Michigan's State Tracking and Reporting System

MiSTAR Undergound Injection Control User Guide

MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY

Oil, Gas, and Minerals Division

August 26, 2022

Acknowledgements and Overview

In 2018, members of the Michigan Oil and Gas Association and staff from the Michigan Public Service Commission and the Oil, Gas, and Minerals Division (OGMD) held meetings to consider potential electronic reporting options for the future. It was agreed that OGMD should develop an application to enhance and ultimately replace the Oil and Gas Production E-file Reporting System which has been in use for the past two decades. Accordingly, OGMD has designed and developed a new and modern paperless systems web application – MiSTAR.

MiSTAR allows operators to electronically submit data to fulfill all regulatory reporting requirements of Class II injection well reporting required per Part 615 of the NREPA consistent with the EGLE/OGMD assumption of Class II Primacy from the USEPA. In this first phase of MiSTAR implementation, comprehensive Class II injection well data reporting will be enacted replacing the use of existing paper forms and other required submittals and notifications. At this time, injection wells other than Class II wells, cannot utilize MiSTAR for any reporting purpose. The second phase of MiSTAR will allow operators to submit oil and gas production data electronically replacing the Oil and Gas Production E-file Reporting System.

In addition, MiSTAR allows operators to interactively receive and retrieve correspondence from EGLE/OGMD staff in real time. The intended purpose of this feature is to streamline communicating correspondence while efficiently managing the necessary EGLE/OGMD documentation and retention requirements.

Disclaimers

MiSTAR is designed to be an interactive system involving multiple operators. As appropriate, OGMD has posted regulatory data in MiSTAR that is uniquely applicable to an operator's wells. The data posted in the system is for the express purpose of compliance assistance. While reasonable efforts are taken to ensure that the posted data is current and accurate, the data shall not be relied upon by an operator for the purpose of submitting any reports required by permit, rule, or law. OGMD will continually update, revise, and improve data accuracy and the functionality of MiSTAR. Suggestions from operators for improvements or enhancements of MiSTAR are welcome.

This Guide provides important information and useful instructions. The Guide may contain minor errors or omissions as to the functionality of the MiSTAR system. All text within the guide may not align with all written rules or regulations. Where known functionality issues or errors exist, they are denoted within this guide. Guide revisions and updates will occur periodically, and operators are encouraged to download current versions as applicable.

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MiSTAR: System Access and Requirements

Username and Password / Operator Number/ System Requirements Information

To receive access to MiSTAR, operators must submit the MiSTAR Letter of Assurance and the most current Well Permittee Organizational Report (EQP 7200-13). Please go to the EGLE/OGMD website to obtain those documents. Oil, Gas, and Minerals Division (michigan.gov)

After the signed Letter of Assurance and the Well Permittee Organizational Report are received and processed, a username and password will be created. **Your operator number, username, and password will be sent to the you by OGMD staff via email.**

To use MiSTAR, operators will need a computer with internet access with any of the following internet browsers: Google Chrome, Mozilla Firefox, or Microsoft Edge. Use of other browsers may result in the application not working or working with reduced functionality. The ability to create CSV (Comma Separated Values format) files or files in .xlsx format is required.

Contact Information

For assistance with any issues in MiSTAR, please contact EGLE/OGMD UIC staff by phone (Jason Mailloux, 517-245-2195) or send your inquiry by email to EGLE-OGMD-UIC@Michigan.gov.

Class II Injection Well Reporting Requirements

PART 8. INJECTION WELLS of the Part 615 Administrative Rules require operators to file records, report operating conditions, and to provide notifications for Class II injection wells. Operators may now submit all records, reports, and notifications required under Part 8 through the MiSTAR system. By authority of the Supervisor of Wells, the prescribed format to fulfill these requirements is by submitting template data **– or –** by submitting PDFs as indicated directly below:

Records/Reporting/Notifications to be submitted by Template Data

Existing paper Forms EQP 7609 and EQP 7606 are replaced by templates; new templates have been created where no previous Forms existed.

Templates have been developed for the following:
Monthly/Annual Injection Well Operating Report (EQP 7609) (Rule 324.810 (1)(2)(3)(4))
Standard Annular Pressure Test (EQP 7606) (Rule 324.806 & 324.808)
Quarterly Annulus Fill Report (Rule 324.810(7))
Notification of Loss of Mechanical Integrity (Rule 324.811 (1)(2))
Scheduling Mechanical Integrity Tests (Rule 324.806 (1)(2)(3) and (Rule 324.808 (1)(2)(3)(4))

Operators should submit the prescribed templates to fulfill the reporting requirements for the reports indicated in **bold** above. Submittal of these templates is accomplished by using the MiSTAR template EDD submission process as described in detail later within this Guide.

Records/Reporting to be submitted by PDF Documents

Where electronic templates (EDD) are not feasible for reporting requirements under Part 8, MiSTAR also accepts documents that are to be submitted in a PDF format. Those documents may include:
Annual Injectate Analysis (Rule 324.810(8))
Injectate Analysis Other (324.810(8))
MIT Gauge Records (Rule 324.806(3) and 324.808(3))
MIT Chart (Rule 324.806(3) and 324.808(3))
Commercial Sources Quarterly (Rule 324.810(5))
Commercial Sources New (Rule 324.810(6))

Operators should submit PDFs to fulfill the reporting requirements for those documents indicated in

bold above. Submittal of PDFs is accomplished by using the MiSTAR Generic Document Upload Tool as described in detail later within this Guide.

Preparing Template Data for submission

Each MiSTAR EDD template requires its data entry fields to be populated according to established criteria. To get started, operators should **download and export** a spreadsheet of their respective wells from the MiSTAR UIC Wellbore Information Page. The UIC Wellbore Information Page is linked directly to the OGMD database. This page contains a comprehensive inventory of each operator's Class II Injection wells and contains criteria associated with those wells necessary to populate fields in the templates. Once you have received your login information, you can get started downloading your company's wells information.

The use of unique 14-digit API numbers is required for each well in each EDD template. These 14-digit API numbers are provided on the UIC Wellbore Information Page. Your download should be kept available to assist you with filling out the templates.

As stated above, the UIC Wellbore Information Page is linked directly to the OGMD database. If an operator finds any errors or omissions for their Class II Injection wells, please contact OGMD UIC staff by phone (Jason Mailloux, 517-245-2195) or send your inquiry by email to EGLE-OGMD-UIC@Michigan.gov.

The MiSTAR system is designed to readily accept an accurately completed template. The appropriate care should be taken when preparing the templates for submission as with any record that is required to be submitted. By following the necessary validation criteria that is provided in detail on each individual template, the operator should be able to complete the template and document submittal processes with a modest amount of time and effort. Templates that have been previously used and passed validation may be reused again without having to re-enter all relevant data (for instance, an API number that can be used again).

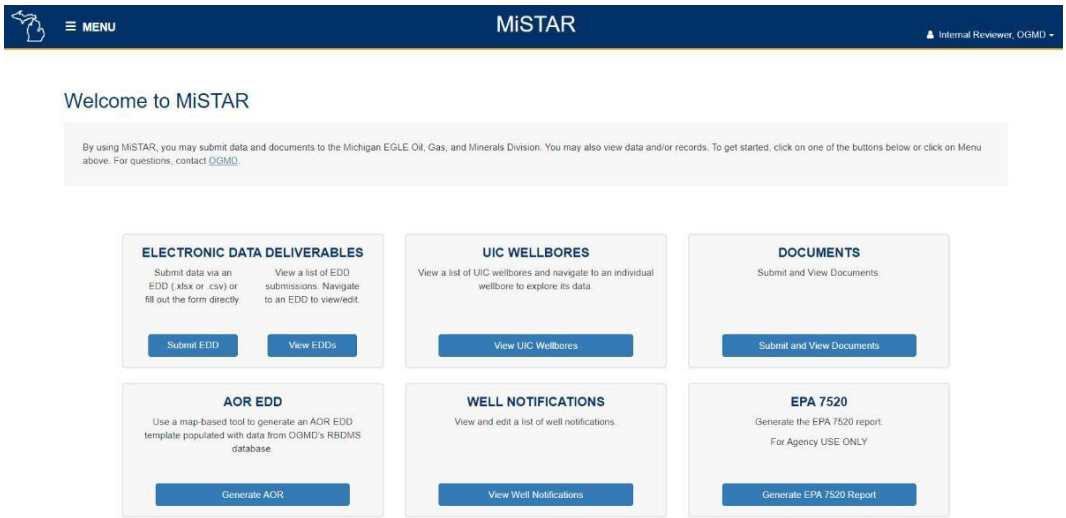
The Document Upload feature will also be used by OGMD staff to post correspondence specific to a standardized requirement. The operators will obtain correspondence directly from OGMD staff such as Authorization to Inject Letters, Cease Injection Letters, New Commercial Well Source approval letters, etc.

Table of Reporting Requirements

Report	Frequency	Timing	Comment
Injection data – well not used for secondary recovery	Weekly recording	Monthly reporting	Due by the end of the following month
Injection data secondary recovery well	Monthly recording	Annual reporting	By March 1 of each year for the previous year
Commercial disposal well list of sources	Quarterly	Due within 45 days after the end of each quarter	
Commercial disposal new source	Any time a new source is added	Supervisor approval prior to injection of fluids from that source	Approval in form of letter
Annual injectate analysis	At least annually	By March 1 of each year for the previous year	More frequently if change in sources or characteristics of injectate (within 30 days)
MIP exceedance	Every occurrence	On the next injection monitoring report	
Observed noteworthy anomalies or problems	Every occurrence	On any submitted report	
Schedule MIT	At least every 5 years	No less than 5 days before the test	Operators encouraged to schedule in advance
Results of MIT	After every MIT	Within 14 days after the test	
Loss of MI	After every loss of MI	Within 24 hours, written within 5 days	Logging related within 5-10 days
QA fill data	Quarterly	Due within 45 days after the end of each quarter	Rule authorized wells exempt

MiSTAR Glossary

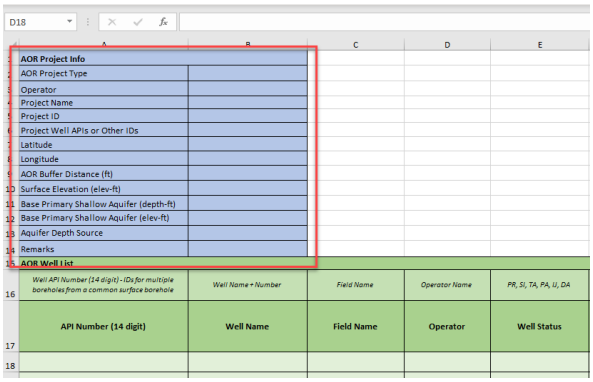
Home page: Page displayed upon login. Includes several different options for tools and pageswithin MiSTAR.



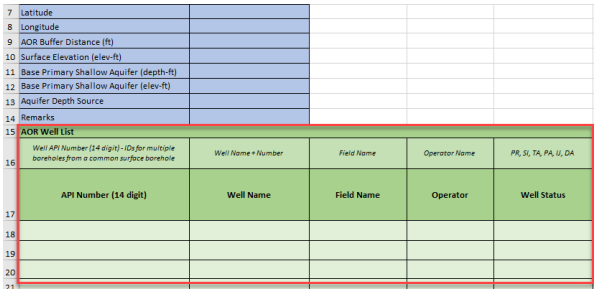
EDD (Electronic Data Deliverable): An electronic file or template (in this case an Excel or csv template)that is used to submit digital data to an application. An EDD currently exists for Monthly/Annual Injection Well Operating Report, Annular Pressure Test, Quarterly Annulus Fill, and Notification of Loss of Mechanical Integrity and Notification of scheduling MIT date/time.

EPA 7520: EGLE-OGMD only tool which allows for generation of the EPA 7520 report data.

Header Record: The data from the top (blue) part of the EDD/template.



Data Records: Records from the bottom (green) part of the EDD/template.



7	Latitude				
8	Longitude				
9	AOR Buffer Distance (ft)				
10	Surface Elevation (elev-ft)				
11	Base Primary Shallow Aquifer (depth-ft)				
12	Base Primary Shallow Aquifer (elev-ft)				
13	Aquifer Depth Source				
14	Remarks				
15	**AOR Well List**				
16	*Well API Number (14 digit) - IDs for multiple boreholes from a common surface borehole*	*Well Name + Number*	*Field Name*	*Operator Name*	*PR, SI, TA, PA, U, DA*
17	**API Number (14 digit)**	**Well Name**	**Field Name**	**Operator**	**Well Status**
18					
19					
20					

Submit EDD page: This is where you will select the type of EDD/template to upload, select 1+ EDDs/templates and upload them.

EDD Submissions page: A list of all the EDDs/templates that have been uploaded to the system by theoperator currently logged in.

EDD Upload Job page: Displays information about an individual upload, including a table ofall the files uploaded, the status of the files, and a link to edit/view the details of each file.

EDD Overview page: Displays information about the header record and basic info for datarecords for an individual uploaded EDD/template file.

Data Record page: Displays fields for an individual record (detail record). The user can edit,delete, or review the record on this page (functionality based on user permissions).

Data Validation: Rules in the program that are used to check for potential errors in the dataand streamline the data into a consistent format.

UIC Wellbore Information Page: A list of all UIC wellbores with data from OGMD database.

Documents page: Page that allows users to both view and submit documents of various types to OGMD.

Well Notifications: Page that displays a list of submitted well notifications.

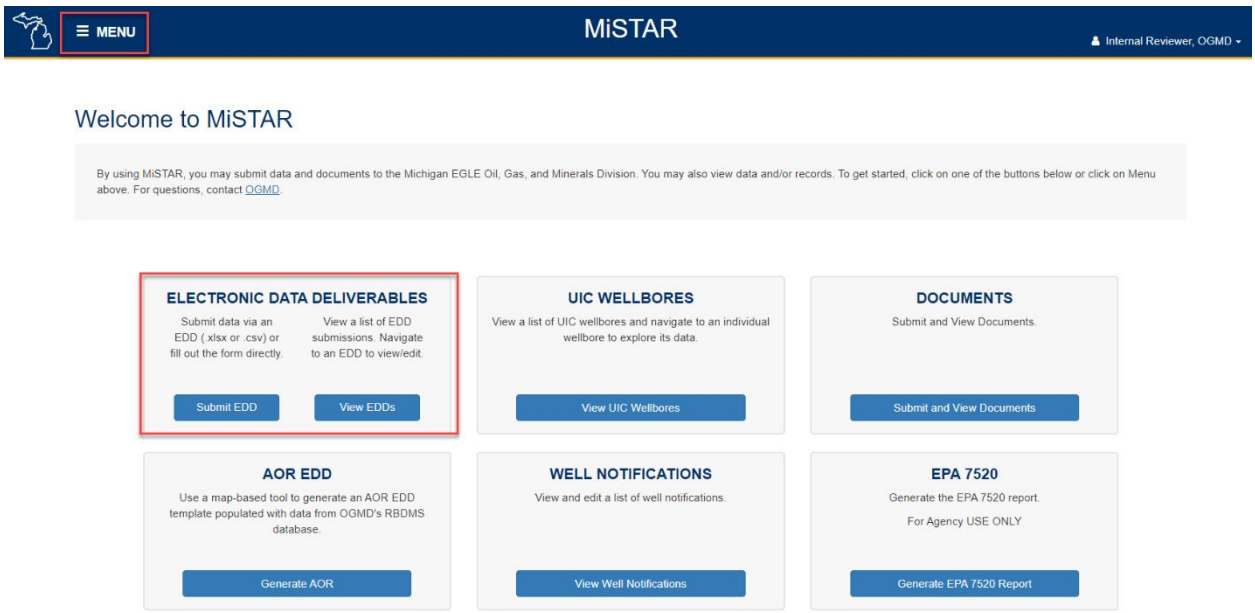
AOR EDD Tool: Map based tool which facilitates the creation of an AOR EDD.

MiSTAR Basic Design and Upload Tool

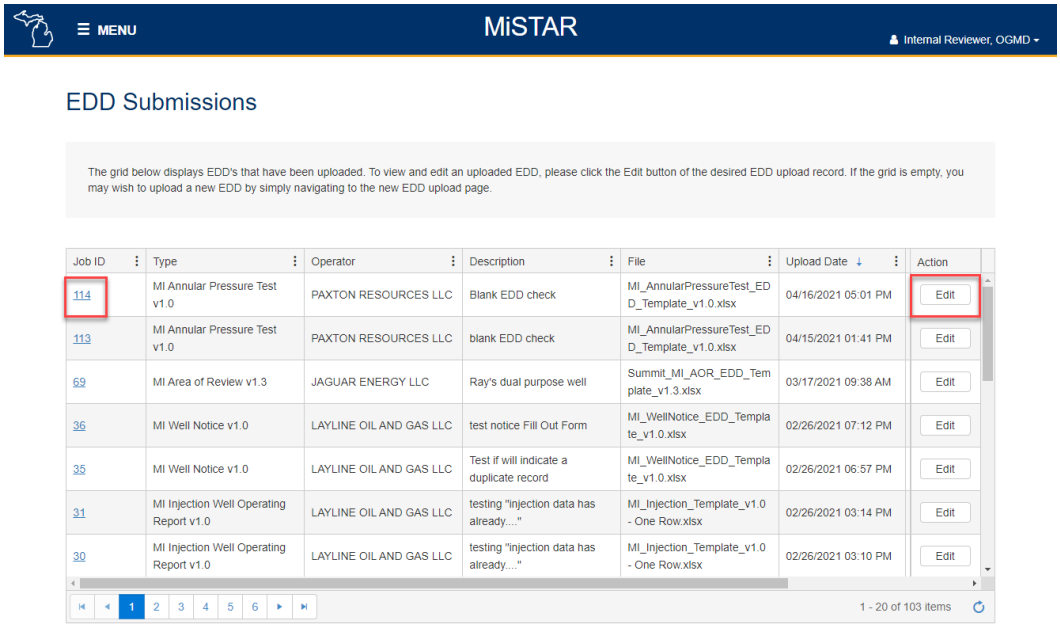
The MiSTAR EDD Upload Tool is a web application that facilitates the uploading, validation, and agency review of data through an electronic data deliverable (EDD) excel template saved as .xlxs, .xls, or .csv file.

NAVIGATION

The homepage of the MiSTAR application provides you with five options: **Electronic Data Deliverables, UIC Wellbores, Documents, AOR EDD,** and **Well Notifications.** The **EPA 7520** option is for OGMD use only. Click on either the **Submit EDD** button to go to the **EDD Upload** page or the **View EDDs** button to go to the **EDD Submissions** page. You can return to the homepage by clicking on the **Home** option in the dropdown **MENU** in the navigation bar to the upper left of the screen. You can also navigate to the **Submit EDD** page or the **EDD Submissions** page by selecting these options from the same dropdown.



The EDD Submissions page allows you to view all the EDDs that have been uploaded to the system in a table format including information such as *Job ID, Type, Operator, Description, File* (file name), *Upload Date* and *Status*. This table allows you to sort, filter, and page through the EDDs uploaded to the system (Learn how to use tables including paging, sorting, filtering, etc.). The information in this table is limited to records submitted by the operator associated with the user login.



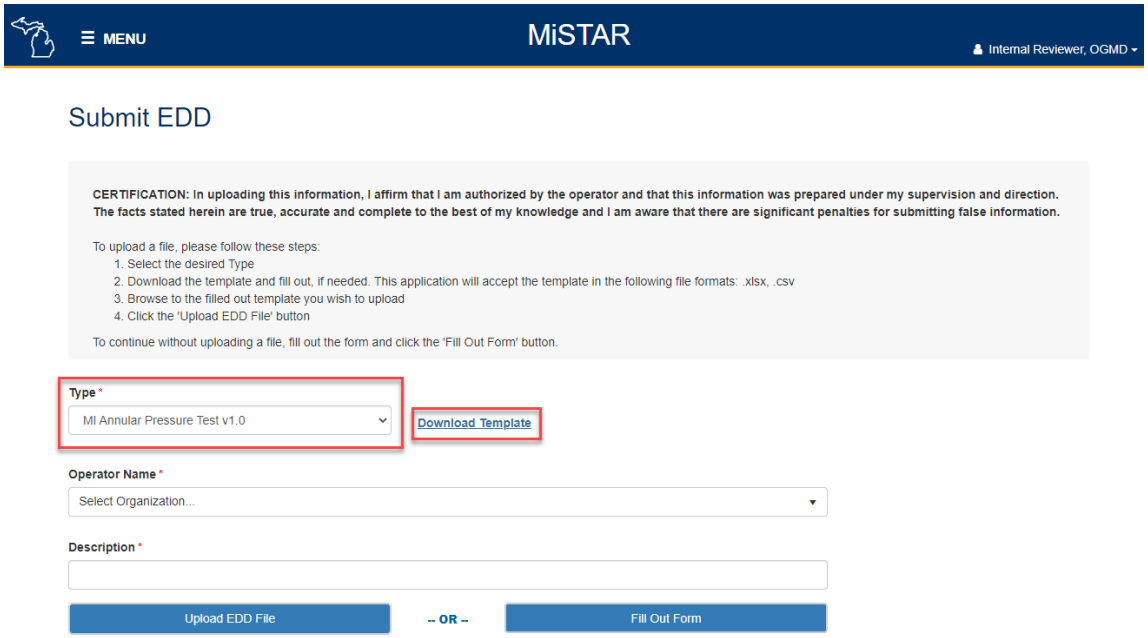
From the **EDD Submissions** page you can navigate to the **EDD Upload Job** page by clicking on the "*Job ID*" link or to the **EDD Overview** page by clicking the Edit button in the Action column.

UPLOAD AN EDD

The steps below show the process to submit **<u>any</u>** type of EDD. For additional details regarding submitting a specific EDD, please refer to the guide section for that EDD**.**

STEP 1: SELECT AN EDD

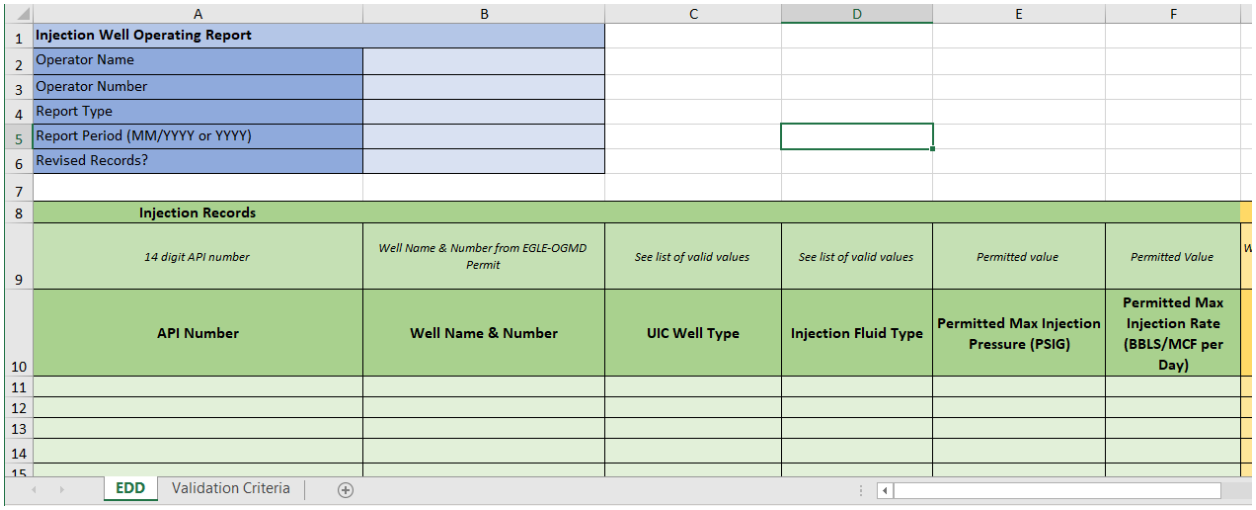
1. Navigate to the **Submit EDD** page by clicking the **Submit EDD** button on the homepage or clicking on the **Menu** dropdown in the navigation bar and selecting **Submit EDD**.
2. From the *Type* dropdown, select the type of EDD to upload (for example: "MI Annular Pressure Test"). Once an EDD type has been selected a **Download Template** link will appear to the right of the *Type* dropdown box. Click on this link to download a blank version of the EDD template.



STEP 2: FILL OUT THE EDD TEMPLATE

The EDD template has two sheets: An EDD data sheet and a validation criteria sheet.

- You will fill out the first sheet (named **EDD**) with the data you are submitting.



	A	B	C	D	E	F
1	**Injection Well Operating Report**					
2	Operator Name					
3	Operator Number					
4	Report Type					
5	Report Period (MM/YYYY or YYYY)					
6	Revised Records?					
7						
8	**Injection Records**					
9	*14 digit API number*	*Well Name & Number from EGLE-OGMD Permit*	*See list of valid values*	*See list of valid values*	*Permitted value*	*Permitted Value*
10	**API Number**	**Well Name & Number**	**UIC Well Type**	**Injection Fluid Type**	**Permitted Max Injection Pressure (PSIG)**	**Permitted Max Injection Rate (BBLS/MCF per Day)**
11						
12						
13						
14						
15						

EDD | Validation Criteria

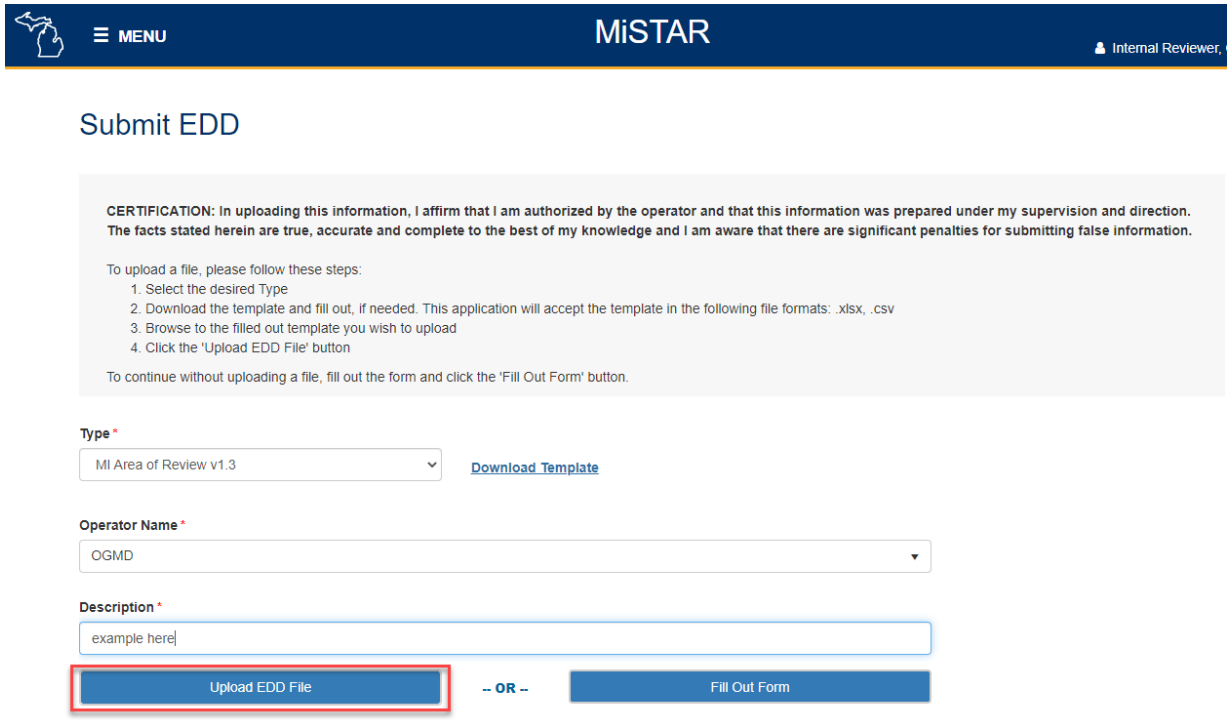
- The second sheet (named **Validation Criteria**) allows the operator to view the validation rules that the data in the first sheet must comply with. For example, if a rule for *Injection Fluid Type* is "is required and must be a valid value" then you must fill out this column in the first sheet with one of the valid values. For reference valid values can be found within the user documentation for each EDD.

	A	B	C	D
1		Required?	Tooltip	Validation Criteria
2	**Injection Well Operating Report**			
3	Operator Name	Yes	Official operator/owner	'Operator Name' is required.
4	Operator Number	Yes	EGLE Company Number	'Operator Number' is required and must match your company.
5	Report Type	Yes	N/A	'Report Type' is required and must be Monthly or Annual
6	Report Period (MM/YYYY or YYYY)	Yes	N/A	'Report Period (MM/YYYY or YYYY)' is required. For monlthly reports, the valid format is MM/YYYY. For annual reports valid format is YYYY.
7	Revised Records?	Yes	N/A	'Revised Records?' is required and must be Yes or No.
8	**Data Grid**			
9	API Number	Yes	14 digit API number	'14-digit API Number' is required and must belong to your company. '14-digit API Number' must be a UIC Class II Well.
10	Well Name & Number	Yes	Well Name & Number from EGLE-OGMD Permit	'Well Name & Number' is required.
11	UIC Well Type	Yes	See list of valid values	'UIC Well Type' is required and must be a valid value.
12	Injection Fluid Type	Yes	See list of valid values	'Injection Fluid Type' is required and must be a valid value.
13	Permitted Max Injection Pressure (PSIG)	No	Permitted value	'Permitted Max Injection Pressure (PSIG)' must be numeric.
14	Permitted Max Injection Rate (BBLS/MCF per Day)	No	Permitted Value	'Permitted Max Injection Rate (BBLS or MCF per Day)' must be a decimal.
				'Month or Week' is required and valid values are 1-5 for monthly reports and 1-12 for annual

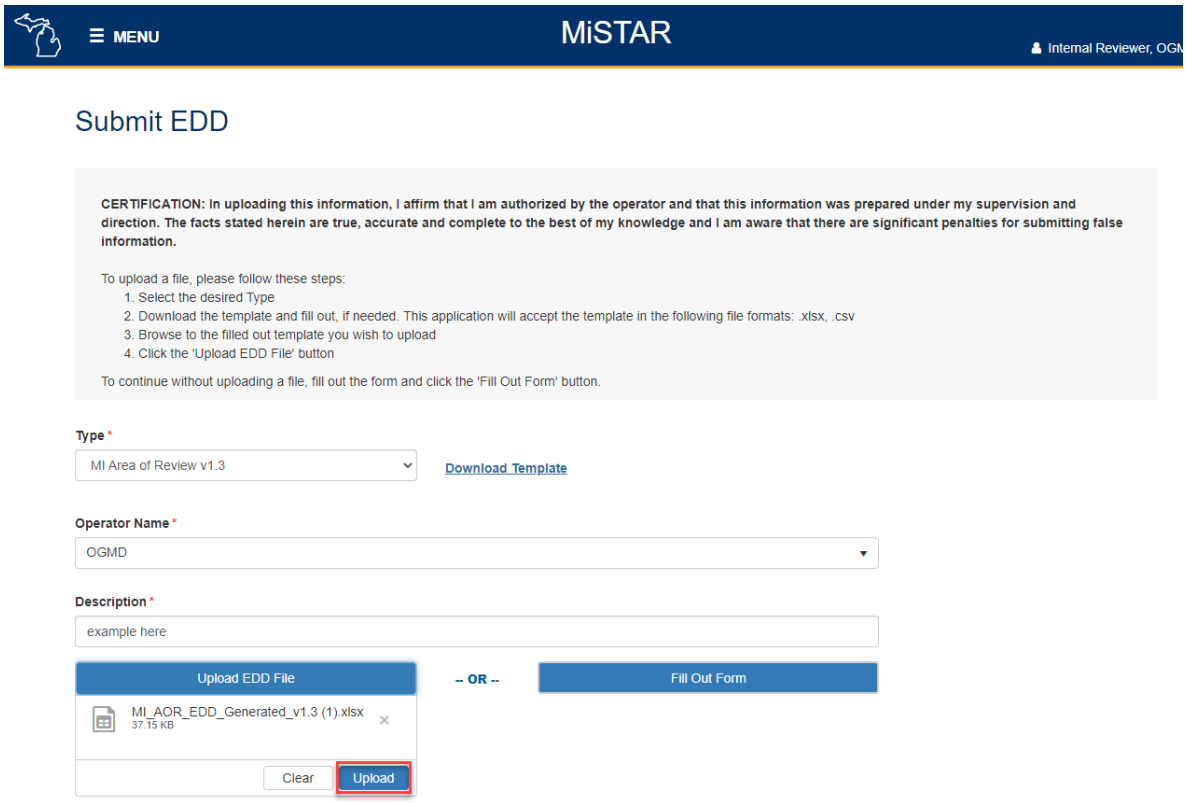
EDD | Validation Criteria

STEP 3: UPLOAD THE FILLED IN EDD

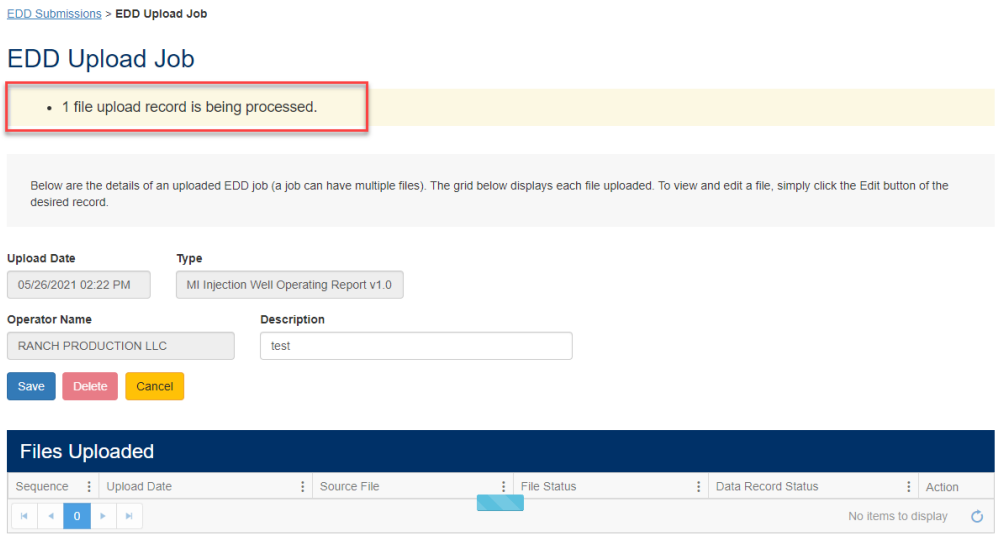
1. Once you have filled out the data sheet of the EDD and saved it, go back to the **Submit EDD** page, select the *Operator Name* from the dropdown and fill out the *Description* field. These fields are required. The *Description* field can be helpful in distinguishing between records on the **View EDD Submissions** page- while there is no specific information required in the field, OGMD suggests you enter something that allows the submitter to distinguish between uploaded files. An operator should not use this field to provide any regulatory information to OGMD as this field is not reviewed or accepted for any regulatory purpose. Once the fields are all complete click the **Upload EDD File** button and navigate to the desired file(s). Multiple EDD files can be uploaded at once if they are all the same EDD type.



2. Click the **Upload EDD File** button once you have selected the file you wish to upload. If you accidentally attempt to upload a file of a different type than the one selected in the *Type* dropdown you will receive an error.
3. NOTE: By selecting the **Upload** button you are agreeing to the CERTIFICATION statement at the top of the Submit EDD page.
4. If you wish to bypass creating an EDD file you can select the **Fill Out Form** button. This will take you to the **EDD Overview** page and contains empty fields which can be filled in manually. The detail records for the form will also need to be created and filled manually.

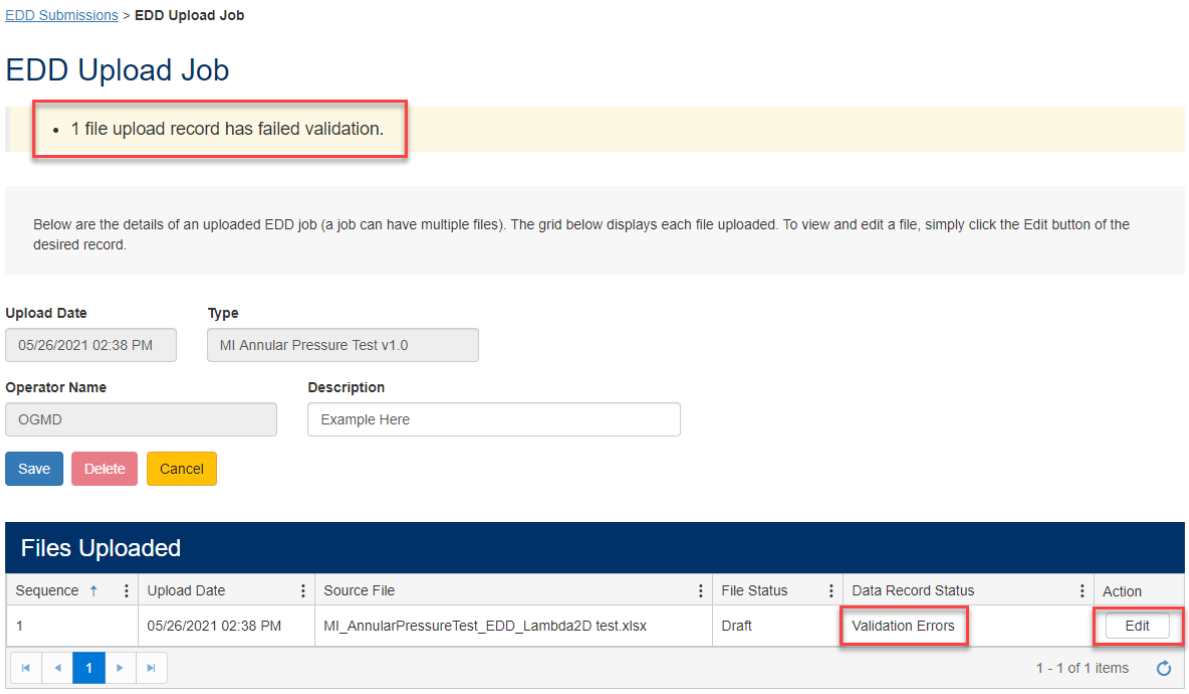


5. After the file has uploaded the application will take you to the **EDD Upload Job** page. You may see a message at the top of the screen indicating that the EDD is being processed. Depending on the number of records and corresponding validation criteria, processing time may vary from a few seconds to a minute or two. Processing occurs in the background, so you may navigate to other pages or close the application without impacting processing.



