure to provide a valid and current Florida DOH lab certification number and a current Analyte Sheet for the attached analysis results will result in rejection of the report, possible enforcement against the public water system for failure to sample, and may result in notification of the DOH Bureau of Laboratory Services.

** Please provide radiological sample dates & locations for each quarter.

**CONFIRMATION & NOTIFICATION IS REQUIRED WITHIN 24 HRS FOR NITRATE OR NITRITE MCL EXCEEDANCES**

**NON-DETECTS ARE TO BE REPORTED AS THE MDL WITH A "U" QUALIFIER.** **(Non-detects reported as "BDL" or with a "<" are not acceptable.)**

**COMPLIANCE DETERMINATION** (to be completed by DEP or DOH -- attach notes as necessary)

Sample Collection & Analysis Satisfactory: ☐ Yes ☐ No _____ Replacement Sample or Report Requested (circle or highlight group(s) above)

Person Notified: _____ Date Notified: _____ DEP/DOH Reviewing Official: _____

# Florida Department of Environmental Protection
# Safe Drinking Water Program Laboratory Reporting Format

SYNTHETIC ORGANICS

Report Number / Job ID: WO23700 PWS ID (from Page 1): Well #2 .

62-550.310(4)(b)

| Contam ID | Contam Name | MCL | Units | Analysis Result | Qualifier* | Analytical Method | Lab MDL | RDL | Extraction Date | Analysis Date | Analysis Time | DOH Lab Certification # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2005 | Endrin | 2 | µg/L | | | | | 0.01 | | | | E |
| 2010 | Lindane | 0.2 | µg/L | | | | | 0.02 | | | | E |
| 2015 | Methoxychlor | 40 | µg/L | | | | | 0.1 | | | | E |
| 2020 | Toxaphene | 3 | µg/L | | | | | 1 | | | | E |
| 2031 | Dalapon | 200 | µg/L | | | | | 1 | | | | E |
| 2032 | Diquat | 20 | µg/L | | | | | 0.4 | | | | E |
| 2033 | Endothall | 100 | µg/L | | | | | 9 | | | | E |
| 2034 | Glyphosate | 700 | µg/L | | | | | 6 | | | | E |
| 2035 | Di(2-ethylhexyl)adipate | 400 | µg/L | | | | | 0.6 | | | | E |
| 2036 | Oxamyl (Vydate) | 200 | µg/L | | | | | 2 | | | | E |
| 2037 | Simazine | 4 | µg/L | | | | | 0.07 | | | | E |
| 2039 | Di(2-ethylhexyl)phthalate | 6 | µg/L | | | | | 0.6 | | | | E |
| 2040 | Picloram | 500 | µg/L | | | | | 0.1 | | | | E |
| 2041 | Dinoseb | 7 | µg/L | | | | | 0.2 | | | | E |
| 2042 | Hexachlorocyclopentadinene | 50 | µg/L | | | | | 0.1 | | | | E |
| 2046 | Carbofuran | 40 | µg/L | | | | | 0.9 | | | | E |
| 2050 | Atrazine | 3 | µg/L | | | | | 0.1 | | | | E |
| 2051 | Alachlor | 2 | µg/L | | | | | 0.2 | | | | E |
| 2063 | 2,3,7,8-TCDD (Dioxin) | 0.03 | ng/L | 0.00391 | U | EPA1613 | 0.00391 | 0.005 | 03/04/2025 | 03/11/2025 | 0159 | E871081 |
| 2065 | Heptachlor | 0.4 | µg/L | | | | | 0.04 | | | | E |
| 2067 | Heptachlor Epoxide | 0.2 | µg/L | | | | | 0.02 | | | | E |
| 2105 | 2,4-D | 70 | µg/L | | | | | 0.1 | | | | E |
| 2110 | 2,4,5-TP (Silvex) | 50 | µg/L | | | | | 0.2 | | | | E |
| 2274 | Hexachlorobenzene | 1 | µg/L | | | | | 0.1 | | | | E |
| 2306 | Benzo(a)pyrene | 0.2 | µg/L | | | | | 0.02 | | | | E |
| 2326 | Pentachlorophenol | 1 | µg/L | | | | | 0.04 | | | | E |
| 2383 | Polychlorinated biphenyls (PCBs) | 0.5 | µg/L | | | | | 0.1 | | | | E |
| 2931 | Dibromochloropropane | 0.2 | µg/L | | | | | 0.02 | | | | E |
| 2946 | Ethylene Dibromide (EDB) | 0.02 | µg/L | | | | | 0.01 | | | | E |
| 2959 | Chlordane | 2 | µg/L | | | | | 0.2 | | | | E |



