



6330 West Loop South, Suite 150
Bellaire, Texas 77401
Tel: 713.777.5337
www.quiddity.com

July 2, 2024

Mr. Zach Holland
Bluebonnet Groundwater Conservation District
1903 Dove Crossing Lane, Suite A
P.O. Box 269
Navasota, TX 77868
BGCD@bluebonnetgroundwater.org

Re: Non-Exempt Water Well Application
Waller County Municipal Utility District No. 55 – Remote Water Well No. 1

Dear Mr. Holland:

We are pleased to submit the non-exempt water well registration application on behalf of Waller County Municipal Utility District No. 55 (the "District"). We are requesting a Phase 1-a Hydrogeologic Report be completed by Bluebonnet Groundwater Conservation District ("BGCD"). This letter also serves a declaration that the District will comply with the BGCD management plan, BGCD regulations and actions during drought conditions, and BGCD's well plugging guidelines and report closure to the applicable authorities, including the BGCD, per the requirements of Rule 8.5A1.

Enclosed is the District's non-exempt water well application package including the following attachments:

- Non-Exempt Water Well Registration Application
- Well Operating Permit Application
- Water Well Location Maps
- Well Construction Diagram

The application fee is included. This fee includes the \$75.00 Well Development fee, \$375.00 Operating Permit Application fee, and \$1,500.00 Phase-1a Hydrogeologic Report fee.

If you have any questions or comments, please contact me at cwiggs@quiddity.com or call 713-777-5337.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Wiggs".

Christopher C. Wiggs, PE

CCW/aby/cah

K:\17281\17281-0022-00 Remote Well No. 1\Project Management\Correspondence\BGCD Application\BGCD Water Well Application Cover Letter.docx

Enclosures

cc: Ms. Angela Lutz – Allen Boone Humphries Robinson, LLP

Bluebonnet Groundwater Conservation District
1903 Dove Crossing Lane Suite A, P.O. Box 269
Navasota, TX 77868
Phone: 936-825-7303 Fax: 936-825-7331
Email: BGCD@bluebonnetgroundwater.org

BGCD Well ID #: _____

NON-EXEMPT WATER WELL REGISTRATION APPLICATION

Please complete all questions. Please print or type information, or place an "x" in the appropriate space.

Drill New Well: Register an Existing Well: _____ Replace Existing Well: _____ Increase Size of Existing Well: _____
Increase Pump Size of Existing Well: _____ Abandon/Cap/Plug Existing Well: _____ Perform Dye Trace: _____

Well Owner Waller County Municipal Utility District No. 55 Phone (281) 341-8198

Address 5005 Riverway, Suite 500, Houston, TX 77056

Fax: N/A Email: Jacob Rice: jacobr@johnsondev.com

Drilling Company N/A Phone N/A

Address N/A

Fax: N/A Email: N/A

Driller N/A License# N/A

Well Location: Waller County Well Site Address or Location: Remote Water Well No. 1

Latitude 29°48'41.03" Longitude 95°52'04.17"

Proposed Water Use: Public Water Supply: Industrial: _____ Recreational: _____ Commercial: _____

Hydraulic Fracturing: _____ Transport Outside of District: _____

Proposed depth: 560 ft. Aquifer Chicot and Evangeline Date drilling is scheduled to begin November 2024

Proposed casing size: 24" in. Proposed casing depth: 395 ft. Pump depth: 440 ft. Pump size 75 hp.

Type Pump: Turbine: _____ Submersible: Windmill: _____ Other (specify): _____

Pump fuel or power source: Electricity: Natural Gas: _____ Wind: _____ Other (specify): _____

Pump Bowls: Size 11.6" # of Stages: 6 Pump Column: Inside Diameter: 6 in. Length: 440 ft.

Pump discharge pipe: Size 6 in. Rated pump horsepower: 75 **Pump Discharge: 500** gpm

Water bearing formation: Chicot and Evangeline Aquifers

Estimated Annual Water Production: _____ Acre-Feet or 109,500,000 Gallons

If the water produced from this well will be used in whole or in part on property other than the property where the well is located, **describe the location where the water will be used.** Transportation of water produced and moved to another location may require a District Transportation Permit. See District Rules, Section 10 or contact the District office for information.

The water produced from the proposed water well will only be used in Waller County Municipal Utility District No. 55 located wholly within Bluebonnet Groundwater Conservation District.

BLUEBONNET GROUNDWATER CONSERVATION DISTRICT

Permit form approved on: _____

By: _____ Zach Holland, General Manger

(Continued) NON-EXEMPT WATER WELL DRILLING PERMIT FORM (Continued)

The following documentation, attachments and fee payments must accompany this form when it is submitted for consideration by the District.


- a. Plat or map showing location of the property and location on property of well for which form is submitted.
- b. If owner and/or operator of a well is different from property owner, provide written documentation from property owner authorizing construction and operation of this well.
- c. All the information and documentation required for the type and class of well for which authorization is requested by Section 8 of the District Rules and that information and documentation required by Rule 8.5.
- d. Forms for non-exempt well authorizations must be accompanied by the information required by Rule 8.5A1:
 - a. 8.5A1(e) – a statement of the projected effect of the proposed withdrawal on the aquifer or aquifer conditions, depletion, subsidence, or effects on existing permit holders or other groundwater users in the District;
 - b. 8.5A1(f) – the applicant’s water conservation plan or a declaration the applicant and subsequent user will comply with the District’s management plan;
 - c. 8.5A1(g)(2) – well construction diagram;
 - d. 8.5A1(g)(3) – a map showing the location of the proposed well or wells, all existing well, hydrologic features, and geologic features located within half (1/2) mile radius of the proposed well or wells site;
 - e. 8.5A1(h) – the applicant’s well closure plan or a declaration the applicant will comply with well plugging guidelines and report closure to the applicable authorities, including the District.
- e. Payment for applicable fees must accompany the form. Additional fees may apply as documented in the District’s adopted Fee Schedule.

Well Development Fee	\$75.00	
Operating Permit Application Fee	\$375.00	
Hydrogeologic Report Fee – applicable if well completed with eight (8) inches or greater inside casing diameter		
	Phase I-a Report (less than 200MG/yr)	Phase I-b Report (> 200MG/yr)
District Prepared Report	\$1,500.00	\$7,500.00
Applicant Prepared/District Review	\$500.00	\$1,500.00

- f. Forms for new non-exempt wells must be accompanied by an Operating Permit Application and, if appropriate, a Transport Permit Application.

I, the undersigned applicant, hereby agree and certify that:

- a. this well will be drilled within 30 feet of the location specified and not elsewhere;
- b. I will furnish the District with a copy of the completed driller’s log, any electric log, the well completion report, and any water quality test report within 60 days of completion of this well and prior to production of water there from (other than such production as may be necessary to the drilling and testing of such well);
- c. in using this well, I will avoid waste, achieve water conservation, protect groundwater quality and the water produced from this well will be for a beneficial use;
- d. I will comply with all District and State well plugging and capping guidelines in effect at the time of well closure;
- e. I agree to abide by the terms of the District Rules, the District Management Plan, and orders of the District Board of Directors currently in effect and as they may be modified, changed, and amended from time to time;
- f. I hereby certify that the information contained herein is true and correct to the best of my knowledge and belief.

Signature:  Date: 7/2/2024

Printed Name: Christopher C. Wiggs, PE Title: Project Engineer

Bluebonnet Groundwater Conservation District

303 E. Washington Ave., P.O. Box 269

Navasota, TX 77868

Phone: 936-825-7303 Fax: 936-825-7331

Email: BGCD@bluebonnetgroundwater.org

BGCD Well ID #: _____

WELL OPERATING PERMIT APPLICATION

Please complete all questions. Please print or type information or place an "x" in the appropriate space.

Drill New Well: Register an Existing Well: _____ Replace Existing Well: _____ Increase Size of Existing Well: _____

Increase Pump Size of Existing Well: _____ Abandon/Cap/Plug Existing Well: _____ Perform Dye Trace: _____

Well Owner Waller County Municipal Utility District No. 55 Phone (281) 341-8198

Address 5005 Riverway, Suite 500, Houston, TX 77056

Fax: N/A Email: Jacob Rice: jacobr@johnsondev.com

Drilling Company N/A Phone N/A

Address N/A

Fax: N/A Email: N/A

Driller N/A License# N/A

Well Location: County Waller 911 address of well site 2682 Schlipf Road, Katy, TX 77493

Latitude 29°48'41.03" Longitude 95°52'04.17"

Proposed Water Use: Public Water Supply: Industrial: _____ Recreational: _____ Commercial: _____

Hydraulic Fracturing: _____ Transport Outside of District: _____

Status of well as of application date:

Operating Well (Date drilled _____)

Well Completed but not operating (Date Drilled _____)

Well Development permit attached or awaiting approval

Authorization to produce the following quantity of water annually from this well is: 109,500,000 Gallons

A well operating permit is normally issued for a period of one year (12 months). If a permit for a longer period of time is requested, attach a statement detailing the reasons for a longer permit period and the period of time requested.

If the water produced from this well will be used in whole or in part on property other than the property where the well is located, **describe the location where the water will be used.** Transportation of water produced and moved to another location may require a District Transportation Permit. See District Rules, Section 10 or contact the District office for information.

The water produced from the proposed water well will only be used in Waller County Municipal Utility District No. 55 located wholly within Bluebonnet Groundwater Conservation District.

BLUEBONNET GROUNDWATER CONSERVATION DISTRICT

Permit application approved on: _____

By: _____ Zach Holland, General Manger

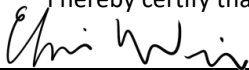
(Continued) WELL OPERATING PERMIT APPLICATION (Continued)

The following documentation, attachments and fee payments must accompany this application when it is submitted for consideration by the District.

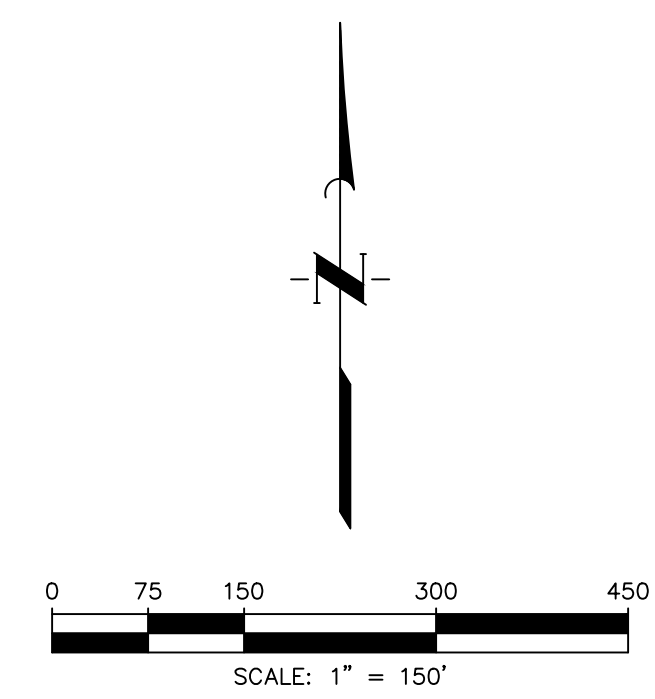
- a. Plat or map showing location of the property and location on property of well for which application is submitted.
- b. If the owner and/or the operator of well is different from the property owner, provide written documentation from the property owner authorizing construction and operation of this well.
- c. All the information and documentation required for the type and class of well for which authorization is requested by Section 8 of the District Rules and in particular that information and documentation required by Rule 8.5.
- d. If this permit application is for a well completed with an inside casing diameter of eight (8) inches or greater, or for any of the conditions enumerated in District Rule 8.5 F, a current hydrogeological report (a report completed within 18 months of the date of this application is considered current) shall be submitted with this application.
- e. Payment for applicable fees must accompany application. For a non-exempt well the appropriate Operating Permit Application Fee (**\$375.00 + \$750.00 if inside casing diameter is eight (8) inches or greater**) must be included.
- f. The applicant's water conservation plan and if any subsequent user of the water is a municipality or entity providing retail water services, the water conservation plan of that municipality or entity shall also be provided. In lieu of a water conservation plan, a declaration that the applicant and/or a subsequent user if any subsequent user is a municipality or entity providing retail water services will comply with the District Management Plan.
- g. The applicant's Drought Contingency Plan and a copy of any subsequent user's Drought Contingency Plan or a declaration that the applicant or a subsequent user will comply with District rules, policies and Board actions in drought conditions.

I, the undersigned applicant, hereby agree and certify that:

- a. in using this well, I will avoid waste, achieve water conservation, protect groundwater quality and the water produced from this well will be for a beneficial use;
- b. I will comply with all District and State well plugging and capping guidelines in effect at the time of well closure;
- c. I agree to abide by the terms of the District Rules, the District Management Plan and orders of the District Board of Directors currently in effect and as they may be modified, changed and amended from time to time;
- d. I hereby certify that the information contained herein is true and correct to the best of my knowledge and belief.

Signature:  Date: 7/2/2024

Printed Name: Christopher C. Wiggs, PE Title: Project Engineer



NO.	DATE	REVISIONS	APP.