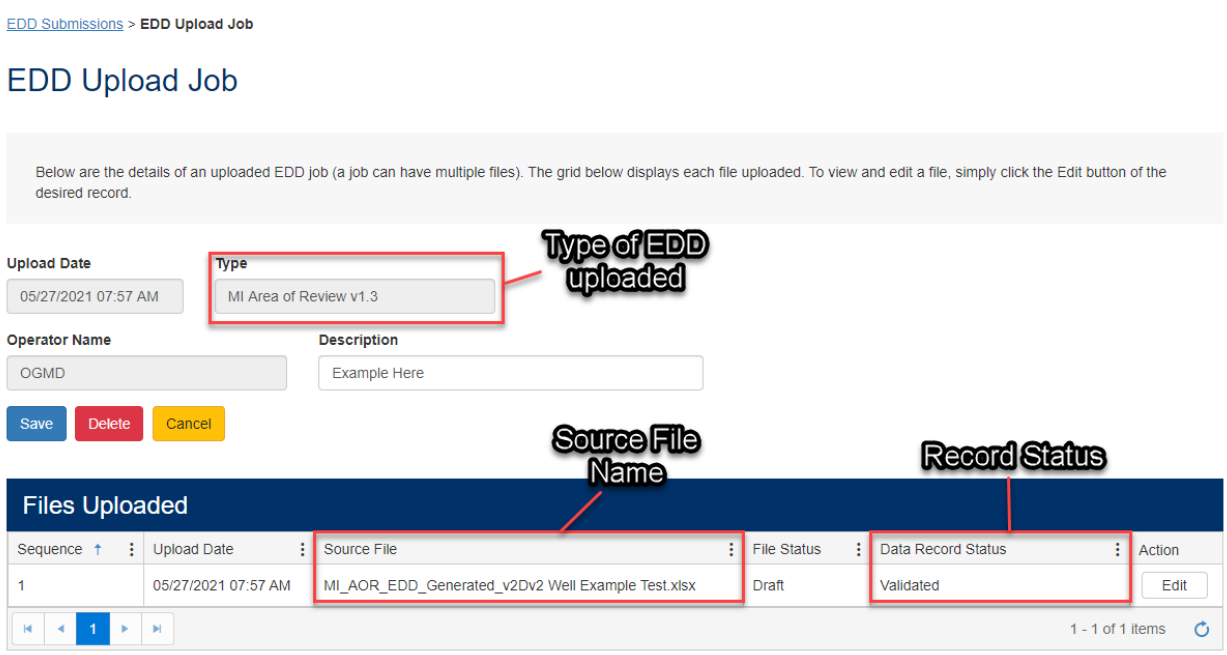
Note: If no validation errors are present and no other changes need to be made to the EDD, proceed to Step 4 to submit an EDD. If validation errors are present or other changes need to be made to the EDD before submission, go to the View/Edit/Delete an EDD sections below and correct validation errors before returning to Step 4 to submit an EDD.

6. If the program finds fields which do not meet the validation criteria during the upload it will display this result showing a status of "Validation Errors" and a notice at the top of the screen that the file failed validation. You can then click the **Edit** button under Action to see the details of the validation error and edit the record. Refer to the validation criteria to determine the cause of the error.



7. The **EDD Upload Job** page shows the basic details for files uploaded as part of an EDD including, date of upload, the file(s) that were uploaded, and the status of the EDDs uploaded.

    a. On this page you can edit the *Description* field if needed. Users can also see the status of the EDD in the *Status* column. If multiple files were uploaded as part of the EDD, you will see those files listed in the **Files Uploaded** data table.

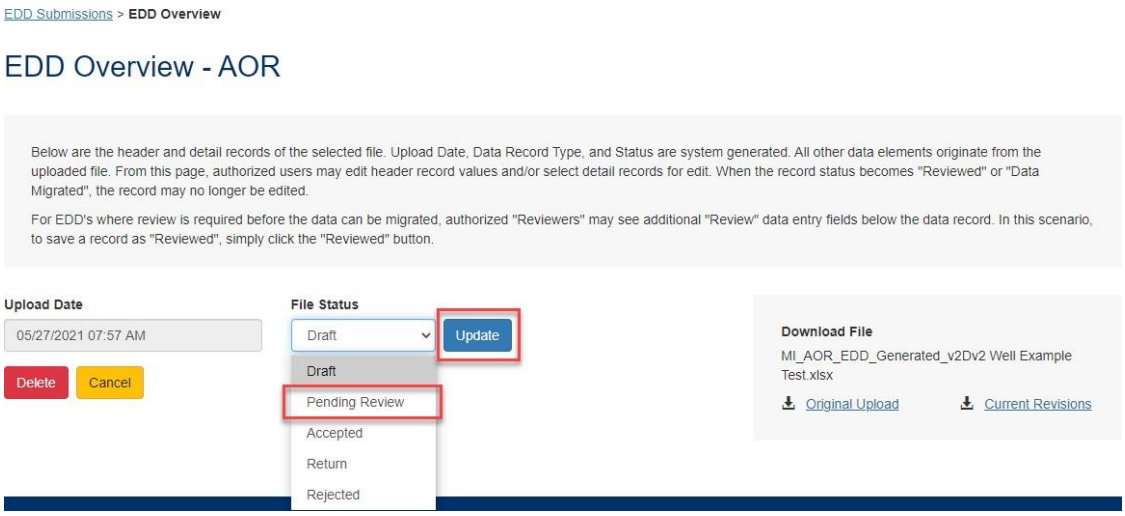


STEP 4: SUBMIT AN EDD FOR REVIEW

Once you have edited, added, and/or resolved all validation errors and the file is complete, you are ready to submit the file to EGLE/OGMD. Note: all validation errors must be resolved before you will be able to submit a file. Once submitted, data will no longer be editable except by authorized OGMD reviewers. If all validation has not passed the Update button will remain faded and unresponsive.

To submit an EDD, navigate to the **EDD Overview** page and from the *File Status* dropdown select "*Pending Review*" and then click the **Update** button. This will generate a confirmation popup where the user must select "*Yes*" to finalize the action.

IMPORTANT: It is at this point in the process that OGMD considers the record/template to be duly submitted on time per regulatory requirements.



After confirming the action, the program navigates back to the **EDD Submissions** page while the change is processing.

View, Edit, and Delete an EDD

Section Table of Contents

- Data Validation
- EDD Overview Page
- Data Record Page
- Delete Data
- Add a Data Record
- Download an EDD

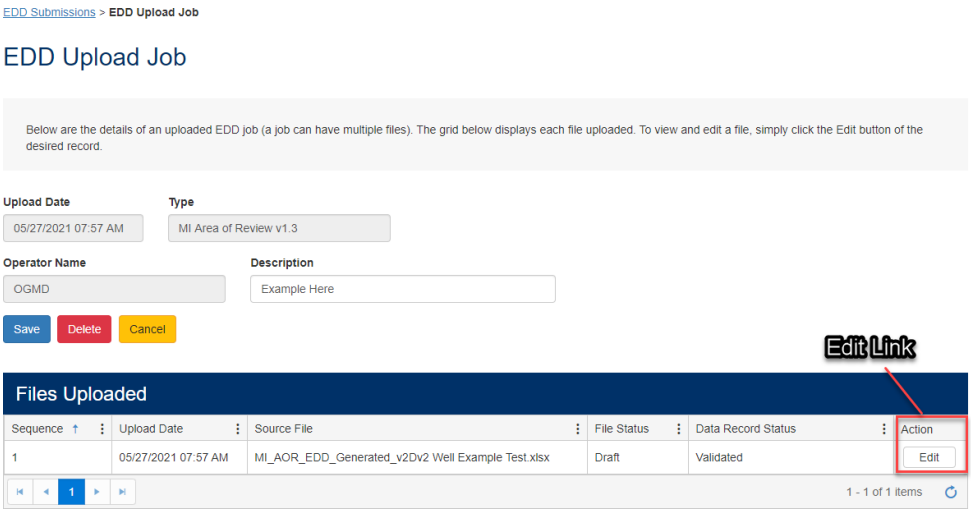
Data Validation

When an EDD file is uploaded, the application will perform validation against both the header data information and all corresponding detail data records. For a full list of the rules checked during the validation process, consult the EDD template file under the **Validation Criteria** tab for the type of EDD uploaded. As previously described this validation check also runs when you click the **Save** Button. While validation is in progress, the buttons at the bottom of the page will be disabled and the **Save** button will display "*Validating…*"

If the program finds fields which do not meet the validation criteria during the upload it will display this result showing a status of "Validation Errors" and a notice at the top of the screen that the file failed validation. You can then click the **Edit** button under Action to see the details of the validation error and edit the record. Refer to the validation criteria to determine the cause of the error.

EDD Overview Page

At this point the data has been uploaded into the EDD application. You can view and/or edit uploaded data by clicking the **EDIT** button in the *Action* column.

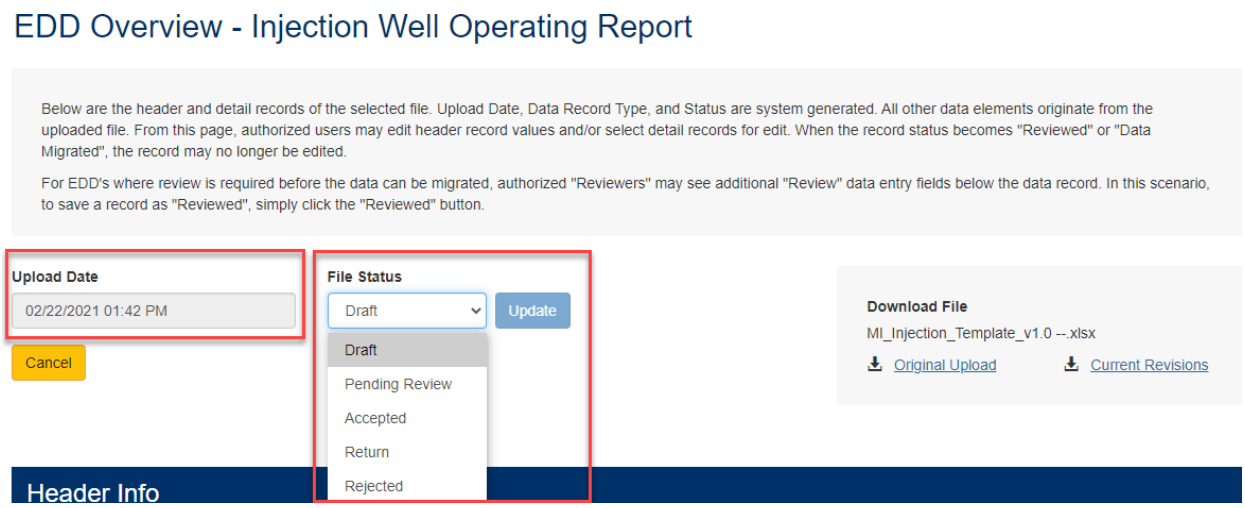


Clicking the **Edit** Button will automatically open the **EDD Overview** page for a given EDD record. This page includes a *File Status* section, a *Download File* section, a *Header Info* section, a *Detail Record* section, and an *Agency Review* section (see image on next page for example).

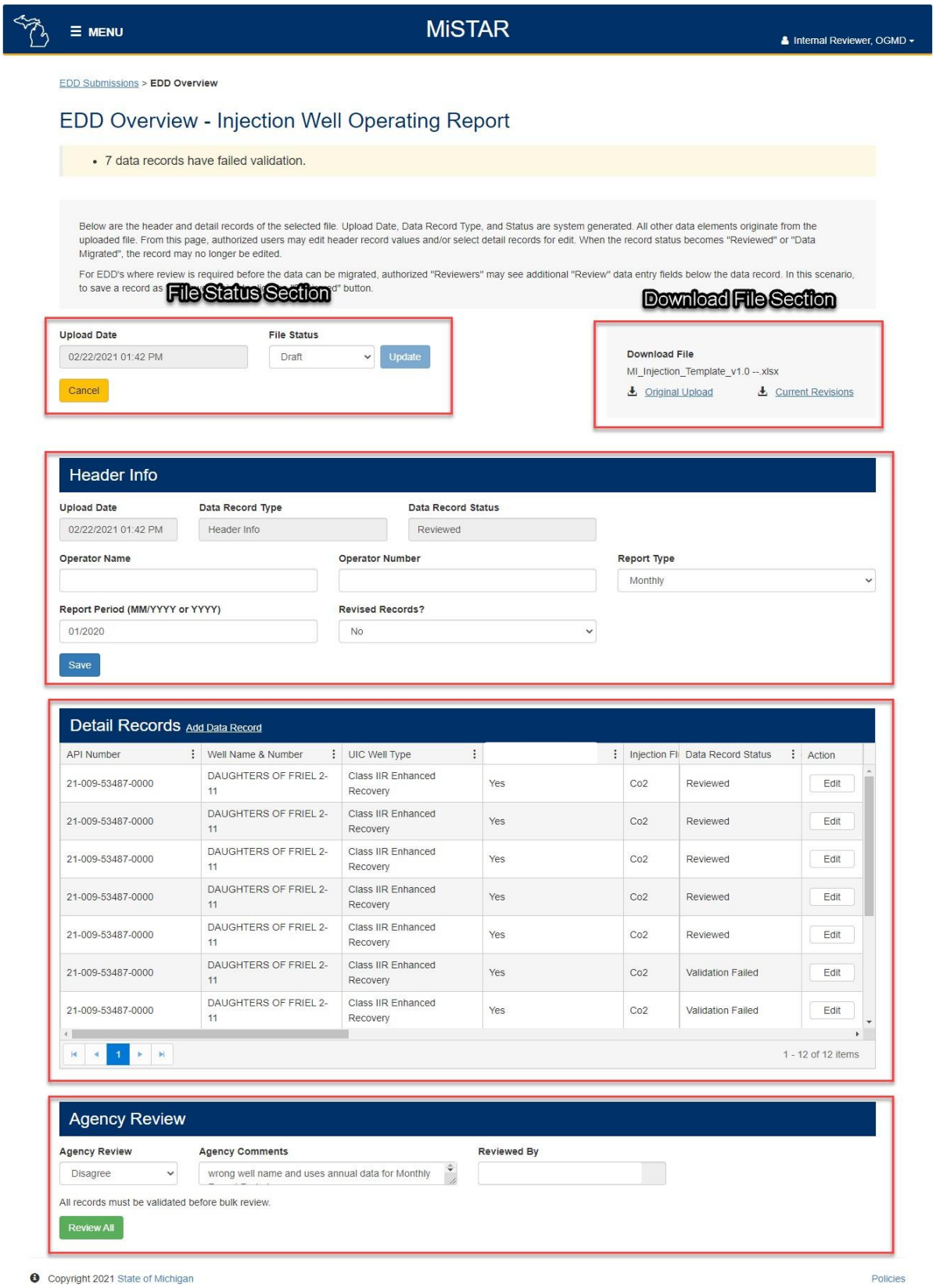
This page will also provide a yellow banner with descriptive text at the top if there are records that have failed validation.

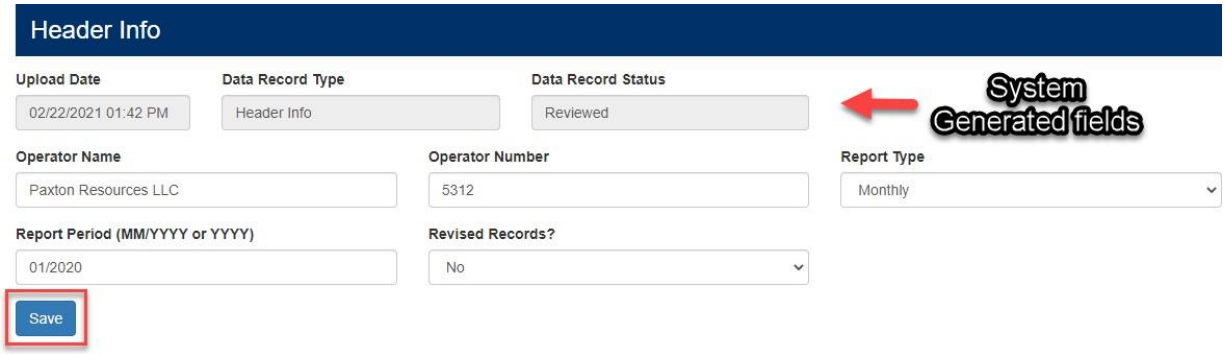
1. *File Status* section: This portion of the page includes the original upload date and a *File Status* dropdown field. This dropdown allows the user to submit the document to OGMD for review by selecting "*Pending Review*" from the dropdown and then clicking the **Update** button.

Note- Once an operator submits a document for review it will no longer be editable by the operator user. It is at this point in the process that OGMD considers the record/template to be duly submitted on time per regulatory requirements.

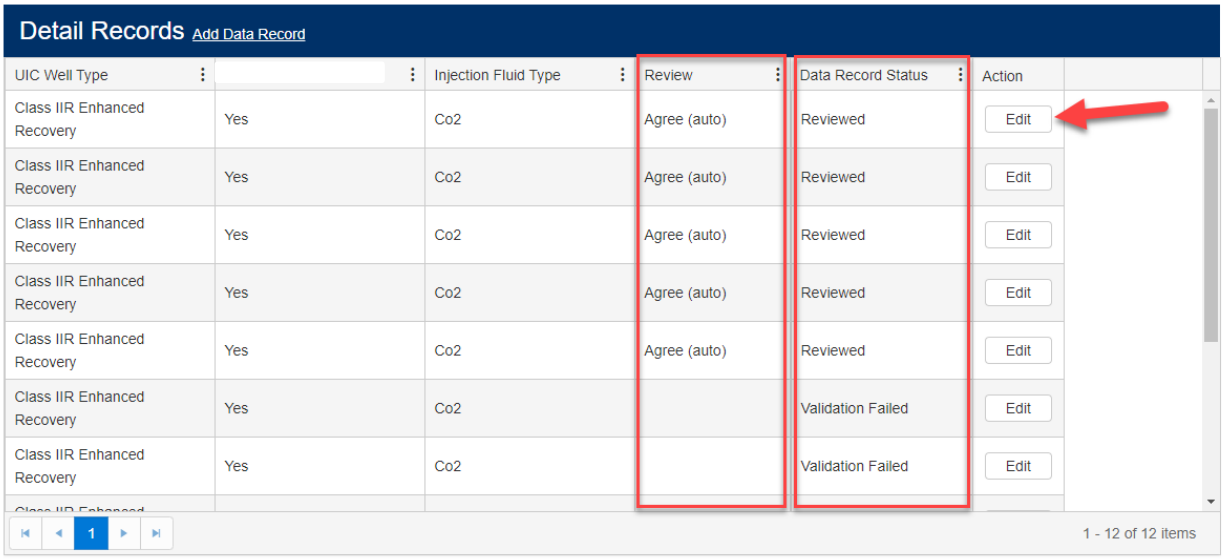


2. *Download File* section: this section allows users to download the original EDD spreadsheet submission, or the EDD spreadsheet populated with data that has been edited from within the MiSTAR EDD Tool.
3. *Header Info* section: this section contains several system generated fields as well as the fields originally found in the blue "Header" section on the original EDD template file. Fields colored gray are system generated fields and cannot be edited. Fields which are white can be edited to correct validation errors or make general corrections and then saved using the blue save button at the bottom of the header section.


MENU
MiSTAR
Internal Reviewer, OGMD
EDD Submissions > EDD Overview
EDD Overview - Injection Well Operating Report
7 data records have failed validation.
Below are the header and detail records of the selected file. Upload Date, Data Record Type, and Status are system generated. All other data elements originate from the uploaded file. From this page, authorized users may edit header record values and/or select detail records for edit. When the record status becomes "Reviewed" or "Data Migrated", the record may no longer be edited.
For EDD's where review is required before the data can be migrated, authorized "Reviewers" may see additional "Review" data entry fields below the data record. In this scenario, to save a record as
File Status Section
Download File Section
Upload Date
02/22/2021 01:42 PM
File Status
Draft
Update
Cancel
Download File
MI_Injection_Template_v1.0 --.xlsx
Original Upload
Current Revisions
Header Info
Upload Date
02/22/2021 01:42 PM
Data Record Type
Header Info
Data Record Status
Reviewed
Operator Name
Operator Number
Report Type
Monthly
Report Period (MM/YYYY or YYYY)
01/2020
Revised Records?
No
Save
Detail Records
Add Data Record
API Number
Well Name & Number
UIC Well Type
Injection Fl
Data Record Status
Action
21-009-53487-0000
DAUGHTERS OF FRIEL 2-11
Class IIR Enhanced Recovery
Yes
Co2
Reviewed
Edit
Validation Failed
1 - 12 of 12 items
Agency Review
Agency Review
Disagree
Agency Comments
wrong well name and uses annual data for Monthly
Reviewed By
All records must be validated before bulk review.
Review All
Copyright 2021 State of Michigan
Policies

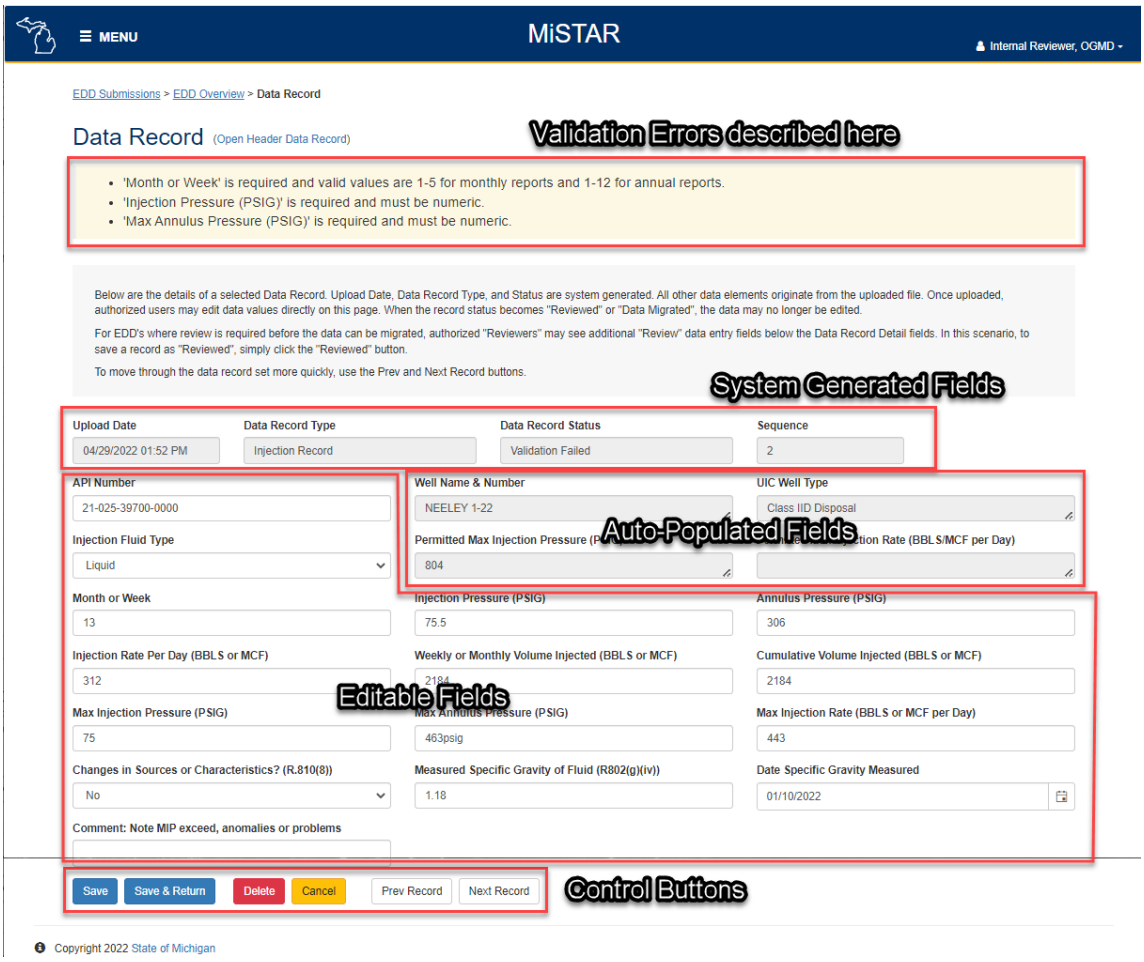


4. *Detail Record* section: This section contains the **Data Records** data table (Learn how to use tables including paging, sorting, filtering, etc.). You can also see if each record has passed validation or been reviewed in the system in the *Status* column. If it has been reviewed, "Agree" or "Disagree" will be visible in the Review column. If you click on **Edit** button in the *Action* column, you will be taken to the **Data Record** page where you can view the data. This section also includes a link to "Add Data Record" which opens a new blank data record which can be filled in manually and added to the file.



Data Record Page

Clicking the **Edit** Button on an individual data record on the **EDD Overview** page will automatically open the **Data Record** page. The **Data Record** page shows all the information pulled from the uploaded EDD file for an individual data record. Depending on the record type- it may also display an *Agency* (EGLE-OGMD) *Review* section. It also contains controls for saving, deleting, and navigating records.



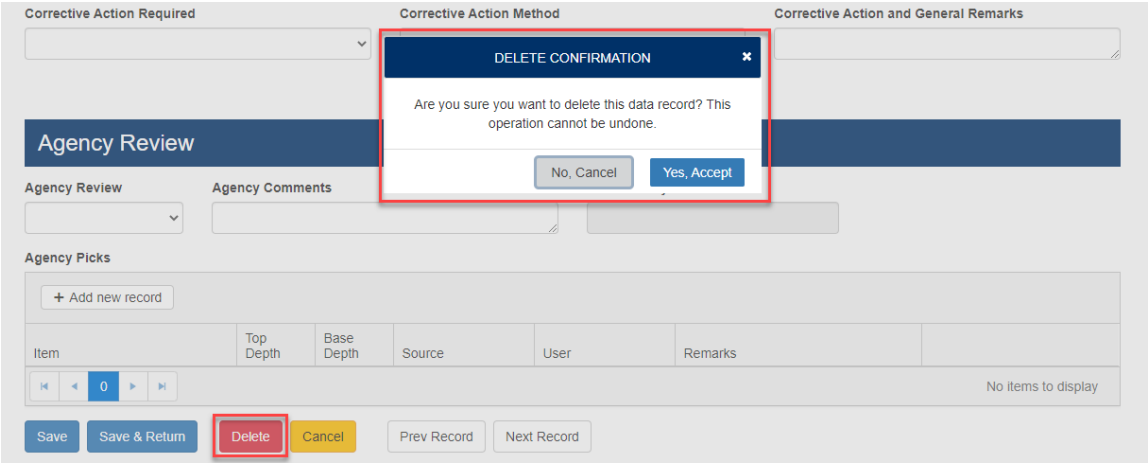
The system generated fields of *Upload Date*, *Data Record Type*, *Data Record Status,* and *Sequence* are all read-only. You can edit, review, or delete data values directly on this page as well as delete the entire record. Descriptions of validation errors can be seen in yellow highlights at the top of this page.

To save edits you have made to the record click the **Save** button at the bottom of the screen. This will also rerun the validation check and refresh the validation results at the top of the page.
Clicking the **Save & Return** button at the bottom of the screen will save the edits you have made, run the validation check, and return you to the **EDD Overview** page. Clicking on the EDD Overview link in the upper left corner of the screen will also return you to the **EDD Overview** page for this file.

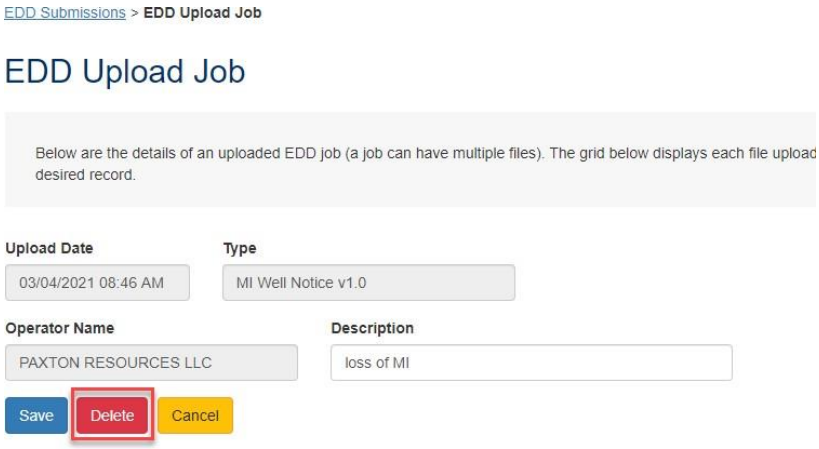
To move between the **Data Record** pages for individual data records, use the **Prev Record** and **NextRecord** buttons at the bottom of the screen. You can also open the Header Data record in a similar view by selecting the "*Open Header Data Record*" link at the top of the page. This opens the record in a new tab on your browser. Regardless of which page you are editing, be sure to click the **Save** button (or **Save & Return**) after editing data to ensure that edits are saved.

Delete Data

To delete an individual data record, use the **Delete** button at the bottom of the **Data Record** page. Youwill be asked to confirm the deletion before the data record is removed as this operation cannot be undone. Once a data record has been deleted from the **Data Record** page, the program sends you to the **EDD Overview** page and the data record is removed from the Data Record table.

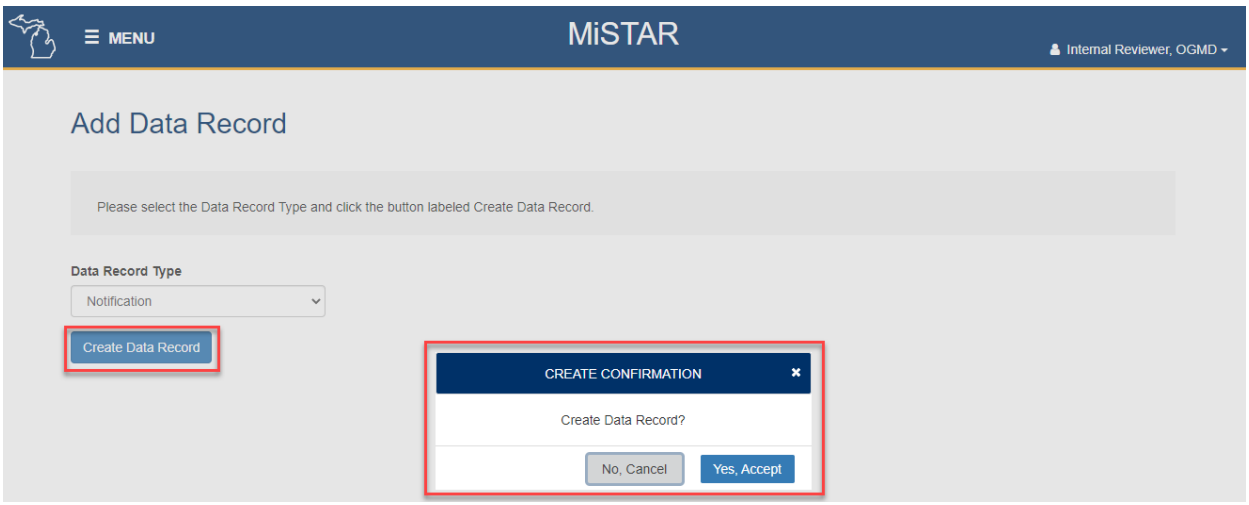


To delete an entire EDD the file must be in a draft status. The EDD can be deleted using the **Delete** Button on the main **EDD Overview** page or from the **EDD Upload Job** page.



Add a Data Record

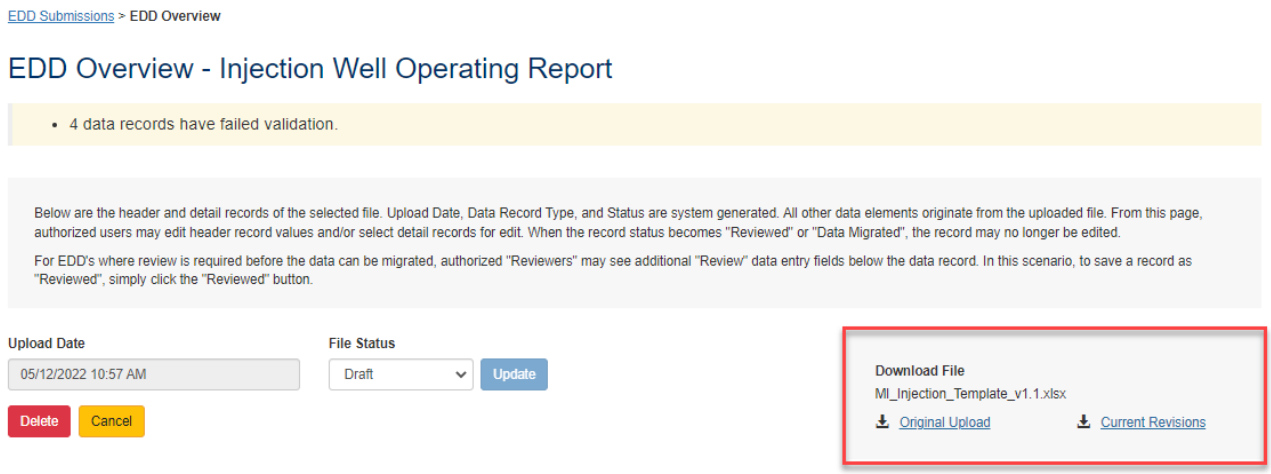
You can add a new data record from the **EDD Overview** page. To do this click *Add Data Record* link above the **Data Records** table. This opens a new page where you select the data record type you would like to create (usually there will only be one) and click the **Create Data Record** button**.**



A confirmation pop-up will appear where you will select "*Yes, Accept*" and the new record will open. You can now fill out and save the new data record.

Download an EDD

The MiSTAR EDD Tool retains of copy of the original submitted EDD file. You can download the original EDD file from the **EDD Overview** page. From there you can select the "*Original Upload*" link from within the Download File section. If you edit or delete data in the EDD Tool, you can also download an EDD file populated with the data that is currently in the system. This is done from the same **EDD Overpage** by clicking the "*Current Revisions*" link within the Download File section.



How To Use Tables

All data tables in the MiSTAR EDD Tool offer the following functionality: paging, sorting, filtering, and display/hide columns.

Paging

When a table contains more than 20 rows, you can page through them using the controls on the bottom. You can also see which records are being shown out of how many records in the bottom right.

Area of Review	Operator LLC	Test Upload	03/27/2020 01:24 PM	Data Migrated	Edit
Area of Review	ABC Operator	AOR EDD	03/27/2020 01:37 PM	Data Migrated	Edit
Area of Review	ABC Operator	AOR EDD	03/27/2020 01:39 PM	Validation Errors	Edit
Area of Review	ABC Operator	AOR EDD	03/27/2020 01:56 PM	Validation Errors	Edit
Area of Review	ABC Operator	AOR EDD	03/27/2020 02:36 PM	Validation Errors	Edit
Area of Review	Operator ABC	AOR EDD	03/30/2020 10:35 AM	Validated	Edit
Area of Review	Operator ABC	AOR EDD	03/30/2020 10:36 AM	Validated	Edit

1 2 21 - 39 of 39 items

Sorting

You can sort a data table based on ascending/descending order of a column by clicking on that column's header. A small arrow will appear to the right of the column header indicating how the tablehas been sorted.

API Number (14 digit) ↓
26033057850000
26033057830000
11111111111111

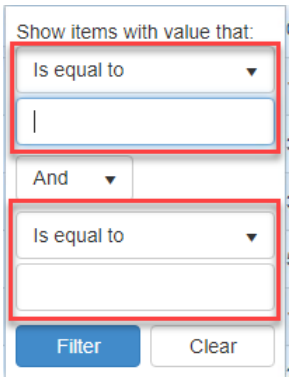
Filtering

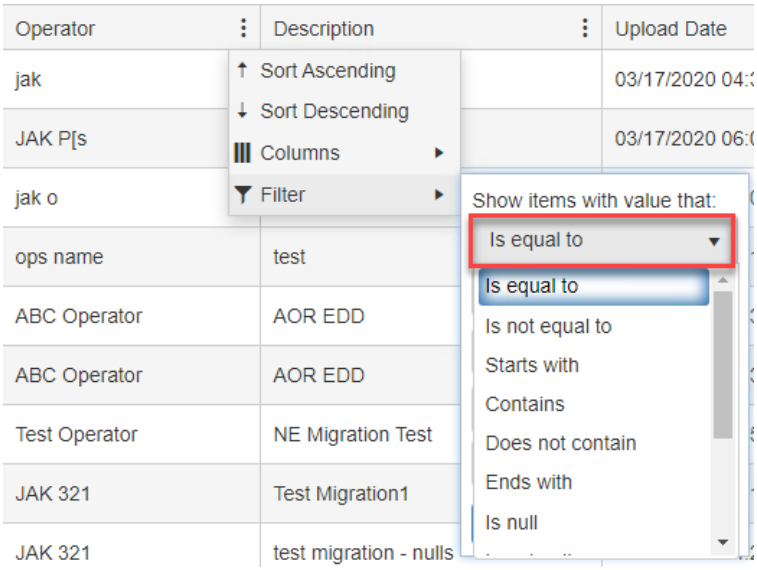
You can filter the records in the table by clicking on the three dots next to a column header and selecting **Filter** from the dropdown that appears.

Type	Operator	Description
Area of Review	jak	
Area of Review	JAK P[s	
Area of Review	jak o	
Area of Review	ops name	test
Area of Review	ABC Operator	AOR EDD
Area of Review	ABC Operator	AOR EDD
Area of Review	Test Operator	NE Migration Test
Area of Review	JAK 321	Test Migration1
Area of Review	JAK 321	test migration - nulls

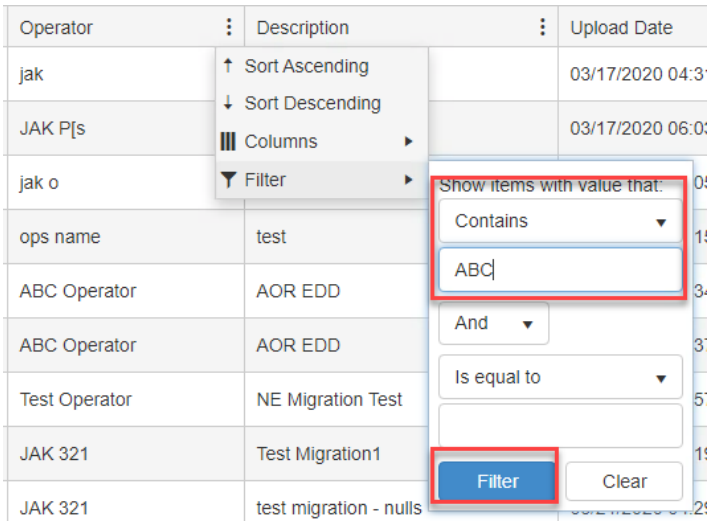
↑ Sort Ascending
↓ Sort Descending
Columns
Filter

The resulting menu allows you to apply 1-2 parameters in your filter. For each parameter you can choose from a variety of conditions such as “Is equal to”, “Contains”, etc.





For example, to filter the records down to those that have an operator that has “ABC” in its name, select “Contains” and type in “ABC”, then click the **Filter** button.

