

The Texas Well Report Submission and Retrieval System (TWRERS) User Manual

Bryan Anderson

Texas Water Development Board

David Gunn

Texas Department of Licensing and Regulation

REVISED November 2015

Table of Contents

INTRODUCTION	4
ACCESSING THE TEXAS WELL REPORT SUBMISSION AND RETRIEVAL SYSTEM	4
CREATING AN ACCOUNT	4
ASSOCIATION TO A DRILLER	6
OWNER DRILLERS.....	7
DRILLERS LIST.....	7
EDIT DRILLER.....	7
CONTACTS.....	8
NEW WELL REPORT	8
CHANGE DRILLER	8
WELL OWNER	8
WELL LOCATION.....	8
LOCATION VERIFICATION	9
DRILLING INFORMATION	10
<i>Type of Work</i>	10
<i>Proposed Use</i>	10
<i>Drilling Date</i>	12
<i>Diameter of Hole</i>	12
<i>Plugged Back</i>	12
<i>Lithology/Formation</i>	13
<i>Drilling Method</i>	13
CONSTRUCTION.....	14
<i>Borehole Completion</i>	14
<i>Filter</i>	14
<i>Casing</i>	15
<i>Annular Seal</i>	16
<i>Seal Range</i>	17
<i>Surface Completion</i>	18
<i>Packers</i>	18
POST CONSTRUCTION.....	19
<i>Water Level</i>	19
<i>Pump</i>	20
<i>Water Test</i>	20
<i>Depth of Strata</i>	21
<i>Water Quality</i>	21
<i>Injurious Constituent</i>	21
<i>Overall Comments</i>	22
VIEW/SUBMIT DRAFT REPORT.....	22
VIEW SUBMITTED REPORT	22
SAVED WELL REPORTS	23
SUBMITTED WELL REPORTS	23
WELL REPORT AMENDMENT REQUEST	24
SAVED WELL AMENDMENTS	25
SUBMITTED WELL AMENDMENTS	25
NEW PLUGGING REPORT	26
CHANGE DRILLER	26

WELL REPORT TRACKING NUMBER.....	26
CURRENT WELL OWNER.....	26
WELL LOCATION.....	27
LOCATION VERIFICATION.....	28
ORIGINAL DRILLING INFORMATION.....	28
<i>Well Use</i>	28
<i>Original Driller</i>	29
<i>Original Drilling Date</i>	29
<i>Well Hole Diameter</i>	29
PLUGGING INFORMATION.....	30
<i>Plug Date</i>	30
<i>Plug Method</i>	30
<i>Casing Left in Hole</i>	30
<i>Plug Range</i>	31
<i>Plug Comments</i>	32
VIEW/SUBMIT DRAFT REPORT.....	32
VIEW SUBMITTED REPORT.....	32
SAVED PLUGGING REPORTS.....	32
SUBMITTED PLUGGING REPORTS.....	32
PLUGGING REPORT AMENDMENT REQUEST.....	33
SAVED PLUGGING AMENDMENTS.....	34
SUBMITTED PLUGGING AMENDMENTS.....	34
QUICK REFERENCE GUIDE.....	36
DRILLERS LIST.....	36
ASSOCIATION TO A DRILLER.....	36
EDIT DRILLER.....	36
LEFT MENU.....	36
VIEW DRAFT REPORTS.....	36
AMENDMENTS.....	36
TIPS.....	37

Introduction

The Texas Well Report Submission and Retrieval System (TWRSSRS) is a collaborative effort between the Texas Water Development Board (TWDB) and the Texas Department of Licensing and Regulation (TDLR). This online data entry application is for licensed water well drillers to enter the required well reports and plugging reports. All information entered in the TWRSSRS is stored in the TWDB Submitted Drillers Reports (SDR) database. Publically available reports and downloads from SDR are found at: (<http://www.twdb.texas.gov/groundwater/data/drillersdb.asp>).

The original TWRSSRS started on February 5, 2001 and began collecting all required reports by 2003. Reports that drillers submitted by mail before the inception date are not included in the SDR database, but are available for access at the Texas Commission on Environmental Quality (TCEQ) Water Well Report Viewer: (<http://www.tceq.texas.gov/gis/waterwellview.html>). Water well drillers may still submit well reports and plugging reports through the mail. Those mailed reports are then entered in the TWRSSRS by TDLR staff.

Accessing the Texas Well Report Submission and Retrieval System

The Texas Well Report Submission and Retrieval System (TWRSSRS) is located at: <https://www2.twdb.texas.gov/apps/sdr/default.aspx>

Creating an Account

Before accessing TWRSSRS, the user must first create an account with the Texas Water Development Board (TWDB) Application Program Management (APM) System. The APM login page is displayed whenever accessing TWRSSRS.

For first time users, click the “Register now” button. Do not enter your license number or PIN number in the login section. This registration is different from the old system.

The screenshot shows the login page for the Texas Water Development Board's Application Program Management (APM) System. At the top left is the Texas Water Development Board logo. To the right of the logo is the text "Application Program List" and a navigation menu with links for "Home", "Login", "Agency Policies", and "Contact Webmaster". Below the logo is a blue button labeled "Applications". Underneath, there is a header bar that says "Login to Texas Water Development Board System" with a "Login" button. The main content area contains a login form with two input fields: "User Name:" and "Password:". Next to the "User Name:" field is a link for "Forgot Username?". Next to the "Password:" field is a link for "Forgot password?". Below the "Password:" field is a "Login" button. To the right of the login form, there is a message: "To use this site, your are required to sign in with a Texas Water Development Board ID." Below this message is a bolded instruction: "To get started, request a Texas Water Development Board ID" and a "Register now" button.

Enter all required information and click "I Accept" button. It is not necessary to enter any other information since only those required fields will transfer information into the TWRSRS application.

 **Application Program List** [Home](#) [Login](#) [Agency Policies](#) [Contact Webmaster](#)

Applications

New to Texas Water Development Board? Sign up.

Are you new to Texas Water Development Board Application Program List?

Enter the User Name and Password you want to use. If you already have a User Name for the Application Program List, [try logging on with that User Name](#).

Create User Name and Password

The UserName may be a valid email address OR it must be at least five characters long, it must contain only letters, numbers, and the special characters of dash, period, or an underscore. In any case no spaces are allowed with either format.

UserName is available!

* UserName:

Passwords must have a minimum of 7 characters, at least 1 must be a numeric character, at least 1 must be a special character !@#%&^*()

* Password:

* Verify Password:

Enter Your Personal Information

* First Name:

* Last Name:

* Contact phone number:

* Email Address:

* Verify Email Address:

Company/Organization name:

Street address/PO Box:

City:

State:

Zip Code:

Clicking on the **I Accept** button means you agree to the Texas Water Development Board Policies terms of usage.

You may review the Texas Water Development Board Policies by clicking on the **Agency Policies** link in the upper right corner of this page.

On the next screen click the link "Application Program Management".

Unauthorized Access

You do not have authorization to access this Application.

If you believe you should be able to access this Application you may:

Request Access by clicking on the **Request Access** link for this application on the [Application Program Management](#) home page

OR

Contact Bryan Anderson by using the following e-mail address or phone number
E-mail address: Bryan.Anderson@twdb.texas.gov
Phone number: 512-475-3302

The next screen displays the TWDB Application Program List. Scroll to the Texas Well Report Submission and Retrieval System and click “Request Access” on the right side of the screen. The text will change to “Pending Approval”.

After you see “Pending Approval”, close down all windows and tabs of your Internet browser (no need to restart computer), and then reopen the Internet browser.

The screenshot shows the Texas Water Development Board's Application Program List. The page has a header with the logo and navigation links (Home, Logout, Agency Policies, Contact Webmaster). Below the header is a navigation bar with 'Applications', 'Change Password', and 'Profile'. A user status bar shows 'Test User - Welcome To The TWDB Program List' and a 'Log Out' button. The main content area is divided into several sections:

- Instructions:** A text block explaining that some applications are public and do not require a login, while others do. It instructs users to click the login button if they want access to applications that require a login.
- My Favorite TWDB Web Applications:** An empty section for user favorites.
- TWDB Web Applications You Have Access To:** A list of applications with descriptions and 'Add to Favorites' links:
 - [Intended Use Program](#): Public Comment for Intended Use
 - [Water IQ](#): Water IQ Description
 - [Major Rivers Program](#): Major Rivers Program
 - [Desalination Plant Database](#): The desalination plant database was updated in 2010 by the TWDB staff. The database contains information on 44 public water supply desalination plants currently operating in Texas.
- TWDB Applications You may Request Access to:** A list of applications with descriptions and 'Add to Access List' or 'Request Access' links:
 - [Water Loss Audit](#): Click here to access the water audit worksheet.
 - [Water Use Survey](#): Click the link above to access the Water Use Survey for data-entry purposes. To access historical water use data, please contact survey staff at 512-463-7952 or Waterusesurvey@twdb.texas.gov
 - [Regional Water Planning](#): Regional Water Planning
 - [Texas Well Report Submission and Retrieval System](#): Texas Well Report Submission and Retrieval System

Once the system accepts the request, an email is sent to the email address entered at registration to inform the user is approved. Return to the TWRSRS website and enter the User Name and Password to begin using the application. Each user only needs to register and request access once.

