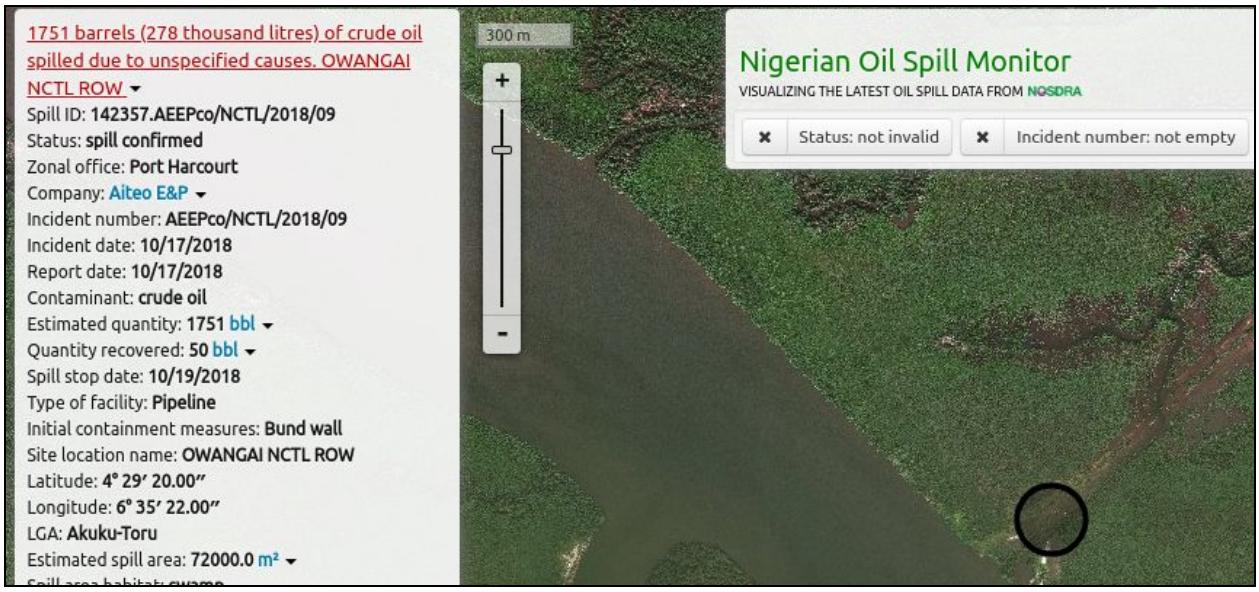
Oil Spill Monitor - User guide



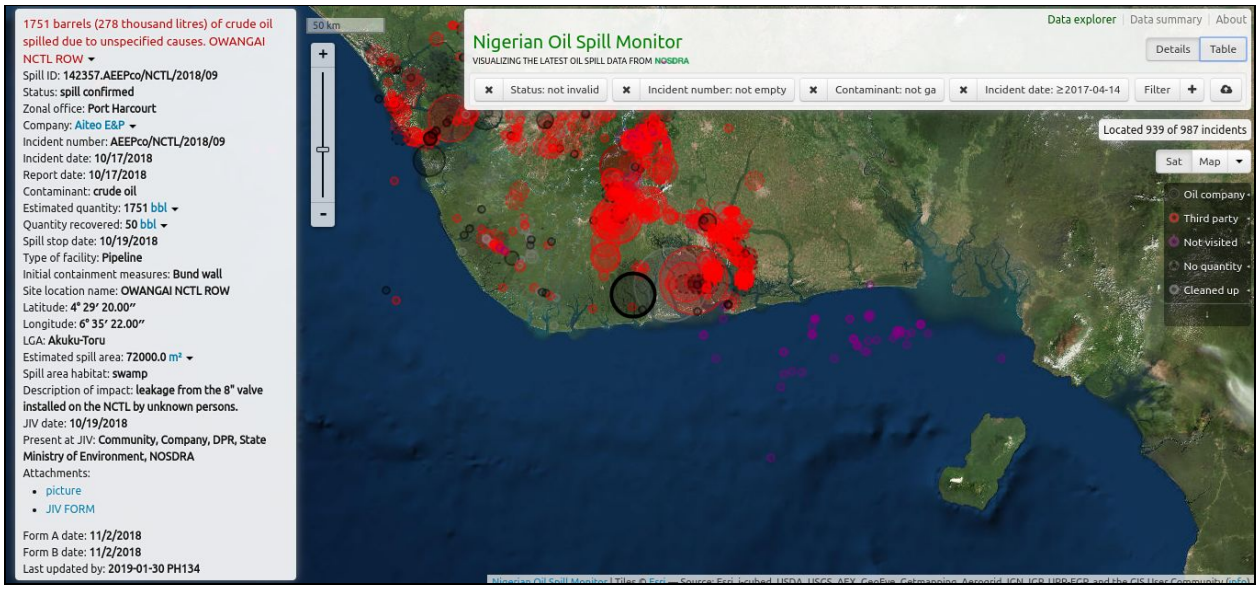
This user guide accompanies the Oil Spill Monitor application and video demonstrations of the application found at nosdra.oilspillmonitor.ng. More information about oil spills in Nigeria, and about NOSDRA's oil spill data can be found at nosdra.oilspillmonitor.ng.

This documentation is designed to be used in conjunction with the application os that the reading is carried out with practice at the same time. As such first we open the application 'full screen' to give us more room on the screen. This can also be achieved by going directly to the application at oilspillmonitor.ng, instead of to the website at nosdra.oilspillmonitor.ng

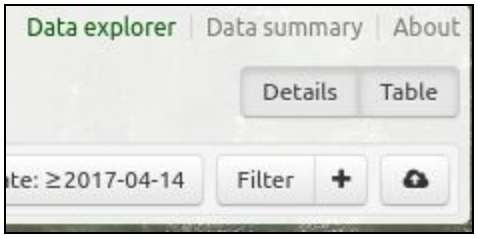
The details, table and summary views

The details / map view

There are three main ways to view the data in the Oil Spill Monitor. The default one that loads initially on-screen is the map/details view. This displays a map of all spill records returned based on the current filters. By clicking on one of the circles on the map, the details of the spill record appear in the right-hand side of the screen.