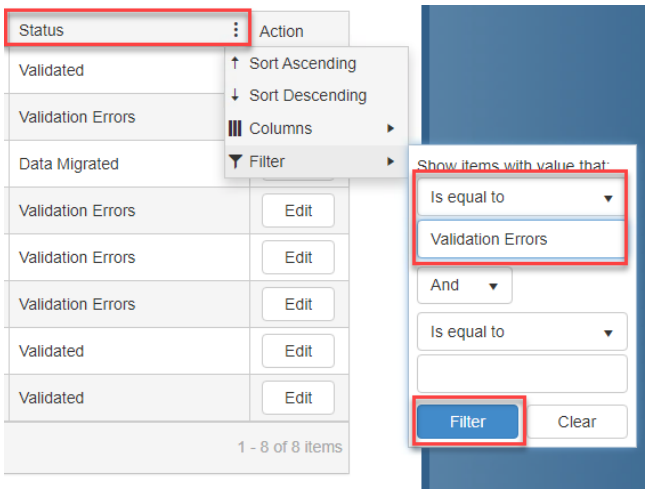


This will result in the following:

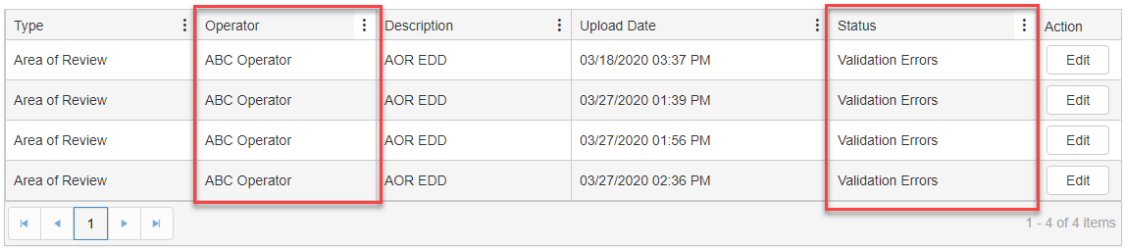
Type	Operator	Description	Upload Date	Status	Action
Area of Review	ABC Operator	AOR EDD	03/18/2020 03:34 PM	Validated	Edit
Area of Review	ABC Operator	AOR EDD	03/18/2020 03:37 PM	Validation Errors	Edit
Area of Review	ABC Operator	AOR EDD	03/27/2020 01:37 PM	Data Migrated	Edit
Area of Review	ABC Operator	AOR EDD	03/27/2020 01:39 PM	Validation Errors	Edit
Area of Review	ABC Operator	AOR EDD	03/27/2020 01:56 PM	Validation Errors	Edit
Area of Review	ABC Operator	AOR EDD	03/27/2020 02:36 PM	Validation Errors	Edit
Area of Review	Operator ABC	AOR EDD	03/30/2020 10:35 AM	Validated	Edit
Area of Review	Operator ABC	AOR EDD	03/30/2020 10:36 AM	Validated	Edit

1 - 8 of 8 items

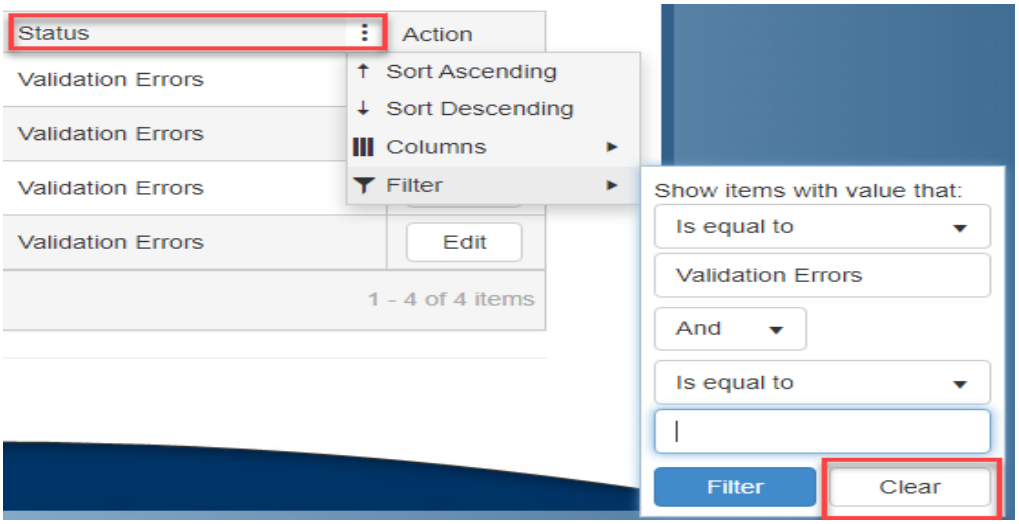
You can apply filters to multiple columns at a time. For example, if we only wanted to see the uploads that had a *Status* of "Validation Errors" for the operators that have "ABC" in their names, we could apply another filter to the *Status* column.



This would result in the table being filtered further:



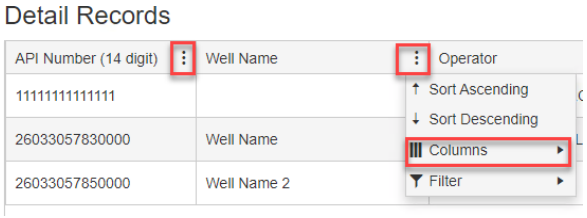
To remove a filter, go back to the filter for the desired column and click the **Clear** button:



If you refresh the page, or navigate to another page and back, it will remove all filters.

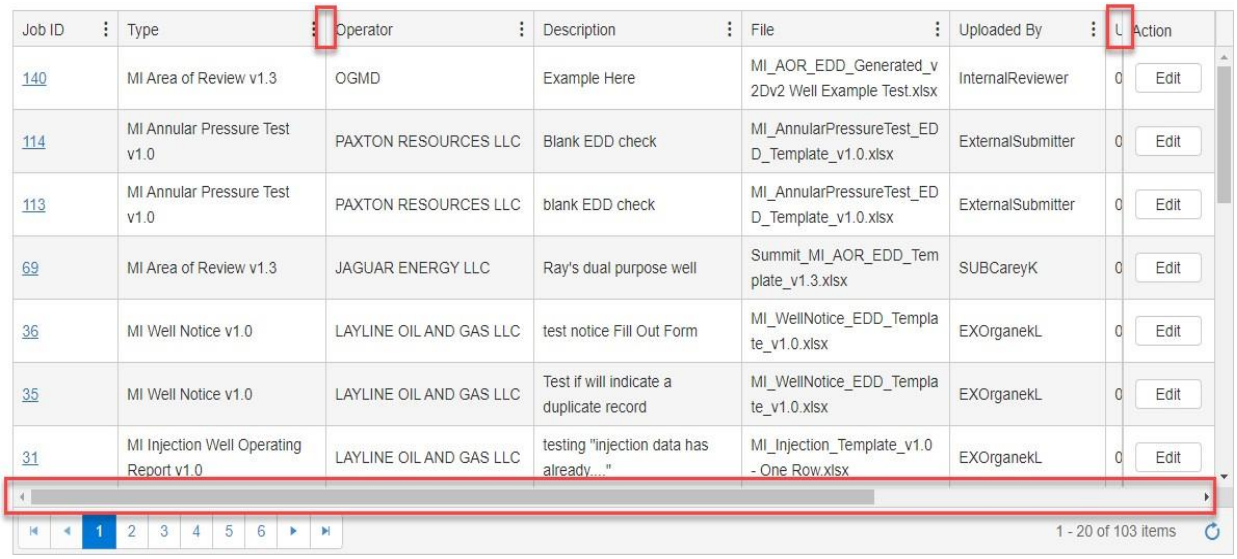
Display/Hide Columns

Many data tables are not wide enough to show all the columns at once, so some have been hidden. This is especially true for the various data viewing pages which typically do not show all the data columns by default. To show additional columns or hide existing columns, click on the three dots next to any column header and hover over **Columns**.



This will display a list of all the available columns. Currently visible columns will have a check in their checkboxes. Check or uncheck boxes to show and hide the desired columns. As you add columns, thetable and columns adjust in size to accommodate the change. You can adjust a column size manuallyby hovering over the line in between two column headers until your curser turns into a double line with two arrows. You can then click and drag a column to make it wider or smaller as needed.

Sometimes columns may not be immediately visible at all. You can use the scrollbar at the bottom of the table to view other columns.



Job ID	Type	Operator	Description	File	Uploaded By	U	Action
140	MI Area of Review v1.3	OGMD	Example Here	MI_AOR_EDD_Generated_v2Dv2 Well Example Test.xlsx	InternalReviewer	0	Edit
114	MI Annular Pressure Test v1.0	PAXTON RESOURCES LLC	Blank EDD check	MI_AnnularPressureTest_EDD_Template_v1.0.xlsx	ExternalSubmitter	0	Edit
113	MI Annular Pressure Test v1.0	PAXTON RESOURCES LLC	blank EDD check	MI_AnnularPressureTest_EDD_Template_v1.0.xlsx	ExternalSubmitter	0	Edit
69	MI Area of Review v1.3	JAGUAR ENERGY LLC	Ray's dual purpose well	Summit_MI_AOR_EDD_Template_v1.3.xlsx	SUBCareyK	0	Edit
36	MI Well Notice v1.0	LAYLINE OIL AND GAS LLC	test notice Fill Out Form	MI_WellNotice_EDD_Template_v1.0.xlsx	EXOrganekL	0	Edit
35	MI Well Notice v1.0	LAYLINE OIL AND GAS LLC	Test if will indicate a duplicate record	MI_WellNotice_EDD_Template_v1.0.xlsx	EXOrganekL	0	Edit
31	MI Injection Well Operating Report v1.0	LAYLINE OIL AND GAS LLC	testing "injection data has already...."	MI_Injection_Template_v1.0 - One Row.xlsx	EXOrganekL	0	Edit

1 2 3 4 5 6

1 - 20 of 103 items

MiSTAR Injection Well Operating Report EDD

The MiSTAR Injection Well Operating Report is a specific type of EDD designed to allow for the digital submission of OGMD's Injection Well Operating Report (EQP 7609) by Operators. It allows for either monthly or yearly submission of multiple wells on a single report- referred to as a bulk submission. Operators must use separate templates for wells that are required to report monthly versus those wells that are required to report annually. For example, most Brine Disposal Wells require monthly reporting while most Secondary Recovery Injection wells require annual reporting.

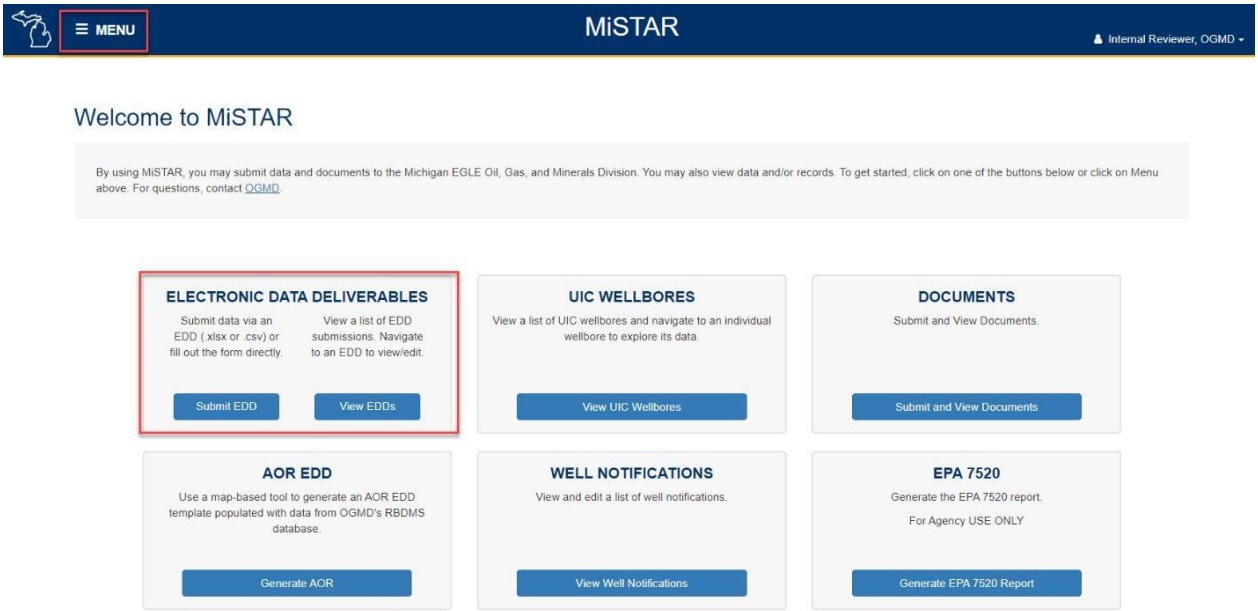
Section Table of Contents

- Get Started
  - Navigation
  - Download a blank template
- Data Validation Rules
- Data Input Style: Time Frame and Layout
- Filling out Header Record Info
- Filling out Data Record Info
- Upload an EDD

Get Started

Navigation

The homepage of the MiSTAR application provides you with five options: **Electronic Data Deliverables, UIC Wellbores, Documents, AOR EDD,** and **Well Notifications**. To access a blank template of the Injection Data EDD, click on the **Submit EDD** button to go to the **EDD Upload** page. You can also navigate to the **Submit EDD** page by selecting this option from the dropdown **MENU** in the upper left-hand corner of the screen.



Download a Blank Template

Once you are on the Submit EDD page, select "MI Injection Well Operating Report" from the *Type* dropdown. The **Download Template** link will appear to the right of the *Type* dropdown box. Click on this link to download a blank version of the EDD template. There is also an option to skip the EDD template and open a blank EDD record and fill in the information on the **EDD Overview** page. To do this select the **Fill Out Form** button in the lower right-hand corner of the **Submit EDD** page.

Submit EDD

CERTIFICATION: In uploading this information, I affirm that I am authorized by the operator and that this information was prepared under my supervision and direction. The facts stated herein are true, accurate and complete to the best of my knowledge and I am aware that there are significant penalties for submitting false information.

To upload a file, please follow these steps:

1. Select the desired Type
2. Download the template and fill out, if needed. This application will accept the template in the following file formats: .xlsx, .csv
3. Browse to the filled out template you wish to upload
4. Click the 'Upload EDD File' button

To continue without uploading a file, fill out the form and click the 'Fill Out Form' button.

Type *

MI Injection Well Operating Report v1.0

Download Template

Operator Name *

Select Organization...

Description *

Upload EDD File

-- OR --

Fill Out Form

The downloaded blank template for the Injection Well Operating Report is shown below. This template has two tabs at the bottom- one for data entry and one for validation criteria. The validation criteria explain which fields are required, what data type each field should be, and if only certain options are allowed.

	A	B	C	D	E	F
1	**Injection Well Operating Report**					
2	Operator Name					
3	Operator Number					
4	Report Type					
5	Report Period (MM/YYYY or YYYY)					
6	Revised Records?					
7						
8	**Injection Records**					
9	*14 digit API number*	*Well Name & Number from EGLE-OGMD Permit*		*See list of valid values*	*Permitted value*	*Permitted Value*
10	**API Number**	**Well Name & Number**	**UIC Well Type**	**Injection Fluid Type**	**Permitted Max Injection Pressure (PSIG)**	**Permitted Max Injection Rate (BBLS/MCF per Day)**
11						
12						
13						
14						
15						

EDD | Validation Criteria

Data Validation Rules

When an EDD file is uploaded, the application will perform validation checks against both the header data information and all corresponding detail data records. This validation check also runs when you click the **Save** Button. For the Injection Data EDD the validation rules are as follows:

	Required?	Validation Criteria
Injection Well Operating Report		
Operator Name	Yes	Official operator name with EGLE
Operator Number	Yes	EGLE Operator Number. Must match operator uploading document.
Report Type	Yes	Must be "Monthly" or "Annual"
Report Period (MM/YYYY or YYYY)	Yes	Format should be MM/YYYY for monthly reports and YYYY for annual reports.
Revised Records?	Yes	Must be "Yes" or "No"
Data Table		
API Number	Yes	Must be 14-digit number, must belong to company listed in header, and must be listed as a Class II well in the OGMD database. If this field shows an error indicating it is not Class II and you believe it should be please contact the OGMD.
Well Name & Number	Auto	This field is auto populated based on the API number field when the file is uploaded to the MiSTAR application.
UIC Well Type	Auto	This field is auto populated based on the API number field when the file is uploaded to the MiSTAR application.
Injection Fluid Type	Yes	Valid values: "CO2"," Gas"," Liquid"
Permitted Max Injection Pressure (PSIG)	Auto	If available- This field is auto populated based on the API number field when the file is uploaded to the MiSTAR application.
Permitted Max Injection Rate (BBLS/MCF per Day)	Auto	If available- This field is auto populated based on the API number field when the file is uploaded to the MiSTAR application.
Month or Week	Yes	If form is a monthly report valid values are numbers 1-5. If form is an annual report valid values are numbers 1-12.
Injection Pressure (PSIG)	Yes	Must be numeric value.
Annulus Pressure (PSIG)	Yes	Must be numeric value.
Injection Rate Per Day (BBLS or MCF)	Yes	Must be numeric, can include decimal.
Weekly or Monthly Volume Injected (BBLS or MCF)	Yes	Must be numeric, can include decimal.
Cumulative Volume Injected (BBLS or MCF)	Yes	Must be numeric, can include decimal.
Max Injection Pressure (PSIG)	Yes	Must be numeric value.
Max Annulus Pressure (PSIG)	Yes	Must be numeric value.
Max Injection Rate (BBLS or MCF per Day)	Yes	Must be numeric, can include decimal.
Changes in Sources or Characteristics?	Yes	Must be "Yes" or "No"
Measured Specific Gravity of Fluid	Yes	Must be numeric, can include decimal.
Date Specific Gravity Measured	Yes	Must be in format MM/DD/YYYY
Comment: Note MIP exceed, anomalies or problems	No	As Applicable (R810(10))

Data Input Style: Time Frame and Layout

Time Frame:

The Injection Well Operating Report EDD is unique in that it allows for **either monthly or yearly** reporting on multiple wells per form. When filling out the form the user must pick either the monthly OR yearly report type in the header section of the report. This will apply to all the wells included in the lower data table portion of the report. You cannot mix wells with different reporting period types in the lower data table.

Layout:

In the example below (for a month with 4 weeks), several fields will be repeated across four rows of the table, with one row for each week in the month. Repeated fields include API Number, Well Name & Number (auto-populated), UIC Well Type (auto-populated), Injection Fluid Type, Permitted MIP (auto-populated), and Permitted MIR (auto-populated) and calculated fields such as cumulative or max. The example below is for a monthly report form showing values for two different wells as indicated by Week values of 1, 2, 3, 4.

Injection Records						
14 digit API number	*Well Name & Number from EGLE-OGMD Permit*		*See list of valid values*	*Permitted value*	*Permitted Value*	*Week values 1-5, Month values 1-12*
API Number	**Well Name & Number**	**UIC Well Type**	**Injection Fluid Type**	**Permitted Max Injection Pressure (PSIG)**	**Permitted Max Injection Rate (BBLS/MCF per Day)**	**Month or Week**
21127000000000	EXAMPLE 1	Class IID Disposal	Liquid	100	800	1
21127000000000	EXAMPLE 1	Class IID Disposal	Liquid	100	800	2
21127000000000	EXAMPLE 1	Class IID Disposal	Liquid	100	800	3
21127000000000	EXAMPLE 1	Class IID Disposal	Liquid	100	800	4
21011000000100	EXAMPLE 2	Class IID Disposal	Liquid	125	850	1
21011000000100	EXAMPLE 2	Class IID Disposal	Liquid	125	850	2
21011000000100	EXAMPLE 2	Class IID Disposal	Liquid	125	850	3
21011000000100	EXAMPLE 2	Class IID Disposal	Liquid	125	850	4

For Report Period	*For Report Period*	*For Report Period*	*For Report Period*	*Yes/No*	*Decimal Value*	*MM/DD/*
Cumulative Volume Injected (BBLS or MCF)	**Max Injection Pressure (PSIG)**	**Max Annulus Pressure (PSIG)**	**Max Injection Rate (BBLS or MCF per Day)**	**Changes in Sources or Characteristics? (R.810(8))**	**Measured Specific Gravity of Fluid (R802(g)(iv))**	**Date Specifi Measu**
1985	60	0	150	No	1.1	05/01/2021
1985	60	0	150	No	1.1	05/01/2021
1985	60	0	150	No	1.1	05/01/2021
1985	60	0	150	No	1.1	05/01/2021
2701	85	100	305	No	1.4	01/05/2020
2701	85	100	305	No	1.4	01/05/2020
2701	85	100	305	No	1.4	01/05/2020
2701	85	100	305	No	1.4	01/05/2020

A report using the annual time frame has 12 rows per well and the numbers 1-12 in the “Month or Week” column. The fields such as “Injection Pressure”, “Annulus Pressure”, “Injection Rate Per Day” and “Weekly or Monthly Volume Injected” are required per Rule 324.810 (1-4) of Part 615. Each of

these fields should have one data value per week/month being reported.

Week values 1-5, Month values 1-12	*Numeric Value*	*Numeric Value*	*Numeric Value*	*Numeric Value*
Month or Week	**Injection Pressure (PSIG)**	**Annulus Pressure (PSIG)**	**Injection Rate Per Day (BBLS or MCF)**	**Weekly or Monthly Volume Injected (BBLS or MCF)**
1	50	-2	100	500
2	55	-1	105	600
3	45	0	110	400
4	20	-1	80	485
1	85	-10	305	751
2	70	100	289	800
3	72	50	140	250
4	78	10	250	900

Filling Out Header Record

The header portion of the report form is the data in the top (blue) part of the EDD. This section includes several of the fields as found on the Injection Well Operating Report (EQP 7609).

Note on revised records- if Revised Records field is "Yes" and the revised records are accepted by EGLE-OGMD these revised records will overwrite the previously submitted records.

	Explanation
Injection Well Operating Report	
Operator Name	Official operator name with EGLE.
Operator Number	EGLE Operator Number.
Report Type	Must be "Monthly" or "Annual"
Report Period (MM/YYYY or YYYY)	Format should be "MM/YYYY" for monthly reports and "YYYY" for annual reports.
Revised Records?	Must be "Yes" or "No"- This indicates if the data in the green portion of the report is a revised version of data previously submitted.

Filling Out Data Records

The data record portion of the report form is the records from the bottom (green) part of the EDD. The data in this portion of the report includes the individual measurements and data for each well. If any auto populated fields seem incorrect after you have uploaded the document to the MiSTAR application, please contact OGMD at EGLE-OGMD-UIC@michigan.gov.

	Explanation
Data Table	
API Number	14-digit API number. If this field shows an error indicating it is not Class II and you believe it should be please contact the OGMD.
Well Name & Number	This field is auto populated based on the API number field when the file is uploaded to the MiSTAR application.
UIC Well Type	This field is auto populated based on the API number field when the file is uploaded to the MiSTAR application.
Injection Fluid Type	Choose from: "CO2"," Gas"," Liquid"
Permitted Max Injection Pressure (PSIG)	This field is auto populated based on the API number field when the file is uploaded to the MiSTAR application.
Permitted Max Injection Rate (BBLS/MCF per Day)	This field is auto populated based on the API number field when the file is uploaded to the MiSTAR application.
Month or Week	If form is a monthly report valid values are numbers 1-5. If form is an annual report valid values are numbers 1-12.
Injection Pressure (PSIG)	For each week or month being reported indicate the injection pressure in PSIG.
Annulus Pressure (PSIG)	For each week or month being reported indicate the annular pressure in PSIG.
Injection Rate Per Day (BBLS or MCF)	For each week or month being reported indicate the injection rate per day in BBLS or MCF.
Weekly or Monthly Volume Injected (BBLS or MCF)	For each week or month being reported indicate the volume injected in BBLS or MCF.
Cumulative Volume Injected (BBLS or MCF)	For the total report period (either month or year) indicate the cumulative volume injected in BBLS or MCF.
Max Injection Pressure (PSIG)	For the total report period (either month or year) indicate the maximum injection pressure in PSIG.
Max Annulus Pressure (PSIG)	For the total report period (either month or year) indicate the maximum annular pressure in PSIG.
Max Injection Rate (BBLS or MCF per Day)	For the total report period (either month or year) indicate the maximum injection rate in BBLS or MCF per day.
Changes in Sources or Characteristics?	Have there been any changes in the characteristics or sources of fluids that are being injected?
Measured Specific Gravity of Fluid	See R802(g)(iv).
Date Specific Gravity Measured	Format should be MM/DD/YYYY
Comment: Note MIP exceed, anomalies or problems	Note if MIP or MIR exceed the permitted rates or if any other anomalies or problems occurred.

Data Field Descriptions by Number- Form to EDD

EGLE MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY – OIL, GAS, AND MINERALS DIVISION

INJECTION WELL OPERATING REPORT

By authority of Part 615 of Act 451 PA 1994, as amended, or Supervisor of Wells order.
Non submission and/or falsification of this information may result in suspension of operations.
This report must be filed with the Supervisor of Wells within 45 days after the end of the month of injection.

Operator 2
Address
Permit No.
Well Name & No. 10
USEPA Permit Number
This report is for 4,5
Month Year (use one line per week)
Calendar year (use one line per month)
Well type 11 Disposal Secondary recovery
Injection fluid: 12 Brine/water Natural gas H2S CO2 Other:

Month or Week	Annular pressure PSIG	Injection pressure PSIG	Injection rate per day Bbls or Mcf	Total volume injected Bbls	Total volume injected Mcf
1 15	17	16	18	19	
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
Maximum	22	21	23		
Average					
Total cumulative volumes for period				20	

If measured values for the fracture pressure gradient and the injection fluid specific gravity are used in determining the maximum surface injection pressure, a yearly measurement for specific gravity is to be submitted as part of your annual report. If fracture pressure gradient is assumed to be .800 lbs/ft and the specific gravity of the injected liquid is assumed to be 1.2, no yearly measurement is needed.

Measured specific gravity of injection fluid 25 Date 26

Have there been any changes in characteristics or sources of fluids that are being injected?
No Yes If yes, please explain.
24

CERTIFICATION "I state that I am authorized by said owner. This report was prepared under my supervision and direction. The facts stated herein are true, accurate and complete to the best of my knowledge."

Company Representative Date

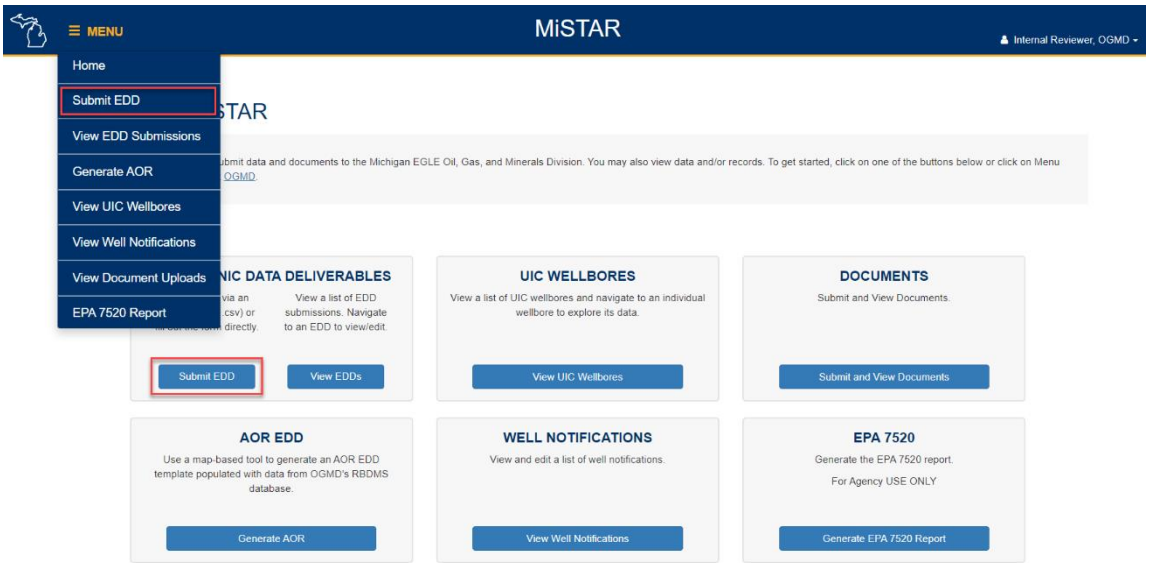
1	**Injection Well Operating Report**	
2	Operator Name	
3	Operator Number	
4	Report Type	
5	Report Period (MM/YYYY or YYYY)	
6	Revised Records?	

Injection Records 9	10	11	12	13	14
14 digit API number	*Well Name & Number from EGLE-OGMD Permit*	*See list of valid values*	*See list of valid values*	*Permitted value*	*Permitted Value*
API Number	**Well Name & Number**	**UIC Well Type**	**Injection Fluid Type**	**Permitted Max Injection Pressure (PSIG)**	**Permitted Max Injection Rate (BBLS/MCF per Day)**

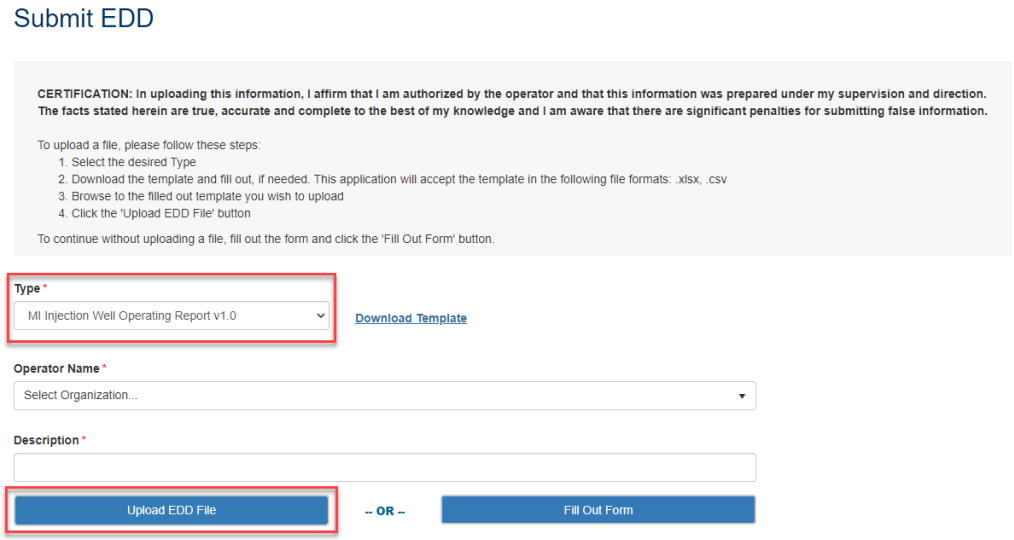
15	16	17	18	19
Week values 1-5, Month values 1-12	*Numeric Value*	*Numeric Value*	*Decimal Value*	*Decimal Value*
Month or Week	**Injection Pressure (PSIG)**	**Annulus Pressure (PSIG)**	**Injection Rate Per Day (BBLS or MCF)**	**Weekly or Monthly Volume Injected (BBLS or MCF)**

20	21	22	23	24	25	26	27
For Report Period	*For Report Period*	*For Report Period*	*For Report Period*	*Yes/No*	*Decimal Value*	*MM/DD/YYYY*	*As Applicable (R810(10))*
Cumulative Volume Injected (BBLS or MCF)	**Max Injection Pressure (PSIG)**	**Max Annulus Pressure (PSIG)**	**Max Injection Rate (BBLS or MCF per Day)**	**Changes in Sources or Characteristics? (R.810(8))**	**Measured Specific Gravity of Fluid (R802(g)(iv))**	**Date Specific Gravity Measured**	**Comment: Note MIP exceed, anomalies or problems**

Upload The Completed Injection EDD

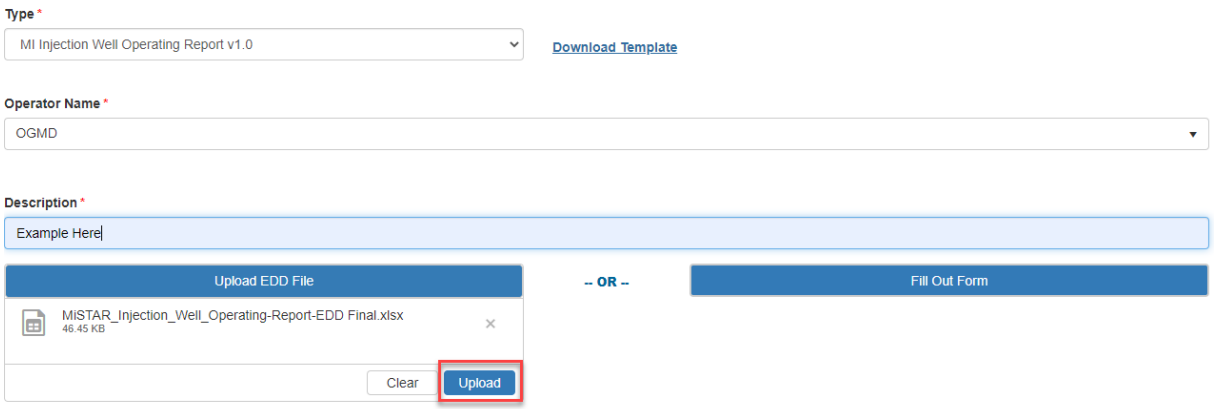


1. Navigate to the **Submit EDD** page (see the EDD Upload Tool Instructions document for more detailed instructions). Select "MI Injection Well Operating Report" from the *Type* dropdown. Select the *Operator Name* from the dropdown and fill out the *Description* field. These fields are required. The *Description* field can be helpful in distinguishing between records on the **View EDD Submissions** page- while there is no specific information required in the field, OGMD suggests you enter something that allows the submitter to distinguish between uploaded files. An operator should not use this field to provide any regulatory information to OGMD. Once the fields are all complete click the **Upload EDD File** button and navigate to and select the completed Injection Well EDD file.

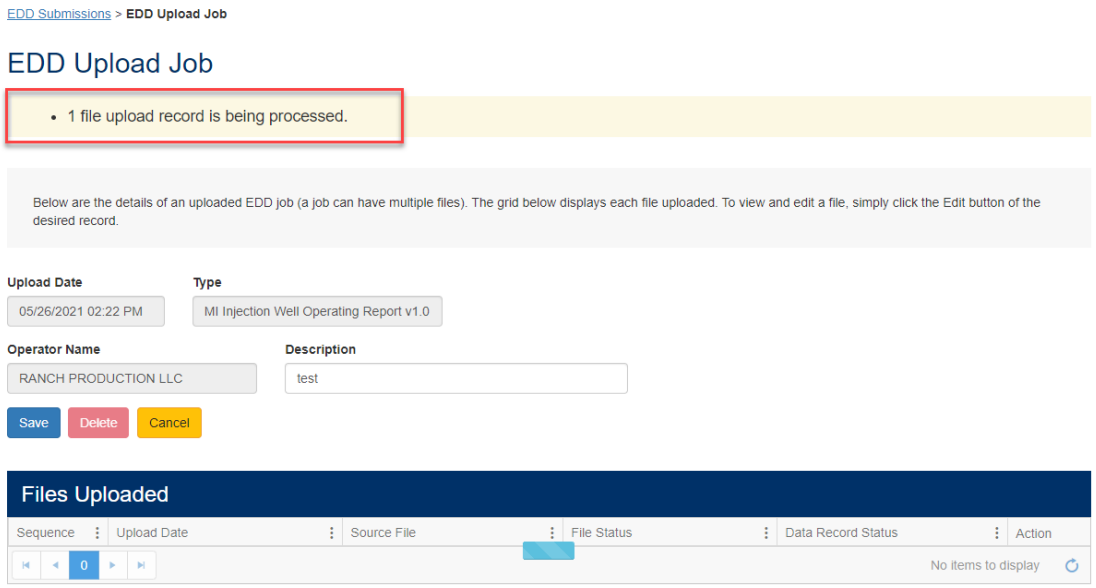


2. Click the **Upload** button once you have selected the file you wish to upload. If you accidentally attempt to upload a file of a different type than the one selected in the *Type* dropdown you will receive an error.

NOTE: By selecting the Upload button you are agreeing to the CERTIFICATION statement at the top of the Submit EDD page.

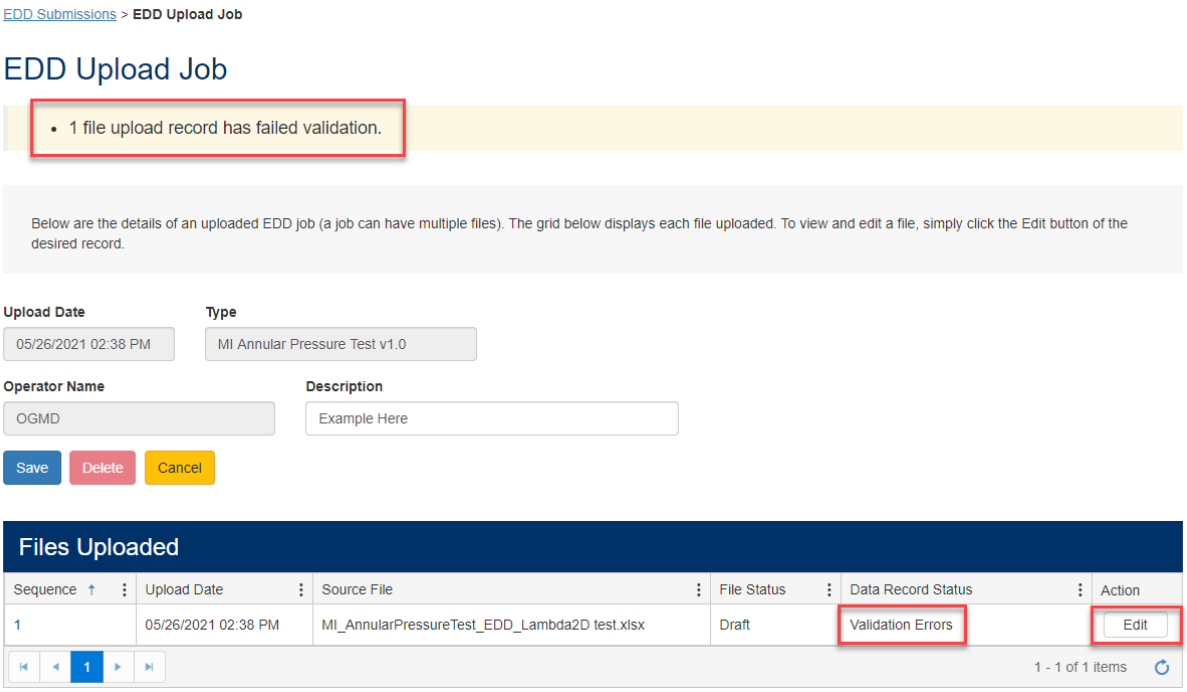


3. After the file has uploaded the application will take you to the **EDD Upload Job** page. You may see a message at the top of the screen indicating that the EDD is processing. Depending on the number of records and corresponding validation criteria, processing time may vary from a few seconds to a minute or two. Processing occurs in the background, so you may navigate to other pages or close the application without impacting processing.



4. If the program finds fields which do not meet the validation criteria during the upload it will display this result showing a status of “Validation Errors” and a notice at the top of the screen

that the file failed validation. You can then click the **Edit** button under Action to see the details of the validation error and edit the record.



5. Continue the process of editing and submitting the record for approval on the **EDD Overview** page. For further instructions on this process see the documentation section on the EDD Upload Tool-Basic Instructions.

MiSTAR Annular Pressure Test EDD

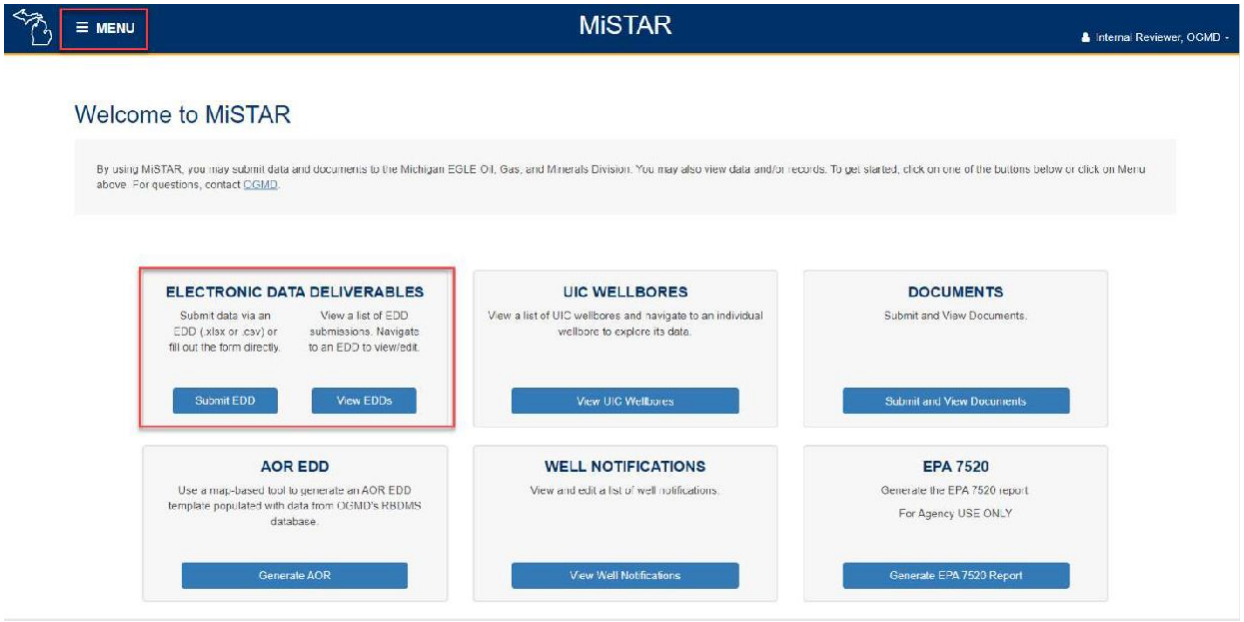
The MiSTAR Annular Pressure Test EDD is for the digital submission of OGMD's Annular Pressure Test document (EQP 7606). The Annular Pressure Test EDD only allows for one well and one test to be reported per EDD.