KATY 2855 DEVELOPMENT, LCC.
WALLER COUNTY, TEXAS

REMOTE WELL No. 1
**REMOTE WATER WELL
SURVEY CONTROL PLAN**



SCALE: 1" = 150' DGN. BY: AKP
 DATE: JULY 2024 DWN. BY: DRK
 JOB NO. 17281-0022-00 DWG. NO. _____
 SUBMITTED: _____ SURV. BY: _____
 F.B. NO. _____

Prepared for:

QUIDDITY ENGINEERING LLC -Houston
6330 West Loop South
Bellaire, TX 77401



Oil and Gas Well Report

Katy 2855 Development, LCC -
Remote Well

TX

ES-143652

Wednesday, March 13, 2024



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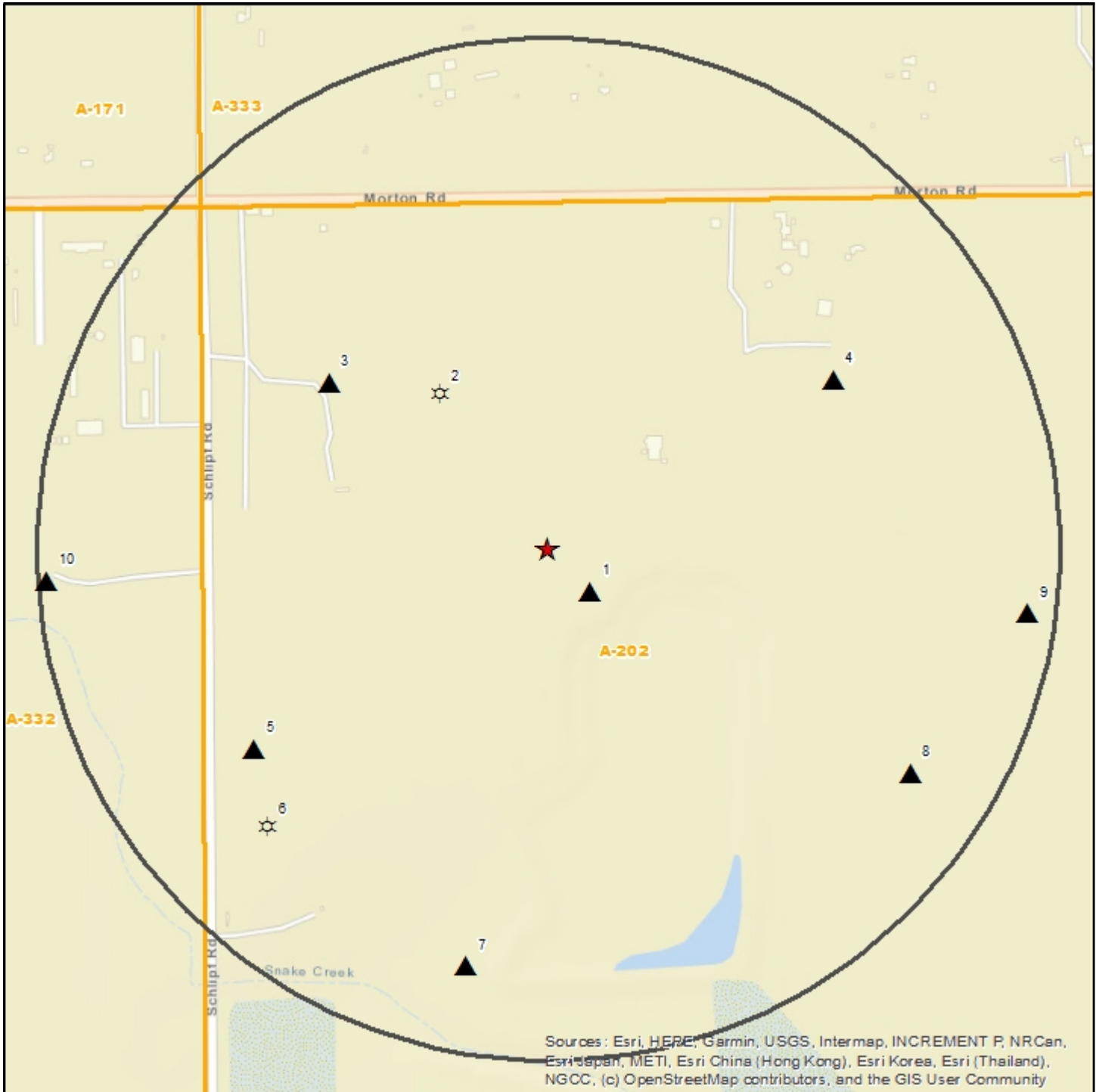
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Geographic Summary

Location	
TX	
Coordinates	
Longitude & Latitude in Degrees Minutes Seconds	-95° 52' 4", 29° 48' 41"
Longitude & Latitude in Decimal Degrees	-95.867769°, 29.811414°
X and Y in UTM	222830.58, 3301338.47 (Zone 15)
Elevation	
Target Property lies 157.82 feet above sea level.	
Zip Codes Searched	
Search Distance	Zip Codes (historical zip codes included)
Target Property	77493
0.5 miles	77493
Topos Searched	
Search Distance	Topo Name
Target Property	Katy (1980)
0.5 miles	Brookshire (1981), Katy (1980)

Summary Map - 0.5 Mile Radius



Katy 2855 Development, LCC - Remote Well

- | | | | |
|---------------------|----------------------|--------------------------------------|---------------------|
| ▲ Well/Well Cluster | ○ Permitted Location | ☉ Injection/Disposal | ★ Target Property |
| ● Oil | ◐ Shut-in Oil | ☉☉ Injection/Disposal from Oil | □ Search Buffer |
| ☼ Gas | ☉☉ Shut-in Gas | ☉☉☉ Injection/Disposal from Gas | ▭ Texas Land Survey |
| ☼☉ Oil/Gas | ◇ Sidetrack Surf. | ☉☉☉☉ Injection/Disposal from Oil/Gas | |
| ☉☉ Dry Hole | ⊗ Core Test | ☉☉☉☉☉ Canceled/Abandoned Location | |
| ● Plugged Oil | ◓ Horz. Drainhole | BR● Brine Mining/Oil | |
| ☼☉ Plugged Gas | ◇ Geothermal | BR☉ Brine Mining/Gas | |
| ☼☉☉ Plugged Oil/Gas | ◓ Dir. Surf. Loc. | | |

0' 500' 1000'

1 : 9,000

1 inch = 0.142 miles
1 inch = 750 feet
1 centimeter = 0.090 kilometers
1 centimeter = 90 meters

Lambert Conformal Conic Projection
1983 North American Datum
First Standard Parallel: 33° 00' North
Second Standard Parallel: 45° 00' North
Central Meridian: 96° 00' West
Latitude of Origin: 39° 00' North

Topographic Overlay Map - 0.5 Mile Radius

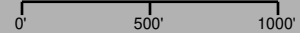


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Katy 2855 Development, LCC - Remote Well

- | | | | |
|---------------------|----------------------|-----------------------------------|-------------------|
| ▲ Well/Well Cluster | ○ Permitted Location | ⊗ Injection/Disposal | ★ Target Property |
| ● Oil | ◐ Shut-in Oil | ⊗ Injection/Disposal from Oil | □ Search Buffer |
| ☆ Gas | ◑ Shut-in Gas | ⊗ Injection/Disposal from Gas | |
| ⚡ Oil/Gas | ◇ Sidetrack Surf. | ⊗ Injection/Disposal from Oil/Gas | |
| ⊕ Dry Hole | ⊗ Core Test | ⊗ Canceled/Abandoned Location | |
| ⊗ Plugged Oil | ◑ Horz. Drainhole | BR● Brine Mining/Oil | |
| ⊗ Plugged Gas | ◇ Geothermal | BR☆ Brine Mining/Gas | |
| ⊗ Plugged Oil/Gas | ⊗ Dir. Surf. Loc. | | |

Target Property Quad Name(s)
Katy (1980)



1 : 9,000

1 inch = 0.142 miles
1 inch = 750 feet

Lambert Conformal Conic Projection
1983 North American Datum
First Standard Parallel: 33° 00' North
Second Standard Parallel: 45° 00' North
Central Meridian: 96° 00' West
Latitude of Origin: 39° 00' North



Current Imagery Overlay Map - 0.5 Mile Radius



Sources: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Katy 2855 Development, LCC - Remote Well

- | | | | |
|---------------------|----------------------|-----------------------------------|-------------------|
| ▲ Well/Well Cluster | ○ Permitted Location | ⊗ Injection/Disposal | ★ Target Property |
| ● Oil | ⊖ Shut-in Oil | ⊗ Injection/Disposal from Oil | □ Search Buffer |
| ⊙ Gas | ⊖ Shut-in Gas | ⊗ Injection/Disposal from Gas | |
| ● Oil/Gas | ◇ Sidetrack Surf. | ⊗ Injection/Disposal from Oil/Gas | |
| ⊙ Dry Hole | ⊗ Core Test | ⊗ Canceled/Abandoned Location | |
| ● Plugged Oil | ○ Horz. Drainhole | ⊗ Brine Mining/Oil | |
| ⊙ Plugged Gas | ⊗ Geothermal | ⊗ Brine Mining/Gas | |
| ● Plugged Oil/Gas | ⊙ Dir. Surf. Loc. | | |

0' 500' 1000'

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1 centimeter = 90 meters

Lambert Conformal Conic Projection
1983 North American Datum
First Standard Parallel: 33° 00' North
Second Standard Parallel: 45° 00' North
Central Meridian: 96° 00' West
Latitude of Origin: 39° 00' North

Oil & Gas Well Details



Map ID	Operator Name	Lease Name	Well #	Comp. Date	Plug Date	T.D.	API #	Longitude	Latitude	Status/Product	Elevation
1	EXXON CORP.	KATY GF CONS U	7402 D	7/1/1967		7440	47300324	-95.867078	29.810824	Plugged Gas	157 ft (-1)
1	EXXON CORP.		7402 D	8/26/1983		7440	47300324	-95.867078	29.810824	Plugged Gas	157 ft (-1)
1	HILCORP ENERGY COMPANY	KGFCU (I-A)	7402 D			7440	47300324	-95.867078	29.810824	Plugged Gas	157 ft (-1)
1	HUMBLE OIL & REFINING CO.	KGFCU (II-B)	7402 F	1/21/1967		7440	47300324	-95.867078	29.810824	Plugged Gas	157 ft (-1)
1	HILCORP ENERGY COMPANY	KGFCU (II-B)	7402 H			7440	47300324	-95.867078	29.810824	Plugged Gas	157 ft (-1)
1	HILCORP ENERGY COMPANY	KGFCU	7402 F	10/24/1980		7440	47300324	-95.867078	29.810824	Plugged Gas	157 ft (-1)
1	EXXON CORP.	KATY GF CONS U	7402 H	2/1/1974		7440	47300324	-95.867078	29.810824	Plugged Gas	157 ft (-1)
1	EXXON CORP.	KGFCU (I-A)	7402 H	7/1/1967		7440	47300324	-95.867078	29.810824	Plugged Gas	157 ft (-1)
1	EXXON CORP.		7402 F	8/6/1978		7440	47300324	-95.867078	29.810824	Plugged Gas	157 ft (-1)
1	EXXON CORP.		7402 H	1/21/1967		7440	47300324	-95.867078	29.810824	Plugged Gas	157 ft (-1)
1	HUMBLE OIL & REFINING CO.		7402 D	7/1/1967		7440	47300324	-95.867078	29.810824	Plugged Gas	157 ft (-1)
2	HILCORP ENERGY COMPANY	KGFCU 1	W 71	8/5/2014		10600	47331180	-95.869507	29.813605	Gas	159 ft (+1)
3	HILCORP ENERGY COMPANY	KGFCU	7403 F	11/28/1979		7504	47330001	-95.871295	29.813767	Plugged Gas	160 ft (+2)
3	EXXON CORP.	KATY GF CONS U	7403 F	11/28/1979		7504	47330001	-95.871295	29.813767	Plugged Gas	160 ft (+2)
3	EXXON CORP.	KATY GAS FIELD CONS. UNIT	7403 H	4/18/1984		7504	47330001	-95.871295	29.813767	Plugged Gas	160 ft (+2)
3	EXXON CORP.	KATY GAS FLD. CONS. UNIT	7403 D	12/1/1970		7504	47330001	-95.871295	29.813767	Plugged Gas	160 ft (+2)
3	HILCORP ENERGY COMPANY	KGFCU (II-B)	7403 D			7504	47330001	-95.871295	29.813767	Plugged Gas	160 ft (+2)
3	EXXON CORP.	KATY GAS FLD CONS. UNIT	7403 H	6/1/1969		7504	47330001	-95.871295	29.813767	Plugged Gas	160 ft (+2)
3	EXXON CORP.	KATY GAS FLD. CONS. UNIT	7403 F			7504	47330001	-95.871295	29.813767	Plugged Gas	160 ft (+2)
3	EXXON CORP.	KATY GF CONS U	7403 H	6/27/1969		7504	47330001	-95.871295	29.813767	Plugged Gas	160 ft (+2)
3	HILCORP ENERGY COMPANY	KGFCU (I-C)	7403 H	8/22/1985		7504	47330001	-95.871295	29.813767	Plugged Gas	160 ft (+2)
3	EXXON CORP.	KATY GF CONS U	7403 D	6/1/1969		7504	47330001	-95.871295	29.813767	Plugged Gas	160 ft (+2)
4	NORTH HOUSTON OPER. COMM. AGENTS		2	4/1/1958		11000	47330062	-95.863143	29.813801	Gas	157 ft ()
4	HILCORP ENERGY COMPANY	KGFCU 1	W 42	4/28/2007		11000	47330062	-95.863143	29.813801	Gas	157 ft ()
5	EXXON CORP.	KATY GF CONS U	7404 H		3/28/1981	7550	47330023	-95.872507	29.808605	Plugged Gas	159 ft (+1)
5	EXXON CORP.	KATY GAS FLD. CONS. UNIT	7404 F	7/1/1971	3/28/1981	7550	47330023	-95.872507	29.808605	Plugged Gas	159 ft (+1)
5	EXXON CORP.	KATY GAS FLD. CONS. UNIT	7404 D		3/28/1981	7550	47330023	-95.872507	29.808605	Plugged Gas	159 ft (+1)
5	EXXON CORP.	KATY GF CONS U	7404 D		3/28/1981	7550	47330023	-95.872507	29.808605	Plugged Gas	159 ft (+1)
5	EXXON CORP.	KATY GAS FLD. CONS. UNIT	7404 H		3/28/1981	7550	47330023	-95.872507	29.808605	Plugged Gas	159 ft (+1)
5	EXXON CORP.		7404 F	9/6/1978	3/28/1981	7550	47330023	-95.872507	29.808605	Plugged Gas	159 ft (+1)
6	HILCORP ENERGY COMPANY	KGFCU 1	W 63	4/11/2008		10500	47331101	-95.872307	29.807505	Gas	158 ft (+1)
7	EXXON CORP.	KGFCU (111-A)	7401 L	11/1/1964		7500	47300115	-95.869097	29.805546	Gas	157 ft (-1)

Oil & Gas Well Details



Map ID	Operator Name	Lease Name	Well #	Comp. Date	Plug Date	T.D.	API #	Longitude	Latitude	Status/Product	Elevation
7	HILCORP ENERGY COMPANY	KGFCU (111-A)	7401	3/21/2013		7500	47300115	-95.869097	29.805546	Gas	157 ft (-1)
7	FOREST OIL CORPORATION		7401	9/1/1975		7500	47300115	-95.869097	29.805546	Gas	157 ft (-1)
8	HILCORP ENERGY COMPANY	KGFCU 1	W 57	6/5/2003		10518	47330404	-95.861906	29.808255	Shut-In Gas	156 ft (-1)
8	EXXON MOBIL CORPORATION	KATY GFU 1	W 57	8/3/1984		10518	47330404	-95.861906	29.808255	Shut-In Gas	156 ft (-1)
9	HILCORP ENERGY COMPANY	KGFCU (II-B)	7405 H	2/19/1985		7455	47330046	-95.860007	29.810505	Plugged Gas	157 ft (-1)
9	HILCORP ENERGY COMPANY	KGFCU	7405 D	9/14/1983		7455	47330046	-95.860007	29.810505	Plugged Gas	157 ft (-1)
9	EXXON CORP.	KGFCU (I-A)	7405	9/28/1984		7455	47330046	-95.860007	29.810505	Plugged Gas	157 ft (-1)
9	HILCORP ENERGY COMPANY	KGFCU (III-A)	7405 F			7455	47330046	-95.860007	29.810505	Plugged Gas	157 ft (-1)
9	EXXON CORP.	KATY GF CONS U	7405 D			7455	47330046	-95.860007	29.810505	Plugged Gas	157 ft (-1)
9	EXXON CORP.	KGFCU	7405 F	12/1/1974		7455	47330046	-95.860007	29.810505	Plugged Gas	157 ft (-1)
9	EXXON CORP.		7405 F	9/28/1984		7455	47330046	-95.860007	29.810505	Plugged Gas	157 ft (-1)
10	EXXON MOBIL CORPORATION	KATY GFU 1	W 59	1/13/1987		10450	47330424	-95.875879	29.810982	Plugged Gas	160 ft (+2)
10	HILCORP ENERGY COMPANY	KGFCU	7309	2/3/2020		10450	47330424	-95.875879	29.810982	Plugged Gas	160 ft (+2)
10	HILCORP ENERGY COMPANY	KGFCU	7309			10450	47330424	-95.875879	29.810982	Plugged Gas	160 ft (+2)
10	HILCORP ENERGY COMPANY	KGFCU (III-A)	7309	6/12/2015		10450	47330424	-95.875879	29.810982	Plugged Gas	160 ft (+2)
10	HILCORP ENERGY COMPANY	KGFCU 1	W 59	8/28/1985		10450	47330424	-95.875879	29.810982	Plugged Gas	160 ft (+2)
10	HILCORP ENERGY COMPANY	KGFCU (II-C)	7309	6/15/2019		10450	47330424	-95.875879	29.810982	Plugged Gas	160 ft (+2)
10	EXXON CORP.	KGFCU (IV)	7309	8/28/1985		10450	47330424	-95.875879	29.810982	Plugged Gas	160 ft (+2)

*UNKNOWN appears where digital data does not exist. Further research can be requested to obtain this data.