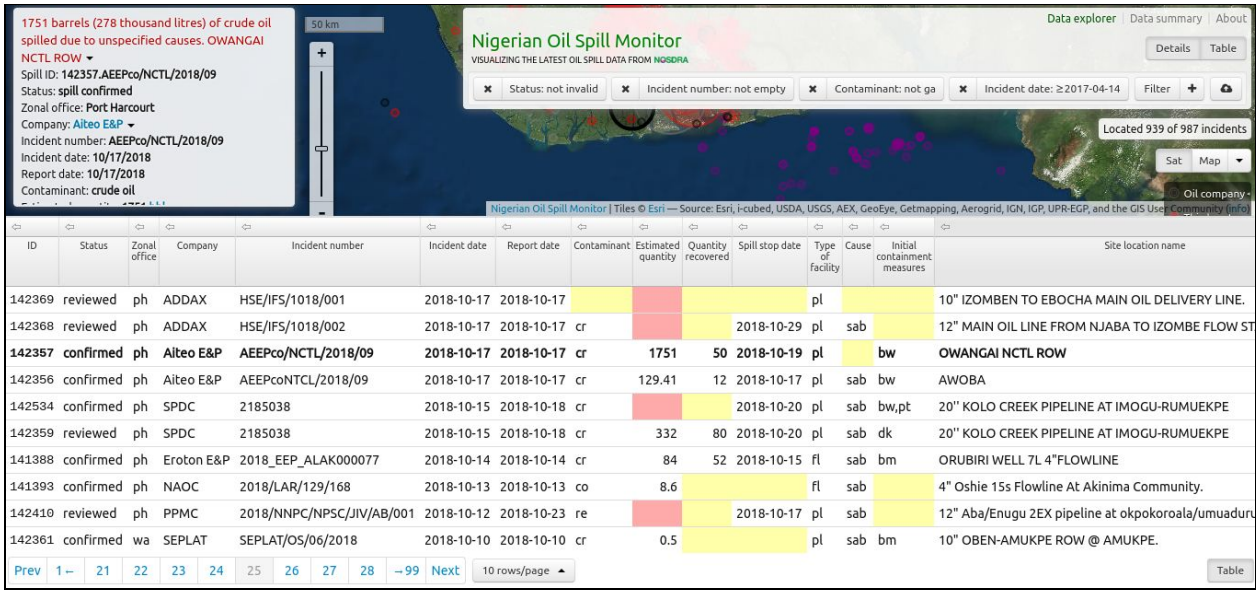


The table view



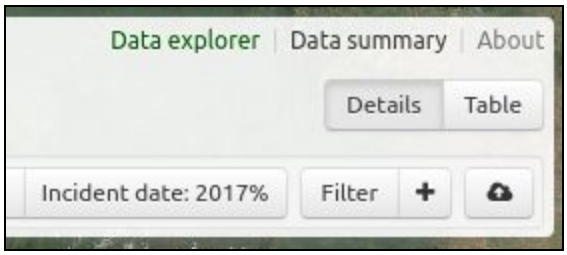
← The table view can be opened and closed by clicking on the [Table] button in the top-right of the screen.

The table view shows the available data, as returned by the current filters, in a tabulated format. It has the benefit of listing spill records that do not have geo-coordinates and are therefore not visible on the map. The table view is just another way of seeing the same data available in the map/details view:



^^^^^^^^^^^^^^^^ Towards the bottom of the table view is pagination as shown here so you can browse through the spill data. There are 10 spill records to a page in the table view.