*Results must be reported with appropriate qualifiers in accordance with Florida Administrative Code Rule 62-160, Table 1. Results qualified with A, F, H, N, O, T, Z, ?, *, are unacceptable for compliance with 62-550. Results qualified with a J, Q, R, or Y must be accompanied by written justification and will be evaluated on a case by case basis. To avoid a monitoring violation, unacceptable results must be replaced with acceptable results from samples collected during the same monitoring period.

# Laboratory Analysis

## Molecular Particulate Analysis (MPA) Sampling

**Valdosta WTP No. 2**
**Production Well No. 2**

CDM Smith

# INVOICE

**Remittance Address:**
CH Diagnostic and Consulting Services, Inc.
730 6th Street
Berthoud, CO 80513
970-532-2078

**Invoice Number** 20250003
**Invoice Date** 1/14/2025
**PO Number**
**Contract Number**

**Customer:** 20091790
City of Valdosta Water Treatment Plant
Attn: Philip Walker
PO Box 1125
Valdosta, GA 31603

**Please include Invoice number with payment.**

**Invoice Due Date: February 16, 2025**

| Description of Services | Quantity | Unit Price | Discount | Amount |
|---|---|---|---|---|
| Ground MPA | 1 | $450.00 | 0.00% | $450.00 |
| Equipment Use | 1 | $95.00 | 0.00% | $95.00 |
| Polypropylene Wound Filter Cartridge | 1 | $15.00 | 0.00% | $15.00 |
| Shipping | 1 | $85.00 | 0.00% | $85.00 |

***We appreciate your business!***

**Invoice Total** **$645.00**

# ANALYSIS FOR WATERBORNE PARTICULATES

**CH Diagnostic and Consulting Service, Inc.**
**512 5th Street, Berthoud, CO 80513**
**P: (970) 532-2078 F: (970) 532-3358**

**Invoice 20250003**

**Customer 20091790**
City of Valdosta Water Treatment Plant
PO Box 1125
Valdosta, GA 31603
**PWSID# 1850002**

**Laboratory Information**
Federal Express; 1/9/2025; 1000 Hrs; 3.8°C; Wound
Results submitted by:

| | | | |
|---|---|---|---|
| **Sample Identification:** | WTP 2, Valdosta, Well 2 | | |
| **Sample Information:** | SOURCE: Drilled Well; 450' deep; Unchlorinated; pH 8.62 —» pH 8.52; 21.8°C —» 21.1°C; 0.84 NTU —» 0.37 NTU | | |
| **Sample Date & Time:** | 1/7/2025 04:33 PM —» 1/8/2025 01:45 PM | **Sampler:** Eduardo Fabelo | |
| **Amount:** | 1896.285 L (501 gal) | **Filter Color:** White | **Filter Type:** Polypropylene wound cartridge |
| **Date/Time Eluted:** | 1/10/2025 12:00 AM | **Centrifugate:** 0.00263 mL/100 L | |

**RESULTS OF MICROSCOPIC PARTICULATE ANALYSIS**

Amount of sample assayed: 380 L

| | |
|---|---|
| Amorphous Debris | clay (1-2 µm), silt (2-50 µm), sand (50-2000 µm) |
| Algae | ND |
| Diatoms | ND |
| Plant debris | ND |
| Rotifers | ND |
| Nematodes | ND |
| Pollen (pine) | ND |
| Ameba | ND |
| Ciliates | ND |
| Colorless Flagellates | ND |
| Crustaceans | ND |
| Other Arthropods | ND |
| Other | ND |

*Giardia* and Coccidia are none detected (ND) by MPA unless reported under "Other".
This sample was analyzed for particulates following the Environmental Protection Agency Consensus Method for Determining Groundwaters Under the Direct Influence of Surface Water Using Microscopic Particulate Analysis (MPA). 1992. USEPA, Port Orchard, WA, EPA 910/9-92-029. All limitations stated in the methods apply. If HV capsule or foam filter was received, method was modified by filtering sample through a Pall Envirochek™ HV capsule or IDEXX Filta-Max™ filter at the sample site. If *Giardia* and *Cryptosporidium* Analysis was also performed, particulate extraction was modified.