*N/A (not applicable) appears in the Comp. Date row only when there is a Dry Hole because a Dry Hole does not constitute a completion.

*NOT AVAILABLE appears where digital data does not exist. However, this data may exist within hard copy well files. Further research is required to obtain this data. Please call 512-478-0059 to request a file review.

*THIS REPORT IDENTIFIES WELLHEAD SURFACE LOCATIONS ONLY AND IN NO WAY ATTEMPTS TO IDENTIFY ANY DEVIATED BOTTOM HOLE LOCATIONS.

Well Summary

Oil Wells	Gas Wells	Injection Wells	Other Types of Wells*	Total Number of Wells
0	10	0	0	10

*May include dry holes, abandoned locations, disposal, injection, domestic, water supply wells, surface locations, etc.



Dataset Descriptions and Sources

Source	Update Schedule	Data Updated	Source Updated
Railroad Commission of Texas	Semi-annually	02/13/2024	N/A

Disclaimer



The Banks Environmental Data Oil and Gas Well Report was prepared from existing state databases obtained from applicable state agencies. Banks Environmental Data (Banks) provides mapping data sets for informational purposes only. These datasets are continually being updated and refined. Although Banks performs quality assurance and quality control on all research projects, we recognize that any inaccuracies of the well locations and well data could possibly be traced to the appropriate regulatory authority. Therefore, Banks cannot guarantee the accuracy of the data or well location(s) of those maps and records maintained by the oil and gas regulatory agencies. Banks recommends obtaining the actual construction and abandonment records from the appropriate oil and gas regulatory agency to identify possible sources of surface or below surface contamination and/or identify any improperly plugged or abandoned wells that can contribute to the possible upward migration of subsurface drilling fluids. Obtaining the actual well records can provide closure for plugging questions, verify locations, or obtain missing information for many of the historical wells.

Prepared for:

QUIDDITY ENGINEERING LLC -Houston
6330 West Loop South
Bellaire, TX 77401



Water Well Report

Katy 2855 Development, LCC -
Remote Well

TX

ES-143652

Wednesday, March 13, 2024



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Geographic Summary

Location

TX

Coordinates

Longitude & Latitude in Degrees Minutes Seconds	-95° 52' 4", 29° 48' 41"
Longitude & Latitude in Decimal Degrees	-95.867769°, 29.811414°
X and Y in UTM	222830.58, 3301338.47 (Zone 15)

Elevation

Target Property lies 157.82 feet above sea level.

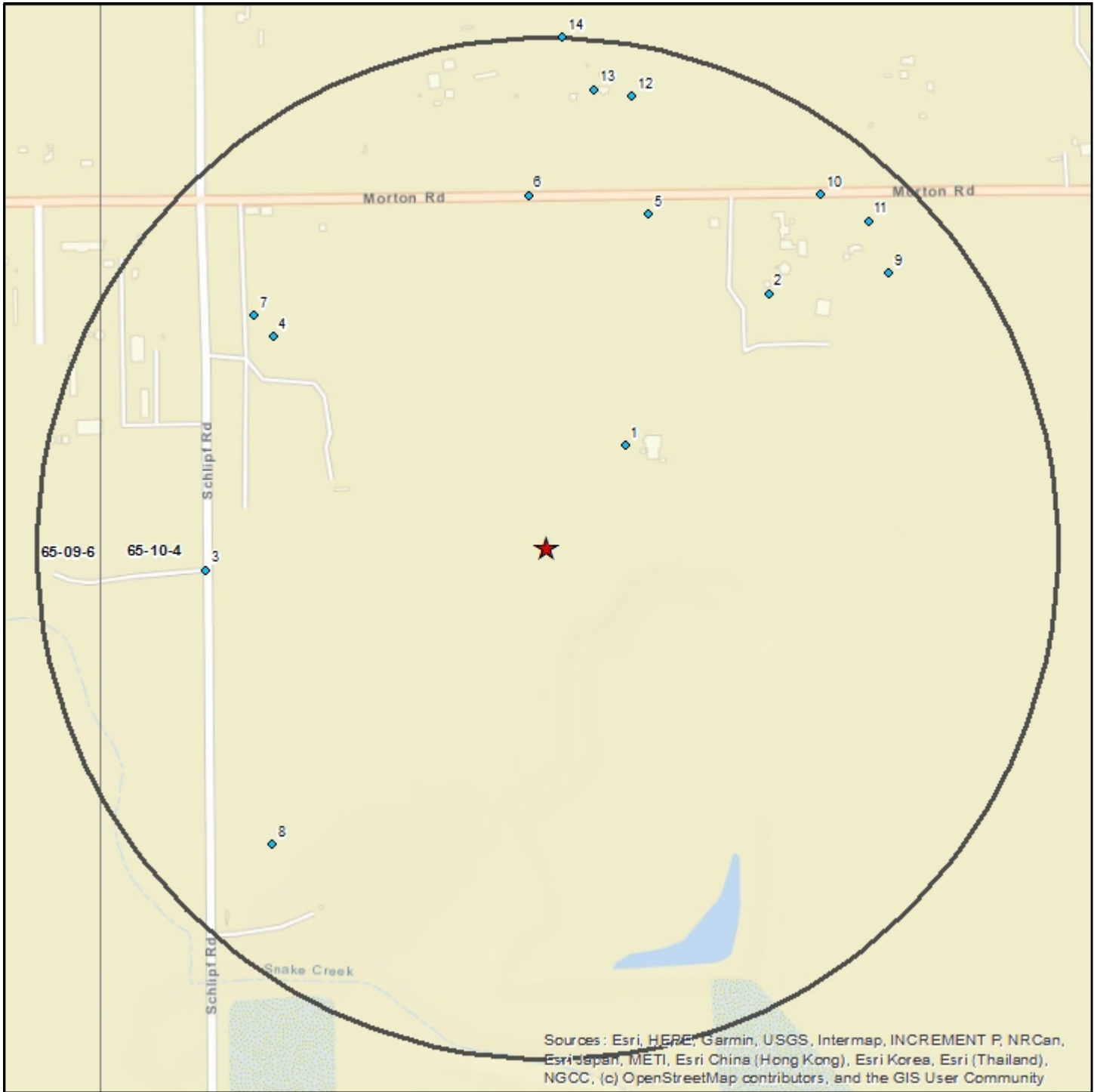
Zip Codes Searched

Search Distance	Zip Codes (historical zip codes included)
Target Property	77493
0.5 miles	77493

Topos Searched

Search Distance	Topo Name
Target Property	Katy (1980)
0.5 miles	Brookshire (1981), Katy (1980)

Summary Map - 0.5 Mile Radius



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

Katy 2855 Development, LCC - Remote Well

- Well
- Well Cluster
- Target Property
- Search Buffer
- Texas Quad Index

0' 500' 1000'

1 : 9,000

1 inch = 0.142 miles
 1 inch = 750 feet
 1 centimeter = 0.090 kilometers
 1 centimeter = 90 meters

Lambert Conformal Conic Projection
 1983 North American Datum
 First Standard Parallel: 33° 00' North
 Second Standard Parallel: 45° 00' North
 Central Meridian: 96° 00' West
 Latitude of Origin: 39° 00' North

Topographic Overlay Map - 0.5 Mile Radius

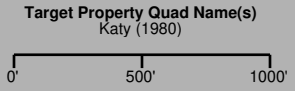


Copyright: © 2013 National Geographic Society, i-cubed

Katy 2855 Development, LCC - Remote Well

- Well
- Well Cluster

- Target Property
- Search Buffer

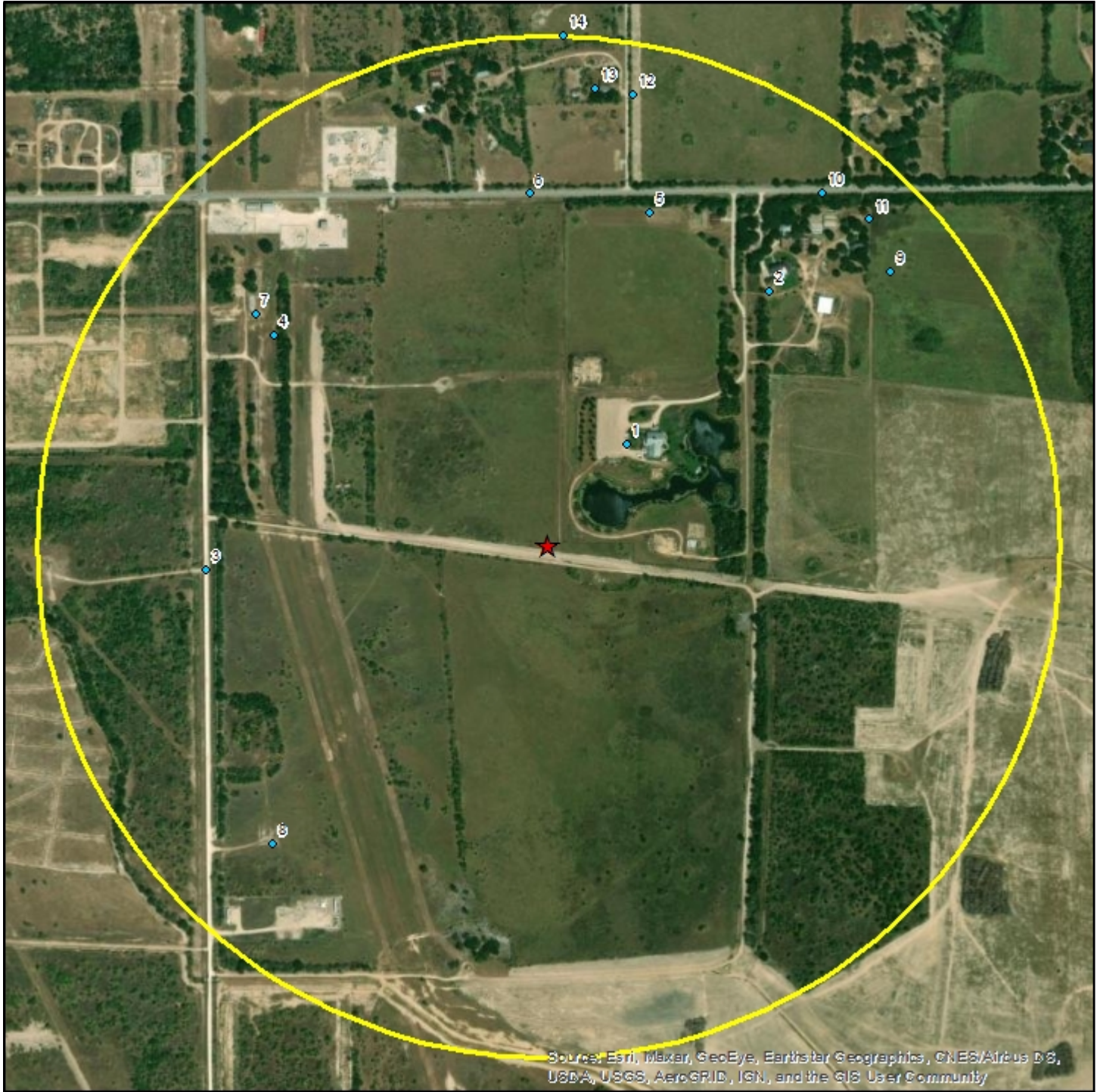


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Lambert Conformal Conic Projection
1983 North American Datum
First Standard Parallel: 33° 00' North
Second Standard Parallel: 45° 00' North
Central Meridian: 96° 00' West
Latitude of Origin: 39° 00' North



Current Imagery Overlay Map - 0.5 Mile Radius



Source: Esri, Maxar, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Katy 2855 Development, LCC - Remote Well

- Well
- Well Cluster

- Target Property
- Search Buffer

0' 500' 1000' N

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Lambert Conformal Conic Projection
1983 North American Datum
First Standard Parallel: 33° 00' North
Second Standard Parallel: 45° 00' North
Central Meridian: 96° 00' West
Latitude of Origin: 39° 00' North



