Frac Focus
Chemical Disclosure Registry

Frac Focus USER GUIDE

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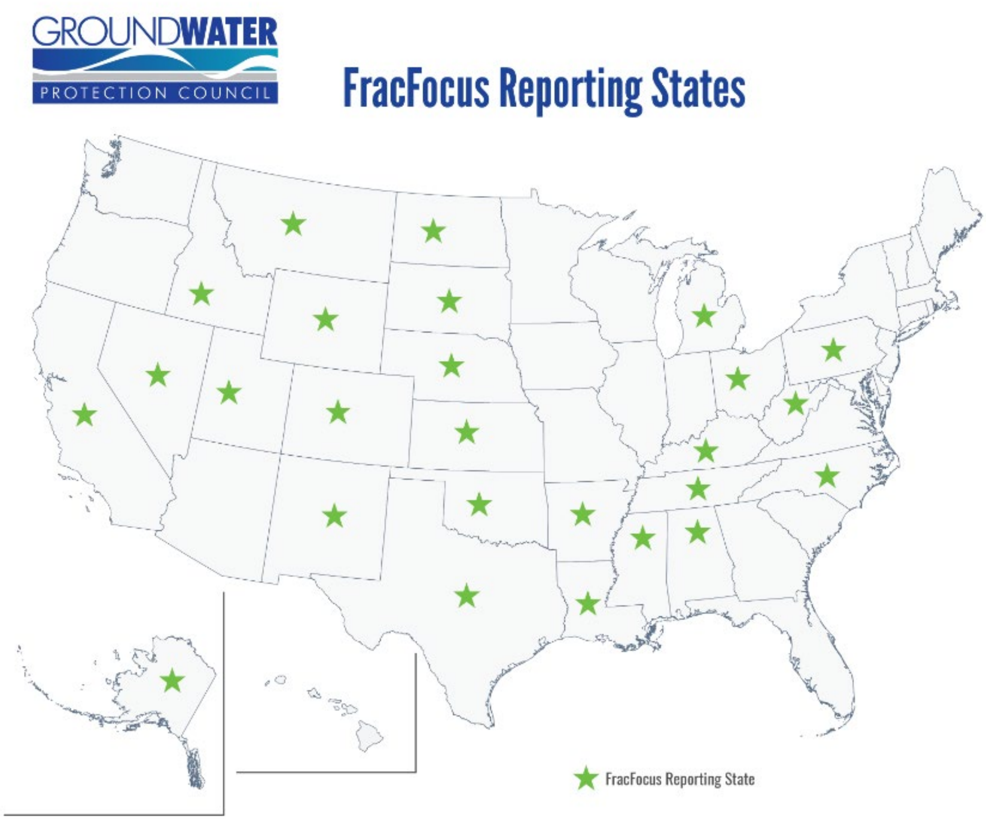
Guidelines for Entering Chemical Disclosure Data into FracFocus

Chapter 1 – Background

In April 2011, the FracFocus website (www.fracfocus.org) was launched. It provided a mechanism for oil and gas Operators to enter data on the names and quantities of the chemical ingredients used during the hydraulic fracturing of wells (frac fluids). Once the data was submitted, any interested person, including members of the general public, could search to find individual disclosures and view the data. The FracFocus website, known as the Chemical Disclosure Registry (or Registry), represented a unique resource and a useful repository of chemical usage information.

Initially, data entry into the Registry by Operators was voluntary. However, during the first year of FracFocus' existence, several state agencies adopted regulations requiring Operators to enter data into the Registry for each hydraulic fracture job performed on oil and gas wells. The number of wells for which data was entered into the Registry grew rapidly. As of 2023, 26 states either require or allow companies to officially disclose chemical data via FracFocus.



Chapter 2 – Introduction

Contents of This Guide

This guide includes information on the different components of the FracFocus application, users authorized to review and enter information, and how the information is reviewed and entered. Many screen shots are included to show users what the system looks like and to indicate where information should be entered when navigating the Registry.

There are areas of the application designated for specific entities. These include:

- **Operating Company** – Companies that operate wells that have had hydraulic fracturing jobs performed on them. This includes wells associated with the Oil & Gas industry and those outside of the industry. An Operating Company has the responsibility to submit their disclosure reports to FracFocus.
- **Registered Agents** – Operator approved consultants/users who support said Operators in reviewing, entering, and potentially submitting data on the Operator's behalf.
- **Service Companies** – Companies that typically conduct the hydraulic fracturing job and prepare the initial disclosure data for Operators.

The following chapters review the available actions for each entity and are created to provide comprehensive instructions on the system's use.

Defining Entities and Associated Roles

OPERATING COMPANY Company operating wells and identified as Responsible Operator by State Agencies.	**OPERATOR SUPERVISOR** User role responsible for managing the company's users, associations, and registration. **OPERATOR SUBMITTER** User role responsible for entering, validating, and submitting data to FracFocus.
REGISTERED AGENT Organization that supports Operators by entering, validating and potentially submitting disclosures.	**REGISTERED AGENT SUPERVISOR** User role responsible for managing the organization's users and registration. **REGISTERED AGENT USER** User role, when agent organization approved by operator, can submit disclosures for operator.
SERVICE COMPANY Company that typically performs the fracturing jobs and provides initial data to operator for review and submission.	**SERVICE COMPANY SUPERVISOR** User role responsible for managing the organization's users and registration. **SERVICE COMPANY USER** User role responsible for entering, validating, and routing data to Operators so they can submit.

System Requirements

For optimal functionality and performance FracFocus requires:

- The use of a modern and up-to-date web browser such as Google Chrome, Mozilla Firefox, Safari, or Microsoft Edge. FracFocus was not developed to be compatible with Microsoft Explorer.
- A major operating system such as Windows, macOS, Linux, Android, and iOS.
- Connection to stable and high-speed internet.
- A desktop PC or tablet with a screen that allows a resolution of 1024x768 or above. While FracFocus can adapt to various screen sizes and resolutions, a higher resolution will provide a better experience.

Chapter 3 – Understanding the Value of FracFocus

The purpose of FracFocus is to provide the general public with online access to information about the chemicals used in hydraulic fracturing jobs. The publicly available output provides well details, location, depth, and a list of the additives and component ingredients used. For each ingredient used, it provides the percentage of the ingredient within the additive, and the percentage of the ingredient in the whole of the job performed.

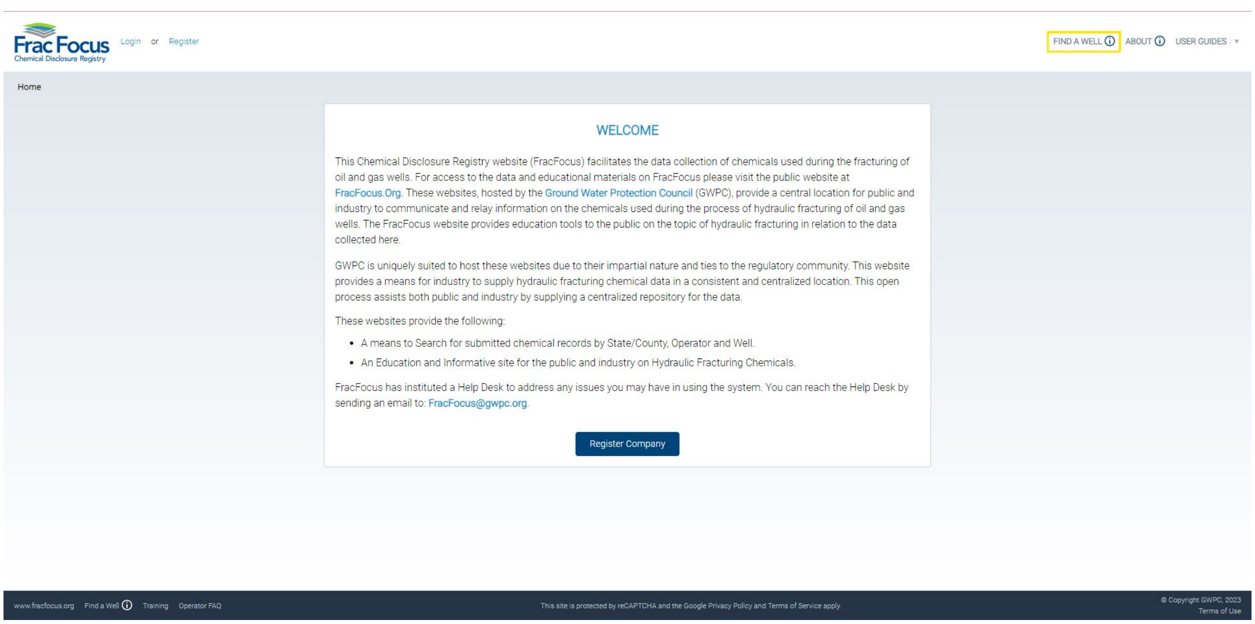
To understand how FracFocus works, it is useful to see how end users search for information and examine the format in which the resulting information is presented.

This chapter outlines how to locate a well and access the well disclosure submitted.

Find a Well

FracFocus allows users to search the public database for specific disclosures. Users may search for a well using Advanced Search or Map Search.

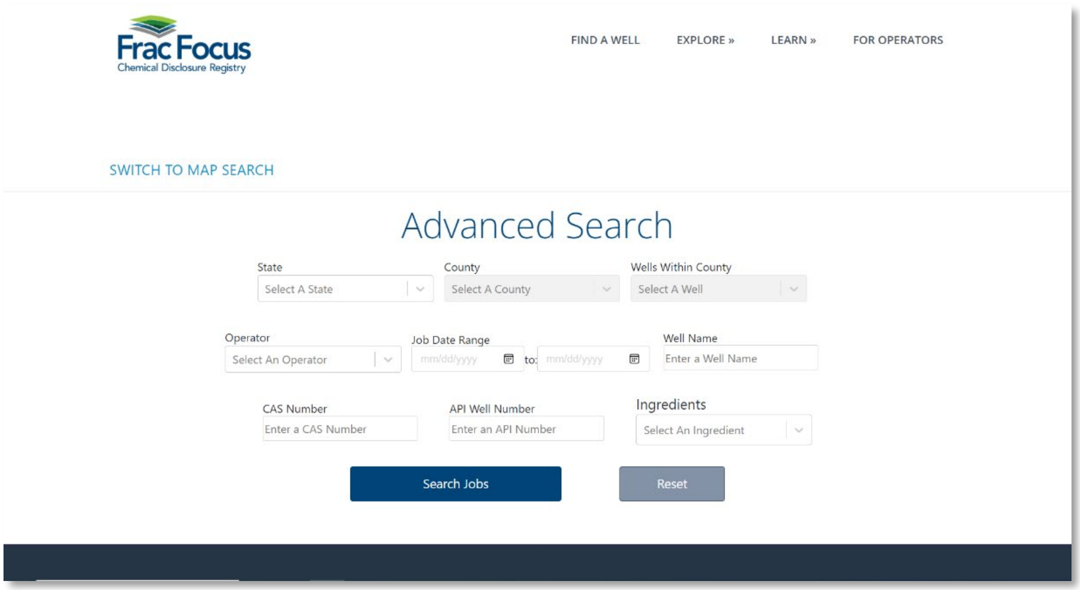
At the main FracFocus Data page, select 'FIND A WELL' located in the Dashboard at the top of the screen. Users will be directed to the Advanced Search. Users may switch to Map Search by selecting 'SWITCH TO MAP SEARCH' located at the upper left of Advanced Search.



Advanced Search

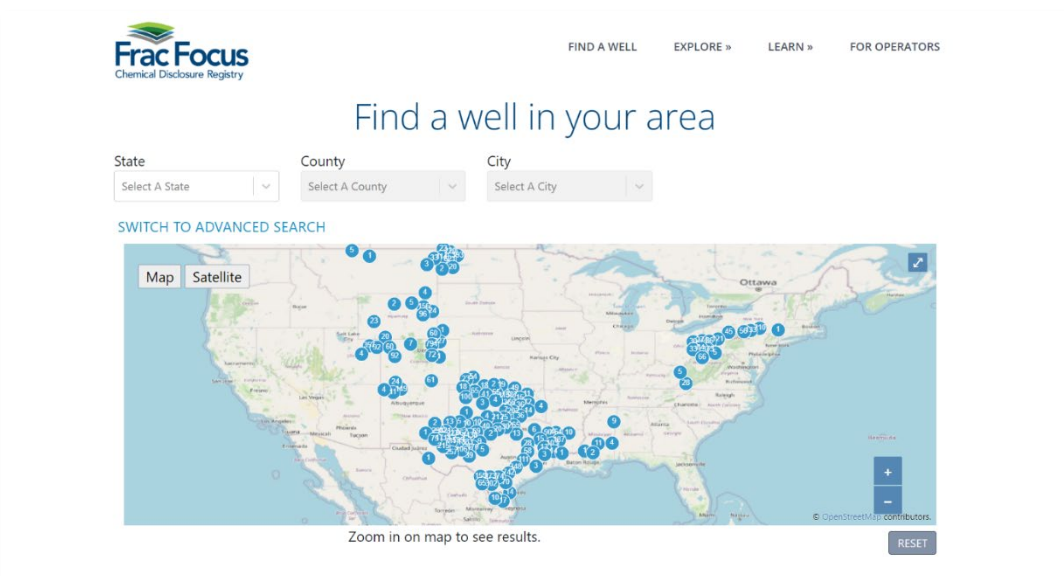
The Advanced Search allows users to locate wells by providing at least one of the following fields in the Advanced Search. Once provided, select 'Search Jobs' to search.

- State
- Operator
- Job Date Range
- Well Name
- CAS Number
- API Well Number
- Ingredients (from drop-down list)



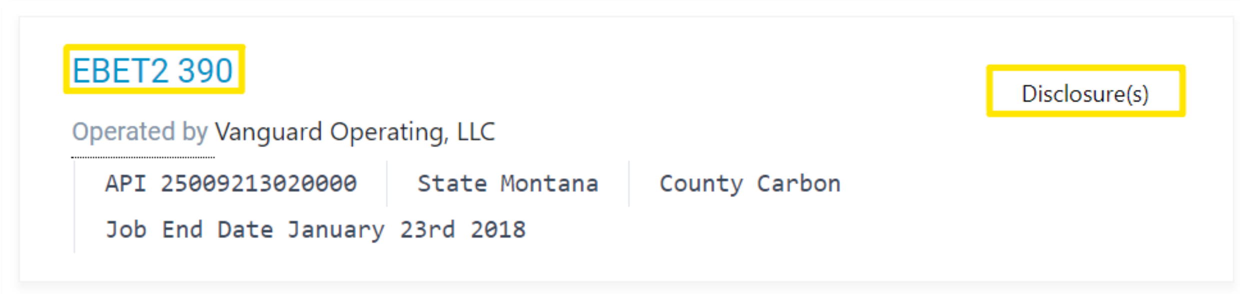
Map Search

The Map Search allows users to locate wells using a map interface – this is useful to users who do not know the specific data on the Advanced Search but know the physical location of the well.



The End Product

The search results will populate a list of wells below the Advanced Search or below the Map. Users may select the well name or corresponding 'Disclosure(s)' button in the list to view the individual well page with disclosure(s) information.



Here, users may select the 'PDF Disclosure Form' button to view a .PDF with the public disclosure (see below, Systems Approach format).

Elements of the .PDF Disclosure

The .PDF disclosure seen to the right is an example of an output for a Systems Approach disclosure (multiple pages). The information shown on the disclosure .PDF file is comprised of the data submitted by the Operator for each hydraulic fracturing job performed.

The box near the top of the .PDF provides information on the well, its location, and how much water was used. It is known as the “header information.”

The Hydraulic Fracturing Fluid composition section lists each primary additive, who supplied the product, why that additive is used, and then lists the individual ingredients below the green line. For each ingredient, the chemical name and its CAS number are listed along with the percentages in the additive and percentage in the whole frac fluid. The disclosure percentage is expressed on a mass basis. The format of a MSDS+ disclosure approach differs slightly by linking individual chemicals to the products.

A new feature allows for the submission of Water Source data and is located next to the header data.

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	1/23/2018
Job End Date:	1/23/2018
State:	Montana
County:	Carbon
API Number:	25-009-21302-00-00
Operator Name:	Vanguard Operating, LLC
Well Name and Number:	EBET2 390
Latitude:	45.02266000
Longitude:	-108.88855000
Datum:	NAD83
Federal Well:	YES
Indian Well:	NO
True Vertical Depth:	5,737
Total Base Water Volume (gal):	69,853
Total Base Non Water Volume:	

FracFocus Chemical Disclosure Registry

Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
B-1	QES	Breaker					
				Listed Below			
Buffer -4L	QES	Buffer					
				Listed Below			
WG-1SLR	QES	Guar slurry					
				Listed Below			
NE-1	QES	Non Emulsifier					
				Listed Below			
KCl-2SUB	QES	KCL subsitute					
				Listed Below			
XLB-2	QES	Crosslinker					
				Listed Below			
FR-1	QES	Breaker					
				Listed Below			
Water	Vanguard Natural Resources	fluid					
			fresh	7732-18-5			
BIO-2L	QES	BIOCIDE					
				Listed Below			
Items above are Trade Names with the exception of Base Water . Items below are the individual ingredients.							
			Water	7732-18-5	100.00000	85.09300	
			SAND	14808-60-7	100.00000	13.75405	
			Solvent Naptha (pet.) heavy aliphatic	64742-47-8	60.00000	0.37117	
			Guar Gum	9000-30-0	50.00000	0.30931	
			Choline Chloride	67-48-1	70.00000	0.12890	
			Water	7732-18-5	30.00000	0.05524	
			Water	7732-18-5	70.00000	0.05070	
			Methanol	67-56-1	30.00000	0.04855	
			Sodium hydroxide	1310-73-2	30.00000	0.02173	
			Ammonium persulfate	7727-54-0	100.00000	0.02039	
			Boric acid	10043-35-3	10.00000	0.00625	
			Hydrotreated light distallate	064742-47-8	30.00000	0.00436	
			Tetrakis(hydroxymethyl) Phosphonium Sulfate	55566-30-8	20.00000	0.00356	
			Sodium Borate	13840-56-7	5.00000	0.00312	
			Glycerol	56-81-5	5.00000	0.00312	
			Oxylalkylated alcohol	69227-21-0	5.00000	0.00073	
			Sodium Chloride	7647-14-5	5.00000	0.00073	

* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water
** Information is based on the maximum potential for concentration and thus the total may be over 100%
*** If you are calculating a percentage of total ingredients do not add the water volume below the green line to the water volume above the green line

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.
Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

Frac Focus
Chemical Disclosure Registry

FracFocus
OPERATOR GUIDE

Chapter 4 – Using FracFocus as an Operator

This chapter describes the actions an Operator can do within FracFocus. There are two different roles that can be assigned to users who are Operators. Operators can be assigned to both Supervisor and Data Submitter Roles:

- **Supervisor** – A Supervisor has overall responsibility for the Operator's organization and registration with FracFocus and can add users to the organization and manage both Supervisor and Data Submitter roles of users.

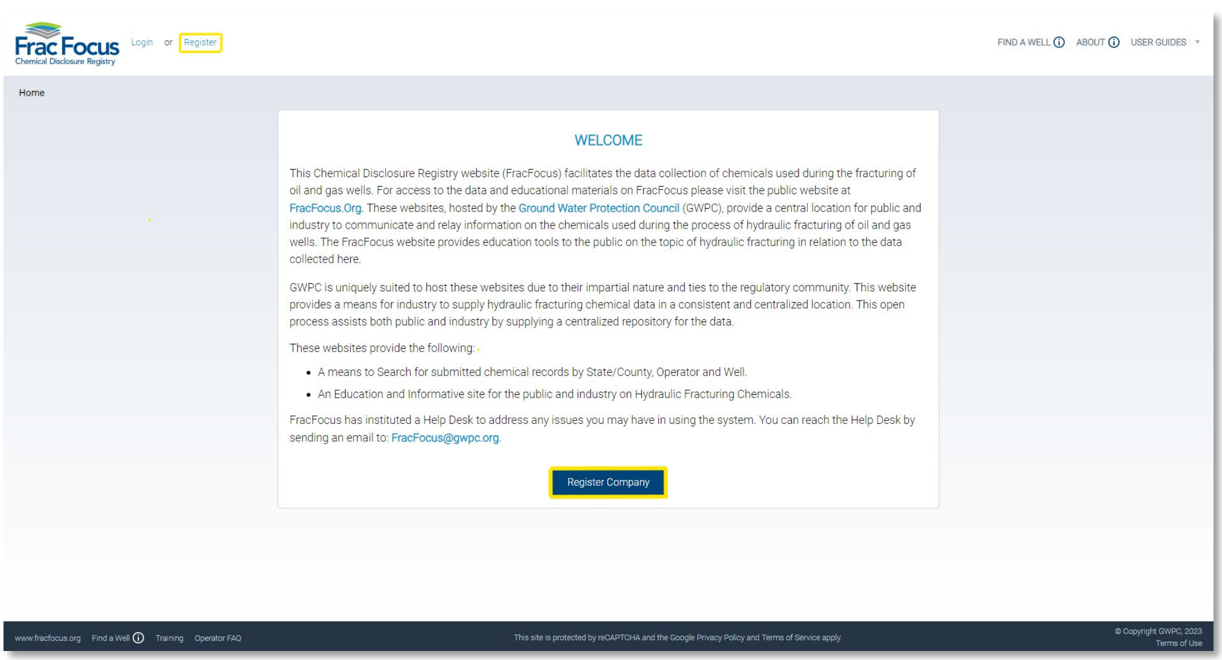
- **Data Submitter** – The Data Submitter role allows a user to manage the information on a disclosure and submit the disclosure for regulatory compliance to the public portion of FracFocus.

Getting Started as an Operator

Registering an Operating Company

The first thing an Operator must do is register to participate in FracFocus. The person who makes the initial registration for an Operator is automatically assigned the Supervisor role. If a user has previously registered for FracFocus, there is no need to register again. Registering a company implies that the company is not an existing organization registered in FracFocus. The system will perform a search to determine if registration information matches previous registrations.

To Register: If a company has not yet been registered, select 'Register' (at the top next to Login) or select the 'Register Company' button on the home screen.



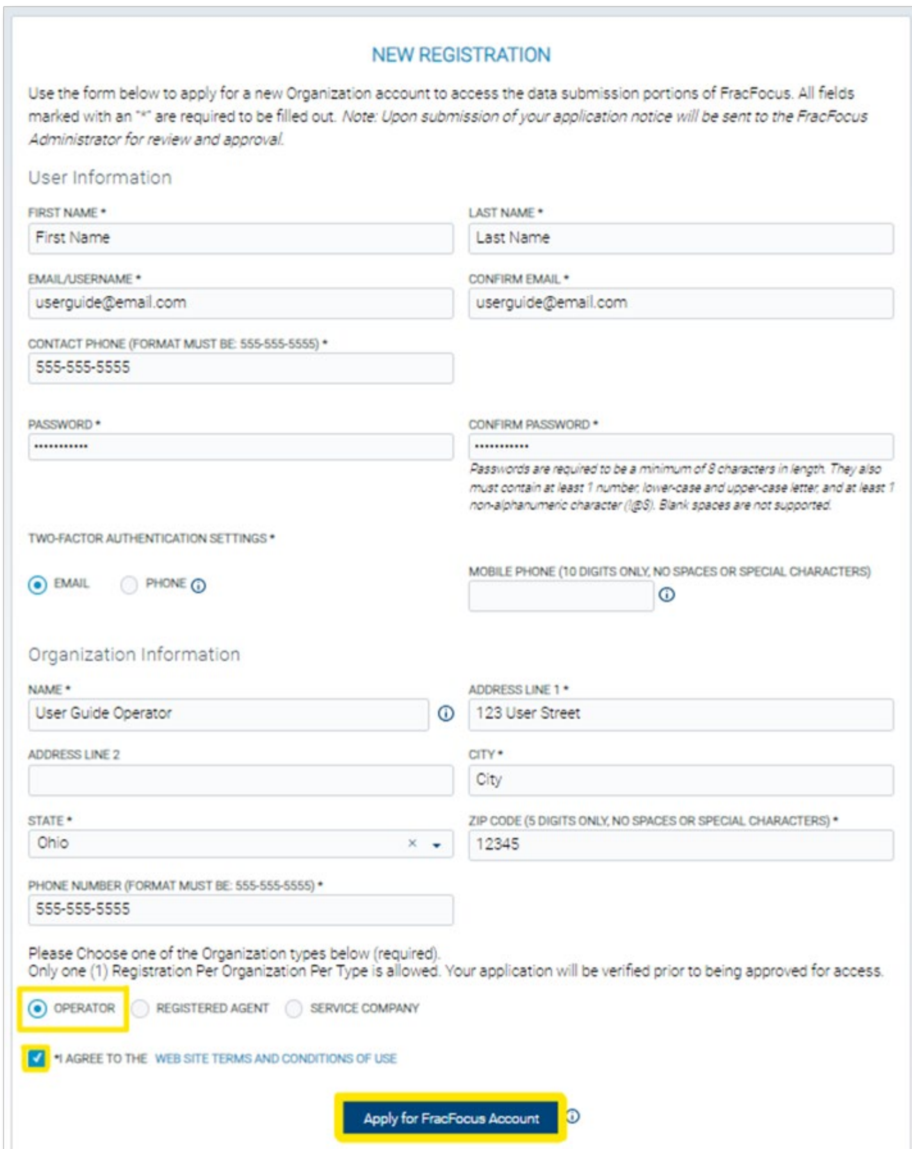
Users will be directed to the New Registration form.

Users must input the required fields and create a password. Passwords are required to be a minimum of 8 characters in length. They also must contain at least 1 number, a lower-case and an upper-case letter, and at least 1 non-alphanumeric character (!@$). Blank spaces are not supported.

Users must select EMAIL or PHONE for two-factor authentication. If a user prefers to receive authentication via phone, they are required to enter a mobile phone number that can receive text messages.

Select Operator from the organization types. When registering a new organization, users may only select one type of entity.

After reviewing the application for accuracy and agreeing to the Web Site Terms and Conditions of Use, select 'Apply for FracFocus Account'.


NEW REGISTRATION

Use the form below to apply for a new Organization account to access the data submission portions of FracFocus. All fields marked with an "*" are required to be filled out. *Note: Upon submission of your application notice will be sent to the FracFocus Administrator for review and approval.*

User Information

FIRST NAME * First Name
LAST NAME * Last Name
EMAIL/USERNAME * userguide@email.com
CONFIRM EMAIL * userguide@email.com
CONTACT PHONE (FORMAT MUST BE: 555-555-5555) * 555-555-5555
PASSWORD * ••••••••••
CONFIRM PASSWORD * ••••••••••
Passwords are required to be a minimum of 8 characters in length. They also must contain at least 1 number, lower-case and upper-case letter, and at least 1 non-alphanumeric character (!@$). Blank spaces are not supported.

TWO-FACTOR AUTHENTICATION SETTINGS *
EMAIL PHONE
MOBILE PHONE (10 DIGITS ONLY, NO SPACES OR SPECIAL CHARACTERS)

Organization Information

NAME * User Guide Operator
ADDRESS LINE 1 * 123 User Street
ADDRESS LINE 2
CITY * City
STATE * Ohio
ZIP CODE (5 DIGITS ONLY, NO SPACES OR SPECIAL CHARACTERS) * 12345
PHONE NUMBER (FORMAT MUST BE: 555-555-5555) * 555-555-5555

Please Choose one of the Organization types below (required).
Only one (1) Registration Per Organization Per Type is allowed. Your application will be verified prior to being approved for access.

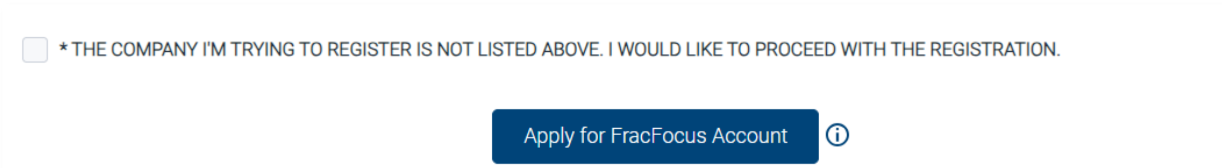
OPERATOR REGISTERED AGENT SERVICE COMPANY

*I AGREE TO THE WEB SITE TERMS AND CONDITIONS OF USE

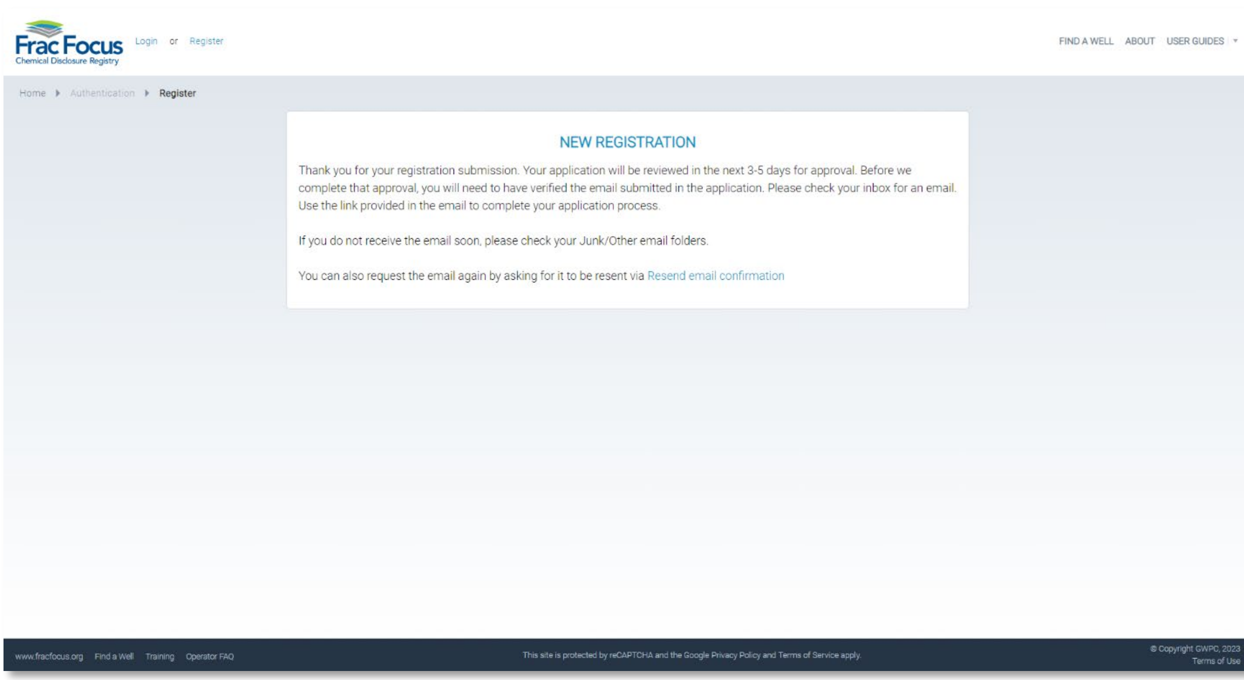
Apply for FracFocus Account

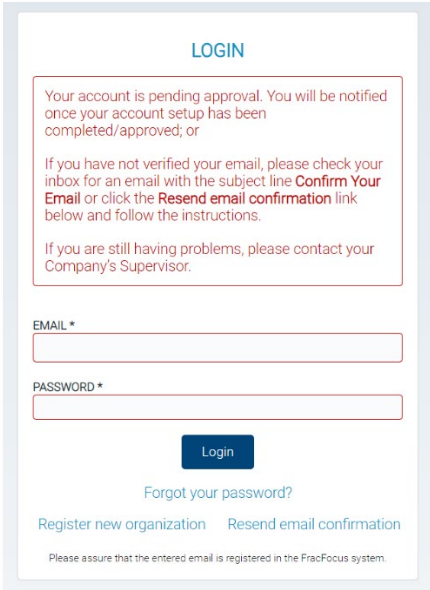
If the system finds a matching existing organization registration, it will display it at the top of the form.

If the user's company is not represented in the list, scroll to the bottom, and check the box to confirm the company is not listed. Select 'Apply for FracFocus Account' to proceed.



After the application has been submitted, the user will receive an email to verify the email address associated with their account. Before the approval can be completed, the user must verify the email submitted in the application.



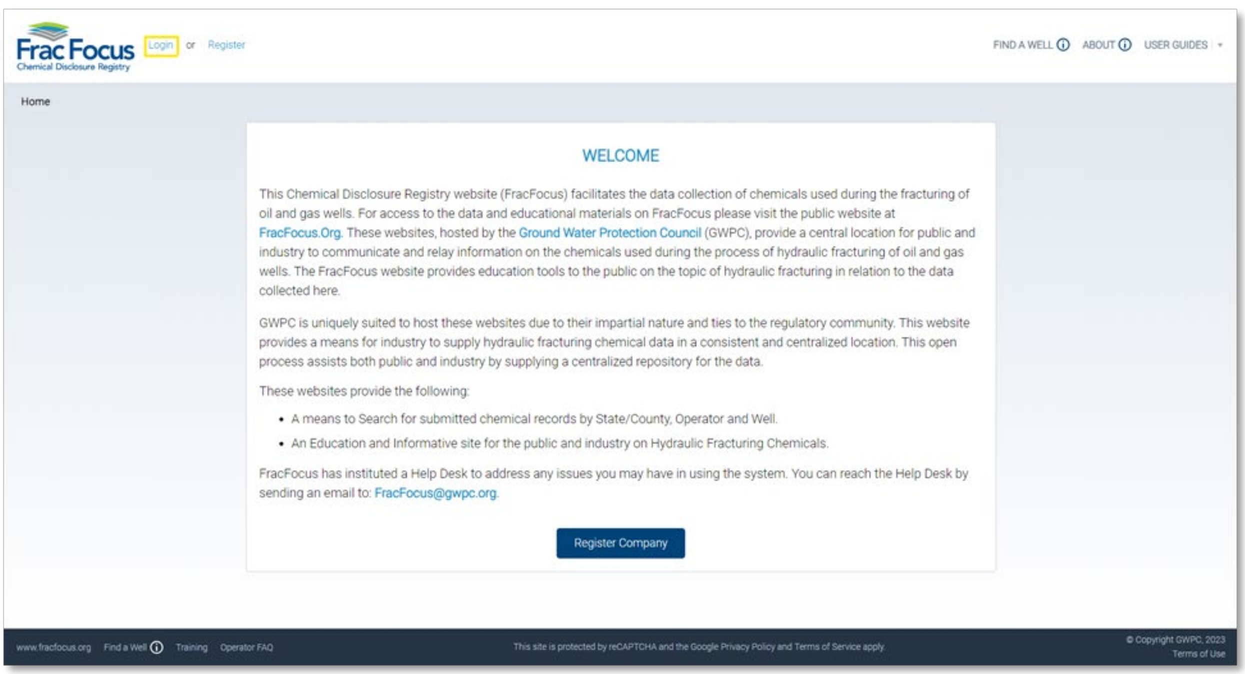


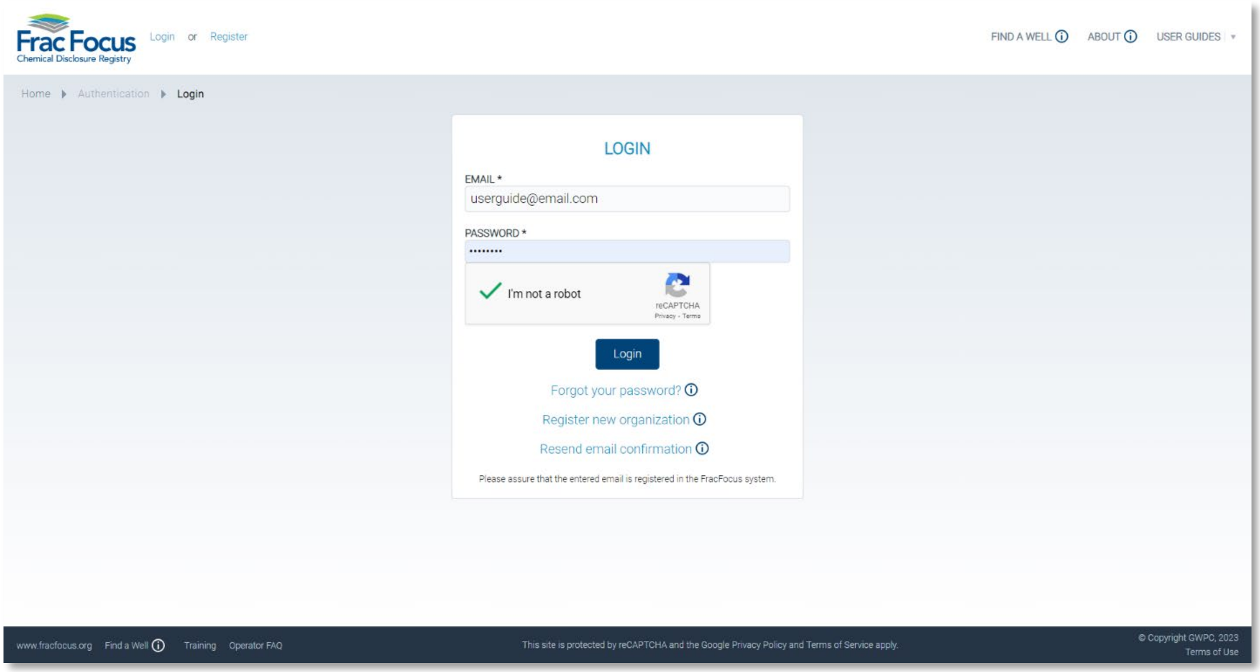
Once the user's email is verified, the application will be reviewed in the next 3-5 business days for approval by a FracFocus Support Administrator. Once the user is approved, they will receive an email acknowledging the approval.

Please note – users will not be able to login to FracFocus until their account has been approved. If a user tries to login, they will receive a notice stating the account is pending approval.

Once approved, use the link from the email or return to https://www.fracfocusdata.org. Enter the email, password, and complete the two-factor authentication once prompted.

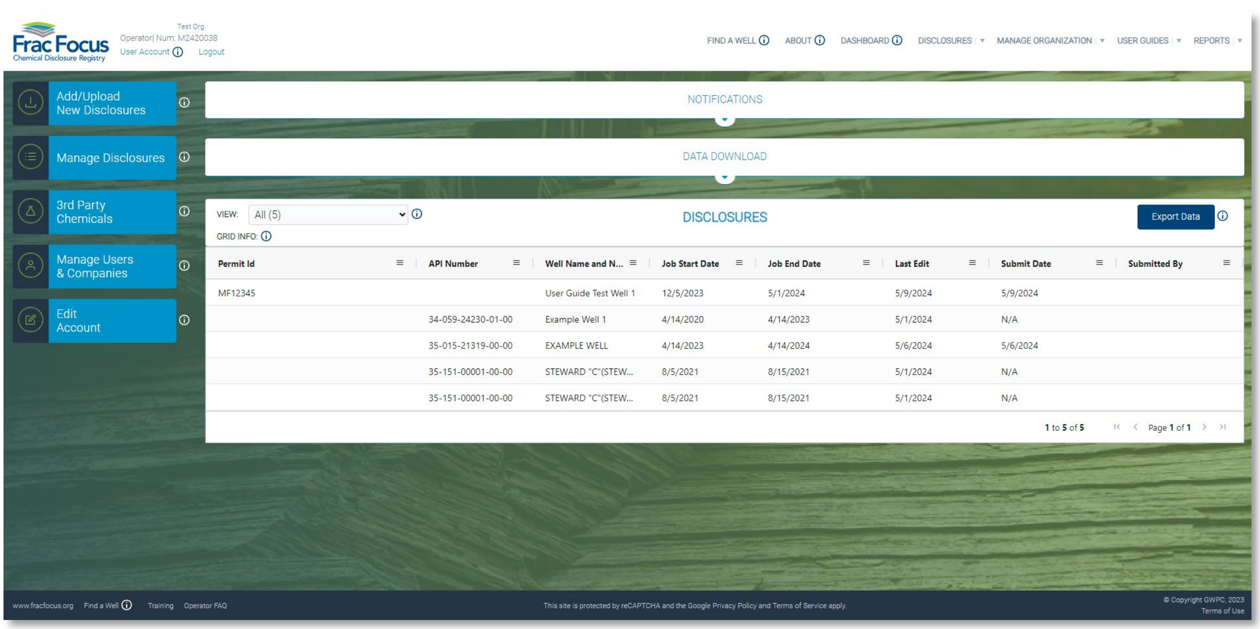
To Login: Start at the FracFocus homepage (www.fracfocusdata.org). At the top left of the screen (next to the FracFocus logo), select 'Login'. Users will be prompted to enter their email address, password, reCAPTCHA, and complete the two-factor authentication to get started.





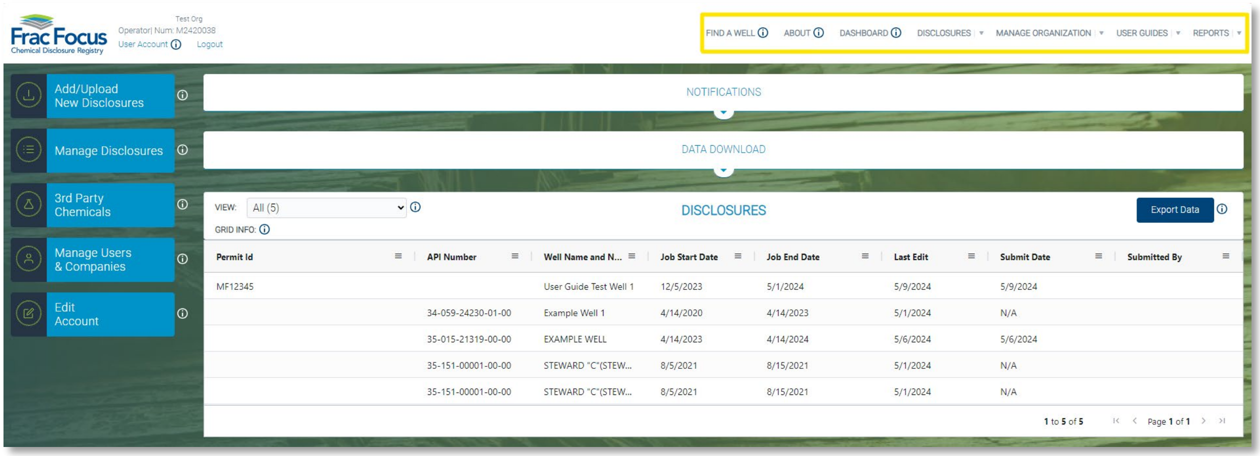
The Operator Dashboard

After successfully logging in, users will be directed to the Operator Dashboard that displays Notifications, Data Download, Disclosures, the Upper Right-Hand Navigation, and the Left-Hand Navigation Menu. Each of these dashboard components allow users to perform actions in the system based on their assigned roles.



Upper Right-Hand Navigation

Users will see this menu on most FracFocus screens – this allows efficient navigation to other screens and to return to the dashboard. The options available depend on the role assigned to the user. This screen shows permissions for a user with both supervisor and data submitter roles.



Find a Well

Directs users to the public disclosure interface on FracFocus.org to search for submitted disclosures.

About

Directs users to the About page which contains general information about FracFocus.

Dashboard

Directs users to the Dashboard – the home screen.

Disclosures

Allows users to add/upload new disclosures, manage disclosures, and manage 3rd party chemicals.

Manage Organization

Allows users to manage their organization's profile, users, relations, and set up organizational defaults.

Organization Defaults

Organization Defaults allows an Operating Company to edit default values used in the system. This menu item is only available to an Operator with a Supervisor role. To view and/or edit the Organization Defaults, select 'Manage Organization Defaults' in the Manage Organization drop-down (from the upper right-hand navigation menu).

The current Organization Defaults available are Water Density, Non Oil & Gas, and Percentage Hf Recalculation.

Water Density

The Water Density default allows an Operator Supervisor to set the default value of water density for the organization's data calculations in FracFocus.

Enter the water density in pounds-per-gallon in the value field. The default water density set by an Operator overrides the global water density value for the system. The Water Density is necessary to calculate the mass of Chemicals/Ingredients used if the value is not supplied and a recalculation is performed.

Non Oil & Gas

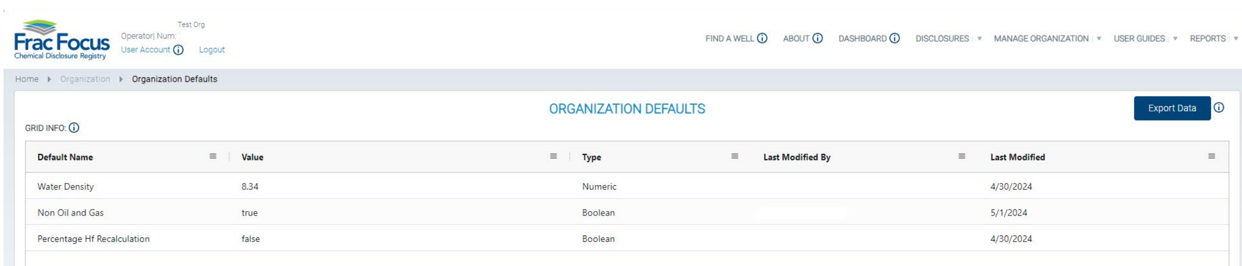
The Non Oil & Gas default allows an Operator Supervisor to enable or disable the organization's ability to view and manage non oil & gas wells (i.e., wells **not** associated with the production of oil and gas) in addition to oil and gas wells (i.e., wells associated with the production of oil and gas).

Please Note: This default value must be set to 'true' to enable the ability to view and manage non oil & gas wells. Only set to 'true' if submitting disclosure information on wells that are not associated with the oil and gas industry and involved in the production of oil and gas.

Percentage Hf Recalculation

The HfRecalculation Default allows an Operator Supervisor to either allow or deny the FracFocus system to offer recalculating the mass of chemicals/ingredients. This is used with adding 3rd party chemicals without a % HF Job where the user knows mass in pounds of chemicals added.

To allow the system to offer the HfRecalculation, ensure the value is set to true. To reject the system from offering the HfRecalculation, set the value to false.



User Guides

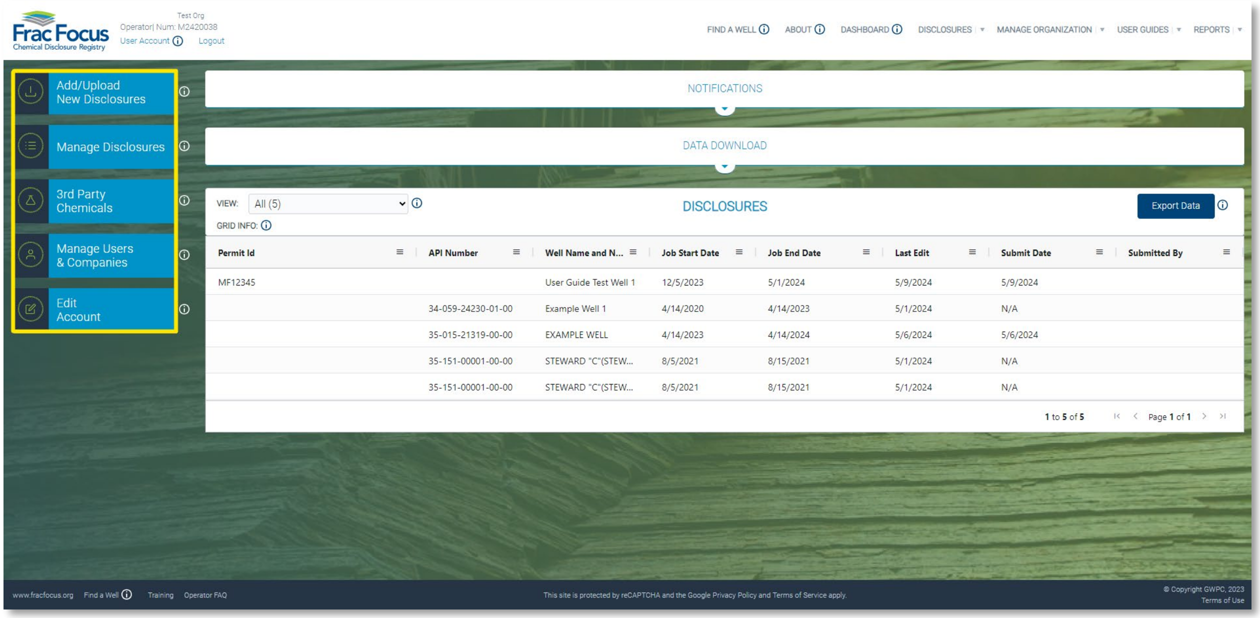
Directs users to the Schema Guide and User Guide.

Reports

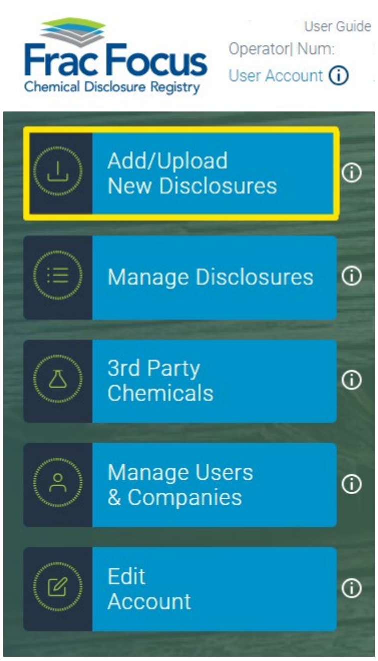
Directs users to a set of canned validation Operator Reports that provide insight into the disclosures submitted.

Left-Hand Navigation

The Left-Hand Navigation options provide the user with quick access to specific menu selections. The available items in the Left-Hand Navigation menu will be dependent on the user's role(s).



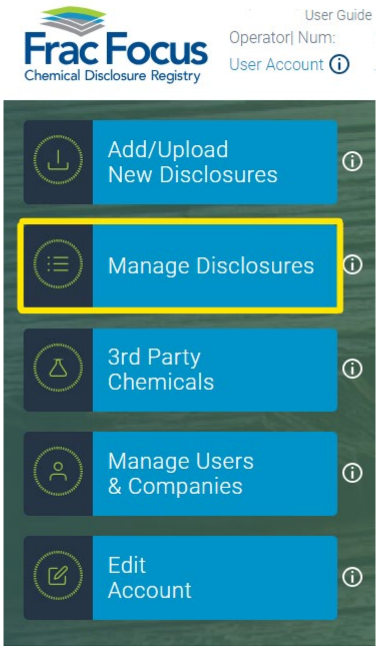
Add/Upload New Disclosures



Operator users with the Data Submitter role will have this menu option. This menu item directs users to the New Disclosure page. Users may also access this page from the Add/Upload New Disclosure drop-down item from the Disclosures option in the navigation menu.

See section "Creating a New Disclosure" below in this guide for detailed instructions for adding/uploading new disclosures.