Section Table of Contents

- Navigation
- Download a blank template
- Data Validation Rules
- Filling out Header Record Info
- Filling out Data Record Info
- Upload Form

Navigation

The homepage of the MiSTAR application provides you with five options: **Electronic Data Deliverables, UIC Wellbores, Documents, AOR EDD,** and **Well Notifications**. To access a blank template of the Injection Data EDD, click on the **Submit EDD** button to go to the **EDD Upload** page. You can also navigate to the **Submit EDD** page by selecting this option from the dropdown **MENU** in the upper left-hand corner of the screen.



Download a Blank Template

On the Submit EDD page, select "MI Annular Pressure Test" from the *Type* dropdown. The **Download Template** link will appear to the right of the *Type* dropdown box. Click on this link to download a blank version of the EDD template. There is also an option to skip the EDD template and open a blank EDD record and fill in the information on the **EDD Overview** page. To do this select the **Fill Out Form** button in the lower right-hand corner of the **Submit EDD** page.

Submit EDD

CERTIFICATION: In uploading this information, I affirm that I am authorized by the operator and that this information was prepared under my supervision and direction. The facts stated herein are true, accurate and complete to the best of my knowledge and I am aware that there are significant penalties for submitting false information.

To upload a file, please follow these steps:

1. Select the desired Type
2. Download the template and fill out, if needed. This application will accept the template in the following file formats: .xlsx, .csv
3. Browse to the filled out template you wish to upload
4. Click the 'Upload EDD File' button

To continue without uploading a file, fill out the form and click the 'Fill Out Form' button.

Type *

MI Annular Pressure Test v1.0 | Download Template

Operator Name *

Select Organization...

Description *

Upload EDD File -- OR -- Fill Out Form

The downloaded blank template for the Annular Pressure Test document is shown below. This template has two tabs at the bottom- one for data entry and one for validation criteria. The validation criteria explain which fields are required, what data type each field should be, and if only certain options are allowed.

	A	B	C
1	**Annular Pressure Test**		
2	Operator Name		
3	Operator Number		
4	14-digit API Number		
5	Well Name & Number		
6	UIC Well Type		
7	Date of Test (MM/DD/YYYY)		
8	Casing Diameter (decimal inches)		
9	Tubing Diameter (decimal inches)		
10	Gauge Serial Number		
11	Type of Pressure Gauge		
12	Pressure Gauge Comment		
13	Gauge Inch Face		
14	Gauge PSI Range		
15	Gauge PSI Increments		
16	New Gauge		
17	Calibration Date (MM/DD/YYYY)		
18	Is Calibration Certification Submitted?		
19	Packer Type/Model		
20	Packer Depth (MD ft)		
21	Top of Permitted Injection Zone (MD ft)		
22	Is Packer set at depth compliant with		
23	Packer Notes- has justification been submitted?		
24	Fluid Return (gallons)		

EDD | Validation Criteria

Data Validation Rules

When an EDD file is uploaded, the application will perform validation checks against both the header data information and all corresponding detail data records. This validation check also runs when you click the Save Button. For the Annular Pressure Test EDD the validation rules are as follows:

	Required?	Validation Criteria
Annular Pressure Test		
Operator Name	Yes	Official operator name with EGLE.
Operator Number	Yes	EGLE Operator Number. Must match operator uploading document.
14-digit API Number	Yes	Must be 14-digit number, must belong to company listed in header, and must be listed as a Class II well in the OGMD database. If this field shows an error indicating it is not Class II and you believe it should be, please contact the OGMD.
Well Name & Number	Auto	Well Name & Number from OGMD Permit. Field is auto populated based on the API Number when the file is uploaded to the MiSTAR application.
UIC Well Type	Auto	This field is auto populated based on the API number field when the file is uploaded to the MiSTAR application.
Date of Test	Yes	Format should be MM/DD/YYYY.
Casing Diameter	Yes	Must be numeric, can include decimal. Use decimal inches.
Tubing Diameter	Yes	Must be numeric, can include decimal. Use decimal inches.
Gauge Serial Number	Yes	Provide serial number of gauge used for measurements.
Type of Pressure Gauge	Yes	Valid values: “Analog” or “Digital”
Pressure Gauge Comment	No	Provide gauge brand and any other relevant information.
Gauge Inch Face	Yes	Must be numeric, can include decimal; use zero for digital gauge.
Gauge PSI Range	Yes	Should be a numeric range. Use psi.
Gauge PSI Increments	Yes	Must be an integer. Use psi.
New Gauge?	Yes	Must be Yes or No.
Calibration Date	Conditional	Field is required for gauges that are not new. Field is recommended for new gauges. Format should be MM/DD/YYYY.
Is Calibration Certification Submitted?	Yes	Must be Yes or No.
Packer Type/Model	Yes	Describe the packer type and model.
Packer Depth (MD ft)	Yes	Must be an integer. Use MD ft.
Top of Permitted Injection Zone (MD ft)	Yes	Must be an integer. Use MD ft.
Is Packer set at depth compliant with R324.804(2)?	Yes	Must be Yes or No.
Packer Notes- has justification been submitted?	Conditional	Must be Yes or No. Field is required if previous question =No.
Fluid Return (gallons)	Yes	Must be numeric, can include decimal. Use Gallons.
Purpose of Test	Yes	Valid values: 5-Year Test, After Rework, New Permitted Well, Other
Max Allowable Pressure Change	Yes	Must be numeric, can include decimal. Use PSIG.
Test Period Pressure Change	Yes	Must be numeric, can include decimal. Use PSIG.
Duration of Test (Min)	Yes	Must be an integer. Use minutes.
Test Result	Yes	Valid Values: Pass or Fail.
Was test witnessed by an EGLE representative?	Yes	Must be Yes or No.
Name of EGLE Representative	Conditional	Field required if test witness by EGLE representative is “Yes”
Comments	No	

Pressure Readings		
Time (Military Time)	Yes	Time should be in military time with the format HH:MM.
Annulus Pressure	Yes	Must be numeric, can include decimal. Use PSIG.
Tubing Pressure	Yes	Must be numeric, can include decimal. Use PSIG.

Filling Out Header Record

The header portion of the report form is the data in the top (blue) part of the EDD. This section includes most of the fields originally found on the Annular Pressure Test document (EQP 7606). If any auto populated fields seem incorrect after you have uploaded the document to the MiSTAR application, please contact OGMD at EGLE-OGMD-UIC@michigan.gov.

	Explanation
Annular Pressure Test	
Operator Name	Official operator name with EGLE.
Operator Number	EGLE Operator Number.
14-digit API Number	14-digit API number. If this field shows an error indicating it is not Class II and you believe it should be please contact the OGMD UIC Coordinator.
Well Name & Number	This field is auto populated based on the API number field when the file is uploaded to the MiSTAR application.
UIC Well Type	This field is auto populated based on the API number field when the file is uploaded to the MiSTAR application.
Date of Test (MM/DD/YYYY)	Date test was run.
Casing Diameter (decimal inches)	Diameter of well casing in decimal inches.
Tubing Diameter (decimal inches)	Diameter of tubing in decimal inches.
Gauge Serial Number	Provide serial number of gauge used for measurements.
Type of Pressure Gauge	Type of pressure gauge used; should be either “Analog” or “Digital”
Pressure Gauge Comment	Provide gauge brand and any other relevant information.
Gauge Inch Face	Gauge face diameter in inches; use zero for digital gauge.
Gauge PSI Range	Range of PSI gauge can measure. For example: 0-500.
Gauge PSI Increments	Increments of PSI gauge can measure. For example: 5 (psi).
New Gauge?	Indicate if this is a new pressure gauge.
Calibration Date (MM/DD/YYYY)	The most recent calibration date for the pressure gauge. Field is not required but requested to be filled for new gauges as well.
Is Calibration Certification Submitted?	Indicate if a calibration certification has been submitted for the gauge.
Packer Type/Model	Give type and model of packer being used.
Packer Depth (MD ft)	Depth of the packer at time of testing in MD ft.
Top of Permitted Injection Zone (MD ft)	Depth to top of the permitted injection zone in MD ft.
Is Packer set at depth compliant with R324.804(2)?	Indicate if Packer is set within 100ft of the base of injection casing or within 100ft of the top perforation of injection interval. If not- justification is required.
Packer Notes- has justification been submitted?	Justification is required if the packer is more than 100 feet above the top of the injection zone or more than 100 ft above top perforation of injection interval.
Fluid Return (gallons)	How many gallons of fluid was returned.
Purpose of Test	Indicate reason test is being conducted. See validation chart for valid values.
Max Allowable Pressure Change	Max allowable pressure change for the well is 5%: Initial Pressure x 0.05 psi
Test Period Pressure Change	Pressure change in psig measured during test.

Duration of Test (Min)	How many minutes test lasted.
Test Result	Did test pass or fail?
Was test witnessed by an EGLE representative?	Indicate if an EGLE representative witnessed test.
Name of EGLE Representative	If above field is yes, give name of EGLE representative.
Comments	Describe any issues encountered during the test.

Filling Out Data Records

The data record portion of the report form is the records from the bottom (green) part of the EDD. The data in this portion of the report includes the individual measurements of the test.

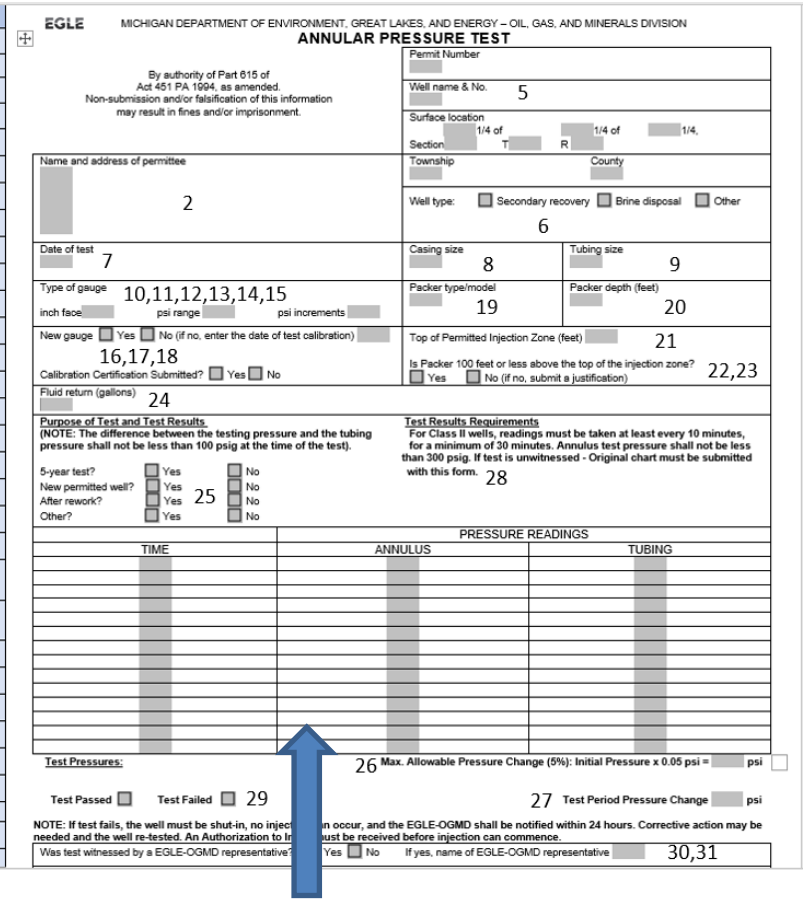
Explanation	
Data Table—For class II wells, readings must be taken at least every 10 minutes, for a minimum of 30 minutes. Annulus test pressure shall not be less than 300 psig.	
Time (Military Time)	For each pressure measurement give the time of measurement in military time.
Annulus Pressure	For each pressure measurement give the annulus pressure in psig.
Tubing Pressure	For each pressure measurement give the tubing pressure in psig.

Below is an example of a test with four measurements taken over a 30-minute interval.

Pressure Readings		
HH:MM	*psig*	*psig*
Time (Military Time)	**Annulus Pressure**	**Tubing Pressure**
09:43	355	24.9
09:53	355	24.8
10:03	354	24.1
10:13	353	23.6

Data Field Descriptions by Number- Form to EDD

1	Annular Pressure Test	
2	Operator Name	
3	Operator Number	
4	14-digit API Number	
5	Well Name & Number	
6	UIC Well Type	
7	Date of Test (MM/DD/YYYY)	
8	Casing Diameter (decimal inches)	
9	Tubing Diameter (decimal inches)	
10	Gauge Serial Number	
11	Type of Pressure Gauge	
12	Pressure Gauge Comment	
13	Gauge Inch Face	
14	Gauge PSI Range	
15	Gauge PSI Increments	
16	New Gauge	
17	Calibration Date (MM/DD/YYYY)	
18	Is Calibration Certification Submitted?	
19	Packer Type/Model	
20	Packer Depth (MD ft)	
21	Top of Permitted Injection Zone (MD ft)	
22	Is Packer set at depth compliant with R324.804(2)?	
23	Packer Notes- has justification been submitted?	
24	Fluid Return (gallons)	
25	Purpose of Test	
26	Max Allowable Pressure Change	
27	Test Period Pressure Change	
28	Duration of Test (Min)	
29	Test Result	
30	Was test witnessed by an EGLE representative?	
31	Name of EGLE Representative	
32	Comments	


EGLE MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY – OIL, GAS, AND MINERALS DIVISION

ANNULAR PRESSURE TEST

By authority of Part 615 of Act 451 PA 1994, as amended. Non-submission and/or falsification of this information may result in fines and/or imprisonment.

Permit Number

Well name & No. 5

Surface location 1/4 of 1/4 of 1/4, Section T R

Name and address of permittee 2

Township County

Well type: Secondary recovery Brine disposal Other 6

Date of test 7

Casing size 8

Tubing size 9

Type of gauge 10,11,12,13,14,15 inch face psi range psi increments

Packer type/model 19

Packer depth (feet) 20

New gauge Yes No (if no, enter the date of test calibration) 16,17,18

Calibration Certification Submitted? Yes No

Top of Permitted Injection Zone (feet) 21

Is Packer 100 feet or less above the top of the injection zone? Yes No (if no, submit a justification) 22,23

Fluid return (gallons) 24

Purpose of Test and Test Results. (NOTE: The difference between the testing pressure and the tubing pressure shall not be less than 100 psig at the time of the test).

5-year test? Yes No
New permitted well? Yes No
After rework? Yes No
Other? Yes No
25

Test Results Requirements. For Class II wells, readings must be taken at least every 10 minutes, for a minimum of 30 minutes. Annulus test pressure shall not be less than 300 psig. If test is unwitnessed - Original chart must be submitted with this form. 28

	PRESSURE READINGS	
TIME	ANNULUS	TUBING

Test Pressures: 26 Max. Allowable Pressure Change (5%): Initial Pressure x 0.05 psi = psi

Test Passed Test Failed 29

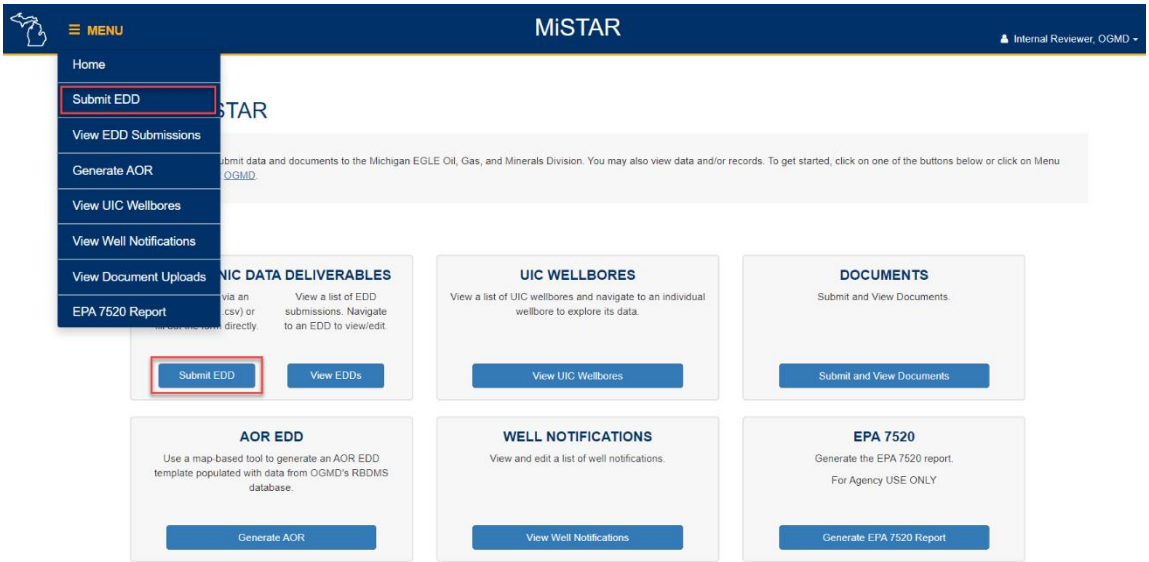
27 Test Period Pressure Change psi

NOTE: If test fails, the well must be shut-in, no injection occur, and the EGLE-OGMD shall be notified within 24 hours. Corrective action may be needed and the well re-tested. An Authorization to Inject must be received before injection can commence.

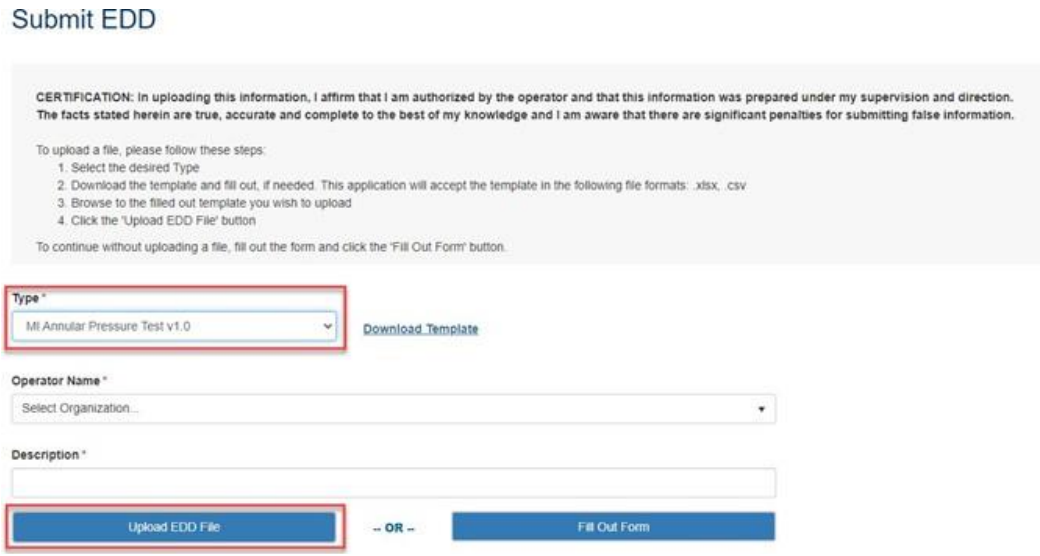
Was test witnessed by a EGLE-OGMD representative? Yes No If yes, name of EGLE-OGMD representative 30,31

Pressure Readings		
HH:MM	*psig*	*psig*
Time (Military Time)	**Annulus Pressure**	**Tubing Pressure**
09:43	355	24.9
09:53	355	24.8
10:03	354	24.1
10:13	353	23.6

Upload The Completed Annular Pressure Test EDD

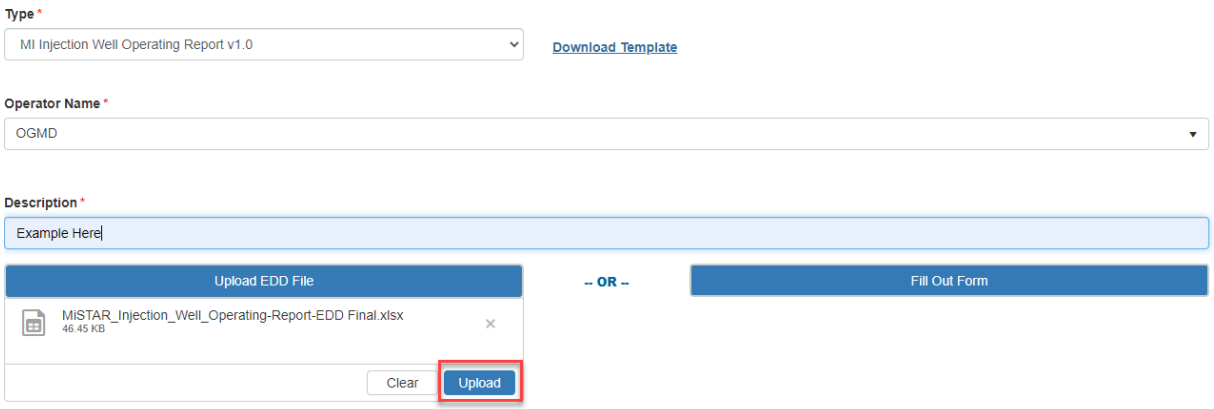


1. Navigate to the **Submit EDD** page (see the EDD Upload Tool Instructions document for more detailed instructions). Select "MI Annular Pressure Test" from the *Type* dropdown. Select the *Operator Name* from the dropdown and fill out the *Description* field. These fields are required. The *Description* field can be helpful in distinguishing between records on the **View EDD Submissions** page- while there is no specific information required in the field, OGMD suggests you enter something that allows the submitter to distinguish between uploaded files. An operator should not use this field to provide any regulatory information to OGMD. Once the fields are all complete click the **Upload EDD File** button and navigate to and select the completed Annular Pressure Test file.

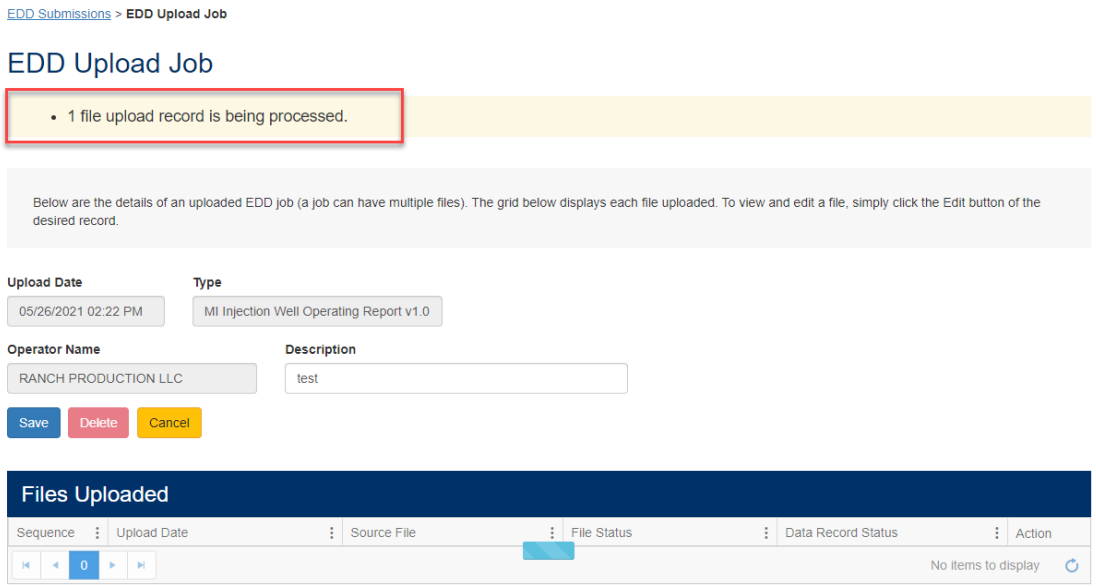


2. Click the **Upload** button once you have selected the file you wish to upload. If you accidentally attempt to upload a file of a different type than the one selected in the *Type* dropdown you will receive an error.

NOTE: By selecting the Upload button you are agreeing to the CERTIFICATION statement at the top of the Submit EDD page.

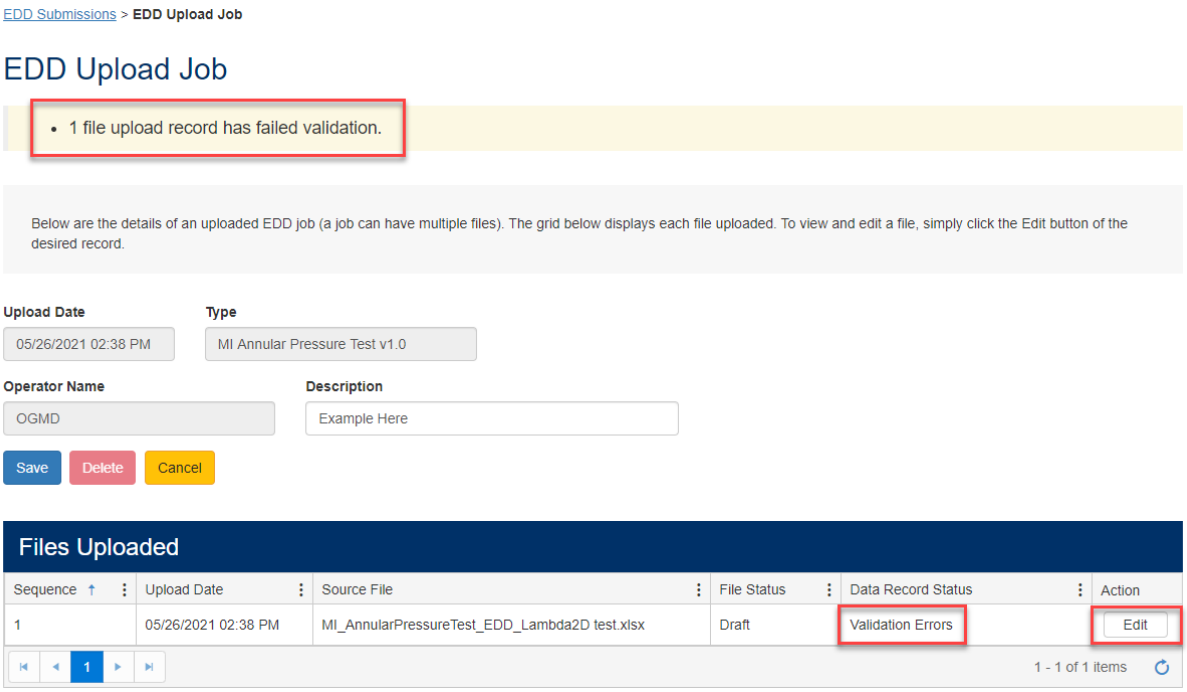


3. After the file has uploaded the application will take you to the **EDD Upload Job** page. You may see a message at the top of the screen indicating that the EDD is processing. Depending on the number of records and corresponding validation criteria, processing time may vary from a few seconds to a minute or two. Processing occurs in the background, so you may navigate to other pages or close the application without impacting processing.



4. If the program finds fields which do not meet the validation criteria during the upload it will display this result showing a status of “Validation Errors” and a notice at the top of the screen

that the file failed validation. You can then click the **Edit** button under Action to see the details of the validation error and edit the record.



5. Continue the process of editing and submitting the record for approval on the **EDD Overview** page. For further instructions on this process see the documentation section on the EDD Upload Tool-Basic Instructions.

MiSTAR Quarterly Annulus Fill EDD

The MiSTAR Quarterly Annulus Fill EDD is a specific type of EDD designed to allow for the digital submission of Quarterly Annulus fill data by Operators. It allows for quarterly submission of multiple wells on a single report - referred to as a bulk submission.

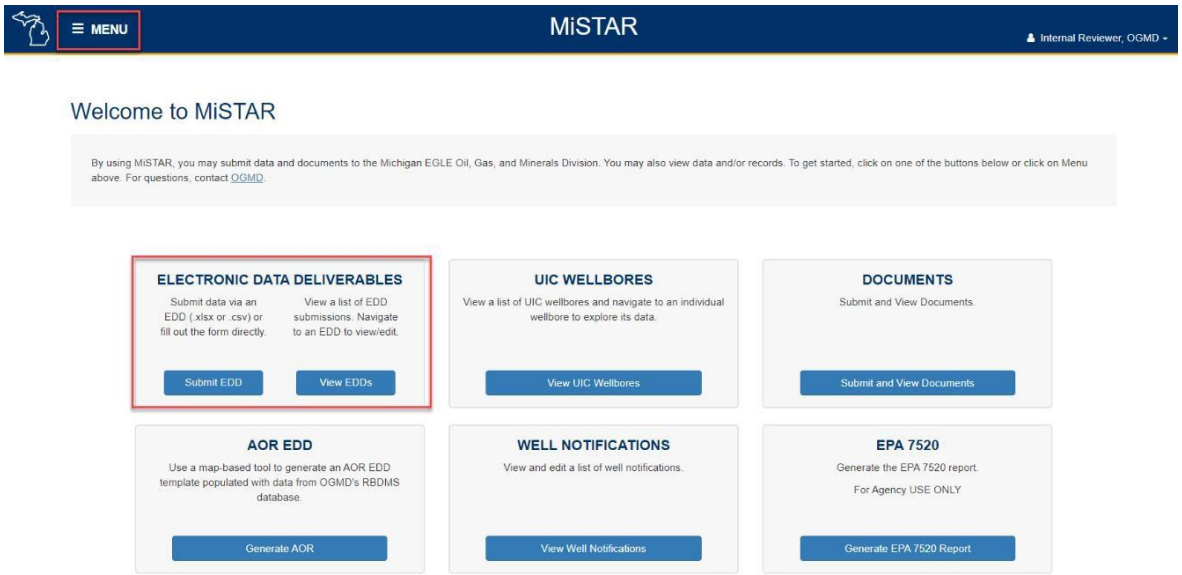
Section Table of Contents

- Get Started
  - Navigation
  - Download a blank template
- Data Validation Rules
- Filling out Header Record Info
- Filling out Data Record Info
- Upload Form

Get Started

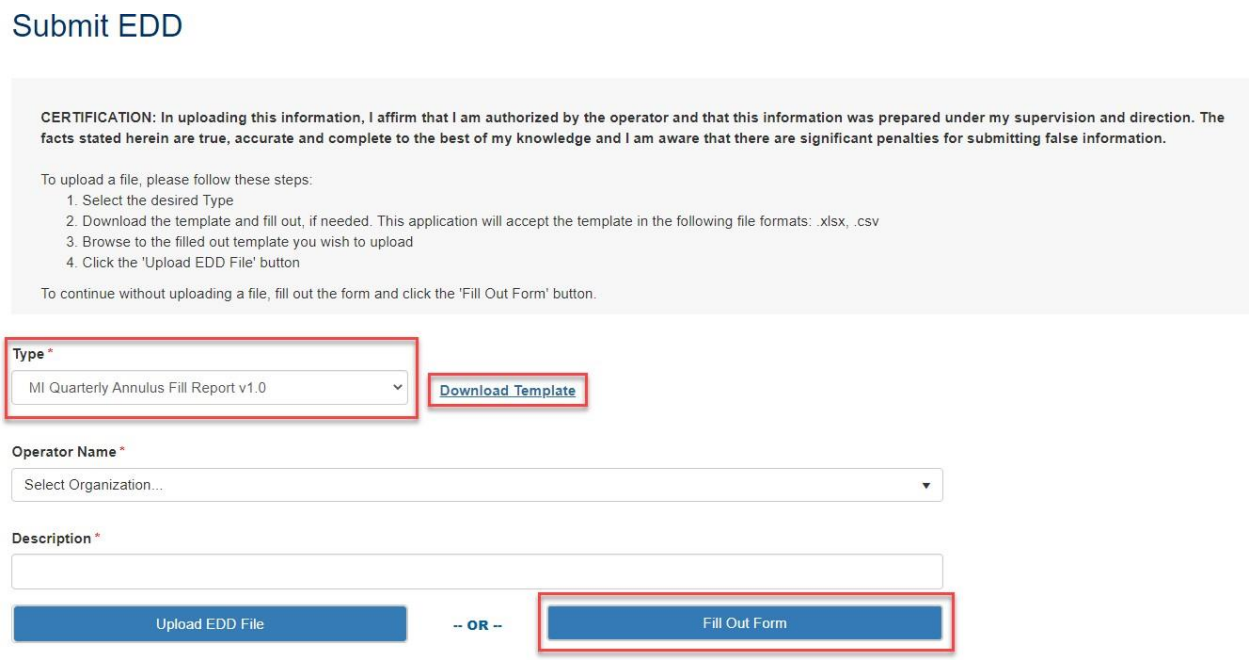
Navigation

The homepage of the MiSTAR application provides you with five options: **Electronic Data Deliverables, UIC Wellbores, Documents, AOR EDD,** and **Well Notifications**. To access a blanktemplate of the Injection Data EDD, click on the **Submit EDD** button to go to the **EDD Upload** page. You can also navigate to the **Submit EDD** page by selecting this option from the dropdown **MENU** inthe upper left-hand corner of the screen.



Download a Blank Template

On the Submit EDD page, select "MI Quarterly Annulus Fill Report" from the *Type* dropdown. The **Download Template** link will appear to the right of the *Type* dropdown box. Click on this link to download a blank version of the EDD template. There is also an option to skip the EDD template and open a blank EDD record and fill in the information on the **EDD Overview** page. To do this, select the **Fill Out Form** button in the lower right-hand corner of the **Submit EDD** page.



The downloaded blank template for the Quarterly Annulus Report is shown below. This template has two tabs at the bottom- one for data entry and one for validation criteria. The validation criteria explain which fields are required, what data type each field should be, and if only certain options are allowed.

Quarterly Annulus Fill Report				
Operator Name				
Operator Number				
Report Period (Quarter)				
Report Period (Year)				
Revised Records?				
Measurements				
14 digit API number	*Well Name & Number from EGLE-OGMD Permit*	*Report numeric value for the quarter*	*MM/DD/YYYY*	*Describe any additional information*
14-digit API Number	**Well Name & Number**	**Amount of Liquid Added to Annulus (Gallons)**	**Date Quarterly Annulus Liquid Checked**	**Comments**

Data Validation Rules

When an EDD file is uploaded, the application will perform validation checks against both the header data information and all corresponding detail data records. This validation check also runs when you click the **Save** Button. For the Quarterly Annulus EDD the validation rules are as follows:

	Required?	Validation Criteria
Quarterly Annulus Fill Report		
Operator Name	Yes	Official operator name with EGLE
Operator Number	Yes	EGLE Operator Number. Must match operator uploading document.
Report Period (Quarter)	Yes	Must be 1st, 2nd, 3rd, or 4th
Report Period (Year)	Yes	Format should be YYYY.
Revised Records?	Yes	Must be "Yes" or "No"
Measurements		
14-digit API Number	Yes	Must be 14-digit number, must belong to company listed in header, and must be listed as a Class II well in the OGMD database. If this field shows an error indicating it is not Class II and you believe it should be please contact the OGMD UIC Coordinator.
Well Name & Number	Auto	This field is auto populated based on the API number field when the file is uploaded to the MiSTAR application.
Amount of Liquid Added to Annulus (Gallons)	Yes	Field is required and may be a decimal.
Date Quarterly Annulus Liquid Checked	Yes	Must be a date in the MM/DD/YYYY format.
Comments	No	

Filling Out Header Record

The header portion of the report form is the data in the top (blue) part of the EDD. Note on revised records - if Revised Records field is "Yes" and the revised records are accepted by the EGLE-OGMD and migrated to the database, these revised records will overwrite the previously submitted records.

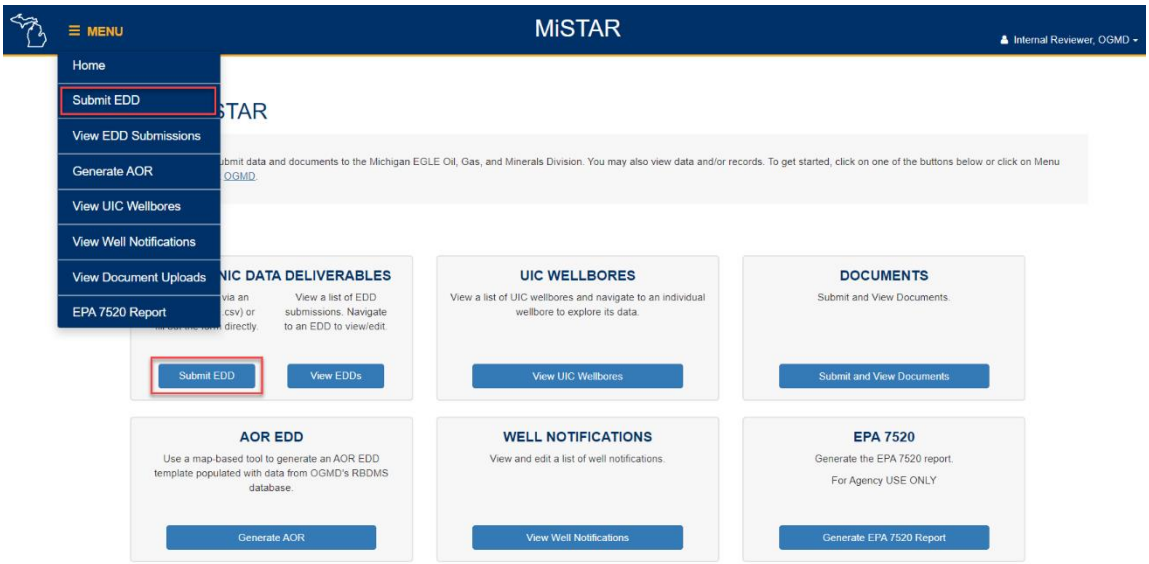
	Explanation
Injection Well Operating Report	
Operator Name	Official operator name with EGLE.
Operator Number	EGLE Operator Number.
Report Period (Quarter)	Indicate which quarter report is for- 1st, 2nd, 3rd, or 4th
Report Period (Year)	Indicate which year report is for.
Revised Records?	Must be "Yes" or "No"- This indicates if the data in the green portion of the report is a revised version of data previously submitted.

Filling Out Data Records

The data record portion of the report form is the records from the bottom (green) part of the EDD. Thedata in this portion of the report includes the individual measurements and data for each well. If any auto populated fields are incorrect after you have uploaded the document to the MiSTAR application, please contact OGMD at EGLE-OGMD-UIC@michigan.gov.