Association to a Driller

In order to add new reports and view submitted and saved reports, the user must first associate the account to a driller. After successful login, select Drillers List from the left menu. The Drillers List page shows an “Associate Driller” button (administrative accounts are automatically associated to all drillers and will not see this button). Clicking the button displays a page to enter the License Number and PIN; these are the same numbers used to login to the old TWRSRS application. To obtain or confirm a PIN, contact the TDLR Water Well Drillers and Pump Installers Program. A user account can associate to multiple drillers if they have the correct License Number and PIN of the drillers.

After the initial association, the user account automatically displays the corresponding reports for each associated driller on every login.

Owner Drillers

Texas law allows landowners to drill or plug water wells on their own property. After successful user account creation and login to TWRSRS, select Drillers List from the left menu and click the “Associate Driller” button. On the next page, enter License Number 10000 and the corresponding PIN (must contact TDLR Water Well Drillers and Pump Installers Program to obtain PIN).

After the initial association, the user account automatically displays the corresponding reports for each individual landowner on every login.

Drillers List

After successful login, select Drillers List from the left menu. This page shows all drillers associated to the user account. The table shows the License Number, Driller Name and Driller Company. Each of those columns is sortable and searchable in the column header. Click the “Select” button next to a driller to view saved or submitted reports, or to create a new report. The user can only view and create reports for one driller at a time. Click the “Edit” button next to a driller to update information about the driller.

Edit Driller

The Edit Driller page contains information about the driller and the user(s) associated to the driller. **Make sure this information is correct before creating a new report.** The information on this screen is used as the driller information in the reports.

- License Number – the TDLR assigned license number for the driller, user cannot edit
- Driller Company Name – the name of the company, if one exists, the driller is employed by
- Driller Name – the legal name of the licensed driller, user cannot edit
- Address is outside United States – check the box if the driller’s address is outside of the United States; the fields State and Zip are replaced by the field Country
- Address1 (required) – mailing street address of driller
- Address2 – continued mailing street address for driller (apartment number, building number, etc.)
- City (required) – city of street address for driller
- Country (required IF “Address is outside United States” is checked) – country of street address for driller; only displayed if “Address is outside United States” box is checked
- State (required) – state of street address for driller, select from list
- Zip Code (required) – 5 digit zip code of street address for driller
- Business Phone – the business phone number of the driller
- Cell Phone – the cellular/mobile phone number of the driller
- Email – email address for driller

Contacts

The contacts table displays all user accounts associated to the driller. Click the “Edit” button next to a contact to update information about the contact. Click the “Delete” button next to a contact to remove the association to the driller; this does not delete the user account, only the link between the user account and the driller.

New Well Report

To create a new well report, press the “Select” button next to the desired driller on the Drillers List page. The Saved Well Reports page is displayed showing all saved well reports for the driller. Click the “Add New Well Report” button to begin. The user can also initiate a new well report by clicking on the driller row (not the “Select” button) on the Drillers List page to highlight the row and then click the New Well Report item on the left menu.

Change Driller

If the user account is associated with more than one driller, and begins a new well report using the incorrect driller for the report, click Change Driller on the left menu. This navigates back to the Drillers List where the user may select a different driller for the well report. After selecting the proper driller, press the Change Driller button. Press the Cancel button to retain the originally selected driller.

Well Owner

Information about the person(s) or entity having the well drilled.

- Address is outside United States – check the box if the owner’s address is outside of the United States; the fields Owner State and Owner Zip Code are replaced by the field Owner Country
- Owner Name (required) – name of person(s) or entity having the well drilled
- Owner Address1 (required) – mailing street address of owner
- Owner Address2 – continued mailing street address for owner (apartment number, building number, etc.)
- Owner City (required) – city of street address for owner
- Owner Country (required IF “Address is outside United States” is checked) – country of street address for owner; only displayed if “Address is outside United States” box is checked
- Owner State (required) – state of street address for owner, select from list
- Owner Zip Code (required) – 5 digit zip code of street address for owner
- Owner Email – email address for owner

Well Location

Information about the physical location of the drilled well.

- County (required) – Texas county where the drilled well is located
- Coordinate Format (required) – the format for the reported latitude and longitude of the drilled well, select from the following:

- Degrees Minutes Seconds (DMS) – example 29° 30' 59.65"
- Degrees Decimal Minutes (DDM) – example 29° 30.98333'
- Decimal Degrees (DD) – example 29.516388°
- Latitude (**required**) – angular distance of the drilled well north of the equator, enter in the specified coordinate format
- Longitude (**required**) – angular distance of the drilled well west of the Prime Meridian, enter in the specified coordinate format
- Horizontal Datum {NEW}– model used to obtain the latitude and longitude of the drilled well, select from the following:
 - NAD27 – North American Datum of 1927
 - NAD83 – North American Datum of 1983
 - WGS84 – World Geodetic System of 1984 (most newer global positioning systems use this)
- Elevation – the vertical distance of the land surface at the drilled well from sea level, reported in feet
- Well Address Same As Owner Address – check this box if the address entered in the owner section is the same as the address of the drilled well, when checked the address information will automatically enter into the well address fields
- Well Address1 (**required IF Well Location Description is blank**) – the valid 9-1-1 street address of the drilled well
- Well Address2 – continued valid 9-1-1 street address of the drilled well
- Well City (**required**) – city of the drilled well location
- Well Zip Code – 5 digit zip code of the drilled well location
- Well Location Description (**required IF Well Address1 is blank**) – narrative description of the well location, used if valid 9-1-1 address does not exist; example: on FM 32, 3.5 miles west of FM 12 intersection
- Owner Well Number – the name or number used by the owner to identify the drilled well
- Original Number of Wells Drilled – only used if multiple wells drilled at the same location and only allowed for environmental soil borings, de-watering, monitor and injection wells

Location Verification

Before continuing, the drilled well location is verified using the entered county and coordinates. Entry of information in any sections, other than Well Owner and Well Location, is forbidden until the location is verified. Once verified, all sections of the well report are open for entry. If either the county or coordinate information is changed, location verification is again required.

The Well Location Map Viewer displays the entered location of the drilled well. Moving the cursor over the point displays information about the location. If the drilled well location plots within the selected county, the selected county is highlighted blue. If the drilled well location plots outside the selected county, the selected county is highlighted blue and the plotted county is highlighted grey. The coordinates must match the county selected for valid location verification. A buffer is used for those locations at or near a county line, allowing for valid location verification.

The map viewer contains basic controls such as zooming in, zooming out and panning. There is a base map toggle feature in the upper left corner to select either “Road” view or “Bird’s Eye” (aerial photography) view.

Drilling Information

Information about the drilling of the well.

Type of Work

The type of work done at the drilled well site.

- Type Of Work (**required**) – select from the following:
 - New Well – no other well exists at the drilling site
 - Reconditioning – the process where a well is cleaned out to original depth and the water production is restored; includes any procedures that make the well operable
 - Replacement – drilling a new well to replace a well that has gone dry or malfunctioned
 - Deepening – when an existing well’s borehole is deepened, usually this involves going down through the existing casing then drilling out the bottom of the borehole to make the well deeper or to go down into another aquifer or zone
 - Other – select if none of the above identify the type of work, the Type of Work Other field is displayed
- Type Of Work Other (**required IF “Other” selected in Type Of Work**) – type of work that does not meet the pre-defined selections; only displayed if “Other” selected in Type Of Work
- Original Well Tracking Number – if known, the well report tracking number of the original well report; only displayed if “Reconditioning”, “Replacement” or “Deepening” selected in Type Of Work

Proposed Use

The proposed use for the drilled well.