COMMENTS: Score: 0-Low Risk per EPA Consensus Method referenced above.

## Ground Water Risk Factor Table

From: E.P.A. Consensuses Method for Determining Groundwaters Under the Direct Influence of Surface Water Using Microscopic Particulate Analysis (MPA)

Table 1. Numerical range of each primary bio-indicator (Particulate) counted per 100 gallons water.

| Indicators of surface water [1] | EH [3] | H | M | R | NS |
|---|---|---|---|---|---|
| Giardia [2] | >30 | 16-30 | 6-15 | 1-5 | <1 |
| Coccidia [2] | >30 | 16-30 | 6-15 | 1-5 | <1 |
| Diatoms [4] | >150 | 41-149 | 11-40 | 1-10 | <1 |
| Other Algae [4] | >300 | 96-299 | 21-95 | 1-20 | <1 |
| Insects/Larvae | >100 | 31-99 | 16-30 | 1-15 | <1 |
| Rotifers | >150 | 61-149 | 21-60 | 1-20 | <1 |
| Plant Debris [4] | >200 | 71-200 | 26-70 | 1-25 | <1 |

1. According to EPA "Guidance Manual for Compliance with the Filtration and Disinfection Requirements for Public Water Systems Using Surface Water Sources", March, 1991 ed.

2. If Giardia cysts or coccidian are found in any sample, irrespective of volume, score as above.

3. Key= EH – extremely heavy M – moderate NS – not significant
H – heavy R – rare

4. Chlorophyll containing

Table 2. Relative surface water risk factors associated with scoring of primary bio-indicators (particulate) present during MPA of subsurface water sources.

| Indicators of surface water [1] | Relative Risk Factor [3] | | | | |
|---|---|---|---|---|---|
| | EH [2] | H | M | R | NS |
| Giardia | 40 | 30 | 25 | 20 | 0 |
| Coccidia | 35 | 30 | 25 | 20 | 0 |
| Diatoms | 16 | 13 | 11 | 6 | 0 |
| Other Algae | 14 | 12 | 9 | 4 | 0 |
| Insects/Larvae | 9 | 7 | 5 | 3 | 0 |
| Rotifers | 4 | 3 | 2 | 1 | 0 |
| Plant Debris | 3 | 2 | 1 | 0 | 0 |

1. According to EPA "Guidance Manual for Compliance with the Filtration and Disinfection Requirements for Public Water Systems Using Surface Water Sources", March, 1991 ed.

2. Refer to Table 1 for range of indicators counted per 100 gallons.
Key= EH – extremely heavy M – moderate NS – not significant
H – heavy R – rare

3. Risk of surface water contamination
≥20 – high risk
10-19 – moderate risk
≤9 – low risk

# Laboratory Analysis

## Perfluorooctanoic Acid (PFOA) and Perfluorooctyl Sulfonate (PFOS)

**Valdosta WTP No. 2**
**Production Well No. 2**

CDM Smith

# GEORGIA DEPARTMENT OF NATURAL RESOURCES
# ENVIRONMENTAL PROTECTION DIVISION

5804 Peachtree Corners East, Norcross, GA 30092-3403
(678) 248-7384

## LABORATORY REPORT

**The GA EPD Labs are accepting UCMR5 and PFAS samples**
**Email Mark Tolbert at mark.tolbert@dnr.ga.gov for more information**

TO: Mr. PHILLIP WALKER
P.O. Box 1125
VALDOSTA, GA 31603

| | |
|---|---|
| Date Collected: | 1/8/2025 |
| Time Collected: | 8:30 |
| Sample Collector: | C BROWNING |
| Chlorination: | T |
| Sample Type: | Routine |
| Received By: | ASH |
| Date Received: | 1/13/2025 |
| Time Received: | 4:29 PM |
| Project: | PFAS-REV |
| Reporting Date: | 1/28/2025 |
| Received Temperature: | 1.5 °C |