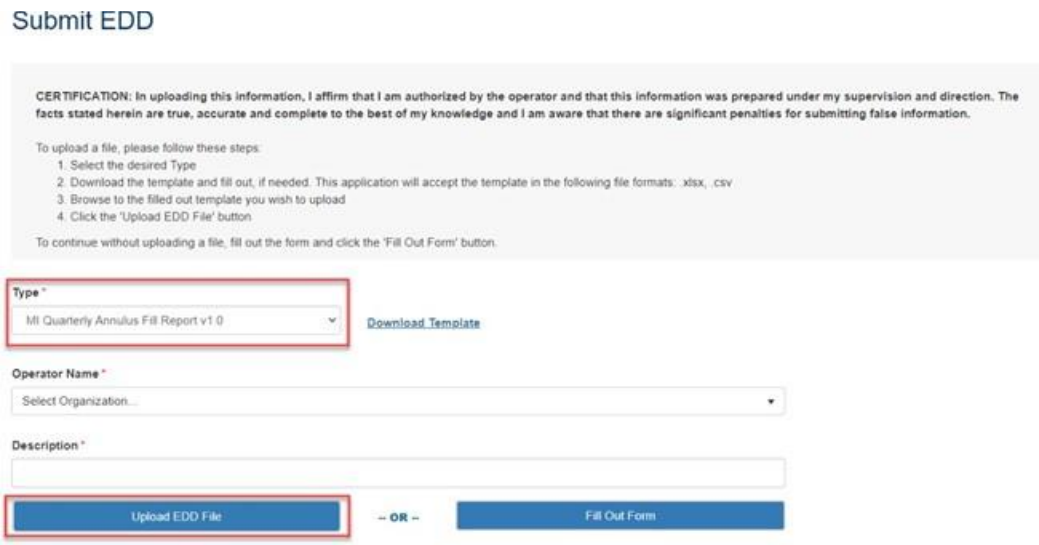
	Explanation
Data Table	
14-digit API Number	14-digit API number. If this field shows an error indicating it is not Class II and you believe it should be please contact the OGMD.
Well Name & Number	This field is auto populated based on the API number field when the file is uploaded to the MiSTAR application.
Amount of Liquid Added to Annulus (Gallons)	Indicate the amount in gallons of liquid added to the annulus.
Date Quarterly Annulus Liquid Checked	Indicate the date the annulus fluid was checked.
Comments	Describe any additional pertinent information.

Upload Completed Quarterly Annulus EDD



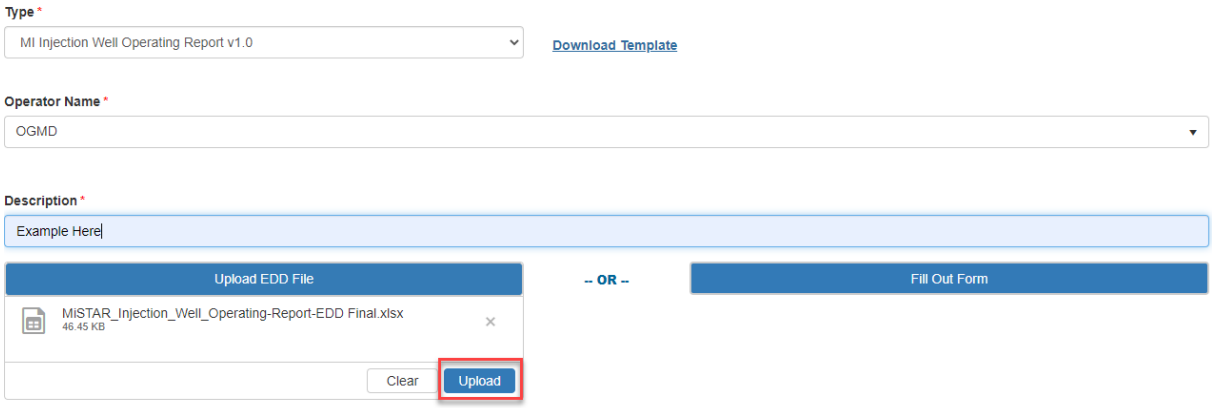
1. Navigate to the **Submit EDD** page (see the EDD Upload Tool Instructions document for more detailed instructions). Select "MI Quarterly Annulus Fill Report" from the *Type* dropdown. Select the *Operator Name* from the dropdown and fill out the *Description* field. These fields are

required. The *Description* field can be helpful in distinguishing between records on the **View EDD Submissions** page- while there is no specific information required in the field, OGMD suggests you enter something that allows the submitter to distinguish between uploaded files. An operator should not use this field to provide any regulatory information to OGMD. Once the fields are all complete click the **Upload EDD File** button and navigate to and select the completed Quarterly Annulus Fill EDD file.



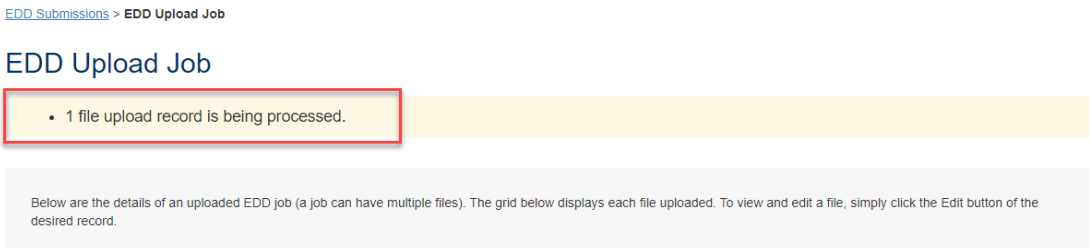
2. Click the **Upload** button once you have selected the file you wish to upload. If you accidentally attempt to upload a file of a different type than the one selected in the *Type* dropdown you will receive an error.

NOTE: By selecting the Upload button you are agreeing to the CERTIFICATION statement at the top of the Submit EDD page.

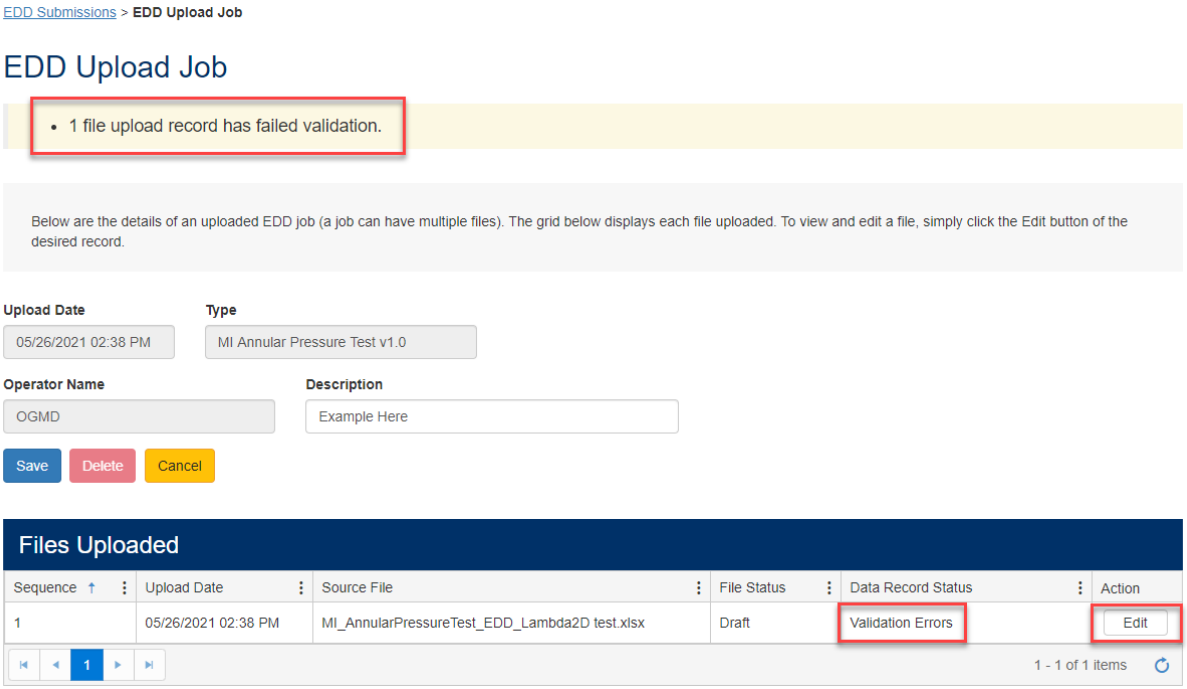


3. After the file has uploaded the application will take you to the **EDD Upload Job** page. You may see a message at the top of the screen indicating that the EDD is processing. Depending on the

number of records and corresponding validation criteria, processing time may vary from a few seconds to a minute or two. Processing occurs in the background, so you may navigate to other pages or close the application without impacting processing.



4. If the program finds fields which do not meet the validation criteria during the upload it will display this result showing a status of "Validation Errors" and a notice at the top of the screen that the file failed validation. You can then click the **Edit** button under Action to see the details of the validation error and edit the record.



5. Continue the process of editing and submitting the record for approval on the **EDD Overview** page. For further instructions on this process see the documentation section on the EDD Upload Tool-Basic Instructions.

MiSTAR Well Notification EDD

The MiSTAR Well Notification EDD is for the digital submission of certain required notifications to OGMD by Operators. The Well Notification EDD allows multiple wells and multiple notices to be reported per EDD. Current notifications include the Notification of Loss of Mechanical Integrity (Rule 324.811 (1) and (2)) and the Notification of Mechanical Integrity Testing (Rule 324.806 (2) and 808 (2)).

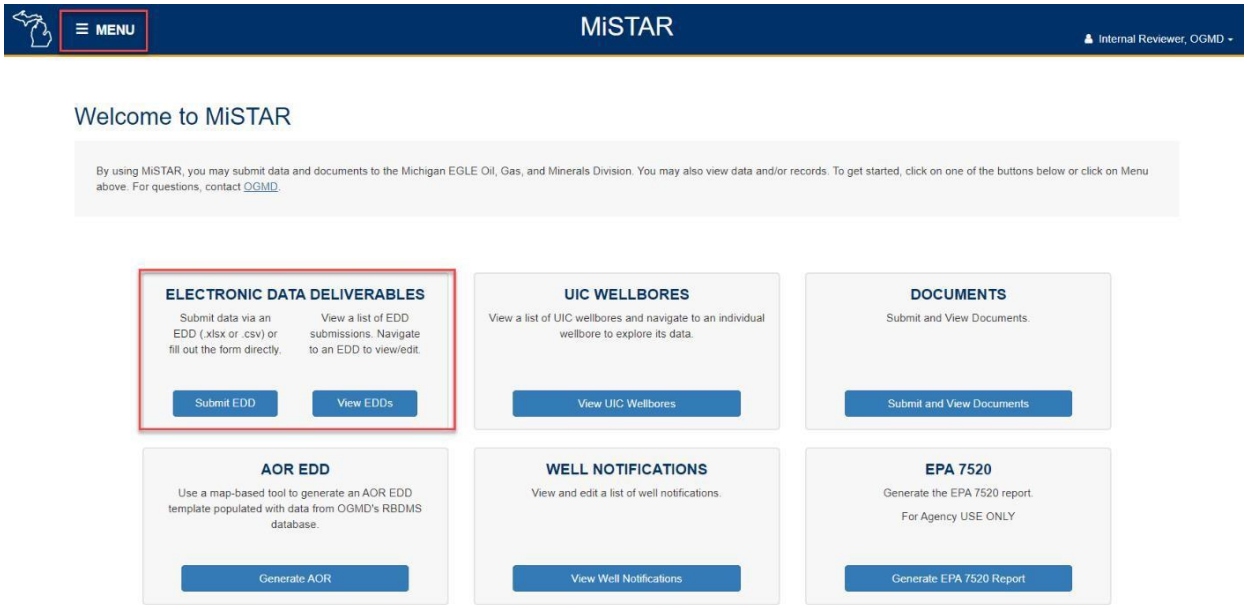
Note: The Well Notification template requires County Name and Township Name to be manually entered by the user. However, if the user enters an incorrect County/Township Name, MiSTAR will not display a validation error. On the Well Notification page the displayed County/Township names are generated from the database based on the API Number instead of utilizing the submitted EDD values. The user should check to determine the Names are the intended County/Township Names following the acceptance of this template.

Section Table of Contents

- Navigation
- Download a blank template
- Data Validation Rules
- Filling out Header Record Info
- Filling out Data Record Info
- Upload Form

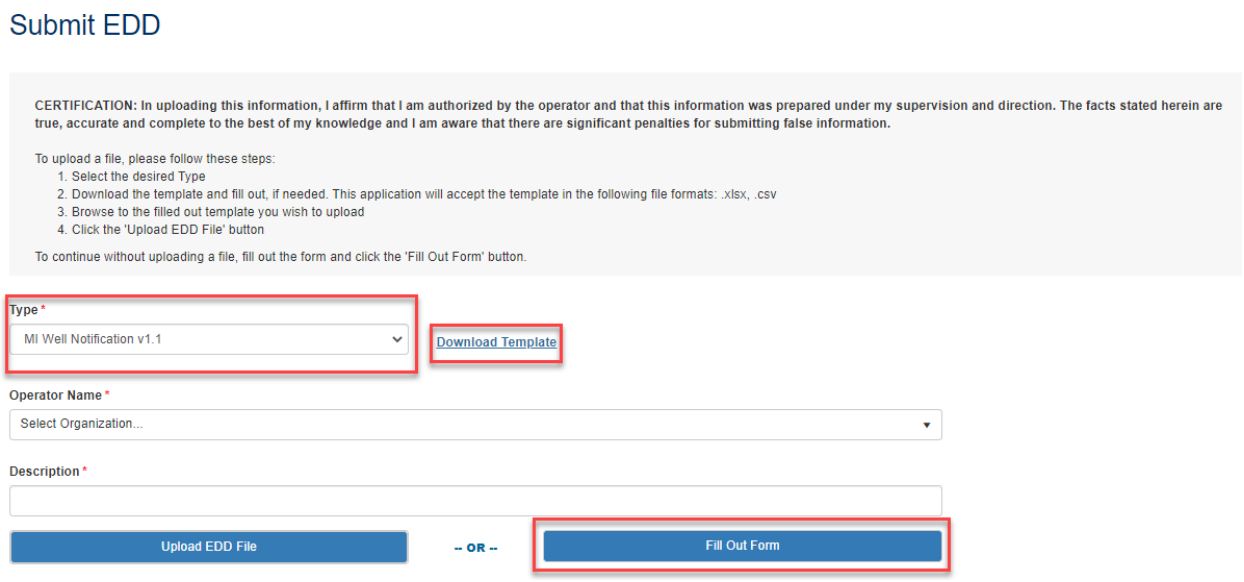
Navigation

The homepage of the MiSTAR application provides you with five options: **Electronic Data Deliverables, UIC Wellbores, Documents, AOR EDD,** and **Well Notifications**. To access a blank template of the Injection Data EDD, click on the **Submit EDD** button to go to the **EDD Upload** page. You can also navigate to the **Submit EDD** page by selecting this option from the dropdown **MENU** in the upper left-hand corner of the screen.

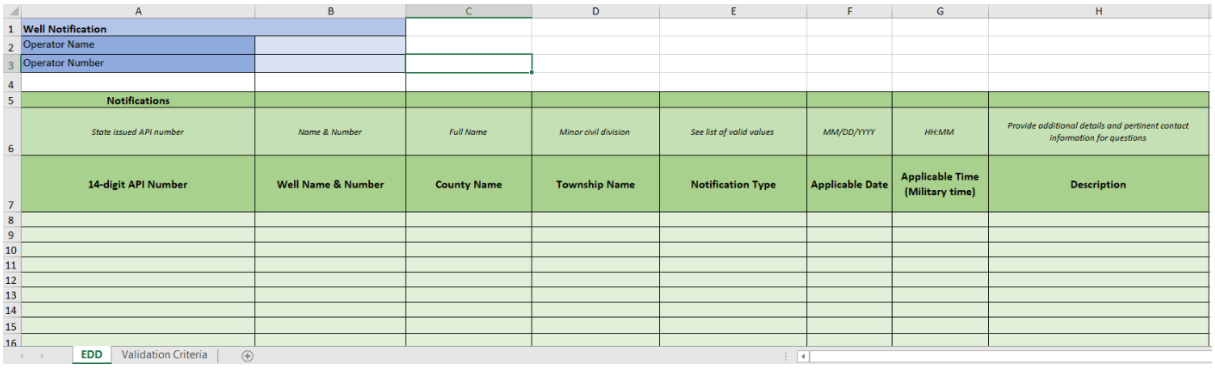


Download a Blank Template

On the Submit EDD page, select "MI Well Notification" from the *Type* dropdown. The **Download Template** link will appear to the right of the *Type* dropdown box. Click on this link to download a blank version of the EDD template. There is also an option to skip the EDD template and open a blank EDD record and fill in the information on the **EDD Overview** page. To do this select the **Fill Out Form** button in the lower right-hand corner of the **Submit EDD** page.



The downloaded blank template for the Well Notification EDD is shown below. This template has two tabs at the bottom- one for data entry and one for validation criteria. The validation criteria explain which fields are required, what data type each field should be and if only certain options are allowed.



	A	B	C	D	E	F	G	H
1	Well Notification							
2	Operator Name							
3	Operator Number							
4								
5	Notifications							
6	*State issued API number*	*Name & Number*	*Full Name*	*Minor civil division*	*See list of valid values*	*MM/DD/YYYY*	*HH:MM*	*Provide additional details and pertinent contact information for questions*
7	14-digit API Number	Well Name & Number	County Name	Township Name	Notification Type	Applicable Date	Applicable Time (Military time)	Description
8								
9								
10								
11								
12								
13								
14								
15								
16								

EDD | Validation Criteria

Data Validation Rules

When an EDD file is uploaded, the application will perform validation against both the header data information and all corresponding detail data records. This validation check also runs when you click the **Save** Button. For the Well Notification EDD the validation rules are as follows:

	Required	Validation Criteria
Well Notification		
Operator Name	Yes	Official operator name with EGLE.
Operator Number	Yes	EGLE Operator Number. Must match operator uploading document.

Data Table	Required	Validation Criteria
14-digit API Number	Yes	Must be 14-digit number, must belong to company listed in header, and must be listed as a Class II well in the OGMD database. If this field shows an error indicating it is not Class II and you believe it should be please contact the OGMD UIC coordinator.
Well Name & Number	Auto	This field is auto populated based on the API number field when the file is uploaded to the MiSTAR application.
County Name	Yes	
Township Name	Yes	
Notification Type	Yes	Valid values: "Notice of MIT Scheduled" or "Notice of Loss of Mechanical Integrity"
Applicable Date	Yes	Format should be MM/DD/YYYY.
Applicable Time	No	Format should be HH:MM in military time.
Description	No	Provide additional details and pertinent contact information for questions.

Filling Out Header Record

The header portion of the report form is the data in the top (blue) part of the EDD. This section includes operator information for the Well Notification EDD.

	Explanation
Well Notification	
Operator Name	Official operator name with EGLE.
Operator Number	EGLE Operator Number.

Filling Out Data Records

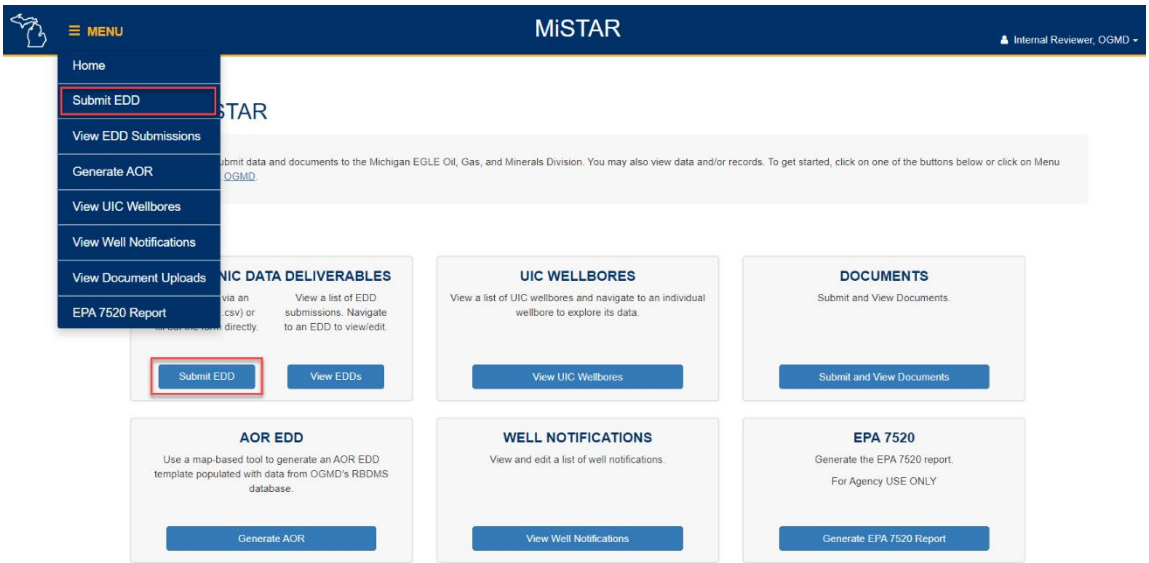
The data record portion of the report form is the bottom (green) part of the EDD. The data in this portion of the report includes the individual notices for each well included in the EDD. If any auto populated fields seem incorrect after you have uploaded the document to the MiSTAR application, please contact OGMD at EGLE-OGMD-UIC@michigan.gov.

	Explanation
Data Table	
14-digit API Number	14-digit API number. If this field shows an error indicating it is not Class II and you believe it should be please contact the OGMD.
Well Name & Number	This field is auto populated based on the API number field when the file is uploaded to the MiSTAR application.
County Name	Full county name for location of well in Notification.
Township Name	Township name for location of well in Notification.
Notification Type	Choose: "Notice of MIT Scheduled" or "Notice of Loss of Mechanical Integrity"
Applicable Date	This date should be the date related to the notice being reported (not the date of submittal).
Applicable Time	This is the time related to the notification being reported (not the time of notification submittal). For instance- for a Notice of MIT Scheduled this field would note the time the MIT is scheduled for.
Description	Provide any additional details and pertinent contact information for questions.

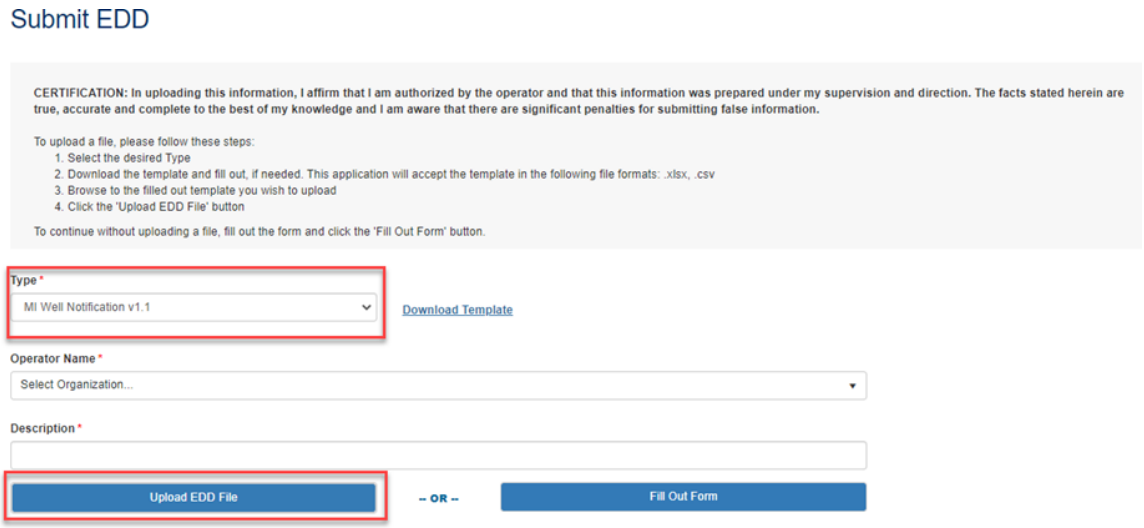
Below is an example of a Well Notification EDD with three notices included- two of which are for the same API.

Well Notification							
Operator Name	Example Here						
Operator Number	1234						
Notifications							
State issued API number	*Name & Number*	*Full Name*	*Minor civil division*	*See list of valid values*	*MM/DD/YYYY*	*HH:MM*	*Provide additional details and pertinent contact information for questions*
14-digit API Number	**Well Name & Number**	**County Name**	**Township Name**	**Notification Type**	**Applicable Date**	**Applicable Time (Military time)**	**Description**
21137000000000	Test Well 1	Otsego	Bagley	Notice of Loss of Mechanical Integrity	11/12/2020	10:59	suspected reason for why MI lost
21137000000000	Test Well 1	Otsego	Bagley	Notice of MIT Scheduled	12/10/2020	18:12	Contact example at (123) 456-7890 for more information.
21137000010000	Test Well 2	Ingham	Aurelius	Notice of MIT Scheduled	4/7/2021	7:30	Contact example at (123) 456-7890 for more information.

Upload The Completed Well Notification EDD

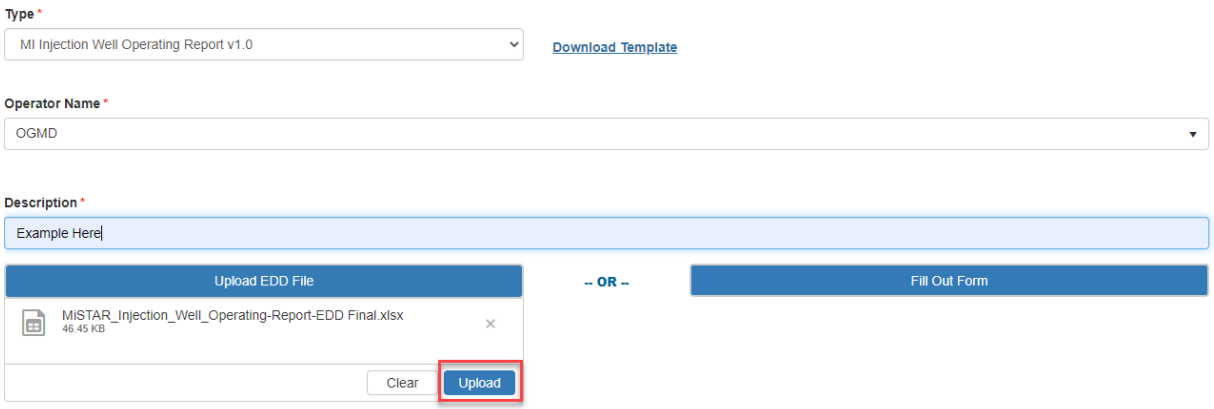


1. Navigate to the **Submit EDD** page (see the EDD Upload Tool Instructions document for more detailed instructions). Select "MI Well Notification" from the *Type* dropdown. Select the *Operator Name* from the dropdown and fill out the *Description* field. These fields are required. The *Description* field can be helpful in distinguishing between records on the **View EDD Submissions** page- while there is no specific information required in the field, OGMD suggests you enter something that allows the submitter to distinguish between uploaded files. An operator should not use this field to provide any regulatory information to OGMD. Once the fields are all complete click the **Upload EDD File** button and navigate to and select the completed Well Notification EDD file.

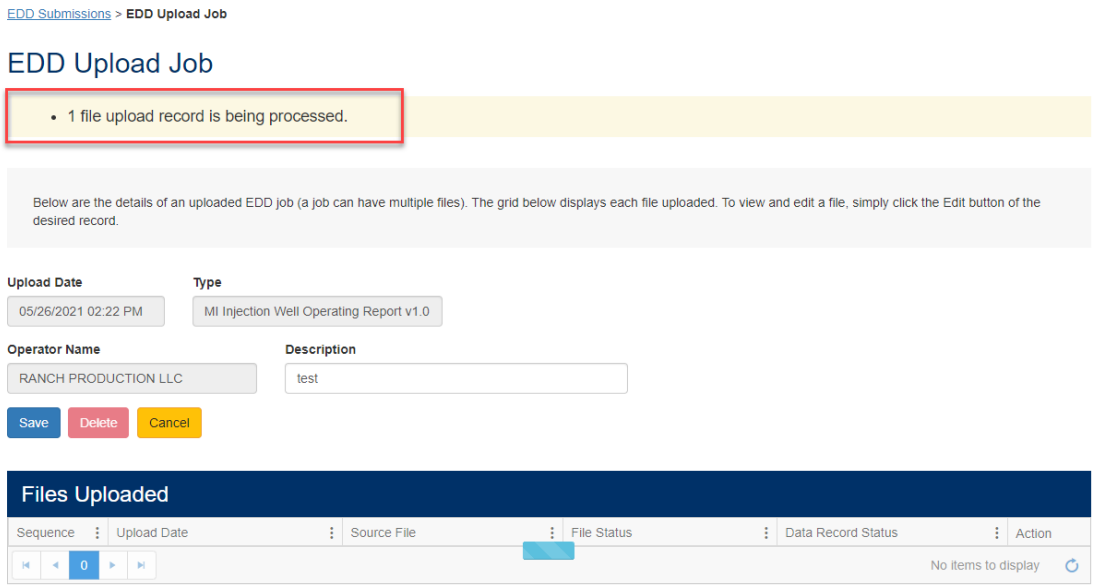


2. Click the **Upload** button once you have selected the file you wish to upload. If you accidentally attempt to upload a file of a different type than the one selected in the *Type* dropdown you will receive an error.

NOTE: By selecting the Upload button you are agreeing to the CERTIFICATION statement at the top of the Submit EDD page.

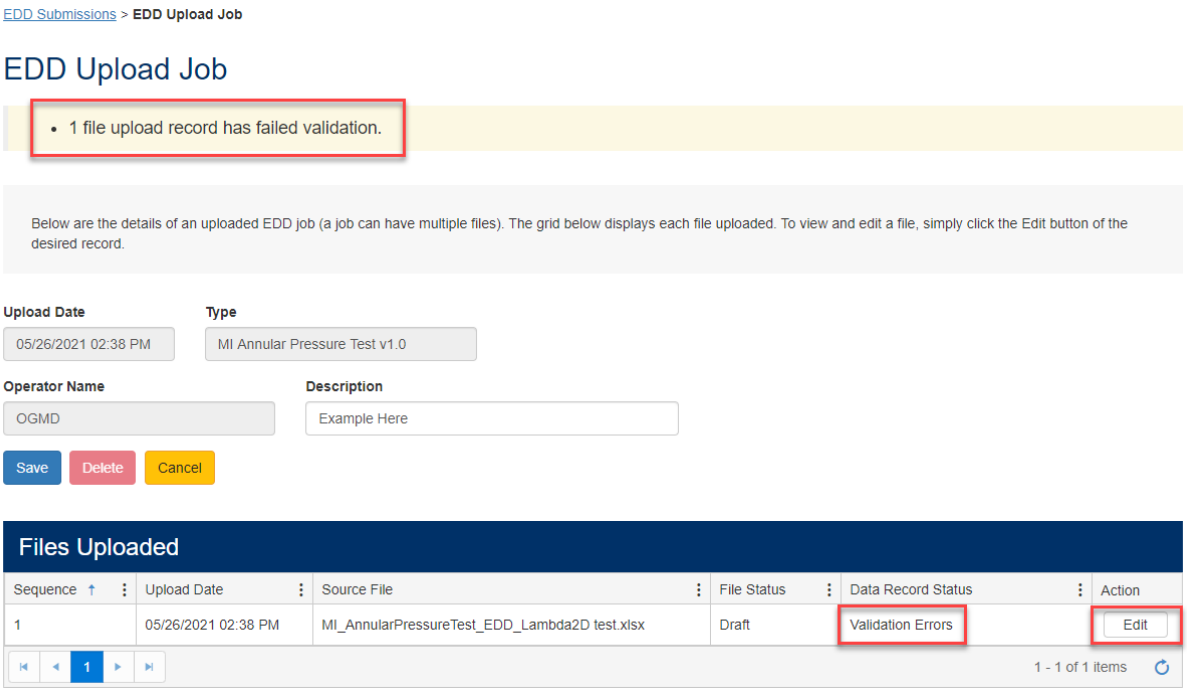


3. After the file has uploaded the application will take you to the **EDD Upload Job** page. You may see a message at the top of the screen indicating that the EDD is processing. Depending on the number of records and corresponding validation criteria, processing time may vary from a few seconds to a minute or two. Processing occurs in the background, so you may navigate to other pages or close the application without impacting processing.



4. If the program finds fields which do not meet the validation criteria during the upload it will display this result showing a status of “Validation Errors” and a notice at the top of the screen

that the file failed validation. You can then click the **Edit** button under Action to see the details of the validation error and edit the record.



5. Continue the process of editing and submitting the record for approval on the EDD Overview page. For further instructions on this process see the documentation section on the EDD Upload Tool-Basic Instructions.

MiSTAR Directional Survey EDD

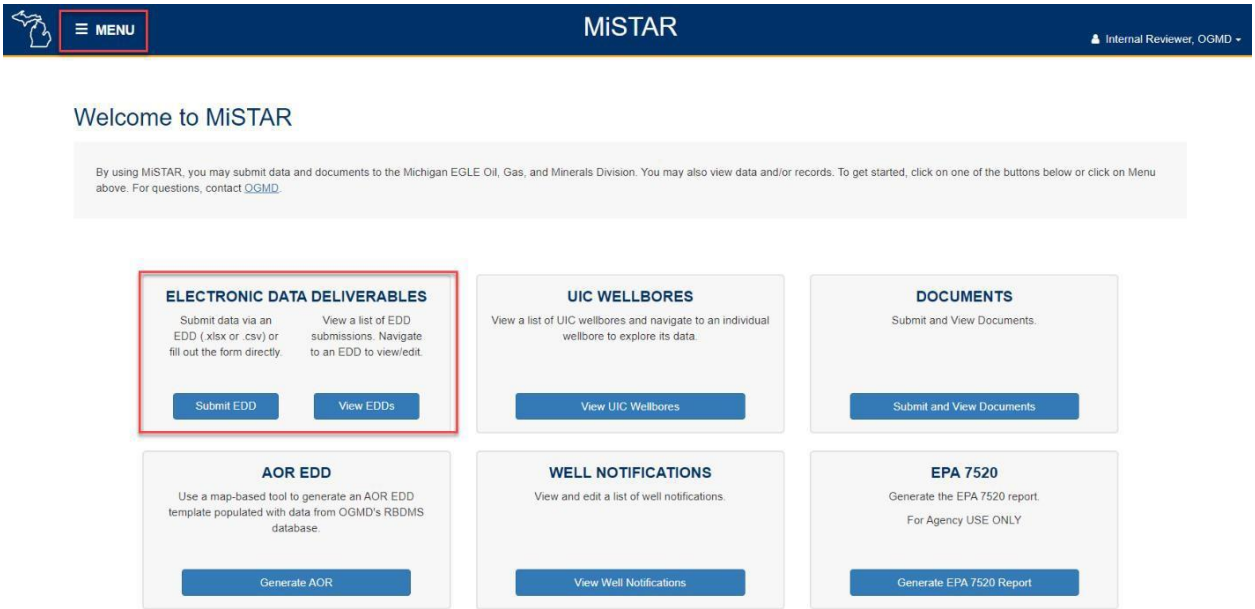
The MiSTAR Directional Survey EDD is for the digital submission of directional survey data to OGMD.This EDD allows for one well survey to be reported per EDD.

Section Table of Contents

- Navigation
- Download a blank template
- Data Validation Rules
- Filling out Header Record Info
- Filling out Data Record Info
- Upload Form

Navigation

The homepage of the MiSTAR application provides you with five options: **Electronic Data Deliverables, UIC Wellbores, Documents, AOR EDD,** and **Well Notifications**. To access a blanktemplate of the Injection Data EDD, click on the **Submit EDD** button to go to the **EDD Upload** page. You can also navigate to the **Submit EDD** page by selecting this option from the dropdown **MENU** inthe upper left-hand corner of the screen.



Download a Blank Template

On the Submit EDD page, select “MI Directional Survey” from the *Type* dropdown. The **Download Template** link will appear to the right of the *Type* dropdown box. Click on this link to download a blank version of the EDD template. There is also an option to skip the EDD template and open a blank EDD record and fill in the information on the **EDD Overview** page. To do this select the button in the lower right-hand corner of the **Submit EDD** page.

Submit EDD

CERTIFICATION: In uploading this information, I affirm that I am authorized by the operator and that this information was prepared under my supervision and direction. The facts stated herein are true, accurate and complete to the best of my knowledge and I am aware that there are significant penalties for submitting false information.

To upload a file, please follow these steps:

1. Select the desired Type
2. Download the template and fill out, if needed. This application will accept the template in the following file formats: .xlsx, .csv
3. Browse to the filled out template you wish to upload
4. Click the 'Upload EDD File' button

To continue without uploading a file, fill out the form and click the 'Fill Out Form' button.

Type *

MI Directional Survey v1.1

Download Template

Operator Name *

Select Organization...

Description *

Upload EDD File -- OR -- Fill Out Form

The downloaded blank template for the Directional Survey EDD is shown below. This template has two tabs at the bottom- one for data entry and one for validation criteria. The validation criteria explain which fields are required, what data type each field should be, and if only certain options are allowed.

Directional Survey Info	
API Number	
Well Name & Number	
Surface Section	
Surface Township	
Surface Township Direction	
Surface Range	
Surface Range Direction	
Operator Number	
Operator Name	
Citing Type	
Directional Survey Company	
Directional Survey Type	
Date of Survey	
Survey Surface Elevation	
Surface Elevation Reference	
Elevation Vertical Datum	
North Reference	
iF Grid Reference	
iF Grid Convergence	
iF Grid Scale Factor	
Surface Latitude	
Surface Longitude	
Surface Lat Long Datum	
Offset TVD Calc Method	
Comment	

Depth in Feet	*Angle in Degrees*	*Deviation from Magnetic North in Degrees*	*True Vertical Depth in Feet*	*Distance in Feet. Positive for North and Negative for South*	*Distance in Feet. Positive for East and Negative for West*	*Horizontal Distance in Feet*	*Degrees per 100FT*	*Comment*
Measured Depth	**Inclination**	**Azimuth**	**True Vertical Depth**	**North/South Offset**	**East/West Offset**	**Vertical Section**	**Build Rate**	**Directional Point Note**

Data Validation Rules

When an EDD file is uploaded, the application will perform validation against both the header data information and all corresponding detail data records. This validation check also runs when you click the **Save** Button. For the Directional Survey EDD the validation rules are as follows:

	Required?	Validation Criteria
Directional Survey Info		
API Number	Yes	Must be 14-digit number, must belong to company uploading document.
Well Name & Number	Yes	Should match OGMD recorded name/number for the above API.
Surface Section	Yes	Must be integer between 1 and 36.
Surface Township	Yes	Must be an integer.
Surface Township Direction	Yes	Must be either N or S.
Surface Range	Yes	Must be an integer.
Surface Range Direction	Yes	Must be either E or W.
Operator Number	Yes	Must match the company uploading document.
Operator Name	Yes	Name for company uploading document.
Citing Type	Yes	Valid values: “Planned”, “AsDrilled”, “Drilling”, or “Deepening”.
Directional Survey Company	No	Name of company who ran directional survey.
Directional Survey Type	Yes	Valid values: “Planned”, “MWD”, “Gyro”, “EMS”, or “Other”.
Date of Survey	Yes	Format should be MM/DD/YYYY.
Survey Surface Elevation	Yes	Must be a number which may be +/- and may have a decimal. NOTE on all data fields of this type: should NOT be written in scientific notation. For example: -1032.25 is a valid number.
Surface Elevation Reference	Yes	Valid values: “Casing Head”, “Derrick Floor”, “Ground Level”, or “Kelly Bushing”
Elevation Vertical Datum	Yes	Valid values: “NAVD 88” or “Mean Sea Level”.
North Reference	Yes	Valid values: True or Grid.
iF Grid Reference	No	Not used for Michigan- leave blank.
iF Grid Convergence	No	Not used for Michigan- leave blank.
iF Grid Scale Factor	No	Not used for Michigan- leave blank.
Surface Latitude	Yes	Must be between Michigan's boundaries (a decimal between 41 and 49); digits beyond the 7th decimal place will be dropped.
Surface Longitude	Yes	Must be between Michigan's boundaries (a decimal between -91 and -82); digits beyond the 7th decimal place will be dropped.
Surface Lat Long Datum	Yes	Valid values: “NAD27”, “NAD83”, or “WGS84”.
Offset TVD Calc Method	No	
Comment	No	
Data Table		
Measured Depth	Yes	Must be a number which may be +/- and may have a decimal.
Inclination	Yes	Must be a number which may be +/- and may have a decimal.
Azimuth	Yes	Must be a number which may be +/- and may have a decimal.
True Vertical Depth	Yes	Must be a number which may be +/- and may have a decimal.
North/South Offset	Yes	Must be a number which may be +/- and may have a decimal.
East/West Offset	Yes	Must be a number which may be +/- and may have a decimal.
Vertical Section	No	Must be a number which may be +/- and may have a decimal.
Build Rate	No	Must be a number which may be +/- and may have a decimal.
Directional Point Note	No	

Filling Out Header Record

The header portion of the report form is the data in the top (blue) part of the EDD. This section includes details about the well and the directional survey conducted at the site.