- Proposed Use (**required**) – select from the following:
 - Domestic – private household use (only) well
 - Stock – a well used to fill a stock tank or to water livestock
 - Irrigation – a well drilled solely for agricultural purposes to water crops
 - Public Supply – a well that has 15 or more service connections or serves 25 or more individuals 60 days out of a year; there can be multiple wells that meet the requirement and are still considered a Public Supply Well for a Public Water System, which requires approval from the Texas Commission on Environmental Quality (TCEQ)
 - Rig Supply – a well drilled to supply water to an oil or gas rig at a drilling site
 - Fracking Supply – a well drilled to supply water for fracking oil and gas wells which is mixed with additives to break up the oil or gas formations
 - Test Well – a well drilled to explore for groundwater or other substances below ground surface

- Industrial – a well drilled to supply water for industrial or manufacturing and is not used for drinking unless it meets the requirements for a Public Water System, which required approval from the Texas Commission on Environmental Quality (TCEQ)
- Monitor – an artificial excavation that is constructed to measure or monitor the quantity or movement of substances below the surface of the ground, and that is not used in conjunction with the production of oil, gas, or other minerals
- Environmental Soil Boring – an artificial excavation constructed to measure or monitor the quality and quantity or movement of substances, elements, chemicals, or fluids beneath the surface of the ground; the term shall not include any well that is used in conjunction with the production of oil, gas, or any other minerals
- Closed-Loop Geothermal – a vertical closed system well used to circulate water, and other fluids or gases through the earth as a heat source or heat sink
- Extraction – a well used for extraction of chemicals, vapors and groundwater in a remedial process to remove contaminated groundwater
- Injection – this term includes:
 - An air-conditioning return flow well used to return water that has been used for heating or cooling in a heat pump to the aquifer that supplied the water
 - A cooling water return flow well used to inject water that has been used for cooling
 - A drainage well used to drain surface fluid into a subsurface formation
 - A recharge well used to replenish water in an aquifer
 - A saltwater intrusion barrier well used to inject water into a freshwater aquifer to prevent the intrusion of salt water into fresh water
 - A sand backfill well used to inject a mixture of water and sand, mill tailings, or other solids into subsurface mines
 - A subsidence control well used to inject fluids into a non-oil-producing or non-gas-producing zone to reduce or eliminate subsidence associated with the overdraft of fresh water
 - A closed system geothermal well used to circulate water, other fluids, or gases through the earth as a heat source or heat sink
- De-watering – a well used to remove water from the water table closed to the surface for construction purposes
- Other – select if none of the above identify the proposed use, the Proposed Use Other field is displayed
- Proposed Use Other (**required IF “Other” selected in Proposed Use**) – proposed use of well that does not meet the pre-defined selections; only displayed if “Other” selected in Proposed Use
- TCEQ Approved Plan (**required IF “Public Supply” selected in Proposed Use**) – select if the well construction plan was approved by the Texas Commission on Environmental Quality (TCEQ); only displayed if “Public Supply” selected in Proposed Use
- TCEQ Public Water Supply Number {NEW} – the Texas Commission on Environmental Quality (TCEQ) public water system number for the entity having the well drilled; only displayed if “Public Supply” selected in Proposed Use

Drilling Date

The drilling dates for the drilled well.

- Drilling Start Date (**required**) – the date drilling activities began; cannot enter a Drilling Start Date that is after the Drilling End Date
- Drilling End Date (**required**) – the date drilling activities ended; cannot enter a Drilling End Date that is before the Drilling Start Date

Diameter of Hole

Information about the drilled borehole. Can enter multiple row intervals using the Add Row button.

- Diameter (**required**) – the diameter of the borehole reported in decimal inches, fractions are not allowed; a Decimal Conversion Chart is available to assist with converting fractions to decimals, for example $7 \frac{7}{8} = 7.875$
- Top Depth (**required**) – the top depth of the borehole interval, reported in decimal feet; cannot enter top depth greater than bottom depth (displayed as “From” on paper form)
- Bottom Depth (**required**) – the bottom depth of the borehole interval, reported in decimal feet; cannot enter bottom depth less than top depth (displayed as “To” on paper form)

Plugged Back

Information about plugging back the drilled borehole. Only used if the well was completed, just not to the maximum drilled depth. Can enter multiple row intervals using the Add Row button.

- Top Depth – the top depth of the plug back material reported in decimal feet; cannot enter top depth greater than bottom depth (displayed as “From” on paper form)
- Bottom Depth – the bottom depth of the plug back material reported in decimal feet; cannot enter bottom depth less than top depth (displayed as “To” on paper form)
- Plugged Back Material – the material used to plug the well back to a specific depth, select from the following:
 - Cement – a neat portland or construction cement mixture of not more than seven gallons of water per 94-pound sack of dry cement, or a cement slurry which contains cement along with bentonite, gypsum or other additives
 - Bentonite – a sodium hydrous aluminum silicate clay mineral (montmorillonite) commercially available in powdered, granular, or pellet form which is mixed with potable water and used for a variety of purposes including the stabilization of borehole walls during drilling, the control of potential or existing high fluid pressures encountered during drilling below a water table, and to provide a seal in the annular space between the well casing and borehole wall
 - Other – select if none of the above identify the plug back material
- Plugged Back Material Other (**required IF “Other” selected in Plug Back Material**) – plug back material used that does not meet the pre-defined selections

Lithology/Formation

Information about the geology of the drilled hole. Can enter multiple row intervals using the Add Row button.

- Top Depth (**required IF "New Well" or "Deepening" selected in Type Of Work**) – the top depth of the interval reported in decimal feet; cannot enter top depth greater than bottom depth (displayed as "From" on paper form)
- Bottom Depth (**required IF "New Well" or "Deepening" selected in Type Of Work**) – the bottom depth of the interval reported in decimal feet; cannot enter bottom depth less than top depth (displayed as "To" on paper form)
- Description (**required IF "New Well" or "Deepening" selected in Type Of Work**) – information about the properties of the subsurface material for the interval

Drilling Method

Information about the method used to drill the borehole. Can enter multiple row intervals using the Add Row button.

- Drilling Method (**required**) – the method used to drill the borehole, select from the following:
 - Mud (Hydraulic) Rotary – Drilling Mud is used to aid the cuttings out of the borehole; this method has the ability to drill through unconsolidated ground formations and achieve good hole stability
 - Air Rotary – high-flow air is injected through the drill string, cooling the bit, evacuating rock cuttings from the borehole and stabilizing the borehole during drilling
 - Driven – driven technology includes several types of drilling rigs and drilling equipment which advances a drill string by pushing and/or hammering without rotating the drill string
 - Bored – done with a helical screw which is driven into the ground with rotation; the earth is lifted up the borehole by the blade of the screw.
 - Air Hammer – similar to Air Rotary except a percussion hammer bit is used
 - Cable Tool – known as ballistic well drilling and sometimes called "spudders", these rigs raise and drop a drill string with a heavy carbide tipped drilling bit that chisels through the rock by finely pulverizing the subsurface materials
 - Jetted – high pressure water is used to create the borehole
 - Hollow Stem Auger – done with a helical screw which is driven into the ground with rotation, the earth is lifted up the borehole by the blade of the screw; it has a hollow core for removing core samples or drilling in softer ground where the hole will not stay open.
 - Reverse Circulation – similar to air core drilling, in that the drill cuttings are returned to surface inside the rods; the drilling mechanism is a pneumatic reciprocating piston known as a "hammer" driving a tungsten-steel drill bit.
 - Direct Push – the pipe is driven into the ground instead of being drilled
 - Other – select if none of the above identify the drilling method used

- Drilling Method Other (**required IF “Other” selected in Drilling Method**) – drilling method used that does not meet the pre-defined selections

Construction

Information about the well construction.

Borehole Completion

Information about the type of borehole completion. Can enter multiple row intervals using the Add Row button.

- Borehole Completion Type (**required**) – the process used to complete the drilled borehole, select from the following:
 - Straight Wall – a borehole that is drilled down without modification to the borehole wall
 - Filter Packed – a borehole that is completed to prevent sand or sediment from entering the well; accomplished by packing the exterior wall of the screen with filter media (between the borehole and casing)
 - Screened – screen(s) used to filter out unwanted sand and or gravel, usually installed at the bottom of casing, however the screen can be placed in multiple areas if the driller wants to produce from multiple zones
 - Perforated or Slotted – casing modified to allow water through the casing, sometimes the casing is drilled or sawed through to achieve the desired screen
 - Open Hole – usually drilled in rock formations and is left open all the way to the bottom of the borehole
 - Under-reamed – the rotation of the tool in the borehole cuts away the soil, which is carried to the center; when an upward force is applied to the kelly, the cutter arms are retracted and the **under-reaming** tool is lifted, the spoil is then removed by unhinging the bottom of the tool
 - Plugged – a well where the entire borehole is sealed
 - Other – select if none of the above identify the borehole completion type used
- Borehole Completion Type Other (**required IF “Other” selected in Borehole Completion Type**) – borehole completion type used that does not meet the pre-defined selections

Filter

Information on the filter packed intervals. Can enter multiple row intervals using the Add Row button. Only visible if “Filter Packed” selected in Borehole Completion Type.

- Top Depth (**required IF “Filter Packed” selected in Borehole Completion Type**) – the top depth of the filter packed interval reported in decimal feet; cannot enter top depth greater than bottom depth (displayed as “From” on paper form)
- Bottom Depth (**required IF “Filter Packed” selected in Borehole Completion Type**) – the bottom depth of the filter packed interval reported in decimal feet; cannot enter bottom depth less than top depth (displayed as “To” on paper form)

- Filter Material (**required IF “Filter Packed” selected in Borehole Completion Type**) – the type of material used in the filter packed interval, select from the following:
 - Gravel – a loose aggregation of small water-worn or pounded stones
 - Sand – a naturally occurring granular material composed of finely divided rock and mineral particles
 - Plastic – plastic media used to filter the sand or sediments out of the water
 - Other – select if none of the above identify the filter material used
- Filter Material Other (**required IF “Other” selected in Filter Material**) – filter material used that does not meet the pre-defined selections
- Size – the size of the filter material in inches

Casing

Information about the casing installed. If casing installed above ground, use negative value – example: casing 2 feet above ground, enter -2 in Top Depth. Can enter multiple row intervals using the Add Row button.