Sample ID: AL79556
Facility Name: valdosta WTP#2
Site ID: 1850002
Location ID: ~~WTP#1~~ Well #2 @ WTP #2
Location Descr: ~~WTP#1~~

| ANALYTE | PARAMETER CODE | NOTE | EPA METHOD | RESULT | UNITS | QUALIFIER | RL | ANALYST | ANALYSIS DATE | MCL or QC Range |
|---|---|---|---|---|---|---|---|---|---|---|
| **EPA 533 Sample Results QC Batch 214331** | | | | | | | | | | |
| PFBS | 2801 | | EPA 533 | Not Detected | ng/L | | 2 | TS | 1/16/2025 | |
| PFHpA | 2802 | | EPA 533 | Not Detected | ng/L | | 3 | TS | 1/16/2025 | |
| PFHxS | 2803 | | EPA 533 | 1.7 | ng/L | E | 2 | TS | 1/16/2025 | |
| PFNA | 2804 | | EPA 533 | Not Detected | ng/L | | 2 | TS | 1/16/2025 | |
| PFOS | 2805 | | EPA 533 | 5.4 | ng/L | | 2 | TS | 1/16/2025 | |
| PFOA | 2806 | | EPA 533 | 1.4 | ng/L | E | 2 | TS | 1/16/2025 | |
| PFDA | 2807 | | EPA 533 | Not Detected | ng/L | | 3 | TS | 1/16/2025 | |
| PFDoA | 2808 | | EPA 533 | Not Detected | ng/L | | 3 | TS | 1/16/2025 | |
| PFHxA | 2809 | | EPA 533 | Not Detected | ng/L | | 3 | TS | 1/16/2025 | |
| PFUnA | 2812 | | EPA 533 | Not Detected | ng/L | | 2 | TS | 1/16/2025 | |
| 11C1-PF3OUdS | 2813 | | EPA 533 | Not Detected | ng/L | | 5 | TS | 1/16/2025 | |
| 9C1-PF3ONS | 2814 | | EPA 533 | Not Detected | ng/L | | 2 | TS | 1/16/2025 | |
| ADONA | 2815 | | EPA 533 | Not Detected | ng/L | | 3 | TS | 1/16/2025 | |
| HFPO-DA | 2816 | | EPA 533 | Not Detected | ng/L | | 2 | TS | 1/16/2025 | |
| PFBA | 2819 | | EPA 533 | Not Detected | ng/L | | 5 | TS | 1/16/2025 | |
| 6:2 FTS | 2820 | | EPA 533 | Not Detected | ng/L | | 5 | TS | 1/16/2025 | |
| 4:2 FTS | 2821 | | EPA 533 | Not Detected | ng/L | | 3 | TS | 1/16/2025 | |
| 8:2 FTS | 2822 | | EPA 533 | Not Detected | ng/L | | 5 | TS | 1/16/2025 | |
| PFMPA | 2823 | | EPA 533 | Not Detected | ng/L | | 4 | TS | 1/16/2025 | |
| PFPeA | 2824 | | EPA 533 | Not Detected | ng/L | | 3 | TS | 1/16/2025 | |
| PFMBA | 2825 | | EPA 533 | Not Detected | ng/L | | 3 | TS | 1/16/2025 | |
| PFEESA | 2826 | | EPA 533 | Not Detected | ng/L | | 3 | TS | 1/16/2025 | |
| NFDHA | 2827 | | EPA 533 | Not Detected | ng/L | | 20 | TS | 1/16/2025 | |
| PFPeS | 2828 | | EPA 533 | Not Detected | ng/L | | 4 | TS | 1/16/2025 | |
| PFHpS | 2829 | | EPA 533 | Not Detected | ng/L | | 3 | TS | 1/16/2025 | |
| 13C2-4:2 FTS IDA | ID42 | | EPA 533 | 156 | % | | | TS | 1/16/2025 | |
| 13C2-6:2 FTS IDA | ID62 | | EPA 533 | 145 | % | | | TS | 1/16/2025 | |