Water Well Details

Map ID	Source ID	Dataset	Owner of Well	Type of Well	Depth Drilled	Completion Date	Longitude	Latitude	Elevation	Driller's Logs
1	65-10-4V	TX TCEQ HIST	Exxon Co., USA	Oilfield/Rig Supply	470	03/29/1984	-95.866504	29.812855	158 ft ()	View
2	537837	TX TWDB SDR	Glenn Beckendorff	Domestic	259	3/4/2020	-95.864177	29.815003	158 ft ()	View
3	6510407	TX TWDB GW	Humble Oil & Ref. well 6	Industrial	871	01/01/1948	-95.8733	29.8111	160 ft (+2)	View
4	6510402	TX TWDB GW	Cecil Beckendorff	Irrigation	400	01/01/1946	-95.8722	29.8144	160 ft (+2)	View
5	405471	TX TWDB SDR	BLAKE BECKENDORF	Public Supply	240	9/23/2015	-95.866119	29.816117	159 ft (+1)	View
6	95679	TX TWDB SDR	Jorge Berumen Mendoza	Domestic	216	8/27/2003	-95.868062	29.816394	160 ft (+2)	View
7	USGS2948 520955220 00	USGS WW	USGS	Not Reported	400	01/01/1946	-95.8725	29.8147	160 ft (+3)	N/A
8	138124	TX TWDB SDR	Forest Oil	Industrial	410	2/16/2008	-95.872229	29.807228	158 ft (+)	View
9	71168	TX TWDB SDR	JASEK FARMS	Stock	381	11/2/2005	-95.86223	29.815283	158 ft (+)	View
10	344489	TX TWDB SDR	BLAKE BECKENDORFF	Domestic	265	10/24/2013	-95.863341	29.816394	159 ft (+2)	View
11	65-10-4	TX TCEQ HIST	Rich & Ann Hundley	Domestic	248	08/15/1997	-95.862561	29.81602	159 ft (+1)	View
12	239599	TX TWDB SDR	Tammie Brown	Domestic	262	12/17/2010	-95.866396	29.817783	160 ft (+3)	View
13	65-10-4	TX TCEQ HIST	Junior Matura	Domestic	270	10/03/2000	-95.866994	29.817876	161 ft (+3)	View
14	245208	TX TWDB SDR	Forest Oil	Industrial	370	9/25/2008	-95.867507	29.818616	161 ft (+3)	View

Well Summary

Water Well Dataset	# of Wells
TX TCEQ HIST	3
TX TWDB GW	2
TX TWDB SDR	8
USGS WW	1
Total Count	14

Send original copy by certified mail to the Texas Department of Water Resources P. O. Box 13087 Austin, Texas 78711

State of Texas
WATER WELL REPORT

Texas Water Well Drillers Board
P. O. Box 13087
Austin, Texas 78711

ATTENTION OWNER: Confidentiality Privilege Notice on Reverse Side

1) OWNER **Exxon Co., USA** Address **P.O. Box 4429** **Houston** **Tx. 77001**
(Name) (Street or RFD) (City) (State) (Zip)

2) LOCATION OF WELL:
County **Waller** **4** miles in **NW** direction from **Katy**
KGJU II-457 **Quarter 3**
(Town)

Driller must complete the legal description to the right with distance and direction from two intersecting section or survey lines, or he must locate and identify the well on an official Quarter- or Half-Scale Texas County General Highway Map and attach the map to this form.

Legal description:
Section No. _____ Block No. _____ Township _____
Abstract No. _____ Survey Name _____
Distance and direction from two intersecting section or survey lines _____

See attached map.

3) TYPE OF WORK (Check):
 New Well Deepening Reconditioning Plugging
4) PROPOSED USE (Check):
 Domestic Industrial Public Supply Irrigation Test Well Other **Oilfield/Supply**
5) DRILLING METHOD (Check):
 Mud Rotary Air Hammer Driven Bored Air Rotary Cable Tool Jetted Other _____

6) WELL LOG:
Date drilled **03/29/84**
DIAMETER OF HOLE
Dia. (in.) From (ft.) To (ft.)
6.5 **0** **470**
7) BOREHOLE COMPLETION:
 Open Hole Straight Wall Underreamed
 Gravel Packed Other _____
If Gravel Packed give interval . . . from _____ ft. to _____ ft.

From (ft.)	To (ft.)	Description and color of formation material	Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mgf., if commercial	Setting (ft.)	Gage Casing Screen
						From	To
0-	4	Surface Sand		P4	Casing	0-260	
4-	15	Clay			PVC-Slotted Supply	280-360	.020/4
15-	30	Grav. & Sand				260-280	
30-	40	Clay				360-440	
40-	45	Grav. & Sand					
45-	60	Clay					
60-	70	Grav. & Clay					
70-	125	Sand & Grav.					
125-	135	Clay & Grav.					
135-	285	Sand & Grav.					
285-	340	Clay, Sd, Grav					
340-	350	Grav. & Rock					
350-	360	Clay & Rock					
360-	450	Sd, Clay, Rock					
450-	470	Clay & Sand					

8) CASING, BLANK PIPE, AND WELL SCREEN DATA:
CEMENTING DATA
Cemented from **0** ft. to **10** ft. Slurry
Method used _____
Cemented by **J & S Well Service**
(Company or Individual)

9) WATER LEVEL:
Static level **126** ft. below land surface Date **03/29/84**
Artesian flow _____ gpm. Date _____

10) PACKERS: Type Depth
260

RECEIVED
SEP 17 1984

DEPT. OF WATER RESOURCES

13) WATER QUALITY:
Did you knowingly penetrate any strata which contained undesirable water? Yes No
If yes, submit "REPORT OF UNDESIRABLE WATER"
Type of water? _____ Depth of strata _____
Was a chemical analysis made? Yes No

11) TYPE PUMP:
 Turbine Pump Jet Submersible Cylinder
 Other _____
Depth to pump bowls, cylinder, jet, etc., _____ ft.

12) WELL TESTS:
 Type Test: Pump Bailor Jetted Estimated
Yield: **70** gpm with **N/H** ft. drawdown after **3** hrs.

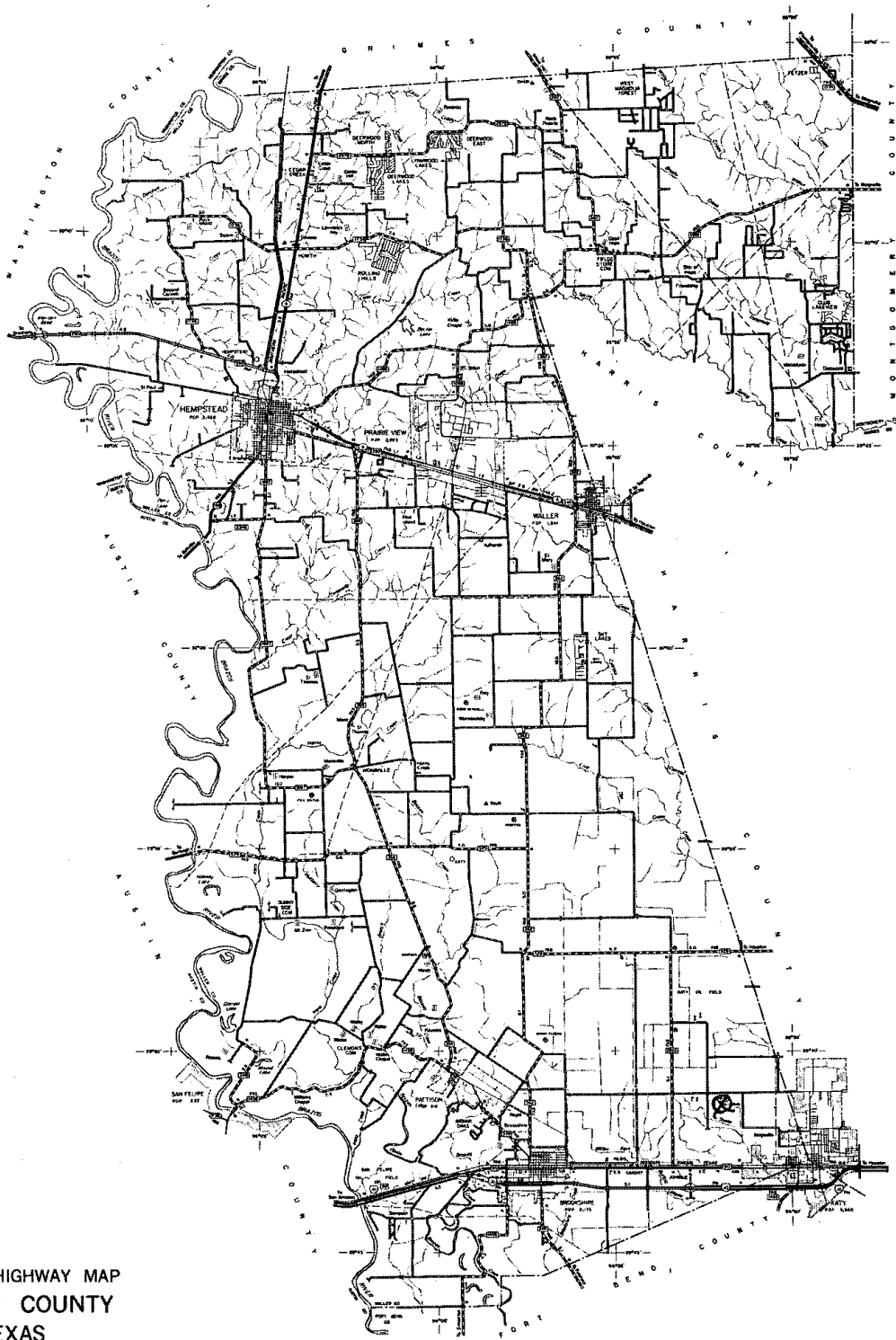
I hereby certify that this well was drilled by me (or under my supervision) and that each and all of the statements herein are true to the best of my knowledge and belief.

COMPANY NAME **J & S WELL SERVICE** Water Well Driller's License No. **1994**
(Type or Print)
ADDRESS **1056 E. 1ST STREET** **BELLVILLE** **TEXAS** **77418**
(Street or RFD) (City) (State) (Zip)
(Signed) **John E. Richardson** (Signed) _____
(Licensed Water Well Driller) (Registered Driller Trainee)

Please attach electric log, chemical analysis, and other pertinent information, if available. For TDWR use only Well No. **65-10-4V** Located on map **Yes DLF**

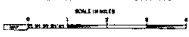
Quarter 3
KGFU II - W37

Exxon



**GENERAL HIGHWAY MAP
WALLER COUNTY
TEXAS**

PREPARED BY THE
STATE DEPARTMENT OF HIGHWAYS
AND PUBLIC TRANSPORTATION
TRANSPORTATION PLANNING DIVISION
IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION



1979

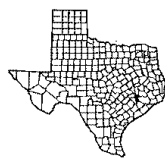
1980 CENSUS FIGURES

HIGHWAYS REVISED TO JANUARY 1, 1983

Dates of this map are available for public use of material use from the State Department of Highways and Public Transportation, P.O. Box 9831, Austin, Texas 78768.

FOR FURTHER INFORMATION, CONTACT THE STATE DEPARTMENT OF HIGHWAYS AND PUBLIC TRANSPORTATION, P.O. Box 9831, Austin, Texas 78768.

NOTICE
This map has been prepared for general dissemination and use. It is not intended for navigation. Accuracy is limited by the quality of the data used in its preparation.



KEY TO COUNTIES

LEGEND

<ul style="list-style-type: none"> Interstate U.S. Highway State Highway County Road Local Road Unimproved Road Right-of-Way Waterway Canal Railroad Proposed Other 	<ul style="list-style-type: none"> Interstate U.S. Highway State Highway County Road Local Road Unimproved Road Right-of-Way Waterway Canal Railroad Proposed Other 	<ul style="list-style-type: none"> County Seat City Town Village Unincorporated Community Post Office Public School Private School College University Religious Building Government Building Other
---	---	---

WALLER COUNTY TEXAS 237

STATE OF TEXAS WELL REPORT for Tracking #537837

Owner:	Glenn Beckendorff	Owner Well #:	2
Address:	28467 Morton Rd Katy, TX 77493	Grid #:	65-10-4
Well Location:	28467 Morton Rd Katy, TX 77491	Latitude:	29° 48' 53.99" N
Well County:	Waller	Longitude:	095° 51' 51.01" W
		Elevation:	157 ft. above sea level
Type of Work:	New Well	Proposed Use:	Domestic

Drilling Start Date: **3/3/2020** Drilling End Date: **3/4/2020**

	<i>Diameter (in.)</i>	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>
Borehole:	6.75	0	259

Drilling Method: **Mud (Hydraulic) Rotary**

Borehole Completion: **Straight Wall**

	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Description (number of sacks & material)</i>
Annular Seal Data:	0	10	Concrete 7 Bags/Sacks
	120	240	Cement 15 Bags/Sacks

Seal Method: **Pressure**

Sealed By: **Driller**

Distance to Property Line (ft.): **60**

Distance to Septic Field or other concentrated contamination (ft.): **None Yet**

Distance to Septic Tank (ft.): **None**

Method of Verification: **Tape**

Surface Completion: **Alternative Procedure Used** **Surface Completion by Driller**

Water Level: **127 ft. below land surface on 2020-03-04** Measurement Method: **Weighted Line**

Packers: **K-Packer at 235 ft.
K-Packer at 236 ft.**

Type of Pump: **Submersible** Pump Depth (ft.): **225**

Well Tests: **Jetted** Yield: **50 GPM**

[GWDB Reports and Downloads](#)

Well Basic Details

[Scanned Documents](#)

State Well Number	6510407
County	Waller
River Basin	Brazos
Groundwater Management Area	14
Regional Water Planning Area	H - Region H
Groundwater Conservation District	Bluebonnet GCD
Latitude (decimal degrees)	29.811112
Latitude (degrees minutes seconds)	29° 48' 40" N
Longitude (decimal degrees)	-95.873333
Longitude (degrees minutes seconds)	095° 52' 24" W
Coordinate Source	+/- 10 Seconds
Aquifer Code	121EVGL - Evangeline Aquifer
Aquifer	Gulf Coast
Aquifer Pick Method	
Land Surface Elevation (feet above sea level)	163
Land Surface Elevation Method	Interpolated From Topo Map
Well Depth (feet below land surface)	871
Well Depth Source	Unknown
Drilling Start Date	
Drilling End Date	0/0/1948
Drilling Method	
Borehole Completion	

Well Type	Withdrawal of Water
Well Use	Industrial
Water Level Observation	Miscellaneous Measurements
Water Quality Available	No
Pump	Turbine
Pump Depth (feet below land surface)	
Power Type	Electric Motor
Annular Seal Method	
Surface Completion	
Owner	Humble Oil & Ref. well 6
Driller	Katy Drlg
Other Data Available	
Well Report Tracking Number	
Plugging Report Tracking Number	
U.S. Geological Survey Site Number	
Texas Commission on Environmental Quality Source Id	
Groundwater Conservation District Well Number	
Owner Well Number	
Other Well Number	
Previous State Well Number	
Reporting Agency	
Created Date	2/13/1997
Last Update Date	2/13/1997

Remarks | Reported discharge 598 gpm. Gravel packed.