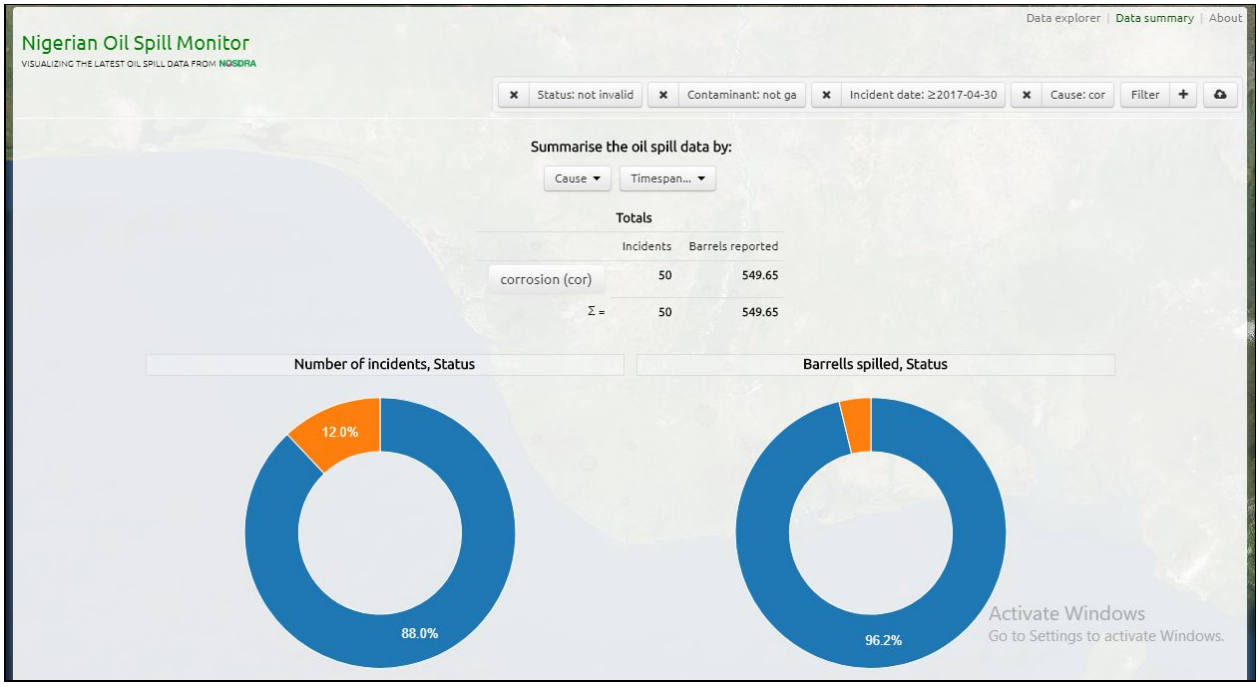
The summary view



← The summary view can be accessed by clicking on the 'Data Summary' link at the top-right corner of the screen.

← Note that in this image the [Incident date:] filter is set to show all spill records in 2017

The 'Data summary' view shows exactly the same data that is visible using the map/details and table views. No extra information is available here but it the information is more easy to visualise and gain insight from, due to its drill-down options and graph displays:

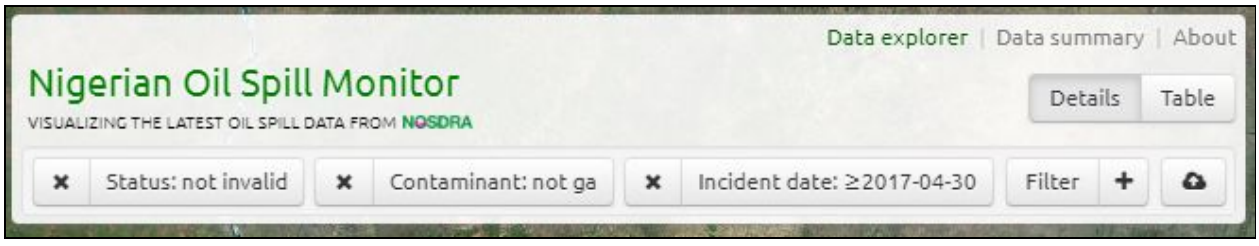


There will be more information about how to use the Data summary feature in a separate part of the documentation dedicated to this below.

Using the filters to isolate individual spills or subsets of oil spill records

The default filters explained

When the Oil Spill Monitor first loads, it comes with a number of default filters applied in the main filter toolbar. These are displayed and explained below:



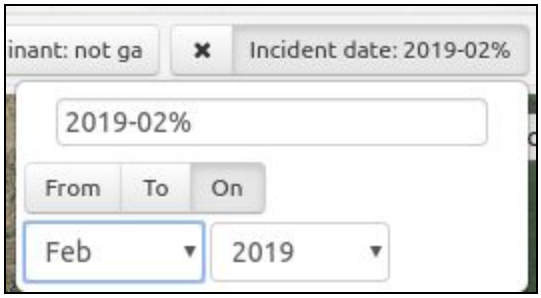
- [Status: not invalid] - This filter is applied initially to remove invalid oil spill records from view. (Invalid records are those entered in error) It is usually a good idea to leave this filter in position.
- [Contaminant: not gas] - This filter removes any gas leak incidents (which NOSDRA also deal with) from the initial view. This is helpful as NOSDRA's main

priority is with oil spills. To see all gas leaks within the period we can simply remove the '!/not' part of the filter. Note that the exclamation mark [!] implies 'not' when used in the Oil Spill Monitor filter system.

- [Incident date: xxxxxx] - This is set by default to display all spill records from the past two years (two years from today's date). If you are looking for spill records from other time-periods the Incident date filter will need to be changed.