- Diameter – the diameter of the installed casing below land surface in decimal inches, fractions are not allowed; a Decimal Conversion Chart is available to assist with converting fractions to decimals
- New/Used – indicate if the installed casing is new or used
- Casing Material – the material used to make the installed casing, select from the following:
 - Steel – new ASTM A-53 Grade or better, and have a minimum weight and thickness of American National Standards Institute (ANSI) schedule 10
 - Plastic (PVC) – National Sanitation Foundation (WSF-WC) or American Society of Testing Material (ASTM) F-480 minimum SDR 26 approved water well casing
 - Stainless Steel – a steel alloy with a minimum of 10.5% chromium content by mass
 - Rod Base Stainless Steel – small rods running the vertical length of the screen made from a steel alloy with a minimum of 10.5% chromium content by mass
 - Pipe Base Stainless Steel – galvanized pipe with holes used as the base for the screen made from a steel alloy with a minimum of 10.5% chromium content by mass
 - Galvanized Steel – regular steel coated with galvanized coating
 - Fiberglass – a type of fiber reinforced plastic where the reinforcement fiber is specifically glass fiber
 - Other – select if none of the above identify the casing material
- Casing Material Other (**required IF “Other” selected in Casing Material**) – casing material that does not meet the pre-defined selections
- Casing Type – the type of casing used for the interval, select from the following:
 - Blank – casing without any modifications
 - Riser – casing that extends from top of opening to above ground surface, mostly in monitor wells
 - Screen – used to filter the water from the existing sand, rock or gravel and is manufactured screen that is mill slotted at the factory
 - Perforated or Slotted – casing modified to allow water through the casing, sometimes the casing is drilled or sawed through to achieve the desired screen

- Other – select if none of the above identify the type of casing
- Casing Type Other (**required IF “Other” selected in Casing Type**) – type of casing that does not meet the pre-defined selections
- Schedule – a rating of pipe given by the American National Standards Institute (ANSI)
- Top Depth – the top depth of the installed casing reported in decimal feet; cannot enter top depth greater than bottom depth (displayed as “From” on paper form)
- Bottom Depth – the bottom depth of the installed casing reported in decimal feet; cannot enter bottom depth less than top depth (displayed as “To” on paper form)
- Gauge – thickness of the casing

Annular Seal

Information about the annular seal and distances to certain features.

- Seal Method (**required**) – the method used to seal the annular space between the installed casing and drilled borehole wall, select from the following:
 - Hand Mixed – cement or concrete mixed with water by hand or with a tool
 - Poured – cement poured into the borehole by hand
 - Slurry – a mixture of cement and water that is pliable and is readily pumped through a pipe downhole
 - Gravity – the procedure for allowing the cement or bentonite to use the earth’s gravity to get down to the desired depth
 - Tremie – a procedure that uses a pump to convey cement down the borehole via pipe, hose or tube
 - Pressure – see Positive Displacement
 - Pumped – see Tremie
 - Positive Displacement – the process in which the cement, bentonite or a combination of the two sealing materials is forced through the well casing followed by water or drilling fluids, via a mechanical pump and out through relief holes in the casing at the maximum depth of the zone to be grouted; the grout then returns under pressure to the surface through the annular space and upon curing or setting causing an annular seal
 - Not Applicable – annular seal is not required or installed for the well
 - Other – select if none of the above identify the seal method
- Seal Method Other (**required IF “Other” selected in Seal Method**) – seal method used that does not meet the pre-defined selections; only displayed if “Other” selected in Seal Method
- Distance to Septic Field or Other Concentrated Contamination – the distance between the well and the septic soil absorption fields or the septic spray heads or any concentrated sources of potential contamination
- Distance To Septic Tank – the distance between the well and the septic tank in feet
- Distance to Property Line – the distance between the well and the property line in feet
- Distance To Septic Verification Method – method used to measure the distance between the well and septic such as measuring tape or the method in which information was acquired about the distance between the well and septic

- Approved By Variance – if unable to comply with the existing rules, apply for a variance to use alternative methods for well placement and construction; enter the unique variance number provided by TDLR, for example 0921-21
- Sealed By Driller – select “Yes” if the annular space was sealed by the driller, select “No” if someone other than the driller sealed the annular space
- Sealed By Name (**required IF “No” selected in Sealed By Driller**) – the name of the person or company that sealed the annular space of the drilled well

Seal Range

Information about the intervals of annular seal. If sealed above ground, use negative value – example: sealed 2 feet above ground, enter -2 in Top Depth. Can enter multiple row intervals using the Add Row button.

- Top Depth – the top depth of the sealed interval reported in decimal feet; cannot enter top depth greater than bottom depth (displayed as “From” on paper form)
- Bottom Depth – the bottom depth of the sealed interval reported in decimal feet; cannot enter bottom depth less than top depth (displayed as “To” on paper form)
- Seal Material – the material used to seal the annular space, select from the following:
 - Cement – a neat portland or construction cement mixture of not more than seven gallons of water per 94-pound sack of dry cement, or a cement slurry which contains cement along with bentonite, gypsum or other additives
 - Bentonite – a sodium hydrous aluminum silicate clay mineral (montmorillonite) commercially available in powdered, granular, or pellet form which is mixed with potable water and used for a variety of purposes including the stabilization of borehole walls during drilling, the control of potential or existing high fluid pressures encountered during drilling below a water table, and to provide a seal in the annular space between the well casing and borehole wall
 - Concrete – composite material composed of aggregate bonded together with a fluid cement which hardens over time
 - Sand – naturally occurring granular material composed of finely divided rock and mineral particles; finer than gravel and coarser than silt
 - Grout – fluid form of concrete or bentonite which is used to seal the annular space of a well
 - Other – select if none of the above identify the seal material
- Seal Material Other (**required IF “Other” selected in Seal Material**) – seal material used that does not meet the pre-defined selections.
- Amount – the amount of material used to seal the annular space interval
- Amount Unit – the units used to reference the amount of material used to seal the annular space interval, select from the following:
 - Bags/Sacks – bags or sacks of cement are used to create the annular seal
 - Cubic Feet – when a cementing company is hired or cement is pumped from a cement truck, cubic feet of seal material is generally reported
 - Yards – English unit of length that comprises 3 feet or 36 inches
 - Plugs – mass of concrete or bentonite already hardened

- Chips – bentonite formed to 3/8 inch to 1/2 inch sizes for use in a well or to plug a well that will penetrate a minimum of 100 feet of water before expanding and creating a seal
- Other – select if none of the above identify the seal amount unit
- Amount Unit Other Description (**required IF “Other” selected in Amount Unit**) – amount unit of seal material that does not meet the pre-defined selections

Surface Completion

Information about the surface completion of the well.

- Completed By Driller – select if the surface completion of the well was completed by the driller
- Surface Completion Method – the type of surface completion used on the well, select from the following:
 - Surface Slab Installed – a cement slab or block that shall extend laterally at least two (2) feet from the well in all directions and have a minimum thickness of four (4) inches and should be separated from the well casing by a plastic or mastic coating or sleeve to prevent bonding of the slab to the casing
 - Surface Sleeve Installed – a steel or polyvinyl chloride (PVC) sleeve that is twenty-four (24) inches in length, and either sleeve used shall extend twelve (12) inches into the cement, except when steel casing or a pitless adapter is used
 - Pitless Adapter Used – a device used to place the water discharge line underground to prevent freezing
 - Steel Cased – a well cased with steel pipe
 - Alternative Procedure Used – an approved alternate method used, enter information in comments section
 - Other – select if none of the above identify the surface completion type
- Surface Completion Method Other (**required IF “Other” selected in Surface Completion Method**) – surface completion method used that does not meet the pre-defined selections; only displayed if “Other” selected in Surface Completion Method

Packers

Information about packers used in the well. Can enter multiple row intervals using the Add Row button.

- Packer Type – the type of packer used, select from the following:
 - Bentonite – a sodium hydrous aluminum silicate clay mineral (montmorillonite) commercially available in powdered, granular, or pellet form which is mixed with potable water and used for a variety of purposes including the stabilization of borehole walls during drilling, the control of potential or existing high fluid pressures encountered during drilling below a water table, and to provide a seal in the annular space between the well casing and borehole wall
 - Rubber – natural rubber material placed around the casing to hold materials in place or to partially block off zones

- Plastic – 4 to 8 feet of plastic wrapped around the casing to hold materials in place or to partially block off zones
- Burlap – also called “shirt tail packer”, 4 to 8 feet of cloth wrapped around the casing to create a seal to hold materials in place
- K-Packer – provide a sand tight seal between the well screen and casing and are typically used on the top of telescope size screens
- Paper – 4 to 8 feet of paper wrapped around the casing to hold materials in place or to partially block off zones
- Other – select if none of the above identify the packer type
- Packer Type Other (**required IF “Other” selected in Packer Type**) – packer type used that does not meet the pre-defined selections
- Depth – the depth of the packer from land surface reported in decimal feet

Post Construction

Information about the well after construction.