Casing - No Data

Well Tests - No Data

Lithology - No Data

Annular Seal Range - No Data

Borehole - No Data

Plugged Back - No Data

Filter Pack - No Data

Packers - No Data

Water Level Measurements



Status Code	Date	Time	Water Level (ft. below land surface)	Change value in () indicates rise in level	Water Elevation (ft. above sea level)	Meas #	Measuring Agency	Method	Remark ID	Comments
P	4/0/1964		221		-58	1	U.S. Geological Survey	Unknown		

Code Descriptions

Status Code	Status Description
P	Publishable

Water Quality Analysis - No Data Available

GWDB DISCLAIMER: Except where noted, all of the information provided in the Texas Water Development Board (TWDB) Groundwater Database (<https://www.twdb.texas.gov/groundwater/data/gwdb rpt.asp>) is believed to be accurate and reliable; however, the TWDB assumes no responsibility for any errors appearing in rules or otherwise. Further, TWDB assumes no responsibility for the use of the information provided. PLEASE NOTE that users of these data are responsible for checking the accuracy, completeness, currency and/or suitability of all information themselves. TWDB makes no guarantees or warranties as to the accuracy, completeness, currency, or suitability of the information provided via the Groundwater Database (GWDB). TWDB specifically disclaims any and all liability for any claims or damages that may result from providing GWDB data or the information it contains. For additional information or answers to questions concerning the TWDB GWDB, contact the Groundwater Data Team at GroundwaterData@twdb.texas.gov.

GWDB Reports and Downloads

Well Basic Details

Scanned Documents

State Well Number	6510402
County	Waller
River Basin	Brazos
Groundwater Management Area	14
Regional Water Planning Area	H - Region H
Groundwater Conservation District	Bluebonnet GCD
Latitude (decimal degrees)	29.814445
Latitude (degrees minutes seconds)	29° 48' 52" N
Longitude (decimal degrees)	-95.872222
Longitude (degrees minutes seconds)	095° 52' 20" W
Coordinate Source	+/- 1 Second
Aquifer Code	121EVGL - Evangeline Aquifer
Aquifer	Gulf Coast
Aquifer Pick Method	
Land Surface Elevation (feet above sea level)	162
Land Surface Elevation Method	Interpolated From Topo Map
Well Depth (feet below land surface)	400
Well Depth Source	Another Government Agency
Drilling Start Date	
Drilling End Date	0/0/1946
Drilling Method	
Borehole Completion	

Well Type	Withdrawal of Water
Well Use	Irrigation
Water Level Observation	Miscellaneous Measurements
Water Quality Available	Yes
Pump	Turbine
Pump Depth (feet below land surface)	
Power Type	Natural-Gas Engine
Annular Seal Method	
Surface Completion	
Owner	Cecil Beckendorff
Driller	
Other Data Available	
Well Report Tracking Number	
Plugging Report Tracking Number	
U.S. Geological Survey Site Number	
Texas Commission on Environmental Quality Source Id	
Groundwater Conservation District Well Number	
Owner Well Number	
Other Well Number	
Previous State Well Number	
Reporting Agency	U.S. Geological Survey
Created Date	8/11/1947
Last Update Date	12/30/2003

Remarks Measured discharge 1454 gpm on May 14,1965; 1341 gpm on June 21,1965; 1451 gpm on Aug. 9,1965; 1404 gpm on Sept. 17,1965. Temp. 71 degrees F.

Casing - No Data

Well Tests - No Data

Lithology - No Data

Annular Seal Range - No Data

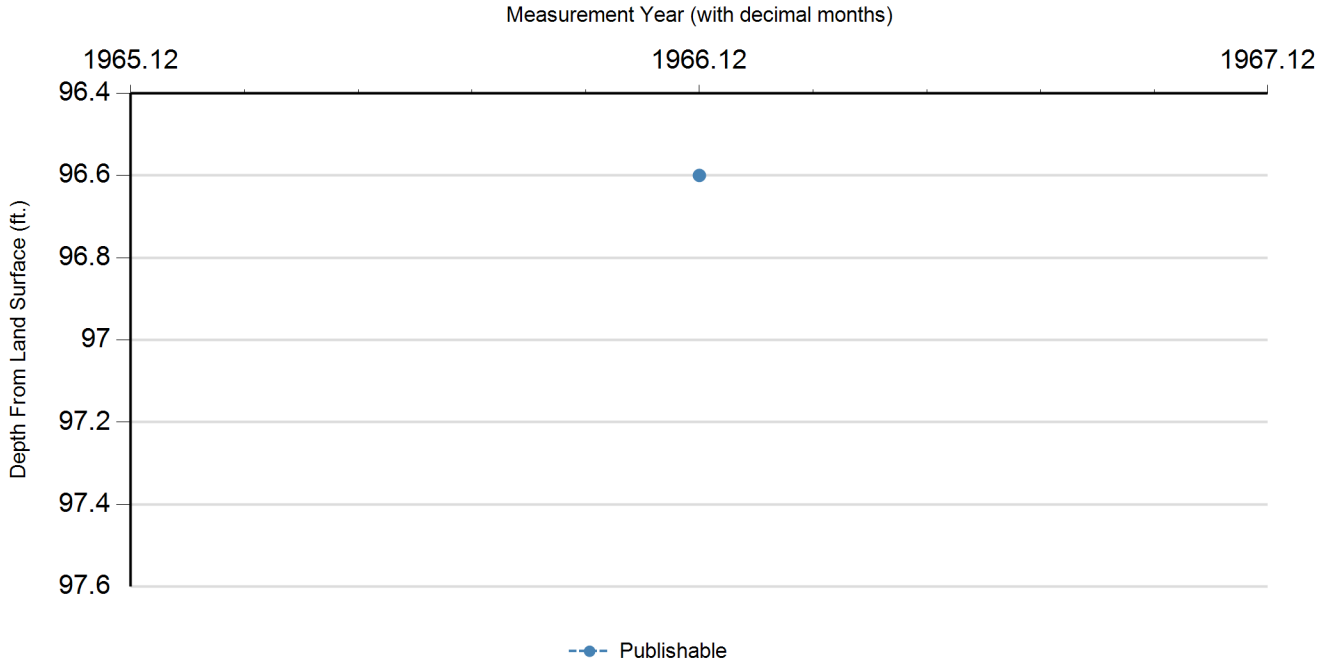
Borehole - No Data

Plugged Back - No Data

Filter Pack - No Data

Packers - No Data

Water Level Measurements



Status Code	Date	Time	Water Level (ft. below land surface)	Change value in () indicates rise in level	Water Elevation (ft. above sea level)	Meas #	Measuring Agency	Method	Remark ID	Comments
P	2/15/1966		96.6		65.4	1	U.S. Geological Survey	Unknown		

Code Descriptions

Status Code	Status Description
P	Publishable

Water Quality Analysis

Sample Date: 8/11/1947 **Sample Time:** 0000 **Sample Number:** 1 **Collection Entity:** U.S. Geological Survey

Sampled Aquifer: Evangeline Aquifer

Analyzed Lab: U.S. Geological Survey Lab

Reliability: From a report; unknown sample collection & preservation

Collection Remarks: No Data

Parameter Code	Parameter Description	Flag	Value*	Units	Plus/Minus
00415	ALKALINITY, PHENOLPHTHALEIN (MG/L)		0	mg/L	
00410	ALKALINITY, TOTAL (MG/L AS CaCO3)		163.89	mg/L as CaCO 3	
00440	BICARBONATE ION, CALCULATED (MG/L AS HCO3)		200	mg/L	
00445	CARBONATE ION, CALCULATED (MG/L AS CO3)		0	mg/L	
00940	CHLORIDE, TOTAL (MG/L AS CL)		52	mg/L	
00900	HARDNESS, TOTAL, CALCULATED (MG/L AS CaCO3)		135	mg/L as CaCO 3	
71851	NITRATE NITROGEN, DISSOLVED, CALCULATED (MG/L AS NO3)		0.8	mg/L as NO3	
00094	SPECIFIC CONDUCTANCE, FIELD (UMHOS/CM AT 25C)		456	MICR	
00945	SULFATE, TOTAL (MG/L AS SO4)		2	mg/L as SO4	

* Value may not display all significant digits for parameter in results, check Scanned Documents for laboratory paperwork..

GWDB DISCLAIMER: Except where noted, all of the information provided in the Texas Water Development Board (TWDB) Groundwater Database (<https://www.twdb.texas.gov/groundwater/data/gwdbprpt.asp>) is believed to be accurate and reliable; however, the TWDB assumes no responsibility for any errors appearing in rules or otherwise. Further, TWDB assumes no responsibility for the use of the information provided. PLEASE NOTE that users of these data are responsible for checking the accuracy, completeness, currency and/or suitability of all information themselves. TWDB makes no guarantees or warranties as to the accuracy, completeness, currency, or suitability of the information provided via the Groundwater Database (GWDB). TWDB specifically disclaims any and all liability for any claims or damages that may result from providing GWDB data or the information it contains. For additional information or answers to questions concerning the TWDB GWDB, contact the Groundwater Data Team at GroundwaterData@twdb.texas.gov.

STATE OF TEXAS WELL REPORT for Tracking #405471

Owner:	BLAKE BECKENDORF	Owner Well #:	2-10417
Address:	28533 MORTON RD. KATY, TX 77493	Grid #:	65-10-4
Well Location:	28533 MORTON RD. KATY, TX 77493	Latitude:	29° 48' 58" N
Well County:	Waller	Longitude:	095° 51' 58" W
		Elevation:	No Data
Type of Work:	New Well	Proposed Use:	Public Supply

Drilling Start Date: **9/22/2015** Drilling End Date: **9/23/2015** Plans Approved by TCEQ - **NO**

	<i>Diameter (in.)</i>	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>
Borehole:	7.25	0	240
Drilling Method:	Mud (Hydraulic) Rotary; 2-STRING		
Borehole Completion:	CEMENTED		

	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Description (number of sacks & material)</i>
Annular Seal Data:	0	15	13
	15	220	11

Seal Method: **Positive Displacement** Distance to Property Line (ft.): **No Data**
Sealed By: **Driller** Distance to Septic Field or other concentrated contamination (ft.): **No Data**
Distance to Septic Tank (ft.): **No Data**
Method of Verification: **No Data**

Surface Completion: **Alternative Procedure Used**

Water Level:	120 ft. below land surface on 2015-09-23	Measurement Method:	Unknown
Packers:	4 X 2 1/2 TRI-SEAL 215 FT.		
Type of Pump:	Submersible	Pump Depth (ft.):	200
Well Tests:	Estimated	Yield:	70 GPM

STATE OF TEXAS WELL REPORT for Tracking #95679

Owner: Jorge Berumen Mendoza	Owner Well #: No Data
Address: 2499 Katy Hockley Cut Off #73 Katy, TX 77493	Grid #: 65-10-4
Well Location: 3602 Schlipf-1/4 mi N of Morton Road off Schlipf on East Side Katy, TX 77493	Latitude: 29° 48' 59" N
	Longitude: 095° 52' 05" W
Well County: Waller	Elevation: No Data
<hr/>	
Type of Work: New Well	Proposed Use: Domestic

Drilling Start Date: **8/25/2003** Drilling End Date: **8/27/2003**

	<i>Diameter (in.)</i>	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>
Borehole:	6.75	0	204
	4.75	204	216

Drilling Method: **Mud (Hydraulic) Rotary**

Borehole Completion: **Two String**

	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Description (number of sacks & material)</i>
Annular Seal Data:	0	204	13
	1	20	5

Seal Method: **Halliburton Fully Pressured**

Distance to Property Line (ft.): **No Data**

Sealed By: **Driller**

Distance to Septic Field or other concentrated contamination (ft.): **n/a**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **Open Land**

Surface Completion: **Pitless Adapter Used**

Water Level: **120 ft. below land surface on 2003-08-27** Measurement Method: **Unknown**

Packers: **Rubber Formation Supreme 20'
BP Seal 4"x2.5" 199'**

Type of Pump: **Submersible** Pump Depth (ft.): **180**

Well Tests: **Jetted** Yield: **70 GPM**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #138124

Owner:	Forest Oil	Owner Well #:	KFGU 1-W-63
Address:	707 17th St. Ste. 3600 Denver, CO 80202	Grid #:	65-10-4
Well Location:	5 mi. NE of Brookshire Waller, TX	Latitude:	29° 48' 26" N
Well County:	Waller	Longitude:	095° 52' 20" W
		Elevation:	No Data
Type of Work:	New Well	Proposed Use:	Industrial

Drilling Start Date: **2/15/2008** Drilling End Date: **2/16/2008**

	<i>Diameter (in.)</i>	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>
Borehole:	6.5	0	410

Drilling Method: **Mud (Hydraulic) Rotary**

Borehole Completion: **Straight Wall**

	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Description (number of sacks & material)</i>
Annular Seal Data:	0	15	14

Seal Method: **Slurry**

Distance to Property Line (ft.): **No Data**

Sealed By: **Driller**

Distance to Septic Field or other
concentrated contamination (ft.): **500+**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **Visual Inspection**

Surface Completion: **Surface Sleeve Installed**

Water Level: **150 ft. below land surface on 2008-02-16** Measurement Method: **Unknown**

Packers:
1 Shale 15'
1 Shale 230'
1 Shale 310'

Type of Pump: **Submersible** Pump Depth (ft.): **273**

Well Tests: **Jetted** Yield: **70 GPM**

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(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #71168

Owner: JASEK FARMS	Owner Well #: WELL #1
Address: 27531 MORTON RD KATY, TX 77493	Grid #: 65-10-4
Well Location: 27531 MORTON RD KATY, TX 77493	Latitude: 29° 48' 55" N
Well County: Waller	Longitude: 095° 51' 44" W
	Elevation: No Data
<hr/>	
Type of Work: New Well	Proposed Use: Stock

Drilling Start Date: **10/31/2005** Drilling End Date: **11/2/2005**

	<i>Diameter (in.)</i>	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>
Borehole:	6.5	0	381

Drilling Method: **Mud (Hydraulic) Rotary**

Borehole Completion: **Straight Wall**

	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Description (number of sacks & material)</i>
Annular Seal Data:	0	365	20

Seal Method: **Pressure**

Distance to Property Line (ft.): **No Data**

Sealed By: **Driller**

Distance to Septic Field or other
concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Surface Sleeve Installed**

Water Level: **190 ft. below land surface on 2005-11-02** Measurement Method: **Unknown**

Packers: **BP Seal 339 Ft**

Type of Pump: **No Data**

Well Tests: **Jetted** **Yield: 20 GPM**

	<i>Strata Depth (ft.)</i>	<i>Water Type</i>
Water Quality:	15	No Data
		Chemical Analysis Made: No
	Did the driller knowingly penetrate any strata which contained injurious constituents?: No	

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **O'Day Drilling Co., Inc.**
2357 Garden Rd
Pearland, TX 77581

Driller Name: **Angel Bautista** License Number: **4883**

Apprentice Name: **Arturo Barrera** Apprentice Number: **1138**

Comments: **Amended 11/29/05 Ref.#2601**

Report Amended on by Request #2601

Lithology:			Casing:			
DESCRIPTION & COLOR OF FORMATION MATERIAL			BLANK PIPE & WELL SCREEN DATA			
<i>Top (ft.)</i>	<i>Bottom (ft.)</i>	<i>Description</i>	<i>Dia. (in.)</i>	<i>New/Used</i>	<i>Type</i>	<i>Setting From/To (ft.)</i>
0	3	Top	4 N PVC 0-365			
3	128	Clay	2.5 N Galvanized Liner 339-371			
128	178	Sand	2.5 N S/S Pipe Base Screen 371-381 06 ga			
178	223	Clay				
223	225	Rock				
225	238	Clay				
238	261	Sand & Rock				
261	314	Clay				
314	317	Rock				
317	366	Clay				
366	381	Sand				