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ppb: parts per billion
org/L: organisms/liter

<: less than
MCL: Maximum Contaminant Level
RL: Reporting Limit
LSPC: result less than lower specification
USPC: result greater than upper specification
TIE: Tentatively Identified or Estimated
VIOL: Violation (result exceeds MCL)

**Laboratory Contacts:**

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| Lab Director: | Mark Tolbert | 470-524-0577 | Mark.Tolbert@dnr.ga.gov |
| Inorganics: | Venus Singh | 470-524-2556 | Venus.Singh@dnr.ga.gov |
| Metals: | Shene Jones | 470-524-0544 | Shene.Jones@dnr.ga.gov |
| Organics: | Mary Bowman | 470-524-0639 | Mary.Bowman@dnr.ga.gov |
| GC Mass Spec: | Ralph Schulz | 470-524-0684 | Ralph.Schulz@dnr.ga.gov |
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|---|---|---|---|---|---|---|---|---|---|---|---|
| 13C2-8:2 FTS IDA | ID82 | | EPA 533 | 122 | % | | | TS | 1/16/2025 | | |
| 13C4-PFBA IDA | IDBA | | EPA 533 | 105 | % | | | TS | 1/16/2025 | | |
| 13C3-PFBS IDA | IDBS | | EPA 533 | 105 | % | | | TS | 1/16/2025 | | |
| 13C6-PFDA IDA | IDDA | | EPA 533 | 101 | % | | | TS | 1/16/2025 | | |
| 13C5-PFPeA IDA | IDEA | | EPA 533 | 160 | % | | | TS | 1/16/2025 | | |
| 13C8-PFOA IDA | IDFA | | EPA 533 | 106 | % | | | TS | 1/16/2025 | | |
| 13C8-PFOS IDA | IDFS | | EPA 533 | 105 | % | | | TS | 1/16/2025 | | |
| 13C9-PFNA IDA | IDNA | | EPA 533 | 103 | % | | | TS | 1/16/2025 | | |
| 13C2-PFDoA IDA | IDOA | | EPA 533 | 94 | % | | | TS | 1/16/2025 | | |
| 13C4-PFHpA IDA | IDPA | | EPA 533 | 104 | % | | | TS | 1/16/2025 | | |
| 13C3-HFPO-DA IDA | IDPO | | EPA 533 | 91 | % | | | TS | 1/16/2025 | | |
| 13C7-PFUnA IDA | IDUA | | EPA 533 | 98 | % | | | TS | 1/16/2025 | | |
| 13C5-PFHxA IDA | IDXA | | EPA 533 | 98 | % | | | TS | 1/16/2025 | | |
| 13C3-PFHxS IDA | IDXS | | EPA 533 | 109 | % | | | TS | 1/16/2025 | | |
| **PFAS 537 QC Batch 214303** | | | | | | | | | | | |
| Surrogate 13C2_PFDA | | | EPA 537.1 | 37.3 | ng/L | | 4 | SLZ | 1/16/2025 | *2.8* to | *5.2* |
| Surrogate 13C2-PFHxA | | | EPA 537.1 | 33.1 | ng/L | | 4 | SLZ | 1/16/2025 | *2.8* to | *5.2* |
| Surrogate 13C3-HFPO-DA | | | EPA 537.1 | 32.4 | ng/L | | 4 | SLZ | 1/16/2025 | *2.8* to | *5.2* |
| Surrogate d5-NEtFOSAA | | | EPA 537.1 | 146 | ng/L | | 4 | SLZ | 1/16/2025 | *11.2* to | *20.8* |
| 11Cl-PF3OUdS | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 1/16/2025 | | |