Water Level

Information about the water level in the well. Can enter multiple row intervals using the Add Row button.

- Measurement Date – date of the water level measurement, cannot enter a date less than the Drilling Start Date
- Measurement – the measurement of the water level in the well, recorded as decimal feet below land surface, cannot enter if value in Artesian Flow
- Artesian Flow – the flow rate of the water in the well, recorded as gallons per minute (GPM), cannot enter if value in Measurement
- Measurement Method – the method used to measure the water level or artesian flow of the well, select from the following:
 - Steel Tape – flat steel surveyor’s tape usually graduated in feet
 - Electric Line – sometimes called E-Line, flat tape with a probe on the end that signals when the probe contacts water
 - Air Line – method using compressed gas pumped into tubing of known length with a gauge to calculate the amount of water above the end of tubing; not very accurate
 - Sonic/Radar – device that uses either sonic or radar to obtain water level; not very accurate
 - Transducer – device submersed below the water level that measures water pressure, then calibrated to output the depth to water from land surface; must know the depth to water level at install for calibration
 - Logging Sonde – a water quality monitoring instrument, that may be stationary or may move up and down a water column, measuring, but not limited to, the following water attributes; temperature, conductivity, salinity, dissolved oxygen, pH, turbidity, and depth

- Pressure Gauge – used for flowing, or artesian, wells; gauge fitted to discharge valve on well that reads either pounds per square inch (psi) or feet of water above end (to calculate feet of water multiply psi reading by 2.31)
- Other – select if none of the above identify the measurement method
- **Measurement Method Other** (*required IF “Other” selected in Measurement Method*) – measurement method used that does not match the pre-defined selections

Pump

Information about the pump installed in the well.

- **Pump Type** – the type of pump installed in the well, select from the following:
 - Submersible – a device which has a hermetically sealed motor close-coupled to the pump body to push water up the well
 - Turbine – a centrifugal pump that is mainly used to pump water from deep wells or other underground and man-made bodies of water to water distribution systems
 - Piston – a type of positive displacement pump where the high-pressure seal reciprocates with the piston; also used to move liquids or compress gases
 - Jet – a centrifugal pump with a jet (venturi) attached, either at the pump (shallow well) or in the well (deep well); while the centrifugal part of the pump uses centrifugal force and the atmosphere to work, the jet uses hydraulics and the atmosphere; jet pumps primary function is to increase pressure (shallow or deep well), or help draw water from a deeper depth (deep well only)
 - Cylinder – a device that contains valves and leathers (seals) that provide lift to pump the water out of the well
 - Other – select if none of the above identify the pump type
- **Pump Type Other** (*required IF “Other” selected in Pump Type*) – pump type in well that does not match the pre-defined selections; only displayed if “Other” selected in Pump Type
- **Pump Depth** – the depth to the pump bowl, reported in decimal feet from land surface

Water Test

Information about the test done on well production. Can enter multiple row intervals using the Add Row button.

- **Water Test Type** – the type of test performed on the well, select from the following:
 - Pump – a device is placed in the well to push or pump water to the surface
 - Bailer – a cylindrical device is dropped down the well to retrieve water
 - Jetted – an air hose is placed down the well which creates a pressure and pushes the water to the surface
 - Estimated – an educated guess as to the production value of the well
 - Other – select if none of the above identify the well test type
- **Water Test Type Other** (*required IF “Other” selected in Well Test Type*) – type of test performed that does not match the pre-defined selections
- **Yield** – the production value of the well, reported in gallons per minute (GPM)

- Drawdown – the maximum decline of water level from non-pumping static water level in well, reported in decimal feet below static level (example: static water level = 100 and maximum decline water level = 150 then drawdown = 50)
- Test Hours – the duration of the well test, reported in decimal hours (example: 30 minutes = 0.5 hours)

Depth of Strata

Information about the strata depth. If only one depth for the strata, enter in Top Depth and leave Bottom Depth blank. Can enter multiple row intervals using the Add Row button.

- Top Depth – the top depth of the strata, reported in decimal feet; cannot enter top depth greater than bottom depth (displayed as “From” on paper form)
- Bottom Depth – the bottom depth of the strata, reported in decimal feet; cannot enter bottom depth less than top depth (displayed as “To” on paper form)
- Producing Water Type – description of the type of water produced in the well

Water Quality

Information about the water quality of the well.

- Was there a chemical analysis made? (**required**) – select “Yes” or “No”
- Did you knowingly penetrate a strata which contains injurious constituents? (**required**) – select “Yes” or “No”
- Do you certify that while drilling, deepening, or otherwise altering the above described well, **injurious water or constituents was encountered** and the landowner or person having the well drilled was informed that such well must be completed or plugged in such a manner as to avoid injury or pollution? (**required**) – select “Yes” or “No”

Injurious Constituent

Information about the strata that contains injurious constituents. Can enter multiple row intervals using the Add Row button. Only visible if “Yes” selected for ‘Did you knowingly penetrate a strata which contains injurious constituents?’.

- Top Depth (**required IF “Yes” selected for ‘Did you knowingly penetrate...’**) – the top depth of the strata containing injurious constituents, reported in decimal feet; cannot enter top depth greater than bottom depth
- Bottom Depth (**required IF “Yes” selected for ‘Did you knowingly penetrate...’**) – the bottom depth of the strata containing injurious constituents, reported in decimal feet; cannot enter bottom depth less than top depth
- Constituent Type (**required IF “Yes” selected for ‘Did you knowingly penetrate...’**) – the type of injurious constituent encountered, select from the following:
 - Natural – Gypsum: naturally occurring gypsum
 - Natural – Saline/Brackish: naturally occurring saline water
 - Natural – Iron: naturally occurring iron
 - Natural – Sulphur: naturally occurring sulphur

- Natural – Other: select if none of the above identify the naturally occurring constituent
- Unnatural – Hydrocarbon Contamination (gasoline, diesel, etc.): encountered hydrocarbon contamination
- Unnatural – Hazardous Waste Contamination: encountered hazardous waste contamination
- Unnatural – Other: select if none of the above identify the unnaturally occurring constituent
- Constituent Type Other (**required IF “Natural – Other” or “Unnatural – Other” selected in Constituent Type**) - type of constituent that does not match the pre-defined selections

Overall Comments

Other information not collected about the well.

- Comments – enter any information about the well that was not collected in the form

View/Submit Draft Report

Final review of the draft report before submission.

- Plugged within 48 hours – check this box if the well was plugged within 48 hours of drilling completion; after submitting the well report the user is prompted to complete the plugging report for the well
- Driller Signature (**required**) – type the name of the driller of the well
- Unlicensed Assistant/Apprentice Signature – type the name of the unlicensed assistant or apprentice that aided in drilling the well
- Apprentice Registration Number – the registration number for the apprentice that aided in drilling the well

To view the draft well report in PDF format, click the ‘View Draft Report’ button. ***At this point the well report is not submitted and is in draft form only.***

If all the information is correct, press the “Submit” button.

View Submitted Report

To view the submitted well report with the assigned Well Report Tracking Number in PDF format, click the View button on the Submitted Well Reports list.

If the Plugged within 48 hours box was checked, the user is prompted if the well was indeed plugged within 48 hours; a Plugging Report is created using the information from the Well Report. Click Yes to proceed to plugging report creation, click No to remove the Plugged within 48 hours check and submit the well report. See the section on New Plugging Report for instructions.

Saved Well Reports

To access the saved well reports, first select a driller from the Drillers List. By default the Saved Well Reports page is displayed after selecting a driller, but is also accessed by clicking on the left menu item. All saved (not submitted) well reports for the driller are listed.

- View – click to view the formatted DRAFT Well Report
- Edit – continue entering information on the well report
- Delete – completely remove the well report, this deletes all saved information for the well report
- Owner – the owner name, only displayed if entered in report
- County – the county where the well is located, only displayed if entered in the report
- Last Update Date – the date of the last time the report was edited
- Last Saved By – the name of the person that last edited the report

Submitted Well Reports

To access the submitted well reports, first select a driller from the Drillers List. On the left menu click Submitted Well Reports. All submitted well reports for that driller are listed. Clicking on the column headers of the table will sort the table ascending/descending by that column's values. Some columns have a text box for filtering the table. Enter the text in the box and press Enter to filter the table. Partial information is acceptable, for example: entering "sm" in the Owner column filter box and pressing enter will display all records where the letters "sm" appear in the Owner column. While the table only displays 25 records at a time, the sort and filter function work through all records not just the ones displayed on the screen.