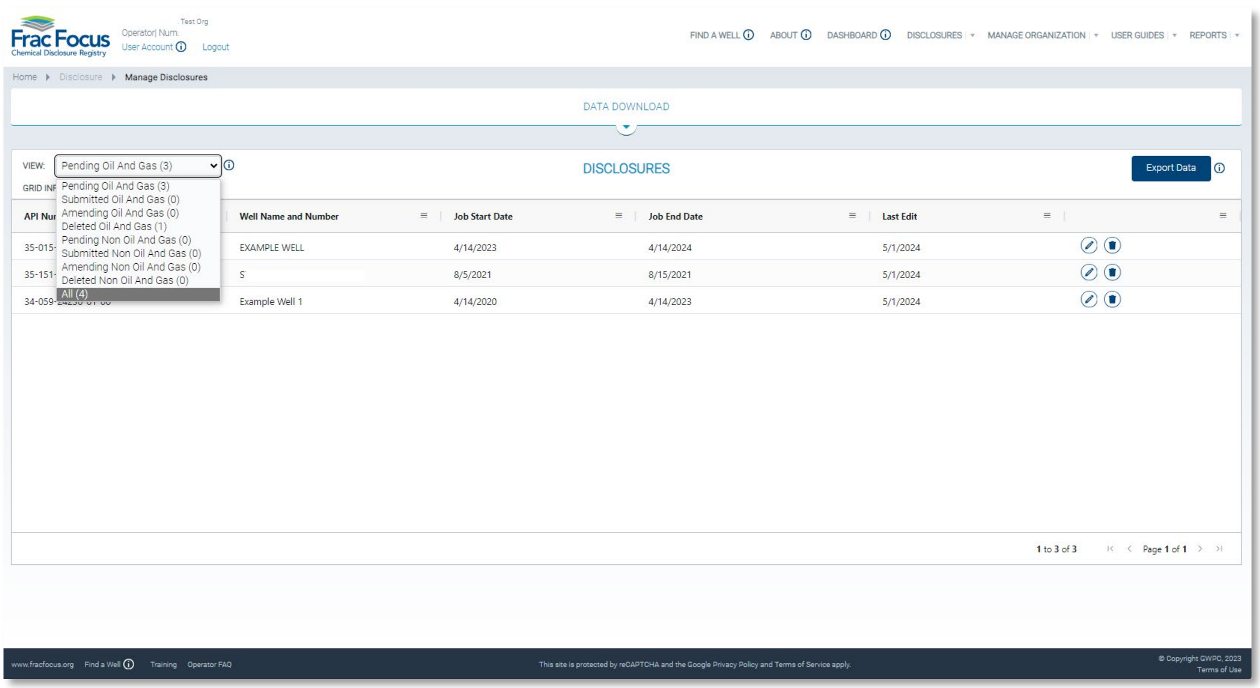
Manage Disclosures



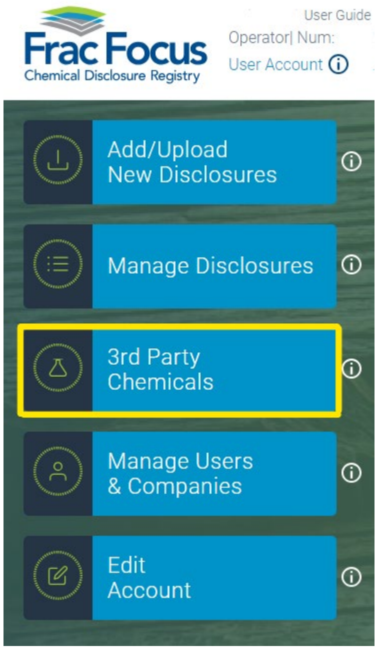
This menu item directs users to the Manage Disclosures page. Users can also access this page from the Manage Disclosures drop-down item from the Disclosures option in the navigation menu.

Here, users can manage Submitted, Pending, Amending, Deleted or All disclosures from their company. (Note: deleted disclosures are created during the process of editing/amending submissions and will be removed from the system after a 6-month holding period.) Users can additionally manage their disclosures from the Disclosures table on this Operator Dashboard (see "Disclosures" section below).

On the Manage Disclosures page, use the View drop-down to narrow disclosures by Well Type Grouping and Status. Users have the option to export their data into an excel spreadsheet with the Export Data button to review offline.



3rd Party Chemicals

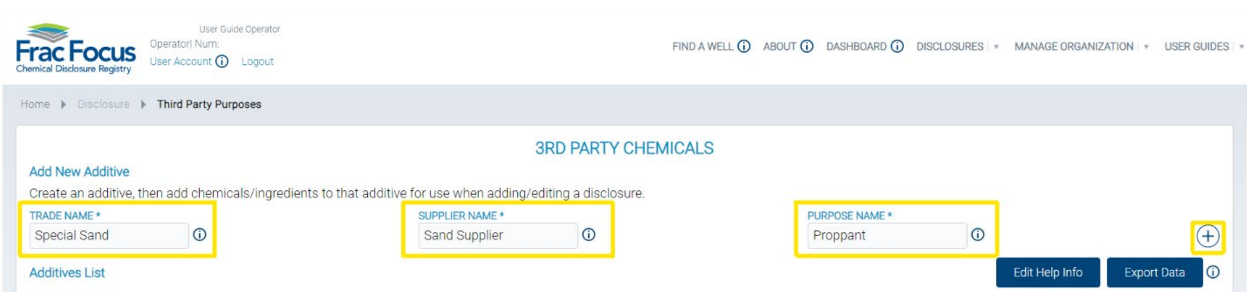


This menu item directs users to the 3rd Party Chemicals page. The 3rd Party Chemicals page is used to enter additives and the chemicals/ingredients that comprise that additive to a list where they can be used by a data submitter in the edit disclosure reports screen. This feature allows the user to build a set of additives that can be used on multiple disclosure reports and speed the creation of a disclosure report. Instructions for adding a new 3rd party chemical (or additive) are outlined below.

Users with the Data Submitter role have the ability to add and edit 3rd party chemicals. Users with the Supervisor role can only review the list.

Add New Additive

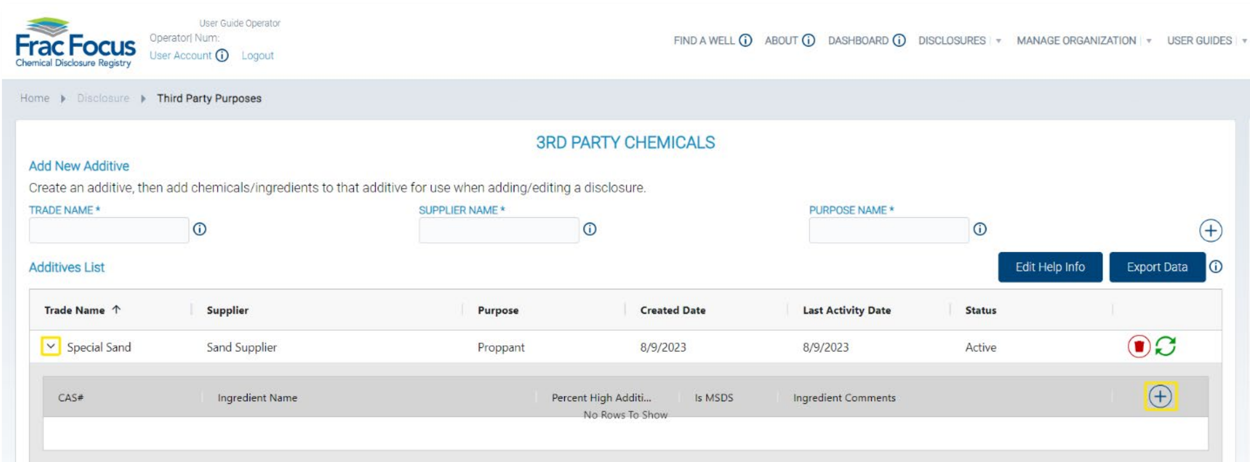
To create a new additive, input the Trade Name, Supplier Name, and Purpose Name then select ⊕ to add. Once the additive is displayed in the Additives List table, users may add chemicals/ingredients to the additive.



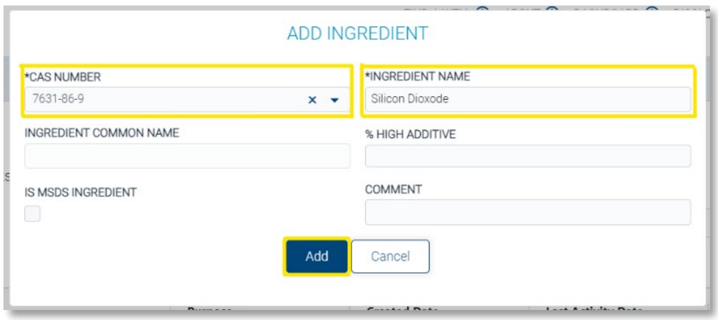
Adding Ingredients

To manage an Additive's ingredients, select the drop-down (i.e. ">" arrow next to Trade Name of Additive)

Select the ⊕ from the ingredients table to add an ingredient



Users will be directed to input the new ingredient information. The CAS Number and Ingredient Name are required fields. If a CAS Number from the existing drop-down list is selected, the Ingredient Name field will populate. Users may input the % High Additive and any additional comments regarding the ingredient. The Ingredient Common Name field is read-only and will populate based on previous use of that chemical's CAS Number in FracFocus.

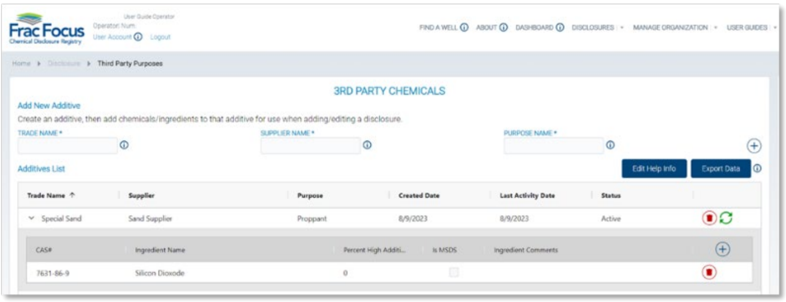


For the special cases of Proprietary, Trade Secret, CAS Not Assigned, and Confidential ingredients, input the value (ex. "Proprietary") in the CAS Number field and hit enter. If a special case has been entered for the CAS Number, claimant information fields (Company Name, First Name, Last Name, Email, and Phone) will appear for input after adding.

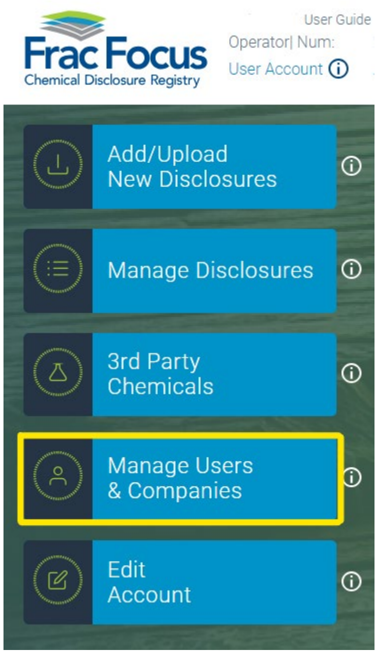
If the ingredient is an MSDS Ingredient, check the checkbox under 'Is MSDS Ingredient'. Both MSDS and non-MSDS ingredients can be entered for an additive.

After the information is entered, select 'Add' to add the ingredient.

Once the ingredient has been added, it will populate in the Additive List drop-down. By clicking on the fields of the ingredient in an Additive, users can edit the ingredient.



Manage Users & Companies



This menu item directs users with the Supervisor role to the Organization Users page where they can manage the following:

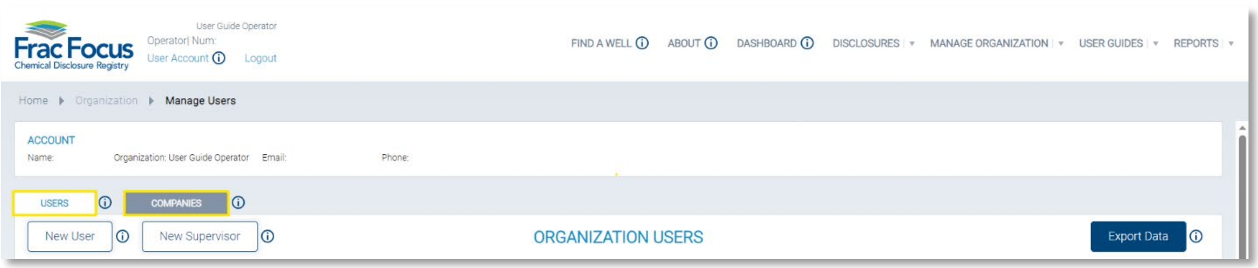
Users Tab:

- Add New Data Users
- Add New Supervisors
- Add existing users to the organization
- Manage organization users' roles

Companies Tab:

- Add New Service Company Relationships
- Add New Registered Agent Relationships
- Manage Registered Agent and Service Company Relationships

Users can navigate between the Organization Users and Organization Relationships pages with the Users and Companies tabs.

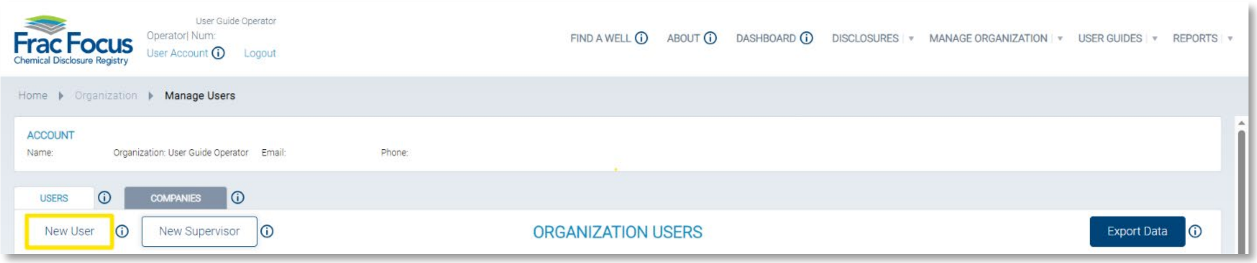


The system requires all organizations to have at least one Supervisor. Supervisors cannot remove the role from their user accounts. If a Supervisor role needs to be removed from an account, another Supervisor of that organization must remove it.

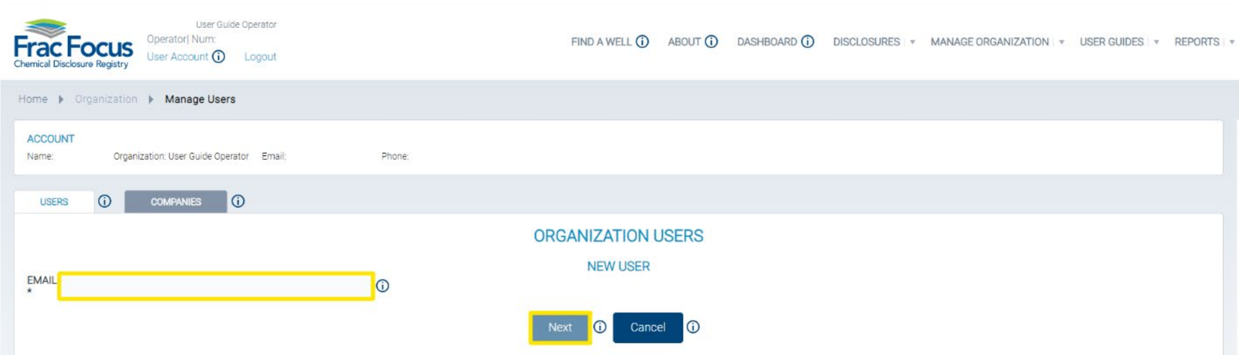
Organizations may have multiple Supervisors and multiple Data Submitters. Users can be assigned to both roles.

Add a New Operator User or Supervisor (new to FracFocus)

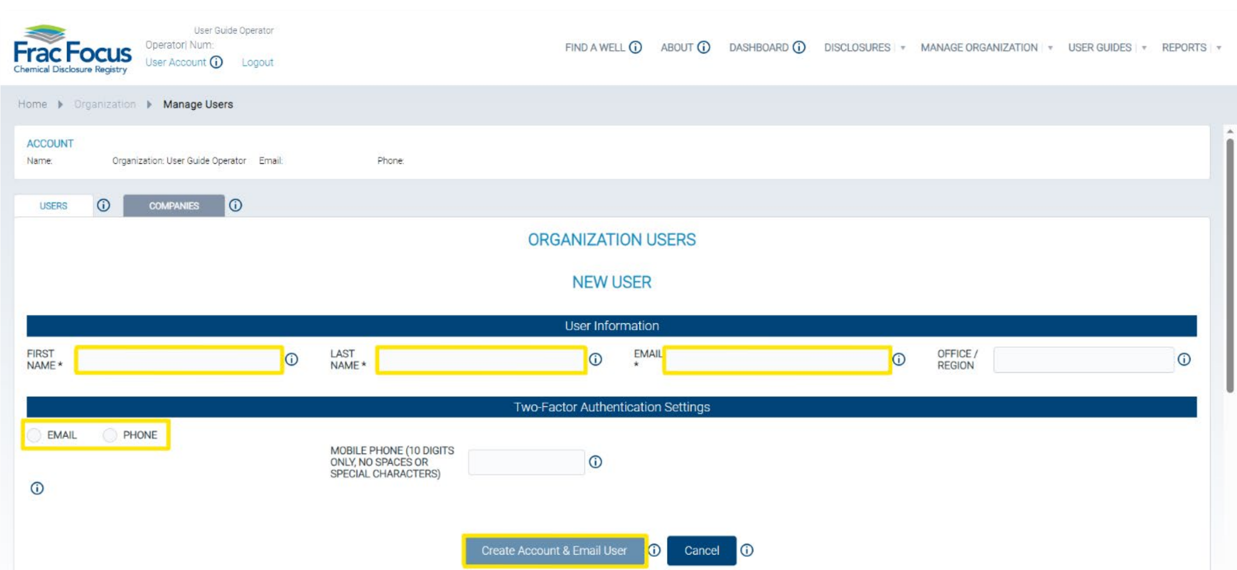
To add a new organization user under an Operating company, that is also new to FracFocus, select either New User or New Supervisor under the Users Tab. (Note: example shows New User option selected – same process is followed for a New Supervisor.)



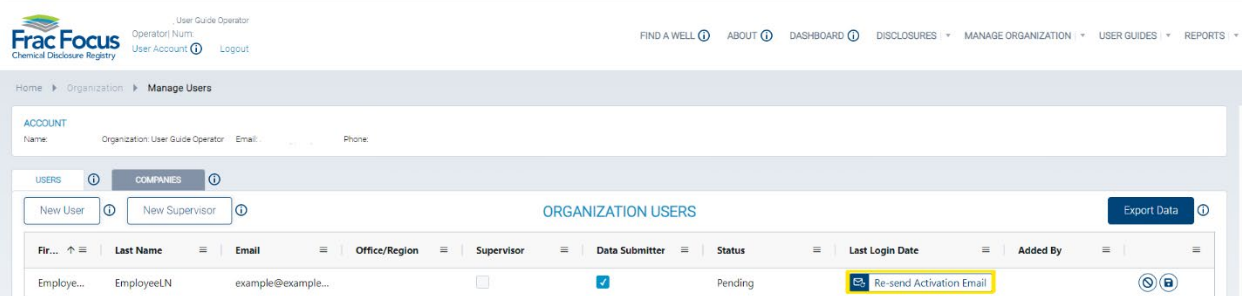
Next, enter the email address of the new organization user to verify the email address is not already registered to FracFocus. Select 'Next' to check for existing user credentials and continue.



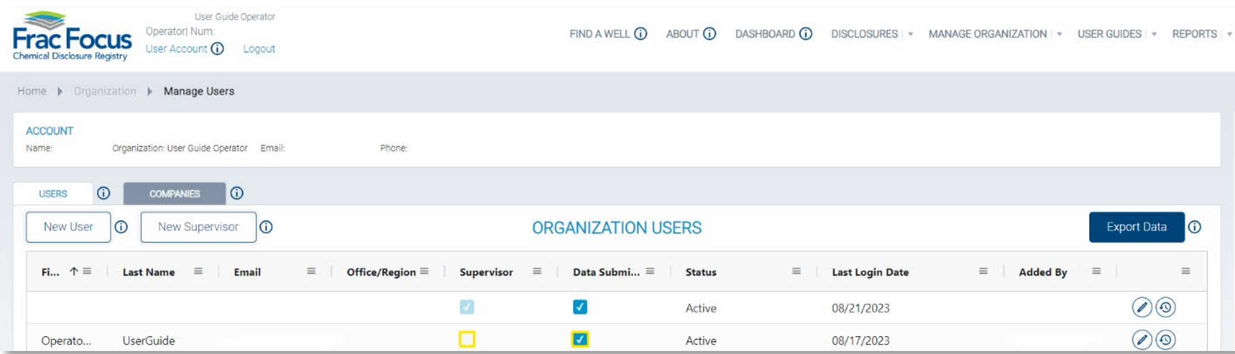
Users will be directed to the New User form, also known as an Account form. Enter the new user's required information: first name, last name, email address (pre-populated) and two-factor authentication settings. Users may assign an Office/Region to the new user. Then select 'Create Account & Email User'. This will send an email to the user with steps to complete their account setup and login for the first time.



The new user's account will be in a pending state after the account is created. Before the user logs in for the first time, the new user's first name, last name, office/region, and email may be edited by an Organization Supervisor. If the email was entered incorrectly, it can be edited, and the email can be resent by selecting 'Resend Activation Email'. At this point in the process the account can be deleted. Once the user has logged in for the first time, the account can no longer be deleted.

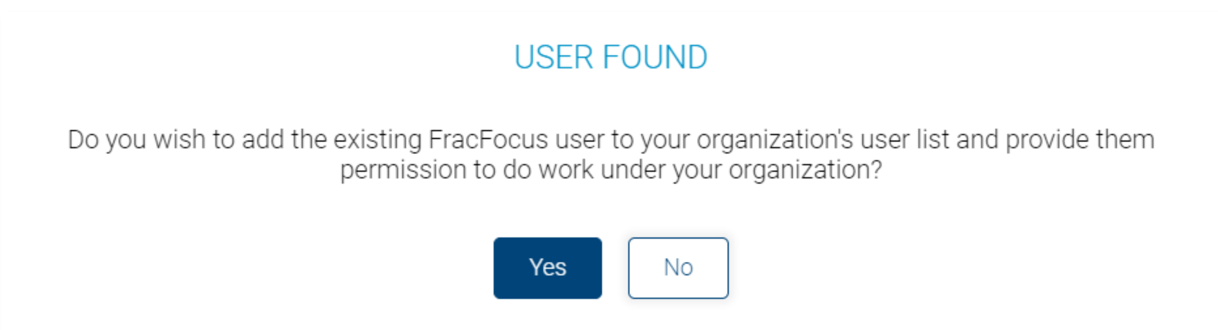


Once the user is added, the name of the new user will display in the Organization Users list. The Supervisor can assign Supervisor and/or Data Submitter permissions to the new user by checking the corresponding checkboxes.



Add an Existing User

To add an Existing User to the organization, enter the email address of the user that has already registered and been approved in FracFocus. Users will be prompted by the dialog box below.



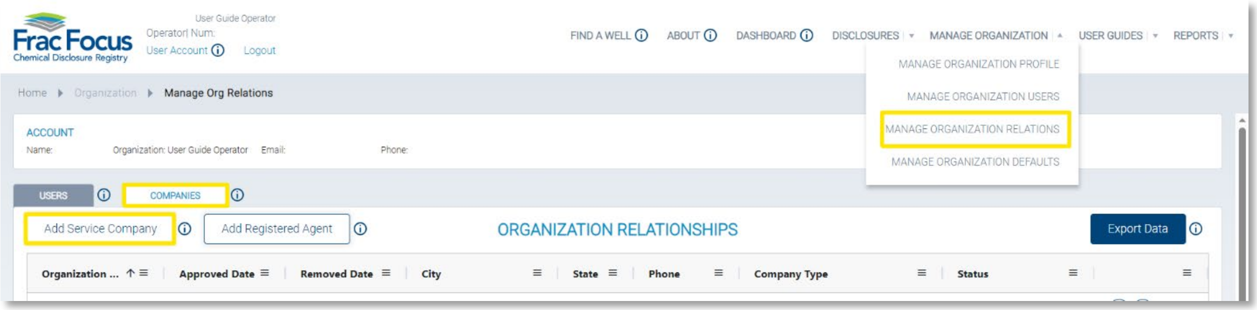
Select 'Yes' to add the existing user to the organization. Once added, an organization Supervisor has permission to manage the existing user's roles with the organization.

Add a Service Company

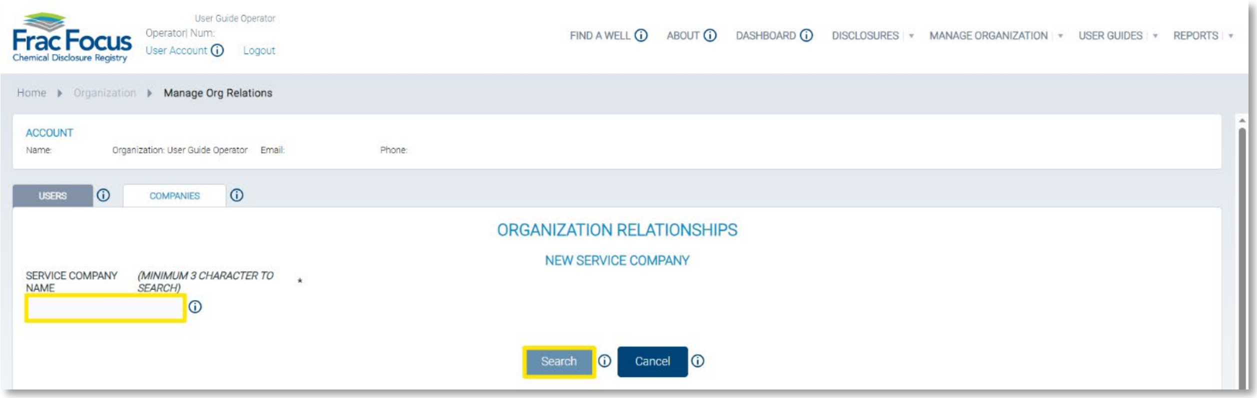
Operators with the Supervisor role are able to add relationships with Service Companies to conduct hydraulic fracturing jobs and prepare initial disclosures for the Operators review and submittal.

To add a Service Company relationship, select the 'Companies' tab from the Manage Organization Users page or select 'Manage Organization Relations' from the Manage Organization drop-down in the navigation menu.

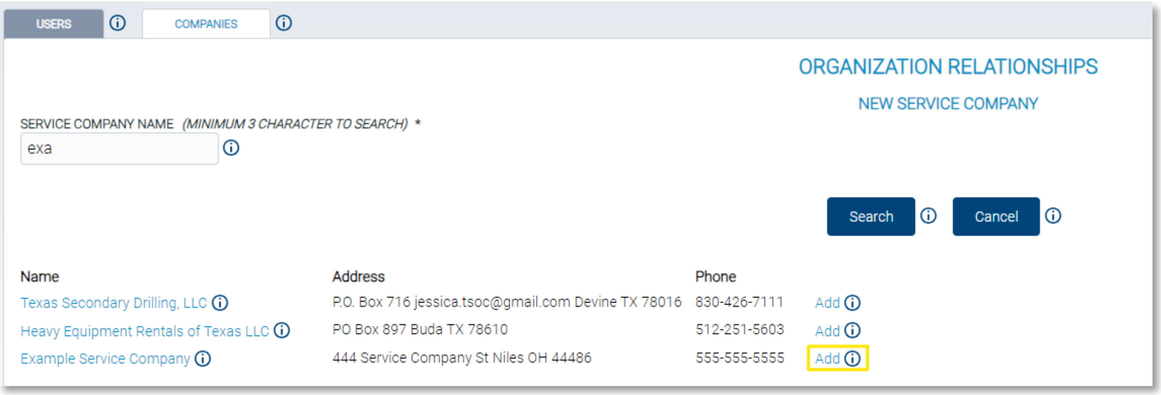
Select 'Add Service Company'



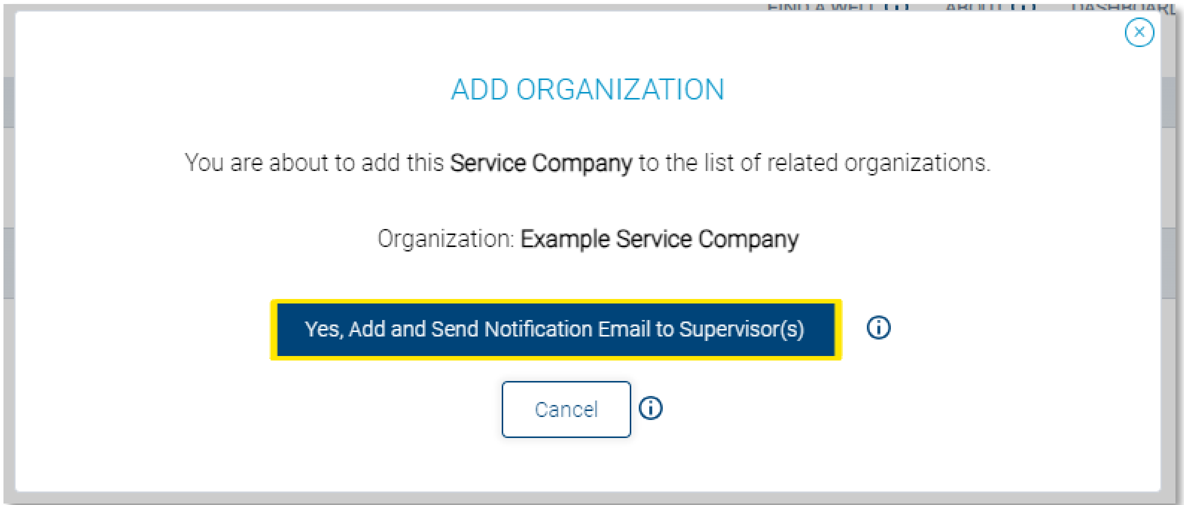
Service Companies must be identified by name. Input the name (or as little three characters) into the Service Company Name search and select 'Search'.



Service Company results will populate under the search. Select 'Add' on the desired Service Company to add a relationship with the company to the organization.



The site will confirm adding the Service Company relationship to the organization. Select 'Yes, Add and Send Notification Email to Supervisor(s)' to continue.



Once approved, this allows any disclosure reports prepared by the selected service provider to enter the Operator disclosure queue.

A Service Company can prepare disclosure reports and upload them to an Operating company's queue. When this is done, a disclosure report is not available to the public – it is only available to the Operator. A Service Company does not have the ability to upload disclosure reports on behalf of an Operator into the main FracFocus registry. It is a two-step process:

1. The Service Company uploads the disclosure report to the Operator's queue
2. Following review by the Operator (or an authorized Registered Agent), the approved disclosure is uploaded to the FracFocus registry by the Operator or Registered Agent.

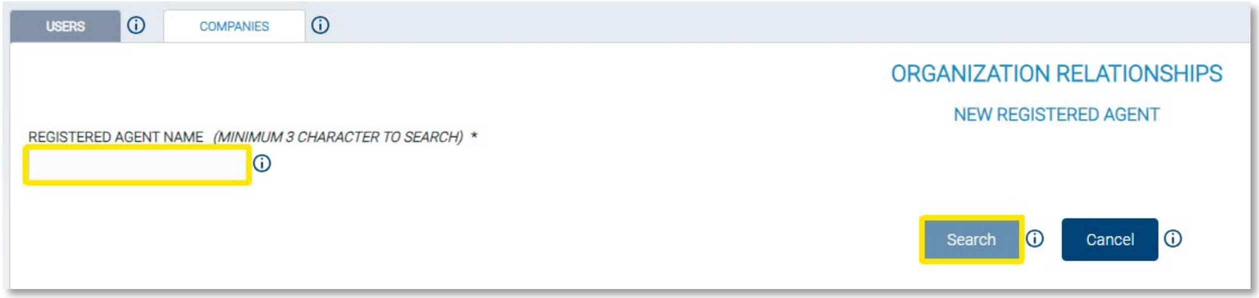
Add a Registered Agent

Operators with the Supervisor role are able to add relationships with Registered Agents to support reviewing, entering and potentially submitting disclosure reports on the Operator's behalf.

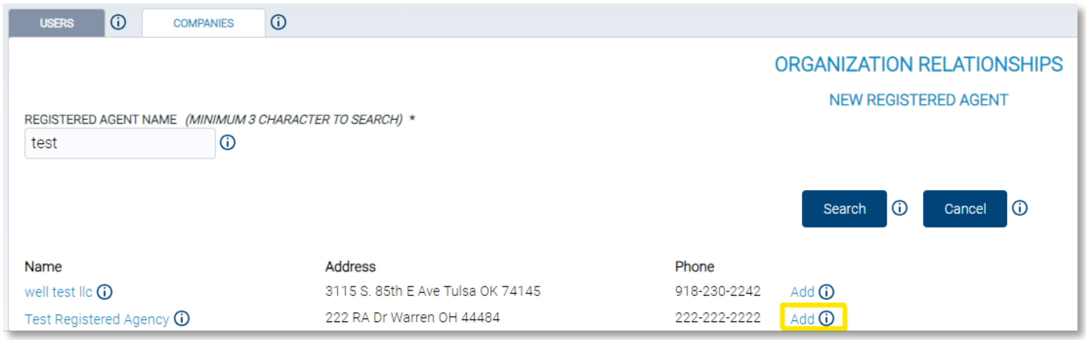
To add a Registered Agent, select the Companies tab under Manage Organization Users or select Manage Organization Relations from the Manage Organization drop-down in the navigation menu.

Select 'Add Registered Agent'

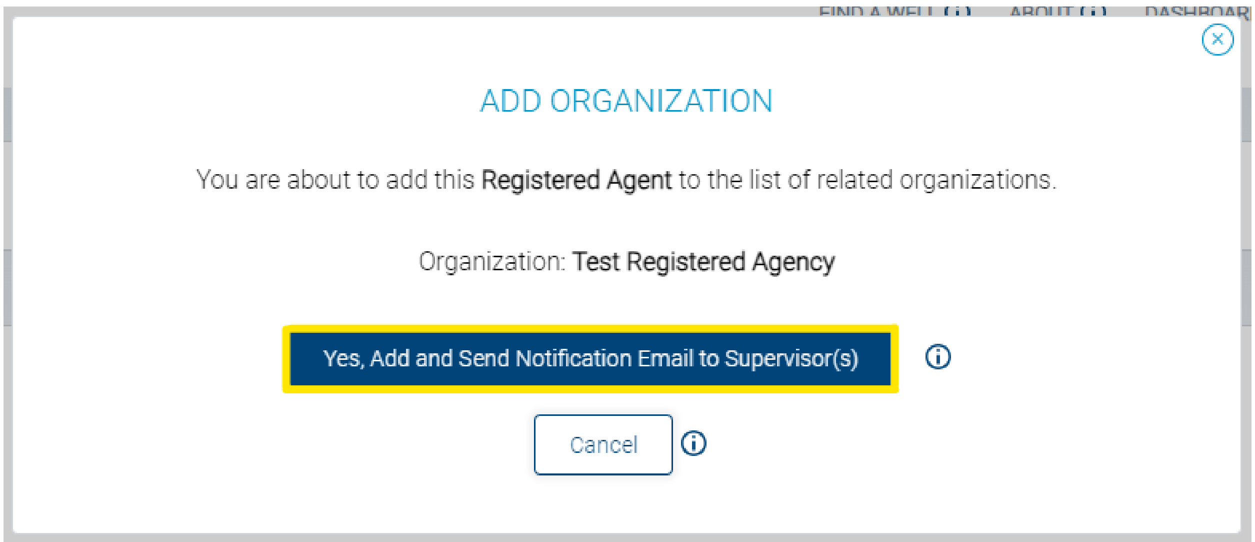
Registered Agents must be identified by name. Input the name (or as little as three characters) into the Registered Agent Name search and select ‘Search’.



Registered Agent results will populate under the search. Select ‘Add’ on the desired Registered Agent to add a relationship to the organization.

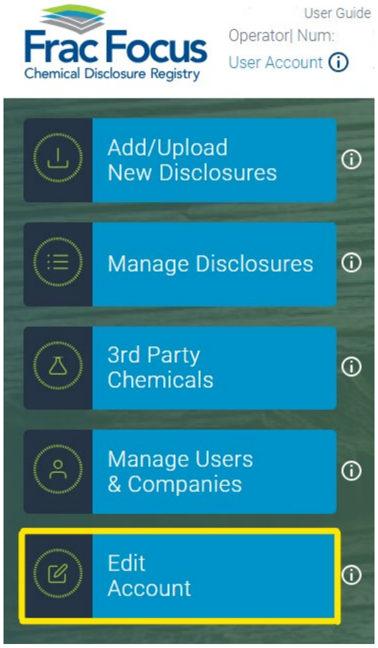


The site will confirm adding the Registered Agent relationship to the organization. Select ‘Yes, Add and Send Notification Email to Supervisor(s)’ to continue.



Once approved, the Registered Agent will be authorized to support the Operator with preparing, reviewing, editing, and potentially submitting disclosure reports into FracFocus.

Edit Account



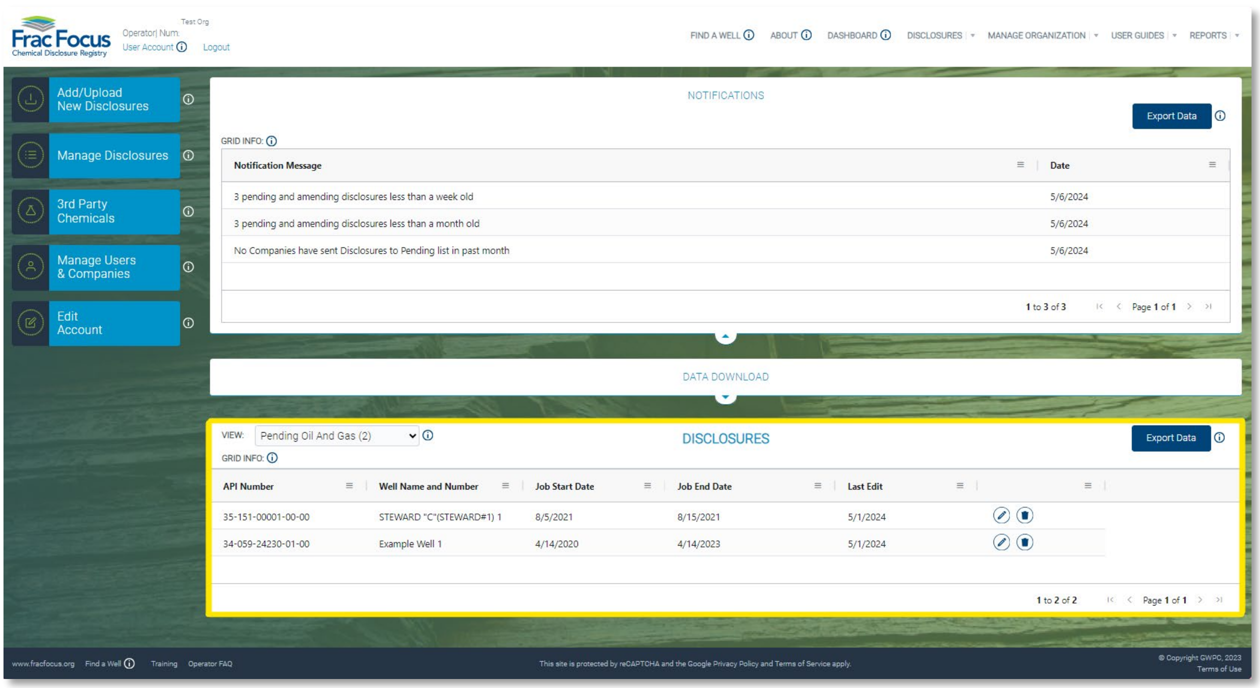
This menu item directs users to the User Account page. This page allows users to manage account information and change their password. Operators can edit the following information on their account:

- First Name
- Last Name
- Phone Number
  - Primary
  - Cell
- Two-Factor Authentication Type

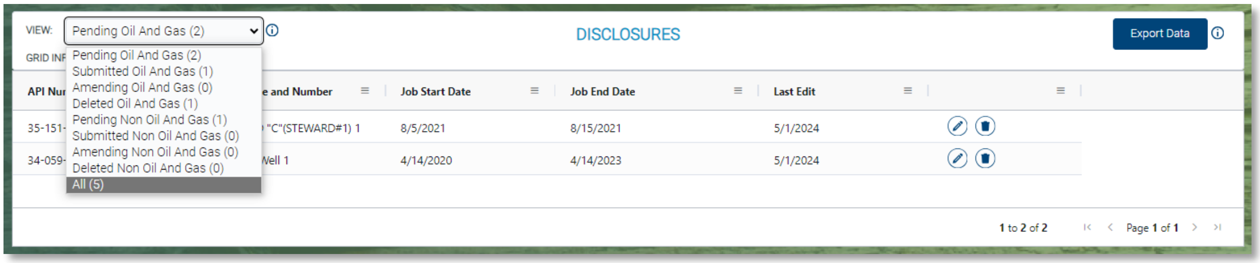
To change your password, select ‘Change Password’

Disclosures

The Disclosures table on the Operator Dashboard allows users to quickly manage their Pending, Submitted, Amending, and Deleted Disclosures for Oil & Gas and Non Oil & Gas Wells.



Here, users can Edit, Delete, and Export disclosure reports.



Export Data

In some cases, it might be beneficial for an Operator to be able to assess the data input into FracFocus outside of the system or offline. In FracFocus, any page that presents a list of data can be downloaded in an Excel Spreadsheet. To download any list, select ‘Export Data’ to download the Excel Spreadsheet.

Creating a New Disclosure

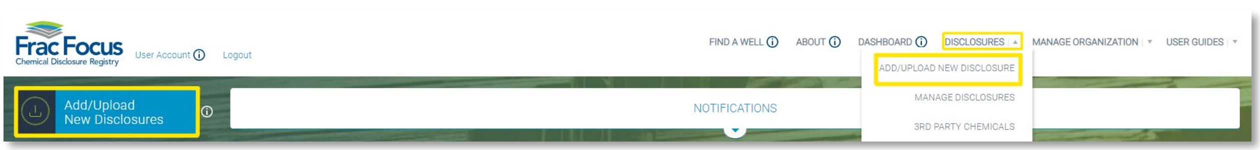
Often, disclosure reports will be created by a Data User under a Service Company and routed to the Operator Data Submitter or Registered Agent Data User for review. In other cases, Operators with the Data Submitter role may create their own disclosure reports. Only Operators with the Data Submitter role can create new disclosures. In FracFocus, disclosures can be created using two separate approaches – the Systems Approach and the MSDS+ Approach.

Systems Approach: The Systems Approach allows users to input the data for all additives and all ingredients in a single common list.

MSDS+ Approach: With the MSDS+ approach, the additives are grouped into separate lists depending on whether the chemicals are part of an SDS (Safety Data Sheet) or not, MSDS Chemical Ingredients and Additional Non-MSDS Chemicals. Usually, water and sand are included in the MSDS Chemical Ingredients list even though they are not part of an SDS. The MSDS chemicals are listed under their products used on the job.

Getting Started

To add a new disclosure, select Add/Upload New Disclosures from the Left-Hand Navigation menu or select Add/Upload New Disclosure from the Disclosures drop-down on the Upper Right-Hand Navigation menu.



Users will be directed to the New Disclosure Form. Users may upload a valid XML file to complete the Disclosure. If a valid XML file is not available, users can manually complete the disclosure.

Please Note: The 'Edit Help Info' button in the form will generate a pop-up with editing help that describes how to edit the fields, add new items, and save information.

Please note the tooltip icons. Hovering over these icons, will provide explanations for key fields and action buttons.

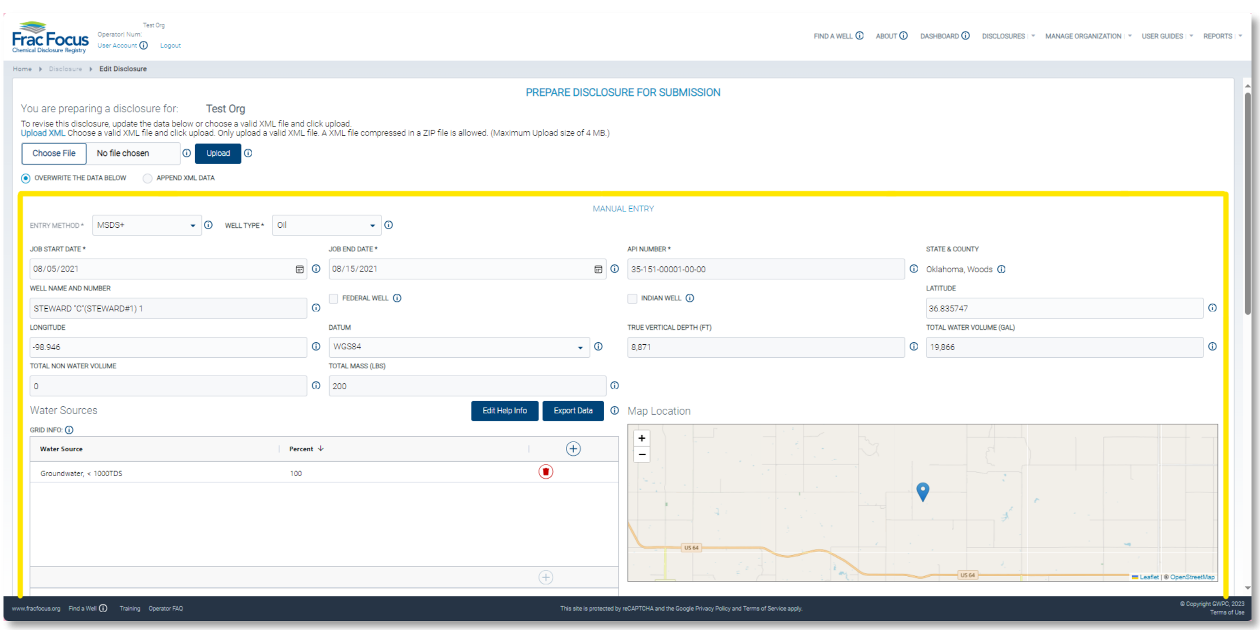
Upload and Submit XML File

If available, users may choose to upload an XML File to complete a disclosure. XML uploads may be used for all well types, including Oil, Gas, Brine, Class VI (CCUS), Energy Pressure Storage, Geothermal, and Hydrogen Storage.

1. Select 'Choose File'

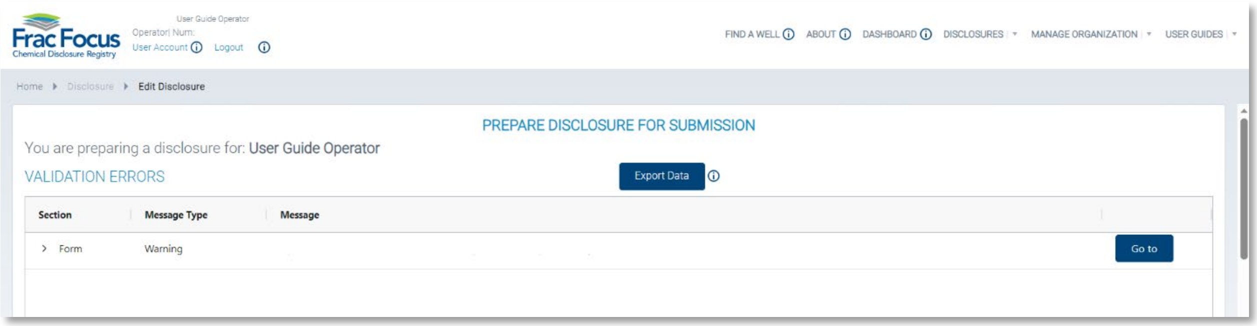
2. Upload a valid XML file
3. Select 'Upload'

4. Information from the valid XML will populate the form.



5. Select 'Preview PDF' at the bottom of the page to preview the disclosure

6. After the information has populated, select 'Validate' to ensure there are no errors on the form for submittal. If there are any errors or warnings, they will populate at the top of the disclosure. Users <u>can</u> submit disclosures with warnings but <u>cannot</u> submit disclosures with errors.

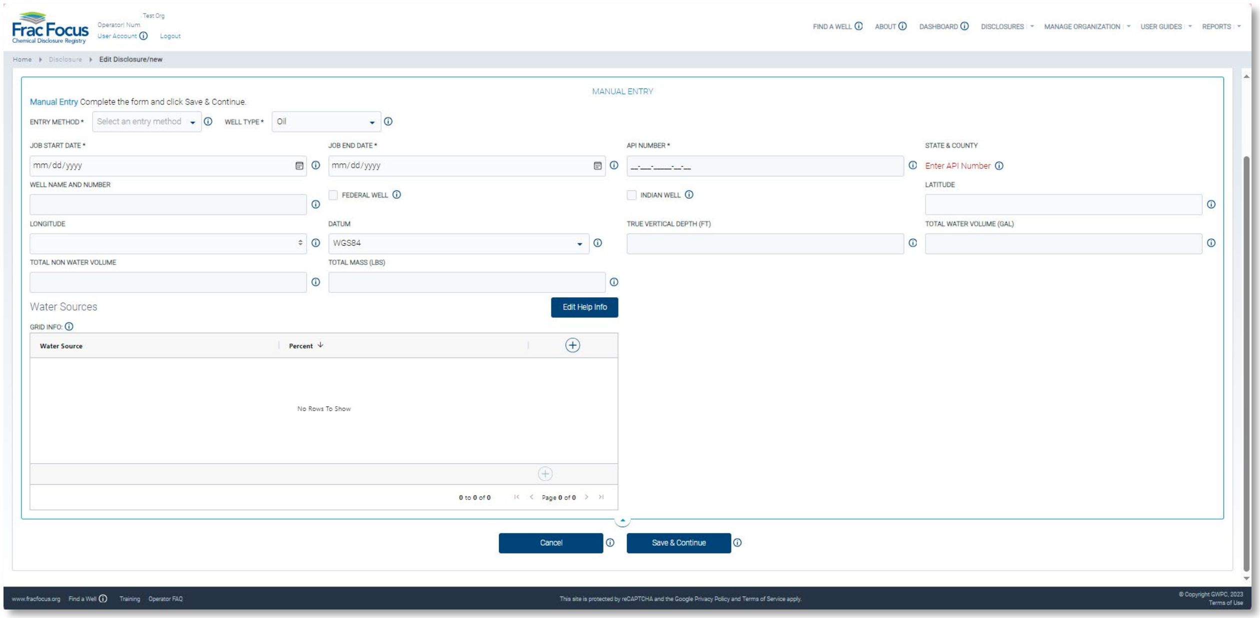


7. Only Operators with the Data Submitter role have access to submit disclosures to FracFocus once the disclosure has been validated.

Manual Entry- Oil & Gas Wells

To enter disclosure information manually for **Oil & Gas Wells**, complete the required fields (marked with an asterisk) in the Disclosure Manual Entry form.

Note: Well Type must be Oil or Gas for the following.