Searching for a spill incidents within a certain timeframe

Using the [Incident date:] or [JIV date:] filter options it is possible to search the Oil Spill Monitor and refine your results to within a set time period. For example if we are searching for an oil spill record and we know the spill occurred sometime in February 2019, we can search for this as follows:

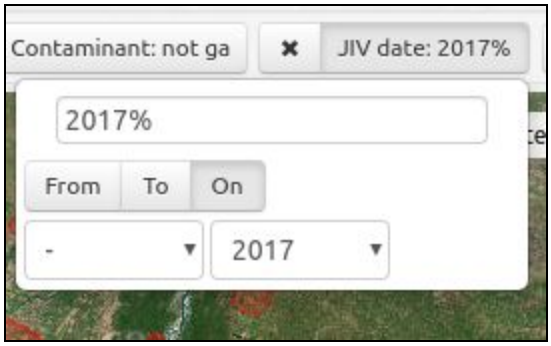


← First click on the [Incident date:] filter

←This is the longhand filter. It says, as is outlined below:
← Show me spills records with [Incident date] that fall on...
← February 2019

Once the date filter is set, the system will return all spills within the time period specified.

In a similar way, if we know when a JIV took place (The Joint Investigative Visit or JIV is where oil spill incidents are investigated by NOSDRA, communities, and oil companies), it is possible to search for spill records using the [JIV date:] instead of the [Incident date:]:

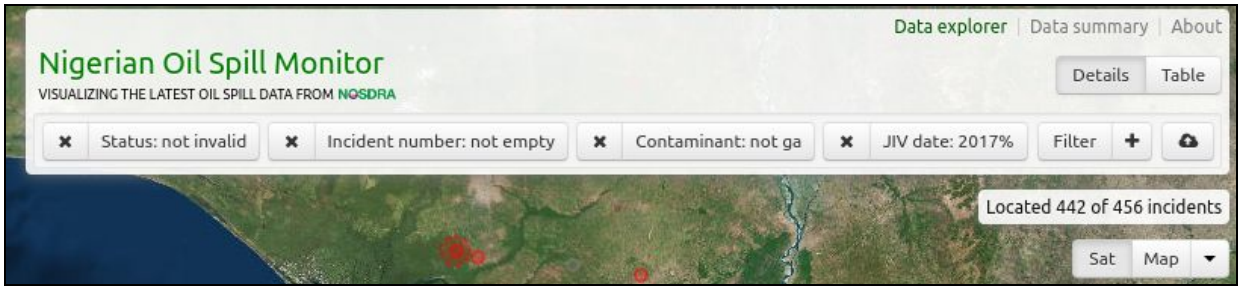


← Here we are using the [JIV date:] filter instead

← This is the longhand filter. It says, as is outlined below:
← Show me spills records with [JIV date] of
← Any month in 2017

BE CAREFUL NOT TO COMBINE A [JIV date:] WITH A [Incident date:] FILTER UNLESS YOU ARE SURE THAT BOTH ARE CORRECT. IF YOU DO THIS BOTH WILL NEED TO RETURN A MATCH. IT IS BETTER TO USE EITHER A [JIV date:] OR A [Incident date:] FILTER.

The filters in the sreengrab below read: Show me spill records that have a valid status, that have an incident number, that are not gas leaks and where a JIV took place in 2017.



The system finds 456 incidents, of which 442 can be located on the map ^^^^^^^^^^^^^