- View – click to view the formatted Well Report
- Amend – click to request an amendment to the well report, see Well Report Amendment Request in the next section
- Copy – click to "Copy" the submitted well report, edit the information as needed and submit as a new well report, only available for well reports that were entered using the new system (after 9/28/2015)
- Delete – click to submit a Deletion Request for the submitted well report
 - If the deletion is because of duplicate reports, enter the Well Report Tracking Number for the well report that will remain active
 - Enter the reason for the Deletion Request in the Amender Comments box
 - Handled the same as an Amendment Request, must be approved by staff

- Well Tracking Number – the well report tracking number for the report
- Owner – the owner name
- County – the county where the well is located
- Date Submitted – the date the well report was submitted into the system
- Submitted By – the name of the person that submitted the well report, for reports submitted using the old system this shows as “ITAdmin”
- Confidential – if “yes” the well is listed as confidential, only users associated to the driller of the confidential report can view the report
- Inspection Date – the date of a well site inspection performed by TDLR
- Plugging Report – click to view the formatted Plugging Report for the well report if one exists, button is greyed out if no plugging report exists

Well Report Amendment Request

To request an amendment to a Submitted Well Report, first select a driller from the Drillers List. On the left menu click Submitted Well Reports. Find the well report and click the Amend button. It no longer matters if the amendment request is before or after seven days.

- Well Report Amendment Reason (**required**) – reason for requesting an amendment, select from the following:
 - Typographical Error or Misspelling – inadvertently entered incorrect information
 - Incorrect Box Check/Selection – inadvertently checked the wrong box, or selected the wrong item in a list
 - Omission of Data – inadvertently forgot to enter some information
 - Other – select if none of the above identify the reason for requesting the amendment
- Well Report Amendment Reason Other (**required IF “Other” selected in Well Report Amendment Reason**) – reason for amendment request that does not match the pre-defined selections
- Amender Comments (**required**) – enter the section(s) of the reports amended and any other comments about the amendment request (i.e. updated Lithology, changed owner name, etc.)

Unlike the old system, the user requesting the amendment makes all updates or changes directly in the application and submits the report just like it is a new well report. The user must click through each screen in the report to submit the amendment request.

Saved Well Amendments

To access the saved well amendments, first select a driller from the Drillers List. All saved (not submitted) well amendments for the driller are listed.

- View – click to view the formatted DRAFT amended Well Report
- Edit – continue entering information on the amended well report
- Delete – completely remove the amended well report, this deletes all saved information for the amended well report
- Well Report Tracking Number – the well report tracking number of the amended well report
- Owner – the owner name, only displayed if entered in amended report
- County – the county where the well is located, only displayed if entered in the amended report
- Last Update Date – the date of the last time the amended report was edited
- Last Saved By – the name of the person that last edited the amended report

Submitted Well Amendments

To access the submitted well amendments, first select a driller from the Drillers List. On the left menu click Submitted Well Amendments. All submitted well amendments for that driller are listed. Clicking on the column headers of the table will sort the table ascending/descending by that column's values. Some columns have a text box for filtering the table. Enter the text in the box and press Enter to filter the table. Partial information is acceptable, for example: entering "sm" in the Owner column filter box and pressing enter will display all records where the letters "sm" appear in the Owner column. While the table only displays 25 records at a time, the sort and filter function work through all records not just the ones displayed on the screen.

- View – click to view the DRAFT amended Well Report, the button is greyed out when the amendment is approved
- Reference Number – the unique number for the well report amendment request
- Status – the current status of the submitted amendment request: Pending, Approved, Denied
- Well Report Tracking Number – the well report tracking number for the amended report
- Owner – the owner name
- County – the county where the well is located
- Date Submitted – the date the well report amendment request was submitted into the system

- Submitted By – the name of the person that submitted the well report amendment request, for amendment requests submitted using the old system this shows as “ITAdmin”
- Amendment Summary Report – click to view information about amendment request

New Plugging Report

To create a new plugging report, press the “Select” button next to the desired driller on the Drillers List page. The Saved Plugging Reports page is displayed showing all saved plugging reports for the driller. Click the “Add New Plugging Report” button to begin. The user can also initiate a new plugging report by clicking on the driller row (not the “Select” button) on the Drillers List page to highlight the row and then click the New Plugging Report item on the left menu.

Change Driller

If the user account is associated with more than one driller, and begins a new plugging report using the incorrect driller for the report, click Change Driller on the left menu. This navigates back to the Drillers List where the user may select a different driller for the plugging report. After selecting the proper driller, press the Change Driller button. Press the Cancel button to retain the originally selected driller.

Well Report Tracking Number

After initiating a new plugging report, a pop up displays asking “Do you have a well report tracking number for this plugging report?”

- Yes – click if the plugged well has a valid Well Report Tracking Number, another pop up will display to enter the number
 - If the Well Report Tracking Number is verified, all relevant information from the well report copies to the plugging report
 - All copied information is editable
- No – click if the plugged well does not have a valid Well Report Tracking Number
- Cancel – click to cancel the act of creating a plugging report

Current Well Owner

Information about the person(s) or entity having the well plugged.

- Address is outside United States – check the box if the owner’s address is outside of the United States; the fields Owner State and Owner Zip Code are replaced by the field Owner Country
- Owner Name (required) – name of person(s) or entity having the well plugged
- Owner Address1 (required) – mailing street address of owner
- Owner Address2 – continued mailing street address for owner (apartment number, building number, etc.)
- Owner City (required) – city of street address for owner
- Owner Country (required IF “Address is outside United States” is checked) – country of street address for owner; only displayed if “Address is outside United States” box is checked

- Owner State (**required**) – state of street address for owner, select from list
- Owner Zip Code (**required**) – 5 digit zip code of street address for owner
- Owner Email – email address for owner

Well Location

Information about the physical location of the plugged well.

- County (**required**) – Texas county where the plugged well is located
- Coordinate Format (**required**) – the format for the reported latitude and longitude of the plugged well, select from the following:
 - Degrees Minutes Seconds (DMS) – example 29° 30' 59"
 - Degrees Decimal Minutes (DDM) – example 29° 30.98333'
 - Decimal Degrees (DD) – example 29.516388°
- Latitude (**required**) – angular distance of the plugged well north of the equator, enter in the specified coordinate format
- Longitude (**required**) – angular distance of the plugged well west of the Prime Meridian, enter in the specified coordinate format
- Horizontal Datum {NEW}– model used to obtain the latitude and longitude of the plugged well, select from the following:
 - NAD27 – North American Datum of 1927
 - NAD83 – North American Datum of 1983
 - WGS84 – World Geodetic System of 1984 (most newer global positioning systems use this)
- Elevation – the vertical distance of the land surface at the plugged well from sea level, reported in feet
- Well Address Same As Owner Address – check this box if the address entered in the owner section is the same as the address of the plugged well, when checked the address information will automatically enter into the well address fields
- Well Address1 (**required IF Well Location Description is blank**) – the valid 9-1-1 street address of the plugged well
- Well Address2 – continued valid 9-1-1 street address of the plugged well
- Well City (**required**) – city of the plugged well location
- Well Zip Code – 5 digit zip code of the plugged well location
- Well Location Description (**required IF Well Address1 is blank**) – narrative description of the well location, used if valid 9-1-1 address does not exist; example: on FM 32, 3.5 miles west of FM 12 intersection
- Owner Well Number – the name or number used by the owner to identify the plugged well
- Original Number of Wells Plugged – only used if multiple wells plugged at the same location and only allowed for environmental soil borings, de-watering, monitor and injection wells

Location Verification

Before continuing, the plugged well location is verified using the entered county and coordinates. Entry of information in any sections, other than Well Owner and Well Location, is forbidden until the location is verified. Once verified, all sections of the plugging report are open for entry. If either the county or coordinate information is changed, location verification is again required.

The Well Location Map Viewer displays the entered location of the plugged well. Moving the cursor over the point displays information about the location. If the plugged well location plots within the selected county, the selected county is highlighted blue. If the plugged well location plots outside the selected county, the selected county is highlighted blue and the plotted county is highlighted grey. The coordinates must match the county selected for valid location verification. A buffer is used for those locations at or near a county line, allowing for valid location verification.

The map viewer contains basic controls such as zooming in, zooming out and panning. There is a base map toggle feature in the upper left corner to select either “Road” view or “Bird’s Eye” (aerial photography) view.

Original Drilling Information

Information about the original drilling information for the plugged well.

Well Use

The last type of use for the plugged well.