Fields of Note:

- Entry Method*: In FracFocus, disclosures can be created using two separate approaches – the default Systems Approach and the MSDS+ approach.
  - Systems Approach: Includes header data, Additive List, and Ingredient List
  - MSDS+: Includes header data, MSDS Chemical Ingredients List and Additional Non-MSDS Chemicals
- Well Type*: Oil or Gas
- Job Start Date*: Start date of the job performed
- Job End Date*: End date of the job performed
- API Number*: Must be in 14-digit format. Often, users will receive an API number in a shorter 10-digit format. If the API is entered as a 10-digit number, the four zeroes will be added automatically to the end of the API number. For most wells, the last 4 digits are "0" unless the well is a new lateral or new completion. Do not enter the dashes "-" between the sets of numbers – these are added automatically
- State & County: Will auto-populate depending on the API Number provided
- Well Name and Number: Name and number of the well as submitted to State
- Federal Well (checkbox): Indicates if the well is on Federal land or has Federal mineral interests, such that information would be reported to the U.S. Department of Interior's Bureau of Land Management (BLM)

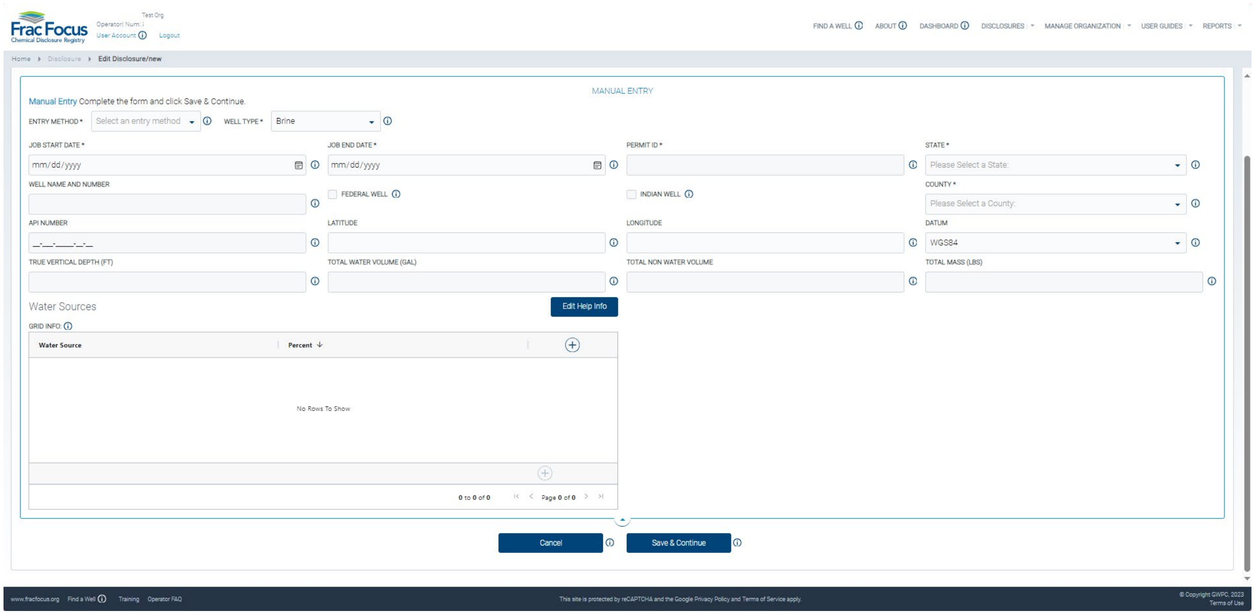
- Indian Well (checkbox): Indicates if the well is on Indian land or has Indian mineral interests, such that information would be reported to the U.S. Department of Interior's Bureau of Land Management (BLM)
- Latitude: Surface latitude location of the well, written as a decimal
- Longitude: Surface longitude location of the well, written as a decimal
- Datum: Datum associated with the longitude/latitude provided (NAD27, NAD83, or WGS84). This choice should correspond with the coordinate system used to locate the company's well.
- True Vertical Depth (ft): True vertical depth of the well (feet)
- Total Water Volume (gal): Total volume of the base water used in the job (gallons)
- Total Non Water Volume: Total volume of any base fluids, besides water, that are used in large amounts (e.g., CO2, Nitrogen, etc.) in the job to transport chemicals and proppant.
- Total Mass (lbs.): Total mass of the job pumped (pounds). Information can be entered here if users need to recalculate the % HF Mass information in the ingredients portion of the form.
- Water Sources: Add and track the percentage of water source types used during the job. Users will be able to input the percentage of the job performed using the water type selected. Select the type of water source with associated breakdown by TDS using the following codes:
    a. Surface Water, <1000TDS
    b. Surface Water, >1000TDS
    c. Groundwater, <1000TDS
    d. Groundwater, >1000TDS
    e. Produced Water
    f. Other, <1000TDS
    g. Other, >1000TDS

Once the information has been entered, select 'Save and Continue'. At this point, users will move on to the section of the disclosure where chemical additives and ingredients are entered. This step will follow either the Systems Approach (see "Systems Approach" section below) or MSDS+ Approach (see "MSDS+ Approach" below).

Manual Entry – Non Oil & Gas Wells

To enter disclosure information manually for a **Non Oil & Gas Well Type**, complete the required fields (marked with an asterisk) in the Disclosure Manual Entry form.

Note: Well Type must be Brine, Class VI (CCUS), Energy Pressure Storage, Geothermal, or Hydrogen Storage for the following.



Fields of Note:

- Entry Method*: In FracFocus, disclosures can be created using two separate approaches – the default Systems Approach and the MSDS+ approach.
  - Systems Approach: Includes header data, Additive List, and Ingredient List
  - MSDS+: Includes header data, MSDS Chemical Ingredients List and Additional Non-MSDS Chemicals
- Well Type*: Brine, Class VI (CCUS), Energy Pressure Storage, Geothermal, or Hydrogen Storage
- Job Start Date*: Start date of the job performed
- Job End Date*: End date of the job performed
- Permit ID*: Permit ID/Number
- State*: State of the well
- County*: County of the well
- Well Name and Number: Name and number of the well as submitted to State
- Federal Well (checkbox): Indicates if the well is on Federal land or has Federal mineral interests, such that information would be reported to the U.S. Department of Interior's Bureau of Land Management (BLM)
- Indian Well (checkbox): Indicates if the well is on Indian land or has Indian mineral interests, such that information would be reported to the U.S. Department of Interior's Bureau of Land Management (BLM)

- API Number: Must be in 14-digit format. Often, users will receive an API number in a shorter 10-digit format. If the API is entered as a 10-digit number, the four zeroes will be added automatically to the end of the API number. For most wells, the last 4 digits are “0” unless the well is a new lateral or new completion. Do not enter the dashes “-” between the sets of numbers – these are added automatically
- Latitude: Surface latitude location of the well, written as a decimal
- Longitude: Surface longitude location of the well, written as a decimal
- Datum: Datum associated with the longitude/latitude provided (NAD27, NAD83, or WGS84). This choice should correspond with the coordinate system used to locate the company’s well.
- True Vertical Depth (ft): True vertical depth of the well (feet)
- Total Water Volume (gal): Total volume of the base water used in the job (gallons)
- Total Non Water Volume: Total volume of any base fluids, besides fresh water, that are used in large amounts (e.g., CO2, Nitrogen, or recycled produced water) in the job.
- Total Mass (lbs.): Total mass of the job pumped (pounds). Information can be entered here if users need to recalculate the % HF Mass information in the ingredients portion of the form.

  Water Sources: Add and track the percentage of water source types used during the job. Users will be able to enter a percentage of the job performed using the water type selected. Select a type of water source with associated breakdown by TDS using the following codes:

  a. Surface Water, <1000TDS
  b. Surface Water, >1000TDS
  c. Groundwater, <1000TDS
  d. Groundwater, >1000TDS
  e. Produced Water
  f. Other, <1000TDS
  g. Other, >1000TDS

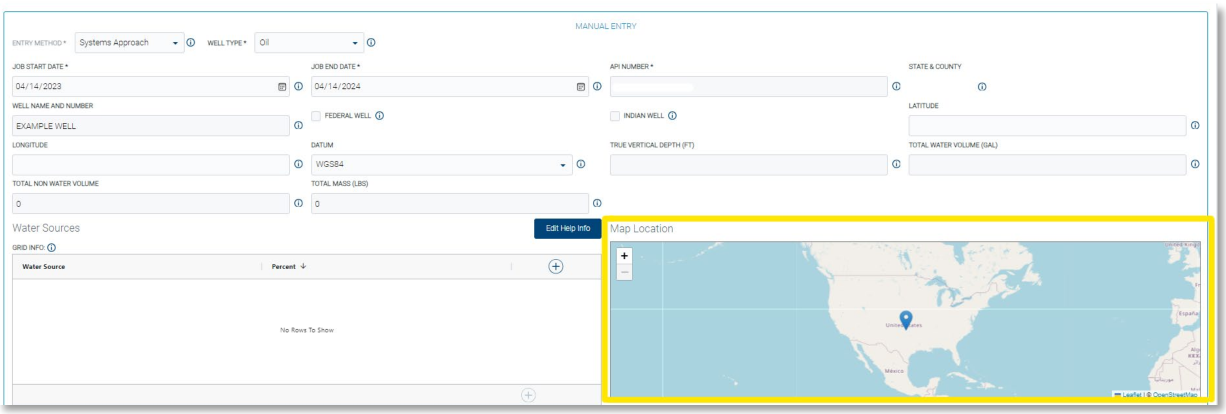
Once the information has been entered, select ‘Save and Continue’. At this point, users will move on to the section of the disclosure where chemical additives and ingredients are entered. This step will follow either the Systems Approach (see “Systems Approach” section below) or the MSDS+ Approach (see “MSDS+ Approach” section below).

Systems Approach

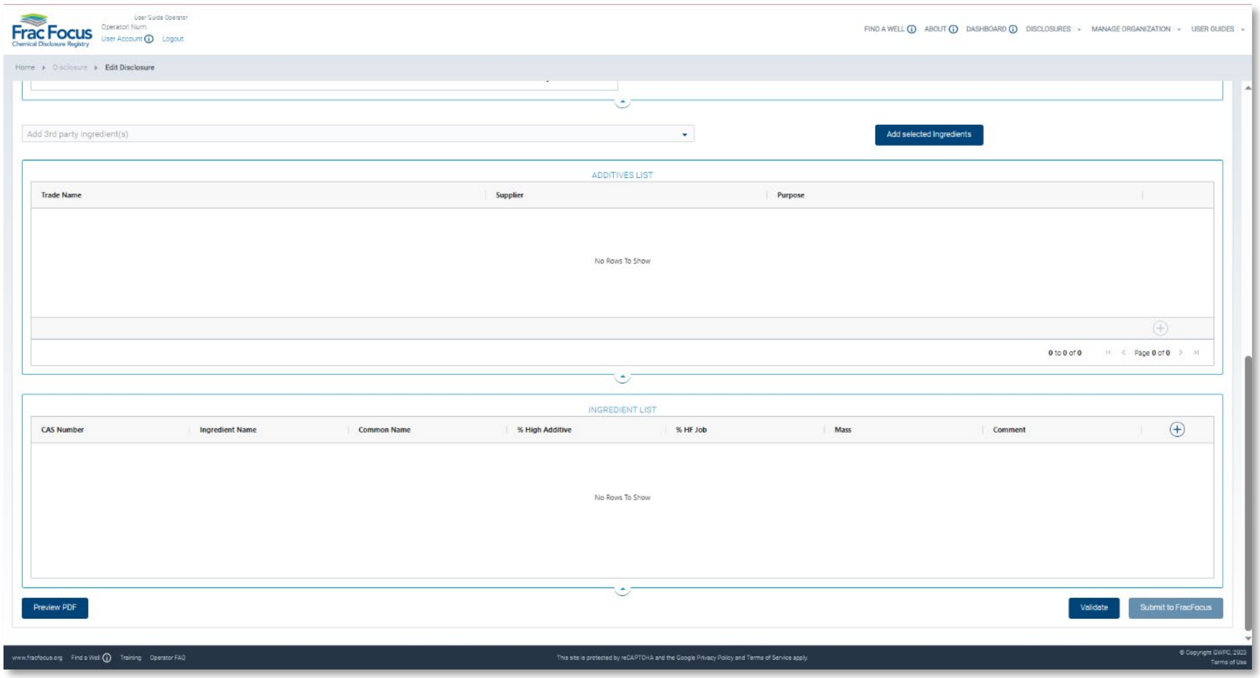
The Systems Approach allows users to input the data for all additives and all ingredients in common lists.

After the header information has been entered and the user has selected Save and Continue, the location of the well will show on the map. Users can visually verify that the map shows the correct location of the well.

Note: Example shows System Approach for Oil Well Type – the same process is followed for all Well Types.

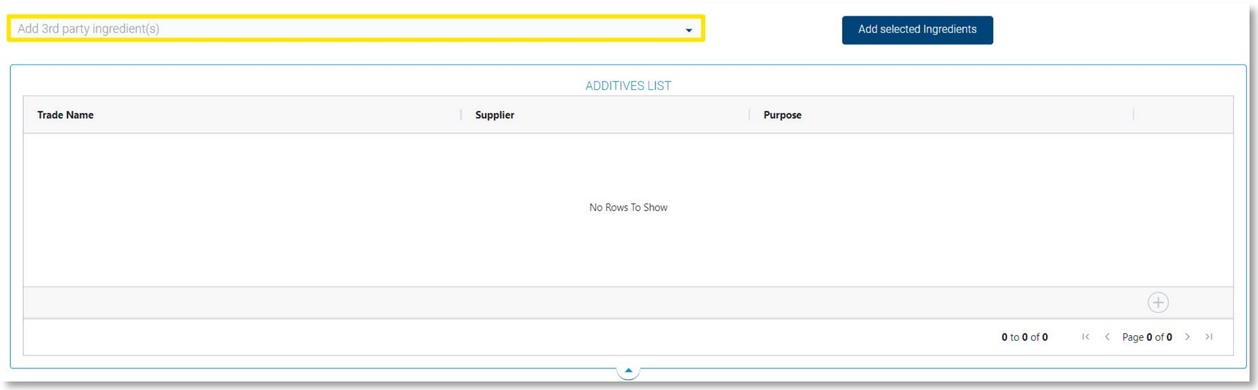


The Prepare Disclosure for Submission page allows entry of additives and their ingredients.

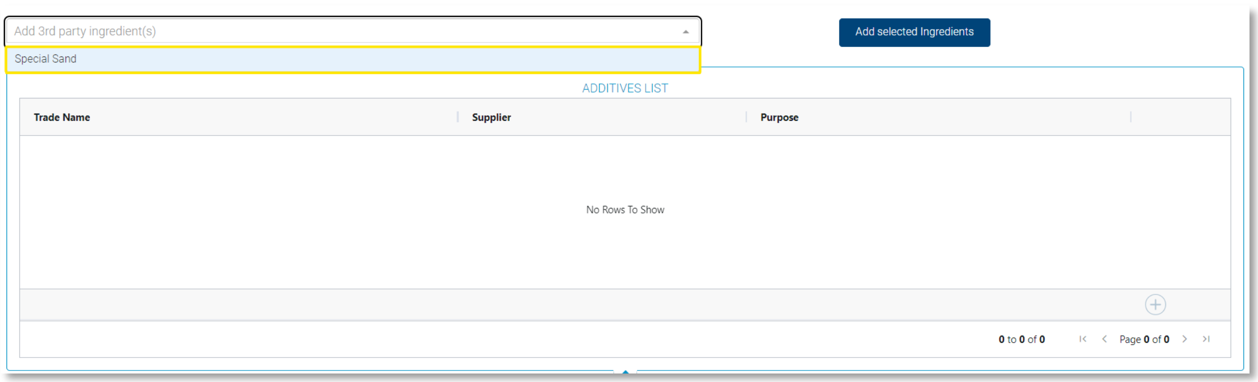


Systems Approach: Add 3rd Party Ingredients

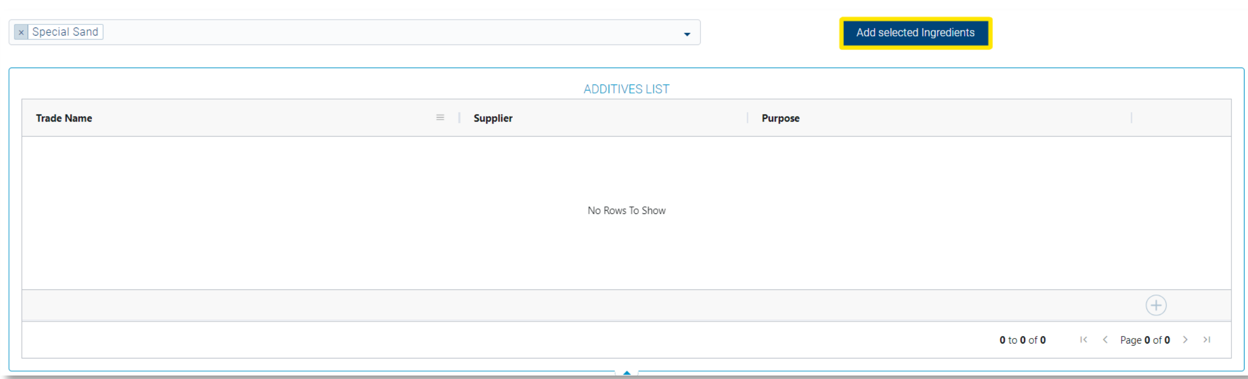
1. Select the Add 3rd Party Ingredient(s) drop-down



2. Choose desired 3rd party ingredient(s)

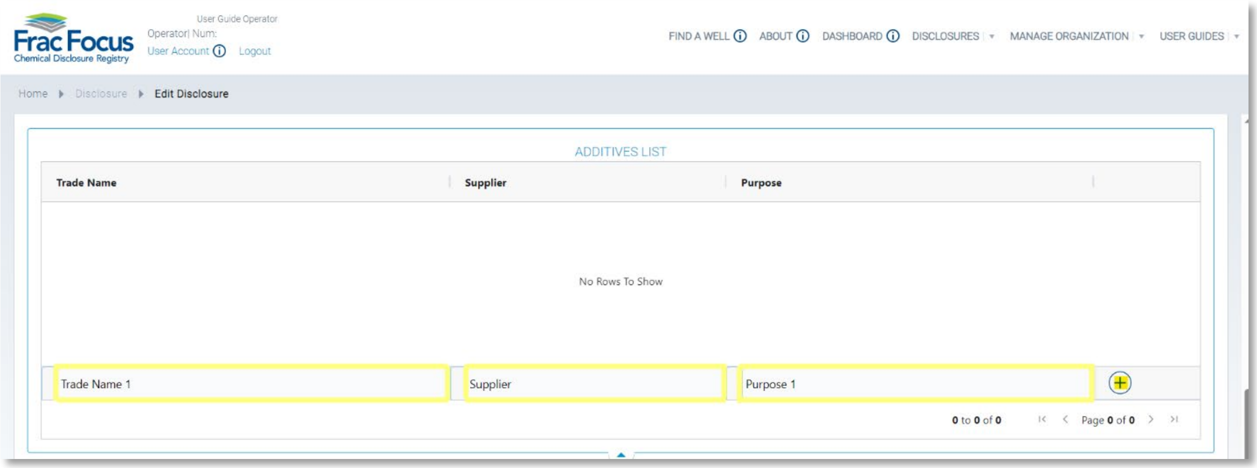


3. Select 'Add Selected Ingredients' to add to the Additives and Ingredient List



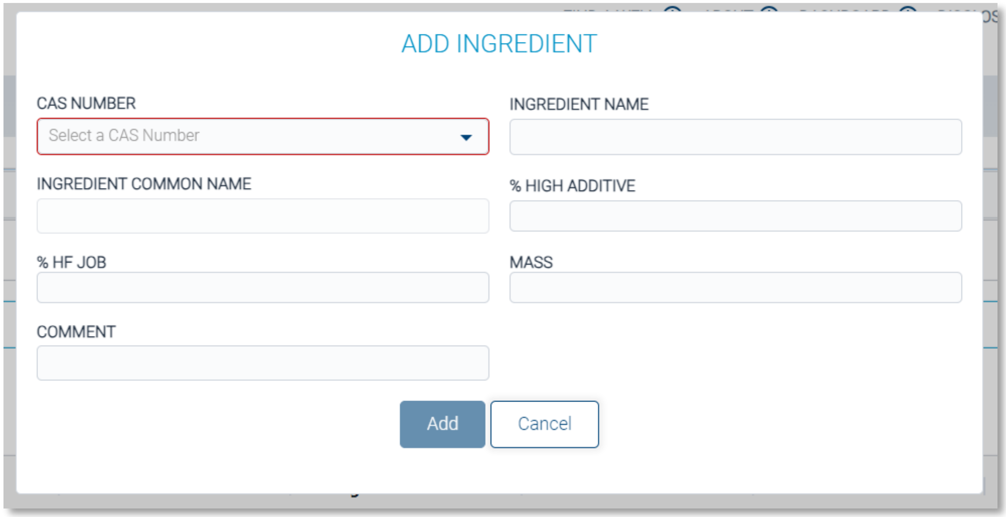
Systems Approach: Add Additives

Enter the Trade Name, Supplier, and Purpose for each additive. Data is stored as soon as users tab into a subsequent field. Once the information has been entered, select to add to the list.



Systems Approach: Add Ingredients

Select to add an ingredient to the list. Ingredients are not linked to any specific additive, but rather are part of the overall list. For each ingredient, enter the CAS Number, Ingredient Name, % High Additive, and % HF job. Users can provide Mass and Comments if applicable. Select 'Add' to add to the Ingredient List. Users may edit the information in the table by selecting the list fields.

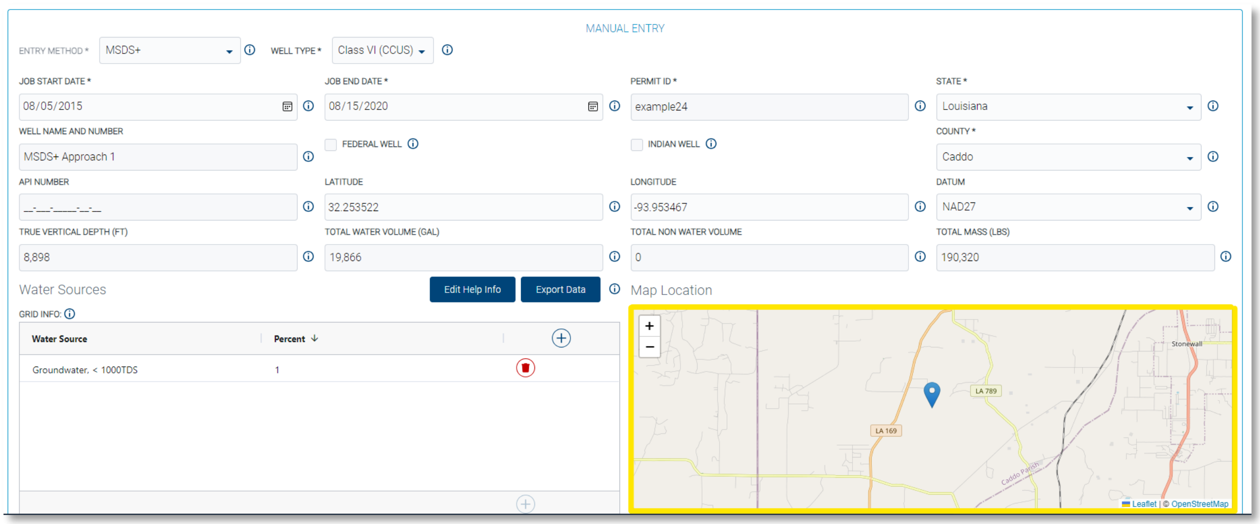


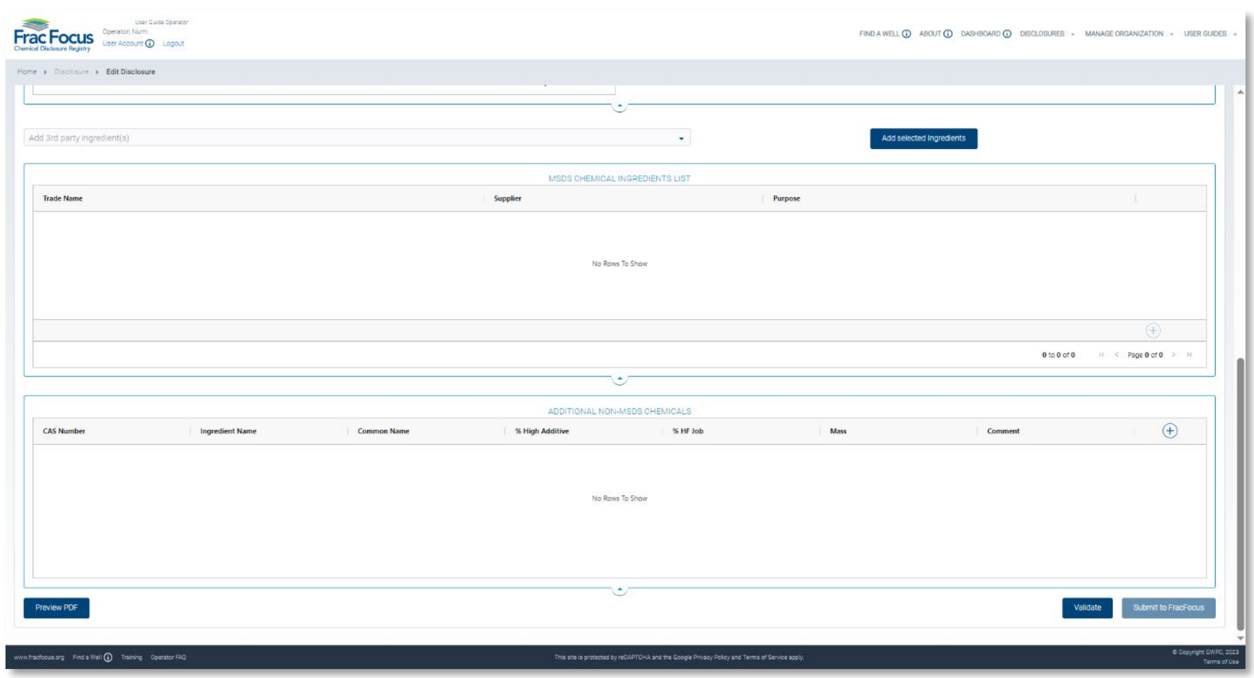
MSDS+ Approach

With the MSDS+ approach, the additives are split into two separate lists depending on whether the chemicals require preparation of an SDS (Safety Data Sheet) or not, MSDS Chemical Ingredients and Additional Non-MSDS Chemicals. Usually, water and sand are included in the MSDS Chemical Ingredients list even though they do not require preparation of an SDS.

After the header information has been entered and the user has selected ‘Save and Continue’, the location of the well will show on the map. Users can visually verify the map shows the correct location of the well. Users will be directed to the Prepare Disclosure for Submission page. This screen allows entry of the additives and their ingredients.

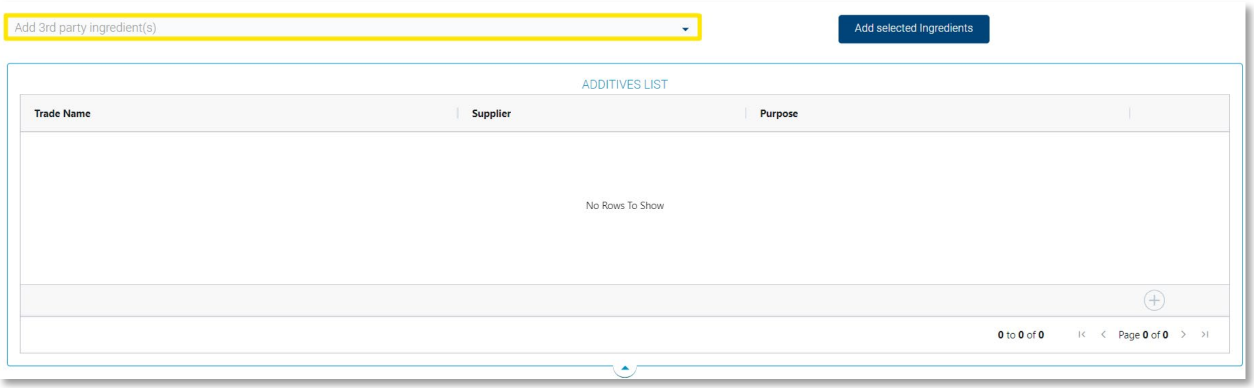
Please Note: Example shows MSDS+ Approach for Class VI (CCUS) Well Type – the same process is followed for all Well Types.



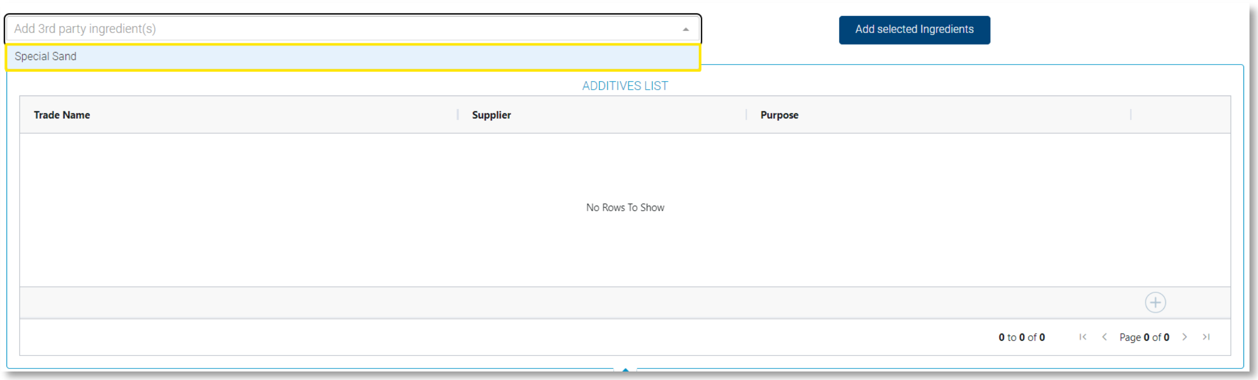


MSDS+ Approach: Add 3rd Party Ingredients

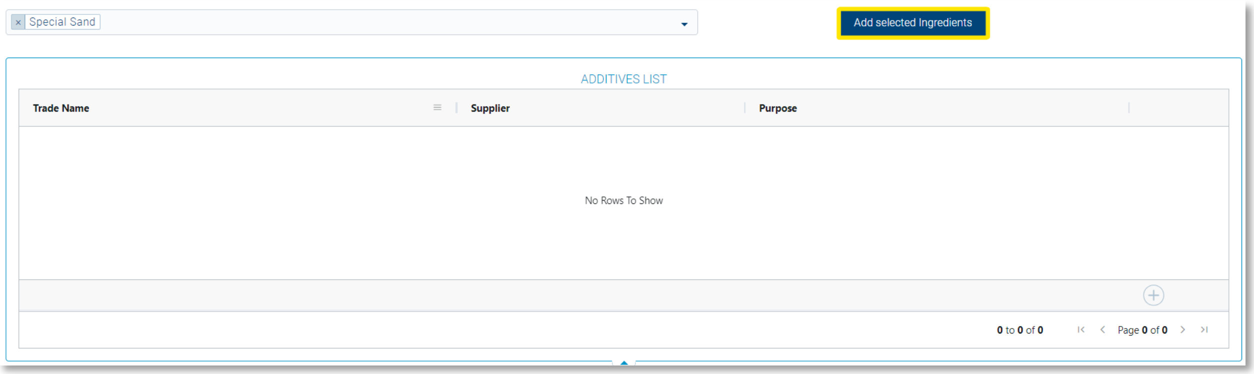
1. Select the Add 3rd Party Ingredient(s) drop-down



2. Choose desired 3rd party ingredients



3. Select 'Add Selected Ingredients' to add to the MSDS Chemical Ingredients and Additional Non-MSDS+ Chemicals Lists



MSDS+ Approach: Add MSDS Chemical Ingredients

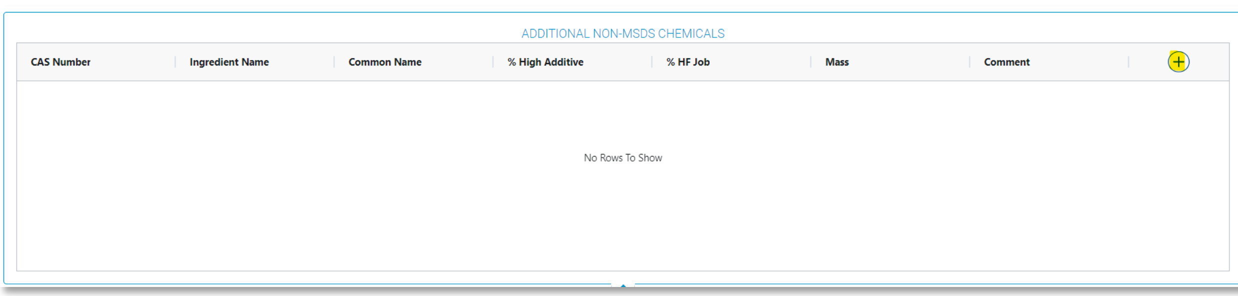
Under the MSDS Chemicals Ingredients List, enter:

- Trade Name
- Supplier
- Purpose

Select ⊕ to add to the list

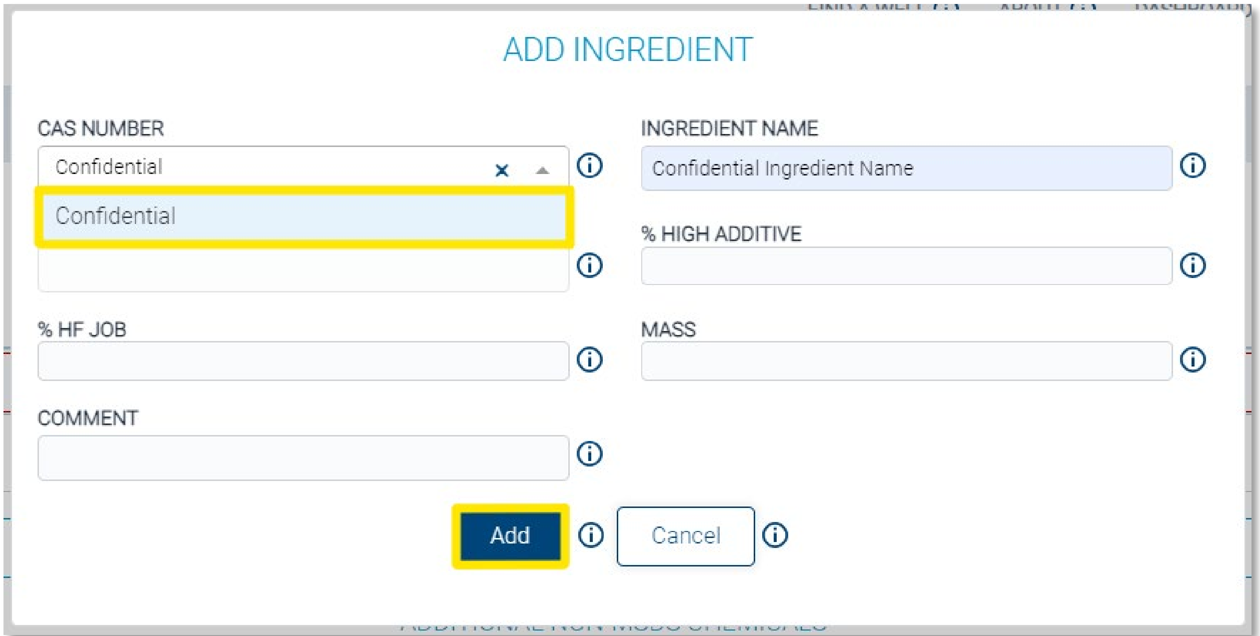
MSDS+ Approach: Add Additional Non-MSDS Chemicals

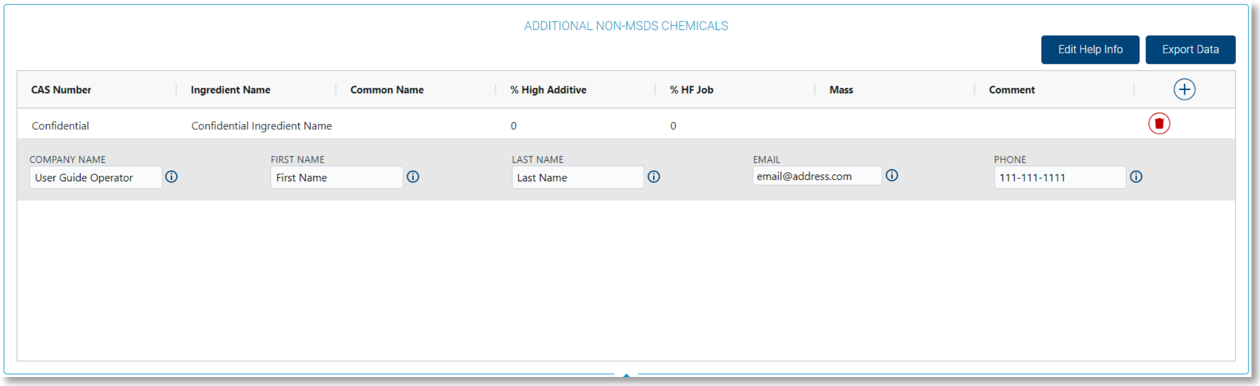
Select ⊕ to add a non-MSDS chemical



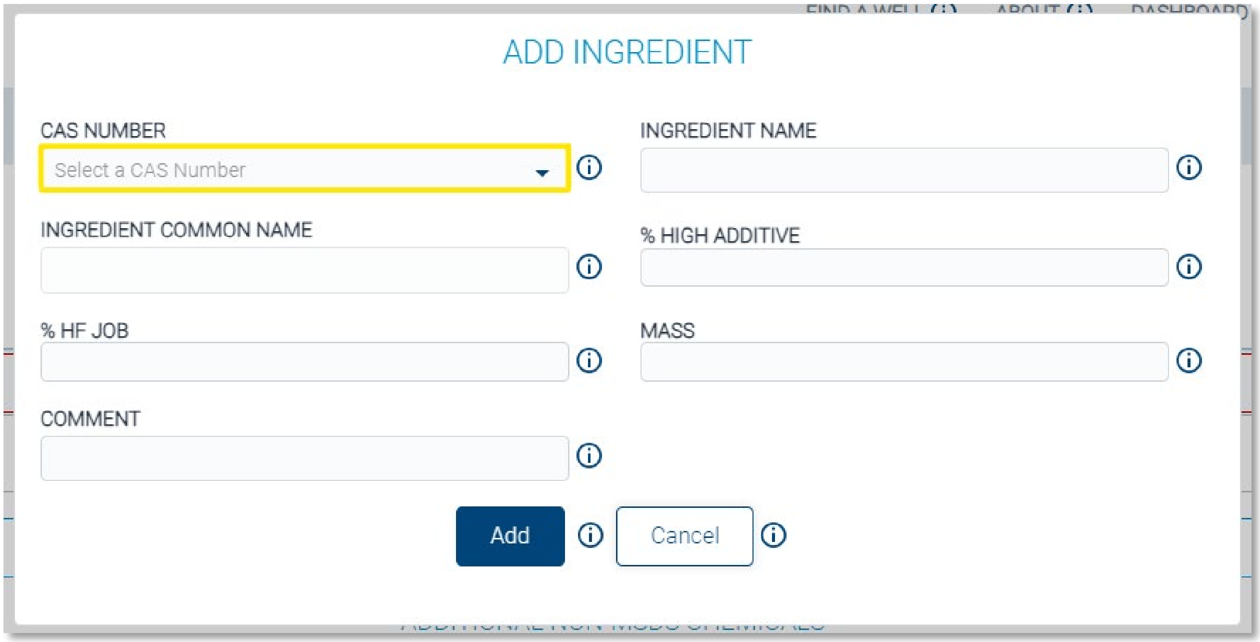
The Add Ingredient form will display, where users may enter the CAS Number (if applicable), Ingredient Name, % High Additive, % HF Job, Mass, and Comments

For the special cases of Proprietary, Trade Secret, CAS Not Assigned, and Confidential ingredients, input the value (ex. "Proprietary") in the CAS Number field. If a special case has been entered for the CAS Number, claimant information fields (Company Name, First Name, Last Name, Email, and Phone) will allow for input after adding.





If the ingredient has a CAS number, enter it in the CAS Number box. Ensure the correct format is used with numbers and dashes. If entered incorrectly, the ingredient will not populate in the drop-down. Users may enter the name of the ingredient or choose one of the options from the drop-down list provided by the system (based on the CAS number).



Fields of Note:

- % High Additive: Often the SDS shows the percentage of each ingredient as a range. Users should enter the high end of the percentage range in the % High Additive box.
- % HF Job: Here, users will enter what percent of the ingredient is used in the whole job (% by mass). For disclosures that are generated manually (not those already prepared by the Service Company), users need to calculate the percentage by mass of the total frac job made up by each ingredient. Users do not need to estimate the mass for water – it is automatically calculated from the volume of water entered in the header information. The proportions of all the other additives are then recalculated by FracFocus. For nearly all the ingredients other than water and sand, the % HF Job numbers will be very small (having several zeros behind the decimal point). When entering % HF Job numbers, it is important to enter the percentage rather than a decimal version of the number. For example, if the actual % HF is 0.00056%, and the decimal version is 0.0000056 the number that should be entered in the field is 0.00056.
- Mass: The ingredient Mass box is generally left blank. It is used, however, when a new additive is entered onto an existing disclosure report.

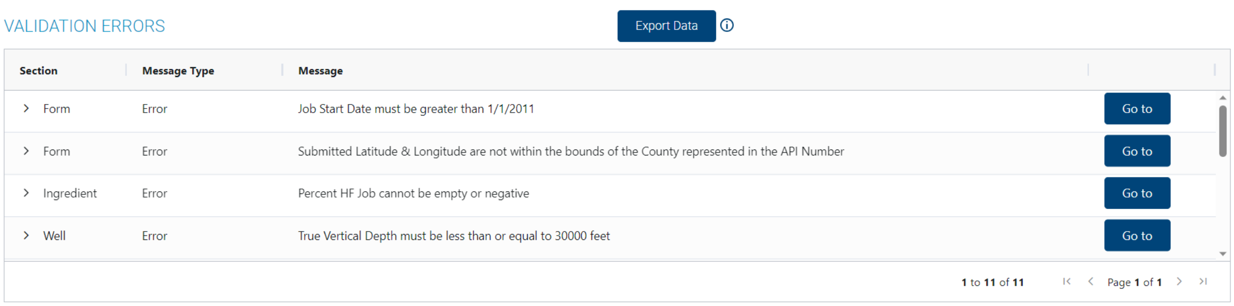
When finished, select 'Add' to submit to the list. The additive will save and populate in the Additional Non-MSDS Chemicals list. Users can then enter information for more additives. If a user wants to remove a particular additive from the disclosure report, select the red trash can that corresponds with the additive.

Submitting to FracFocus

After all disclosure information has been entered, users can preview the disclosure by selecting ‘Preview PDF’. The disclosure will download as a .PDF to the user’s device for preview.

To submit the disclosure, users first need to select ‘Validate’ to validate the information and check for any errors or warnings

Any warnings or errors will populate in the Validation Errors list. In FracFocus, users can submit a disclosure with warnings. Users must correct any errors to submit the disclosure to FracFocus. Use the Go To buttons to navigate to the error/warning.



Section	Message Type	Message	
Form	Error	Job Start Date must be greater than 1/1/2011	Go to
Form	Error	Submitted Latitude & Longitude are not within the bounds of the County represented in the API Number	Go to
Ingredient	Error	Percent HF Job cannot be empty or negative	Go to
Well	Error	True Vertical Depth must be less than or equal to 30000 feet	Go to

Once all errors have been corrected, select ‘Validate’ to validate the disclosure. Once validated, select ‘Submit to FracFocus’ for submittal.

Reviewing, Editing and Approving Disclosure Reports

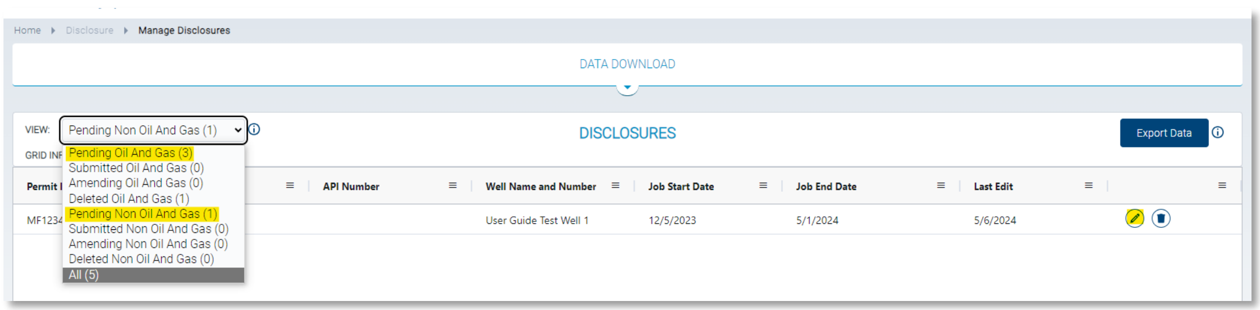
The previous section details how an Operator with the Data Submitter role can create and submit new disclosures. This is useful information for understanding data entry methods. However, most of the disclosure reports are created by Service Companies and submitted to the Operator's queue. The Operator must review these disclosures and edit them as necessary. When disclosures are complete, the Operator sends them for validation by the FracFocus code. When validation is successful, the disclosures are submitted into the FracFocus database, and the information is available to the public.

This section describes the procedures for reviewing, editing, validating, and submitting disclosures. It also explains how other additives, not included by the Service Companies, can be added to a disclosure.

Only Operators with the Data Submitter role have access to edit and submit disclosures to FracFocus. Operators without the Data Submitter role only have access to review the disclosures in the queue.

Reviewing and Editing Existing Disclosure Reports

Navigate to the Disclosures table (on the Operator dashboard) or the Manage Disclosures page. Data Submitters can edit Oil & Gas, and Non Oil & Gas Pending Disclosures. Select the pencil to edit a pending disclosure report.



Users will be directed to the Prepare Disclosure for Submission page with the header data, Additive List, and Ingredient List (Systems Approach Entry Method) or the Prepare Disclosure for Submission page with the header data, MSDS Chemical Ingredients List and Additional Non-MSDS Chemicals (MSDS+ Entry Method).

To edit a disclosure, users can upload a valid XML to overwrite or append the data or can edit the disclosure manually. To edit the disclosure manually, select the desired field to make changes. Once the changes have been made, the disclosure will need validated.

Validating a Disclosure

When the Data Submitter Operator is satisfied that the disclosure report is complete, they must submit it for inclusion in FracFocus. At the bottom of the disclosure report, select 'Validate'.

FracFocus will make internal checks. If the disclosure does not meet FracFocus requirements, the disclosure will list the warnings and/or errors in the disclosure.

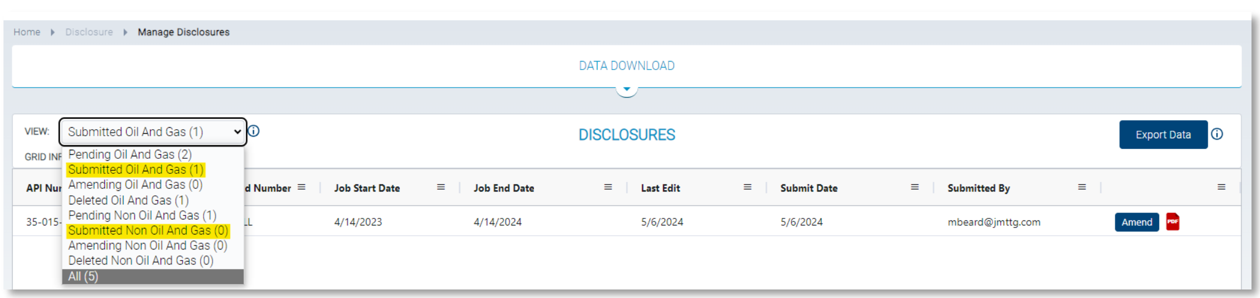
- Warnings: Warnings do not block validation but serve as reminders that something may not be completely correct. If the data entered is correct, the user can ignore the warnings and proceed to submittal. If the data entered is incorrect, the user can revise the data and submit the disclosure for validation again.
- Errors: An error means that the data does not meet the expected requirements of FracFocus and must be corrected prior to submittal.

After correcting all errors and/or warnings, select 'Validate Disclosure' for submittal.

Submitting a Disclosure

At this point, the disclosure can be submitted by clicking 'Submit to FracFocus'. Note: When the validation meets FracFocus requirements, the Submit to FracFocus button will become available.

The successfully submitted disclosure report will leave the Pending tab and move to the Submitted tab on the Manage Disclosures page.



Note that under the Submitted tabs, there is an Amend button and a .PDF icon. Submitted disclosures can be modified by selecting 'Amend'.

Select the .PDF icon to download a full .PDF version of the disclosure. This is what the public can view.

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	08/05/2021
Job End Date:	08/15/2021
State:	Oklahoma
County:	Woods
API Number:	35-151-00001-00-00
Operator Name:	User Guide Operator
Well Name and Number:	User Guide Example
Latitude:	36.835747
Longitude:	-98.946
Datum:	WGS84
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	8871
Total Base Water Volume (gal)*:	19866
Total Base Non Water Volume:	0

FracFocus Chemical Disclosure Registry

Water Source	Percent
Groundwater, < 1000TDS	100.00%

Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Surf 1	Well Services	Surfactant					
			Fatty Acid diethanolamide	61790-66-7	5.00000	98.00000	None
Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS							
			potassium hydroxide	1310-58-3	5.00000	0.00484	None
			Beeblebrox	CONFIDENTIAL	5.00000	0.00035	None

* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water
** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.
Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

Adding Chemicals to an Existing Disclosure

In some situations, the Operator receives a disclosure report from a Service Company that contains most, but not all the additives used. For example, the Operator may have purchased a specialty biocide from a different vendor. That biocide may not be included in the Service Company's disclosure. To make a complete disclosure, the biocide must be included.

Typically, the Service Company has provided values of % HF Job for each ingredient. The Operator with the data submitter role will need to enter the additional additive(s) manually and account for the incremental percentage in the % HF job.

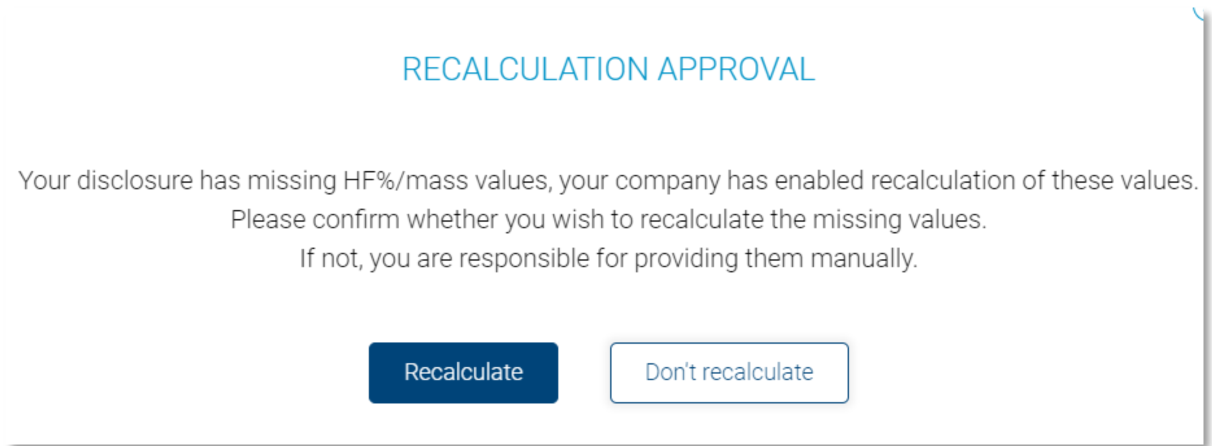
Open the disclosure from the Operator's queue under Manage Disclosures. The system has already calculated the mass of the full frac fluid. The mass of the new additive is entered, and FracFocus will provide an option to recalculate the % HF Job numbers to account for the incremental mass.

If the organization permits, FracFocus will provide the option to recalculate the HF% when:

- The mass data is fully populated, %HF Job is not fully populated, and the user has edited the ingredient records by adding an ingredient with mass (changing the mass of the system) and no %HF Job was entered on the ingredient record

- User uploads additional XML ingredients with mass values and zero/null %HF Job
- Mass is fully populated, and user has deleted an ingredient, changing the total mass of the system

If the user consents to the recalculation, select 'Recalculate'. If the user does not consent, select 'Don't recalculate' and they will be responsible for providing the values manually.