	Explanation
Directional Survey Info	
API Number	Must be 14-digit number.
Well Name & Number	Should match OGMD recorded name/number for the above API.
Surface Section	Section where surface of well is located.
Surface Township	Township where surface of well is located.
Surface Township Direction	Township Direction where surface of well is located.
Surface Range	Range where surface of well is located.
Surface Range Direction	Range Direction where surface of well is located.
Operator Number	Current operator number for well.
Operator Name	Current operator name for well.
Citing Type	Status of well when directional survey was run.
Directional Survey Company	Name of company who ran directional survey.
Directional Survey Type	Type of survey run.
Date of Survey	Date survey was run.
Survey Surface Elevation	Elevation at surface for survey.
Surface Elevation Reference	Type of surface elevation reference used.
Elevation Vertical Datum	Datum used for vertical elevation.
North Reference	North reference type used for survey.
iF Grid Reference	Not used in Michigan- leave blank.
iF Grid Convergence	Not used in Michigan- leave blank.
iF Grid Scale Factor	Not used in Michigan- leave blank.
Surface Latitude	Latitude at surface where well is located.
Surface Longitude	Longitude at surface where well is located.
Surface Lat Long Datum	Datum used for Lat/Long measurements.
Offset TVD Calc Method	Method used to calculate Offset TVD.
Comment	

Filling Out Data Records

The data record portion of the report form is the records from the bottom (green) part of the EDD. Thedata in this portion of the report includes the individual measurements from the directional survey.

	Explanation
Data Table	
Measured Depth	Measured depth in feet.
Inclination	Inclination angle in degrees.
Azimuth	Deviation from magnetic north in degrees.
True Vertical Depth	True vertical depth in feet.
North/South Offset	Distance in feet: Positive for North, Negative for South.
East/West Offset	Distance in feet: Positive for East, Negative for West.

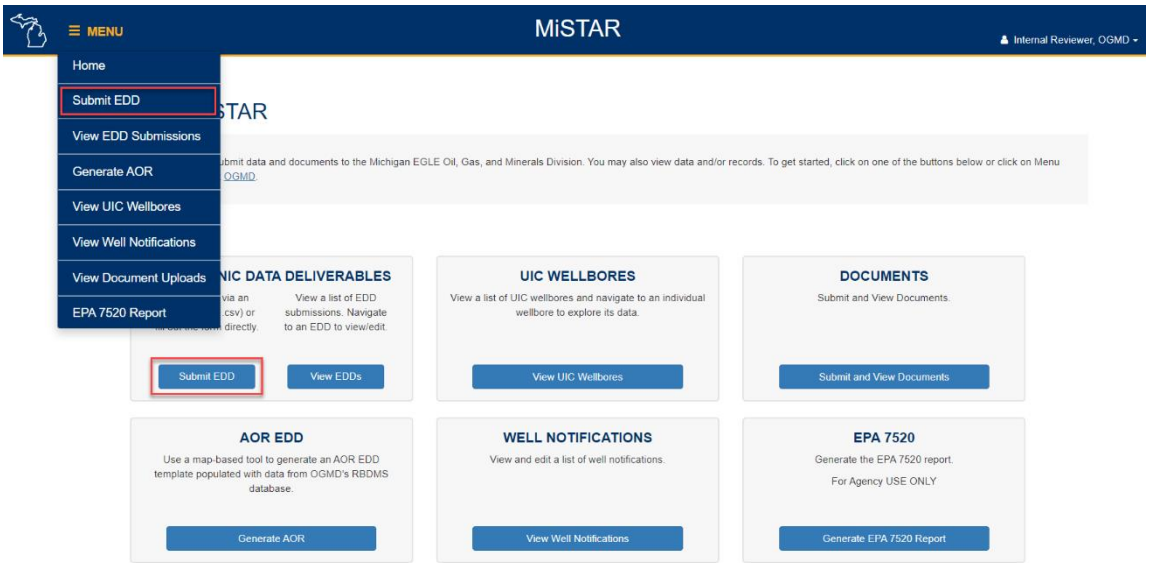
Vertical Section	Horizontal distance in feet between wellhead and surveyed interval/target.
Build Rate	Degrees per 100ft. Also known as "Dogleg Severity".
Directional Point Note	Comment section.

Below is a partial example of a Directional Survey EDD.

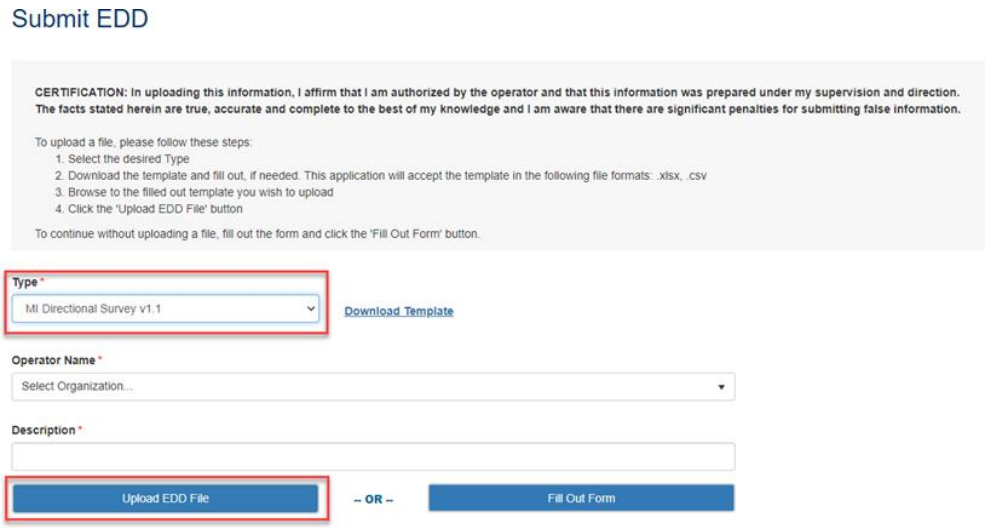
Directional Survey Info	
API Number	21-101-00000-0100
Well Name & Number	Example Well 1
Surface Section	18
Surface Township	1
Surface Township Direction	N
Surface Range	16
Surface Range Direction	E
Operator Number	0
Operator Name	Example Operator
Citing Type	AsDrilled
Directional Survey Company	Example Company
Directional Survey Type	Gyro
Date of Survey	06/01/2020
Survey Surface Elevation	908
Surface Elevation Reference	Kelly Bushing
Elevation Vertical Datum	Mean Sea Level
North Reference	True
iF Grid Reference	
iF Grid Convergence	
iF Grid Scale Factor	
Surface Latitude	42.732489
Surface Longitude	-84.55928
Surface Lat Long Datum	NAD83
Offset TVD Calc Method	Minimum Curvature
Comment	None

Depth in Feet	*Angle in Degrees*	*Deviation from Magnetic North in Degrees*	*True Vertical Depth in Feet*	*Distance in Feet. Positive for North and Negative for South*	*Distance in Feet. Positive for East and Negative for West*	*Horizontal Distance in Feet*	*Degrees per 100FT*	*Comment*
Measured Depth	**Inclination**	**Azimuth**	**True Vertical Depth**	**North/South Offset**	**East/West Offset**	**Vertical Section**	**Build Rate**	**Directional Point Note**
0	0	0.0	0	0.0	0.0	0	0	Surface
312	0.7	357.6	312	1.9	-0.1	0.04	0.22	
375	0.7	359.5	375	2.7	-0.1	0.07	0.04	
437	0.7	358.2	437	3.4	-0.1	0.1	0.03	
499	0.5	6.3	499	4.1	-0.1	0.16	0.35	

Upload The Completed Directional Survey EDD

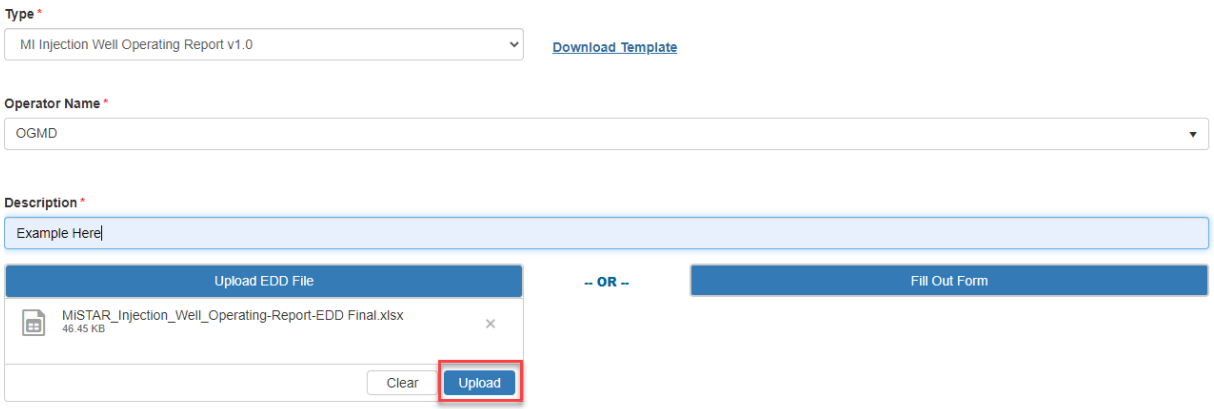


1. Navigate to the **Submit EDD** page (see the EDD Upload Tool Instructions document for more detailed instructions). Select "MI Directional Survey" from the *Type* dropdown. Select the *Operator Name* from the dropdown and fill out the *Description* field. These fields are required. The *Description* field can be helpful in distinguishing between records on the **View EDD Submissions** page- while there is no specific information required in the field, OGMD suggests you enter something that allows the submitter to distinguish between uploaded files. An operator should not use this field to provide any regulatory information to OGMD. Once the fields are all complete click the **Upload EDD File** button and navigate to and select the completed Directional Survey EDD file.

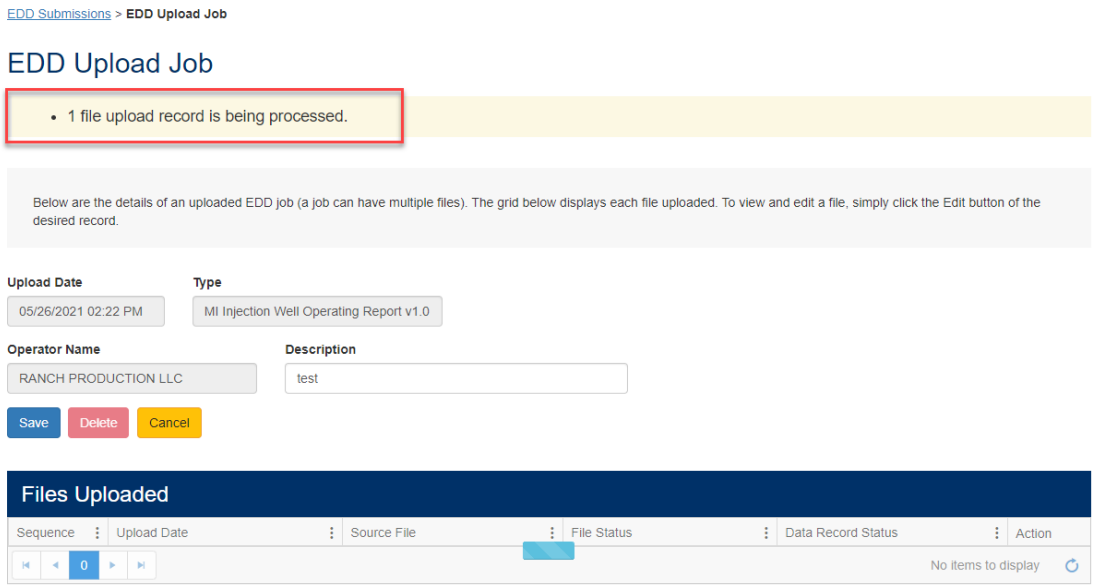


2. Click the **Upload** button once you have selected the file you wish to upload. If you accidentally attempt to upload a file of a different type than the one selected in the *Type* dropdown you will receive an error.

NOTE: By selecting the Upload button you are agreeing to the CERTIFICATION statement at the top of the Submit EDD page.

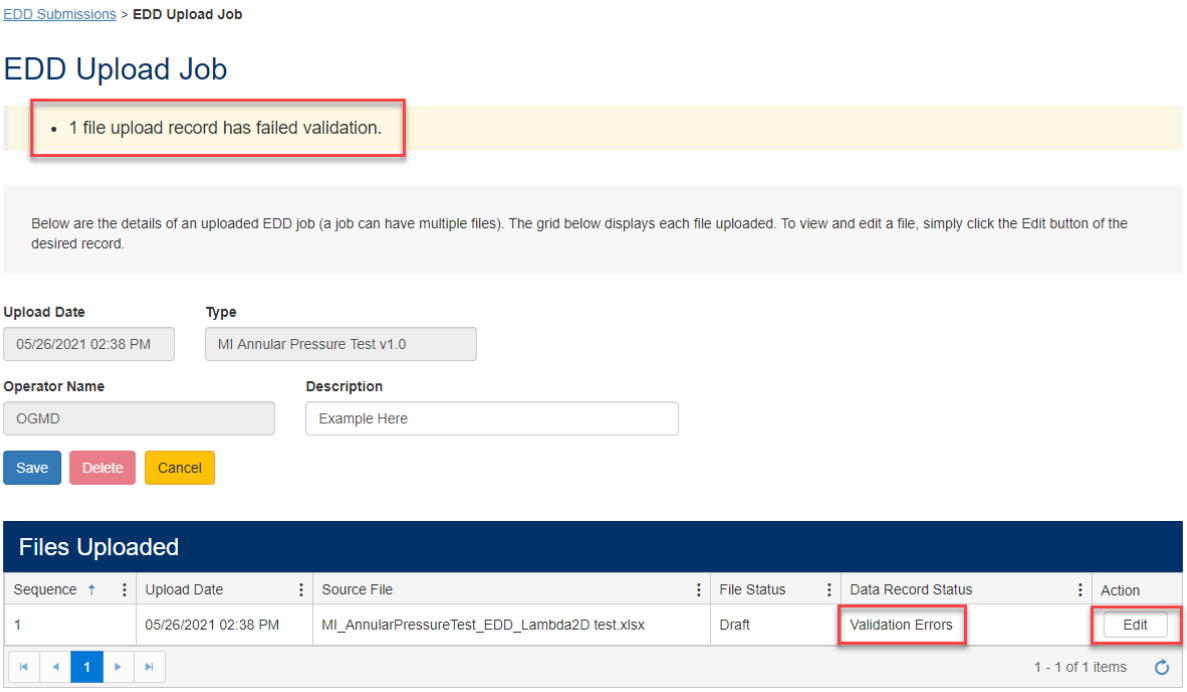


3. After the file has uploaded the application will take you to the **EDD Upload Job** page. You may see a message at the top of the screen indicating that the EDD is processing. Depending on the number of records and corresponding validation criteria, processing time may vary from a few seconds to a minute or two. Processing occurs in the background, so you may navigate to other pages or close the application without impacting processing.



4. If the program finds fields which do not meet the validation criteria during the upload it will display this result showing a status of “Validation Errors” and a notice at the top of the screen

that the file failed validation. You can then click the **Edit** button under Action to see the details of the validation error and edit the record.



5. Continue the process of editing and submitting the record for approval on the **EDD Overview** page. For further instructions on this process see the documentation section on the EDD Upload Tool-Basic Instructions.

MiSTAR UIC Tools and Pages Guide

Table of Contents

- MiStar UIC Wellbore Information Pages
- MiSTAR Well Notification Page
- MiSTAR Document Upload and List Page
- MiSTAR UIC Area of Review (AOR) Generation and EDD Tool

MiSTAR UIC Wellbore Information Page

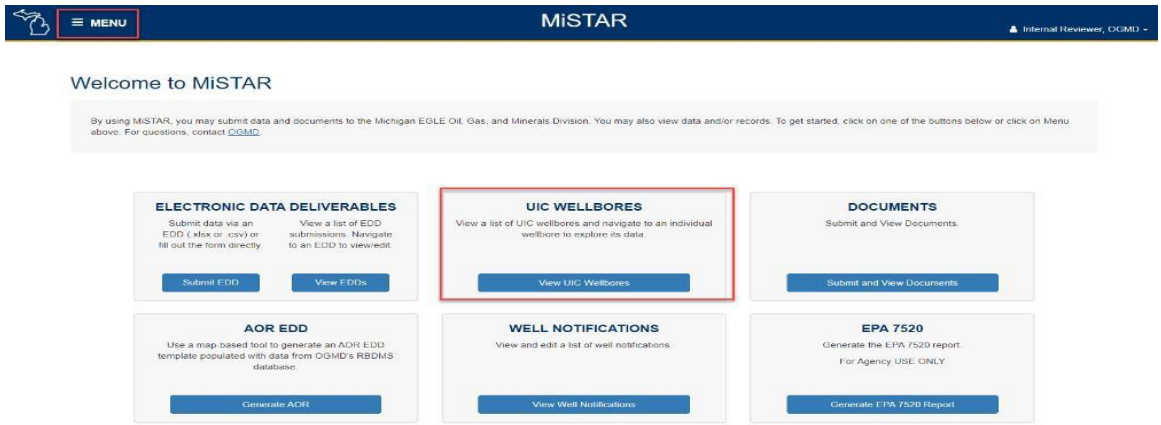
The MiSTAR UIC Wellbores Page allows users to view a list of UIC wellbores and navigate to an individual wellbore to explore its data. This tool provides operators with customizable filters to search for individual wells or create well lists to view and/or export UIC-related well data.

Section Table of Contents

- Navigation
- Generate a UIC Wellbore List
- Export a UIC Wellbore List
- View Individual Wellbore Detail and Records
- Export Individual Wellbore Detail and Records

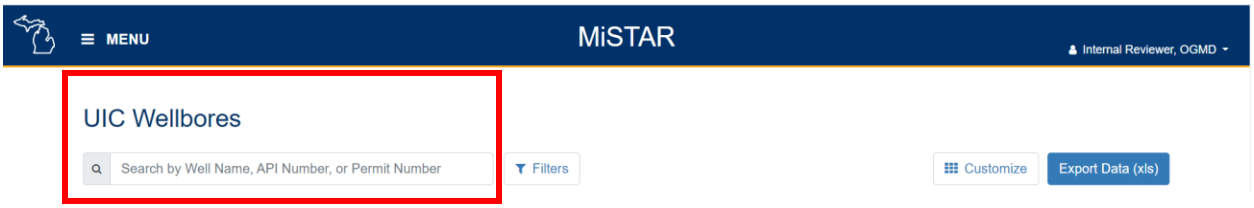
Navigation

The homepage of the MiSTAR application provides you with five options: **Electronic Data Deliverables, UIC Wellbores, Documents, AOR EDD,** and **Well Notifications**. To access a blanktemplate of the Injection Data EDD, click on the **Submit EDD** button to go to the **EDD Upload** page. You can also navigate to the **Submit EDD** page by selecting this option from the dropdown **MENU** inthe upper left-hand corner of the screen.

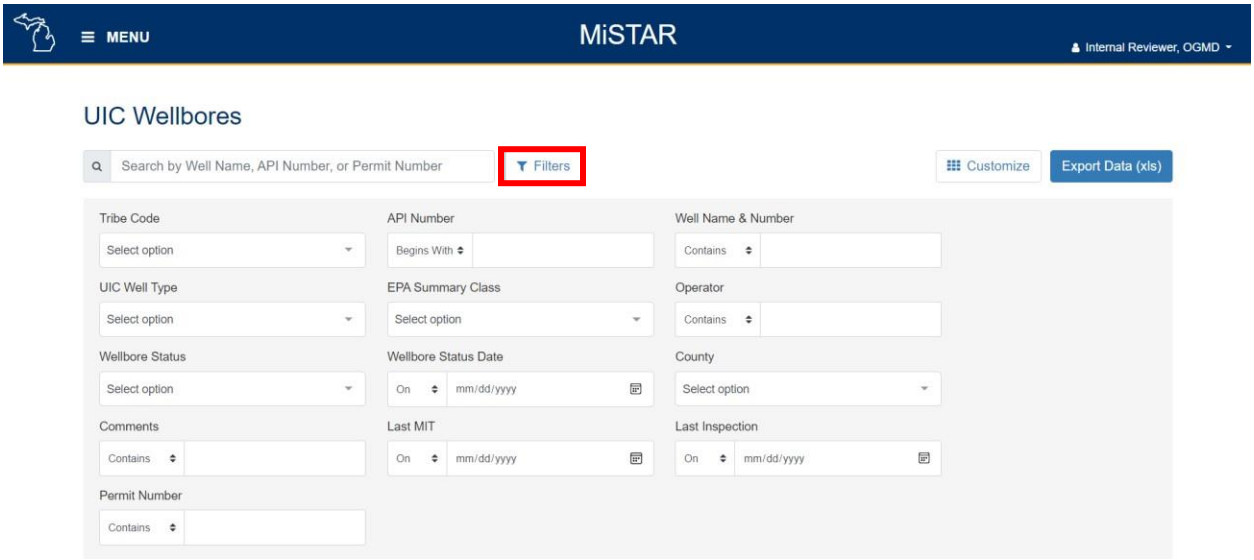


GENERATE A UIC WELLBORE LIST

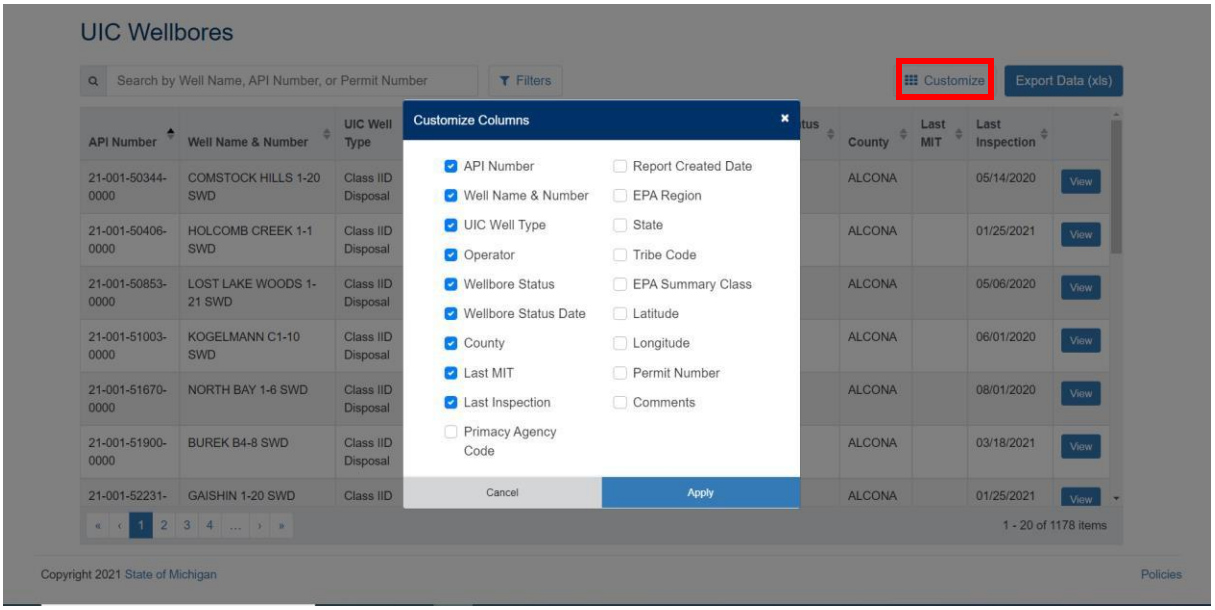
The **View UIC Wellbores** page displays the following dashboard along with a table of well information. The user can either view all UIC wells available in the system or may execute a basic search by Well Name, API Number, or Permit Number. This table allows you to sort, filter, and page through the EDDs uploaded to the system. (Learn how to use tables including paging, sorting, filtering, etc.)



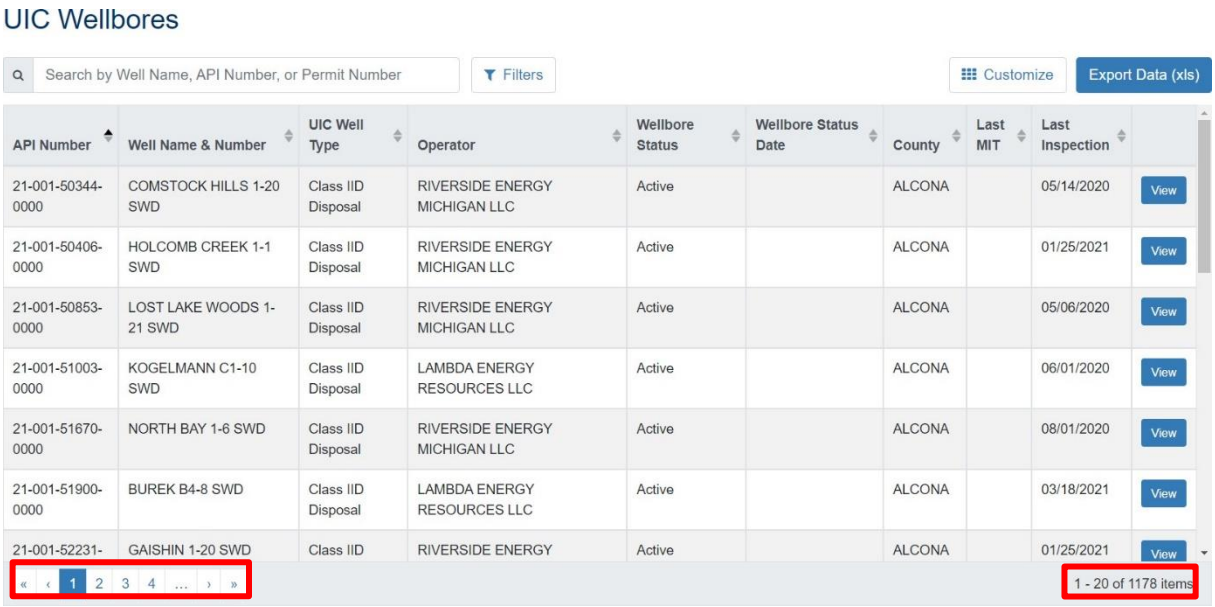
For additional search filters click the **Filters** box to the right of the search box and the options will open. Different types of data have different filter options available. Note- if for any reason a data field is blank in the database, filtering by that field will not display those records in the filtered list.



The results of the search are displayed on the same page. The columns displayed are customizable using the **Customize** button on the upper righthand side of the page. The default columns have a blue check next to them. Additional columns can be selected, or the default selections can be unselected.



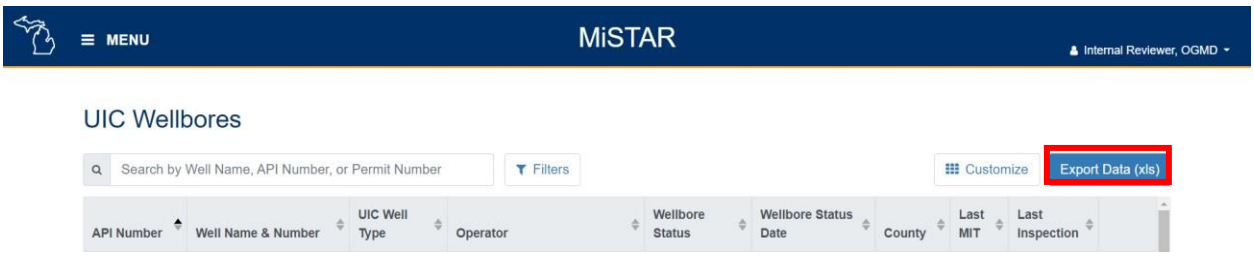
The bottom of the table shows the number of wells that meet the search criteria as well as controls to page through the results. The resulting well list can be sorted on any column.



API Number	Well Name & Number	UIC Well Type	Operator	Wellbore Status	Wellbore Status Date	County	Last MIT	Last Inspection	
21-001-50344-0000	COMSTOCK HILLS 1-20 SWD	Class IID Disposal	RIVERSIDE ENERGY MICHIGAN LLC	Active		ALCONA		05/14/2020	View
21-001-50406-0000	HOLCOMB CREEK 1-1 SWD	Class IID Disposal	RIVERSIDE ENERGY MICHIGAN LLC	Active		ALCONA		01/25/2021	View
21-001-50853-0000	LOST LAKE WOODS 1-21 SWD	Class IID Disposal	RIVERSIDE ENERGY MICHIGAN LLC	Active		ALCONA		05/06/2020	View
21-001-51003-0000	KOGELMANN C1-10 SWD	Class IID Disposal	LAMBDA ENERGY RESOURCES LLC	Active		ALCONA		06/01/2020	View
21-001-51670-0000	NORTH BAY 1-6 SWD	Class IID Disposal	RIVERSIDE ENERGY MICHIGAN LLC	Active		ALCONA		08/01/2020	View
21-001-51900-0000	BUREK B4-8 SWD	Class IID Disposal	LAMBDA ENERGY RESOURCES LLC	Active		ALCONA		03/18/2021	View
21-001-52231-	GAISHIN 1-20 SWD	Class IID	RIVERSIDE ENERGY	Active		ALCONA		01/25/2021	View

Export A UIC Wellbore List

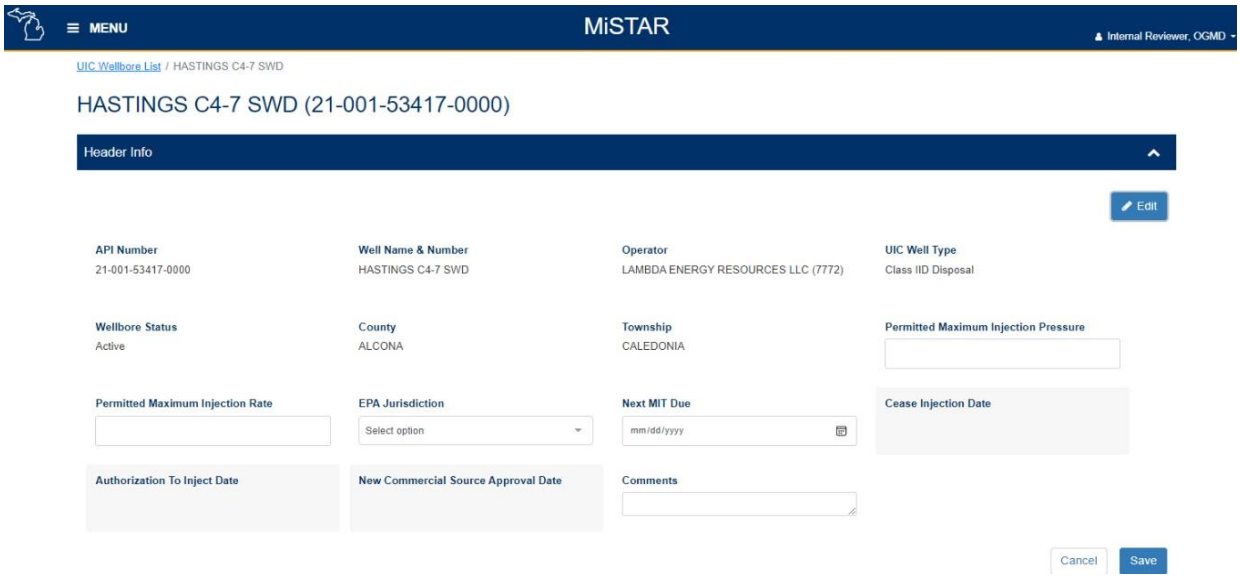
The UIC Wellbore list can be exported at any point using the **Export Data (.xls)** button on the upper righthand portion of the page. This will export the data for all the columns available for the table. It will not limit the data to just the columns selected to view.



When the export is complete, the user will be notified that the download is complete, and the file can be opened in Excel.

View Individual Wellbore Detail and Records

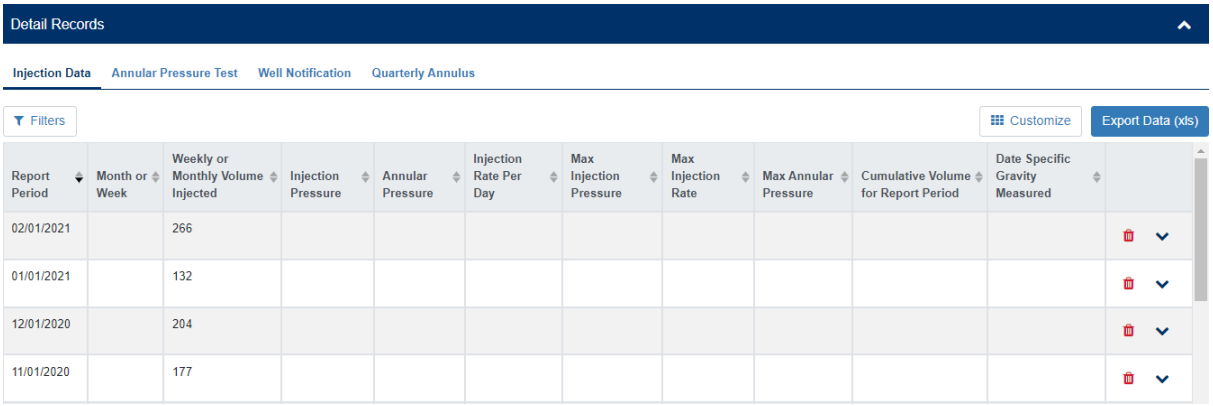
Additional UIC data on any Class II well can be viewed by selecting the **View** button on the right side of the table. The wellbore name and API number are displayed at the top followed by Header info for that specific wellbore along with a link back to the **UIC Wellbores** list page. The Header info for each well includes basic information for each well such as operator, the UIC well type, Wellbore status, and the Permitted maximum injection pressure and Permitted maximum injection rate (if available within the database). If you believe any of this information is incorrect, please contact OGMD at EGLE-OGMD-UIC@michigan.gov.



EGLE-OGMD users with appropriate permissions will have the ability to edit certain fields of header information such as the Permitted maximum pressure and rate, EPA jurisdiction, Next MIT Due date, and Comments.

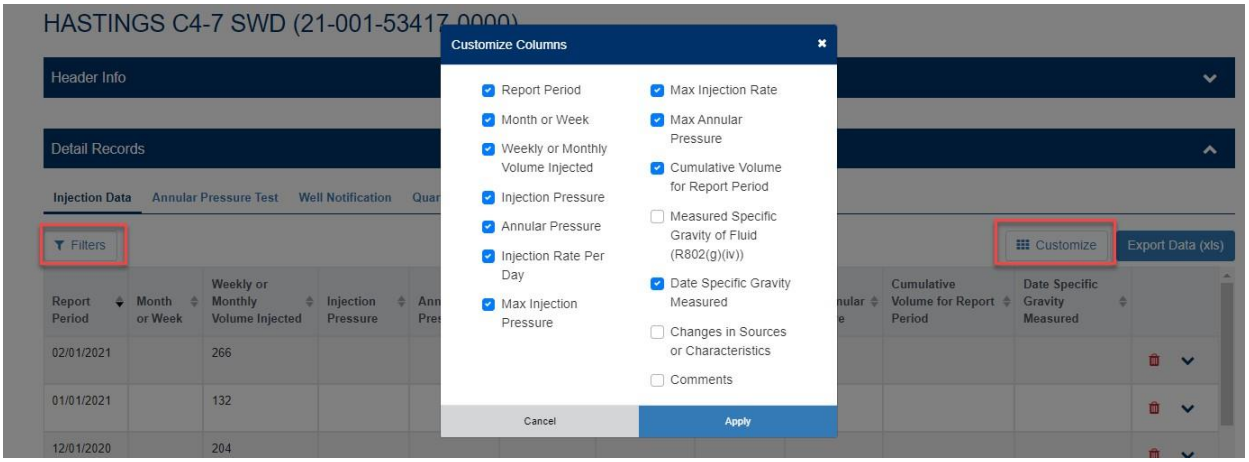
The lower portion of the page shows **Detail Records** for an individual wellbore for **Injection Data**, **Annular Pressure Test** data, **Well Notification** data, and **Quarterly Annulus** data. Each of these "tabs" contains a different table of data. The tab currently viewed will be highlighted by using a darker blue font and underline. Note- Historical data may fill different fields than data submitted via MiSTAR.

Injection Data example Detail Records:

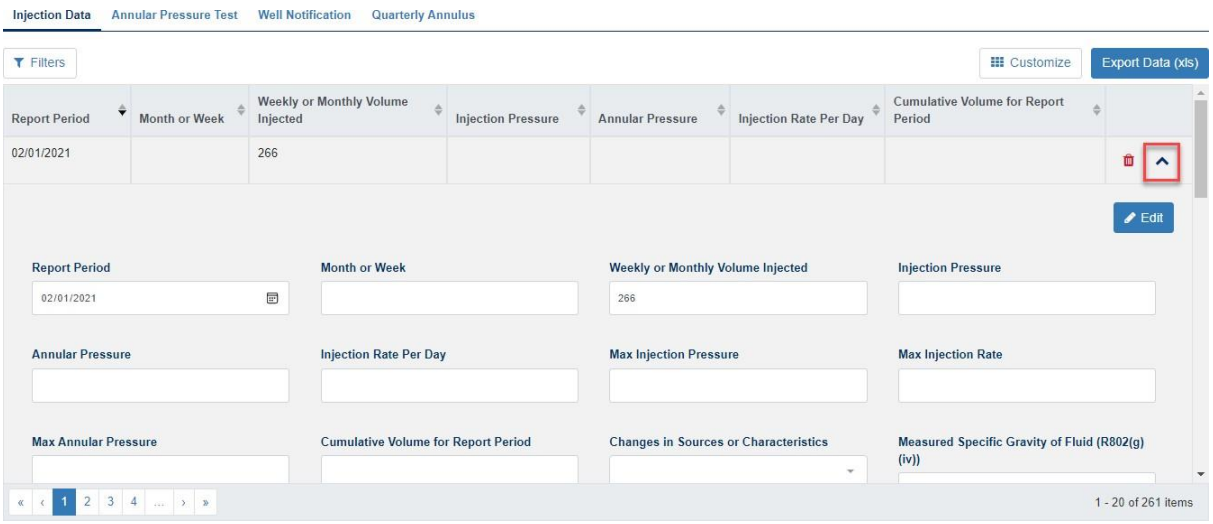


Report Period	Month or Week	Weekly or Monthly Volume Injected	Injection Pressure	Annular Pressure	Injection Rate Per Day	Max Injection Pressure	Max Injection Rate	Max Annular Pressure	Cumulative Volume for Report Period	Date Specific Gravity Measured
02/01/2021		266								
01/01/2021		132								
12/01/2020		204								
11/01/2020		177								

The column headers for each table are customizable using the **Customize** button. Similarly, most fields can be filtered by clicking on the **Filters** button and selecting the desired options.