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**Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540**

STATE OF TEXAS WELL REPORT for Tracking #344489

Owner:	BLAKE BECKENDORFF	Owner Well #:	2-9853
Address:	28423 MORTON RD. KATY, TX 77493	Grid #:	65-10-4
Well Location:	28423 MORTON RD. KATY, TX 77493	Latitude:	29° 48' 59" N
Well County:	Waller	Longitude:	095° 51' 48" W
		Elevation:	No Data
Type of Work:	New Well	Proposed Use:	Domestic

Drilling Start Date: **10/23/2013** Drilling End Date: **10/24/2013**

	<i>Diameter (in.)</i>	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>
Borehole:	7.25	0	265

Drilling Method: **Mud (Hydraulic) Rotary; 2-STRING**

Borehole Completion: **CEMENTED**

	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Description (number of sacks & material)</i>
Annular Seal Data:	0	15	13
	15	240	13

Seal Method: **Positive Displacement**

Distance to Property Line (ft.): **No Data**

Sealed By: **Driller**

Distance to Septic Field or other concentrated contamination (ft.): **No Data**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **No Data**

Surface Completion: **Alternative Procedure Used**

Water Level: **112 ft. below land surface on 2013-10-24** Measurement Method: **Unknown**

Packers: **4 X 2 1/2 TRI-SEAL 235 FT.**

Type of Pump: **Submersible** Pump Depth (ft.): **200**

Well Tests: **Estimated** Yield: **75 GPM**

Water Quality: **35** **GROUND**

Strata Depth (ft.) **35** Water Type **GROUND**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **AQUA STAR LLC**
25277 FM 1488
MAGNOLIA, TX 77355

Driller Name: **GLEN R. BONDS** License Number: **50950**

Comments: **No Data**

Lithology:			Casing:			
DESCRIPTION & COLOR OF FORMATION MATERIAL			BLANK PIPE & WELL SCREEN DATA			
Top (ft.)	Bottom (ft.)	Description	Dia. (in.)	New/Used	Type	Setting From/To (ft.)
0	90	CLAY	4	N	PVC CASING	0-240 40
90	180	SAND	2 1/2	N	PVC LINER	235-240 40
180	189	ROCK	2 1/2	N	PVC SCREEN	240-265 012
189	210	SAND				
210	230	CLAY				
230	265	SAND/GRAVEL				

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

ATTENTION OWNER: Confidentiality
 Privilege Notice on on reverse side
 of Well Owner's copy (pink)

State of Texas WELL REPORT

Texas Water Well Drillers Advisory Council
 MC 177
 P.O. Box 13087
 Austin, TX 78711-3087
 512-239-0530

1) **OWNER** Rich & Ann Hundley **ADDRESS** 28407 Morton Rd. Katy TX 77493
(Name) (Street or RFD) (City) (State) (Zip)

2) **ADDRESS OF WELL:**
 County Waller 28407 Morton Rd. Katy TX 77493 **GRID #** 65-10-4
(Street, RFD or other) (City) (State) (Zip)

3) **TYPE OF WORK (Check):**
 New Well Deepening
 Reconditioning Plugging

4) **PROPOSED USE (Check):** Monitor Environmental Soil Boring Domestic
 Industrial Irrigation Injection Public Supply De-watering Testwell
 If Public Supply well, were plans submitted to the TNRCC? Yes No

5) **WELL LOG:**
Date Drilling:
 Started 8-14 19 97
 Completed 8-15 19 97

DIAMETER OF HOLE		
Dia. (in.)	From (ft.)	To (ft.)
6-3/4	Surface	248

7) **DRILLING METHOD (Check):** Driven
 Air Rotary Mud Rotary Bored
 Air Hammer Cable Tool Jetted
 Other _____

From (ft.)	To (ft.)	Description and color of formation material
0- 25	Clay	
25- 45	Sand	
45- 66	Clay	
66- 86	Sand	
86-106	Sand/Gravel	
106-127	Sand/Gravel	
127-147	Sand/Gravel	
147-167	Sand/Gravel	
167-188	Sand/Gravel	
188-208	Sand/Rock	
208-218	Sand/Rock	
218-228	Clay	
228-233	Clay	
233-248	Sand	

(Use reverse side of Well Owner's copy, if necessary)

8) **Borehole Completion (Check):** Open Hole Straight Wall
 Underreamed Gravel Packed Other Press. Cemented
 If Gravel Packed give interval ... from _____ ft. to _____ ft.

CASING, BLANK PIPE, AND WELL SCREEN DATA:

Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., if commercial	Setting (ft.)		Gage Casting Screen
			From	To	
4	N	PVC SCH-40 Casing	0	238	
2.5	N	PVC SCH-40 Liner	228	238	
2.5	N	PVC SCH-80 JaycoWOP	238	248	.010

13) **TYPE PUMP:**
 Turbine Jet Submersible Cylinder
 Other _____
 Depth to pump bowls, cylinder, jet, etc., 220 ft.

14) **WELL TESTS:**
 Type test: Pump Bailer Jetted Estimated
 Yield: 60 gpm with _____ ft. drawdown after _____ hrs.

15) **WATER QUALITY:**
 Did you knowingly penetrate any strata which contained undesirable constituents?
 Yes No If yes, submit "REPORT OF UNDESIRABLE WATER"
 Type of water? _____ Depth of strata _____
 Was a chemical analysis made? Yes No

9) **CEMENTING DATA** [Rule 338.44(1)]
 Cemented from 238 ft. to 50 ft. No. of sacks used 10
0 ft. to 15 ft. No. of sacks used 10
 Method used Halliburton
 Cemented by Driller
 Distance to septic system field lines or other concentrated contamination N/A ft.
 Method of verification of above distance None Present

10) **SURFACE COMPLETION**
 Specified Surface Slab Installed [Rule 338.44(2)(A)]
 Specified Steel Sleeve Installed [Rule 338.44(3)(A)]
 Pitless Adapter Used [Rule 338.44(3)(b)]
 Approved Alternative Procedure Used [Rule 338.71]

11) **WATER LEVEL:**
 Static level 126 ft. below land surface Date 8-15-97
 Artesian flow _____ gpm. Date _____

12) **PACKERS:**

Size	Type	Depth
4" x 2.5" RxR	BP Rubber Seal	228'

I hereby certify that this well was drilled by me (or under my supervision) and that each and all of the statements herein are true to the best of my knowledge and belief. I understand that failure to complete items 1 thru 15 will result in the log(s) being returned for completion and resubmittal.

COMPANY NAME Waller County Water Wells, Inc.
(Type or print)
ADDRESS Route 1, Box 409 Rice Road
(Street or RFD)
 (Signed) Eugene H. Rimmer Jr.
(Licensed Well Driller)

FILE ID 50223WP
WELL DRILLER'S LICENSE NO. SEC 4
Hockley TX 77447
(City) (State) (Zip)
 (Signed) DEC 09 1999
(Registered Driller Trainee)

Please attach electric log, chemical analysis, and other pertinent information, if available.

STATE OF TEXAS WELL REPORT for Tracking #239599

Owner:	Tammie Brown	Owner Well #:	1
Address:	6410 Deer Meadow Ln Katy, TX 77493	Grid #:	65-10-4
Well Location:	28326 Morton Rd Katy, TX 77493	Latitude:	29° 49' 04" N
Well County:	Waller	Longitude:	095° 51' 59" W
		Elevation:	159 ft. above sea level
Type of Work:	New Well	Proposed Use:	Domestic

Drilling Start Date: **12/16/2010** Drilling End Date: **12/17/2010**

	<i>Diameter (in.)</i>	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>
Borehole:	7.25	0	262

Drilling Method: **Mud (Hydraulic) Rotary**

Borehole Completion: **Pressure Cemented**

	<i>Top Depth (ft.)</i>	<i>Bottom Depth (ft.)</i>	<i>Description (number of sacks & material)</i>
Annular Seal Data:	0	10	7 Redimix
	164	262	12 Portland

Seal Method: **Halliburton/Poured**

Distance to Property Line (ft.): **100+**

Sealed By: **Kenco W/W**

Distance to Septic Field or other
concentrated contamination (ft.): **N/A**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **Tape/Estimate**

Surface Completion: **Alternative Procedure Used**

Water Level: **126 ft. below land surface on 2010-12-17** Measurement Method: **Unknown**

Packers: **2 - 4"x2 1/2" RxR K-Packers 253'**

Type of Pump: **Submersible** Pump Depth (ft.): **220**

Well Tests: **Jetted** Yield: **45 GPM**

State of Texas WELL REPORT

Texas Water Well Drillers Advisory Council
MC 177
P.O. Box 13087
Austin, TX 78711-3087
512-239-0530

ATTENTION OWNER: Confidentiality
Privilege Notice on on reverse side
of Well Owner's copy (pink)

1) OWNER Junior Matura ADDRESS 28610 Morton Rd. Katy TX 77449
(Name) (Street or RFD) (City) (State) (Zip)

2) ADDRESS OF WELL: 28610 Morton Rd. Katy TX 77449 GRID # 65-00-4
County Waller (Street, RFD or other) (City) (State) (Zip)

3) TYPE OF WORK (Check):
 New Well Deepening
 Reconditioning Plugging

4) PROPOSED USE (Check): Monitor Environmental Soil Boring Domestic
 Industrial Irrigation Injection Public Supply De-watering Testwell
 If Public Supply well, were plans submitted to the TNRCC? Yes No

6) WELL LOG:
 Date Drilling:
 Started 10-2 19 2000
 Completed 10-3 19 2000

DIAMETER OF HOLE		
Dia. (in.)	From (ft.)	To (ft.)
6-3/4	Surface	270

7) DRILLING METHOD (Check): Driven
 Air Rotary Mud Rotary Bored
 Air Hammer Cable Tool Jetted
 Other _____

From (ft.)	To (ft.)	Description and color of formation material
0	- 25	Clay
25	- 47	Sand
47	- 87	Clay
87	- 168	Sand
168	- 189	Clay
189	- 270	Sand

8) Borehole Completion (Check): Open Hole Straight Wall
 Underreamed Gravel Packed Other Press.Cemented
 If Gravel Packed give interval ... from _____ ft. to _____ ft.

CASING, BLANK PIPE, AND WELL SCREEN DATA:

Dia. (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., if commercial	Setting (ft.)		Gage Casting Screen
			From	To	
4	N	PVC SCH-40	0	255	
2.5	N	PVC SCH-40 Liner	250	260	
2.5	N	PVC SCH-80 JaycoWOP	260	270	.010

(Use reverse side of Well Owner's copy, if necessary)

9) CEMENTING DATA [Rule 338.44(1)]
 Cemented from 260 ft. to 100 ft. No. of sacks used 9
0 ft. to 10 ft. No. of sacks used 8
 Method used Halliburton
 Cemented by Driller
 Distance to septic system field lines or other concentrated contamination 100 ft.
 Method of verification of above distance Tape Measure

13) TYPE PUMP:
 Turbine Jet Submersible Cylinder
 Other _____
 Depth to pump bowls, cylinder, jet, etc., 240 ft.

10) SURFACE COMPLETION
 Specified Surface Slab Installed [Rule 338.44(2)(A)]
 Specified Steel Sleeve Installed [Rule 338.44(3)(A)]
 Pitless Adapter Used [Rule 338.44(3)(b)]
 Approved Alternative Procedure Used [Rule 338.71]

14) WELL TESTS:
 Type test: Pump Bailer Jetted Estimated
 Yield: 50 gpm with _____ ft. drawdown after _____ hrs.

11) WATER LEVEL:
 Static level 118 ft. below land surface Date 10-3-00
 Artesian flow _____ gpm. Date _____

15) WATER QUALITY:
 Did you knowingly penetrate any strata which contained undesirable constituents?
 Yes No If yes, submit "REPORT OF UNDESIRABLE WATER"
 Type of water? _____ Depth of strata _____
 Was a chemical analysis made? Yes No

12) PACKERS:

Type	Depth
<u>4" x 2 1/2"</u> <u>RxR</u> <u>BP Rubber Seal</u>	<u>255'</u>

I hereby certify that this well was drilled by me (or under my supervision) and that each and all of the statements herein are true to the best of my knowledge and belief. I understand that failure to complete items 1 thru 15 will result in the log(s) being returned for completion and resubmittal.

COMPANY NAME Waller County Water Wells, Inc. WELL DRILLER'S LICENSE NO. #50223 WR
 (Type or print)

ADDRESS 27742 Rice Road Hockley TX 77447
 (Street or RFD) (City) (State) (Zip)

(Signed) Eugene Riener (Licensed Well Driller) (Signed) NOV 06 2000 (Registered Driller Trainee)

Please attach electric log, chemical analysis, and other pertinent information, if available.