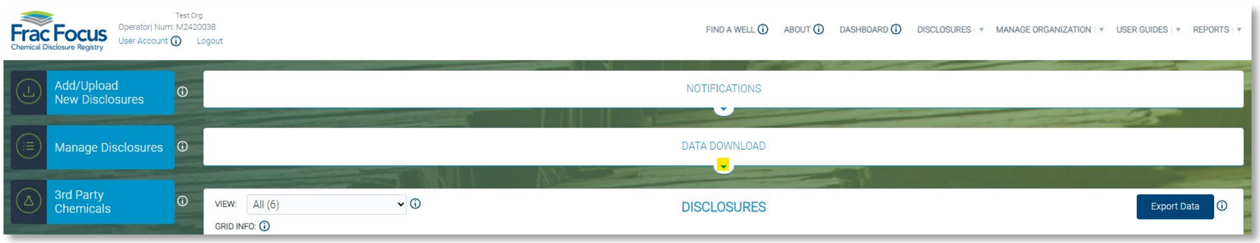


The new additive name, supplier, purpose, and ingredient information are entered. Numbers (pounds) are entered in the Mass box, not the % HF Job box.

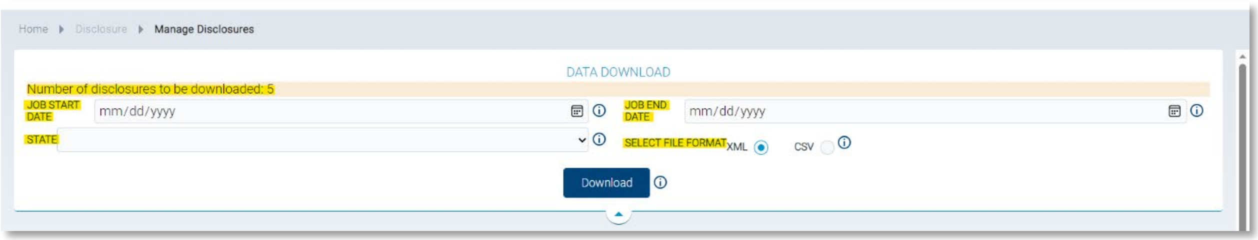
The list of additives is updated to include the biocide. The % HF Job values are adjusted to reflect the incremental mass of the biocide. Compare the % HF Job values. They all shift slightly to reflect the additional mass contribution of the biocide added manually.

Download Chemical Disclosures

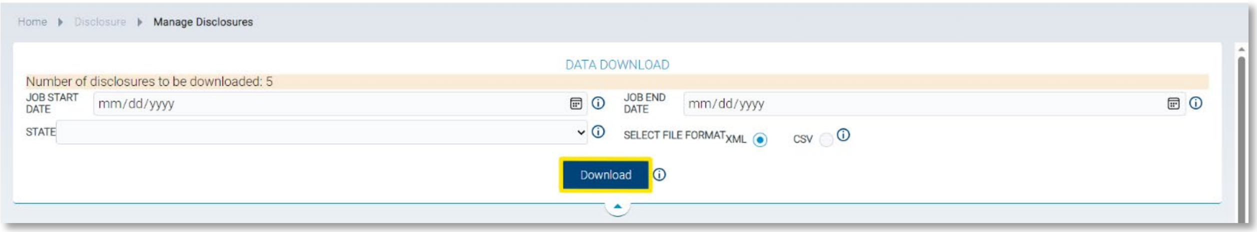
In FracFocus, the Operator, Registered Agent, and Service Company are able to download Pending, Submitted, and Amending disclosure reports. From the Dashboard or Manage Disclosure page, select the Data Download drop-down.



Refine the number of disclosures to be downloaded by entering the Job Start Date, Job End Date, State (where the desired wells are located) and/or File Format. The number of disclosures to be downloaded will change as more or less filters are applied.

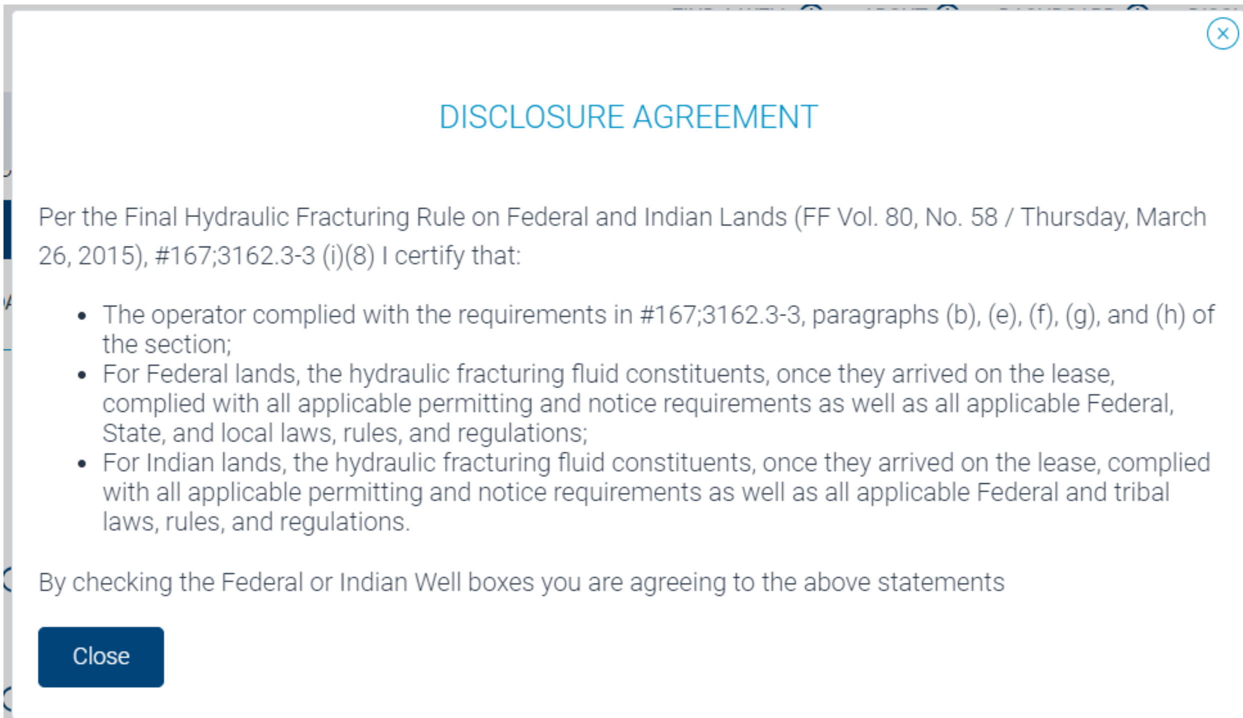


Once desired filters have been applied, select 'Download' and the .xml will download onto the users device.



Additional BLM Requirements

The Bureau of Land Management is working on regulations that govern disclosure of chemicals used to fracture wells located on Federal or Indian lands. Anytime the Federal or Indian Well checkboxes are checked, a Disclosure Agreement pop-up will appear. By checking the Federal or Indian Well boxes users are agreeing to the disclosure agreement.



Frac Focus
Chemical Disclosure Registry

FracFocus
REGISTERED AGENT GUIDE

Chapter 5 – Using FracFocus as a Registered Agent

This chapter describes the activities a Registered Agent can perform within FracFocus.

A Registered Agent is an organization that supports Operators by entering, validating, and potentially submitting disclosures. There are two different roles that can be assigned to users employed by a Registered Agent:

- **Supervisor** – A supervisor has overall responsibility for managing the organization's users and registration

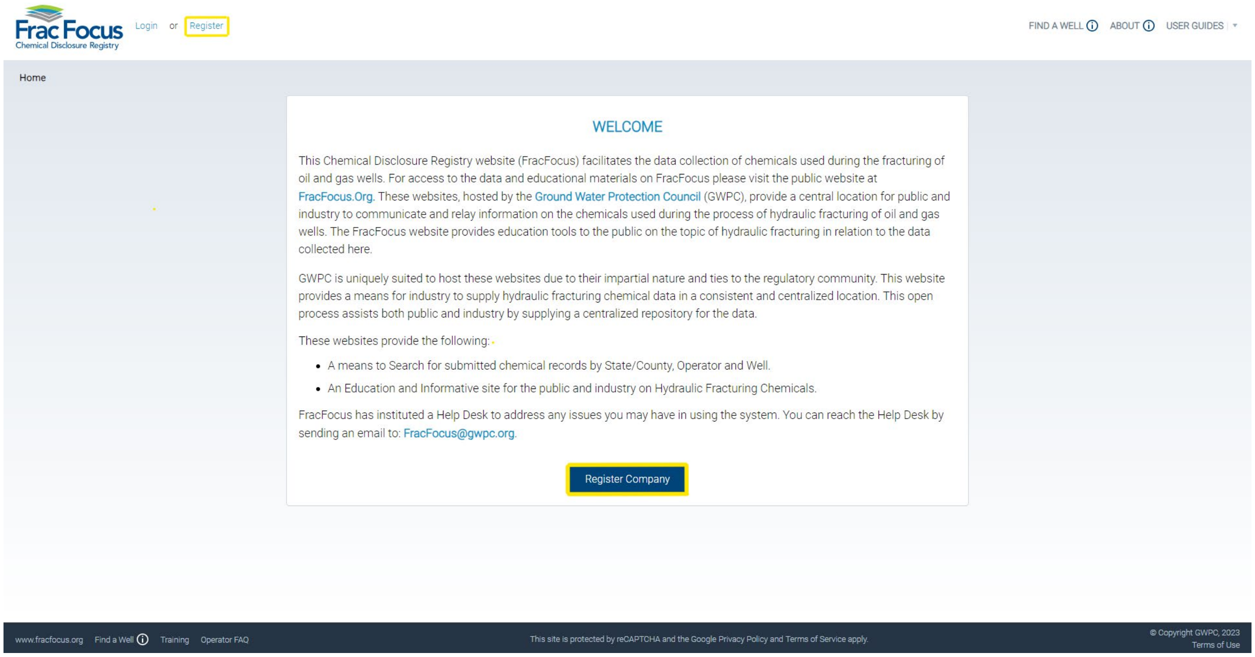
- **Data User** – A data user, when approved by Operator, can submit disclosures for an Operator

Getting Started as a Registered Agent

Registering a Registered Agent

The first thing a Registered Agent must do is register to participate in FracFocus. The person who makes the initial registration for a Registered Agent is automatically assigned the Supervisor role. If a user has registered for FracFocus previously, they do not need to register again. Registering a company implies that the company is not an existing organization registered in FracFocus. The system will test to see if the registration information matches previous registrations.

To Register: If a Registered Agent has not yet registered, select 'Register' (at the top next to Login) or 'Register Company' on the main screen.



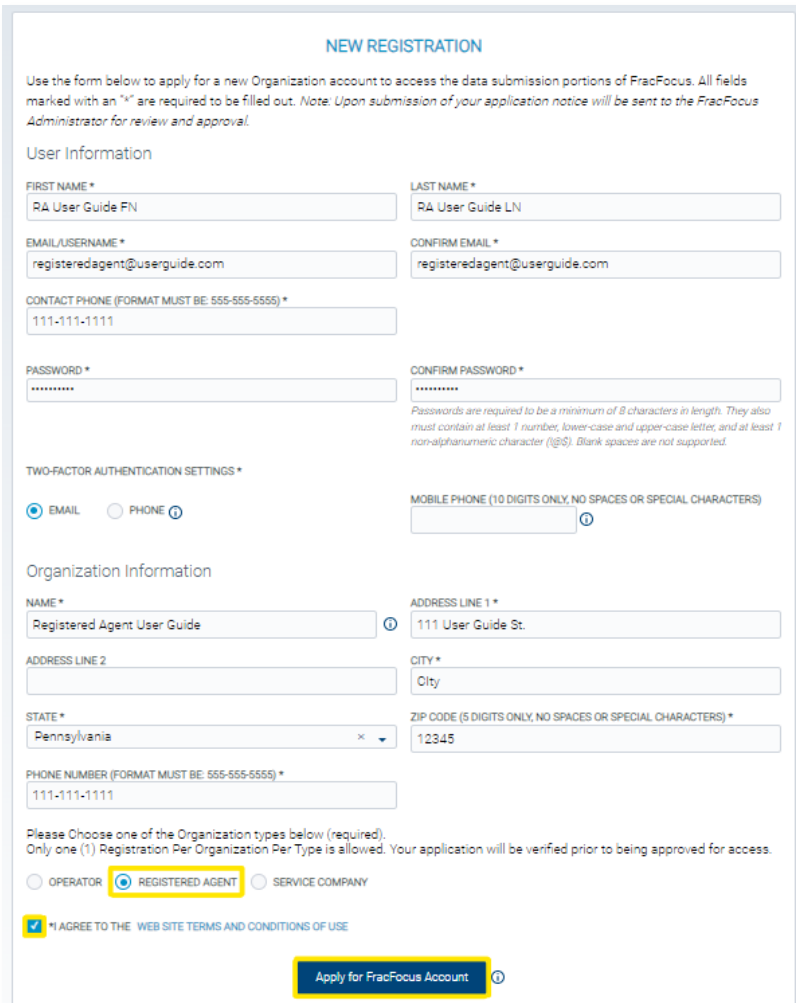
Users will be directed to the New Registration form.

Users must input the required fields and create a password. Passwords are required to be a minimum of 8 characters in length. They also must contain at least 1 number, a lower-case and an upper-case letter, and at least 1 non-alphanumeric character (!@$). Blank spaces are not supported.

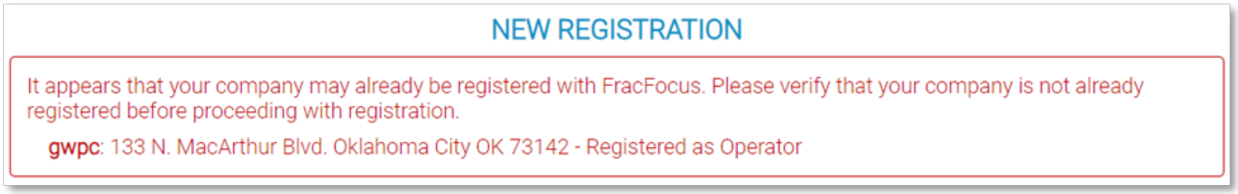
Users must select EMAIL or PHONE for two-factor authentication. If a user prefers to receive authentication via phone, they are required to enter a mobile phone number that can receive text messages.

Select Registered Agent from the organization types. When registering a new organization, users may only select one type of entity.

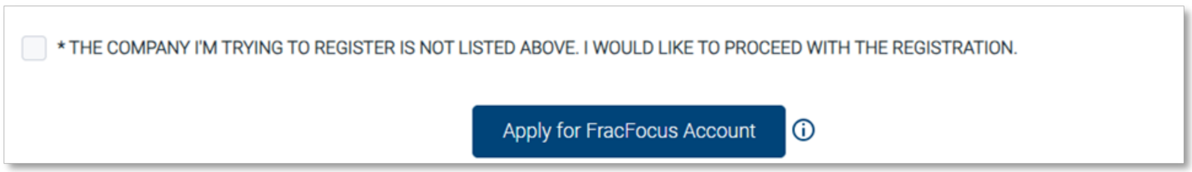
After reviewing the application for accuracy and agreeing to the Web Site Terms and Conditions of Use, select 'Apply for FracFocus Account'.



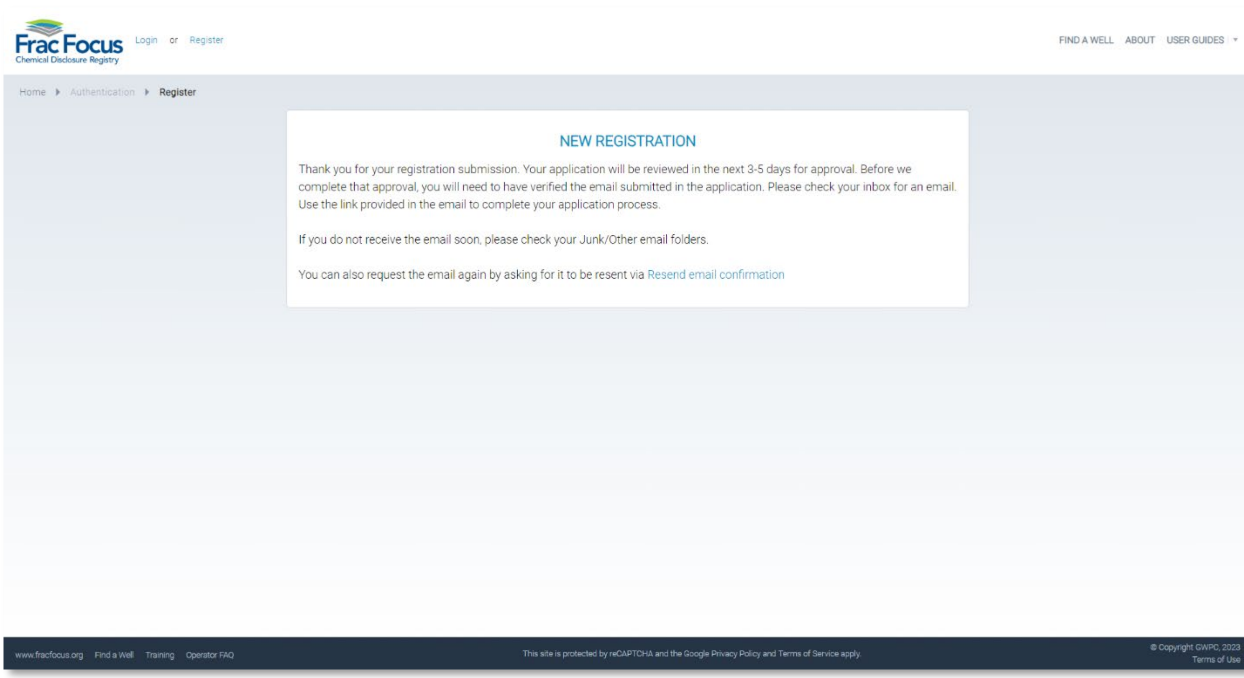
If the system finds a matching existing organization registration it will display at the top of the form.

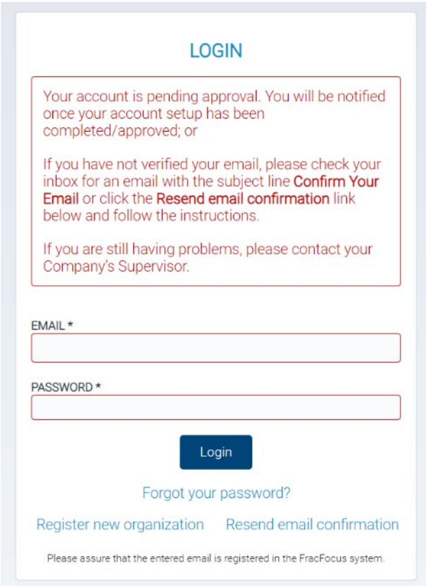


If the user's company is not represented in the list, scroll to the bottom, and check the box to confirm the company is not listed. Select 'Apply for FracFocus Account' to proceed.



After the application has been submitted, the user will receive an email to verify the email address associated with their account. Before the approval can be completed, the user must verify the email submitted in the application.



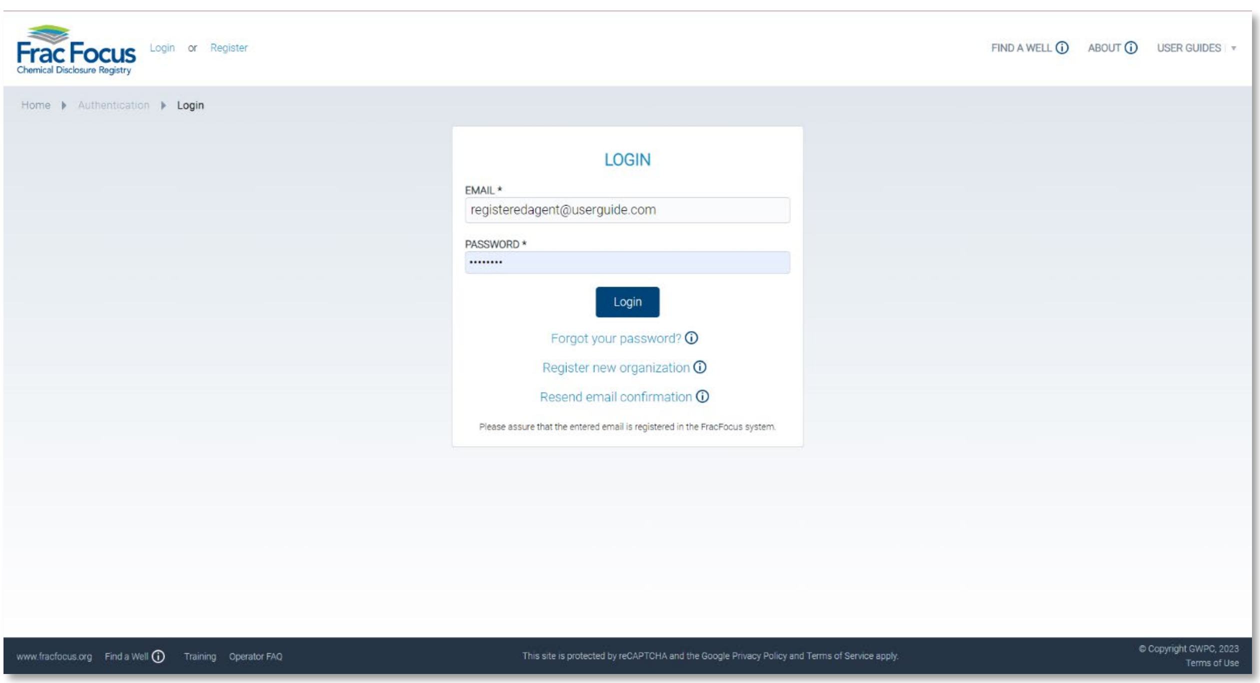


Once the email is verified, the application will be reviewed in the next 3-5 business days for approval by a FracFocus Support Administrator. Once approved, the user will receive an email acknowledging the approval.

Please note – users will not be able to login to FracFocus until their account has been approved. If a user tries to login, they will receive a notice stating the account is pending approval.

Once approved, use the link from the email or return to https://www.fracfocusdata.org. Enter the email, password, and complete the two-factor authentication once prompted

To Login: Start at the FracFocus homepage (www.fracfocusdata.org). At the top left of the screen (next to the FracFocus logo), select 'Login'. Users will be prompted to enter their email address, password, reCAPTCHA, and complete the two-factor authentication to get started.

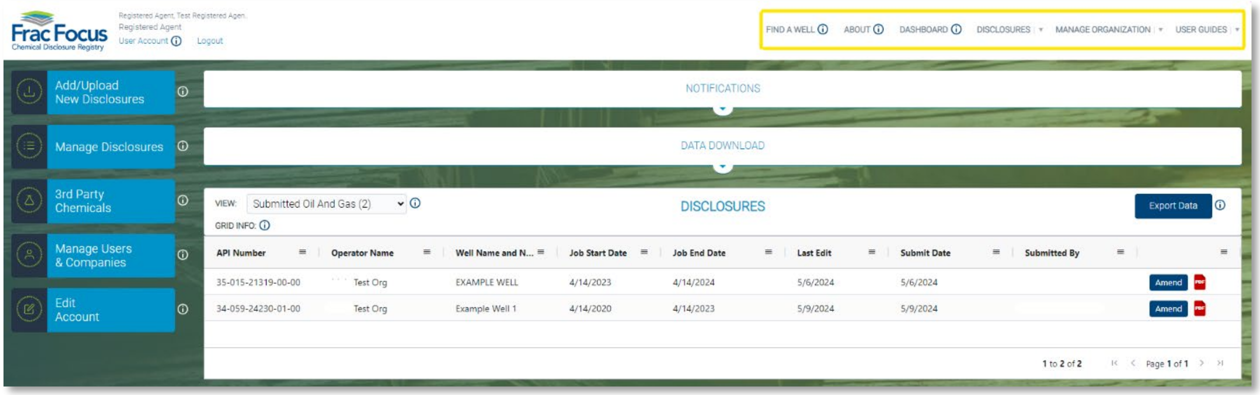


The Registered Agent Dashboard

After successfully logging in, users will be directed to the Registered Agent Dashboard that displays Notifications, Data Download, Disclosures, the Upper Right-Hand Navigation, and the Left-Hand Navigation Menu. Each of these dashboard components allow users to perform actions in the system based on their assigned roles.

Upper Right-Hand Navigation

Users will see this menu on most FracFocus screens – this allows efficient navigation to other screens and to return to the dashboard. The options available depend on the role assigned to the user. The screen shows permissions for a user with both supervisor and data submitter roles.



Find a Well

Directs users to the public disclosure interface on FracFocus.org to search for submitted disclosures.

About

Directs users to the About page which contains general information about FracFocus.

Dashboard

Directs users to the Dashboard – the home screen.

Disclosures

Allows users to add/upload new disclosures, manage disclosures, and manage 3rd party chemicals.

Manage Organization

Allows users to manage their organization's profile, users, set up organizational defaults, and view the list of Operators who have authorized the organization as a Registered Agent to upload, review, edit and submit disclosures on their behalf. Only Registered Agents with the Supervisor role will see this in the navigation.

Organization Defaults

Organization Defaults allows a Registered Agent to edit default values used in the system. This menu item is only available to Registered Agents with a Supervisor role. To view and/or edit the Organization Defaults, select Manage Organization Defaults in the Manage Organization drop-down (from the upper right-hand navigation menu).

The current Organization Defaults available are Non Oil & Gas and Percentage Hf Recalculation.

Non Oil & Gas

The Non Oil and Gas default allows a Registered Agent Supervisor to enable or disable the organization's ability to view and manage non oil & gas wells (i.e., wells **not** associated with the production of oil and gas) in addition to oil & gas wells (i.e., wells associated with production of oil and gas).

Please Note: This default value must be set to 'true' to enable the ability to view and manage non oil & gas wells. Only set to 'true' if submitting disclosure information on wells that are not associated with the oil and gas industry and involved in the production of oil and gas.

Percentage Hf Recalculation

The HfRecalculation Default allows a Registered Agent Supervisor to either allow or deny the FracFocus system to offer recalculating the mass of chemicals/ingredients. This is used with adding 3rd party chemicals without a % HF Job where the user knows mass in pounds of chemicals added.

To allow the system to offer the HfRecalculation, ensure the value is set to true. To reject the system from offering the HfRecalculation, set the value to false.

Operator Approvals

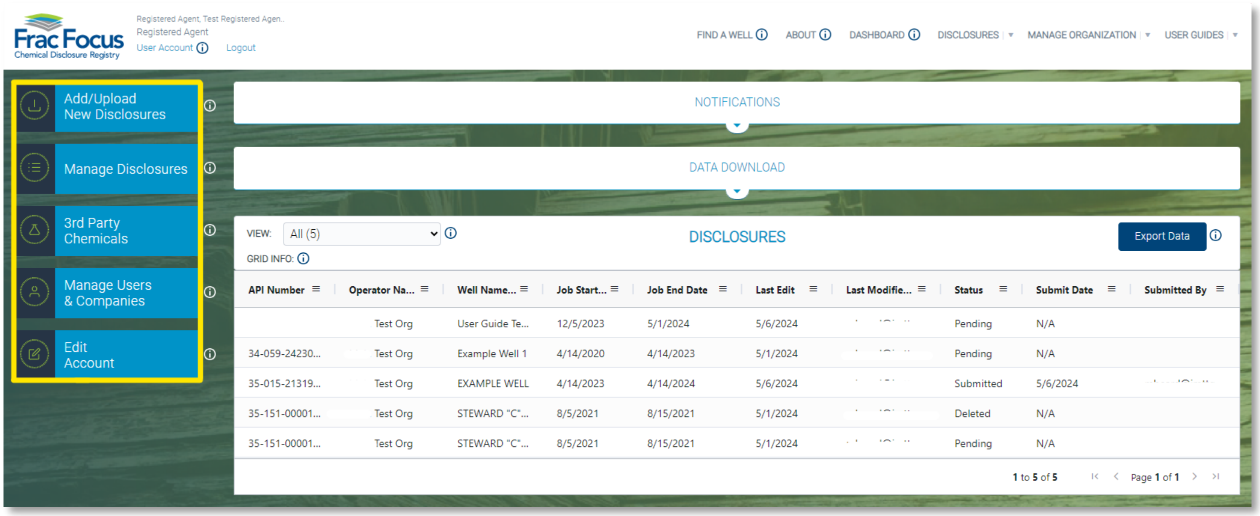
Allows users to view the list of Operators who have authorized the organization as a Registered Agent to upload, review, edit and submit disclosures on their behalf. Only Registered Agents with the Data User role will see this in the navigation.

User Guides

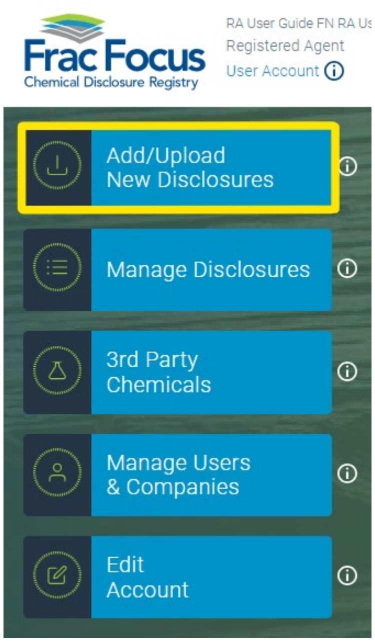
Directs users to the Schema Guide and User Guide.

Left-Hand Navigation

The Left-Hand Navigation options provide the user with quick access to specific menu selections. The available items in the Left-Hand Navigation menu will be dependent on the logged in user's roles. All the menu items are described below.



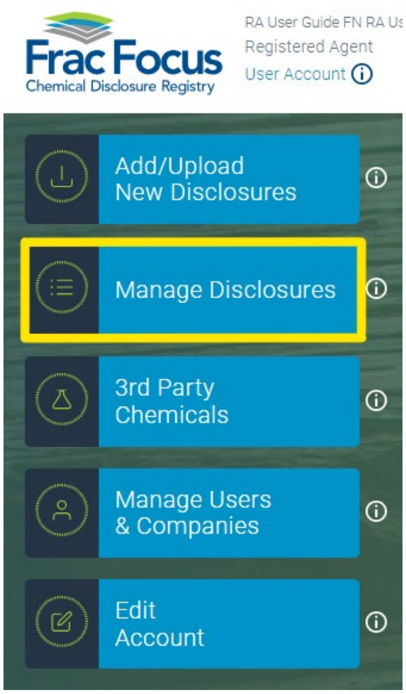
Add/Upload New Disclosures



Registered Agents with the Data User role will have this menu option. This menu item directs users to the New Disclosure page. Users can access this page from the Add/Upload New Disclosure drop-down item from the Disclosures option in the navigation menu.

See section "Creating a New Disclosure" below in this guide for detailed instructions for adding/uploading new disclosures.

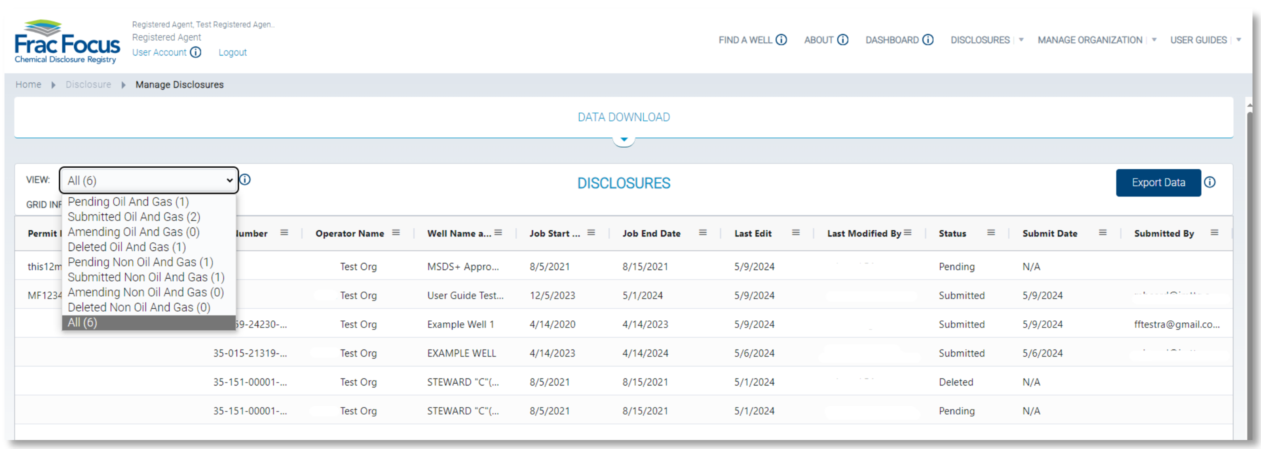
Manage Disclosures



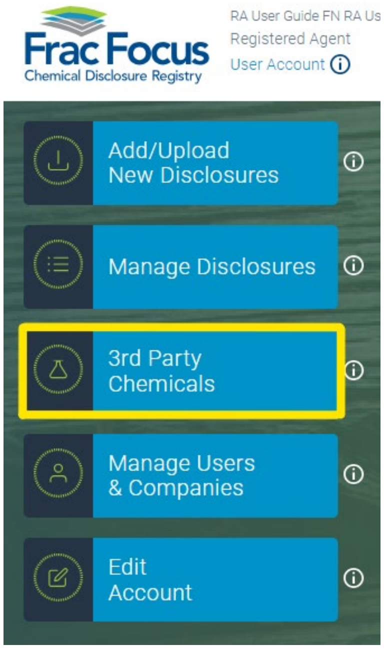
This menu item directs users to the Manage Disclosures page. Users can access this page from the Manage Disclosures drop-down item from the Disclosures option in the navigation menu.

Here, users can manage Submitted, Pending, Amending, Deleted or All disclosures for supported Operators. (Note: deleted are disclosures created during the process of editing/amending submissions and will be removed from the system after a 6-month holding period.)

On the Manage Disclosures page, use the View drop-down to narrow disclosures based on Well Type Grouping and Status. Users have the option to export data into an excel spreadsheet with the Export Data button to review offline.



3rd Party Chemicals

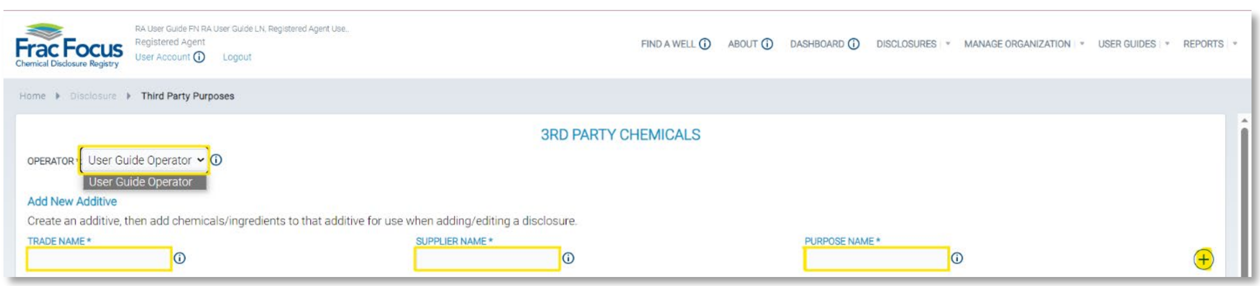


This menu item directs users to the 3rd Party Chemicals page. The 3rd Party Chemicals page is used to enter additives and the chemicals/ingredients that comprise that additive to a list where they can be used by a data submitter in the edit disclosure reports screen. This feature allows the user to build a set of additives that can be used on multiple disclosure reports and speed the creation of a disclosure report. The addition of a 3rd Party Chemical is presented below.

Users with the Data User role have the ability to add and edit 3rd party chemicals. Users with the Supervisor role can review the list only.

Add New Additive

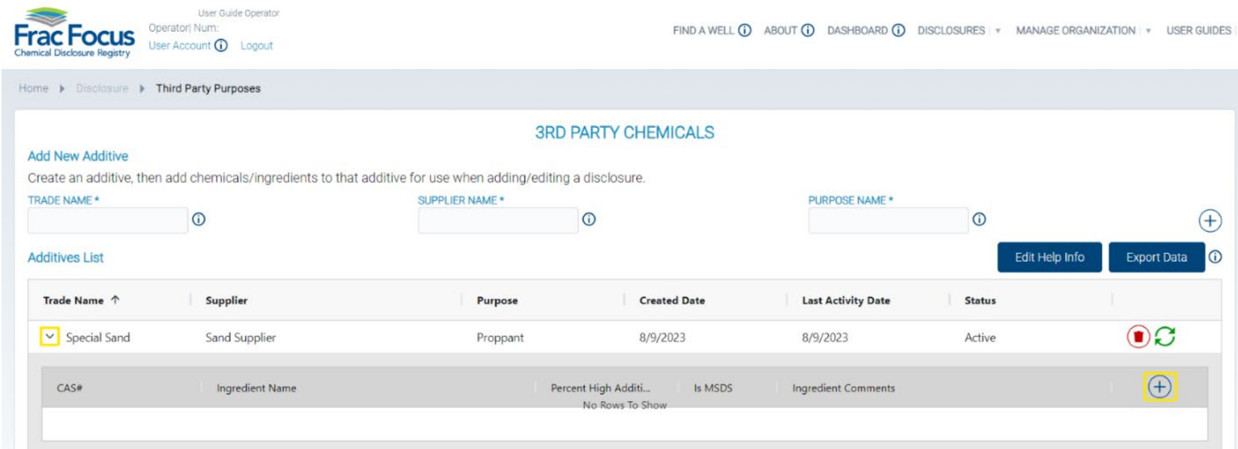
Select the Operator associated with the new 3rd Party Chemical by using the Operator drop-down. To create a new additive, input the Trade Name, Supplier Name, and Purpose Name then click to add. Once the additive is displayed in the Additives List table, users may add chemicals/ingredients to the additive.



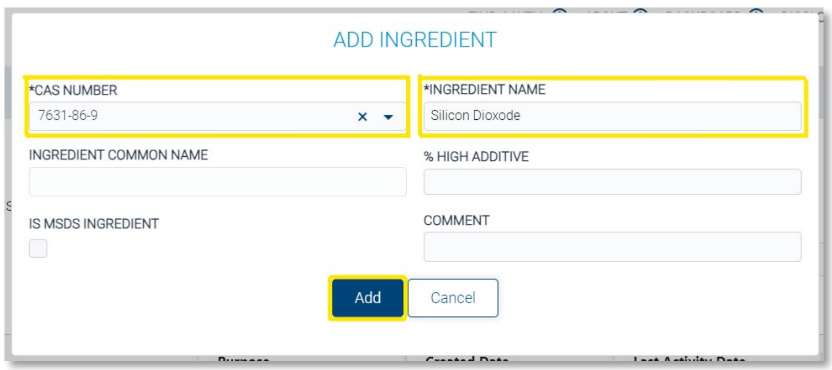
Adding Ingredients

To manage an Additive's ingredients, select the drop-down (i.e., ">" arrow next to Trade Name of Additive).

Select from the ingredients table to add an ingredient.



Users will be directed to input the new ingredient information. The CAS Number and Ingredient Name are required fields. If a CAS Number from the existing drop-down is selected, the Ingredient Name will populate. Users may input the % High Additive and any additional comments regarding the ingredient. The Ingredient Common Name Field is read-only and will populate based on previous use of that chemical's CAS Number in FracFocus.

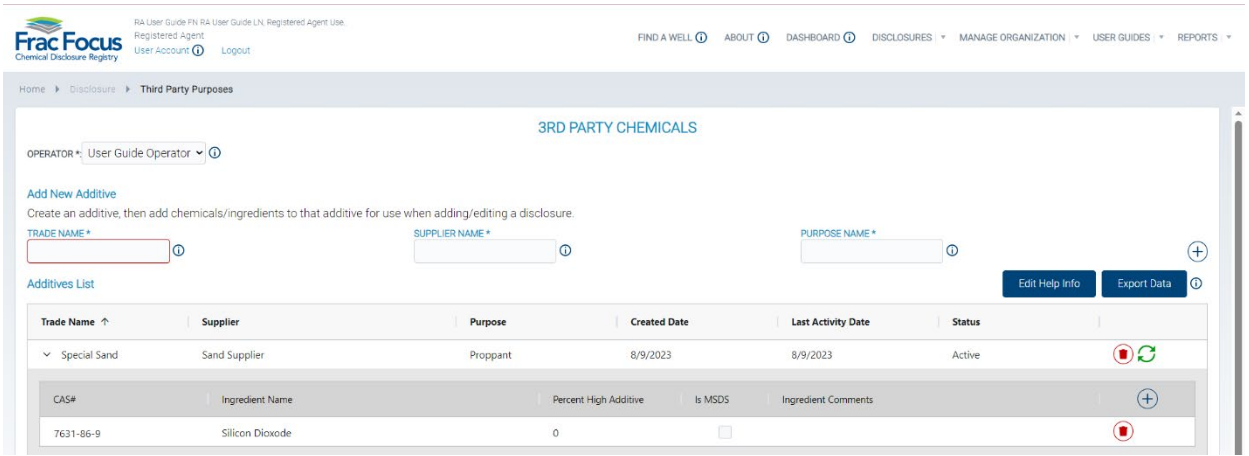


For the special cases of Proprietary, Trade Secret, CAS Not Assigned, and Confidential ingredients, input the value (ex. "Proprietary") in the CAS Number field and hit enter. If a special case has been entered for the CAS Number, claimant information fields (Company Name, First Name, Last Name, Email, and Phone) will appear for input after adding.

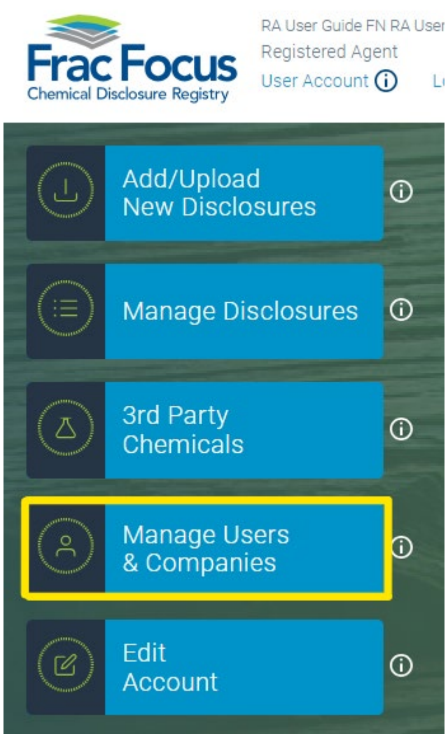
If the ingredient is an MSDS ingredient, check the checkbox under "Is MSDS Ingredient". Both MSDS and non-MSDS ingredients can be entered for an Additive.

After the information is entered, select 'Add' to add the ingredient.

Once the ingredient has been added, it will populate in the Additive List drop-down. By clicking on the fields of the ingredient in an Additive, users can edit that ingredient.



Manage Users & Companies



This menu item directs users with the Supervisor role to the Organization Users page where they can manage the following:

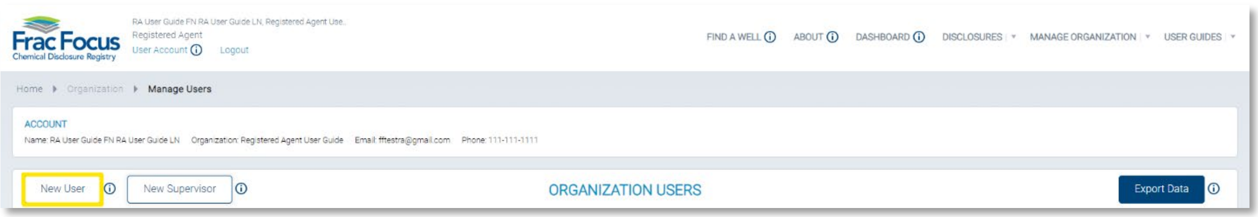
- Add New Data Users
- Add New Supervisors
- Add Existing Users to the Organization
- Manage organization user's roles

The system requires all organizations to have at least one Supervisor. Supervisors cannot remove the role from their user accounts. If a Supervisor role needs to be removed from an account, another Supervisor of that organization must remove it.

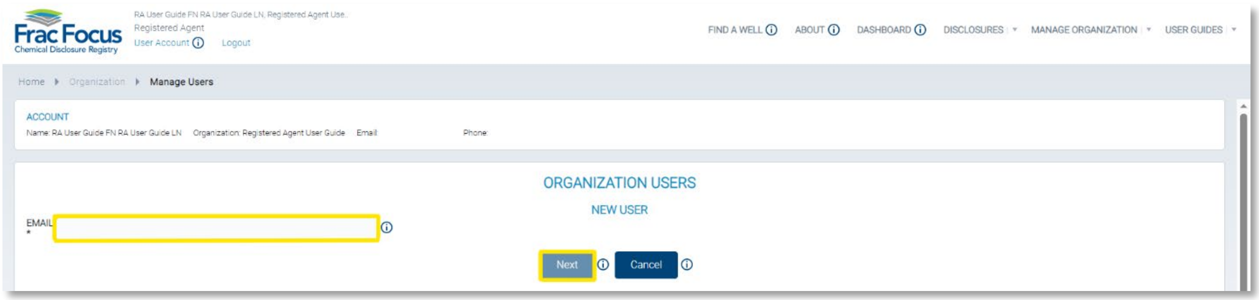
Organizations may have multiple Supervisors and multiple Data Submitters. Users can be assigned to both roles.

Add a Registered Agent User or Supervisor (new to FracFocus)

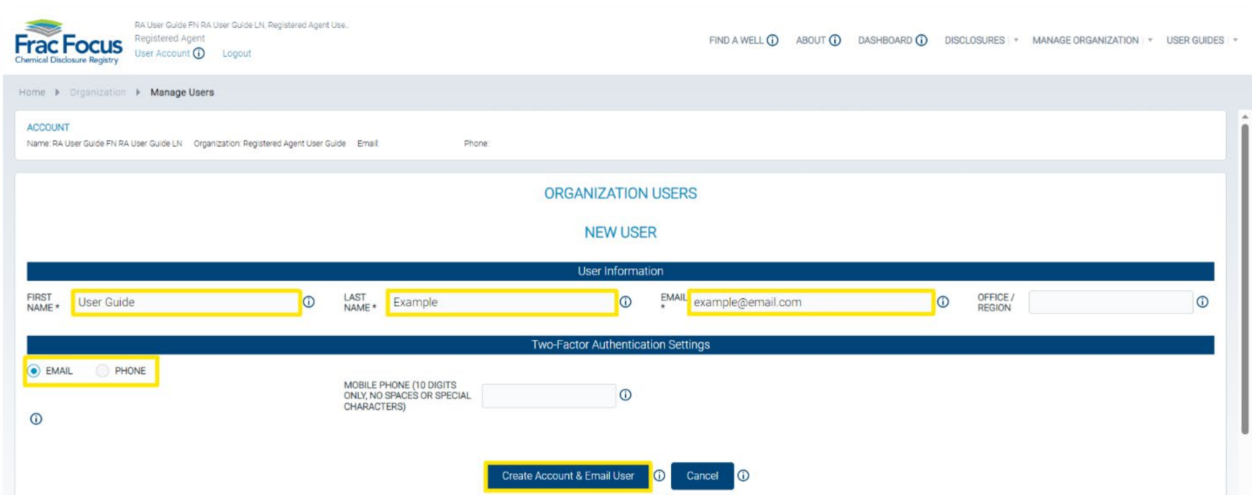
To add a new organization login under the Registered Agent, that is also new to FracFocus, select either New User or New Supervisor under the Users tab. (Note: example shows New User option selected – same process is followed for a New Supervisor)



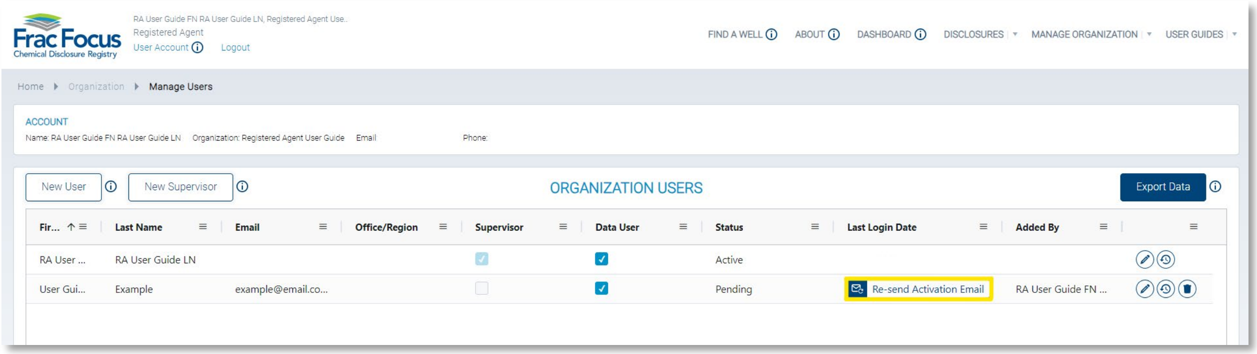
Next, enter the email address of the new organization user to verify the email address is not already registered to FracFocus. Select 'Next' to check for existing user credentials and continue.



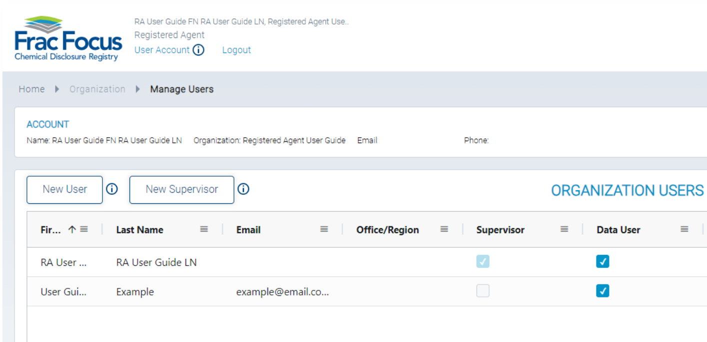
Users will be directed to the New User/Account form. Enter the new user's required information: first name, last name, email address (pre-populated) and two-factor authentication settings. Users may assign an Office/Region to the new user. Select 'Create Account & Email User'. This will send an email to the user with steps to complete their account setup and login for the first time.



The New User's account will be in a pending state after the account is created. Before the user logs in for the first time, the new user's first name, last name, office/region, and email may be edited by an Organization Supervisor. If the email was entered incorrectly, it can be edited, and the welcome email can be resent by selecting 'Resend Activation Email'. At this point in the process the account can be deleted. Once the user has logged in for the first time, the account can no longer be deleted

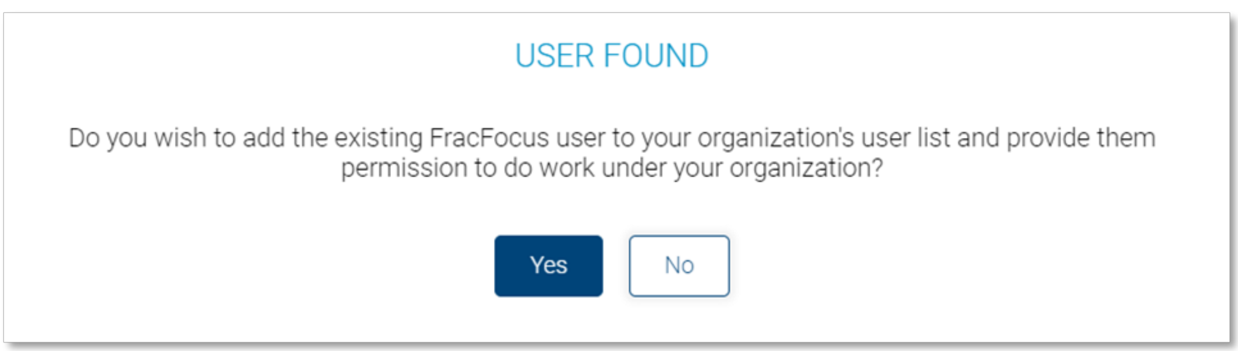


Once the user is added, the name of the new user will display in the Organization Users list. The Supervisor can assign Supervisor and/or Data User permissions to the new user by checking the corresponding checkboxes.