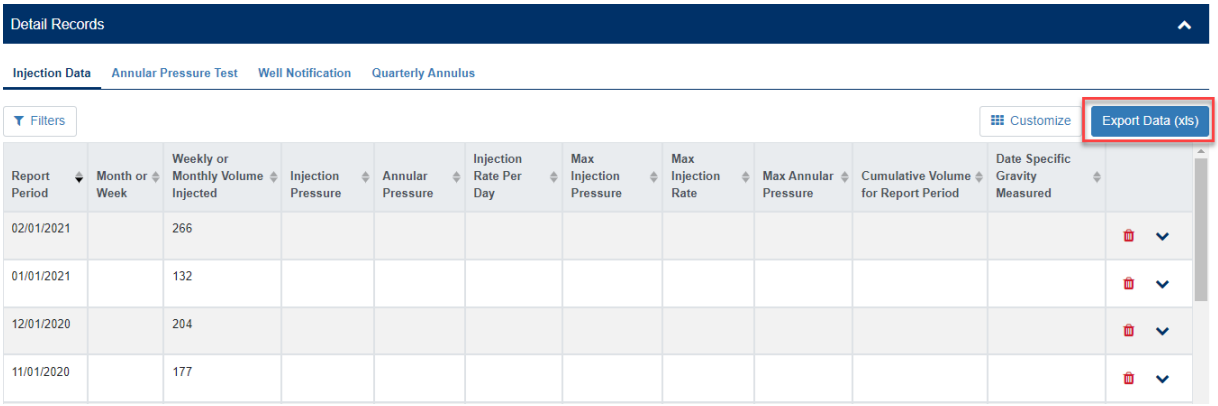


Clicking the down arrow to the right of a report period line expands the report period to show all details for a specific data type. EGLE-OGMD users with the appropriate permissions will be able to use the **Edit** button to make corrections to data.



Export Individual Wellbore Detail and Records

As with other tables in the application- the data can be downloaded using the **Export Data (.xls)** button on the right side of the screen.



When the export is complete, the user will be notified that the download is complete, and the file canbe opened in Excel. This export will include all the fields available in the customize list. Any filters applied to the table will remain applied in the exported data.

MiSTAR Well Notification Page

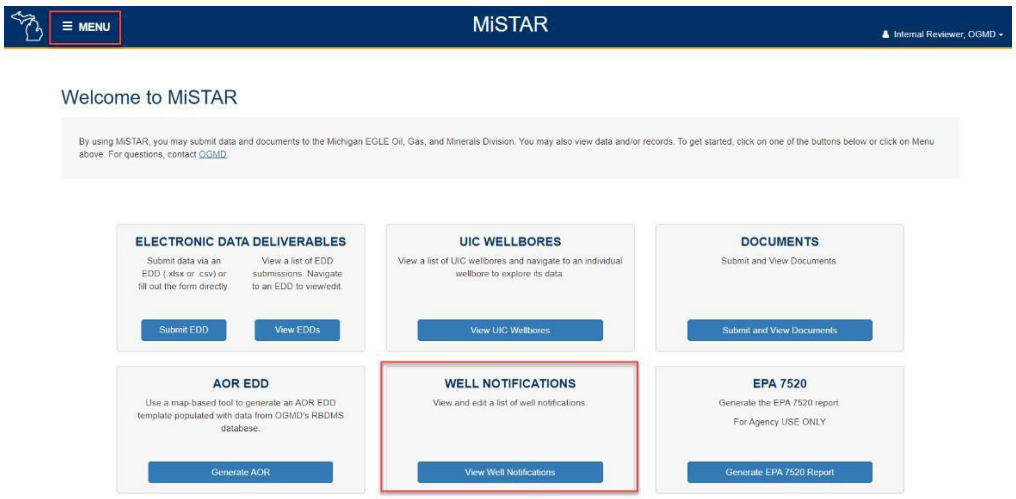
The MiSTAR Well Notification Page allows users to view a list of UIC well notifications. This tool provides operators with customizable filters to search for individual wells or well lists to view and/or export well lists and individual wellbore detail records.

Section Table of Contents

- Navigation
- Generate a Well Notification List
- Export a Well Notification List

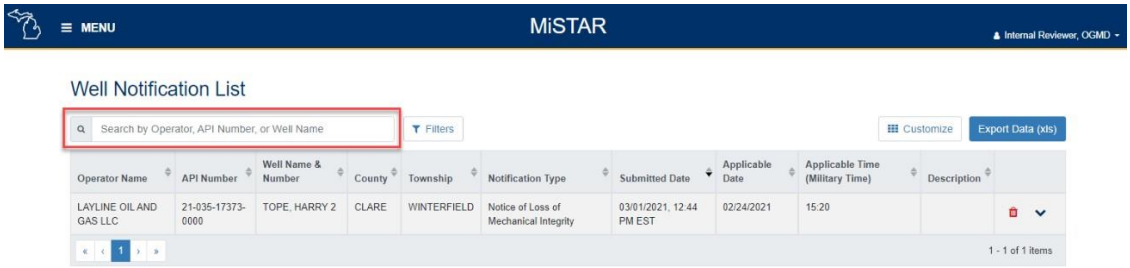
Navigation

The homepage of the MiSTAR application provides you with five options: **Electronic Data Deliverables, UIC Wellbores, Documents, AOR EDD,** and **Well Notifications**. To access a blanktemplate of the Injection Data EDD, click on the **Submit EDD** button to go to the **EDD Upload** page. You can also navigate to the **Submit EDD** page by selecting this option from the dropdown **MENU** inthe upper left-hand corner of the screen.

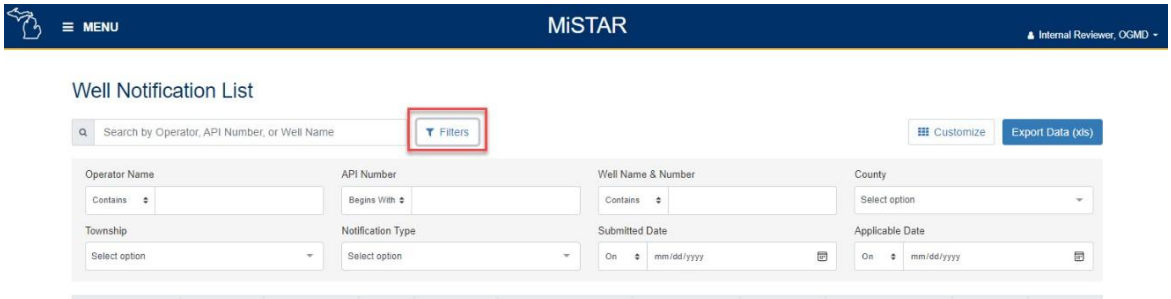


Generate A UIC Well Notification List

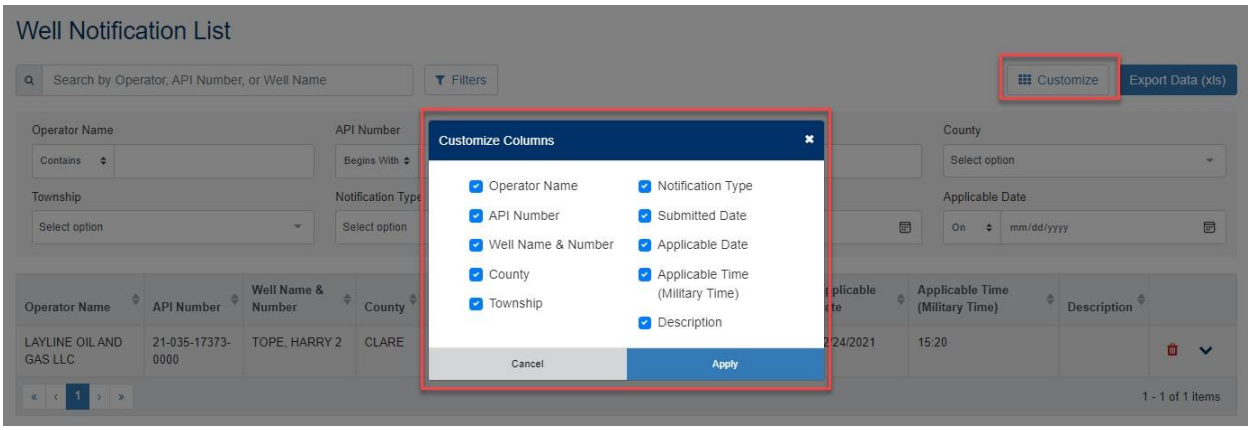
The **Well Notifications** page displays the following dashboard along with a table of well information. The user can either view all well notifications available in the system or may execute a basic search by Operator, API Number, or Well Name. This table allows you to sort, filter, and page through the EDDs uploaded to the system. (Learn how to use tables including paging, sorting, filtering, etc.)



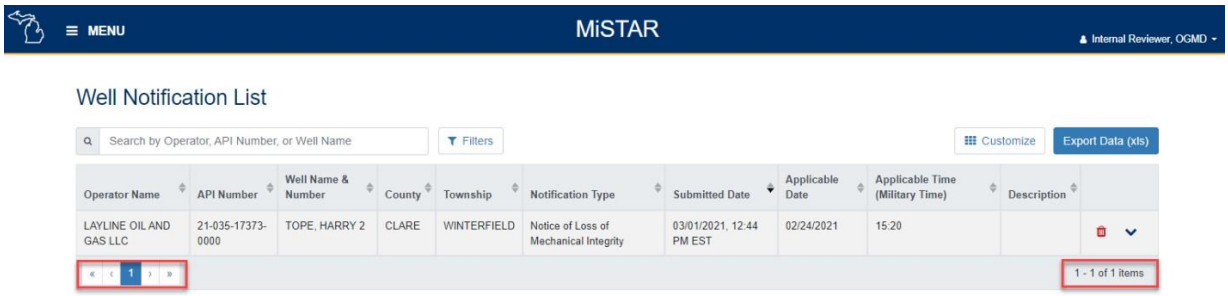
For additional search filters click the **Filters** box to the right of the search box and the options will open. Different types of data have different filter options available. Note- if for any reason a data field is blank in the database filtering by that field will not display those records in the filtered list.



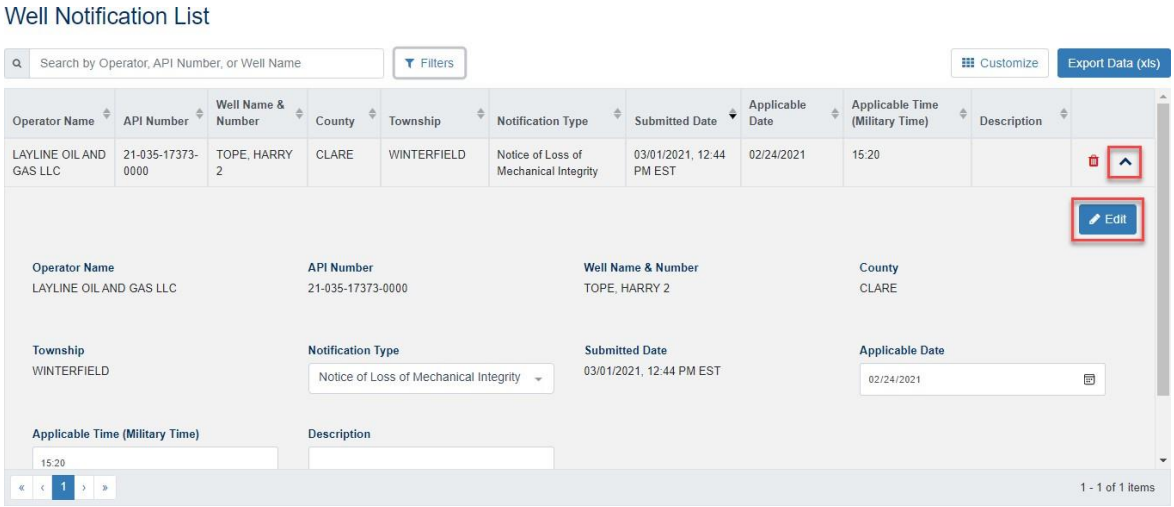
The results of the search are displayed on the same page. The columns displayed are customizable using the **Customize** button on the upper righthand side of the page. By default, all columns are selected with a blue check. Columns can be removed from the table by unselecting any box.



The bottom of the table will show the number of wells that meet the search criteria as well as controlsto page through the results. The resulting well list can be sorted on any column.

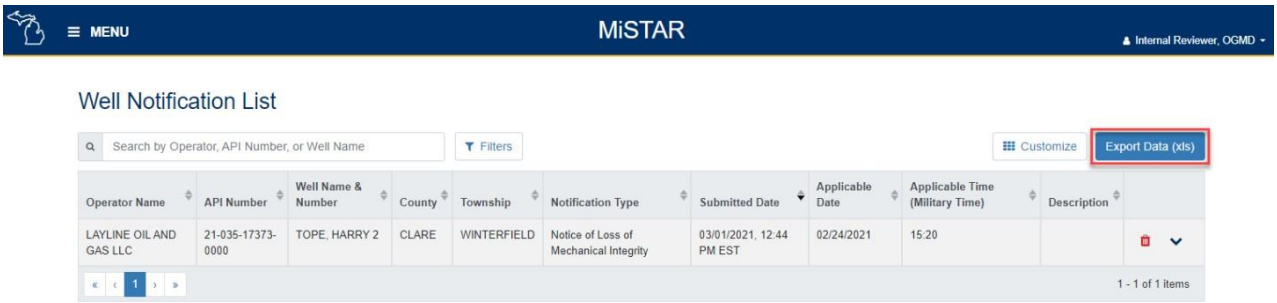


The detailed information on any Individual well notification can be viewed by clicking the down icon on the right side of the screen. EGLE-OGMD users with the applicable permissions can also edit and/or delete records.



Export A UIC Well Notification List

The UIC Well Notification list can be exported at any point using the **Export Data (.xls)** button in the upper righthand portion of the page. This will export the data for all the columns available for the table. It will not limit the data to just the columns selected to view.



When the export is complete, the user will be notified that the download is complete, and the file can be opened in Excel.

MiSTAR Class II Generic Document Uploads

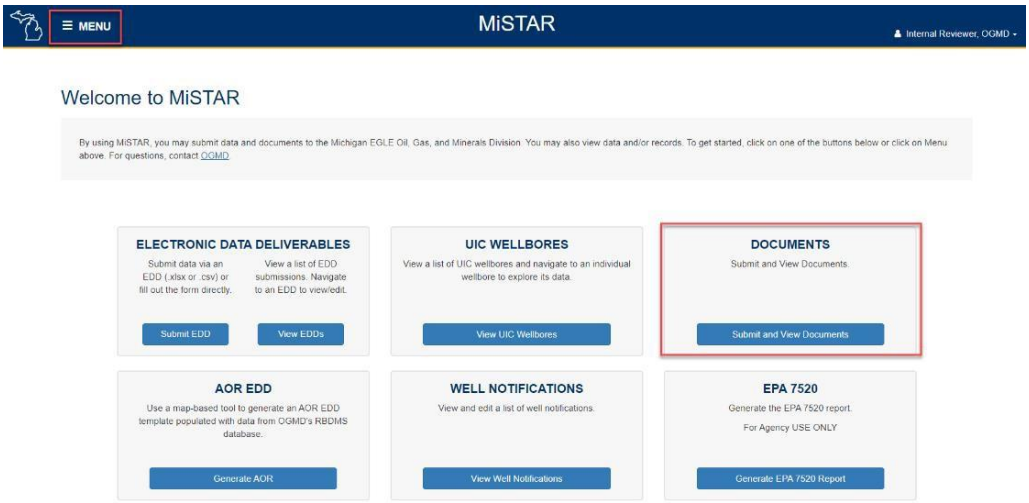
The MiSTAR Document Uploads Page allows users to upload UIC related documents or view a list of uploaded documents and their statuses. This tool allows operators to digitally submit and/or view documents related to UIC wellbores, including: Injectate Analysis Annual, Injectate Analysis Other, Commercial Sources New, Commercial Sources Quarterly, Correspondence, MIT Gauge Records, MIT Chart, and MIT RCOWS. Document Uploads allows for submission of single well documents or multiple wells on a single report.

Section Table of Contents

- Navigation
- Create New Document Uploads
- Generate A List of Document Uploads
- View/Download Document Uploads

Navigation

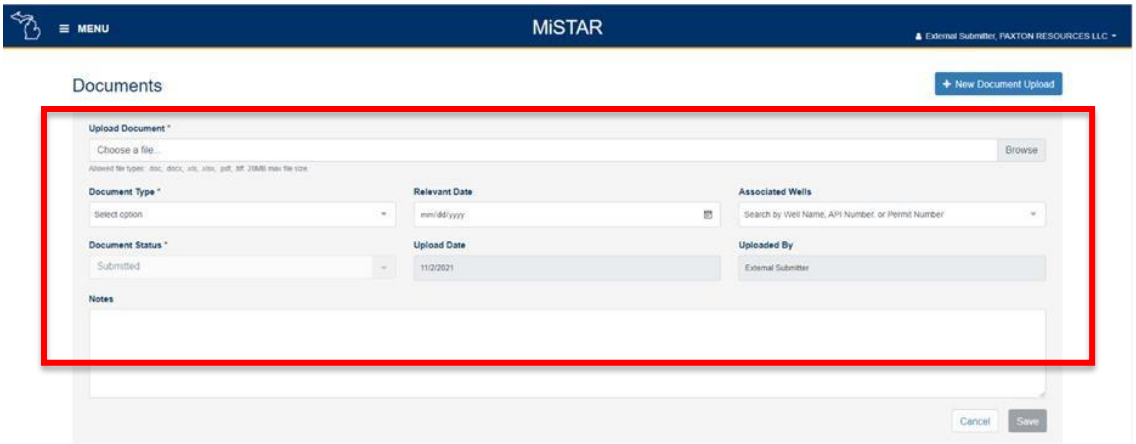
The homepage of the MiSTAR application provides you with five options: **Electronic Data Deliverables, UIC Wellbores, Documents, AOR EDD,** and **Well Notifications**. To access a blanktemplate of the Injection Data EDD, click on the **Submit EDD** button to go to the **EDD Upload** page. You can also navigate to the **Submit EDD** page by selecting this option from the dropdown **MENU** inthe upper left-hand corner of the screen.



Create New Document Uploads

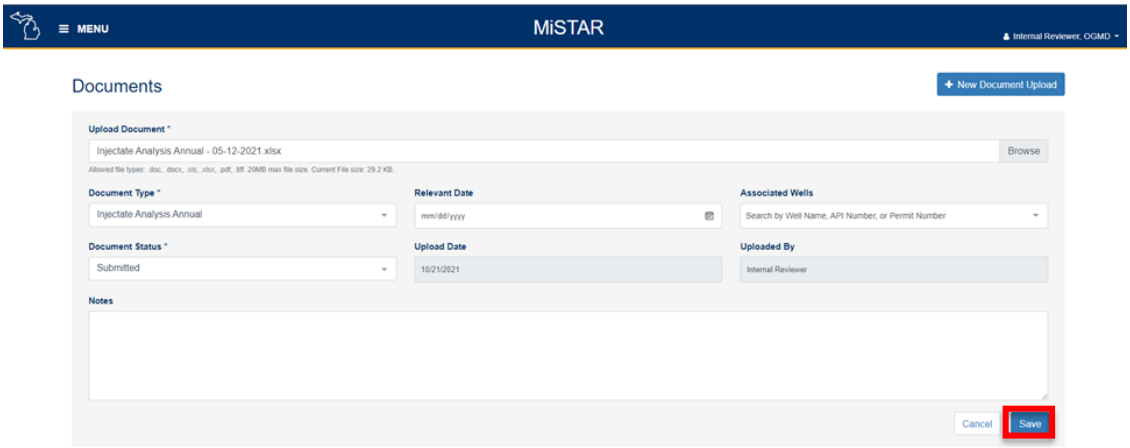
Operators can upload new documents into this page. To start a New Document Upload, select the **+ New Document Upload** button on the right side of the **View Document Uploads** page.

After the **+ New Document Upload** button is selected from the right side of the screen, the following options are displayed. Fields with an asterisk are required to upload a new document. Document file types that can be uploaded are .doc, .docx, .xls, .xlsx .pdf, and .tiff with a **20 MB maximum file size.**

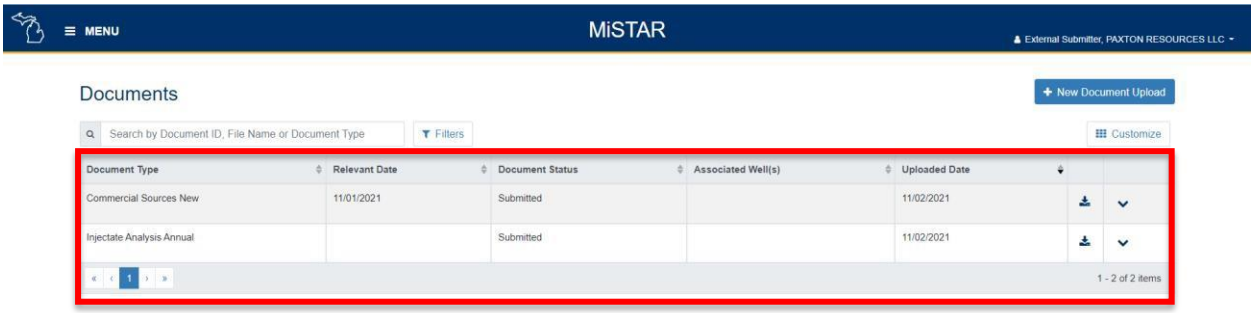


Current *Document Types* that can be uploaded include: Injectate Analysis Annual, Injectate Analysis Other, Commercial Sources New, Commercial Sources Quarterly, Correspondence, MIT Gauge Records, MIT Chart, and MIT RCOWS.

The *Document Status* field is required and defaults to "Submitted" for any new documentation. The *Associated Wells* field is also required and allows for either single or multiple well selections. Wells can be searched using the well name, API Number, or permit number. The *Relevant Date* field is optional but encouraged when uploading singe well documents or multiple wells on a single report. The associated wells field allows users to search for and select one or multiple associated wells.



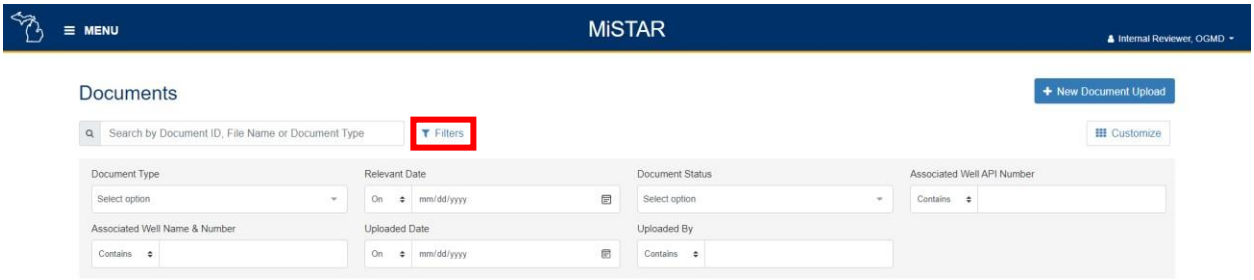
After all required fields are filled in and a file is attached, the **Save** button will change from gray to blue and allow the document to be uploaded by clicking the **Save** button. Your document is now submitted in the MiSTAR system, and the table below will be displayed showing uploaded documents. OGMD staff will begin processing your UIC submittal.



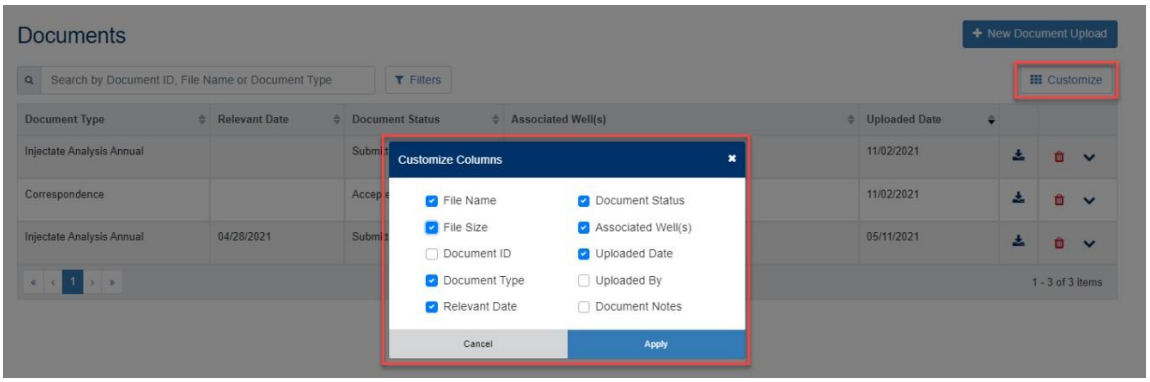
Generate A List of Document Uploads

The **View Document Uploads** page displays the following dashboard. Initially a user will see a list including all Document Uploads available in the system for their assigned company as well as any other approved records for other companies. A user may also execute a basic search by Document ID, File Name or Document Type. This table allows you to sort, filter, and page through the documents uploaded to the system. (Learn how to use tables including paging, sorting, filtering, etc.)

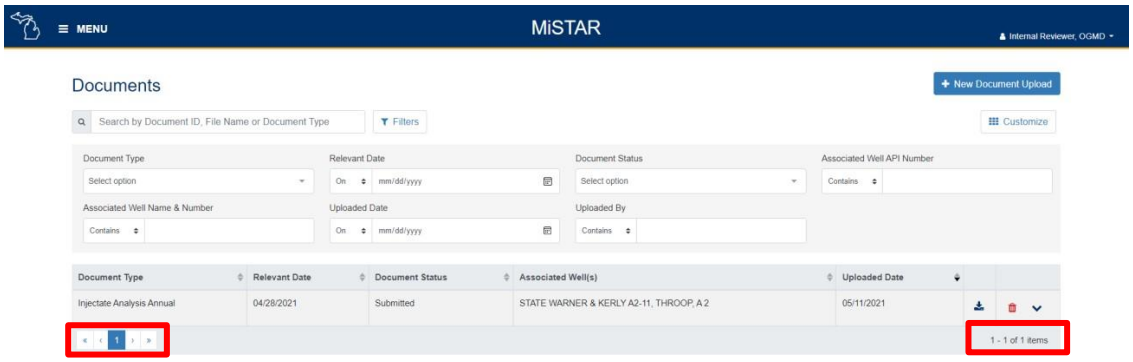
For additional search filters click the **Filters** box to the right of the search box and the options will open. Different types of data have different filter options available. Note - if for any reason a data field is blank in the database, filtering by that field will not display those records in the filtered list.



The results of the search are displayed on the same page. The columns displayed are customizable using the **Customize** button on the upper right-hand side of the page. The default columns have a blue check next to them. Additional columns can be selected, or the default selections can be unselected.

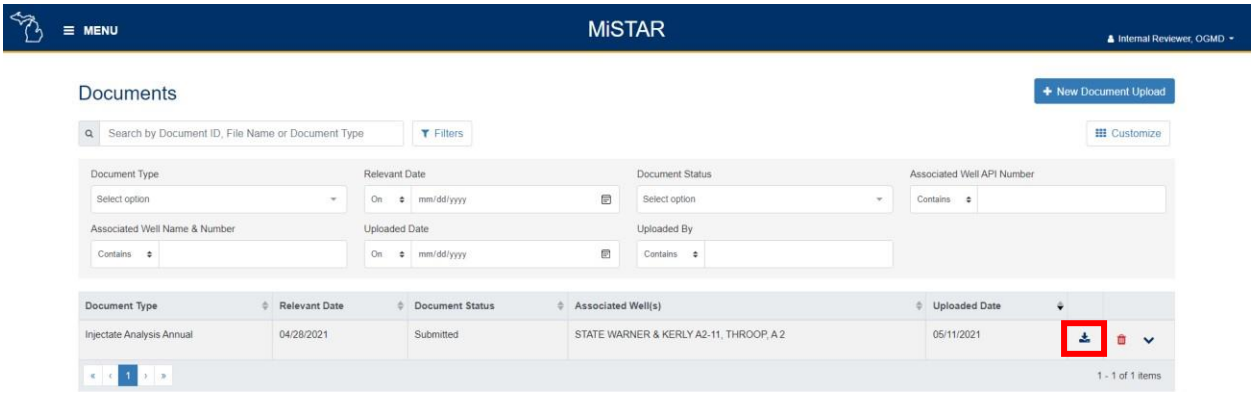


The bottom of the table shows the number of Document Uploads that meet the search criteria as wellas controls to page through the results.



View/Download Document Uploads

Once a desired individual document is found it can be downloaded using the download icon on the righthand side of the table. This will download the file to your browsers download folder.



MiSTAR UIC Area of Review (AOR) Generation and EDD Tool

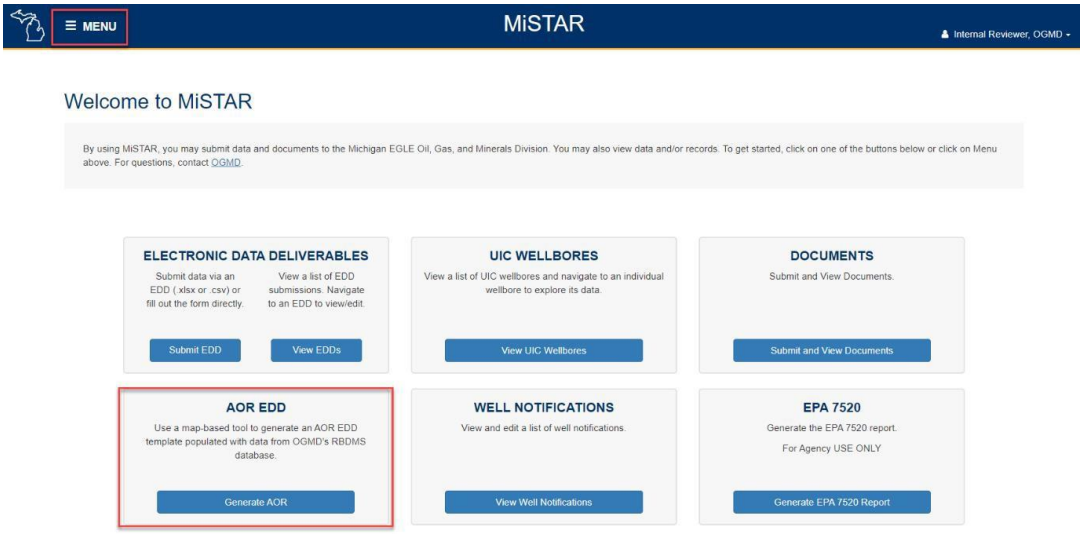
The MiSTAR Area of Review (AOR) Generation tool facilitates the creation of an AOR EDD by allowing users to create an AOR using a map tool populated with well data. This tool generates an AOR with data from existing wells within a user selected radius, facilitating review of proposed injection or disposal wells. Once wells are selected in this tool a user can export an AOR EDD which is pre-populated with any existing data from the MIRBDMS Web database. The EDD can then be edited and uploaded to the EDD upload tool as any other EDD would be.

Section Table of Contents

- Navigation
- Generate an AOR EDD
- Data Validation Rules
- Filling out Header Record Info
- Filling out Data Record Info
- Upload Form

NAVIGATION

Once logged into the application the homepage of the MiSTAR application provides you with five options: **Electronic Data Deliverables, UIC Wellbores, Documents, AOR EDD, and Well Notifications. The EPA 7520 is for OGMD use only**. To start a new AOR, click on the **Generate AOR** button. You can also navigate to the **Generate AOR** page by selecting this option from the dropdown **MENU** in the upper left-hand corner of the screen.



GENERATE AN AOR EDD

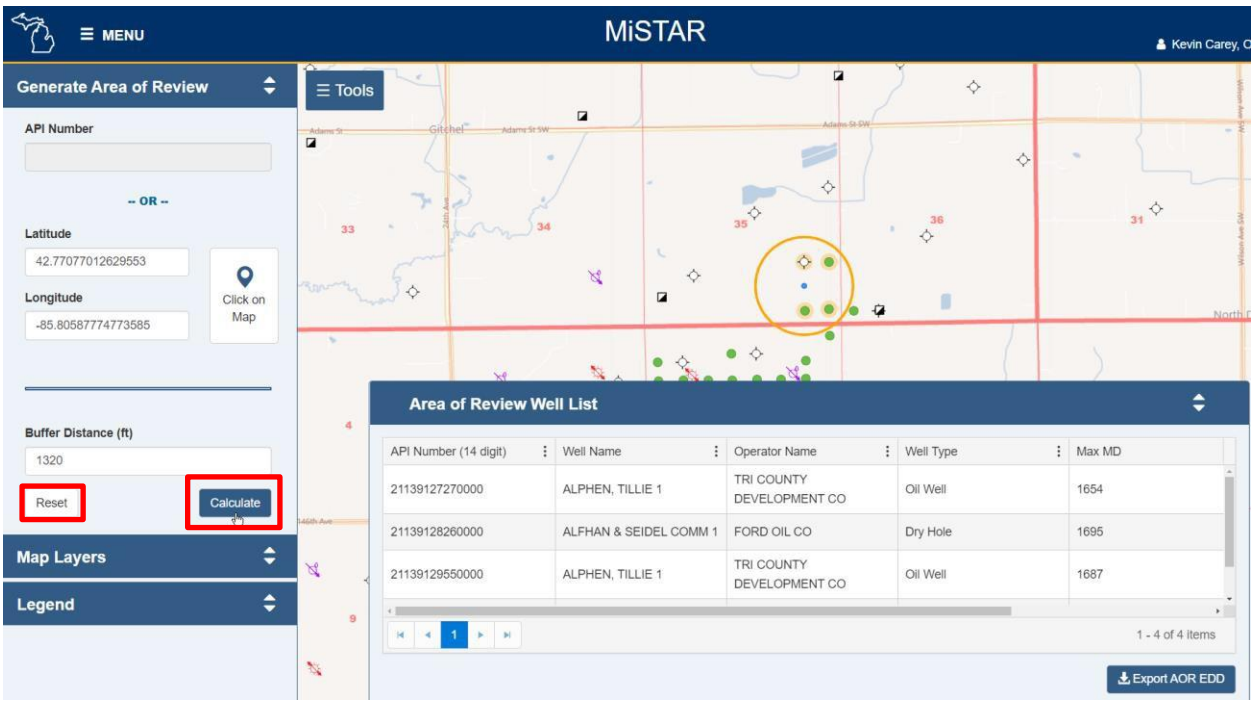
The Generate AOR screen displays the following dashboard. At this point, the user indicates the well the AOR is centered on using one of three methods:

Enter the API Number (no dashes) of an existing well.

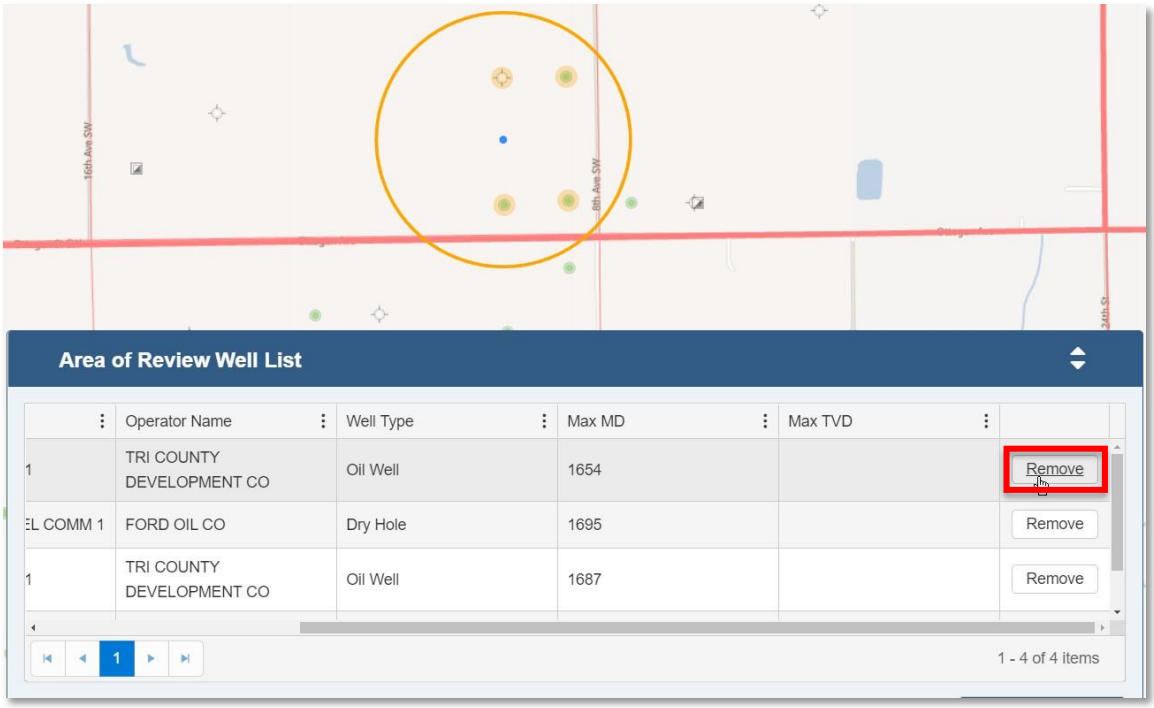
Input Latitude / Longitude coordinates of a proposed well in Decimal Degrees.

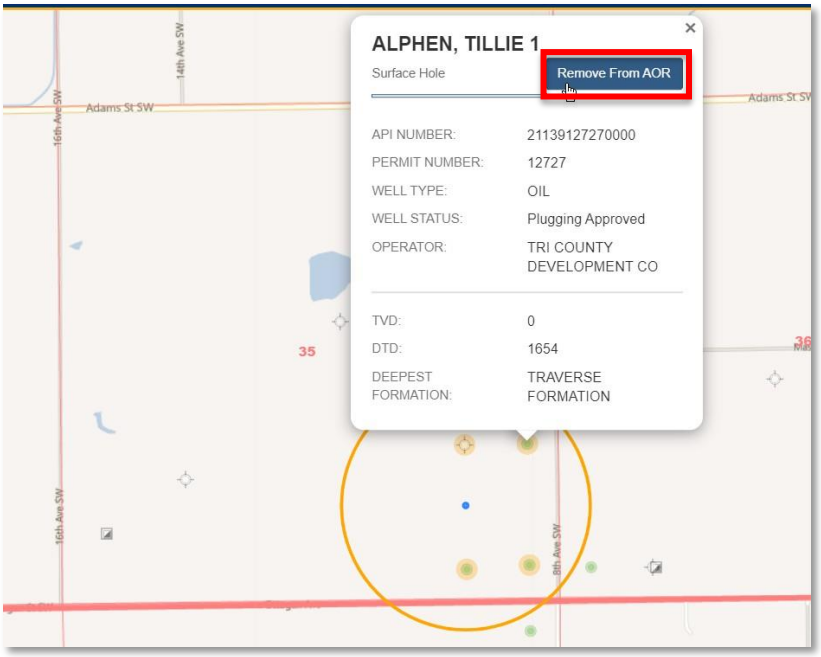
Zoom in to the region being proposed and click on the map to obtain the location from whichthe AOR will be generated.