STATE OF TEXAS WELL REPORT for Tracking #245208

Owner:	Forest Oil	Owner Well #:	KGFCU-6406
Address:	707 17th Street Suite 3600 Denver, CO 80202	Grid #:	65-10-4
Well Location:	5.5 miles SW of Brookshire - KGFCU-6406 Katy, TX	Latitude:	29° 49' 07" N
		Longitude:	095° 52' 03" W
Well County:	Waller	Elevation:	No Data
Type of Work:	New Well	Proposed Use:	Industrial

Drilling Start Date: 9/24/2008 Drilling End Date: 9/25/2008

	Diameter (in.)	Top Depth (ft.)	Bottom Depth (ft.)
Borehole:	6.5	0	370

Drilling Method: **Mud (Hydraulic) Rotary**

Borehole Completion: **Straight Wall**

	Top Depth (ft.)	Bottom Depth (ft.)	Description (number of sacks & material)
Annular Seal Data:	0	15	11

Seal Method: **Slurry**

Distance to Property Line (ft.): **No Data**

Sealed By: **Driller**

Distance to Septic Field or other
concentrated contamination (ft.): **500+**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **Visual Inspection**

Surface Completion: **Surface Sleeve Installed**

Water Level: **120 ft. below land surface on 2008-09-25** Measurement Method: **Unknown**

Packers:
1 Shale 15'
1 Shale 140'
1 Shale 180'
1 Shale 230'
1 Shale 290'

Type of Pump: **Submersible** Pump Depth (ft.): **252**

Well Tests: **Jetted** Yield: **50 GPM**

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540



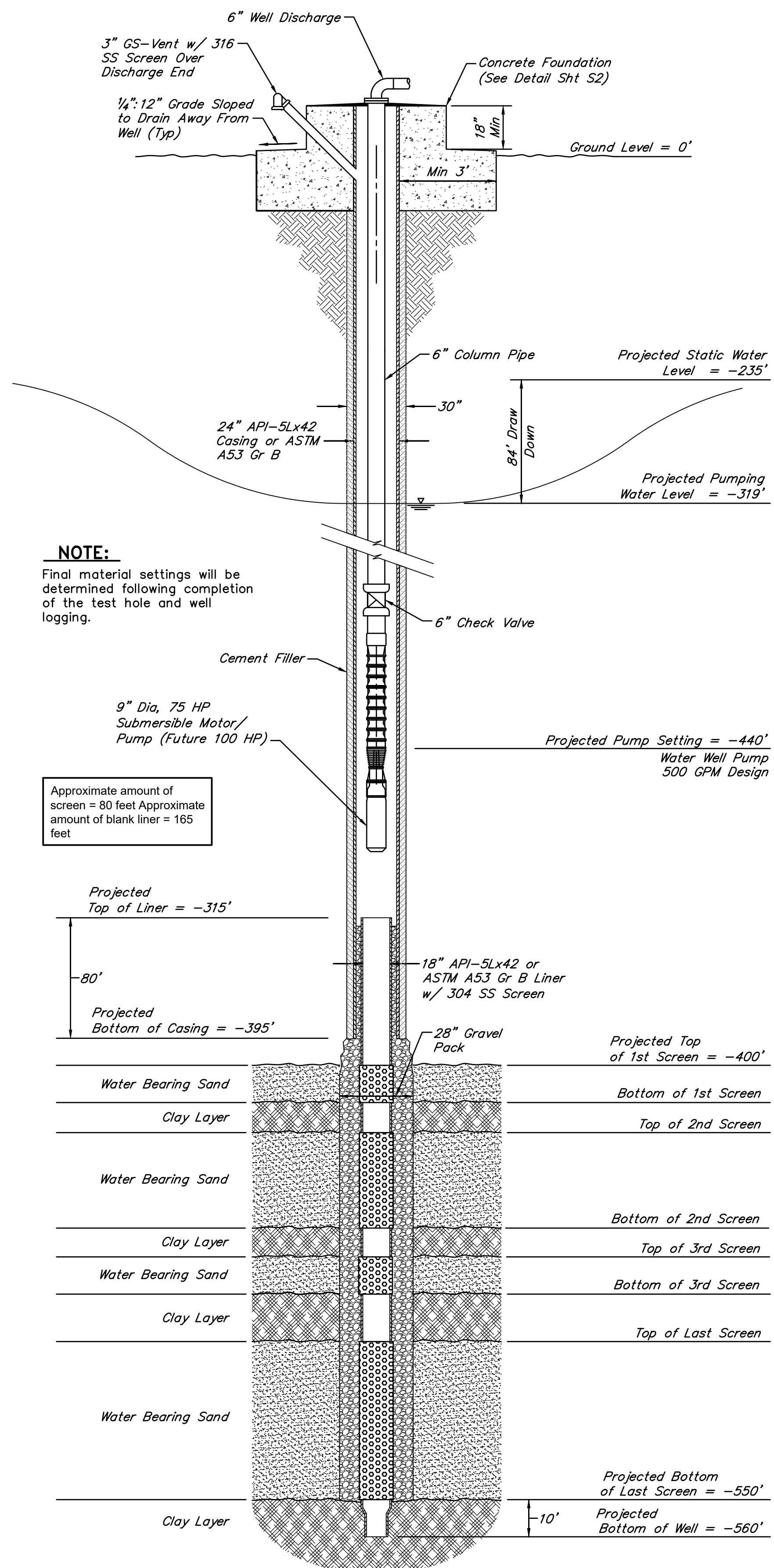
Dataset Descriptions and Sources

Dataset	Source	Dataset Description	Update Schedule	Data Requested	Data Obtained	Data Updated	Source Updated
TX HGSD - Texas HGSD	Harris Galveston Subsidence District/Fort Bend Subsidence District	This dataset contains all groundwater well records compiled by Harris Galveston Subsidence District/Fort Bend Subsidence District.	Quarterly	01/02/2024	01/03/2024	01/04/2024	01/03/2024
TX TCEQ HIST - Texas TCEQ Historical	Texas Commission on Environmental Quality	This dataset contains all historical water well records searched from the TCEQ Public Water Well Viewer. Banks Environmental Data plots each well record based on location information found on the log.	As requested	N/A	N/A	N/A	N/A
TX TCEQ PWS - Texas TCEQ PWS	Texas Commission on Environmental Quality	This dataset contains a collection of records from Texas Water Districts, Public Drinking Water Systems and Water and Sewer Utilities who submit information to the TCEQ.	Quarterly	01/04/2024	01/16/2024	02/02/2024	01/16/2024
TX TWDB GW - Texas TWDB Groundwater Database	Texas Water Development Board	This dataset contains water well records contained within Texas Water Development Board Groundwater Database.	Quarterly	02/14/2024	02/14/2024	02/14/2024	02/14/2024
TX TWDB SDR - Texas TWDB Submitted Drillers Reports	Texas Water Development Board	This dataset contains water well records from the Texas Water Development Board Submitted Drillers Reports Database.	Quarterly	02/14/2024	02/14/2024	03/01/2024	02/14/2024
USGS WW - USGS Water Wells	U.S. Geological Survey	This dataset contains groundwater well records from the U.S. Geological Survey.	Semi-annually	11/13/2023	11/13/2023	11/13/2023	11/13/2023

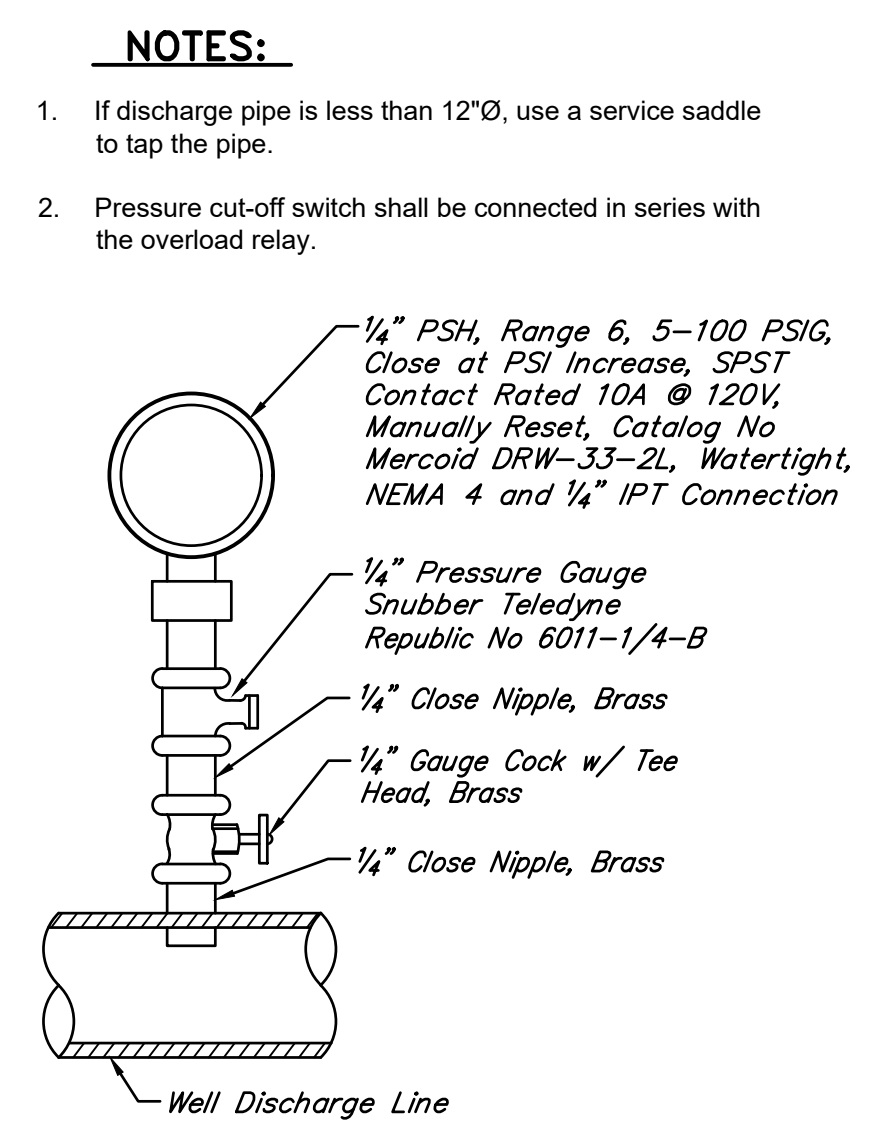
Disclaimer



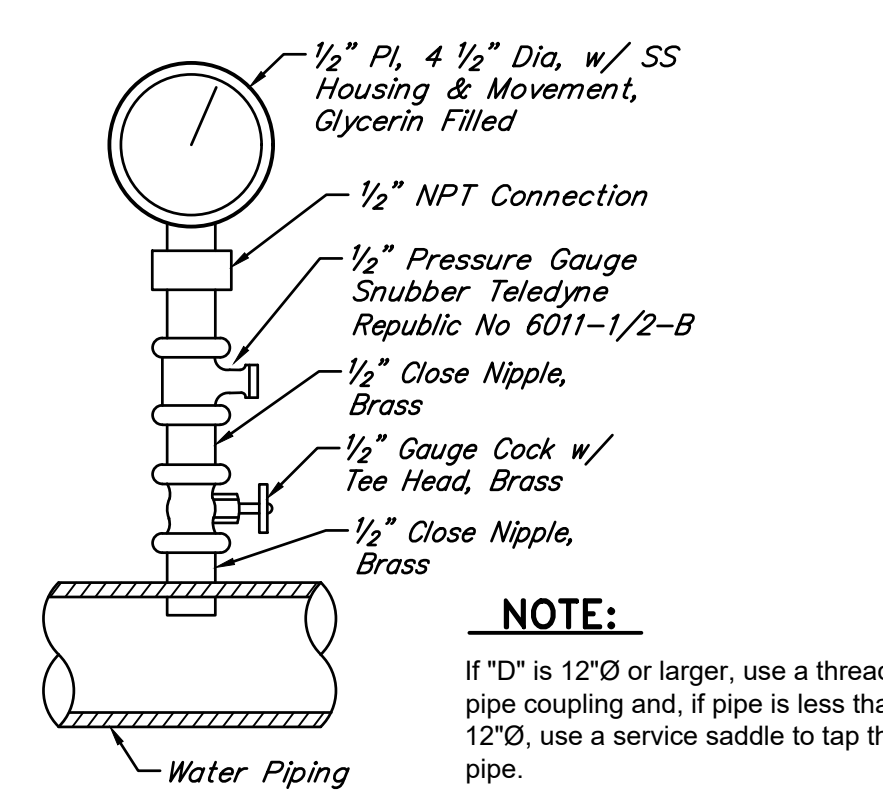
The Banks Environmental Data Water Well Report was prepared from existing state water well databases and/or additional file data/records research conducted at the state agency and the U.S. Geological Survey. Banks Environmental Data has performed a thorough and diligent search of all groundwater well information provided and recorded. All mapped locations are based on information obtained from the source. Although Banks performs quality assurance and quality control on all research projects, we recognize that any inaccuracies of the records and mapped well locations could possibly be traced to the appropriate regulatory authority or the actual driller. It may be possible that some water well schedules and logs have never been submitted to the regulatory authority by the water driller and, thus, may explain the possible unaccountability of privately drilled wells. It is uncertain if the above listing provides 100% of the existing wells within the area of review. Therefore, Banks Environmental Data cannot fully guarantee the accuracy of the data or well location(s) of those maps and records maintained by the regulatory authorities.



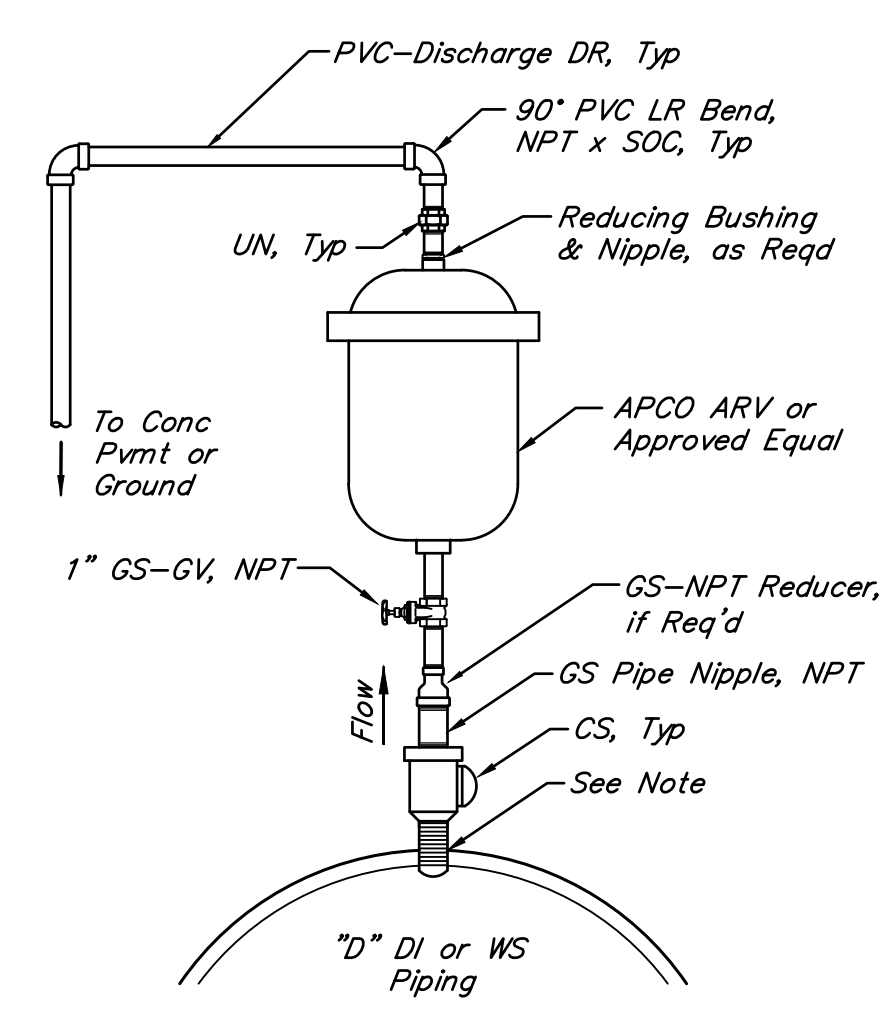
REMOTE WATER WELL (RWW) PROFILE
 NOT TO SCALE