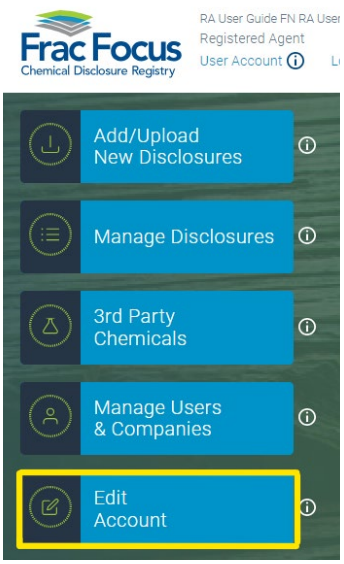
Add an Existing User

To add an Existing User to the organization, enter the email address of the user that has already registered and been approved in FracFocus. Users will be prompted by the dialog box below.



Select 'Yes' to add the existing user to the organization. Once added, an organization Supervisor has permission to manage the existing user's roles with the organization.

Edit Account



This menu item directs users to the User Account page. This page allows users to manage account information and change their password. Registered Agents may edit the following information on their account:

- First Name
- Last Name
- Phone Number
    - Primary
    - Cell
- Two-Factor Authentication Type

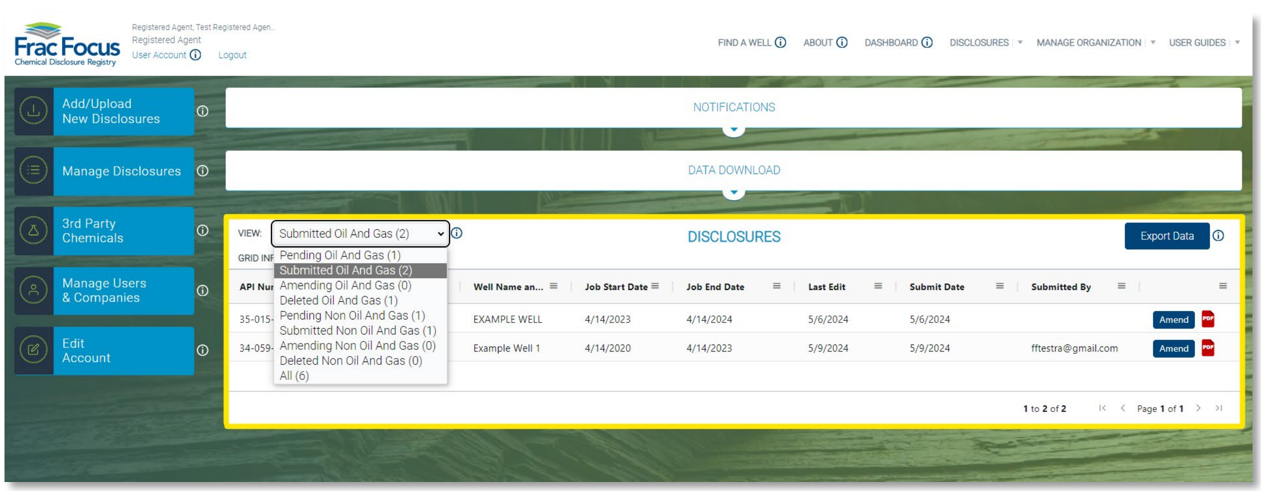
To change your password, select 'Change Password'

Export Data

In FracFocus, any pages that present a list of data are able to be downloaded in an Excel Spreadsheet. To download any list, select 'Export Data' to download the Excel Spreadsheet.

Disclosures

The Disclosures table on the Registered Agent Dashboard allows users to quickly manage their Pending, Submitted, Amending, and Deleted Disclosures for Oil, Gas, and Non Oil and Gas Wells. Here, users can Edit, Delete, and Export disclosure reports.



Creating a New Disclosure

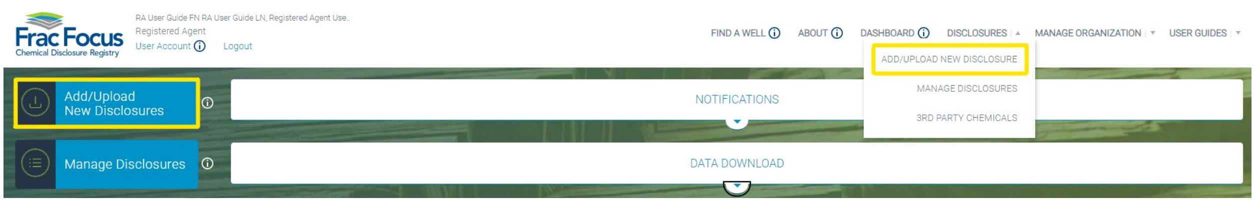
In many cases, disclosure reports will be created by the Service Company and routed to the Operator or Registered Agent for review. In other cases, Data User Registered Agents may create disclosure reports for an Operator. Only Registered Agents with the Data User role are able to create new disclosures. In FracFocus, disclosures can be created using two separate approaches – the Default Systems Approach and the MSDS+ Approach.

Systems Approach: The Systems Approach allows users to input the data for all additives and all ingredients in a single common list.

MSDS+ Approach: With the MSDS+ approach, the additives are grouped into separate lists depending on whether the chemicals are part of an SDS (Safety Data Sheet) or not, MSDS Chemical Ingredients and Additional Non-MSDS Chemicals. Usually, water and sand are included in the MSDS Chemical Ingredients list even though they are not part of an SDS. The MSDS chemicals are listed under their products used on the job.

Getting Started

To add a new disclosure, select ‘Add/Upload New Disclosures/ from the Left-Hand Navigation menu or select ‘Add/Upload New Disclosure’ from the Disclosures drop-down from the Upper Right-Hand Navigation menu.



Users will be directed to the New Disclosure Form. Users may upload a valid XML file to complete the Disclosure. If a valid XML file is not available, users can manually complete the disclosure.

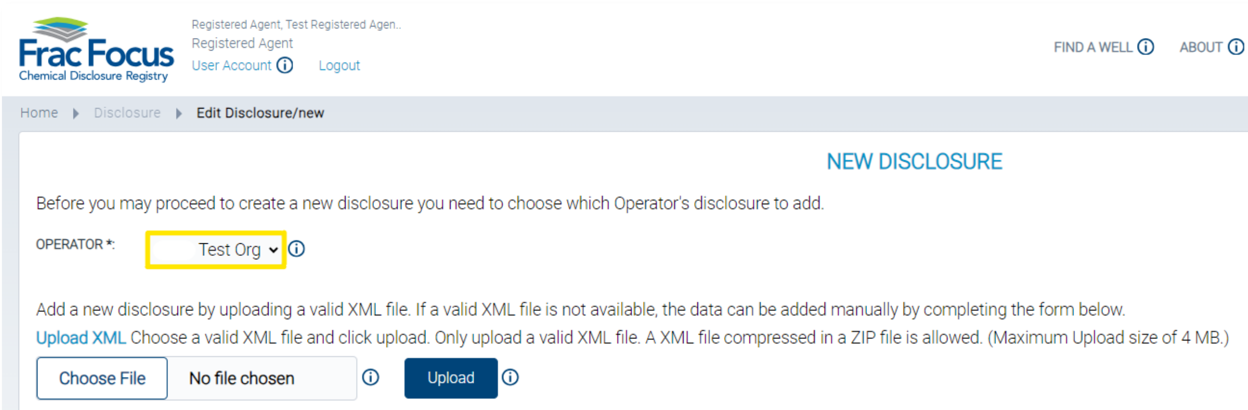
Please Note: The ‘Edit Help Info’ button in the form will generate a pop-up with editing help that describes how to edit the fields, add new items, and save information.

Please note the tooltip icons. Hovering over these icons will provide explanations for key fields and action buttons.

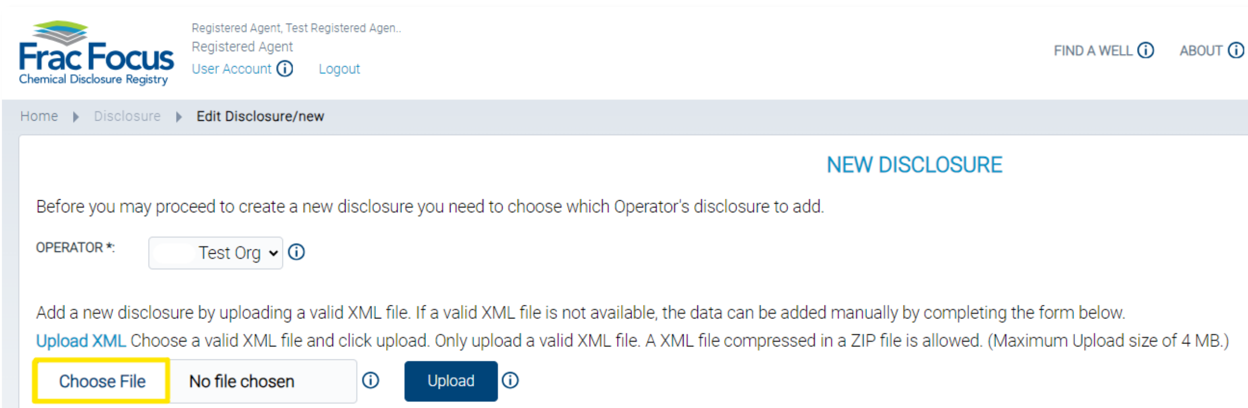
Upload XML File

If available, users may choose to upload an XML File to complete a disclosure. XML uploads may be used for all well types, including Oil, Gas, Brine, Class VI (CCUS), Energy Pressure Storage, Geothermal, and Hydrogen Storage.

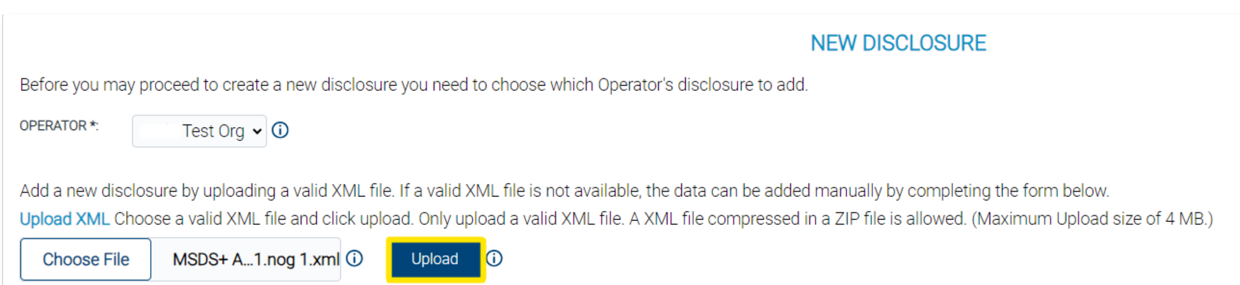
1. Ensure the disclosure is to be added under the correct Operator.



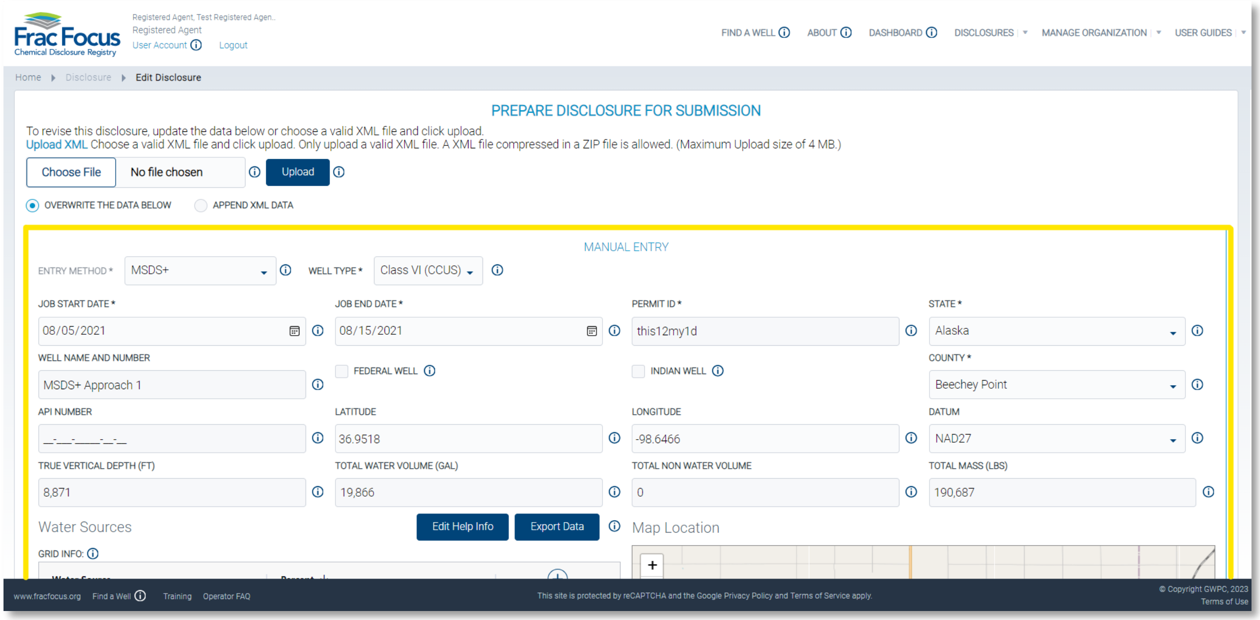
2. Select 'Choose File'.



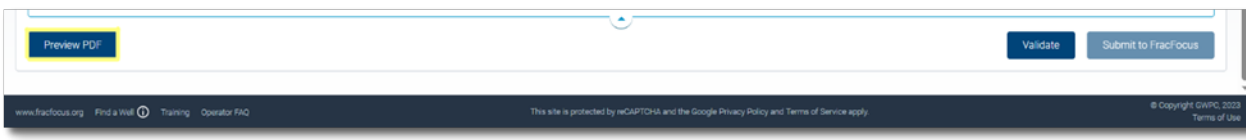
3. Upload a valid XML file
4. Select 'Upload'



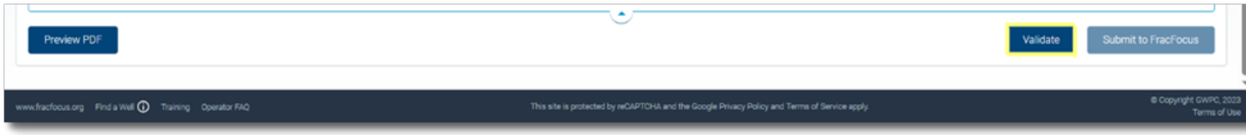
5. Information from the valid XML will populate the form.

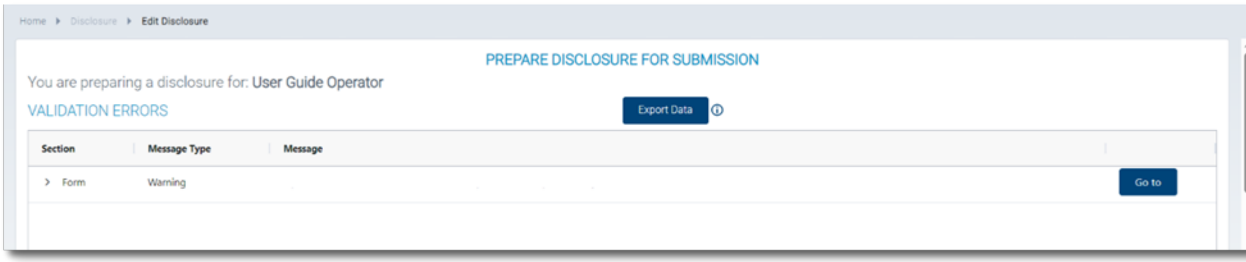


6. To view a preview of the disclosure, select ‘Preview PDF’ at the bottom of the page.



7. After the information has populated, select ‘Validate’ to ensure there are no errors on the form for submittal. If there are any errors or warnings, they will populate at the top of the disclosure. Users can submit disclosures with warnings but cannot submit disclosures with errors.

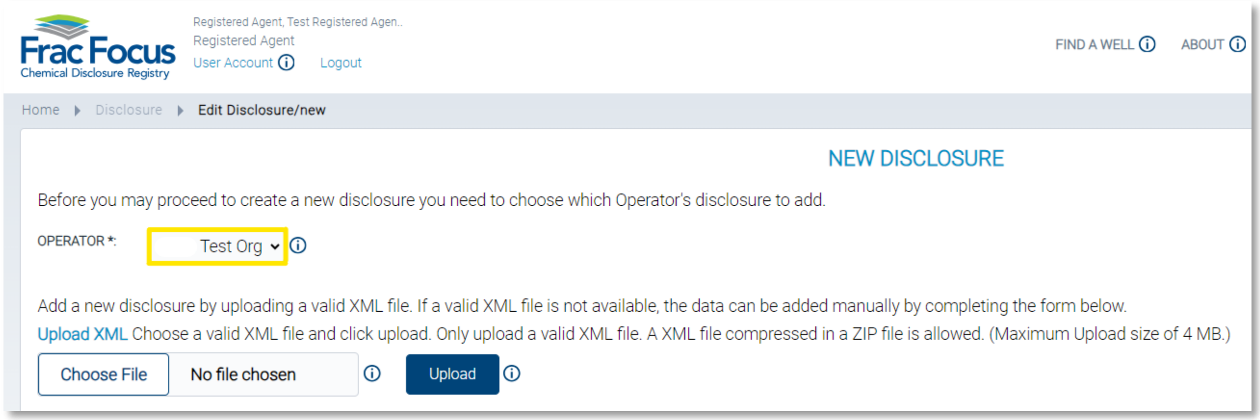




8. Only Registered Agents with the Data User role have access to submit disclosures to FracFocus once the disclosure has been validated. Select ‘Submit to FracFocus’ to submit

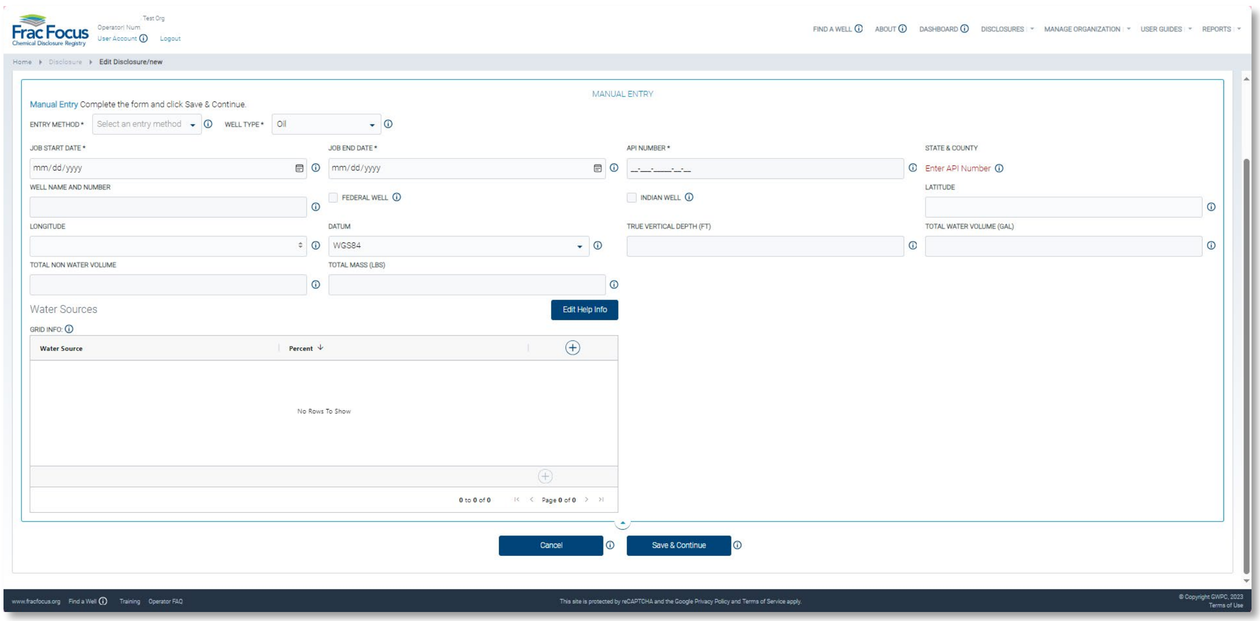
Manual Entry- Oil & Gas Wells

To enter disclosure information manually, first ensure the correct Operator is selected.



For **Oil & Gas Wells**, complete the required fields (marked with an asterisk) in the Disclosure Manual Entry form.

Note: Well Type must be Oil or Gas for the following.



Fields of Note:

- Entry Method*: In FracFocus, disclosures can be created using two separate approaches – the default Systems Approach and the MSDS+ approach.
  - Systems Approach: Includes header data, Additive List, and Ingredient List
  - MSDS+: Includes header data, MSDS Chemical Ingredients List and Additional Non-MSDS Chemicals
- Well Type*: Oil or Gas
- Job Start Date*: Start date of the job performed

- Job End Date*: End date of the job performed
- API Number*: Must be in 14-digit format. Often, users will receive an API number in a shorter 10-digit format. If the API is entered as a 10-digit number, the four zeroes will be added automatically to the end of the API number. For most wells, the last 4 digits are “0” unless the well is a new lateral or new completion. Do not enter the dashes “-” between the sets of numbers – these are added automatically
- State & County: Will auto-populate depending on the API Number provided
- Well Name and Number: Name and number of the well as submitted to State
- Federal Well (checkbox): Indicates if the well is on Federal land or has Federal mineral interests, such that information would be reported to the U.S. Department of Interior’s Bureau of Land Management (BLM)
- Indian Well (checkbox): Indicates if the well is on Indian land or has Indian mineral interests, such that information would be reported to the U.S. Department of Interior’s Bureau of Land Management (BLM)
- Latitude: Surface latitude location of the well, written as a decimal
- Longitude: Surface longitude location of the well, written as a decimal
- Datum: Datum associated with the longitude/latitude provided (NAD27, NAD83, or WGS84). This choice should correspond with the coordinate system used to locate the company’s well.
- True Vertical Depth (ft): True vertical depth of the well (feet)
- Total Water Volume (gal): Total volume of the base water used in the job (gallons)
- Total Non Water Volume: Total volume of any base fluids, besides water, that are used in large amounts (e.g., CO2, Nitrogen, etc.) in the job to transport chemicals and proppant.
- Total Mass (lbs.): Total mass of the job pumped (pounds). Information can be entered here if users need to recalculate the % HF Mass information in the ingredients portion of the form.

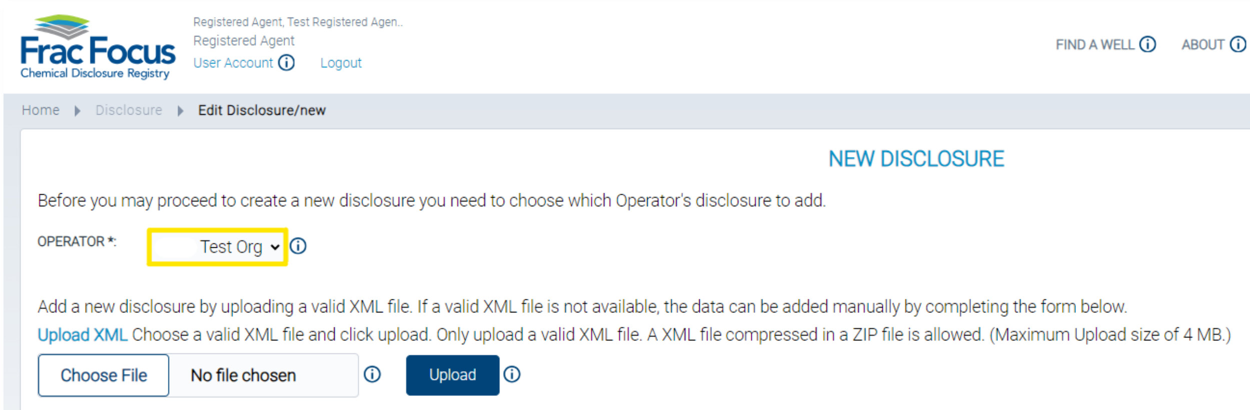
  Water Sources: Add and track the percentage of water source types used during the job. Users will be able to input the percentage of the job performed using the water type selected. Select the type of water source with associated breakdown by TDS using the following codes:

  a. Surface Water, <1000TDS
  b. Surface Water, >1000TDS
  c. Groundwater, <1000TDS
  d. Groundwater, >1000TDS
  e. Produced Water
  f. Other, <1000TDS
  g. Other, >1000TDS

Once the information has been entered, select ‘Save and Continue’. At this point, users will move on to the section of the disclosure where chemical additives and ingredients are entered. This step will follow either the Systems Approach (see “Systems Approach” section below) or MSDS+ Approach (see “MSDS+ Approach” section below).

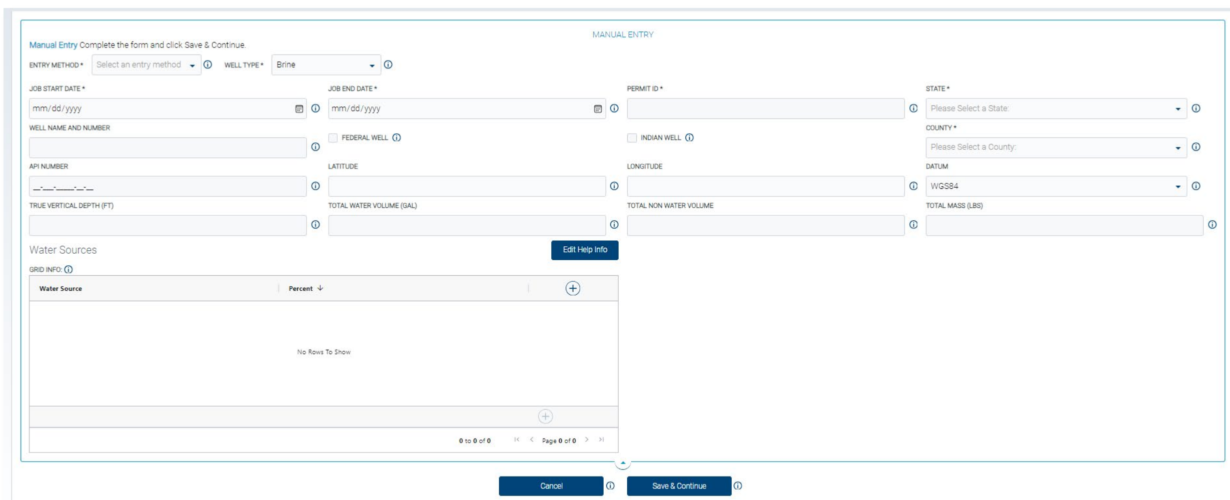
Manual Entry – Non Oil & Gas Wells

To enter disclosure information manually, first ensure the correct Operator is selected.



For **Non Oil & Gas** Well Types, complete the required fields (marked with an asterisk) in the Disclosure Manual Entry form.

Note: Well Type must be Brine, Class VI (CCUS), Energy Pressure Storage, Geothermal, or Hydrogen Storage for the following.



Fields of Note:

- Entry Method*: In FracFocus, disclosures can be created using two separate approaches – the default Systems Approach and the MSDS+ approach.
    - Systems Approach: Includes header data, Additive List, and Ingredient List
    - MSDS+: Includes header data, MSDS Chemical Ingredients List and Additional Non-MSDS Chemicals
- Well Type*: Brine, Class VI (CCUS), Energy Pressure Storage, Geothermal, or Hydrogen Storage
- Job Start Date*: Start date of the job performed
- Job End Date*: End date of the job performed

- Permit ID*: Permit ID/Number
- State*: State of the well
- County*: County of the well
- Well Name and Number: Name and number of the well as submitted to State
- Federal Well (checkbox): Indicates if the well is on Federal land or has Federal mineral interests, such that information would be reported to the U.S. Department of Interior's Bureau of Land Management (BLM)
- Indian Well (checkbox): Indicates if the well is on Indian land or has Indian mineral interests, such that information would be reported to the U.S. Department of Interior's Bureau of Land Management (BLM)
- API Number: Must be in 14-digit format. Often, users will receive an API number in a shorter 10-digit format. If the API is entered as a 10-digit number, the four zeroes will be added automatically to the end of the API number. For most wells, the last 4 digits are "0" unless the well is a new lateral or new completion. Do not enter the dashes "-" between the sets of numbers – these are added automatically
- Latitude: Surface latitude location of the well, written as a decimal
- Longitude: Surface longitude location of the well, written as a decimal
- Datum: Datum associated with the longitude/latitude provided (NAD27, NAD83, or WGS84). This choice should correspond with the coordinate system used to locate the company's well.
- True Vertical Depth (ft): True vertical depth of the well (feet)
- Total Water Volume (gal): Total volume of the base water used in the job (gallons)
- Total Non Water Volume: Total volume of any base fluids, besides fresh water, that are used in large amounts (e.g., CO2, Nitrogen, or recycled produced water) in the job.
- Total Mass (lbs.): Total mass of the job pumped (pounds). Information can be entered here if users need to recalculate the % HF Mass information in the ingredients portion of the form.
  Water Sources: Add and track the percentage of water source types used during the job. Users will be able to enter a percentage of the job performed using the water type selected. Select a type of water source with associated breakdown by TDS using the following codes:
    a. Surface Water, <1000TDS
    b. Surface Water, >1000TDS
    c. Groundwater, <1000TDS
    d. Groundwater, >1000TDS
    e. Produced Water
    f. Other, <1000TDS
    g. Other, >1000TDS

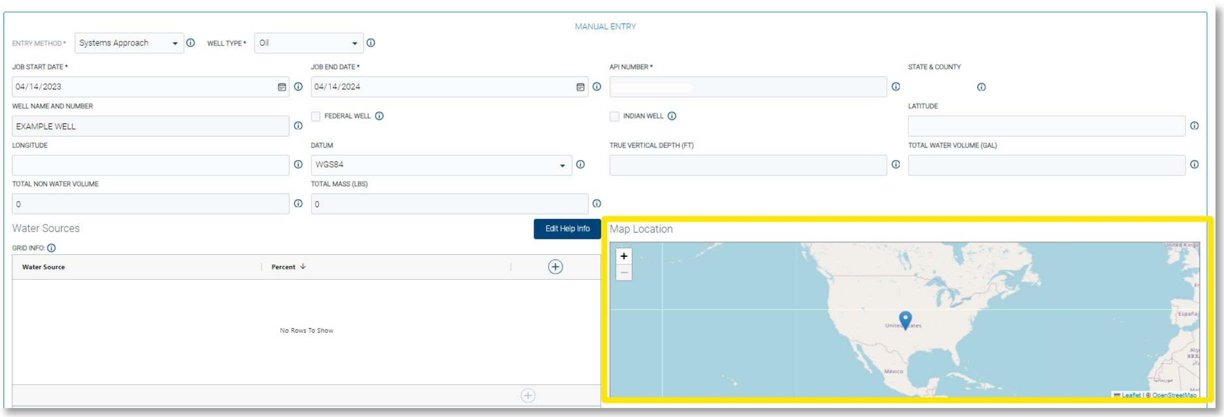
Once the information has been entered, select 'Save and Continue'. At this point, users will move on to the section of the disclosure where chemical additives and ingredients are entered. This step will follow either the MSDS+ approach (see "MSDS+ Approach" section below) or the Systems approach of data entry (see "Systems Approach" section below).

Systems Approach

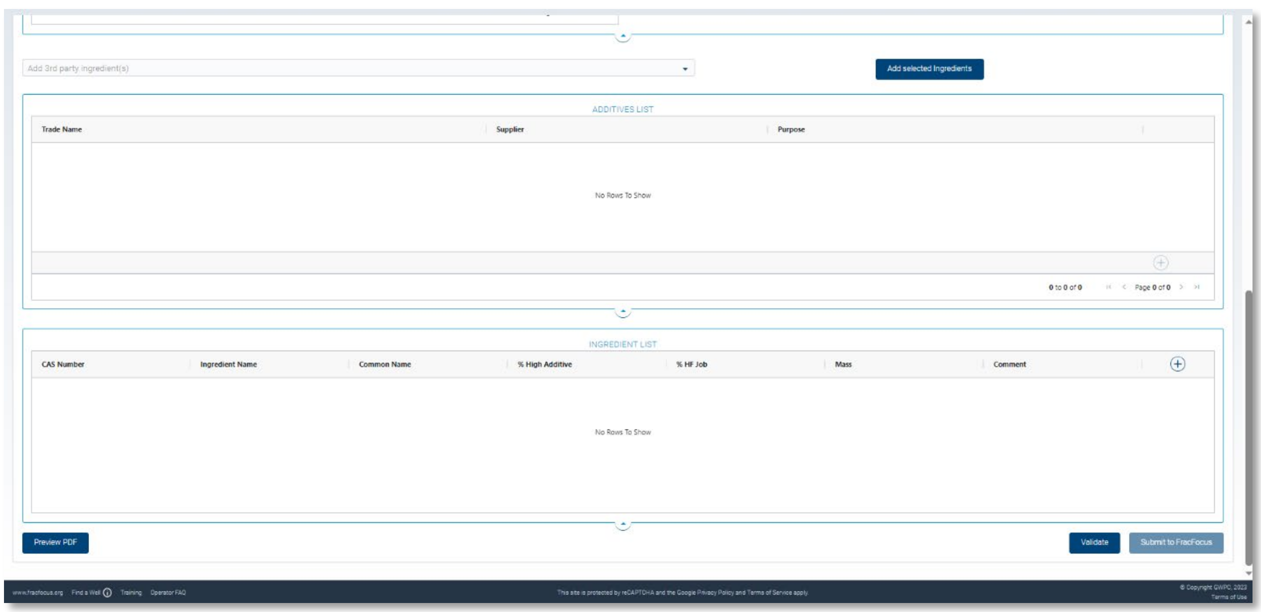
The Systems Approach allows users to input the data for all additives and all ingredients in common lists.

After the header information has been entered and the user has selected Save and Continue, the location of the well will show on the map. Users can visually verify that the map shows the correct location of the well.

Note: Example shows System Approach for Oil Well Type – the same process is followed for all Well Types.

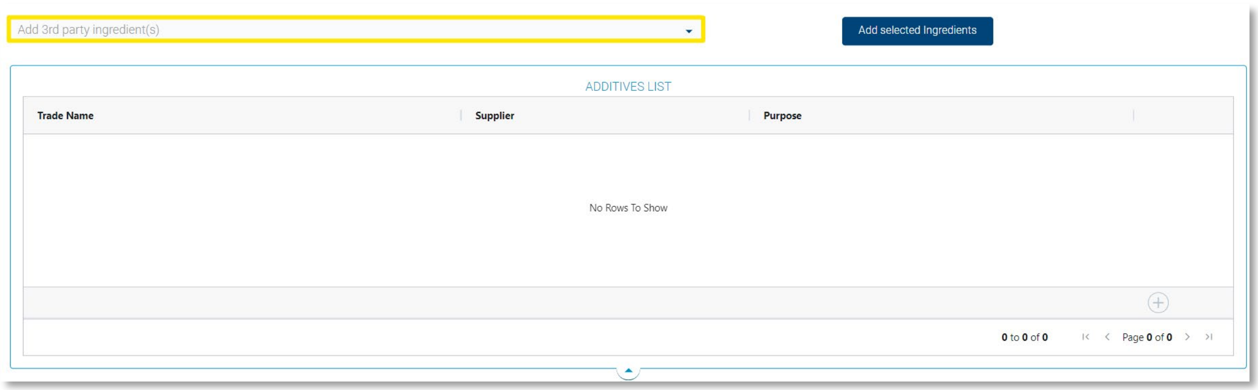


The Prepare Disclosure for Submission page allows entry of additives and their ingredients.

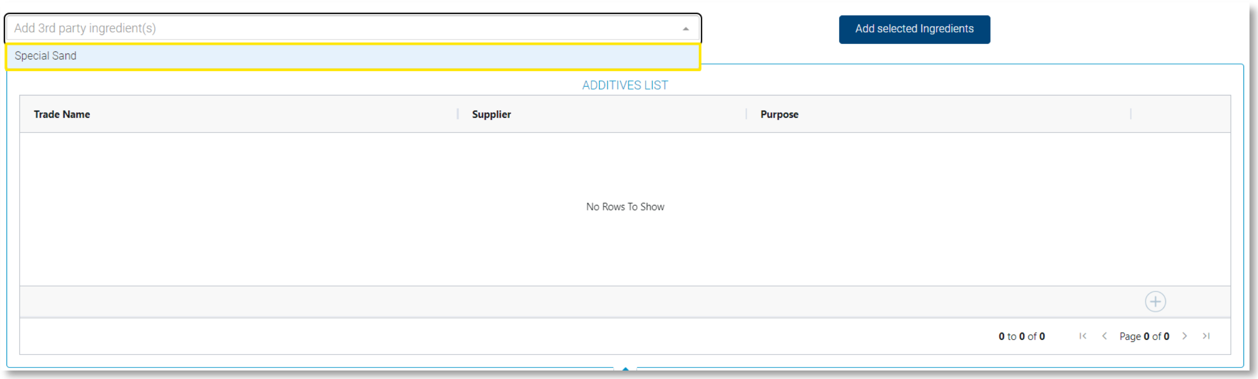


Systems Approach: Add 3rd Party Ingredients

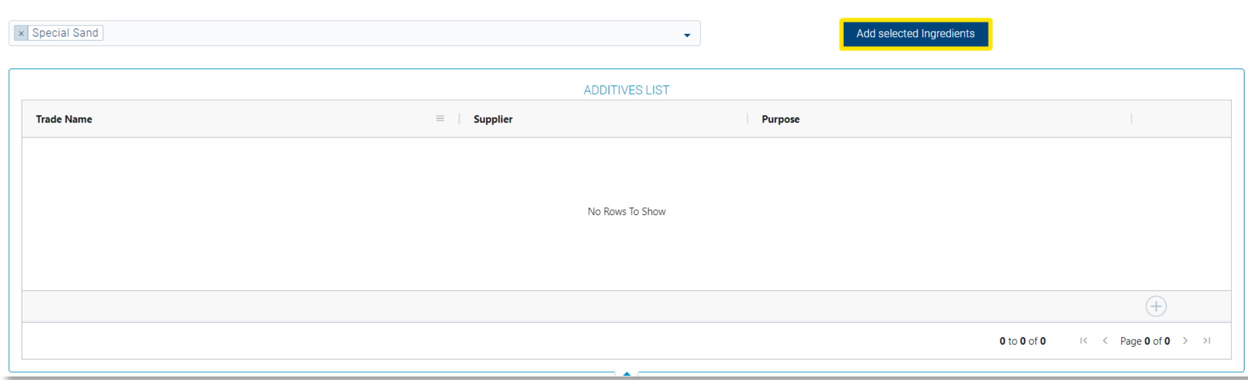
1. Select the Add 3rd Party Ingredient(s) drop-down



2. Choose desired 3rd party ingredient(s)

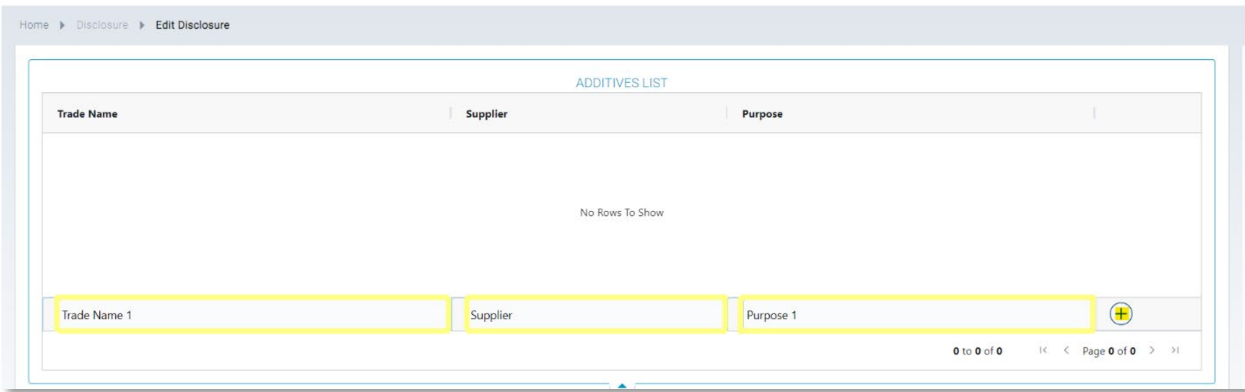


3. Select 'Add Selected Ingredients' to add to the Additives and Ingredient List



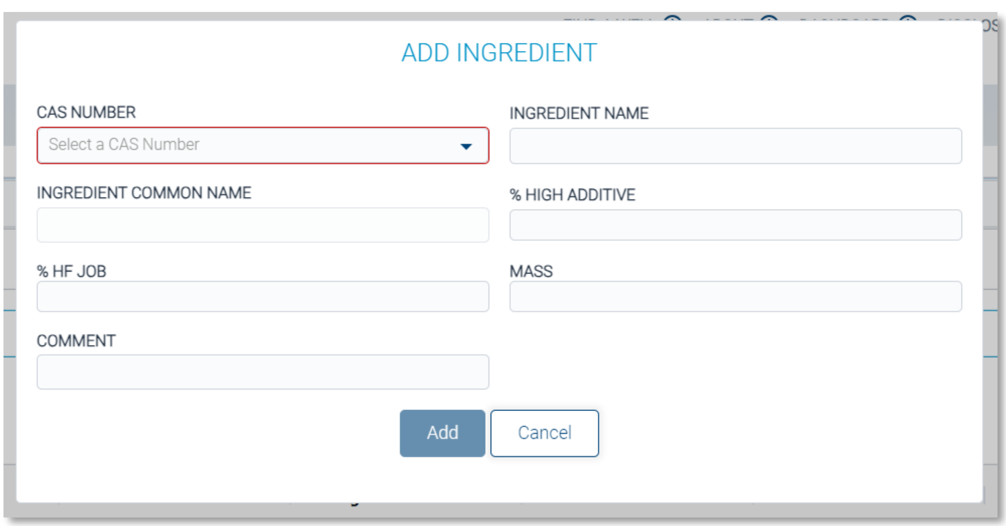
Systems Approach: Add Additives

Enter the Trade Name, Supplier, and Purpose for each additive. Data is stored as soon as users tab into a subsequent field. Once the information has been entered, select ⊕ to add to the list.



Systems Approach: Add Ingredients

Select ⊕ to add an ingredient to the list. Ingredients are not linked to any specific additive, but rather are part of the overall list. For each ingredient, enter the CAS Number, Ingredient Name, % High Additive, and % HF job. Users can provide Mass and Comments if applicable. Select 'Add' to add to the Ingredient List. Users may edit the information in the table by selecting the list fields.

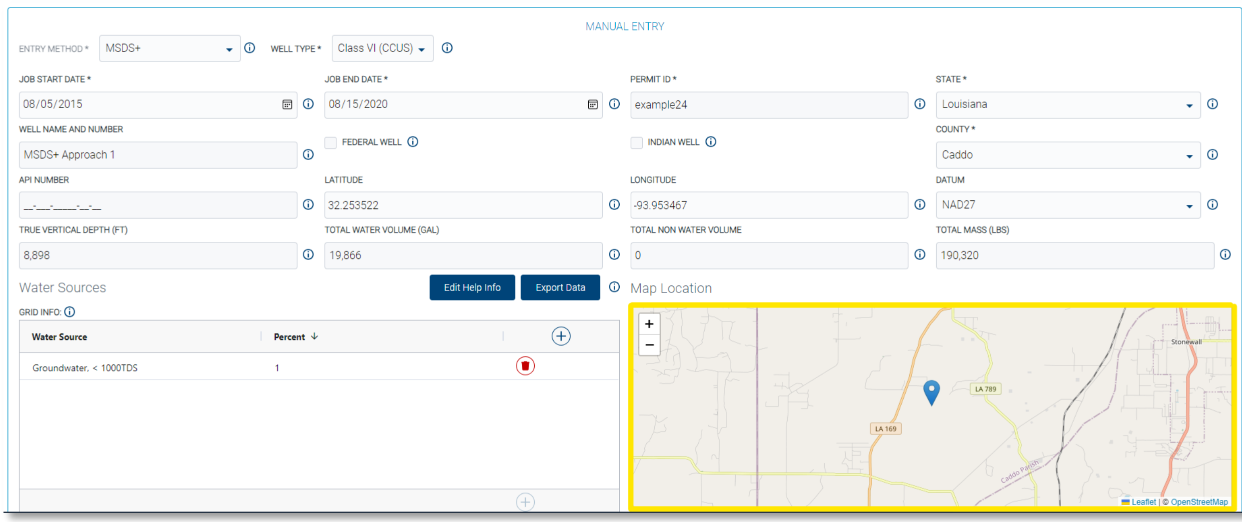


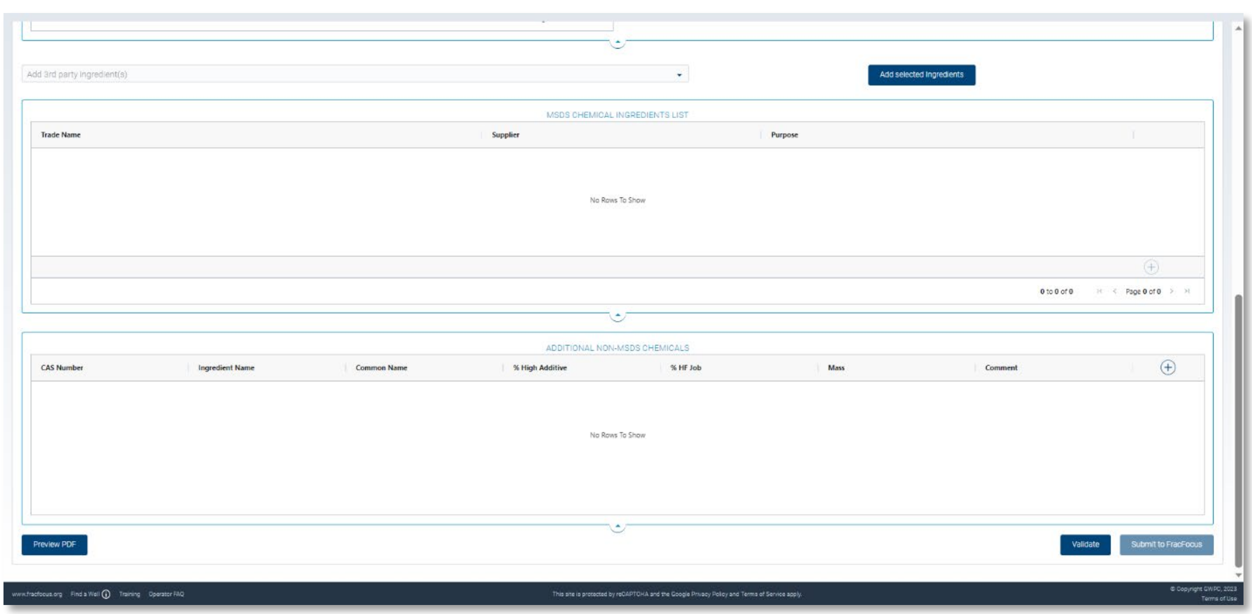
MSDS+ Approach

With the MSDS+ approach, the additives are split into two separate lists depending on whether the chemicals require preparation of an SDS (Safety Data Sheet) or not, MSDS Chemical Ingredients and Additional Non-MSDS Chemicals. Usually, water and sand are included in the MSDS Chemical Ingredients list even though they do not require preparation of an SDS.

After the header information has been entered and the user has selected Save and Continue, the location of the well will show on the map. Users can visually verify the map shows the correct location of the well. Users will be directed to the Prepare Disclosure for Submission page. This screen allows entry of the additives and their ingredients.

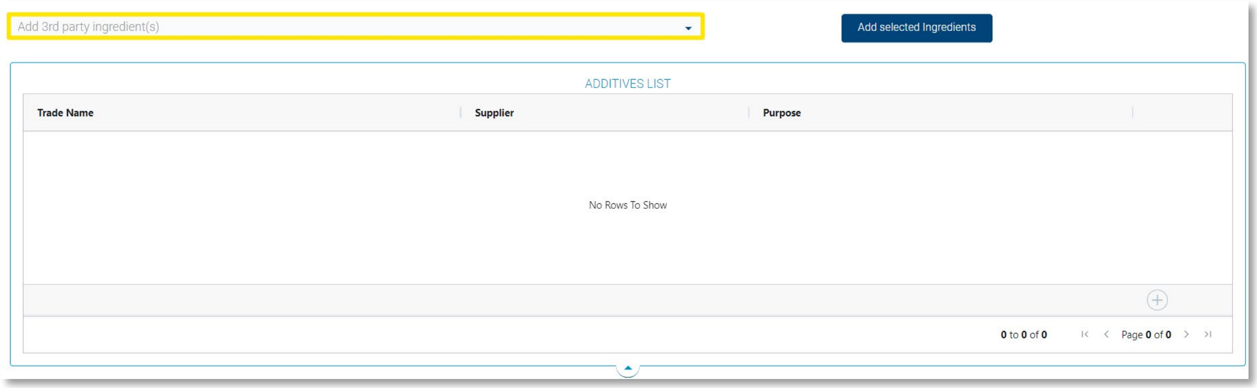
Please Note: Example shows MSDS+ Approach for Class VI (CCUS) Well Type – the same process is followed for all Well Types.