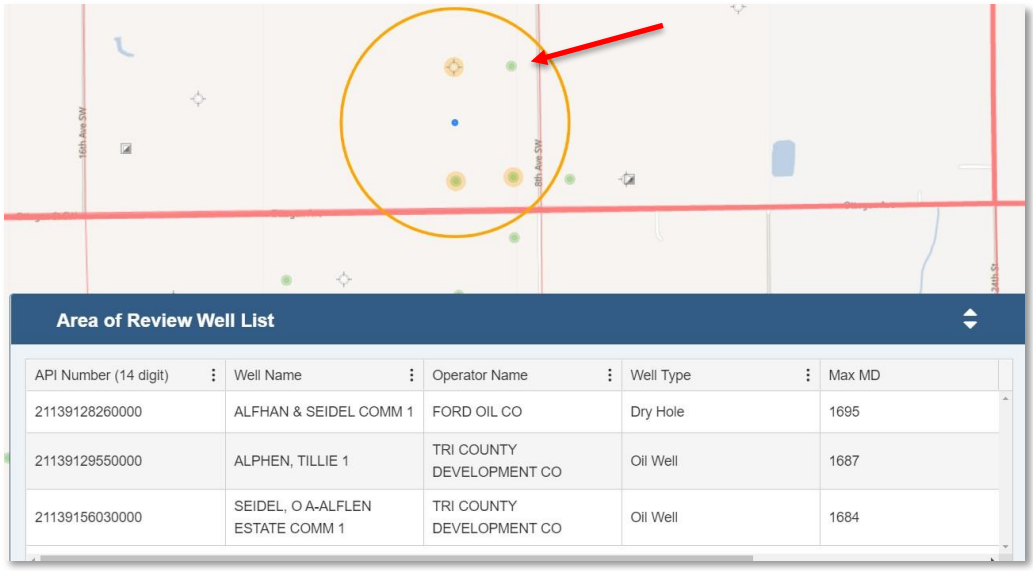
Once a central location has been selected, enter a buffer distance, keeping in mind that the distance is the radius (in feet) of the buffer from the proposed well location. Selecting the **Calculate** button draws the specified buffer around the point. Any wells within the buffer will be highlighted and displayed in the AOR well list table, as depicted in the second image below. The **Reset** button removes all search criteria.



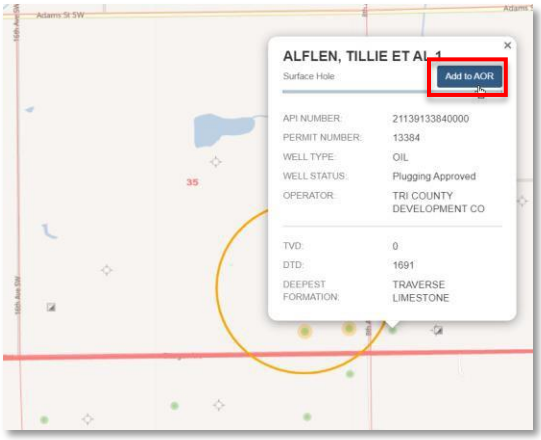
The AOR well list table can be minimized using the up and down arrowheads in the upper right of the table. The user may remove any well within the buffer, by clicking the **Remove** button in the table or by clicking on the well in the map screen and selecting to remove it within the resulting pop-up. Removing a well from the AOR list un-highlights the well on the map screen as seen in the examples below.


Area of Review Well List
Operator Name
Well Type
Max MD
Max TVD
1
TRI COUNTY DEVELOPMENT CO
Oil Well
1654
Remove
EL COMM 1
FORD OIL CO
Dry Hole
1695
Remove
1
TRI COUNTY DEVELOPMENT CO
Oil Well
1687
Remove
1
1 - 4 of 4 items

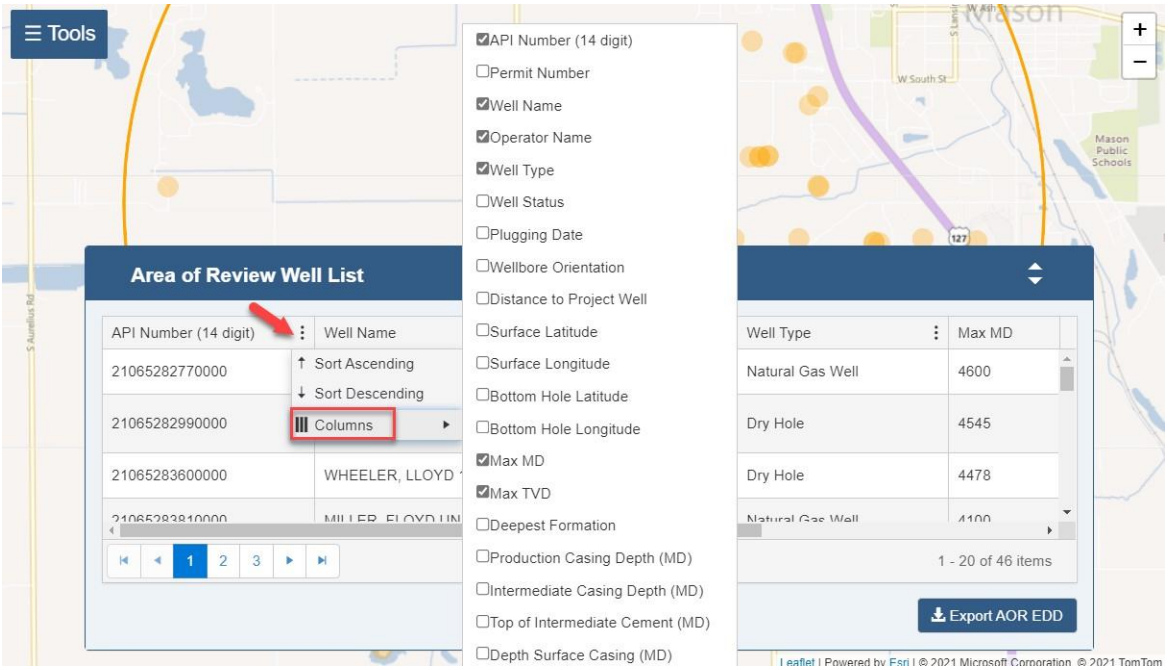

ALPHEN, TILLIE 1
Surface Hole
Remove From AOR
API NUMBER: 21139127270000
PERMIT NUMBER: 12727
WELL TYPE: OIL
WELL STATUS: Plugging Approved
OPERATOR: TRI COUNTY DEVELOPMENT CO
TVD: 0
DTD: 1654
DEEPEST FORMATION: TRAVERSE FORMATION
Adams St SW
35



Wells can be added into the AOR from within or outside the outlined AOR region. Wells added will be highlighted and included in the AOR table. To add a well to the AOR click on the well symbol on the map and select the **Add to AOR** button from within the popup.



To view additional information about the selected wells in the list table, click on the vertical ellipsis next to a column header and then hover over the columns option. This will display a list of all the columns available for view as displayed below. Selected columns display a checkmark- click on this box to add and remove columns from the table as needed. The data in any of the columns can be sorted using the sort ascending or sort descending options within the same menu.



Once the user is satisfied with the AOR and the wells captured within it, the next step is to export the AOR to an EDD template by clicking the **Export AOR EDD** button at the lower left of the table. This is the only way to save a generated AOR. After successfully exporting the data, a link to the EDD spreadsheet will appear in the Downloads folder in your browser or computer. Opening the spreadsheet will allow the user to edit the document and fill in data on required fields. If an existing API was used as the search center of the AOR, the EDD generation process will fill in as many available fields in the Header portion of the EDD as are available in MIRBDMS_WEB. If a user inputs proposed Latitude / Longitude coordinates or chooses to use **Click on Map** functionality to generate the AOR, the Header section of the EDD is left blank, as seen below. Information for wells within the AOR is displayed in the green Detail section of the spreadsheet. It is important to note that for either the header or detail sections the program can only auto-populate fields if the well data is available within the MIRBDMS_WEB database.

AOR Project Info	
AOR Review Type	
Request Type	
Operator Name	
Well Name & Number	
APD (pre-permit)	
API Number (if permitted)	
Surface Section	
Surface Township	
Surface Township Direction	
Surface Range	
Surface Range Direction	
Surface Latitude	
Surface Longitude	
Surface Distance from N/S Section Line	

AOR Well List								
Well API Number (14 digit) - IDs for multiple boreholes from a common surface borehole	*Permit Number*	*Well Name + Number*	*Operator Name*	*Oil Well, CO2 Injection Well, etc...*	*Active Injection, Drilling Completed, etc...*	*Date*	*Vertical, Horizontal, or Directional*	*Distance to nearest project well in feet*
API Number (14 digit)	**Permit Number**	**Well Name**	**Operator Name**	**Well Type**	**Well Status**	**Plugging Date**	**Wellbore Orientation**	**Distance to Project Well**
21139127270000	12727	ALPHEN, TILLIE 1	TRI COUNTY DEVELOPMENT CO	Oil Well	Plugging Approved	7/26/1955	Vertical	928
21139128260000	12826	ALFHAN & SEIDEL COMM 1	FORD OIL CO	Dry Hole	Plugging Approved	4/28/1947	Vertical	620
21139129550000	12955	ALPHEN, TILLIE 1	TRI COUNTY DEVELOPMENT CO	Oil Well	Plugging Approved	7/7/1958	Vertical	958
21139133840000	13384	ALFLEN, TILLIE ET AL 1	TRI COUNTY	Oil Well	Plugging Approved	8/14/1951	Vertical	1525
21139156030000	15603	SEIDEL, O A-ALFLEN ESTATE COMM 1	TRI COUNTY DEVELOPMENT CO	Oil Well	Plugging Approved	2/14/1956	Vertical	702

Data Validation Rules

When an EDD file is uploaded, the application will perform validation against both the header data information and all corresponding detail data records. This validation check also runs when you click the **Save** Button. These instructions can also be found in the "Validation Criteria" tab of the generated EDD file. For the AOR EDD the validation rules are as follows:

	Required?	Validation Criteria
Area of Review		
AOR Review Type	Yes	AOR Review Type is required and must be a valid value (see list of valid values in Description table below).
Request Type	Yes	Request Type is required and must be a valid value (see list of valid values in Description table below).
Operator Name	Yes	Operator Name is required.
Well Name & Number	Yes	Well Name & Number is required.
APD (pre-permit)	Conditional	If AOR Review Type is APD, must be a valid APD number.
API Number (if permitted)	Conditional	If AOR Review Type is not APD, must be a valid API number.
Surface Section	Yes	Surface Section is required and must be an integer between 1 and 36.
Surface Township	Yes	Surface Township is required and must be an integer.
Surface Township Direction	Yes	Surface Township Direction is required and must be either N or S.
Surface Range	Yes	Surface Range is required and must be an integer.
Surface Range Direction	Yes	Surface Range Direction is required and must be either E or W.
Surface Latitude	Yes	Surface Latitude is required and must be between Michigan's boundaries (a decimal between 41 and 49); digits beyond the 7th decimal place will be dropped.
Surface Longitude	Yes	Surface Longitude is required and must be between Michigan's boundaries (a decimal between -91 and -82); digits beyond the 7th decimal place will be dropped.
Surface Distance from N/S Section Line	No	Surface Distance from N/S Section Line must be an integer.
Surface Distance Direction N/S	Yes	Surface Distance Direction N/S is required and must be either N or S.
Surface Distance from E/W Section Line	No	Surface Distance from E/W Section Line must be an integer.
Surface Distance Direction E/W	Yes	Surface Distance Direction E/W is required and must be either E or W.
Bottom Hole Section	Yes	Bottom Hole Section is required and must be an integer between 1 and 36.
Bottom Hole Township	Yes	Bottom Hole Township is required and must be an integer.
Bottom Hole Township Direction	Yes	Bottom Hole Township Direction is required and must be either N or S.

Bottom Hole Range	Yes	Bottom Hole Range is required and must be an integer.
Bottom Hole Range Direction	Yes	Bottom Hole Range Direction is required and must be either E or W.
Bottom Hole Latitude	Yes	Bottom Hole Latitude is required and must be between Michigan's boundaries (a decimal between 41 and 49); digits beyond the 7th decimal place will be dropped.
Bottom Hole Longitude	Yes	Bottom Hole Longitude is required and must be between Michigan's boundaries (a decimal between -91 and -82); digits beyond the 7th decimal place will be dropped.
Bottom Hole Distance from N/S Section Line	No	Bottom Hole Distance from N/S Section Line must be an integer.
Bottom Hole Distance Direction N/S	Yes	Bottom Hole Distance Direction is required and must be either N or S.
Bottom Hole Distance from E/W Section Line	No	Bottom Hole Distance from E/W Section Line must be an integer.
Bottom Hole Distance Direction E/W	Yes	Bottom Hole Distance Direction is required and must be either E or W.
AOR Buffer Distance (feet)	Yes	AOR Buffer Distance (feet) is required and must be a positive non-zero integer.
USDW (formation name)	Yes	USDW (formation name) is required and must be a valid value (e.g., ANTRIM, COLDWATER SHALE, NIAGARAN).
Base of USDW (depth-feet)	Yes	Base of USDW (depth-feet) is required and must be an integer.
Confining Formation(s)	Yes	Confining Formation(s) is required and must be a comma separated list of valid formations (e.g., ANTRIM, COLDWATER SHALE, NIAGARAN).
Top of Confining Interval (depth-feet)	Yes	Top of Confining Interval (depth-feet) is required and must be an integer.
Base of Confining Interval (depth-feet)	Yes	Base of Confining Interval (depth-feet) is required and must be an integer.
Injection Formation(s)	Yes	Injection Formation(s) is required and must be a comma separated list of valid formations (e.g. ANTRIM, COLDWATER SHALE, NIAGARAN).
Top of Injection Interval (depth-feet)	Yes	Top of Injection Interval (depth-feet) is required and must be an integer.
Base of Injection Interval (depth-feet)	Yes	Base of Injection Interval (depth-feet) is required and must be an integer.
Type of Completion	Yes	Type of Completion is required and must be either 'Open Hole' or 'Perforated Casing'.
True Vertical Depth	Yes	True Vertical Depth is required and must be an integer.

	Required?	**Validation Criteria**
AOR Well List		
API Number (14 digit)	Yes	API Number (14 digit) is required and must be a valid API number.
Permit Number	Yes	Permit Number is required and must be a valid permit number.
Well Name	Yes	Well Name is required.
Operator Name	Yes	Operator Name is required.
Well Type	Yes	Well Type is required and must be a valid value (see list of valid values in Description table below).
Well Status	Yes	Well Status is required and must be a valid value (see list of valid values in Description table below).
Plugging Date	No	Plugging Date must be a valid date format (e.g. MM/DD/YYYY).
Wellbore Orientation	Yes	Wellbore Orientation is required and must be Vertical, Directional, or Horizontal.
Distance to Project Well	No	Distance to Project Well must be an integer.

Surface Section	Yes	Surface Section is required and must be an integer and must be an integer between 1 and 36.
Surface Township	Yes	Surface Township is required and must be an integer.
Surface Township Direction	Yes	Surface Township Direction is required and must be either N or S.
Surface Range	Yes	Surface Range is required and must be an integer.
Surface Range Direction	Yes	Surface Range is required and must be either E or W.
Surface Latitude	Yes	Surface Latitude is required and must be between Michigan's boundaries (a decimal between 41 and 49); digits beyond the 7th decimal place will be dropped.
Surface Longitude	Yes	Surface Longitude is required and must be between Michigan's boundaries (a decimal between -91 and -82); digits beyond the 7th decimal place will be dropped.
Bottom Hole Section	Yes	Bottom Hole Section is required and must be an integer between 1 and 36.
Bottom Hole Township	Yes	Bottom Hole Township is required and must be an integer.
Bottom Hole Township Direction	Yes	Bottom Hole Township Direction is required and must be either N or S.
Bottom Hole Range	Yes	Bottom Hole Range is required and must be an integer.
Bottom Hole Range Direction	Yes	Bottom Hole Range Direction is required and must be either E or W.
Bottom Hole Latitude	Yes	Bottom Hole Latitude is required and must be between Michigan's boundaries (a decimal between 41 and 49); digits beyond the 7th decimal place will be dropped.
Bottom Hole Longitude	Yes	Bottom Hole Longitude is required and must be between Michigan's boundaries (a decimal between -91 and -82); digits beyond the 7th decimal place will be dropped.
Reference Elevation (MSL)	Yes	Reference Elevation (MSL) is required and must be an integer.
Reference Elevation Type	Yes	Reference Elevation Type is required. Valid values are Casing Head, Derrick Floor, Ground Level, or Kelly Bushing.
Max Measured Depth	Yes	Max Measured Depth is required and must be an integer.
Max True Vertical Depth	Yes	Max True Vertical Depth is required and must be an integer.
Deepest Formation	Yes	Deepest Formation is required and must be a valid formation (e.g. ANTRIM, COLDWATER SHALE, NIAGARAN).
Wellbore Above / Into / Below Injection Formation	Yes	Wellbore Above / Into / Below Injection Formation is required and must be Above, Into, or Below.
Wellbore Above / Into / Below Confining Formation	Yes	Wellbore Above / Into / Below Confining Formation is required and must be Above, Into, or Below.
Production Casing Present	No	Production Casing Present must be Yes or No.
Production Casing Depth (MD)	No	Production Casing Depth (MD) must be an integer.
Top of Production Cement (MD)	No	Top of Production Cement (MD) must be an integer.
Amount of Production Casing Recovered	No	Amount of Casing Recovered must be an integer.
Intermediate Casing Present	No	Intermediate Casing Present must be Yes or No.
Intermediate Casing Depth (MD)	No	Intermediate Casing Depth (MD) must be an integer.
Top of Intermediate Cement (MD)	No	Top of Intermediate Cement (MD) must be an integer.

Amount of Intermediate Casing Recovered	No	Amount of Intermediate Casing Recovered must be an integer.
Depth Surface Casing (MD)	No	Depth Surface Casing (MD) must be an integer.
Well Construction Remarks	No	
Plugs	No	Plugs must be an integer.
Plug Remarks	No	
Corrective Action Required	Yes	Corrective Action Required is required and must be Yes or No.
Corrective Action Method	Conditional	Corrective Action Method is required when Corrective Action Required is Yes. Valid values: Plug, Replug, Casing Repair/Remedial Cement, or Other.
Corrective Action and General Remarks	Conditional	Corrective Action and General Remarks is required when Corrective Action Required is Yes.

Filling Out Header Record

The header portion of the report form is the data in the top (blue) part of the EDD. This section includes information for the proposed well location.

	Explanation
Area of Review	
AOR Review Type	AOR Review Type includes: APD, Existing Permit, File Review, or Other.
Request Type	Request Type includes: Part 625 Waste Disposal Well, Part 625 Brine Production, Part 625 Processed Brine Disposal, Part 615 Brine Disposal, Part 615 Hydrocarbon Storage, Part 615 Injection for Secondary Recovery, or Part 615 ACOWS to Hydraulically Fracture.
Operator Name	Official operator name with OGMD.
Well Name & Number	OGMD recorded name/number for the API or permit application.
APD (pre-permit)	APD number from permit application.
API Number (if permitted)	14-digit number.
Surface Section	Section where surface of well is located.
Surface Township	Township where surface of well is located.
Surface Township Direction	Township Direction where surface of well is located.
Surface Range	Range where surface of well is located.
Surface Range Direction	Range Direction where surface of well is located.
Surface Latitude	Latitude where surface of well is located.
Surface Longitude	Longitude where surface of well is located.
Surface Distance from N/S Section Line	Distance from N/S Section Line to surface of where well is located.
Surface Distance Direction N/S	Distance Direction N/S to surface of where well is located.
Surface Distance from E/W Section Line	Distance from E/W Section Line to surface of where well is located.
Surface Distance Direction E/W	Distance Direction E/W to surface of where well is located.
Bottom Hole Section	Section where bottom of well hole is located.
Bottom Hole Township	Township where bottom of well hole is located.
Bottom Hole Township Direction	Township Direction where bottom of well hole is located.
Bottom Hole Range	Range where bottom of well hole is located.

Bottom Hole Range Direction	Range Direction where bottom of well hole is located.
Bottom Hole Latitude	Latitude where bottom of well hole is located.
Bottom Hole Longitude	Longitude where bottom of well hole is located.
Bottom Hole Distance from N/S Section Line	Distance from N/S Section Line where bottom of well hole is located.
Bottom Hole Distance Direction N/S	Distance Direction where bottom of well hole is located.
Bottom Hole Distance from E/W Section Line	Distance from E/W Section Line where bottom of well hole is located.
Bottom Hole Distance Direction E/W	Distance Direction where bottom of well hole is located.
AOR Buffer Distance (ft)	Radius distance (in feet) of the buffer from the proposed well location.
USDW (formation name)	Formation name for USDW (underground source of drinking water).
Base of USDW (depth-ft)	Depth in feet to the base of the USDW (underground source of drinking water).
Confining Formation(s)	Name of the confining formation(s).
Top of Confining Interval (depth-ft)	Depth in feet to top of Confining interval.
Base of Confining Interval (depth-ft)	Depth in feet to base of Confining Interval.
Injection Formation(s)	Name of injection formation(s).
Top of Injection Interval (depth-ft)	Depth in feet to top of Injection interval.
Base of Injection Interval (depth-ft)	Depth in feet to base of Injection interval.
Type of Completion	Type of Completion = 'Open Hole' or 'Perforated Casing'.
True Vertical Depth	True Vertical Depth in ft.

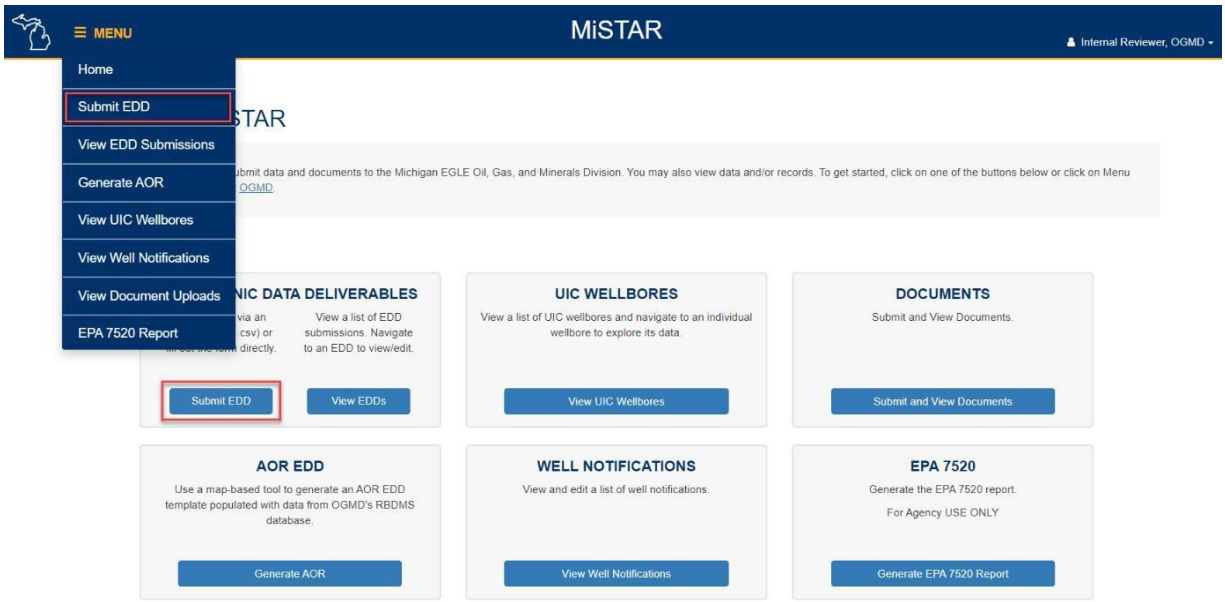
Filling Out Data Records

The data record portion of the report form is the bottom (green) part of the EDD. The data in this portion of the report includes the individual well information for each well in the AOR. Of specific note is the Corrective Action Required (Yes or No) field. The user will have to evaluate the individual details of the specific well as to if there is any reason for a well within the AOR to require corrective action, should the proposed injection or disposal well be permitted.

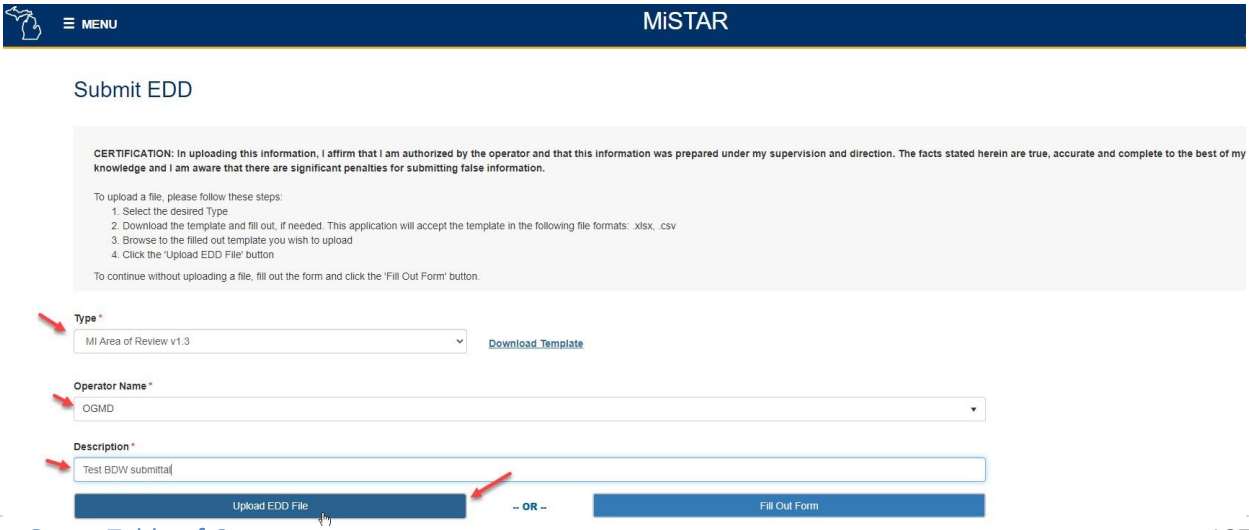
	Explanation
AOR Well List	
API Number (14 digit)	14-digit API Number for well.
Permit Number	OGMD assigned Permit Number.
Well Name	Should match OGMD recorded name/number for the API or permit application.
Operator Name	Official operator name with OGMD.
Well Type	Valid Values: CO2 Injection Well, Water Supply Well, Brine Disposal Well, Dry Hole, Natural Gas Well, Gas Production and Brine Disposal, Gas Condensate Well, Gas Injection Well, Gas Storage, Gas Storage Observation Well, Lost Hole, Location, Liquified Petroleum Gas Storage, Part 625 Disposal Well, Part 625 Natural Brine, Part 625 Solution Mining, Part 625 Storage Well, Part 625 Test Well, Observation Well, Oil Well, Other Well, Other Injection Well, Water Injection Well, Comb. Oil & Shale Gas, Comb. Oil & Gas Condensate, Comb. Gas & Shale Gas
Well Status	Valid values: Active, Application, Drilling Completed, Drilling, Not Available, Owner Abandoned, Other, Orphan, Plugged Back, Plugging Approved, Plugging Completed, Plugging, Producing, Pilot, Permitted Well, Shut_In, Sump, Suspended Operations, Temporarily Abandoned, Terminated Permit, Well Completed, Water Supply
Plugging Date	Date well was plugged.

Wellbore Orientation	Valid values: Vertical, Directional, or Horizontal.
Distance to Project Well	Distance in feet to Proposed Well (well described in header).
Surface Section	Section where surface of well is located.
Surface Township	Township where surface of well is located.
Surface Township Direction	Township Direction where surface of well is located.
Surface Range	Range where surface of well is located.
Surface Range Direction	Range Direction where surface of well is located.
Surface Latitude	Latitude where surface of well is located.
Surface Longitude	Longitude where surface of well is located.
Bottom Hole Section	Section where bottom of well hole is located.
Bottom Hole Township	Township where bottom of well hole is located.
Bottom Hole Township Direction	Township Direction where bottom of well hole is located.
Bottom Hole Range	Range where bottom of well hole is located.
Bottom Hole Range Direction	Range Direction where bottom of well hole is located.
Bottom Hole Latitude	Latitude where bottom of well hole is located.
Bottom Hole Longitude	Longitude where bottom of well hole is located.
Reference Elevation (MSL)	Reference Elevation (MSL) in feet.
Reference Elevation Type	Valid values: Casing Head, Derrick Floor, Ground Level, or Kelly Bushing.
Max Measured Depth	Max Measured Depth in feet.
Max True Vertical Depth	Max True Vertical Depth in feet.
Deepest Formation	Reference list of valid formation names in RBDMS.
Wellbore Above / Into / Below Injection Formation	Valid values: Above, Into, or Below.
Wellbore Above / Into / Below Confining Formation	Valid values: Above, Into, or Below.
Production Casing Present	Yes or No.
Production Casing Depth (MD)	Depth (MD) in feet to bottom of Production Casing.
Top of Production Cement (MD)	Depth (MD) in feet to top of Production Cement.
Amount of Production Casing Recovered	Amount of Production Casing Recovered in feet.
Intermediate Casing Present	Yes or No.
Intermediate Casing Depth (MD)	Depth (MD) in feet to bottom of Intermediate Casing.
Top of Intermediate Cement (MD)	Depth (MD) in feet top of Intermediate Cement.
Amount of Intermediate Casing Recovered	Amount of Intermediate Casing Recovered in feet.
Depth Surface Casing (MD)	Depth (MD) in feet to bottom of Surface Casing.
Well Construction Remarks	
Plugs	Number of plugs.
Plug Remarks	
Corrective Action Required	Yes or No.
Corrective Action Method	Valid values: Plug, Replug, Casing Repair/Remedial Cement, or Other.
Corrective Action and General Remarks	Explanation of corrective action if applicable. Other remarks also allowed.

UPLOAD THE COMPLETED AOR EDD

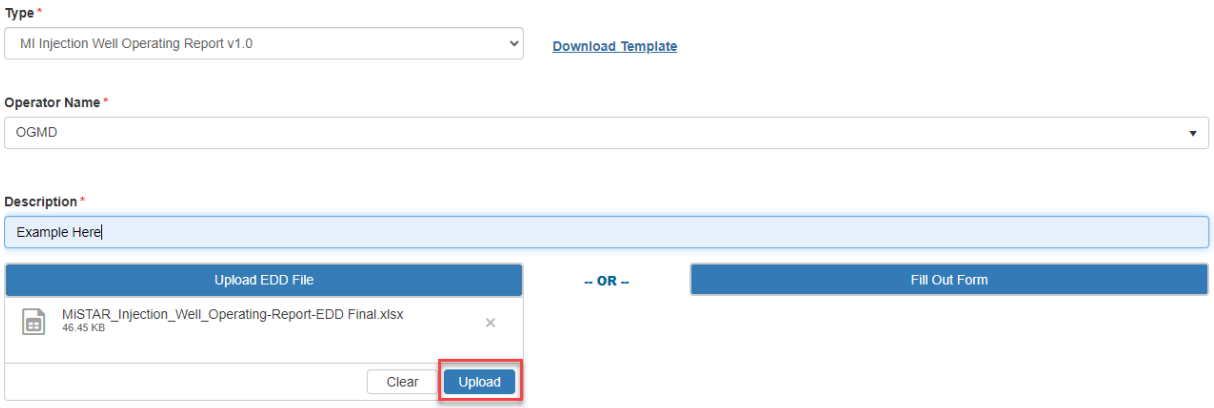


1. Navigate to the **Submit EDD** page (see the EDD Upload Tool Instructions document for more detailed instructions). Select "MI Area of Review" from the *Type* dropdown. Select the *Operator Name* from the dropdown and fill out the *Description* field. These fields are required. The *Description* field can be helpful in distinguishing between records on the **View EDD Submissions** page- while there is no specific information required in the field, OGMD suggests you enter something that allows the submitter to distinguish between uploaded files. An operator should not use this field to provide any regulatory information to OGMD. Once the fields are all complete click the **Upload EDD File** button and navigate to and select the completed AOR EDD file.

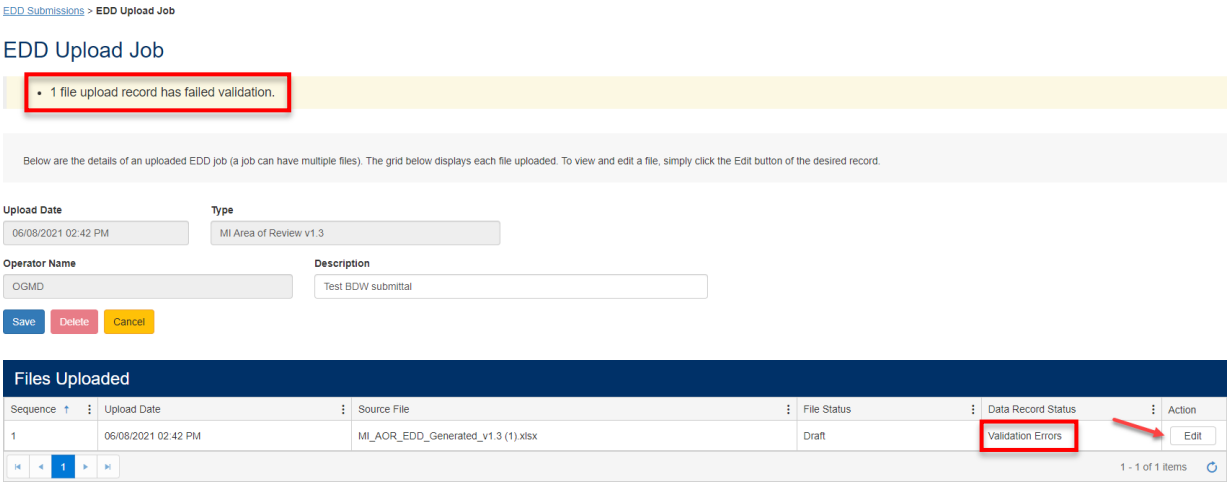


2. Click the **Upload** button once you have selected the file you wish to upload. If you accidentally attempt to upload a file of a different type than the one selected in the *Type* dropdown you will receive an error.

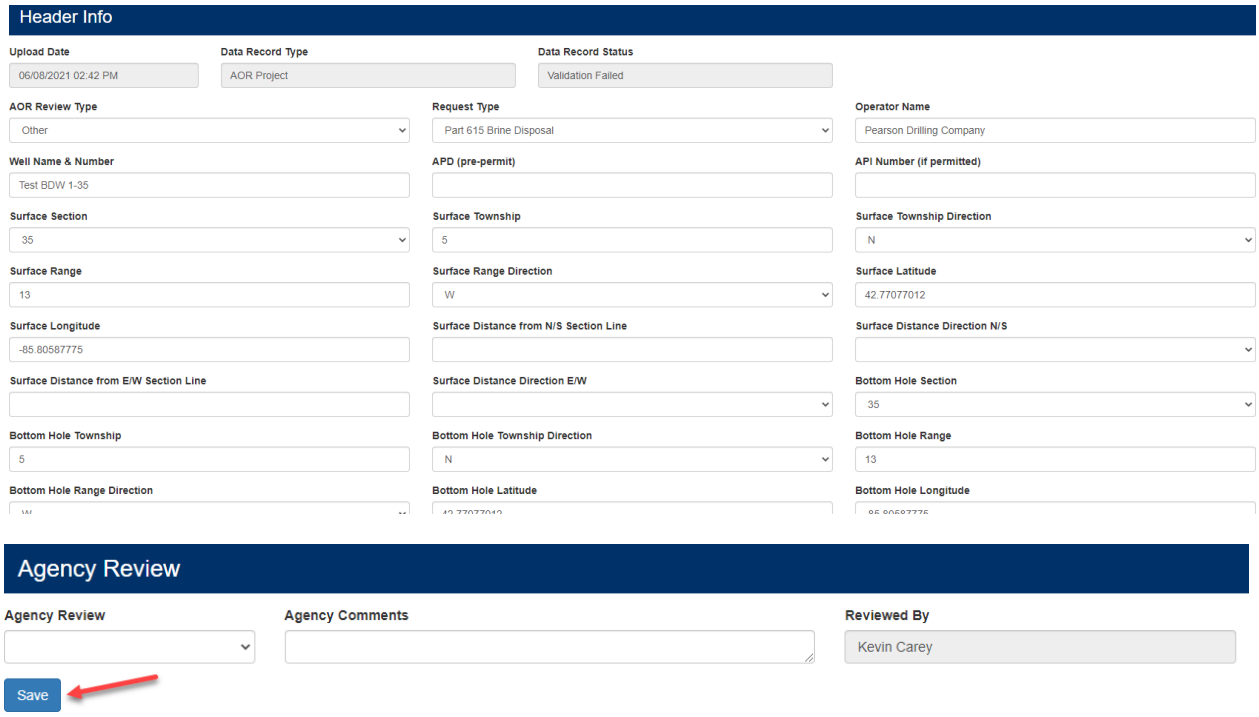
   NOTE: By selecting the Upload button you are agreeing to the CERTIFICATION statement at the top of the Submit EDD page.

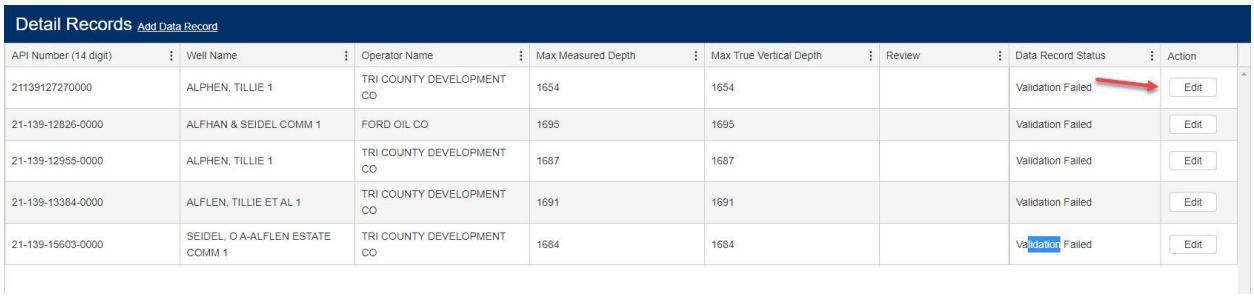


3. After the file has uploaded the application will take you to the **EDD Upload Job** page. You may see a message at the top of the screen indicating that the EDD is processing. Depending on the number of records and corresponding validation criteria, processing time may vary from a few seconds to a minute or two. Processing occurs in the background, so you may navigate to other pages or close the application without impacting processing.



4. If the program finds fields which do not meet the validation criteria during the upload it will display this result showing a status of “Validation Errors” and a notice at the top of the screen that the file failed validation. You can then click the **Edit** button under Action to see the details of the validation error and edit the record.
5. When any EDD file is uploaded, the application will perform validation against both the header data and all corresponding detail data records. The validation check also runs when you click the Save button. Validation errors, if any, will be displayed at the top of the **EDD Overview** page for the EDD. The Header detail fields appear on this page and can be edited and saved to address any errors. A table of the associated detail records with additional edit links appears below the header fields. Each of these can be edited in a similar fashion to address any validation errors.





6. Continue the process of editing and submitting the record for approval on the **EDD Overview**

page. For further instructions on this process see the documentation section on the EDD Upload Tool-Basic Instructions.