- Type of Well (**required**) – select from the following:
 - Withdrawal of Water – well was used to bring water to the surface
 - Monitor – an artificial excavation that is constructed to measure or monitor the quantity or movement of substances below the surface of the ground, and that is not used in conjunction with the production of oil, gas, or other minerals
 - Injection – this term includes:
 - An air-conditioning return flow well used to return water that has been used for heating or cooling in a heat pump to the aquifer that supplied the water
 - A cooling water return flow well used to inject water that has been used for cooling
 - A drainage well used to drain surface fluid into a subsurface formation
 - A recharge well used to replenish water in an aquifer
 - A saltwater intrusion barrier well used to inject water into a freshwater aquifer to prevent the intrusion of salt water into fresh water
 - A sand backfill well used to inject a mixture of water and sand, mill tailings, or other solids into subsurface mines
 - A subsidence control well used to inject fluids into a non-oil-producing or non-gas-producing zone to reduce or eliminate subsidence associated with the overdraft of fresh water
 - A closed system geothermal well used to circulate water, other fluids, or gases through the earth as a heat source or heat sink

- De-watering – a well used to remove water from the water table closed to the surface for construction purposes
- Domestic – household use (only) well
- Stock – a well used to fill a stock tank or to water livestock
- Irrigation – a well drilled solely for agricultural purposes to water crops
- Public Supply – a well that has 15 or more service connections or serves 25 or more individuals 60 days out of a year; there can be multiple wells that meet the requirement and are still considered a Public Supply Well for a Public Water System, which requires approval from the Texas Commission on Environmental Quality (TCEQ)
- Rig Supply – a well drilled to supply water to an oil or gas rig at a drilling site
- Fracking Supply – a well drilled to supply water for fracking oil and gas wells which is mixed with additives to break up the oil or gas formations
- Test Well – a well drilled to explore for groundwater
- Industrial – a well drilled to supply water for industrial or manufacturing and is not used for drinking unless it meets the requirements for a Public Water System, which required approval from the Texas Commission on Environmental Quality (TCEQ)
- Environmental Soil Boring – an artificial excavation constructed to measure or monitor the quality and quantity or movement of substances, elements, chemicals, or fluids beneath the surface of the ground; the term shall not include any well that is used in conjunction with the production of oil, gas, or any other minerals
- Closed-Loop Geothermal – a vertical closed system well used to circulate water, and other fluids or gases through the earth as a heat source or heat sink
- Extraction – a well used for extraction of chemicals, vapors and groundwater in a remedial process to remove contaminated groundwater
- Other – select if none of the above identify the proposed use, the Proposed Use Other field is displayed
- Type of Well Other (**required IF “Other” selected in Type of Well**) – type of well that does not meet the pre-defined selections; only displayed if “Other” selected in Type of Well

Original Driller

Information about the driller of the plugged well.

- Original Driller License Number – the license number of the driller that drilled the well
- Original Driller Company – the company name of the driller that drilled the well
- Original Driller Name – the name of the driller that drilled the well

Original Drilling Date

Information about the date of drilling for the plugged well.

- Drilling Date – the date of well drilling completion

Well Hole Diameter

Information about the drilled borehole. Can enter multiple row intervals using the Add Row button.

- Diameter – the diameter of the borehole reported in decimal inches, fractions are not allowed; a Decimal Conversion Chart is available to assist with converting fractions to decimals
- Top Depth – the top depth of the borehole interval, reported in decimal feet; cannot enter top depth greater than bottom depth (displayed as “From” on paper form)
- Bottom Depth – the bottom depth of the borehole interval, reported in decimal feet; cannot enter bottom depth less than top depth (displayed as “To” on paper form)

Plugging Information

Information on how the well was plugged.

Plug Date

Date when well was plugged.

- Plug Date (**required**) – the date of well plugging completion

Plug Method

Information on how the well was plugged.

- Plugging Method (**required**) – the method used to plug the well, select from the following:
 - Tremmie pipe cement from bottom to top – as described
 - Tremmie pipe bentonite from bottom to 2 feet from surface, cement top 2 feet – as described
 - Pour in 3/8 bentonite chips when standing water in well is less than 100 feet depth, cement top 2 feet – as described
 - Large diameter well filled with clay material from top to bottom – as described
 - Other – select if none of the above identify the plugging method
- Plug Method Other (**required IF “Other” selected in Plug Method**) – plugging method used that does not meet the pre-defined selections
- Plugging Name – the name of the person that plugged the well
- Plug Variance – if unable to comply with the existing rules, apply for a variance to use alternative methods for well plugging; enter the unique variance number provided by TDLR, for example 0921-21

Casing Left in Hole

Information about the casing left in the well. If casing is left above ground, use negative value – example: casing 2 feet above ground, enter -2 in Top Depth. Can enter multiple row intervals using the Add Row button.

- Diameter – the diameter of the casing left in the well below land surface in decimal inches, fractions are not allowed; a Decimal Conversion Chart is available to assist with converting fractions to decimals
- Top Depth – the top depth of the casing left in the well reported in decimal feet; cannot enter top depth greater than bottom depth (displayed as “From” on paper form)

- Bottom Depth – the bottom depth of the casing left in the well reported in decimal feet; cannot enter bottom depth less than top depth (displayed as “To” on paper form)

Plug Range

Information about the material used to plug the well. Can enter multiple row intervals using the Add Row button.

- Top Depth (**required**) – the top depth of the plugging interval reported in decimal feet; cannot enter top depth greater than bottom depth (displayed as “From” on paper form)
- Bottom Depth (**required**) – the bottom depth of the plugging interval reported in decimal feet; cannot enter bottom depth less than top depth (displayed as “To” on paper form)
- Plug Material (**required**) – the material used to plug the well, select from the following:
 - Cement – a neat portland or construction cement mixture of not more than seven gallons of water per 94-pound sack of dry cement, or a cement slurry which contains cement along with bentonite, gypsum or other additives
 - Bentonite – a sodium hydrous aluminum silicate clay mineral (montmorillonite) commercially available in powdered, granular, or pellet form which is mixed with potable water and used for a variety of purposes including the stabilization of borehole walls during drilling, the control of potential or existing high fluid pressures encountered during drilling below a water table, and to provide a seal in the annular space between the well casing and borehole wall
 - Concrete – composite material composed of aggregate bonded together with a fluid cement which hardens over time
 - Sand – naturally occurring granular material composed of finely divided rock and mineral particles; finer than gravel and coarser than silt
 - Grout – fluid form of concrete or bentonite which is used to seal the annular space of a well
 - Other – select if none of the above identify the plug material
- Plug Material Other (**required IF “Other” selected in Plug Material**) – plug material used that does not meet the pre-defined selections
- Amount – the amount of material used to plug the well
- Amount Unit – the units used to reference the amount of material used to plug the well, select from the following:
 - Bags/Sacks – bags or sacks of cement are used to create the annular seal
 - Cubic Feet – when a cementing company is hired or cement is pumped from a cement truck, cubic feet of seal material is generally reported
 - Yards – English unit of length that comprises 3 feet or 36 inches
 - Plugs – mass of concrete or bentonite already hardened
 - Chips – bentonite formed to 3/8 inch to 1/2 inch sizes for use in a well or to plug a well that will penetrate a minimum of 100 feet of water before expanding and creating a seal
 - Other – select if none of the above identify the plug amount unit
- Amount Unit Other Description (**required IF “Other” selected in Amount Unit**) – amount unit of plug material that does not meet the pre-defined selections

Plug Comments

Other information not collected about the well plugging.

- Overall Plug Comments – enter any information about the well plugging that was not collected in the form

View/Submit Draft Report

Final review of the draft report before submission.

- Driller Signature (**required**) – type the name of the driller that oversaw plugging of the well
- Unlicensed Assistant/Apprentice Signature – type the name of the unlicensed assistant or apprentice that aided in plugging the well
- Apprentice Registration Number – the registration number for the apprentice that aided in plugging the well

To view the draft well report in PDF format, click the ‘View Draft Report’ button. ***At this point the plugging report is not submitted and is in draft form only.***

If all the information is correct, press the “Submit” button.

View Submitted Report

To view the submitted plugging report with the assigned Plugging Report Tracking Number in PDF format, click the View button on the Submitted Plugging Reports list.

Saved Plugging Reports

To access the saved plugging reports, first select a driller from the Drillers List. By default the Saved Well Reports page is displayed after selecting a driller. On the left menu select Saved Plugging Reports. All saved (not submitted) plugging reports for the driller are listed, with three action buttons next to each saved report.

- View – click to view the formatted DRAFT Plugging Report
- Edit – continue entering information on the plugging report
- Delete – completely remove the plugging report, this deletes all saved information for the plugging report
- Owner – the owner name, only displayed if entered in report
- County – the county where the well is located, only displayed if entered in the report
- Last Update Date – the date of the last time the report was edited
- Last Saved By – the name of the person that last edited the report

Submitted Plugging Reports

To access the submitted plugging reports, first select a driller from the Drillers List. On the left menu click Submitted Plugging Reports. All submitted plugging reports for that driller are listed. Clicking on the column headers of the table will sort the table ascending/descending by that

column's values. Some columns have a text box for filtering the table. Enter the text in the box and press Enter to filter the table. Partial information is acceptable, for example: entering "sm" in the Owner column filter box and pressing enter will display all records where the letters "sm" appear in the Owner column. While the table only displays 25 records at a time, the sort and filter function work through all records not just the ones displayed on the screen.