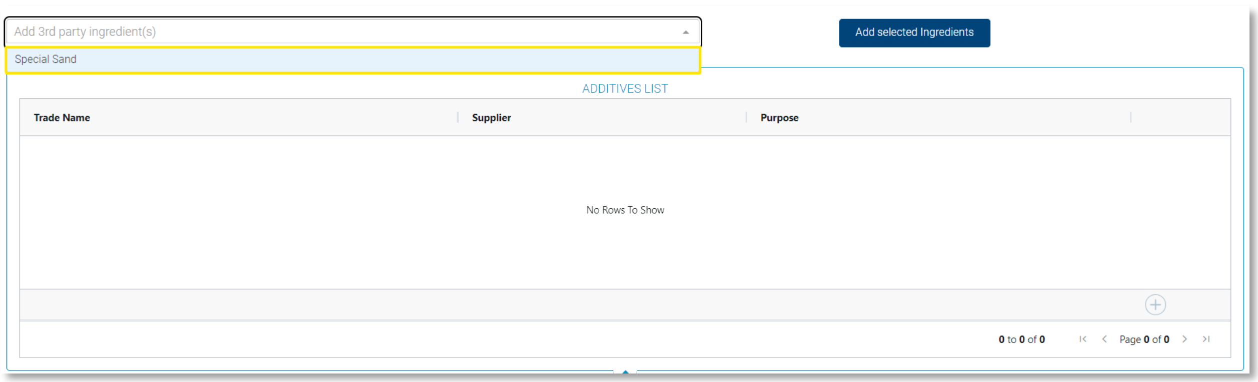


MSDS+ Approach: Add 3rd Party Ingredients

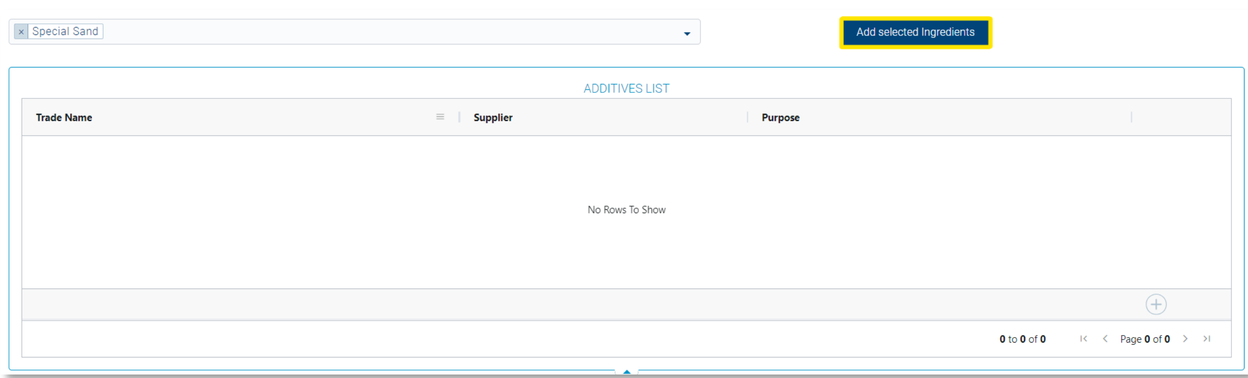
1. Select the Add 3rd Party Ingredient(s) drop-down



2. Choose desired 3rd party ingredients



3. Select 'Add Selected Ingredients' to add to the MSDS Chemical Ingredients and Additional Non-MSDS+ Chemicals Lists



MSDS+ Approach: Add MSDS Chemical Ingredients

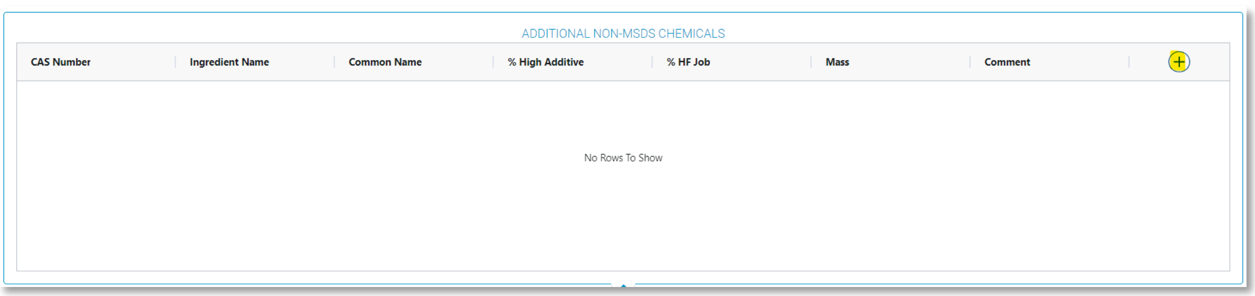
Under the MSDS Chemicals Ingredients List, enter:

- Trade Name
- Supplier
- Purpose

Select to add to the list

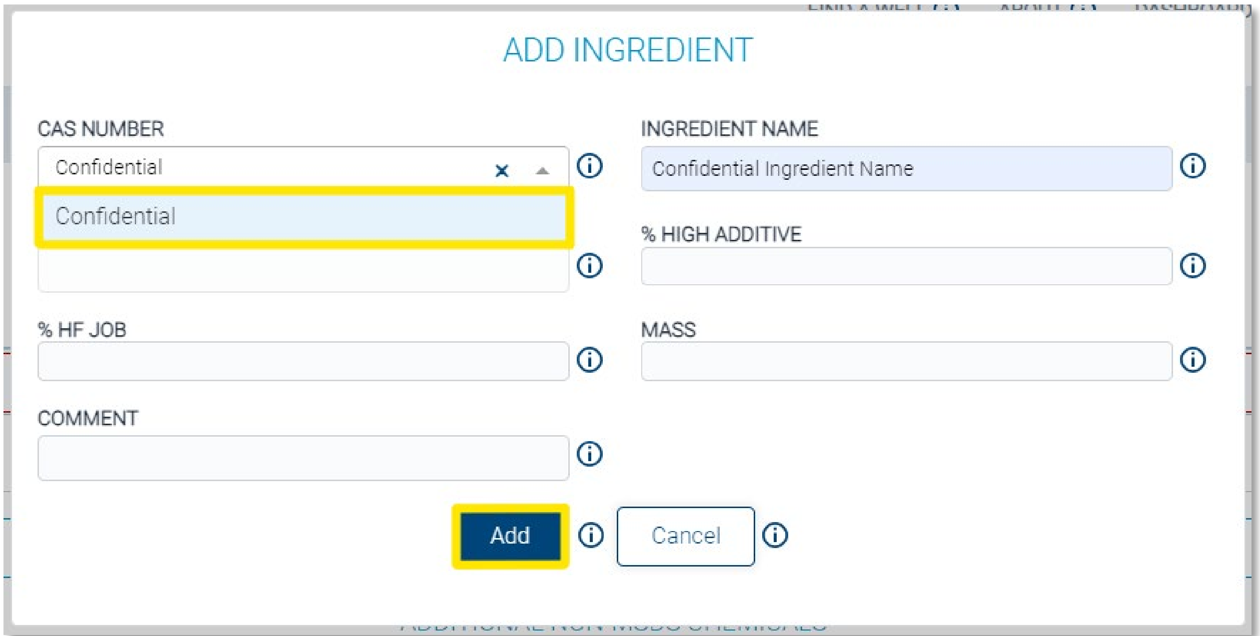
MSDS+ Approach: Add Additional Non-MSDS Chemicals

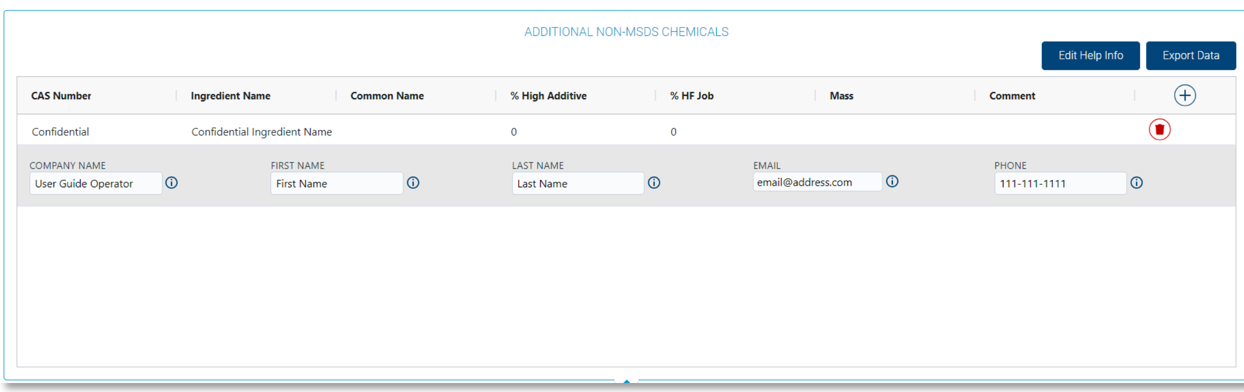
Select to add a non-MSDS chemical



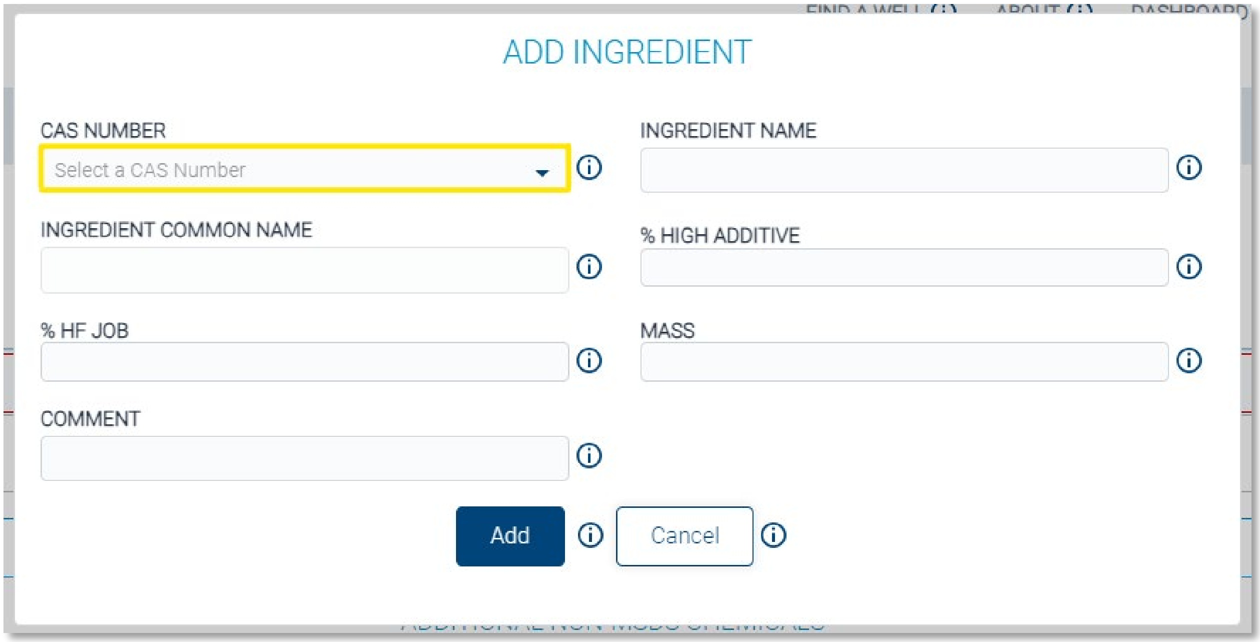
The Add Ingredient form will display, where users may enter the CAS Number (if applicable), Ingredient Name, % High Additive, % HF Job, Mass, and Comments

For the special cases of Proprietary, Trade Secret, CAS Not Assigned, and Confidential ingredients, input the value (ex. "Proprietary") in the CAS Number field. If a special case has been entered for the CAS Number, claimant information fields (Company Name, First Name, Last Name, Email, and Phone) will allow for input after adding.





If the ingredient has a CAS number, enter it in the CAS Number box. Ensure the correct format is used with numbers and dashes. If entered incorrectly, the ingredient will not populate in the drop-down. Users may enter the name of the ingredient or choose one of the options from the drop-down list provided by the system (based on the CAS number).



Fields of Note:

- % High Additive: Often the SDS shows the percentage of each ingredient as a range. Users should enter the high end of the percentage range in the % High Additive box.
- % HF Job: Here, users will enter what percent of the ingredient is used in the whole job (% by mass). For disclosures that are generated manually (not those already prepared by the Service Company), users need to calculate the percentage by mass of the total frac job made up by each ingredient. Users do not need to estimate the mass for water – it is automatically calculated from the volume of water entered in the header information. The proportions of all the other additives are then recalculated by FracFocus. For nearly all the ingredients other than water and sand, the % HF Job numbers will be very small (having several zeros behind the decimal point). When entering % HF Job numbers, it is important to enter the percentage rather than a decimal version of the number. For example, if the actual % HF is 0.00056%, and the decimal version is 0.0000056 the number that should be entered in the field is 0.00056.
- Mass: The ingredient Mass box is generally left blank. It is used, however, when a new additive is entered onto an existing disclosure report.

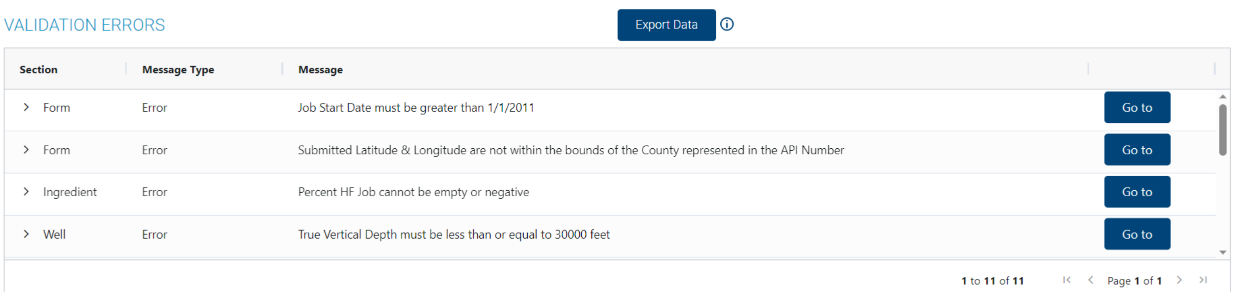
When finished, select 'Add' to submit to the list. The additive will save and populate in the Additional Non-MSDS Chemicals list. Users can then enter information for more additives. If a user wants to remove a particular additive from the disclosure report, select the red trash can that corresponds with the additive.

Submitting to FracFocus

After all disclosure information has been entered, users can preview the disclosure by selecting 'Preview PDF'. The disclosure will download as a .PDF to the user's device for preview.

To submit the disclosure, users first need to select 'Validate' to validate the information and check for any errors or warnings

Any warnings or errors will populate in the Validation Errors list. In FracFocus, users can submit a disclosure with warnings. Users must correct any errors to submit the disclosure to FracFocus. Use the Go To buttons to navigate to the error/warning.



Section	Message Type	Message	
Form	Error	Job Start Date must be greater than 1/1/2011	Go to
Form	Error	Submitted Latitude & Longitude are not within the bounds of the County represented in the API Number	Go to
Ingredient	Error	Percent HF Job cannot be empty or negative	Go to
Well	Error	True Vertical Depth must be less than or equal to 30000 feet	Go to

Once all errors have been corrected, select 'Validate' to validate the disclosure. Once validated, select 'Submit to FracFocus' for submittal.

Reviewing, Editing and Approving Disclosure Reports

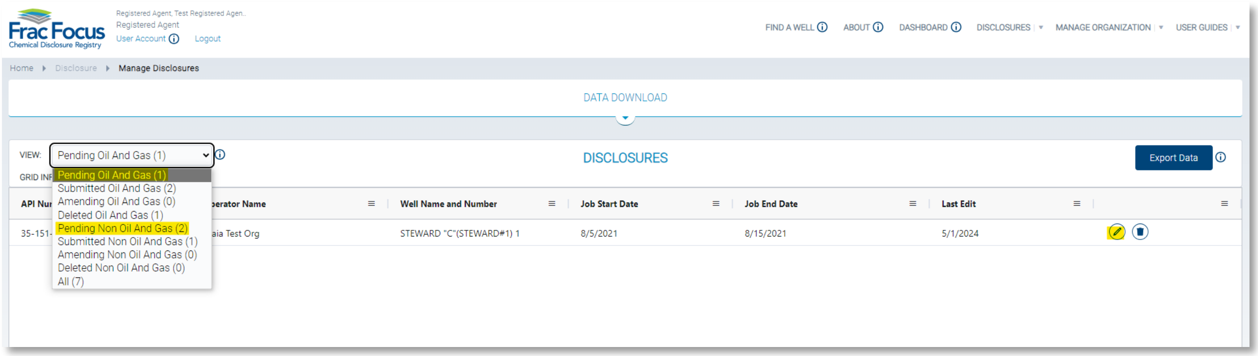
The previous section shows how a Registered Agent with the Data User role can create and submit a new disclosure. This is useful information for understanding data entry methods. However, most of the disclosure reports are created by the Service Companies and routed to the Operator or Registered Agent's queue. The Registered Agent must review these disclosures and edit them as necessary. When disclosures are completed, the Registered Agent or Operator sends them for validation by the FracFocus code. When validation is successful, the disclosures are submitted into the FracFocus registry, and the information is available to the public.

This section describes the procedures for reviewing, editing, validating, and submitting disclosures. It also explains how other additives, not included by the Service Companies, can be added to a disclosure.

Only Registered Agents with the Data User role have access to edit and submit disclosures to FracFocus. Registered Agents without the Data User role only have access to review the disclosures in the queue.

Reviewing and Editing Existing Disclosure Reports

Navigate to the Disclosures table (on the Registered Agent dashboard) or the Manage Disclosures page. Data Users can edit Oil & Gas and Non Oil & Gas Pending Disclosures. Select the pencil to edit a pending disclosure report.



Users will be directed to the Prepare Disclosure for Submission page with the header data, Additive List, and Ingredient List (Systems Approach Entry Method) or the Prepare Disclosure for Submission page with the header data, MSDS Chemical Ingredients List and Additional Non-MSDS Chemicals (MSDS+ Entry Method).

To edit a disclosure, users can upload a valid XML to overwrite or append the data or can edit the disclosure manually. To edit the disclosure manually, select the desired field to make changes. Once the changes have been made, the disclosure will need validated.

Validating a Disclosure

When the Data User Registered Agent is satisfied that the disclosure report is complete, they must submit it for inclusion in FracFocus. At the bottom of the disclosure report, select 'Validate'.

FracFocus will make internal checks. If the disclosure does not meet FracFocus requirements, the disclosure will list the warnings and/or errors in the disclosure.

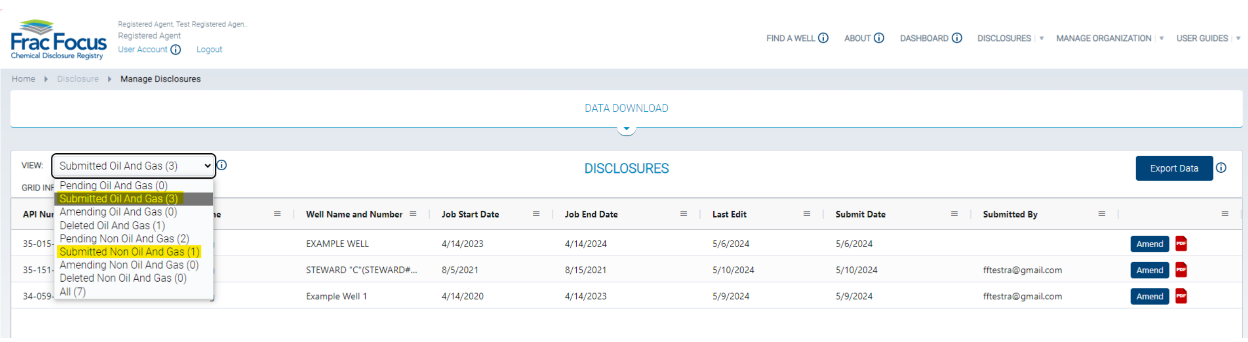
- Warnings: Warnings do not block validation but serve as reminders that something may not be completely correct. If the data entered is correct, the user can ignore the warnings and proceed to submittal. If the data entered is incorrect, the user can revise the data and submit the disclosure for validation again.
- Errors: An error means that the data does not meet the expected requirements of FracFocus and must be corrected prior to submittal.

After correcting all errors and/or warnings, select 'Validate Disclosure' for submittal.

Submitting a Disclosure

At this point, the disclosure can be submitted by clicking 'Submit to FracFocus'. Note: When the validation meets FracFocus requirements, the Submit to FracFocus button will become available.

The successfully submitted disclosure report will leave the Pending tab and move to the Submitted tab on the Manage Disclosures page.



Note that under the Submitted tabs, there is an Amend button and a .PDF icon. Submitted disclosures can be modified by selecting ‘Amend’. Select the .PDF icon to download a full .PDF version of the disclosure. This is what the public can view.

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	08/05/2021
Job End Date:	08/15/2021
State:	Oklahoma
County:	Woods
API Number:	35-151-00001-00-00
Operator Name:	User Guide Operator
Well Name and Number:	User Guide Example
Latitude:	36.835747
Longitude:	-98.946
Datum:	WGS84
Federal Well:	NO
Indian Well:	NO
True Vertical Depth:	8871
Total Base Water Volume (gal)*:	19866
Total Base Non Water Volume:	0

FracFocus
Chemical Disclosure Registry

Water Source	Percent
Groundwater, < 1000TDS	100.00%

Hydraulic Fracturing Fluid Composition:

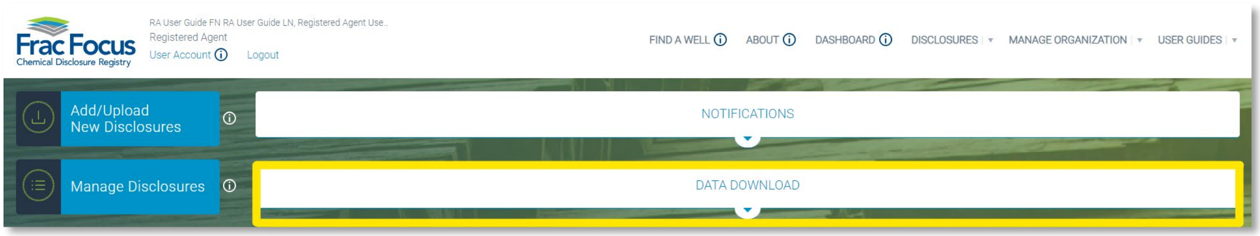
Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Surf 1	Well Services	Surfactant					
			Fatty Acid diethanolamide	61790-66-7	5.00000	98.00000	None
Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS							
			potassium hydroxide	1310-58-3	5.00000	0.00484	None
			Beeblebrox	CONFIDENTIAL	5.00000	0.00035	None

* Total Water Volume sources may include various types of water including fresh water, produced water, and recycled water
** Information is based on the maximum potential for concentration and thus the total may be over 100%

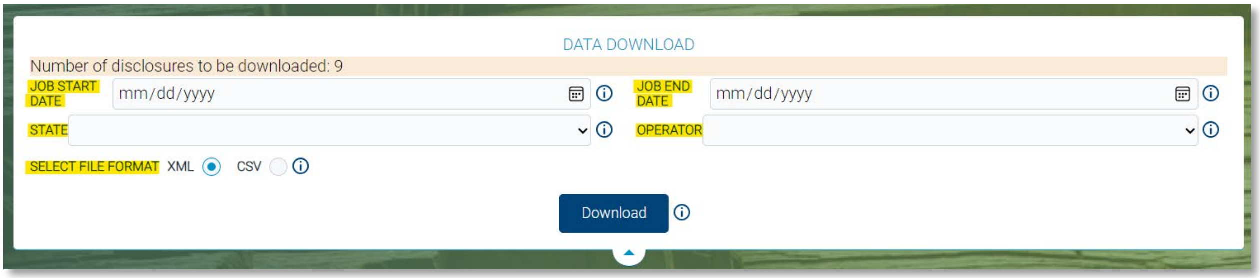
Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided.
Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from suppliers Material Safety Data Sheets (MSDS)

Download Chemical Disclosures

In FracFocus, the Operator, Registered Agent, and Service Company are able to download their Pending, Submitted, and Amending disclosure reports. From the Dashboard or Manage Disclosure page, select the Data Download drop-down.



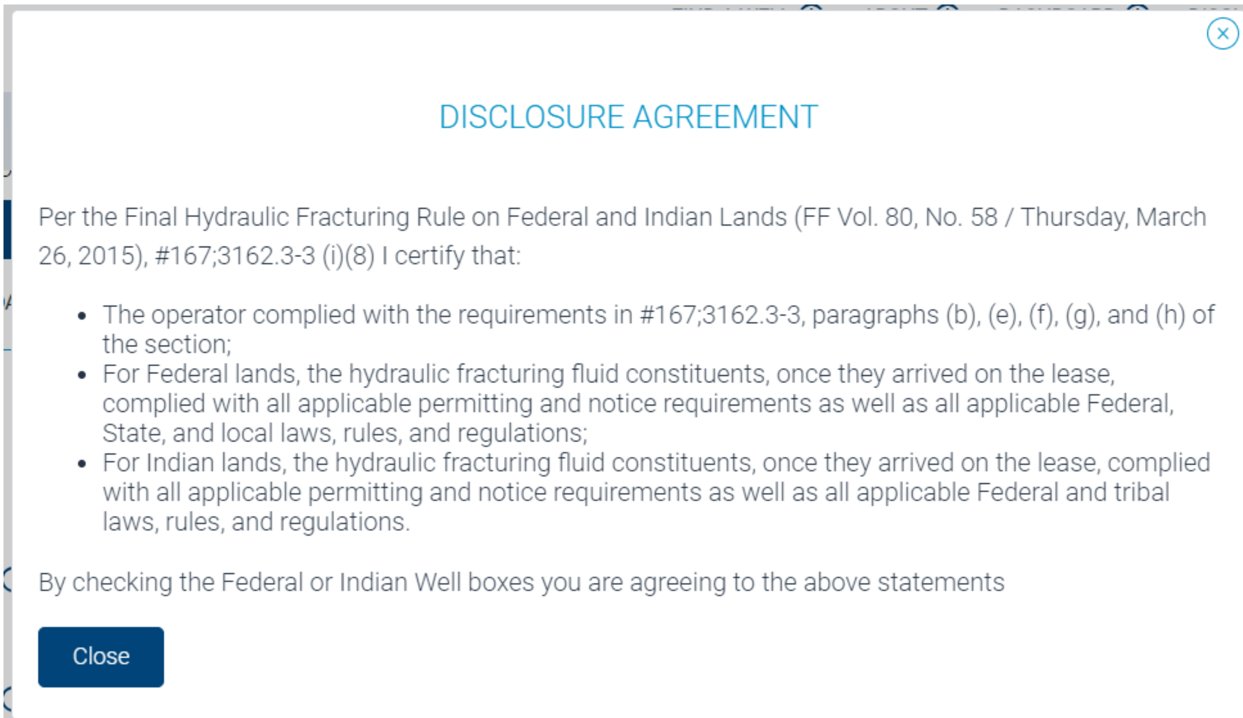
Filter the number of disclosures to be downloaded by entering the Job Start Date, Job End Date, State (where the desired wells are located), File Format and/or Operator. The number of disclosures to be downloaded will change as more or less filters are applied.



Once desired filters have been applied, select 'Download' and the .xml will download onto the user's device.

Additional BLM Requirements

The Bureau of Land Management is working on regulations that govern disclosure of chemicals used to fracture wells located on Federal or Indian lands. Anytime the Federal or Indian Well checkboxes are checked, a Disclosure Agreement pop-up will appear. By checking the Federal or Indian Well boxes users are agreeing to the disclosure agreement.



Frac Focus
Chemical Disclosure Registry

FracFocus

SERVICE COMPANY GUIDE

Chapter 6 – Using FracFocus as a Service Company

This chapter describes the actions a Service Company can perform within FracFocus.

A Service Company is a company that typically performs fracturing jobs and provides the initial data in a disclosure for Operator's review and submission. There are two different roles that can be assigned to users employed by a Service Company:

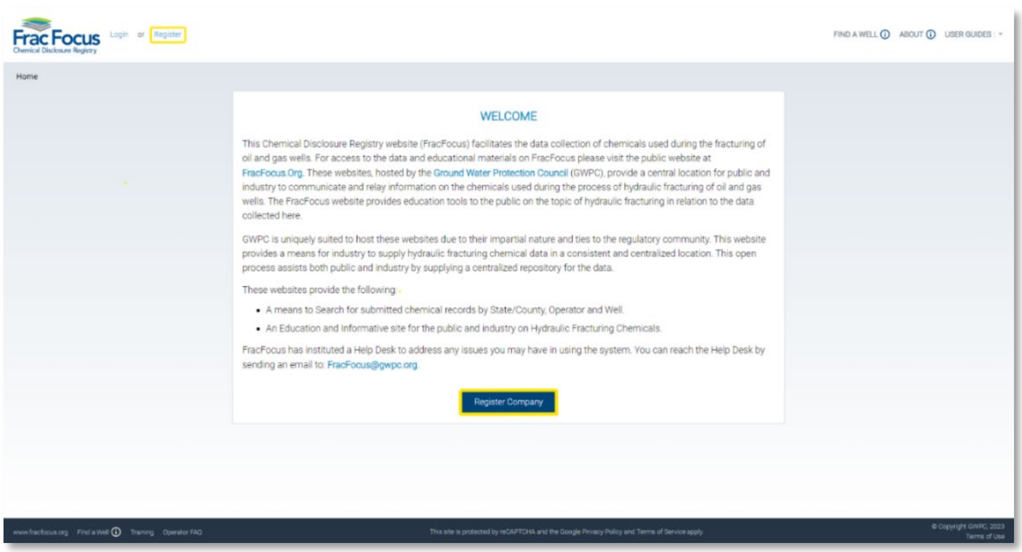
- **Supervisor** – A supervisor has overall responsibility for managing the organization's users and registration
- **Data User** – A data user is responsible for entering, validating, and routing data to Operators for submittal

Getting Started as a Service Company

Registering a Service Company

The first thing a Service Company must do is register to participate in FracFocus. The person who makes the initial registration for a Service Company is automatically assigned the Supervisor role. If a user has registered for FracFocus previously, they will not need to register again. Registering a company implies that the company is not an existing organization registered in FracFocus. The system will test to see if the registration information matches previous registrations.

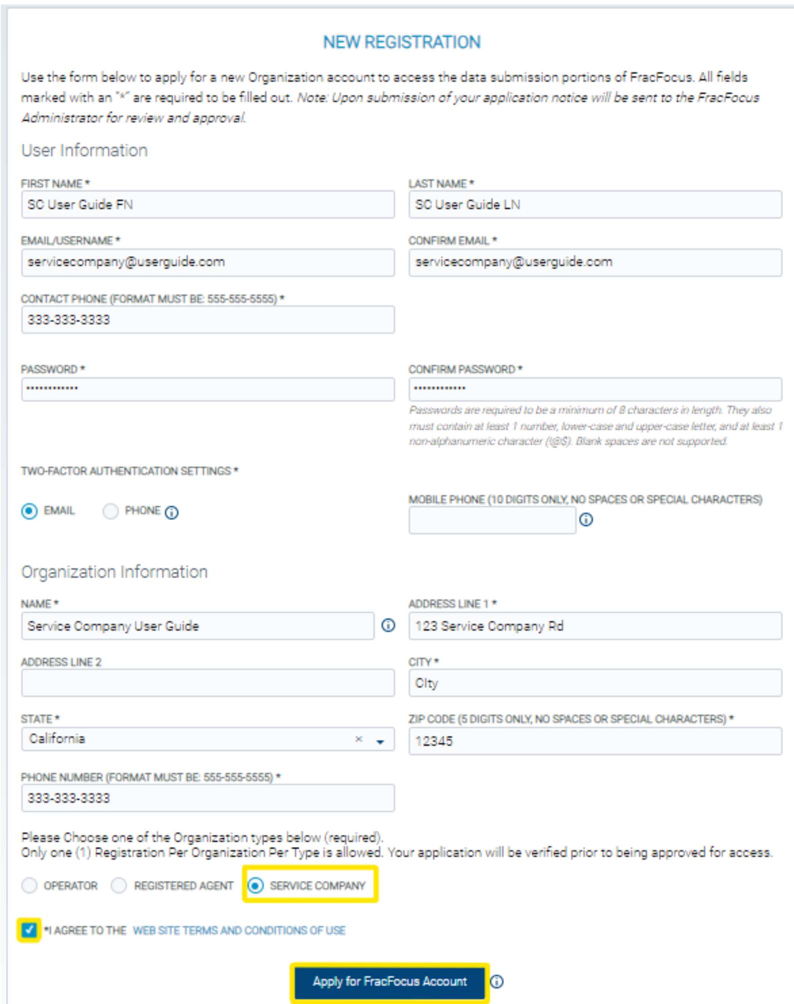
To Register: If a Service Company has not yet registered, select 'Register' (at the top next to Login) or 'Register Company' on the main screen.



Users will be directed to the new registration form.

Users must input the required fields and create a password. Passwords are required to be a minimum of 8 characters in length. They also must contain at least 1 number, a lower-case and an upper-case letter, and at least 1 non-alphanumeric character (!@$). Blank spaces are not supported.

Users must select EMAIL or PHONE for two-factor authentication. If a user prefers to receive authentication via phone, they are required to enter a mobile phone number that can receive text messages.



NEW REGISTRATION

Use the form below to apply for a new Organization account to access the data submission portions of FracFocus. All fields marked with an "*" are required to be filled out. *Note: Upon submission of your application notice will be sent to the FracFocus Administrator for review and approval.*

User Information

FIRST NAME * SC User Guide FN

LAST NAME * SC User Guide LN

EMAIL/USERNAME * servicecompany@userguide.com

CONFIRM EMAIL * servicecompany@userguide.com

CONTACT PHONE (FORMAT MUST BE: 555-555-5555) * 333-333-3333

PASSWORD * ••••••••••••

CONFIRM PASSWORD * ••••••••••••

Passwords are required to be a minimum of 8 characters in length. They also must contain at least 1 number, lower-case and upper-case letter, and at least 1 non-alphanumeric character (!@$). Blank spaces are not supported.

TWO-FACTOR AUTHENTICATION SETTINGS *

EMAIL PHONE

MOBILE PHONE (10 DIGITS ONLY, NO SPACES OR SPECIAL CHARACTERS)

Organization Information

NAME * Service Company User Guide

ADDRESS LINE 1 * 123 Service Company Rd

ADDRESS LINE 2

CITY * City

STATE * California

ZIP CODE (5 DIGITS ONLY, NO SPACES OR SPECIAL CHARACTERS) * 12345

PHONE NUMBER (FORMAT MUST BE: 555-555-5555) * 333-333-3333

Please Choose one of the Organization types below (required).
Only one (1) Registration Per Organization Per Type is allowed. Your application will be verified prior to being approved for access.

OPERATOR REGISTERED AGENT SERVICE COMPANY

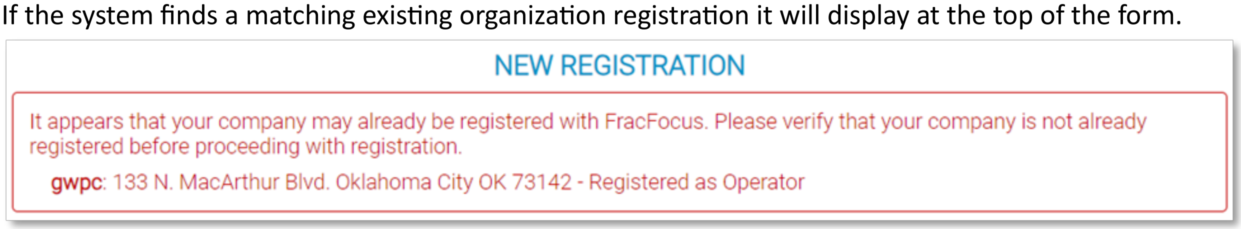
*I AGREE TO THE WEB SITE TERMS AND CONDITIONS OF USE

Apply for FracFocus Account

Select Service Company from the organization types. When registering a new organization, users may only select one type of entity.

After reviewing the application for accuracy and agreeing to the Web Site Terms and Conditions of Use, select 'Apply for FracFocus Account'.

If the system finds a matching existing organization registration it will display at the top of the form.

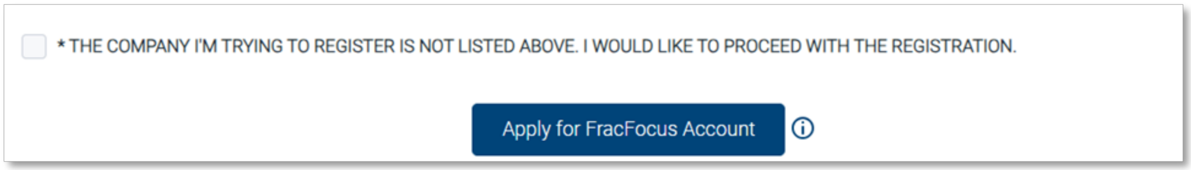


NEW REGISTRATION

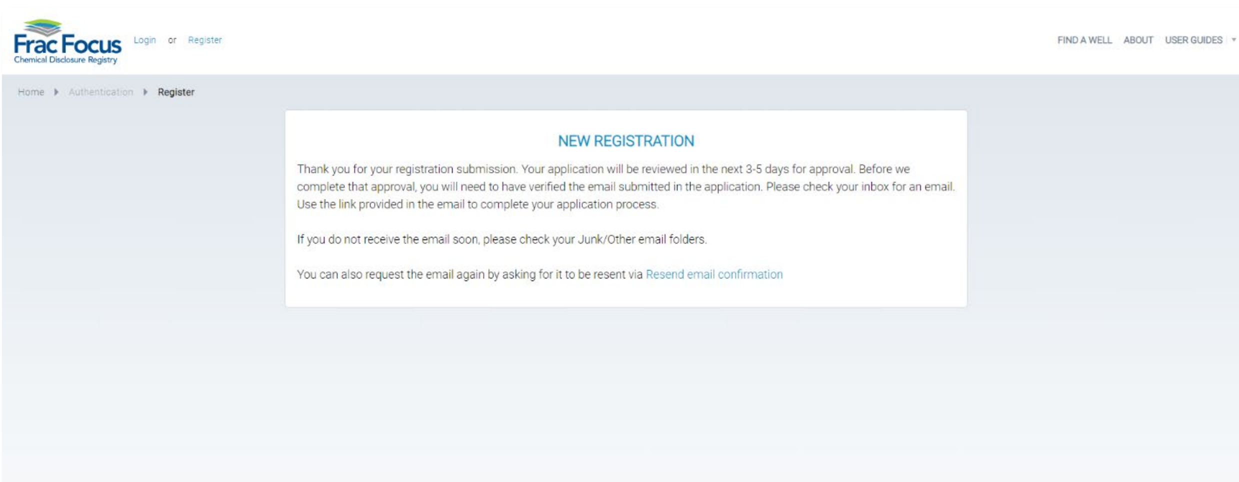
It appears that your company may already be registered with FracFocus. Please verify that your company is not already registered before proceeding with registration.

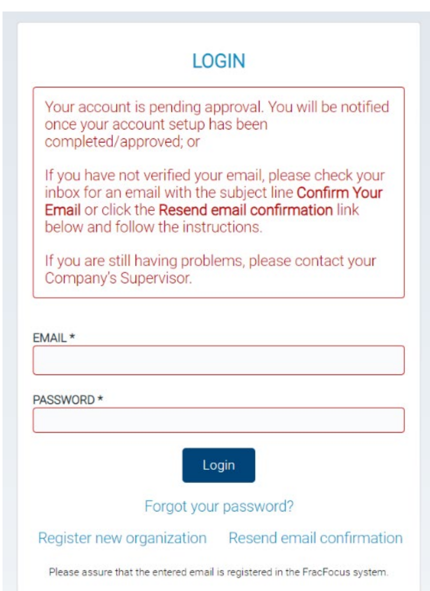
gwpc: 133 N. MacArthur Blvd. Oklahoma City OK 73142 - Registered as Operator

If the user's company is not represented in the list, scroll to the bottom, and check the box confirming that the company is not listed. Select 'Apply for FracFocus Account'.



After the application has been submitted, the user will receive an email to verify the email address associated with the account. Before the approval can be completed, the user must verify the email submitted in the application.



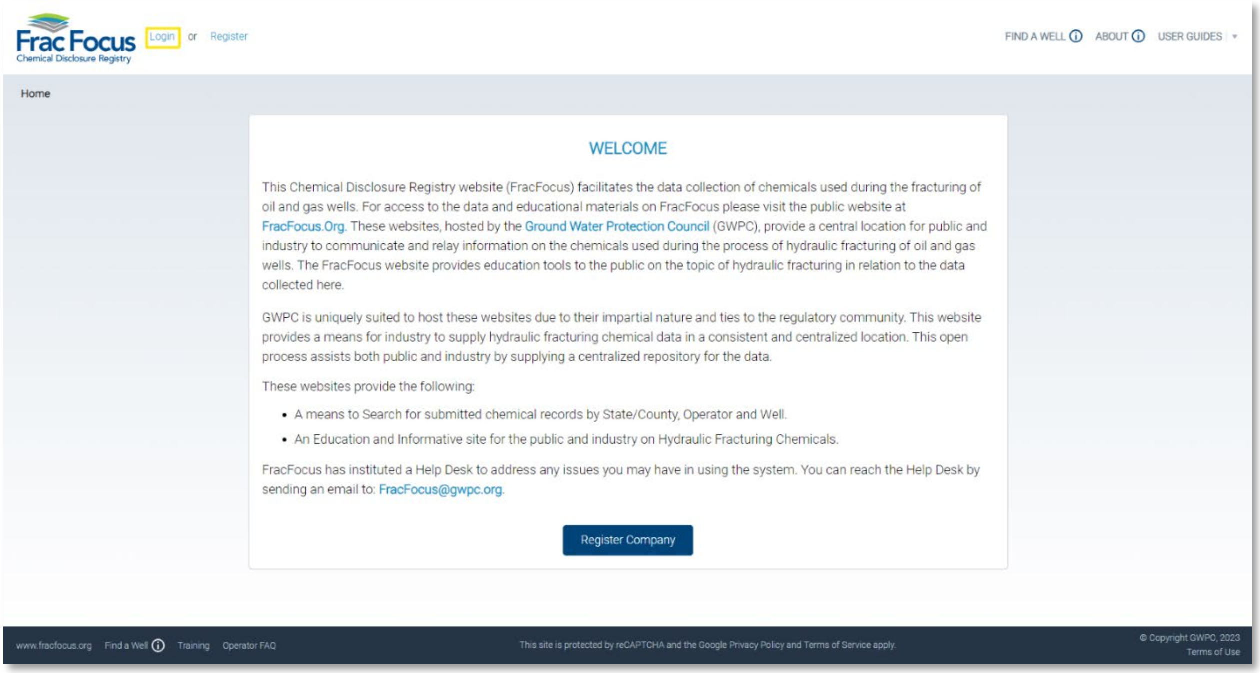


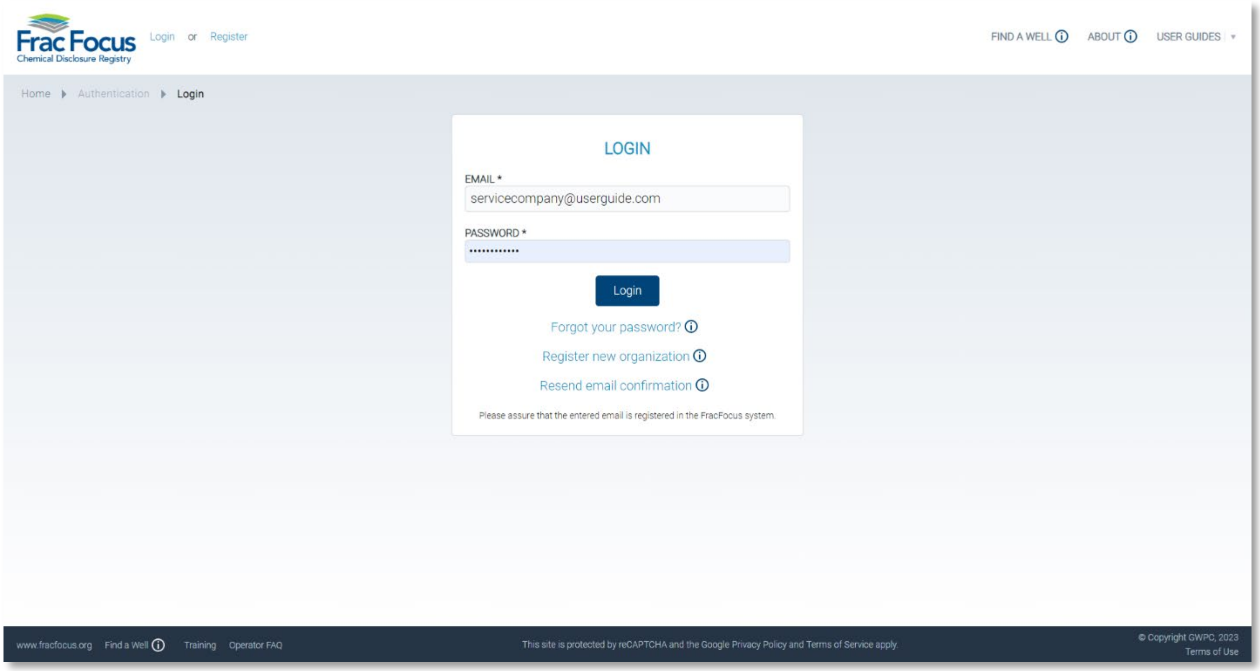
Once the email is verified, the application will be reviewed in the next 3-5 business days for approval by a FracFocus Support Administrator. Once approved, the user will receive an email acknowledging the approval.

Please note – users will not be able to login to FracFocus until their account has been approved. If a user tries to login, they will receive a notice stating the account is pending approval.

Once approved, use the link from the email or return to https://www.fracfocusdata.org. Enter the email, password, and complete the two-factor authentication once prompted.

To Login: Start at the FracFocus homepage (https://www.fracfocusdata.org). At the top left of the screen (next to the FracFocus logo), select 'Login'. Users will be prompted to enter their email address, password, reCAPTCHA and complete the two-factor authentication to get started.



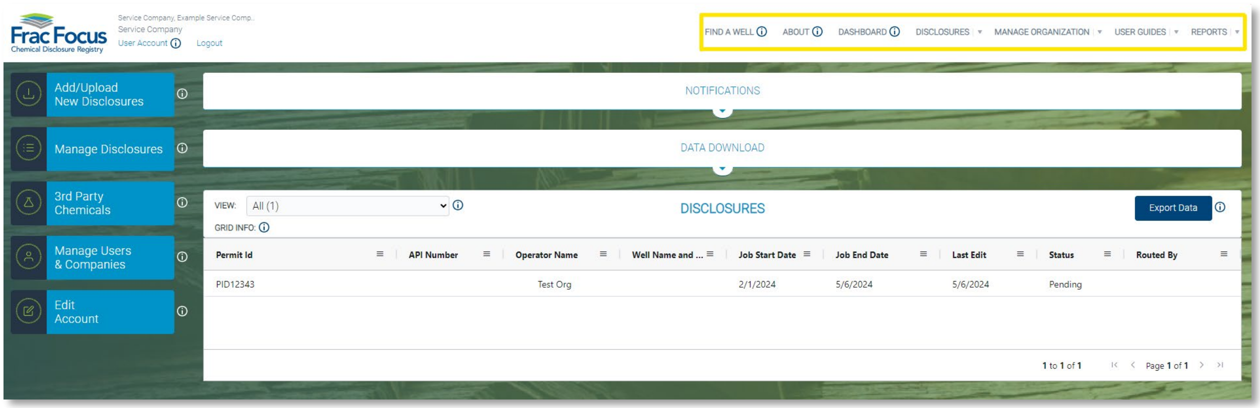


The Service Company Dashboard

After successfully logging in, users will be directed to the Service Company dashboard screen that displays Notifications, Data Download, Disclosures, the upper right-hand navigation menu, and the left-hand navigation menu. Each of these dashboard components allows users to perform actions in the system based on their assigned roles.

Upper Right-Hand Navigation

Users will see this menu on most FracFocus screens – this allows efficient navigation to other screens and to return to the dashboard. The options available depend on the role assigned to the user. This screen shows permissions for a user with both supervisor and data submitter roles.



Find a Well

Directs users to the public disclosure interface on fracfocus.org to search for submitted disclosures.

About

Directs users to the About page which contains general information about FracFocus.

Dashboard

Directs users to the Dashboard – the home screen.

Disclosures

Allows users to add/upload new disclosures, manage disclosures, and manage 3rd party chemicals.

Manage Organization

Allows users to manage their organization's profile, users, set up organizational defaults, and view the list of Operators who have authorized the organization as a Service Company to enter, validate, and route data.

Organization Defaults

Organization Defaults allows a Service Company to edit default values used in the system. This menu item is only available to a Service Company with a Supervisor role. To view and/or edit the Organization Defaults, select Manage Organization Defaults in the Manage Organization drop-down (from the upper right-hand navigation menu).

The current Organization Defaults available are Non Oil & Gas and Percentage Hf Recalculation.

Non Oil & Gas

The Non Oil & Gas default allows a Service Company Supervisor to enable or disable the organization's ability to view and manage non oil & gas wells (i.e., wells **not** associated with the production of oil and gas) in addition to oil & gas wells (i.e., wells associated with the production of oil and gas).

Please Note: This default value must be set to 'true' to enable the ability to view and manage non oil & gas wells. Only set to 'true' if submitting disclosure information on wells that are not associated with the oil and gas industry and involved in the production of oil and gas.

Percentage Hf Recalculation

The HfRecalculation Default allows a Service Company Supervisor to either allow or deny the FracFocus system to offer recalculating the mass of chemicals/ingredients. This is used with adding 3rd party chemicals without a % HF Job where the user knows mass in pounds of chemicals added.

To allow the system to offer the HfRecalculation, ensure the value is set to true. To reject the system from offering the HfRecalculation, set the value to false.

User Guides

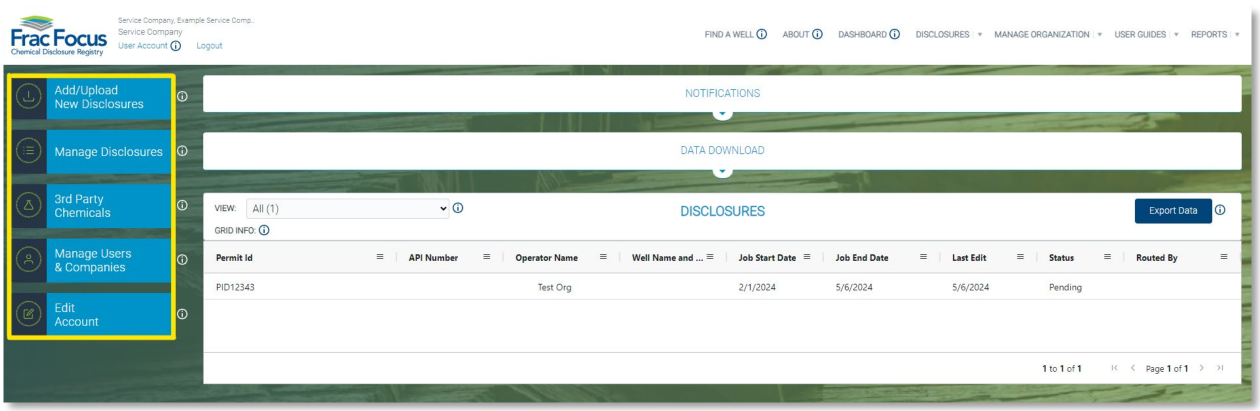
Directs users to the Schema Guide and User Guide.

Reports

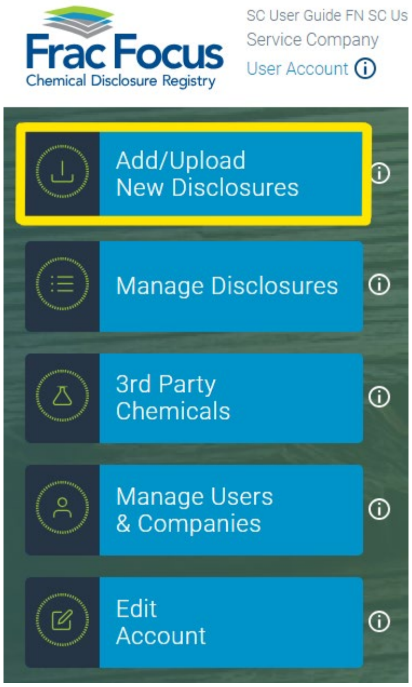
Directs users a set of canned validation Service Company Reports

Left-Hand Navigation

The Left-Hand Navigation options provide users with quick access to specific menu selections. The available items in the Left-Hand Navigation menu will be dependent on the logged in user's roles. All the menu items are described below.



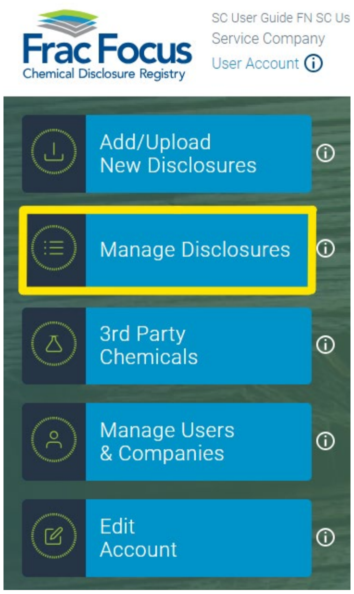
Add/Upload New Disclosures



Service Company users with the "Data User" role will have access to this menu option. This menu item directs users to the New Disclosures page. Users can also access this page from the Add/Upload New Disclosure drop-down item from the Disclosures option in the navigation menu.