| 9Cl-PF3ONS | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 1/16/2025 | | |
| ADONA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 1/16/2025 | | |
| HFPO-DA (GenX) | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 1/16/2025 | | |
| N-EtFOSSA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 1/16/2025 | | |
| N-MeFOSSA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 1/16/2025 | | |
| PFBS | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 1/16/2025 | | |
| PFDA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 1/16/2025 | | |
| PFDoDA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 1/16/2025 | | |
| PFHpA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 1/16/2025 | | |
| PFHxA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 1/16/2025 | | |
| PFHxS | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 1/16/2025 | | |
| PFNA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 1/16/2025 | | |
| PFOA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 1/16/2025 | | |
| PFOS | | | EPA 537.1 | 6.3 | ng/L | | 4 | SLZ | 1/16/2025 | | |
| PFTeDA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 1/16/2025 | | |
| PFTrDA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 1/16/2025 | | |
| PFUnDA | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 1/16/2025 | | |
| **PFAS 537 Method Blank** | | | | | | | | | | | |
| 11Cl-PF3OUdS | | | EPA 537.1 | Not Detected | ng/L | | | SLZ | 1/16/2025 | | 1.67 |
| 9Cl-PF3ONS | | | EPA 537.1 | Not Detected | ng/L | | | SLZ | 1/16/2025 | | 1.67 |
| ADONA | | | EPA 537.1 | Not Detected | ng/L | | | SLZ | 1/16/2025 | | 1.67 |
| HFPO-DA (GenX) | | | EPA 537.1 | Not Detected | ng/L | | | SLZ | 1/16/2025 | | 1.67 |
| N-EtFOSSA | | | EPA 537.1 | Not Detected | ng/L | | | SLZ | 1/16/2025 | | 1.67 |
| N-MeFOSSA | | | EPA 537.1 | Not Detected | ng/L | | | SLZ | 1/16/2025 | | 1.67 |
| PFBS | | | EPA 537.1 | Not Detected | ng/L | | | SLZ | 1/16/2025 | | 1.67 |
| PFDA | | | EPA 537.1 | 0.0947 | ng/L | | | SLZ | 1/16/2025 | | 1.67 |
| PFDoDA | | | EPA 537.1 | 0.0958 | ng/L | | | SLZ | 1/16/2025 | | 1.67 |
| PFHpA | | | EPA 537.1 | Not Detected | ng/L | | | SLZ | 1/16/2025 | | 1.67 |
| PFHxA | | | EPA 537.1 | 0.0696 | ng/L | | | SLZ | 1/16/2025 | | 1.67 |
| PFHxS | | | EPA 537.1 | 0.0521 | ng/L | | | SLZ | 1/16/2025 | | 1.67 |
| PFNA | | | EPA 537.1 | 0.0934 | ng/L | | | SLZ | 1/16/2025 | | 1.67 |
| PFOA | | | EPA 537.1 | 0.109 | ng/L | | | SLZ | 1/16/2025 | | 1.67 |