- View – click to view the formatted Plugging Report
- Amend – click to request an amendment to the plugging report, see Plugging Report Amendment Request in the next section
- Delete – click to submit a Deletion Request for the submitted plugging report
 - If the deletion is because of duplicate reports, enter the Plug Report Tracking Number for the well report that will remain active
 - Enter the reason for the Deletion Request in the Amender Comments box
 - Handled the same as an Amendment Request, must be approved by staff

- Plugging Tracking Number – the plugging report tracking number for the report
- Owner – the owner name
- County – the county where the well is located
- Date Submitted – the date the plugging report was submitted into the system
- Submitted By – the name of the person that submitted the plugging report, for reports submitted using the old system this shows as "ITAdmin"
- Well Report – click to view the formatted Well Report for the plugging report if one exists, button is greyed out if no well report exists

Plugging Report Amendment Request

To request an amendment to a Submitted Plugging Report, first select a driller from the Drillers List. On the left menu click Submitted Plugging Reports. Find the plugging report and click the Amend button. It no longer matters if the amendment request is before or after seven days.

- Plugging Report Amendment Reason (required) – reason for requesting an amendment, select from the following:
 - Typographical Error or Misspelling – inadvertently entered incorrect information
 - Incorrect Box Check/Selection – inadvertently checked the wrong box, or selected the wrong item in a list

- Omission of Data – inadvertently forgot to enter some information
- Other – select if none of the above identify the reason for requesting the amendment
- **Plugging Report Amendment Reason Other (*required IF “Other” selected in Plugging Report Amendment Reason*)** – reason for amendment request that does not match the pre-defined selections
- **Amender Comments (*required*)** – enter the section(s) of the reports amended and any other comments about the amendment request (i.e. updated Plug Range, changed owner name, etc.)

Unlike the old system, the user requesting the amendment makes all updates or changes directly in the application and submits the report just like it is a new plugging report. The user must click through each screen in the report, even if it is a Deletion Request, to submit the amendment request.

Saved Plugging Amendments

To access the saved plugging amendments, first select a driller from the Drillers List. All saved (not submitted) plugging amendments for the driller are listed.

- **View** – click to view the formatted DRAFT amended Plugging Report
- **Edit** – continue entering information on the amended plugging report
- **Delete** – completely remove the amended plugging report, this deletes all saved information for the amended plugging report
- **Plugging Report Tracking Number** – the plugging report tracking number of the amended plugging report
- **Owner** – the owner name, only displayed if entered in amended report
- **County** – the county where the well is located, only displayed if entered in the amended report
- **Last Update Date** – the date of the last time the amended report was edited
- **Last Saved By** – the name of the person that last edited the amended report

Submitted Plugging Amendments

To access the submitted plugging amendments, first select a driller from the Drillers List. On the left menu click Submitted Plugging Amendments. All submitted plugging amendments for that driller are listed. Clicking on the column headers of the table will sort the table ascending/descending by that column’s values. Some columns have a text box for filtering the table. Enter the text in the box and press Enter to filter the table. Partial information is acceptable, for example: entering “sm” in the Owner column filter box and pressing enter will display all records where the letters “sm” appear in the Owner column. While the table only displays 25 records at a time, the sort and filter function work through all records not just the ones displayed on the screen.

- View – click to view the DRAFT amended Plugging Report, the button is greyed out when the amendment is approved
- Reference Number – the unique number for the plugging report amendment request
- Status – the current status of the submitted amendment request: Pending, Approved, Denied
- Plugging Report Tracking Number – the plugging report tracking number for the amended report
- Owner – the owner name
- County – the county where the well is located
- Date Submitted – the date the plugging report amendment request was submitted into the system
- Submitted By – the name of the person that submitted the plugging report amendment request, for amendment requests submitted using the old system this shows as “ITAdmin”
- Amendment Summary Report – click to view information about amendment request

Quick Reference Guide

For more reports and general information about the Submitted Drillers Reports (SDR) database, go to: <http://www.twdb.texas.gov/groundwater/data/drillersdb.asp>.

To search for well and plugging reports by map, use the new Water Data Interactive (WDI) Groundwater Data Viewer at:
<http://www2.twdb.texas.gov/apps/WaterDataInteractive/GroundWaterDataViewer/?map=sdr>.

Drillers List

After successful log in, click “Drillers List” on the left menu. This is the entry screen to the new TWRSRS.

Association to a Driller

Click the ‘Associate Driller’ button to enter the License Number and PIN for the driller; these are the same numbers used to login to the old TWRSRS application. A user account can associate to multiple drillers if they have the correct License Number and PIN of the drillers.

Edit Driller

Make sure this information is correct before creating a new report. The information on this screen is used as the driller information in the reports.

Left Menu

Use the General left menu to access different types of reports for the selected driller. Well and Plugging Reports can be saved at any point during report creation and accessed through the Saved Reports links.

View Draft Reports

On the last data entry page for well and plugging reports, click the ‘View Draft Report’ button to view/print the report and check for accuracy before submitting.

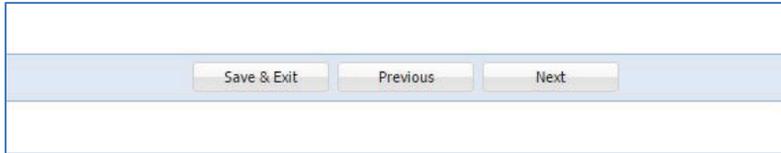
Amendments

After selecting the reason for the requested amendment, click through the report data entry pages and make the changes yourself. Enter the section where the changes occur in the Amender Comments field (i.e. owner’s name, lithology, casing, etc.).

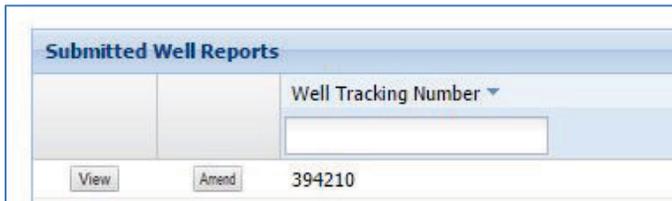
For Deletion Requests, click the Delete button next to the report in the Submitted Well Reports or Submitted Plugging Reports list.

Tips

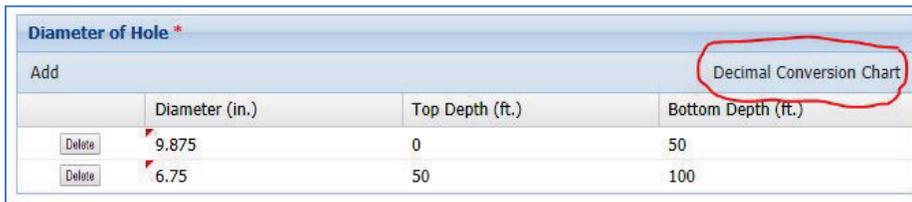
- When working in TWRSRS, **do not** use the browser navigation buttons ('back arrow' and 'forward arrow') to go back and forward in the application. Only use the navigation buttons at the bottom of the page ('Save & Exit', 'Previous', 'Next').



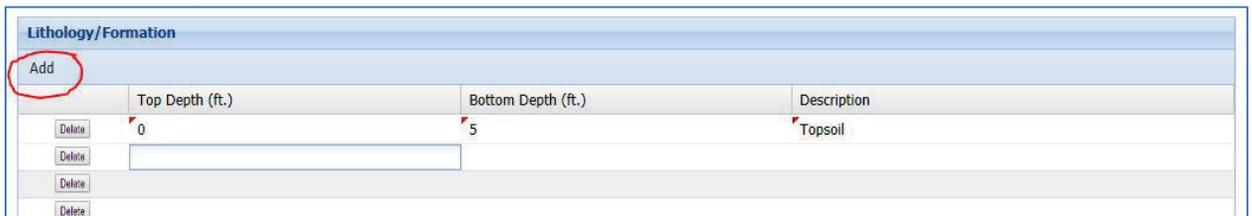
- To initiate an amendment request, go to Submitted Well Reports or Submitted Plugging Reports, find the report and click the 'Amend' button.



- The new application will not allow fractions for diameter of hole or casing diameter, only decimal numbers are accepted; click Decimal Conversion Chart button for help.



- When entering multiple intervals in Diameter of Hole, Lithology or Casing, click the 'Add' button to create several blank rows; then you can use the TAB key to work through the fields, delete any leftover blank rows.



- For above ground intervals in Casing and Seal Range, use a negative value in Top Depth field; for example, if blank casing installed 2 feet above ground enter -2 in Top Depth.

For questions or concerns about the new TWRSRS contact Bryan Anderson (TWDB) at bryan.anderson@twdb.texas.gov or 512-475-3302.