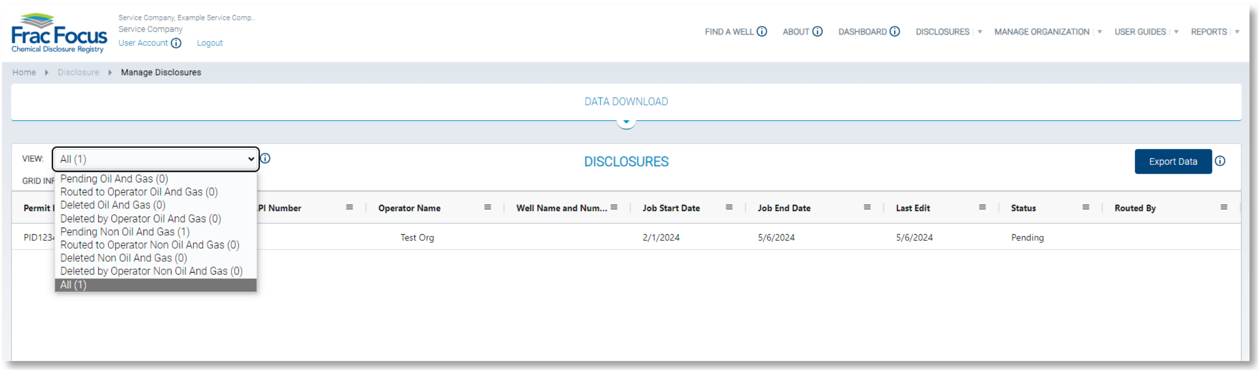
See section "Creating a New Disclosure" for additional information on adding/uploading new disclosures.

Manage Disclosures

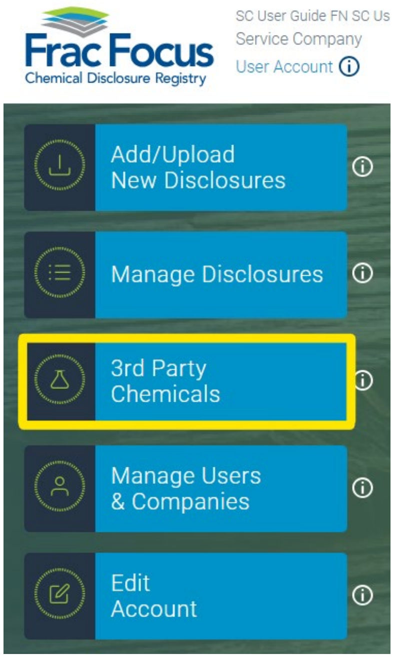


This menu item directs users to the Manage Disclosures page. Users can access this page from the Manage Disclosures drop-down item from the Disclosures option in the navigation menu. Here, users can manage Pending, Routed to Operator, Deleted, Deleted by Operator, and All disclosures for supported Operators. (Note: deleted and deleted by Operator are disclosures created during the process of editing/amending submissions and will be removed from the system after a 6-month holding period.)

On the Manage Disclosures page, use the View drop-down to narrow disclosures based on Well Type Grouping and Status. Users have the option to export data into an excel spreadsheet with the Export Data button to review offline.



3rd Party Chemicals



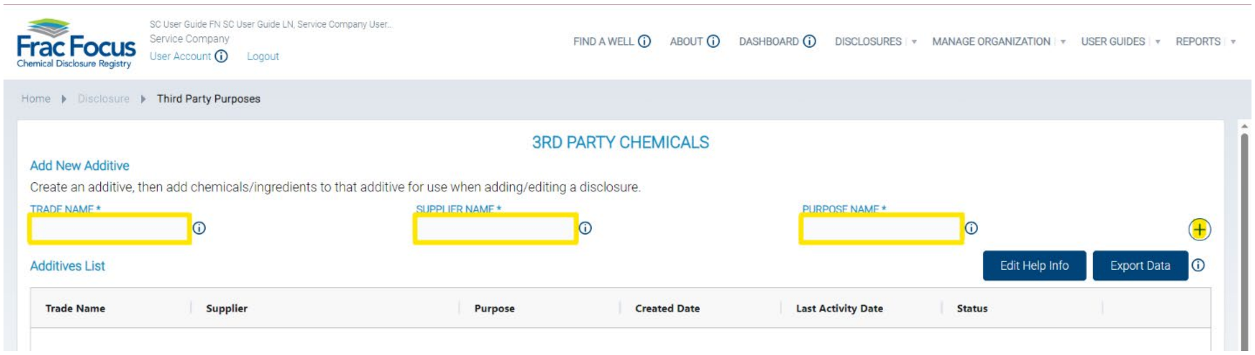
This menu item directs users to the 3rd Party Chemicals page. The 3rd Party Chemicals page is used to enter additives and the chemicals/ingredients that comprise that additive to a list where they can be used by a data submitter in the edit disclosure reports screen. Instructions for adding a new 3rd party chemical (or additive) are outlined below. This feature allows the user to build a set of additives that can be used on multiple disclosure reports and speed the creation of a disclosure report.

Users with the Data User role have the ability to add and edit 3rd Party Chemicals. Users with the Supervisor role can review the list only.

The Service Company only has access to the 3rd Party Chemicals that they enter in the system. They do not have access to the Operator's 3rd Party Chemicals.

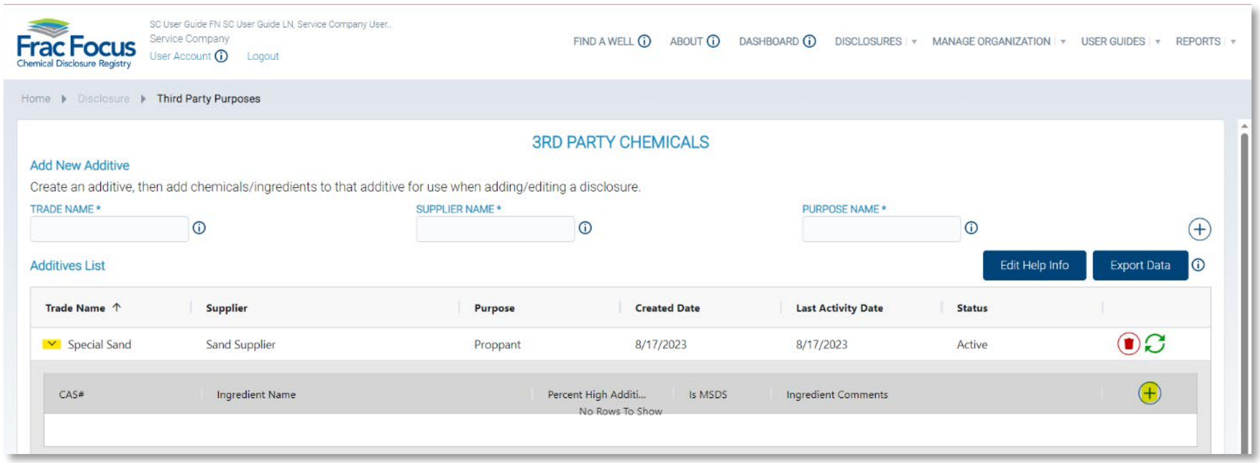
Add New Additive

To create a new additive, input the Trade Name, Supplier Name, and Purpose Name then select to add. Once the additive is displayed in the Additives List table, users may add chemicals/ingredients to the additive.

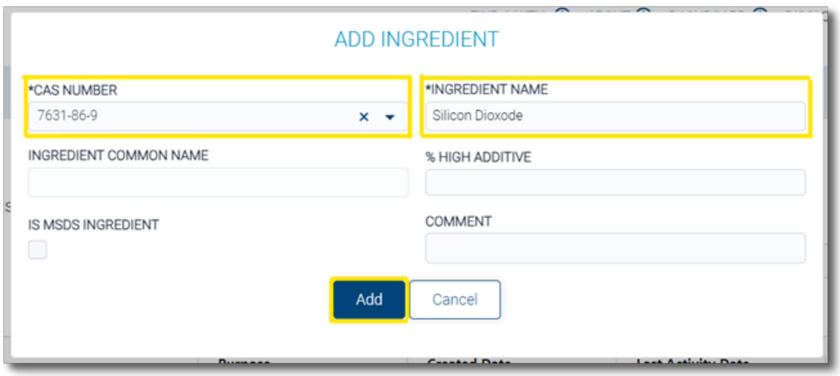


Adding Ingredients

To manage an additive's ingredients, select the drop-down option (i.e., ">" arrow next to Trade Name of Additive). To add a new ingredient, select from the ingredients table.



Users will be directed to input the new ingredient information. The CAS Number and Ingredient Name are required fields. If a CAS Number from the existing drop-down is selected, the Ingredient Name will populate.



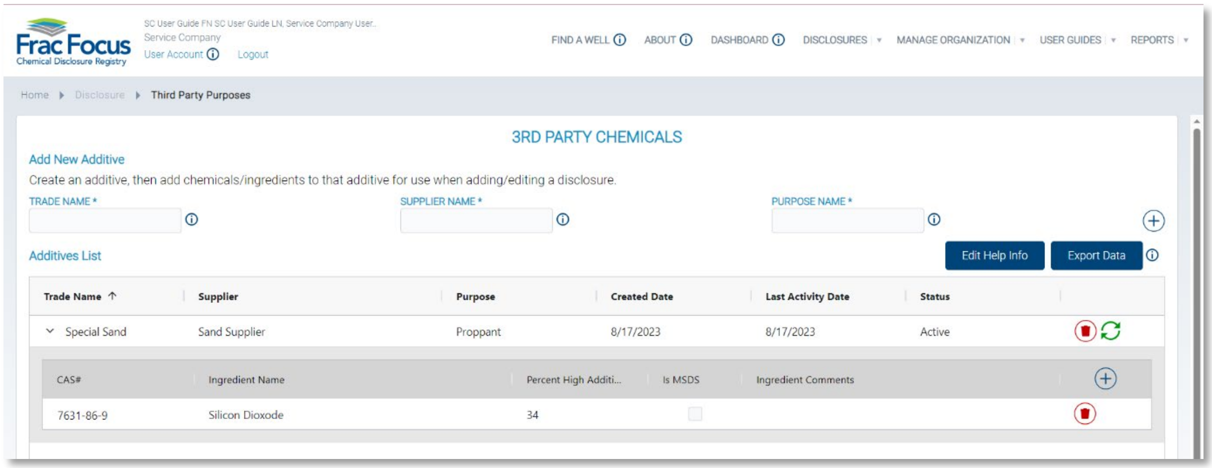
Users may input the % High Additive and any additional comments regarding the ingredient. The Ingredient Common Name Field is read-only and will populate based on previous use of that chemical's CAS Number in FracFocus.

For the special cases of Proprietary, Trade Secret, CAS Not Assigned, and Confidential ingredients, input the value (ex. "Proprietary") in the CAS Number field and hit enter. If a special case has been entered for the CAS Number, claimant information fields (Company Name, First Name, Last Name, Email, and Phone) will appear for input after adding.

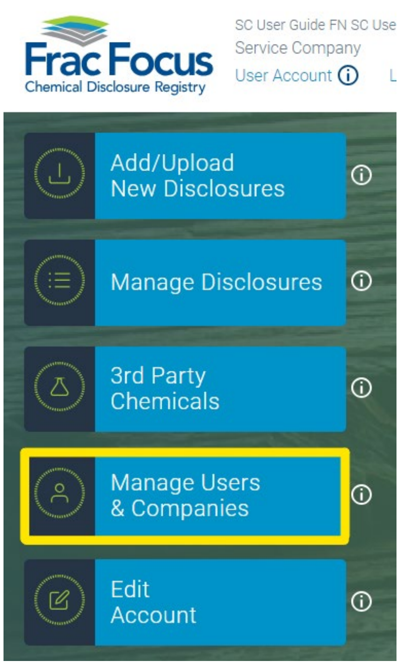
If the ingredient is an MSDS ingredient, check the checkbox under "Is MSDS Ingredient". Both MSDS and non-MSDS ingredients can be entered for an Additive.

After the information is entered, select 'Add' to add the ingredient.

Once the ingredient has been added, it will populate in the Additive List drop-down. By clicking on the fields of the ingredient in an Additive users can edit that ingredient.



Manage Users & Companies



This menu item directs users with the Supervisor Role to the Organization Users page where they can manage the following:

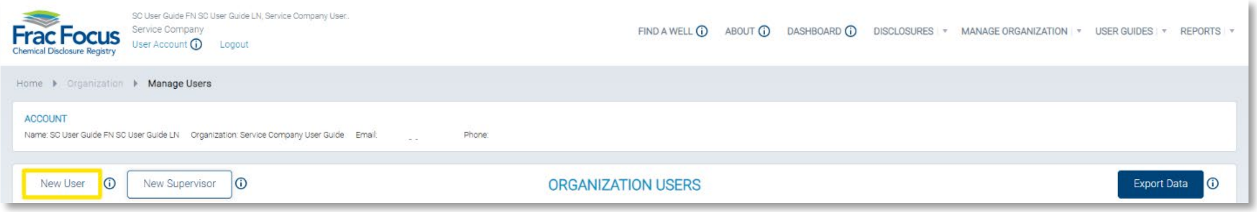
- Add New Data Users
- Add New Supervisors
- Add Existing Users to the Organization
- Manage organization user’s roles

The system requires all organizations to have at least one Supervisor. Supervisors cannot remove the role from their user accounts. If a Supervisor role needs to be removed from an account, another Supervisor of that organization must remove it.

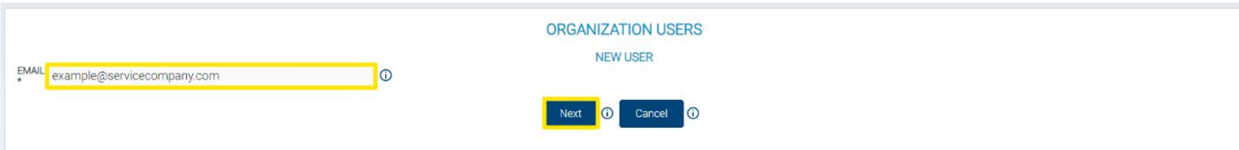
Organizations may have multiple Supervisors and multiple Data Submitters. Users can be assigned to both roles.

Add a Service Company User or Supervisor (new to FracFocus)

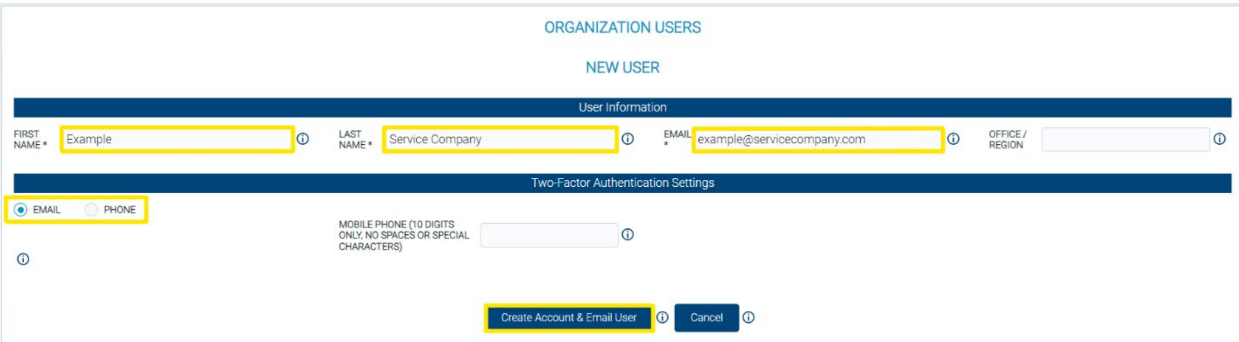
To add a new organization login under the Service Company, select either New User or New Supervisor under the Users tab. (Note: graphics show New User option selected but same process is followed for a new Supervisor)



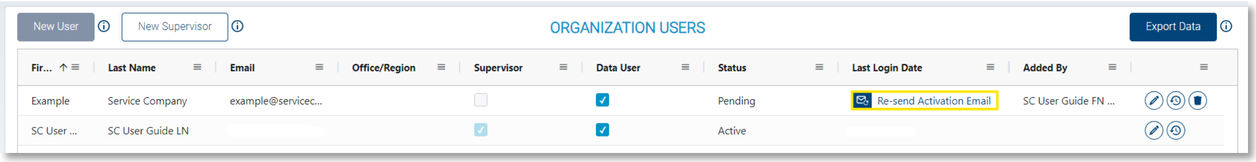
Next, enter the email address of the new organization user to verify the email address is not already registered in FracFocus. Select 'Next' to check for existing user credentials and continue.



Users will be directed to the Organization Users New User/Account form. Enter the new user's required information: first name, last name, email address (pre-populated) and two-factor authentication settings. Users can assign an Office/Region to the new user. Select 'Create Account & Email User'. This will send an email to the user with steps to complete their account setup and login for the first time.



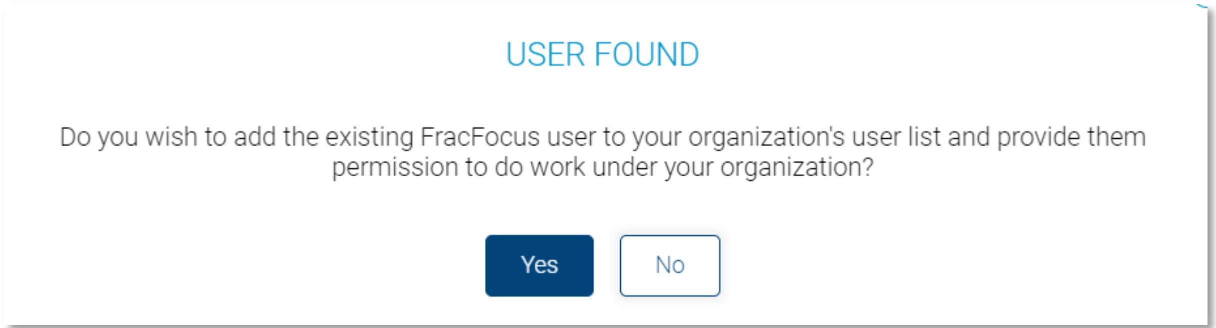
The New User's account will be in a pending state after the account is created. Before the user logs in for the first time, the new user's first name, last name, office/region, and email can be edited. If the email was entered incorrectly, it can be edited, and the welcome email can be resent by selecting 'Resend Activation Email'. The account can also be deleted at this time. Once the user has logged in for the first time, the account can no longer be deleted.



Once the user is added, the name of the new user will be added to the Organization Users list. The Supervisor then can assign roles to the new user (Supervisor or Data User) by checking the checkboxes that correspond to the desired role(s).

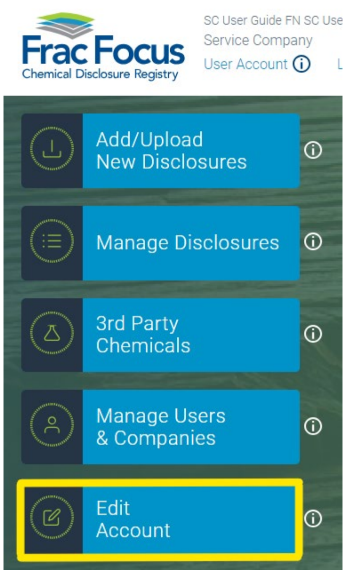
Add an Existing User

To add an Existing User to the organization, enter the email address of the user that has already registered and been approved in FracFocus. Users will be prompted by the dialog box below.



Select 'Yes' to associate the existing user to the organization. Once added, an organization Supervisor has permission to manage the existing user's roles with the organization.

Edit Account



This menu item directs users to the User Account page. This page allows users to manage profile information and change their password. Service companies can click Edit Profile to edit the following information on their accounts:

- First Name
- Last Name
- Phone Number
    - Primary
    - Cell
- Two-Factor Authentication Type

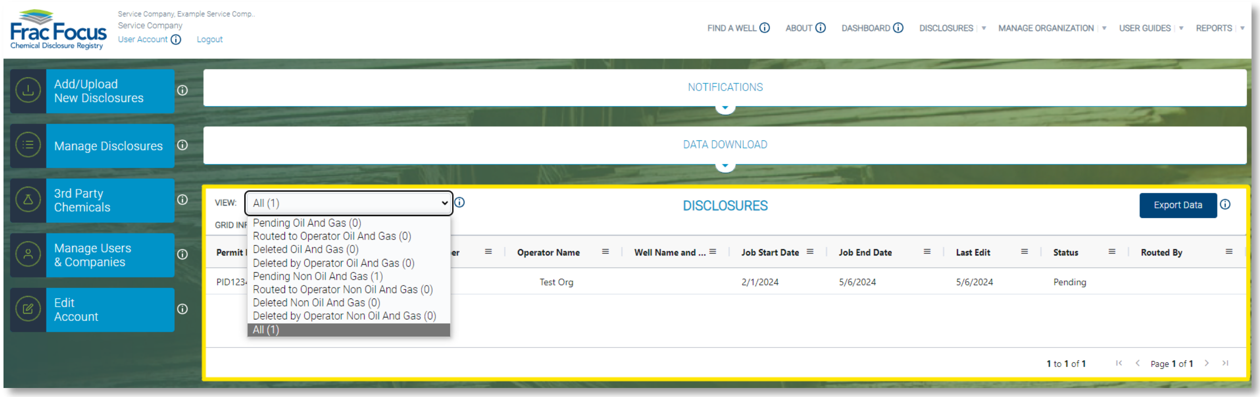
To change your password, click Change Password.

Export Data

In FracFocus, any pages that present a list of data are able to be downloaded in an Excel Spreadsheet. To download any list, click the Export Data button to download the Excel Spreadsheet.

Disclosures

The Disclosures table on the Registered Agent Dashboard allows users to quickly manage their Pending, Submitted, Amending, and Deleted Disclosures for Oil & Gas, and Non Oil & Gas Wells. Here, users can Edit, Delete, and Export disclosure reports.



Creating a New Disclosure

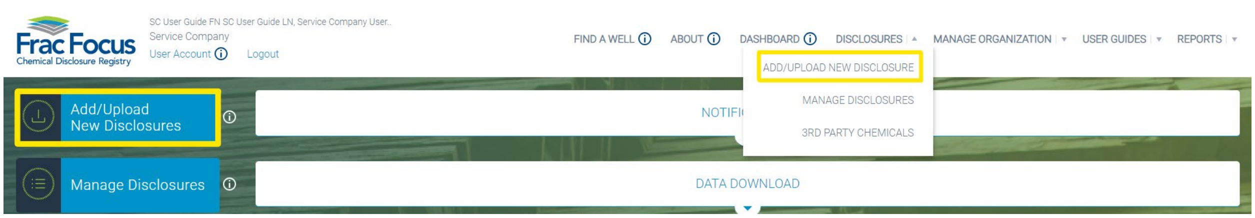
In many cases, disclosure reports will be created by the Service Company and provided to the Operator or Registered Agent for review. Only users with the Data User role under the Service Company have access to create new disclosures. In FracFocus, disclosures can be created using two separate approaches – the Default Systems Approach and the MSDS+ Approach.

Systems Approach: The Systems Approach allows users to input the data for all additives and all ingredients in a single list.

MSDS+ Approach: With the MSDS+ approach, the additives are grouped into separate lists depending on whether the chemicals are part of an SDS (Safety Data Sheet) or not, MSDS Chemical Ingredients and Additional Non-MSDS Chemicals. Usually, water and sand are included in the MSDS Chemical Ingredients list even though they are not part of an SDS. The MSDS chemicals are listed under their products used on the job.

Getting Started

To add a new disclosure, select Add/Upload New Disclosures from the Left-Hand Navigation menu or click the Add/Upload New Disclosure from the Disclosures drop-down from the Upper Right-Hand Navigation menu.



Users will be directed to the New Disclosure Form. Users may upload a valid XML file to complete the disclosure or if a valid XML file is not available, can manually complete the disclosure.

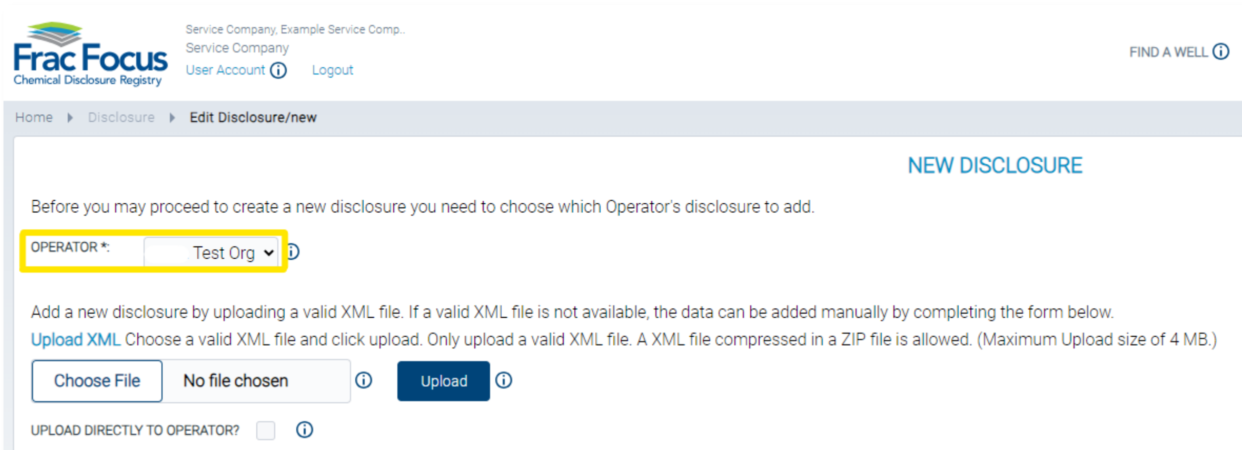
Please Note: the 'Edit Help Info' button in the form will generate a pop-up with editing help that describes how to edit the fields, add new items, and save information.

Please note the tooltip icons. By hovering over these icons, they will provide explanations for key fields and action buttons.

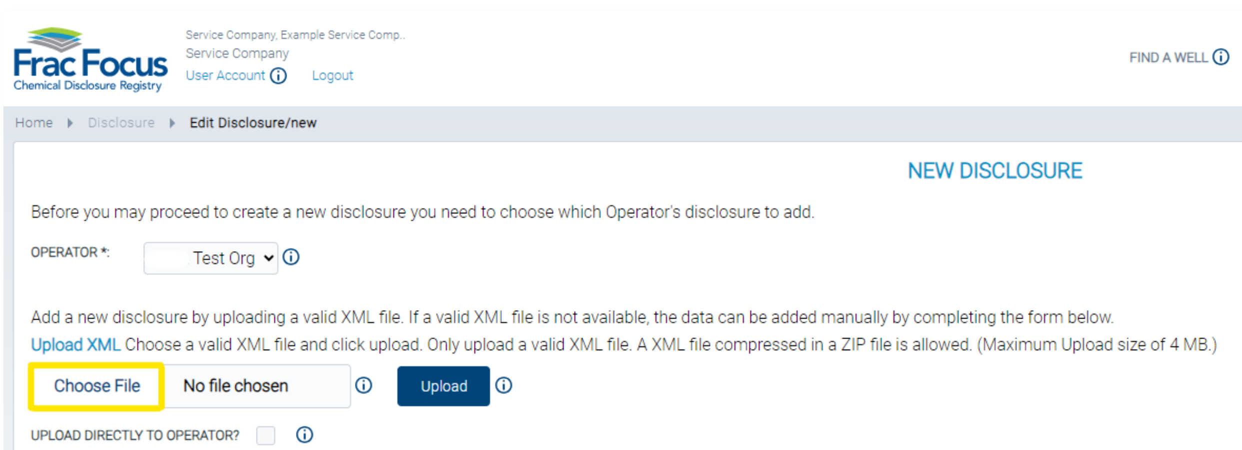
Upload XML File

If available, users may choose to upload an XML File to complete a disclosure. XML uploads may be used for all well types, including Oil, Gas, Brine, Class VI (CCUS), Energy Pressure Storage, Geothermal, and Hydrogen Storage.

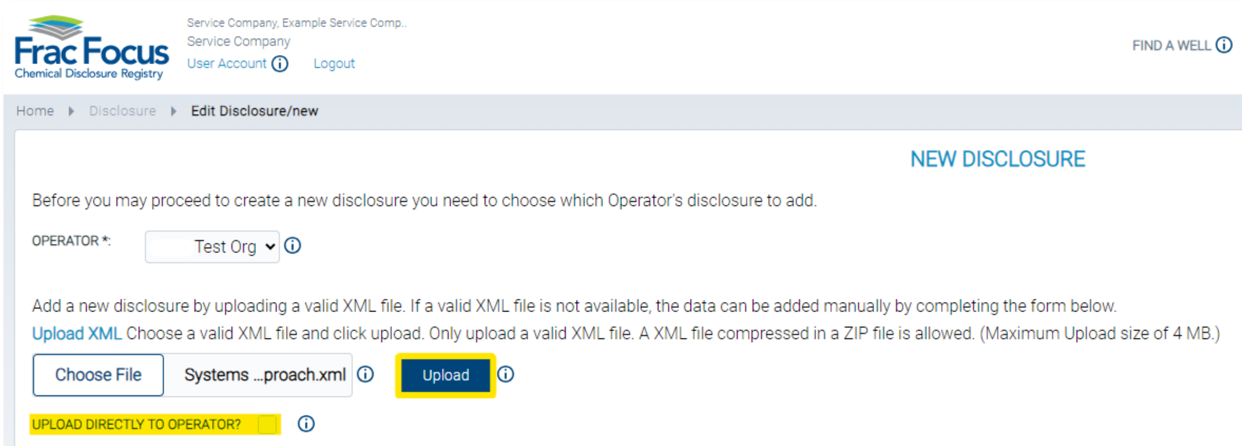
1. Ensure the disclosure is to be added under the correct Operator.



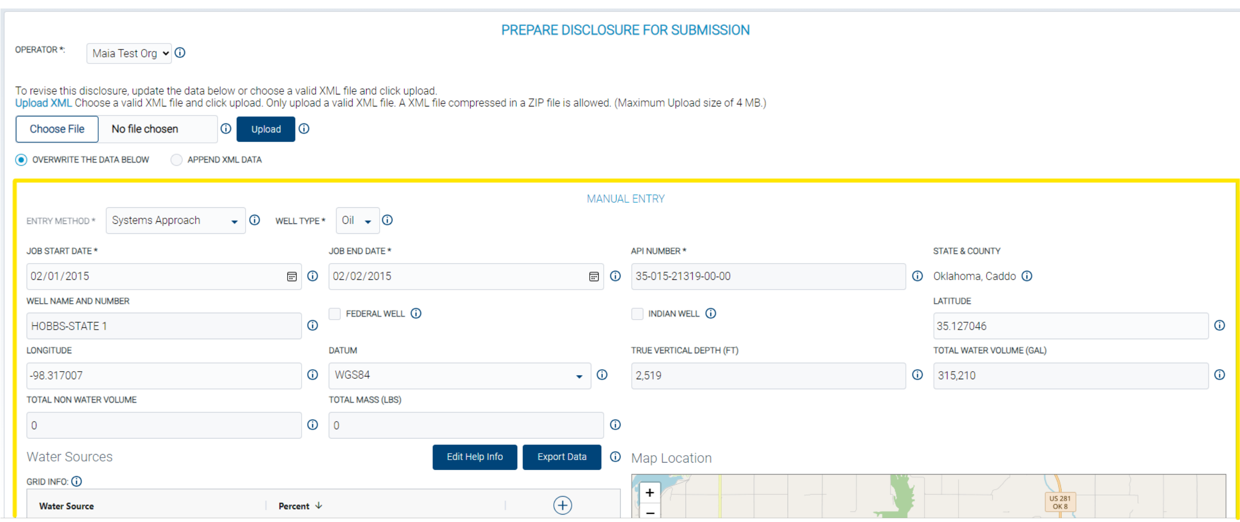
2. Select 'Choose File'.



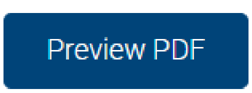
3. Upload valid XML file
4. Select 'Upload' – Users can use the Upload Directly to Operator checkbox to route the disclosure directly to the Operator with no edits.



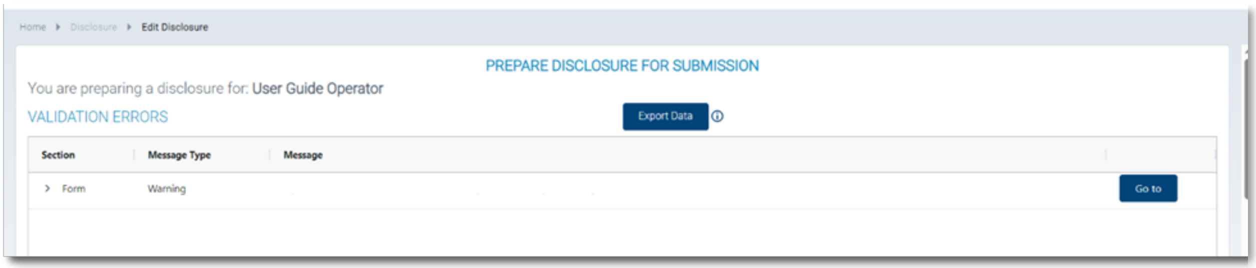
5. Information from the valid XML will populate the form.



6. To view a preview of the disclosure, select 'Preview PDF' at the bottom of the page.



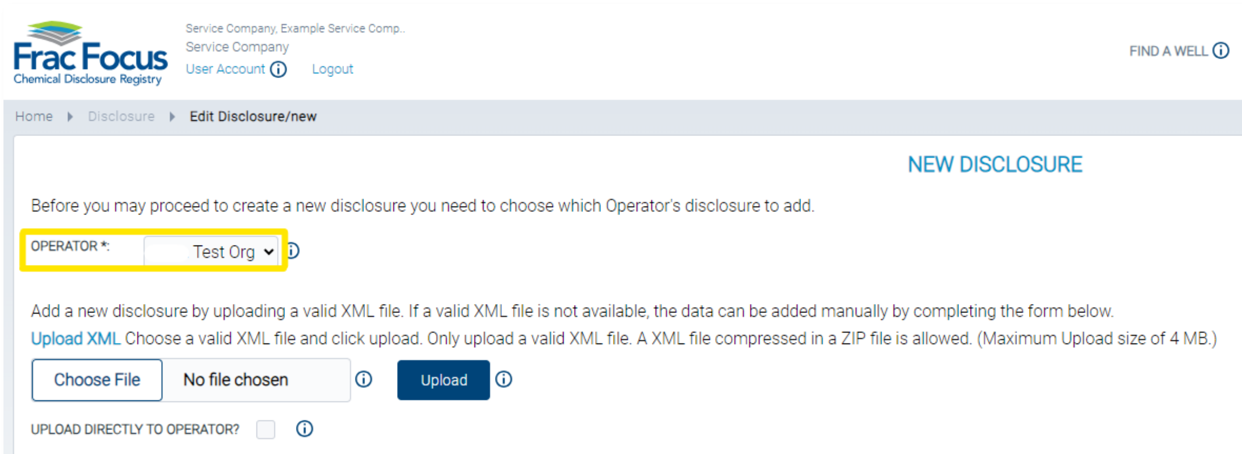
7. After the information has populated, select 'Validate' to ensure there are no errors on the form. If there are any errors or warnings, they will populate at the top of the disclosure.



8. After validating the disclosure, select 'Route to Operator' to send to the Operator's queue.

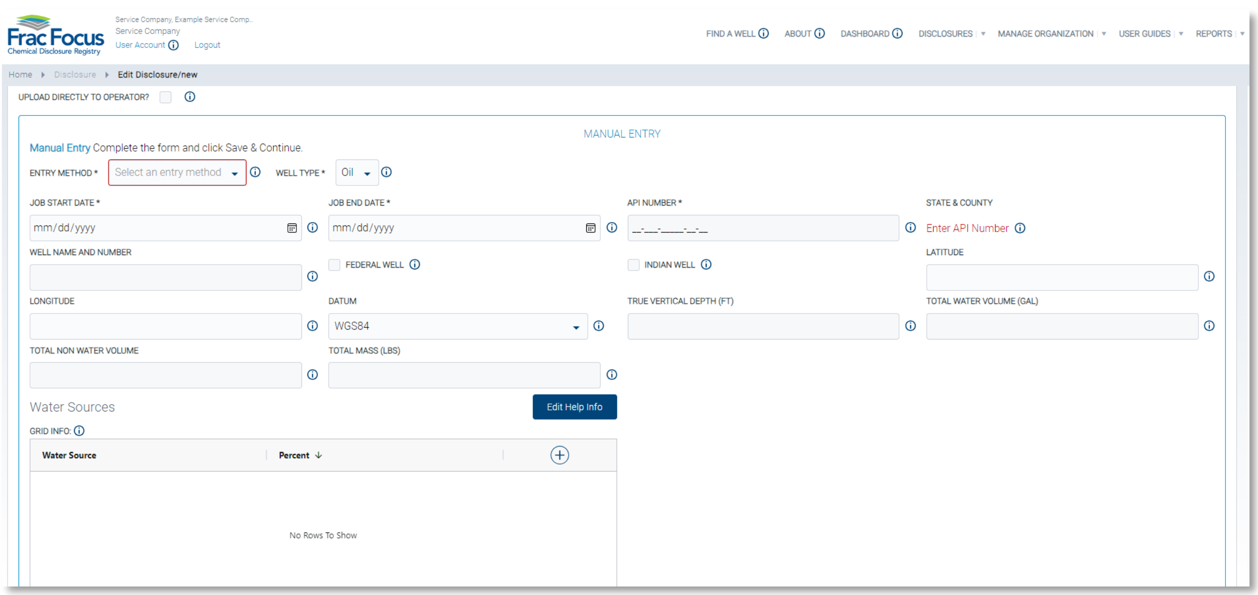
Manual Entry- Oil & Gas Wells

To enter disclosure information manually, first ensure the correct Operator is selected.



For **Oil & Gas Wells**, complete the required fields (marked with an asterisk) in the Disclosure Manual Entry form. Users can use the Upload Directly to Operator checkbox to route the disclosure directly to the Operator with no edits.

Note: Well Type must be Oil or Gas for the following.



Fields of Note:

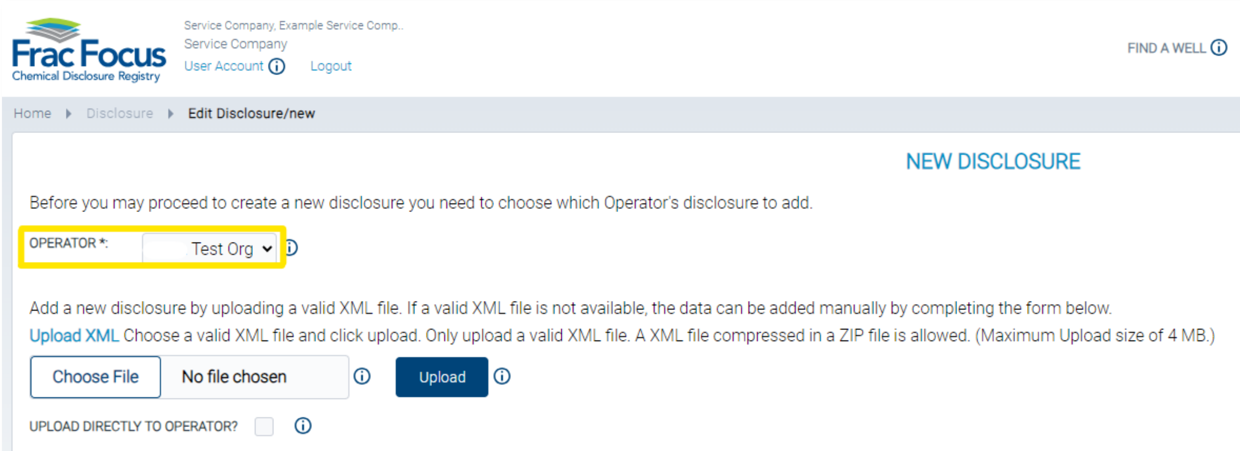
- Entry Method*: In FracFocus, disclosures can be created using two separate approaches – the default Systems Approach and the MSDS+ approach.
    - Systems Approach: Includes header data, Additive List, and Ingredient List
    - MSDS+: Includes header data, MSDS Chemical Ingredients List and Additional Non-MSDS Chemicals
- Well Type*: Oil or Gas

- Job Start Date*: Start date of the job performed
- Job End Date*: End date of the job performed
- API Number*: Must be in 14-digit format. Often, users will receive an API number in a shorter 10-digit format. If the API is entered as a 10-digit number, the four zeroes will be added automatically to the end of the API number. For most wells, the last 4 digits are "0" unless the well is a new lateral or new completion. Do not enter the dashes "-" between the sets of numbers – these are added automatically
- State & County: Will auto-populate depending on the API Number provided
- Well Name and Number: Name and number of the well as submitted to State
- Federal Well (checkbox): Indicates if the well is on Federal land or has Federal mineral interests, such that information would be reported to the U.S. Department of Interior's Bureau of Land Management (BLM)
- Indian Well (checkbox): Indicates if the well is on Indian land or has Indian mineral interests, such that information would be reported to the U.S. Department of Interior's Bureau of Land Management (BLM)
- Latitude: Surface latitude location of the well, written as a decimal
- Longitude: Surface longitude location of the well, written as a decimal
- Datum: Datum associated with the longitude/latitude provided (NAD27, NAD83, or WGS84). This choice should correspond with the coordinate system used to locate the company's well.
- True Vertical Depth (ft): True vertical depth of the well (feet)
- Total Water Volume (gal): Total volume of the base water used in the job (gallons)
- Total Non Water Volume: Total volume of any base fluids, besides water, that are used in large amounts (e.g., CO2, Nitrogen, etc.) in the job to transport chemicals and proppant.
- Total Mass (lbs.): Total mass of the job pumped (pounds). Information can be entered here if users need to recalculate the % HF Mass information in the ingredients portion of the form.
  Water Sources: Add and track the percentage of water source types used during the job. Users will be able to input the percentage of the job performed using the water type selected. Select the type of water source with associated breakdown by TDS using the following codes:
    a. Surface Water, <1000TDS
    b. Surface Water, >1000TDS
    c. Groundwater, <1000TDS
    d. Groundwater, >1000TDS
    e. Produced Water
    f. Other, <1000TDS
    g. Other, >1000TDS

Once the information has been entered, select 'Save and Continue'. At this point, users will move on to the section of the disclosure where chemical additives and ingredients are entered. This step will follow either the MSDS+ approach (see "MSDS+ Approach" section below) or the Systems approach of data entry (see "Systems Approach" section below).

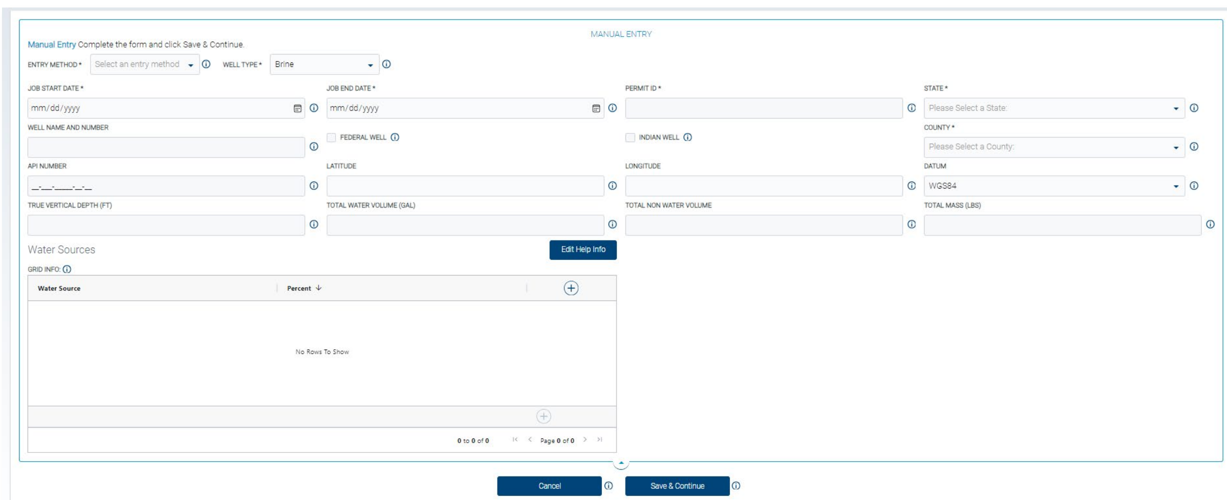
Manual Entry – Non Oil & Gas Wells

To enter disclosure information manually, first ensure the correct Operator is selected.



For **Non Oil & Gas Well Types**, complete the required fields (marked with an asterisk) in the Disclosure Manual Entry form. Users can use the Upload Directly to Operator checkbox to route the disclosure directly to the Operator with no edits.

Note: Well Type must be Brine, Class VI (CCUS), Energy Pressure Storage, Geothermal, or Hydrogen Storage for the following.



Fields of Note:

- Entry Method*: In FracFocus, disclosures can be created using two separate approaches – the default Systems Approach and the MSDS+ approach.
    - Systems Approach: Includes header data, Additive List, and Ingredient List
    - MSDS+: Includes header data, MSDS Chemical Ingredients List and Additional Non-MSDS Chemicals
- Well Type*: Brine, Class VI (CCUS), Energy Pressure Storage, Geothermal, or Hydrogen Storage

- Job Start Date*: Start date of the job performed
- Job End Date*: End date of the job performed
- Permit ID*: Permit ID/Number
- State*: State of the well
- County*: County of the well
- Well Name and Number: Name and number of the well as submitted to State
- Federal Well (checkbox): Indicates if the well is on Federal land or has Federal mineral interests, such that information would be reported to the U.S. Department of Interior's Bureau of Land Management (BLM)
- Indian Well (checkbox): Indicates if the well is on Indian land or has Indian mineral interests, such that information would be reported to the U.S. Department of Interior's Bureau of Land Management (BLM)
- API Number: Must be in 14-digit format. Often, users will receive an API number in a shorter 10-digit format. If the API is entered as a 10-digit number, the four zeroes will be added automatically to the end of the API number. For most wells, the last 4 digits are "0" unless the well is a new lateral or new completion. Do not enter the dashes "-" between the sets of numbers – these are added automatically
- Latitude: Surface latitude location of the well, written as a decimal
- Longitude: Surface longitude location of the well, written as a decimal
- Datum: Datum associated with the longitude/latitude provided (NAD27, NAD83, or WGS84). This choice should correspond with the coordinate system used to locate the company's well.
- True Vertical Depth (ft): True vertical depth of the well (feet)
- Total Water Volume (gal): Total volume of the base water used in the job (gallons)
- Total Non Water Volume: Total volume of any base fluids, besides fresh water, that are used in large amounts (e.g., CO2, Nitrogen, or recycled produced water) in the job.
- Total Mass (lbs.): Total mass of the job pumped (pounds). Information can be entered here if users need to recalculate the % HF Mass information in the ingredients portion of the form.
  Water Sources: Add and track the percentage of water source types used during the job. Users will be able to enter a percentage of the job performed using the water type selected. Select a type of water source with associated breakdown by TDS using the following codes:
    a. Surface Water, <1000TDS
    b. Surface Water, >1000TDS
    c. Groundwater, <1000TDS
    d. Groundwater, >1000TDS
    e. Produced Water
    f. Other, <1000TDS
    g. Other, >1000TDS

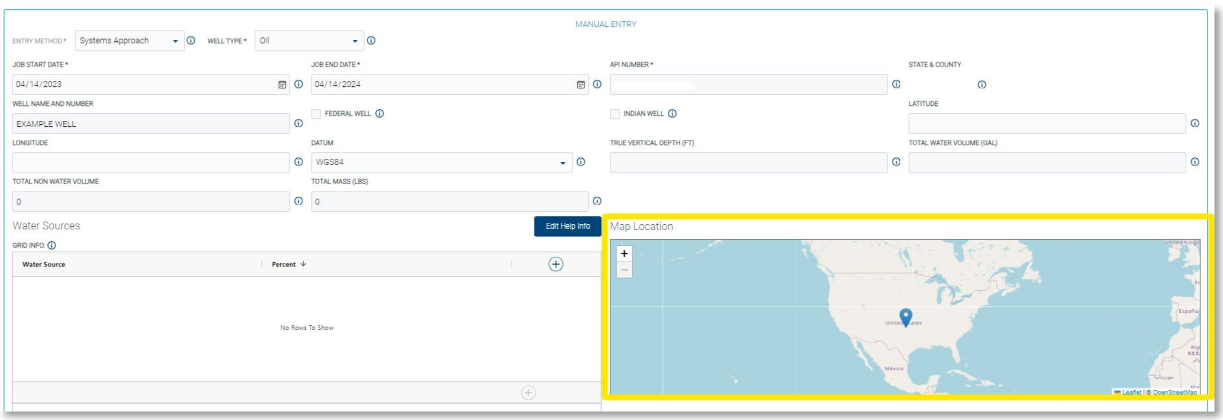
Once the information has been entered, select 'Save and Continue'. At this point, users will move on to the section of the disclosure where chemical additives and ingredients are entered. This step will follow either the Systems Approach (see "Systems Approach" section below) or MSDS+ approach (see "MSDS+ Approach" section below).

Systems Approach

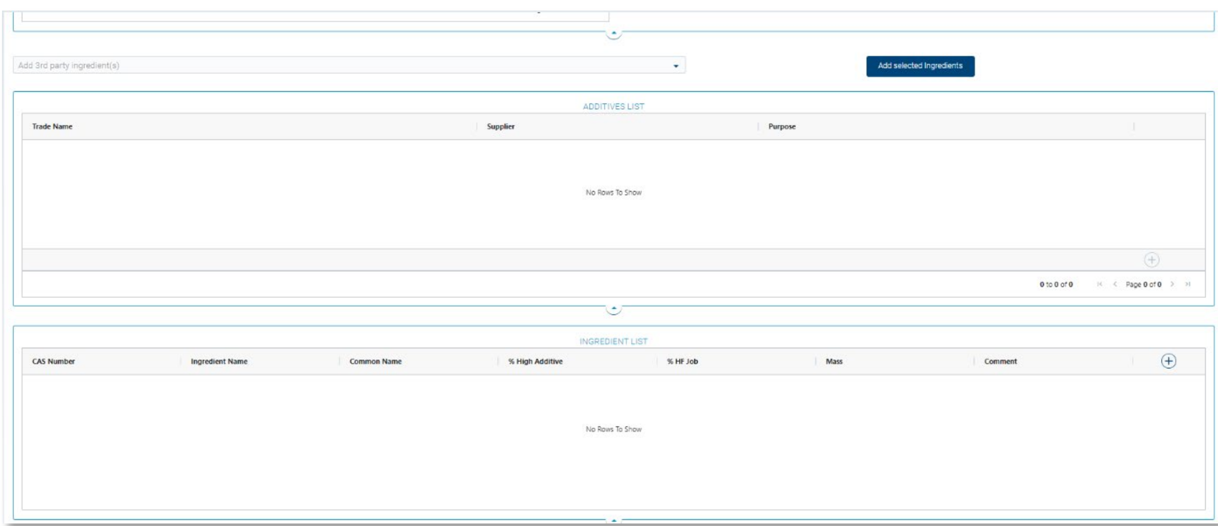
The Systems Approach allows users to input the data for all additives and all ingredients in common lists.

After the header information has been entered and the user has selected Save and Continue, the location of the well will show on the map. Users can visually verify that the map shows the correct location of the well.

Note: Example shows System Approach for Oil Well Type – the same process is followed for all Well Types.