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LSPC: result less than lower specification
USPC: result greater than upper specification
TIE: Tentatively Identified or Estimated
VIOL: Violation (result exceeds MCL)


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| ANALYTE | PARAMETER CODE | NOTE | EPA METHOD | RESULT | UNITS | QUALIFIER | RL | ANALYST | ANALYSIS DATE | MCL or QC Range | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PFOS | | | EPA 537.1 | 0.105 | ng/L | | | SLZ | 1/16/2025 | | 1.67 |
| PFTeDA | | | EPA 537.1 | Not Detected | ng/L | | | SLZ | 1/16/2025 | | 1.67 |
| PFTrDA | | | EPA 537.1 | Not Detected | ng/L | | | SLZ | 1/16/2025 | | 1.67 |
| PFUnDA | | | EPA 537.1 | 0.197 | ng/L | | | SLZ | 1/16/2025 | | 1.67 |
| Surrogate 13C2_PFDA | | | EPA 537.1 | 34.8 | ng/L | | | SLZ | 1/16/2025 | *2.8to* | *5.2* |
| Surrogate 13C2-PFHxA | | | EPA 537.1 | 31.4 | ng/L | | | SLZ | 1/16/2025 | *2.8to* | *5.2* |
| Surrogate 13C3-HFPO-DA | | | EPA 537.1 | 31.4 | ng/L | | | SLZ | 1/16/2025 | *2.8to* | *5.2* |
| Surrogate d5-NEtFOSAA | | | EPA 537.1 | 127 | ng/L | | | SLZ | 1/16/2025 | *11.2to* | *20.8* |
| **Field blank 533** | | | | | | | | | | | |
| PFBS | 2801 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 1/21/2025 | | |
| PFHpA | 2802 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 1/21/2025 | | |
| PFHxS | 2803 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 1/21/2025 | | |
| PFNA | 2804 | | EPA 533 | Not Detected | ng/L | | 4 | GG | 1/21/2025 | | |
| PFOS | 2805 | | EPA 533 | Not Detected | ng/L | | 4 | GG | 1/21/2025 | | |
| PFOA | 2806 | | EPA 533 | Not Detected | ng/L | | 4 | GG | 1/21/2025 | | |
| PFDA | 2807 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 1/21/2025 | | |
| PFDoA | 2808 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 1/21/2025 | | |
| PFHxA | 2809 | | EPA 533 | Not Detected | ng/L | | 3 | GG | 1/21/2025 | | |
| PFUnA | 2812 | | EPA 533 | Not Detected | ng/L | | 2 | GG | 1/21/2025 | | |
| 11C1-PF3OUdS | 2813 | | EPA 533 | Not Detected | ug/L | | 5 | GG | 1/21/2025 | | |
| 9C1-PF3ONS | 2814 | | EPA 533 | Not Detected | ug/L | | 2 | GG | 1/21/2025 | | |
| ADONA | 2815 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 1/21/2025 | | |
| HFPO-DA | 2816 | | EPA 533 | Not Detected | ug/L | | 5 | GG | 1/21/2025 | | |
| PFBA | 2819 | | EPA 533 | Not Detected | ug/L | | 5 | GG | 1/21/2025 | | |
| 6:2 FTS | 2820 | | EPA 533 | Not Detected | ug/L | | 5 | GG | 1/21/2025 | | |
| 4:2 FTS | 2821 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 1/21/2025 | | |
| 8:2 FTS | 2822 | | EPA 533 | Not Detected | ug/L | | 5 | GG | 1/21/2025 | | |
| PFMPA | 2823 | | EPA 533 | Not Detected | ug/L | | 4 | GG | 1/21/2025 | | |
| PFPeA | 2824 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 1/21/2025 | | |
| PFMBA | 2825 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 1/21/2025 | | |
| PFEESA | 2826 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 1/21/2025 | | |
| NFDHA | 2827 | | EPA 533 | Not Detected | ug/L | | 20 | GG | 1/21/2025 | | |
| PFPeS | 2828 | | EPA 533 | Not Detected | ug/L | | 4 | GG | 1/21/2025 | | |
| PFHpS | 2829 | | EPA 533 | Not Detected | ug/L | | 3 | GG | 1/21/2025 | | |
| 13C2-4:2 FTS IDA | ID42 | | EPA 533 | 91.8 | % | | | GG | 1/21/2025 | | |