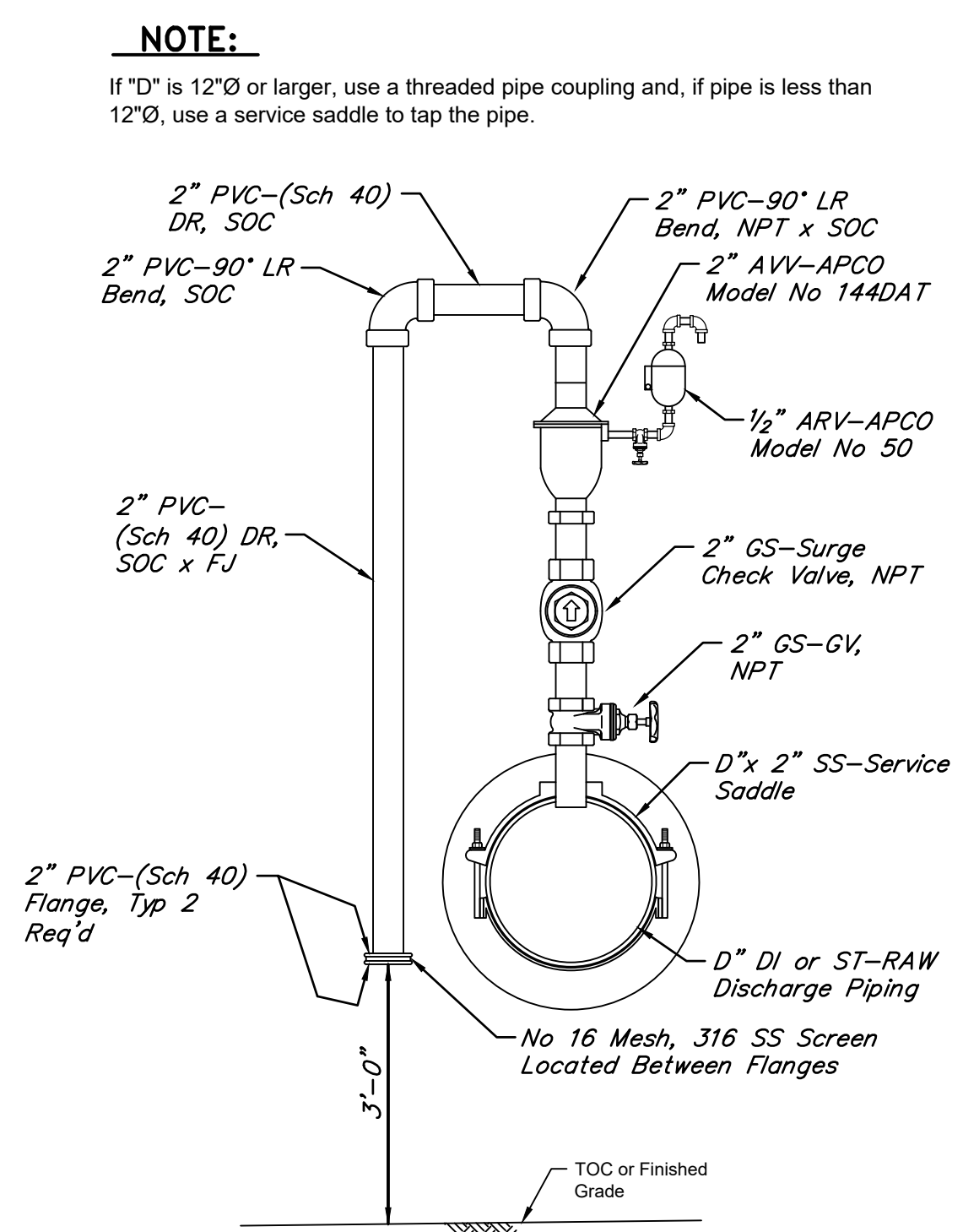
HIGH PRESSURE SAFETY CUT-OFF SWITCH ASSEMBLY
 NOT TO SCALE



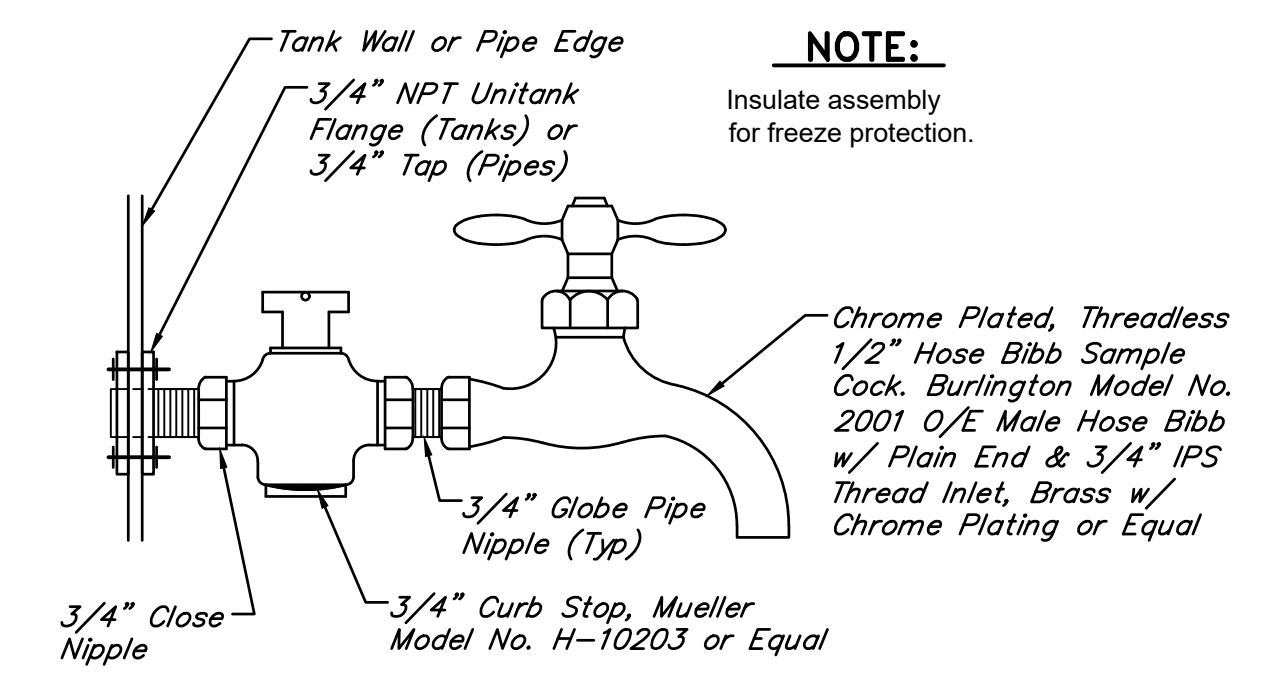
TYPICAL WW PI ASSEMBLY TAP DETAIL
 NOT TO SCALE



TYPICAL ABOVEGROUND ARV ASSEMBLY TAP DETAIL
 NOT TO SCALE



2" WELL AIRTRAIN DETAIL
 NOT TO SCALE



TYPICAL WATER SMC DETAIL
 NOT TO SCALE

NO.	DATE	REVISIONS	APP.

KATY 2855 DEVELOPMENT, LCC.
 WALLER COUNTY, TEXAS

REMOTE WELL No. 1

REMOTE WATER WELL AND DETAILS

QUIDDITY
 Texas Board of Professional Engineers and Land Surveyors Reg. No. F-23290
 6330 West Loop South, Suite 150 • Bellaire, TX 77401 • 713.777.5337

SCALE: NO SCALE DGN. BY: AKP
 DATE: JULY 2024 DWN. BY: DRK
 JOB NO. 17281-0022-00 DWG. NO. _____
 SUBMITTED: SURV. BY: _____
 F.B. NO. _____

INTERIM REVIEW
 Not intended for construction, bidding or permit purposes.
 Engineer: CHRISTOPHER C. WIGGS, P.E.
 P.E. Serial No.: 141635
 Date: JULY 2024

William R. Hutchison, Ph.D., P.E., P.G.
Independent Groundwater Consultant
909 Davy St.
Brenham, TX 77833
512-745-0599
billhutch@texasgw.com

July 3, 2024

Mr. Zach Holland
General Manager
Bluebonnet Groundwater Conservation District
PO Box 269
Navasota, TX 77868-0269

RE: Phase I-a Report: Waller MUD 55 Well 1

Dear Mr. Holland,

This letter represents the Phase I-a report for the Waller MUD 55 Well 1 permit application that I received from you via email on July 2, 2024.

“Estimated Annual Water Production” is 109.5 million gallons per year, which is below the 200 million gallon per year threshold. Therefore, the application requires the preparation of a Phase I-a analysis of potential drawdown.

Well Locations on HAGM Grid

The latitude and longitude data on the application were used to convert the location data to x- and y-coordinates in the GAM coordinate system using Surfer, a commercial gridding program. The FORTRAN program *PointRC.exe* was used to find the HAGM cell for those x- and y-coordinates. The results of this effort yielded that the well is in HAGM row 53, column 78.

The applications noted a well depth of 560 feet and a casing depth of about 395 feet, which would place the bottom of the well and casing in the Evangeline Aquifer (HAGM layer 2). The permit application stated that the production zone would include both the Chicot and Evangeline aquifers.

Grid Parameters, HAGM Parameters, HAGM Results, This Parameters

The Excel spreadsheet named *BGCD Parameters.xlsx* contains the data needed for the review and Phase I-a calculations for cells designated in the four counties of the Bluebonnet Groundwater Conservation District. The data for row 53, column 78 were copied and transposed into the spreadsheet *Waller MUD 55 Well 1 Phase I-a Tables.xlsx*. Results for layer 1 (Chicot Aquifer) and layer 2 (Evangeline Aquifer) are summarized into four tables as follows:

- Table 1: Grid Parameters
- Table 2: HAGM Parameters
- Table 3: HAGM Results
- Table 4: This Parameters (layer 2 only)

Table 1. Grid Parameters for Waller MUD 55 Well 1

County Name	Waller	Waller
County Code	237	237
Outcrop Layer	1	1
Layer	1	2
Row	53	53
Column	78	78
x-coordinate (GAM-ft)	6226910.5	6226910.5
y-coordinate (GAM-ft)	19185160	19185160
Surface Elevation (ft MSL)	156	156
Cell Top Elevation (ft MSL)	156	-119
Cell Bottom Elevation (ft MSL)	-119	-1456
Cell Thickness (ft)	275	1337
Clay Thickness (ft)	101	726
Clay Thickness (% of Cell Thickness)	36.73	54.30

Table 2. HAGM Parameters for Waller MUD Well 1

County Name	Waller	Waller
County Code	237	237
Outcrop Layer	1	1
Layer	1	2
Row	53	53
Column	78	78
Hydraulic Conductivity (ft/day)	34.38	3.00
Transmissivity (gpd/ft)	70,717	30,002
Leakage (1/day)	8.00E-06	6.30E-06
Storativity (dimensionless)	1.00E-01	3.60E-04
Elastic Storativity (dimensionless)	4.00E-05	8.00E-05
Inelastic Storativity (dimensionless)	4.00E-03	8.00E-03

Table 3. HAGM Results for Waller MUD 55 Well 1

County Name	Waller	Waller
County Code	237	237
Outcrop Layer	1	1
Layer	1	2
Row	53	53
Column	78	78
Groundwater Elevation in 2009 (ft MSL)	23	-2
Groundwater Elevation in 2080 (ft MSL)	-53	-138
DFC Drawdown (ft)	76	136
Artesian Head (ft)	-133	117
Subsidence in 2009 (ft)	1.39	1.39
Subsidence in 2080 (ft)	2.44	2.44
Subsidence from 2009 to 2080 (ft)	1.05	1.05
Cell Pumping in 2009 (AF/yr)	0	50.69
Cell Pumping in 2080 (AF/yr)	0	328.81

Table 4. Theis Parameters for Waller MUD 55 Well 1

County Name	Waller
County Code	237
Outcrop Layer	1
Layer	2
Row	53
Column	78
Drawdown in Production Well at 100 gpm for 36 hours	7.19
Drawdown 1/2 mile from Production Well at 100 gpm for 36 hours	0.68
Drawdown 1/2 miles from Production Well at 100 gpm for 1 year	2.74
Drawdown-Pumping Ratio for Production Well for 36 hours	0.07191
Drawdown-Pumping Ratio for 1/2 mile from Production Well for 36 hours	0.00682
Drawdown-Pumping Ratio for 1/2 mile from Production Well for 1 yr	0.02742

Theis Equation Calculations

Groundwater production data from the permit applications were used along with the drawdown-pumping ratios contained in Table 4 to develop five estimates of drawdown for each well:

- Scenario 1: drawdown in the production well after 36-hours of pumping at three times the average annual pumping rate.
- Scenario 2: drawdown in a well ½ mile from the production well after 36 hours of pumping at three times the annual pumping rate.
- Scenario 3: drawdown in a well ½ mile from the production well after one year at the average pumping rate.

- Scenario 4: drawdown in the production well after 36-hours of pumping at the production rate listed in the permit application.
- Scenario 5: drawdown in a well ½ mile from the production well after 36 hours of pumping at the production rate listed in the permit application.

Results of these calculations for are presented in Table 5.

Table 5. This Results for Waller MUD 55 Well 1

Production Summary	Value
Annual Permit Production Limit (gallons)	109,500,000
Annual Permit Production Limit (acre-feet)	336
Average Pumping Rate (gpm)	208
3X Average Pumping Rate (gpm)	625
Permit Capacity (gpm)	500

Evangeline		
Draw down Calculations	Drawdown-Pumping Ratios	Calculated Drawdown (ft)
Production Well - 36 hours (3X avg pumping)	0.07191	44.94
1/2 mile from Production Well - 36 hours (3X avg pumping)	0.00682	4.26
1/2 mile from Production Well - one year (avg pumping)	0.02742	5.71
Production Well - 36 hours (Permit capacity)	0.07191	35.96
1/2 mile from Production Well - 36 hours (Permit capacity)	0.00682	3.41

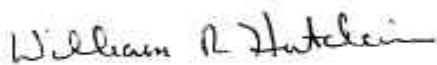
These data represent the best integrated data of the area from a regional perspective. The local-scale data will be developed as part of the Phase II investigation. This will include more site-specific information and data on aquifer depth, clay content, and aquifer parameters calculated from the 36-hour pumping test.

Recommendation

Based on the results of the Phase I-a report, the application should be approved, and the Phase II investigation should proceed to verify the Phase I-a estimates related to the aquifer (e.g. depth to top of Evangeline Aquifer and clay content) and related to aquifer performance (e.g. drawdown at the end of the 36-hour pumping test and aquifer transmissivity).

I appreciate the opportunity to work with you on this effort. Please call me at 512-745-0599 or email me at billhutch@texasgw.com if you have any questions.

Sincerely,



William R. Hutchison, Ph.D., P.E., P.G.