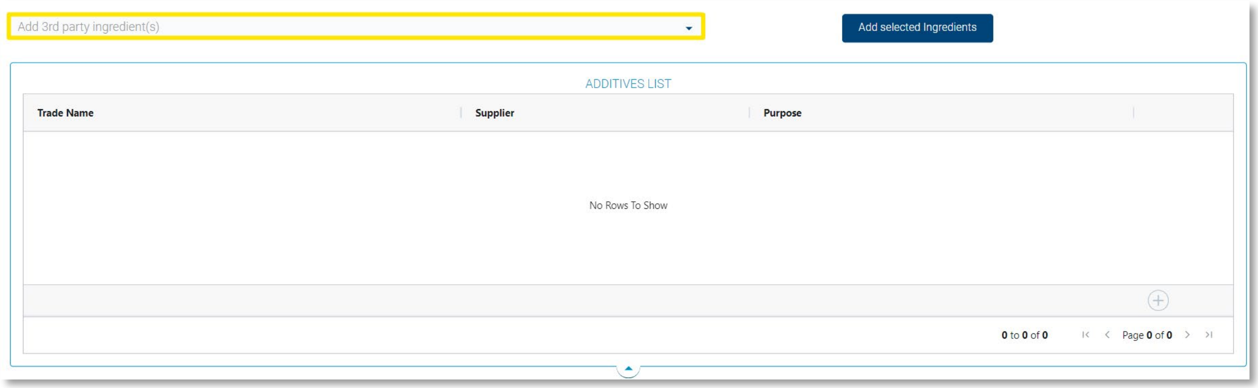


The Prepare Disclosure for Submission page allows entry of additives and their ingredients.

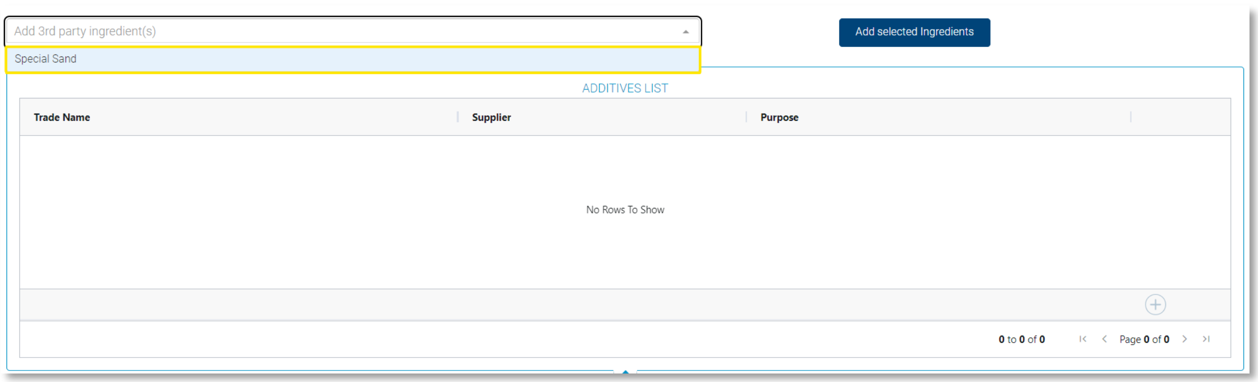


Systems Approach: Add 3rd Party Ingredients

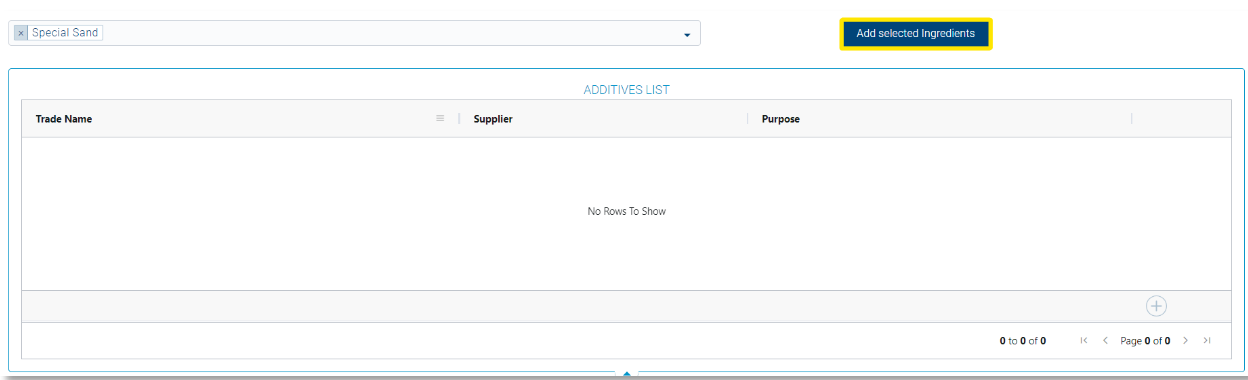
1. Select the Add 3rd Party Ingredient(s) drop-down



2. Choose desired 3rd party ingredient(s)

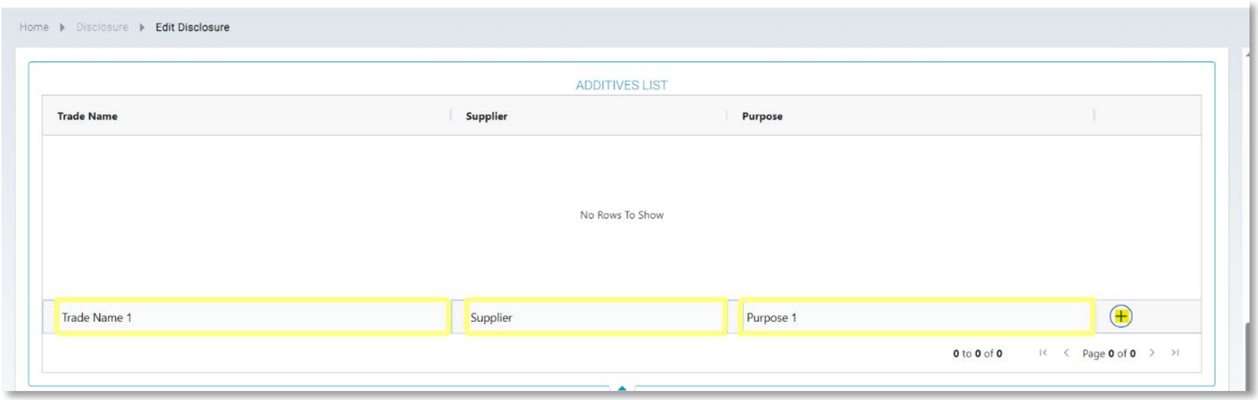


3. Select 'Add Selected Ingredients' to add to the Additives and Ingredient List



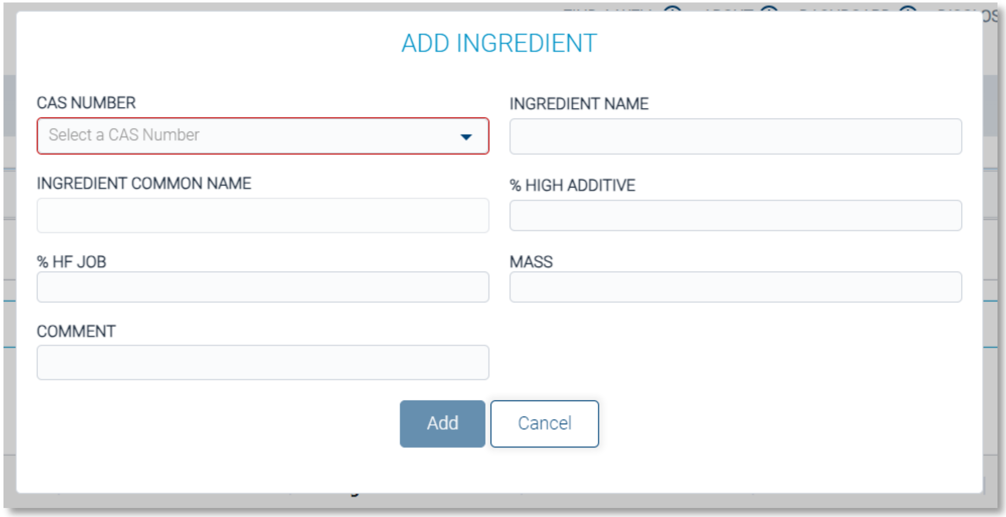
Systems Approach: Add Additives

Enter the Trade Name, Supplier, and Purpose for each additive. Data is stored as soon as users tab into a subsequent field. Once the information has been entered, select ⊕ to add to the list.



Systems Approach: Add Ingredients

Select ⊕ to add an ingredient to the list. Ingredients are not linked to any specific additive, but rather are part of the overall list. For each ingredient, enter the CAS Number, Ingredient Name, % High Additive, and % HF job. Users can provide Mass and Comments if applicable. Select 'Add' to add to the Ingredient List. Users may edit the information in the table by selecting the list fields.

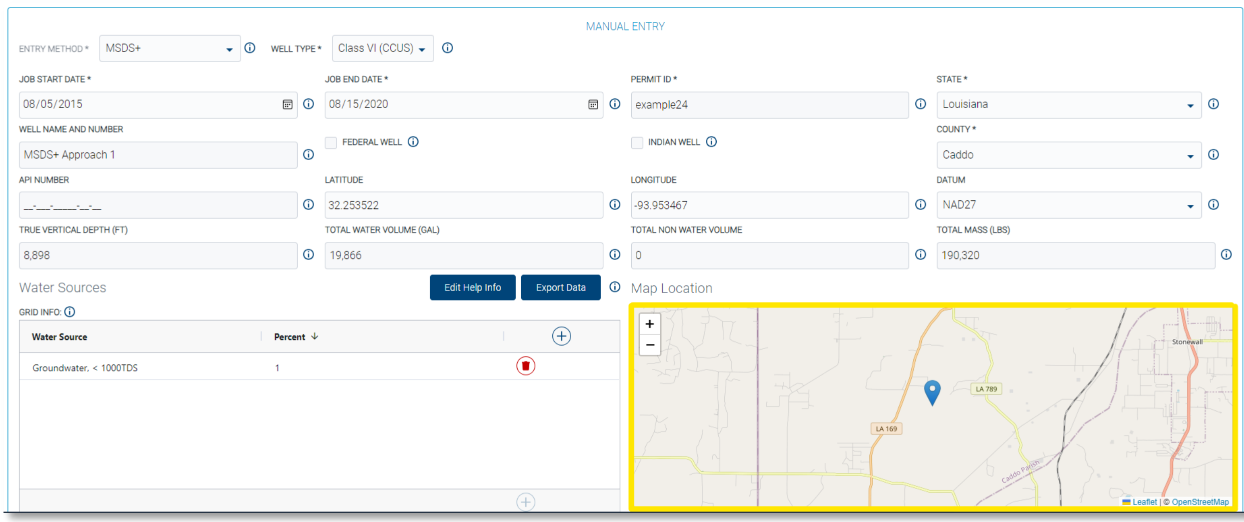


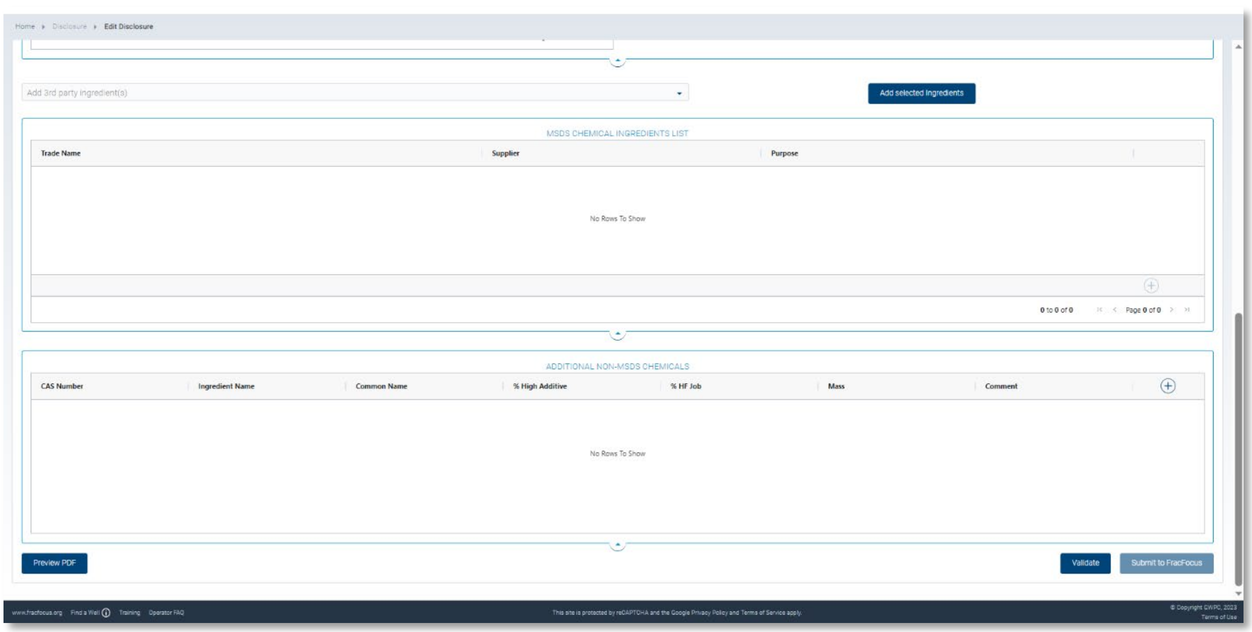
MSDS+ Approach

With the MSDS+ approach, the additives are split into two separate lists depending on whether the chemicals require preparation of an SDS (Safety Data Sheet) or not, MSDS Chemical Ingredients and Additional Non-MSDS Chemicals. Usually, water and sand are included in the MSDS Chemical Ingredients list even though they do not require preparation of an SDS.

After the header information has been entered and the user has selected ‘Save and Continue’, the location of the well will show on the map. Users can visually verify the map shows the correct location of the well. Users will be directed to the Prepare Disclosure for Submission page. This screen allows entry of the additives and their ingredients.

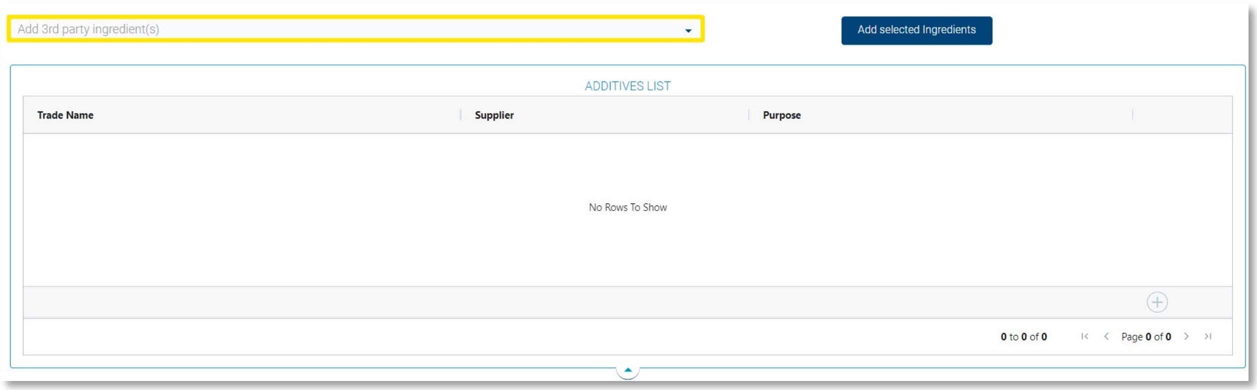
Please Note: Example shows MSDS+ Approach for Class VI (CCUS) Well Type – the same process is followed for all Well Types.



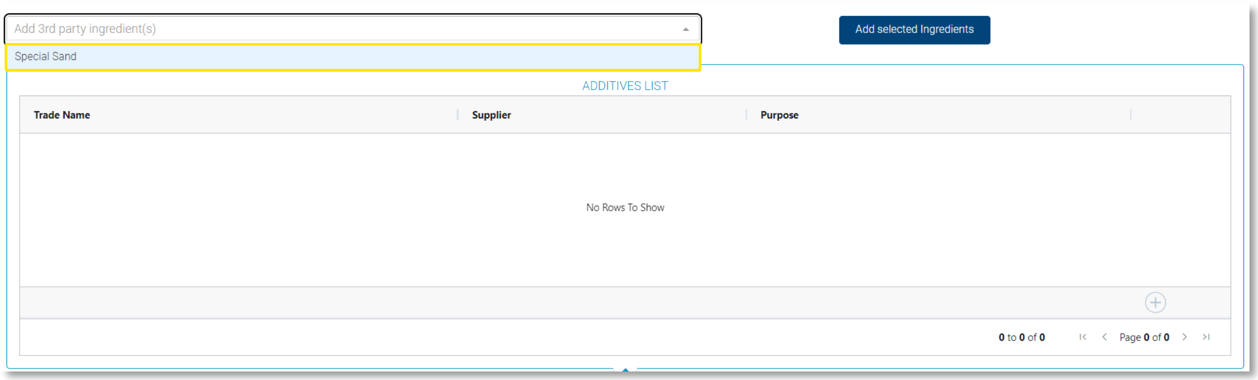


MSDS+ Approach: Add 3rd Party Ingredients

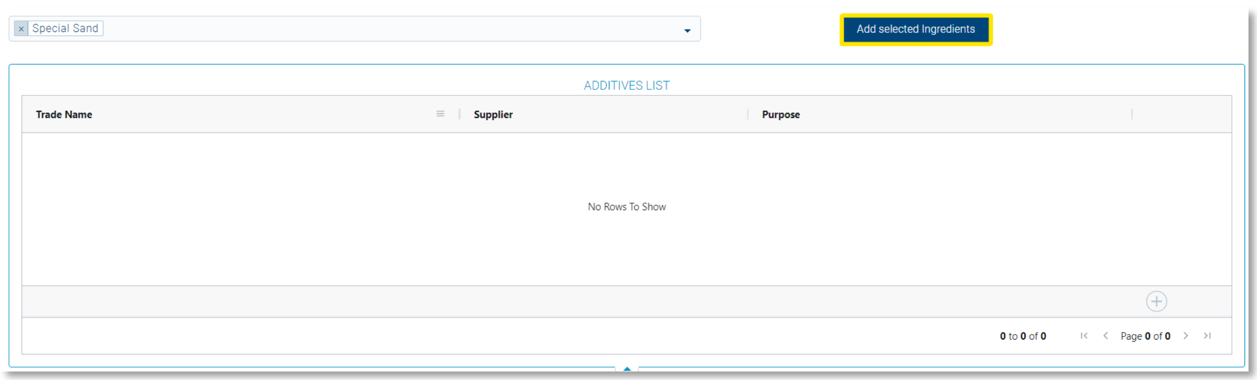
1. Select the Add 3rd Party Ingredient(s) drop-down



2. Choose desired 3rd party ingredients



3. Select 'Add Selected Ingredients' to add to the MSDS Chemical Ingredients and Additional Non-MSDS+ Chemicals Lists



MSDS+ Approach: Add MSDS Chemical Ingredients

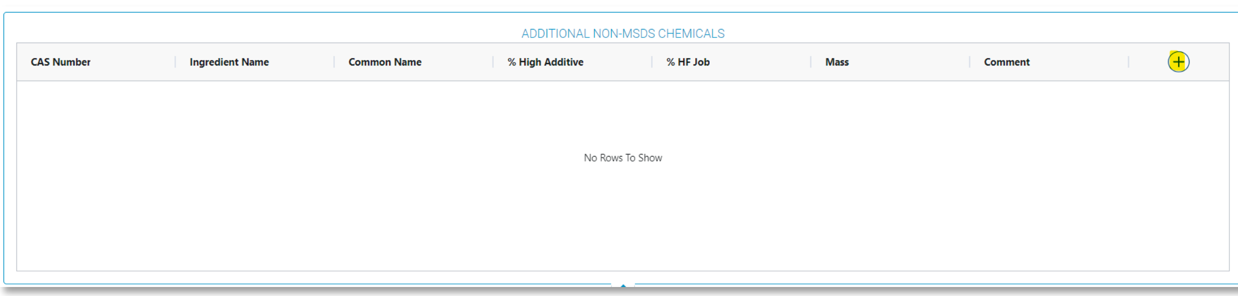
Under the MSDS Chemicals Ingredients List, enter:

- Trade Name
- Supplier
- Purpose

Select to add to the list

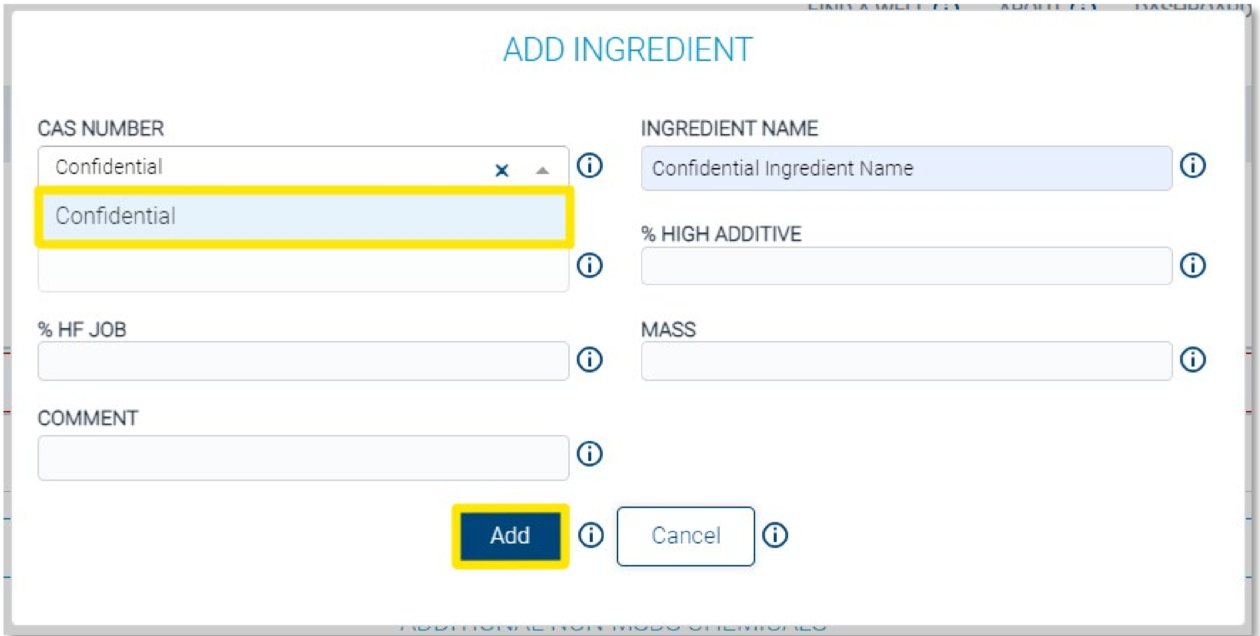
MSDS+ Approach: Add Additional Non-MSDS Chemicals

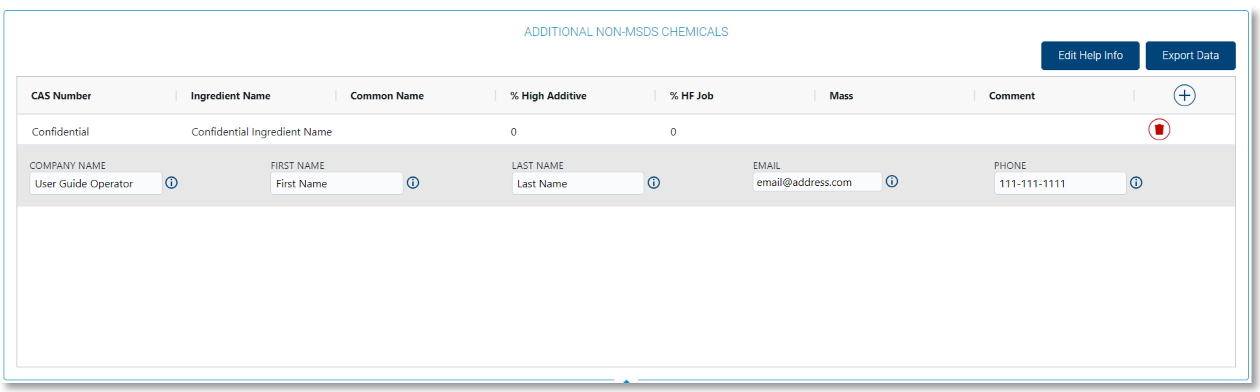
Select to add a non-MSDS chemical



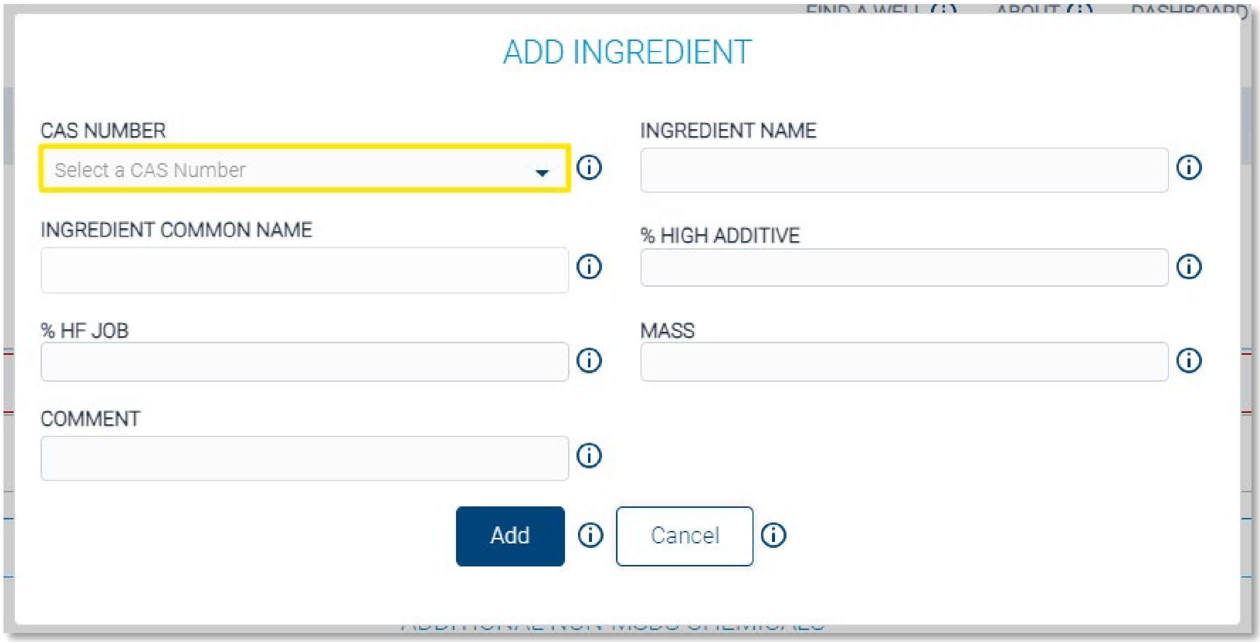
The Add Ingredient form will display, where users may enter the CAS Number (if applicable), Ingredient Name, % High Additive, % HF Job, Mass, and Comments

For the special cases of Proprietary, Trade Secret, CAS Not Assigned, and Confidential ingredients, input the value (ex. "Proprietary") in the CAS Number field. If a special case has been entered for the CAS Number, claimant information fields (Company Name, First Name, Last Name, Email, and Phone) will allow for input after adding.





If the ingredient has a CAS number, enter it in the CAS Number box. Ensure the correct format is used with numbers and dashes. If entered incorrectly, the ingredient will not populate in the drop-down. Users may enter the name of the ingredient or choose one of the options from the drop-down list provided by the system (based on the CAS number).



Fields of Note:

- % High Additive: Often the SDS shows the percentage of each ingredient as a range. Users should enter the high end of the percentage range in the % High Additive box.
- % HF Job: Here, users will enter what percent of the ingredient is used in the whole job (% by mass). For disclosures that are generated manually (not those already prepared by the Service Company), users need to calculate the percentage by mass of the total frac job made up by each ingredient. Users do not need to estimate the mass for water – it is automatically calculated from the volume of water entered in the header information. The proportions of all the other additives are then recalculated by FracFocus. For nearly all the ingredients other than water and sand, the % HF Job numbers will be very small (having several zeros behind the decimal point). When entering % HF Job numbers, it is important to enter the percentage rather than a decimal version of the number. For example, if the actual % HF is 0.00056%, and the decimal version is 0.0000056 the number that should be entered in the field is 0.00056.
- Mass: The ingredient Mass box is generally left blank. It is used, however, when a new additive is entered onto an existing disclosure report.

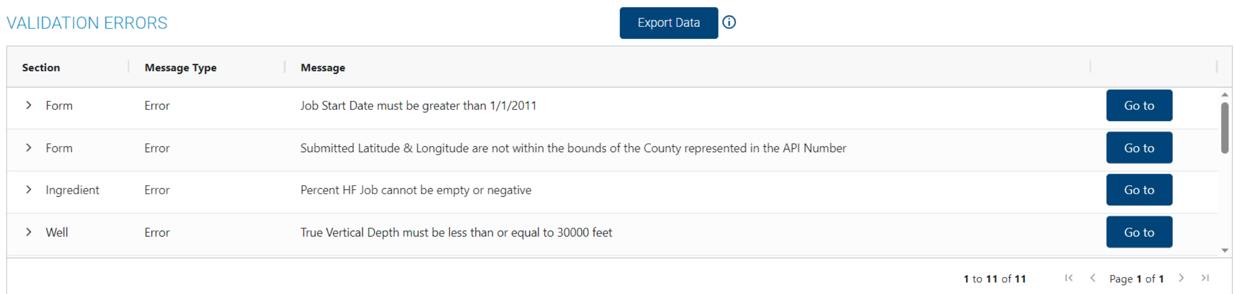
When finished, select 'Add' to submit to the list. The additive will save and populate in the Additional Non-MSDS Chemicals list. Users can then enter information for more additives. If a user wants to remove a particular additive from the disclosure report, select the red trash can that corresponds with the additive.

Routing to Operator

After all disclosure information has been entered, users can preview the disclosure by selecting ‘Preview PDF’. The disclosure will download as a .PDF to the user’s device for preview.

To route the disclosure to the Operator, select ‘Validate’ to validate the information and check for any errors or warnings

Any warnings or errors will populate in the Validation Errors list. In FracFocus, Service Companies can route a disclosure with warnings and/or errors to the Operator. Users may correct any errors in the disclosure. Use the Go To buttons to navigate to the error/warning.


VALIDATION ERRORS Export Data

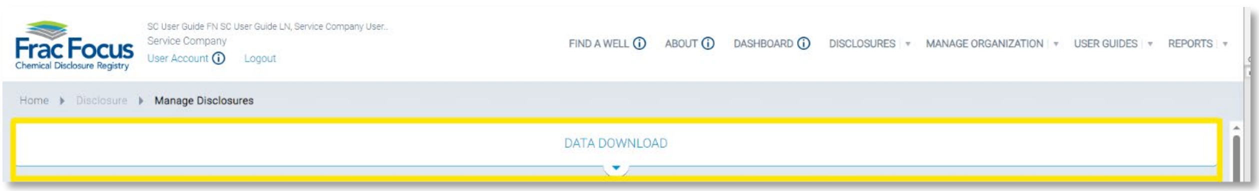
Section	Message Type	Message	
Form	Error	Job Start Date must be greater than 1/1/2011	Go to
Form	Error	Submitted Latitude & Longitude are not within the bounds of the County represented in the API Number	Go to
Ingredient	Error	Percent HF Job cannot be empty or negative	Go to
Well	Error	True Vertical Depth must be less than or equal to 30000 feet	Go to

1 to 11 of 11 Page 1 of 1

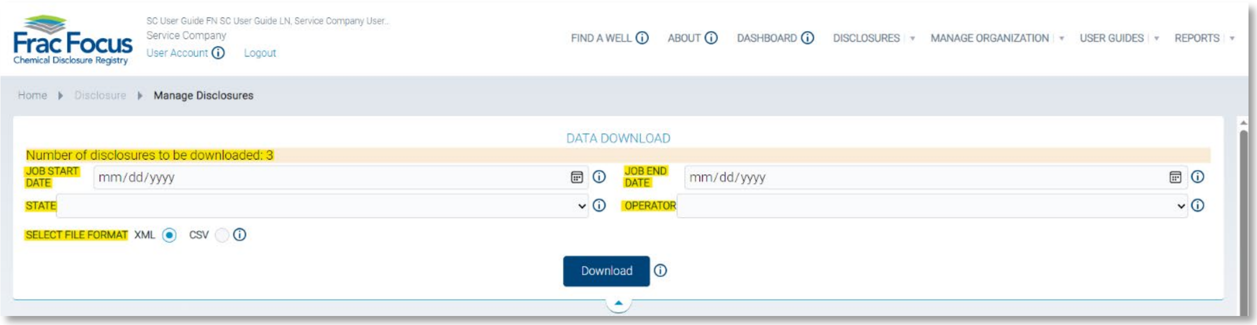
Select ‘Route to Operator’ to send the disclosure to the Operator’s queue.

Download Chemical Disclosures

In FracFocus, the Operator, Registered Agent, and Service Company are able to download their Pending, Submitted, and Amending disclosure reports. From the Dashboard or Manage Disclosure page, select the Data Download drop-down.



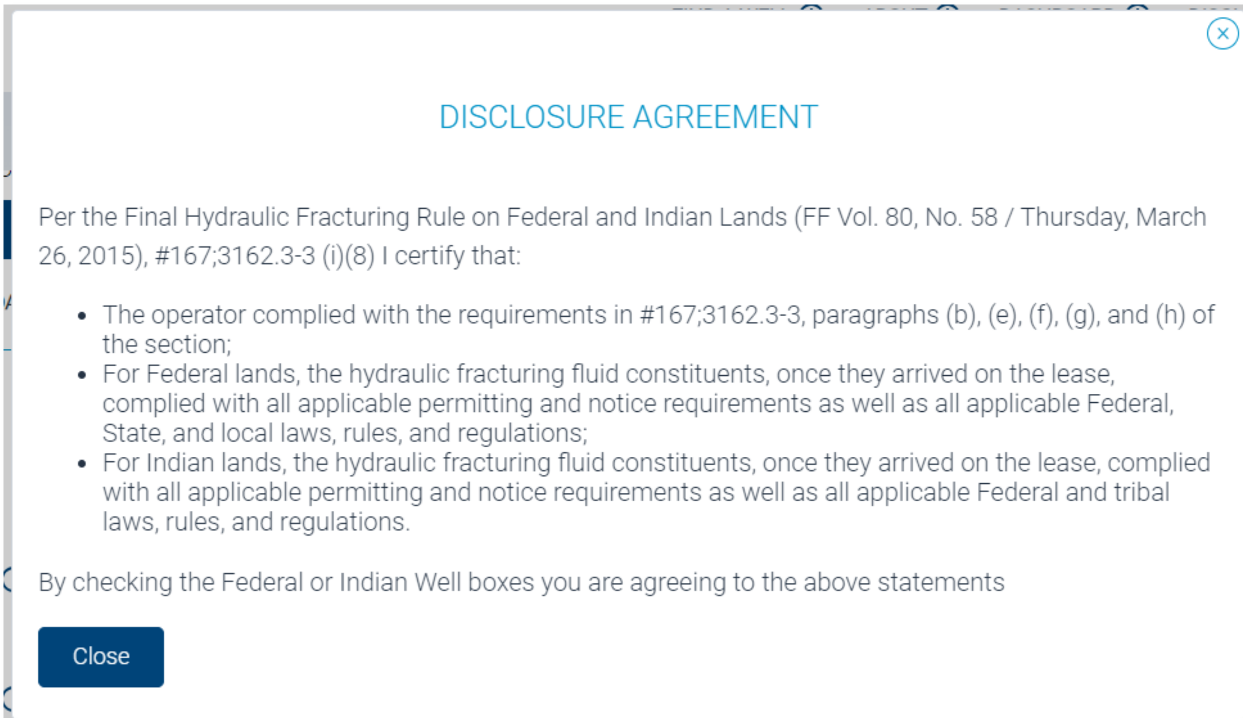
Filter the number of disclosures to be downloaded by entering the Job Start Date, Job End Date, State (where the desired wells are located), File Format and/or Operator. The number of disclosures to be downloaded will change as more or less filters are applied.



Once desired filters have been applied, select ‘Download’ and the .xml will download to the user’s device.

Additional BLM Requirements

The Bureau of Land Management is working on regulations that govern disclosure of chemicals used to fracture wells located on Federal or Indian lands. Anytime the Federal or Indian Well checkboxes are checked, a Disclosure Agreement pop-up will appear. By checking the Federal or Indian Well boxes users are agreeing to the disclosure agreement.



Frac Focus
Chemical Disclosure Registry

FracFocus
APPENDIX

Additional Support

This user guide explains the main features and mechanisms but cannot anticipate every possible situation or complication that users may experience.

Questions relating to this guidance or any issue with the system should be addressed to the FracFocus User's Help Desk at: FracFocus@gwpc.org

XML Schema

XML provides more options for managing and reviewing data, but it is less user-friendly for those who are not trained in information technology (IT). The graphic below shows an example of data in XML format. Knowledge of XML is essential for IT personnel who may be programming or converting existing company documents into XML files for submission to the FracFocus system. However, the persons directly involved with entering data into FracFocus do not need to know how to create XML documents – the screens programmed into the FracFocus interface do the conversion automatically.


```xml
<?xml version="1.0" encoding="utf-8"?>
<FracFocus4_1 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns="FracFocus4_1.xsd">
  <FractureJob>
    <JobStartDate>2021-08-05T05:00:00</JobStartDate>
    <JobEndDate>2021-08-15T05:00:00</JobEndDate>
    <WellName>MSDS+ Approach 1</WellName>
    <SurfLongitude>-98.6466</SurfLongitude>
    <SurfLatitude>36.9518</SurfLatitude>
    <Datum>NAD27</Datum>
    <FederalWell>false</FederalWell>
    <IndianWell>false</IndianWell>
    <TVD>8871</TVD>
    <TotalBaseWaterVolume>19866</TotalBaseWaterVolume>
    <TotalBaseNonWaterVolume>0</TotalBaseNonWaterVolume>
    <TotalMass>190687</TotalMass>
    <EntryMethod>MSDS+</EntryMethod>
    <WellType>Class VI (CCUS)</WellType>
    <PermitId>this12my1d</PermitId>
    <StateAbbr>AK</StateAbbr>
    <CountyName>Beechey Point</CountyName>
    <WaterSource>
      <WaterSourceType>Groundwater, &lt; 1000TDS</WaterSourceType>
      <Percent>1.0</Percent>
    </WaterSource>
    <Purpose>
      <TradeName>Goo 1</TradeName>
      <Supplier>Well Services</Supplier>
      <Purpose>Gel</Purpose>
      <TypeIngredient>
        <IngredientMSDS>
          <IngredientName>Guar Gum</IngredientName>
          <CASNumber>9000-30-0</CASNumber>
          <PercentHighAdditive>100</PercentHighAdditive>
          <PercentHFJob>0.5234035018</PercentHFJob>
          <IngredientComment>None</IngredientComment>
          <MassIngredient>998.062</MassIngredient>
        </IngredientMSDS>
      </TypeIngredient>
    </Purpose>
    <Purpose>
      <TradeName>Water</TradeName>
      <Supplier>Company 1</Supplier>
      <Purpose>Carrier/Base Fluid</Purpose>
      <TypeIngredient>
        <IngredientMSDS>
          <IngredientName>Water</IngredientName>
          <CASNumber>7732-18-5</CASNumber>
          <PercentHighAdditive>100</PercentHighAdditive>
          <PercentHFJob>86.9392472087</PercentHFJob>
          <IngredientComment>None</IngredientComment>
          <MassIngredient>165781.77</MassIngredient>
        </IngredientMSDS>
```


For more information visit [FracFocus_Schema_Requirements.pdf (fracfocusdata.org)]

FracFocus Data Field Dictionary

Header Data			
Field Name	**Field Type**	**Field Description**	**Validation Checks**
Entry Method	Drop-down	Select disclosure format as either Systems Disclosure or MSDS+ Disclosure	A selection must be made before the record can be entered
Well Type	Drop-down	Select the type of well as Oil (default), Gas, Class VI (CCUS), Geothermal, Hydrogen Storage, Energy Pressure Storage, or Brine	A selection must be made before the record can be entered
Job Start Date	Date as mmddyyyy	Enter the date on which fracturing of the formation or lateral was initiated	Must be a valid date
Job End Date	Date as mmddyyyy	Enter the date on which fracturing of the formation or lateral was completed	Cannot be a date in the future and should be a date within 3 months of the Job Start Date field
API Number	Numeric (Masked)	Enter the 10-14 digit API Number without dashes where the first two numbers represent the county, and the last 5-9 number represents the well and special attributes	Must be a valid state and county number
State & County	Alpha	Automatically generated from the first 5 numbers of the API Number	
Permit ID (Non Oil & Gas Well Type)	Alphanumeric+	Enter the Permit ID of the well	Permit ID assigned by regulating agency
State (Non Oil & Gas Well Type)	Drop-down	US State of the well	If an API Number is entered, field will automatically be selected
County (Non Oil & Gas Well Type)	Drop-down	County of the well in State selected	If an API Number is entered, field will automatically be selected
Well Name and Number	Alphanumeric	Enter the name and number of the well as listed by the company	

Latitude	Numeric	Enter the latitude of the surface location of the well in decimal degrees e.g. nn.nnnnnn	Must be between 15.0 and 75.0 degrees
Longitude	Numeric	Enter the longitude of the surface location of the well in decimal degrees e.g. nnn,nnnnnn	Must be between -180.0 and -63.0 degrees
Datum	Pulldown	Select the datum used to plot the surface location of the well's latitude and longitude	
Federal Well	Checkbox	Select this box if the surface or bottomhole location of the well is on Federal land	
Indian Well	Checkbox	Select this box if the surface or bottomhole location of the well is on Indian land	
True Vertical Depth (ft)	Numeric	Enter the deepest depth reached by the wellbore	Should not be >30,000
Total Water Vol (gal)	Numeric	Enter the total volume of water used as the base fluid for the fracturing job	Warning if >40,000,000
Total Non-Water Vol	Numeric	Enter the volume, weight, cubic footage etc.… of the base fluid if other than water	
Total Mass (lbs.)	Numeric	Enter the total mass of the fracturing job including all ingredients, if known	
Water Source			
Systems Disclosure			
Additives List			
Field Name	**Field Type**	**Field Description**	**Validation Checks**
Trade Name	Alpha	Enter the name of the product by its trade name	Must not be the same name as the Purpose
Supplier	Alpha	Enter the name of the individual or company that supplied the product	
Purpose	Alpha	Enter the reason for the products use e.g., Proppant, Biocide etc.…	Must not be the same name as the Trade Name
Insert Fields			
CAS Number	Pulldown	Select the CAS number for Water (7732-18-5)	No entries other than 7732-18-5
Ingredient Name	Alpha	Enter the name of the ingredient if water e.g., Water, Re-cycled Water,	

		Brackish Water, Produced Water etc.…	
Percent HF Job	Numeric	Enter the percentage of the ingredient in the total fracturing fluid e.g., 88.2	
Comment	Alpha	Enter a comment about the ingredient or product	
Ingredients List			
CAS Number	Alpha	Enter the CAS number for an ingredient and select from the pulldown list or enter Proprietary, Confidential, Trade Secret or CAS. **NOTE**: If one of the above is entered you must enter the contact information for the entity asserting a claim as shown in green below	Must be a valid CAS number or a valid data entry. E.g., Trade Secret
Company Name	Alpha	Enter the name of the company asserting the claim	
First Name	Alpha	Enter the first name of the company	
Last Name	Alpha	Enter the last name of the company contact	
Email	Alpha	Enter a valid e-mail address for the company contact	Must be a valid e-mail address
Phone	Numeric (Masked)	Enter the phone number of the company contact	
Ingredient Name	Alpha	Accept the ingredient name from the CAS number pulldown list suggestion or type in another ingredient name	
% High Additive	Numeric	Enter the maximum percent of the ingredient in the trade name product	
% HF Job	Numeric	Enter the percentage of the ingredient in the total. fracturing fluid e.g., 0.0005	Total for all ingredients plus base fluid should be within three percent of 100 percent
Comment	Alpha	Enter a comment about the ingredient	
Mass	Numeric	Enter the mass of the ingredient, if known	
MSDS+ Disclosure			

MSDS Chemical Ingredients			
Field Name	**Field Type**	**Field Description**	**Validation Checks**
Trade Name	Alpha	Enter the name of the product by its trade name	Must not be the same as the Purpose
Supplier	Alpha	Enter the name of the individual or company that supplied the product	
Purpose	Alpha	Enter the reason for the products use e.g., Proppant, Biocide etc.…	Must not be the same as the Trade Name
CAS Number	Alpha	Enter the CAS number for an ingredient and select from the pulldown list or enter Proprietary, Confidential, Trade Secret or CAS. NOTE: If one of the above is entered you must enter the contact information for the entity asserting a claim as shown in green below	Must be a valid CAS number or a valid data entry. E.g., Trade Secret
Company Name	Alpha	Enter the name of the company asserting the claim	
First Name	Alpha	Enter the First Name of the company contact	
Last Name	Alpha	Enter the last name of the company contact	
Email	Alpha	Enter a valid e-mail address for the company contact	Must be a valid e-mail address
Phone	Numeric (Masked)	Enter the phone number of the company contact	
Ingredient Name	Alpha	Accept the ingredient name from the CAS number pulldown list suggestion or type in another ingredient name	
% High Additive	Numeric	Enter the maximum percent of the ingredient in the trade name product	
% HF Job	Numeric	Enter the percentage of the ingredient in the total fracturing fluid e.g., 0.0005	Total for all ingredients plus base fluid should be within three percent of 100 percent
Comment	Alpha	Enter a comment about the ingredient	

Mass	Numeric	Enter the mass of the ingredient, if known	
Non MSDS Chemical Ingredients			
Field Name	**Field Type**	**Field Description**	**Validation Checks**
Trade Name	Alpha	Enter the name of the product by its trade name	Must not be the same as the Purpose
Supplier	Alpha	Enter the name of the individual or company that supplied the product	
Purpose	Alpha	Enter the reason for the products use e.g., Proppant, Biocide etc.…	Must not be the same as the Trade Name
CAS Number	Alpha	Enter the CAS number for an ingredient and select from the pulldown list or enter Proprietary, Confidential, Trade Secret or CAS. NOTE: If one of the above is entered you must enter the contact information for the entity asserting a claim as shown in green below.	Must be a valid CAS number or valid data entry. E.g., Trade Secret
Company Name	Alpha	Enter the name of the company asserting the claim	
First Name	Alpha	Enter the first name of the company contact	
Last Name	Alpha	Enter the last name of the company contact	
Email	Alpha	Enter a valid e-mail address for the company contact	Must be a valid e-mail address
Phone	Numeric (Masked)	Enter the phone number of the company contact	
Ingredient Name	Alpha	Accept the ingredient name from the CAS number pulldown list suggestion or type in another ingredient name	
% High Additive	Numeric	Enter the maximum percent of the ingredient in the trade name product	
% HF Job	Numeric	Enter the percentage of the ingredient in the total fracturing fluid e.g., 0.0005	Total for all ingredients plus base fluid should be within three percent of 100 percent

Converting Volume to Mass

If the amounts of the additives are expressed in gallons rather than pounds, it will be necessary to convert to pounds. This is an easy calculation, but you must know the density or specific gravity of each ingredient (available from the SDSs) and make the calculation separately for each ingredient. Use either of these formulas:

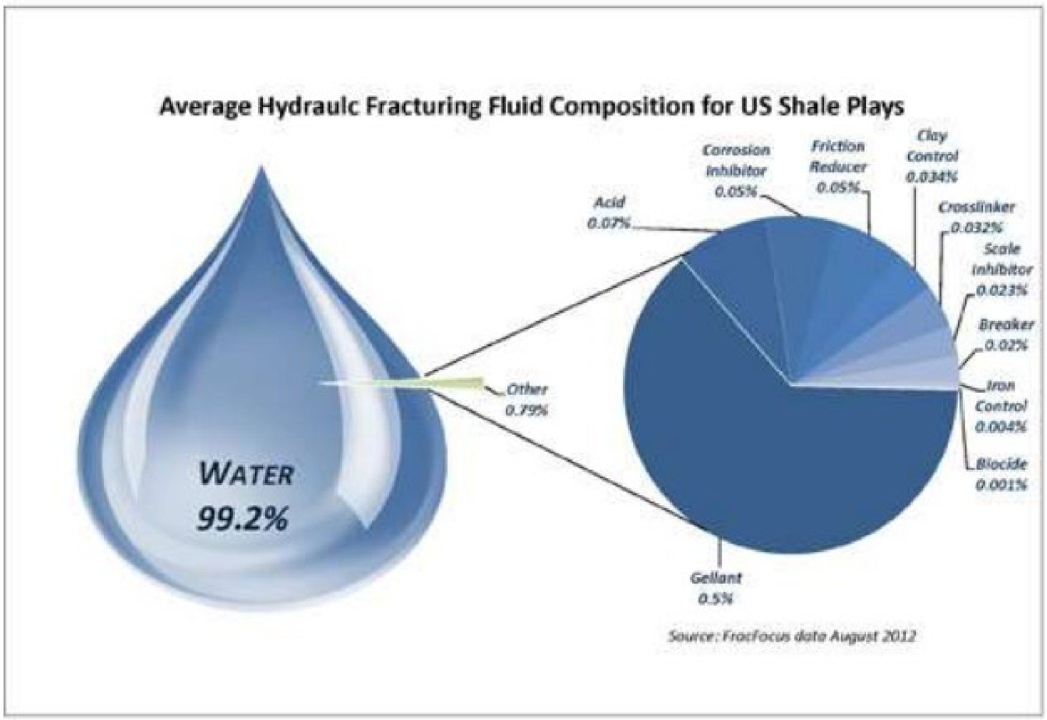
1. Mass (lbs.) = Volume (gallons) x density (lbs./gallon)
2. Mass (lbs.) = Volume (gallons) x specific gravity x 8.34 lbs./gallon

Water has a density of 8.34 lbs./gallon. Specific gravity is the ratio of the density of one substance divided by the density of water. So, if the specific gravity is shown as 1.2, the density would be 1.2 x 8.34 = 10.01 lbs./gallon.

Frac Fluids

FracFocus was created to provide more information about the process of hydraulic fracturing and the frac fluids that are used in the process. Frac fluids are injected into a newly drilled and perforated well to stimulate a formation and create pathways for oil and gas to flow to the well.

Different types of frac fluids are used in different geological formations. One of the more common fracturing technologies used in many shale gas wells is known as a “slickwater frac”. Typically, the fluid used for slickwater fracs contains approximately 90% water, roughly 10% sand or other proppant material to keep newly created cracks open, and various other chemical additives used for well control purposes. The other additives collectively make up less than 1% of the total frac fluid volume. The figure shown below is taken from the Shale Gas Primer. It shows the types of chemicals that are often used in relatively small amounts to make up slickwater frac fluids.



The figure shows the products listed by generic category (e.g., biocide, corrosion inhibitor). For each of these product categories, there are likely to be many different individual products that all provide a similar function within the well. Often the chemical supplier, whether a frac Service Company or a separate chemical company, will blend several ingredients to make up the functioning additive and will give a company product name to the additive. To give a hypothetical example, Ajax Chemical Company could name a biocide additive Ajax B-597. That additive name gives no indication of the individual chemical ingredients in the additive or their relative volumes or masses within the product.

Safety Data Sheets (formerly Material Safety Data Sheets)

Information on additives and their ingredients should be provided by the Service Companies. In the event that additional information is needed, the best place to look is on Safety Data Sheets (SDSs) prepared by the chemical companies.

The U.S. Occupational Health and Safety Administration (OSHA) requires creation of an SDS for any product that contains hazardous or carcinogenic materials of specific threshold values (1.0% and 0.1% respectively). SDSs are required for hazardous or carcinogenic chemicals but not for all chemical products. Some products have multiple ingredients, some of which are considered hazardous or carcinogenic chemicals, while other ingredients are considered non-hazardous or inert. Often when a chemical is diluted with water to make a final product, the water is not listed on the SDS.

In some cases, the chemical supplier has used a proprietary formula when constituting a chemical additive. In those cases, disclosure of the actual ingredients and their concentrations is subject to each state's laws and regulations concerning confidential business information.