| 13C2-6:2 FTS IDA | ID62 | | EPA 533 | 82.9 | % | | | GG | 1/21/2025 | | |
| 13C2-8:2 FTS IDA | ID82 | | EPA 533 | 87.2 | % | | | GG | 1/21/2025 | | |
| 13C4-PFBA IDA | IDBA | | EPA 533 | 89.5 | % | | | GG | 1/21/2025 | | |
| 13C3-PFBS IDA | IDBS | | EPA 533 | 90.6 | % | | | GG | 1/21/2025 | | |
| 13C6-PFDA IDA | IDDA | | EPA 533 | 84.2 | % | | | GG | 1/21/2025 | | |
| 13C5-PFPeA IDA | IDEA | | EPA 533 | 87.5 | % | | | GG | 1/21/2025 | | |
| 13C8-PFOA IDA | IDFA | | EPA 533 | 85.5 | % | | | GG | 1/21/2025 | | |
| 13C8-PFOS IDA | IDFS | | EPA 533 | 95.6 | % | | | GG | 1/21/2025 | | |
| 13C9-PFNA IDA | IDNA | | EPA 533 | 81.1 | % | | | GG | 1/21/2025 | | |
| 13C2-PFDoA IDA | IDOA | | EPA 533 | 82.7 | % | | | GG | 1/21/2025 | | |
| 13C4-PFHpA IDA | IDPA | | EPA 533 | 88 | % | | | GG | 1/21/2025 | | |
| 13C3-HFPO-DA IDA | IDPO | | EPA 533 | 81.7 | % | | | GG | 1/21/2025 | | |
| 13C7-PFUnA IDA | IDUA | | EPA 533 | 80.9 | % | | | GG | 1/21/2025 | | |
| 13C5-PFHxA IDA | IDXA | | EPA 533 | 88.8 | % | | | GG | 1/21/2025 | | |
| 13C3-PFHxS IDA | IDXS | | EPA 533 | 92 | % | | | GG | 1/21/2025 | | |
| **PFAS 537 Field Blank** | | | | | | | | | | | |
| 11Cl-PF3OUdS | | | EPA 537.1 | Not Detected | ng/L | | 4 | SLZ | 1/16/2025 | | 1.67 |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| 9Cl-PF3ONS | | | EPA 537.1 | Not Detected | | ng/L | 4 | SLZ | 1/16/2025 | | 1.67 |
| ADONA | | | EPA 537.1 | Not Detected | | ng/L | 4 | SLZ | 1/16/2025 | | 1.67 |
| HFPO-DA (GenX) | | | EPA 537.1 | Not Detected | | ng/L | 4 | SLZ | 1/16/2025 | | 1.67 |
| N-EtFOSSA | | | EPA 537.1 | Not Detected | | ng/L | 4 | SLZ | 1/16/2025 | | 1.67 |
| N-MeFOSSA | | | EPA 537.1 | Not Detected | | ng/L | 4 | SLZ | 1/16/2025 | | 1.67 |
| PFBS | | | EPA 537.1 | Not Detected | | ng/L | 4 | SLZ | 1/16/2025 | | 1.67 |
| PFDA | | | EPA 537.1 | Not Detected | | ng/L | 4 | SLZ | 1/16/2025 | | 1.67 |
| PFDoDA | | | EPA 537.1 | Not Detected | | ng/L | 4 | SLZ | 1/16/2025 | | 1.67 |
| PFHpA | | | EPA 537.1 | Not Detected | | ng/L | 4 | SLZ | 1/16/2025 | | 1.67 |
| PFHxA | | | EPA 537.1 | Not Detected | | ng/L | 4 | SLZ | 1/16/2025 | | 1.67 |
| PFHxS | | | EPA 537.1 | Not Detected | | ng/L | 4 | SLZ | 1/16/2025 | | 1.67 |
| PFNA | | | EPA 537.1 | Not Detected | | ng/L | 4 | SLZ | 1/16/2025 | | 1.67 |
| PFOA | | | EPA 537.1 | Not Detected | | ng/L | 4 | SLZ | 1/16/2025 | | 1.67 |
| PFOS | | | EPA 537.1 | Not Detected | | ng/L | 4 | SLZ | 1/16/2025 | | 1.67 |
| PFTeDA | | | EPA 537.1 | Not Detected | | ng/L | 4 | SLZ | 1/16/2025 | | 1.67 |
| PFTrDA | | | EPA 537.1 | Not Detected | | ng/L | 4 | SLZ | 1/16/2025 | | 1.67 |
| PFUnDA | | | EPA 537.1 | Not Detected | | ng/L | 4 | SLZ | 1/16/2025 | | 1.67 |
| Surrogate 13C2_PFDA | | | EPA 537.1 | 38.7 | | ng/L | 5 | SLZ | 1/16/2025 | *2.8* to | *5.2* |
| Surrogate 13C2-PFHxA | | | EPA 537.1 | 35.6 | | ng/L | 5 | SLZ | 1/16/2025 | *2.8* to | *5.2* |
| Surrogate 13C3-HFPO-DA | | | EPA 537.1 | 34.9 | | ng/L | 5 | SLZ | 1/16/2025 | *2.8* to | *5.2* |
| Surrogate d5-NEtFOSAA | | | EPA 537.1 | 138 | | ng/L | 5 | SLZ | 1/16/2025 | *11.2* to | *20.8* |

COMMENTS: $LS537 – EPA 537.1 – Insufficient sample for MS/MSD analysis. 7-012325-12

ug/L: micrograms/liter
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