Finding specific oil spill records when you know part of the incident number

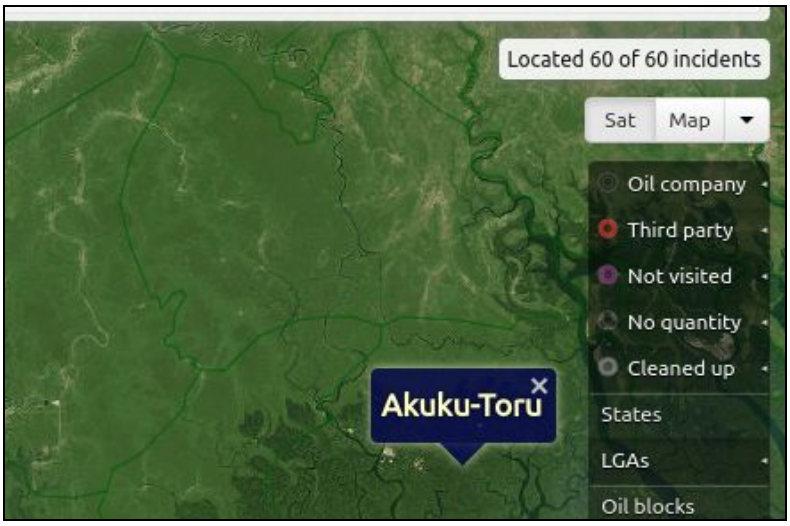
If you know all or part of a spill record incident number, or you have an incident number that you think might be incorrect, you can search for it using the [Incident number:] filter. You can either enter the full incident number in the [Incident number:] filter, but if you only have part of the incident number you can also use wildcards (indicated by the % symbol) to look for spill records containing only a part of the incident number:

By checking for spill records containing LAR/016/025 in the [incident number:], that are [contaminant: not gas] leaks and have a [JIV date:] of 2017 we are returned 1 incident record.

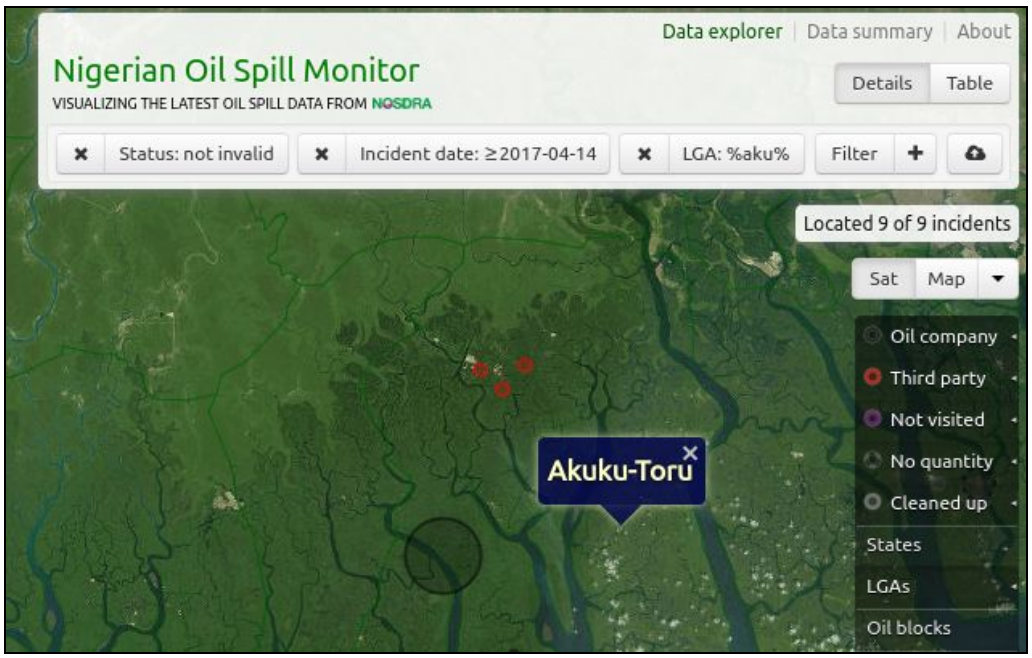
Finding specific oil spill records when you know the area it took place

If you know which LGA a spill took place in, it is possible to refine your search for it using the [LGA] filter.

To do this it is first wise to check out the correct spelling of LGA's by turning on the LGA map layer. The LGA map layer can be clicked on the map to see the name and correct spelling of the LGA:



← The LGA layer selector

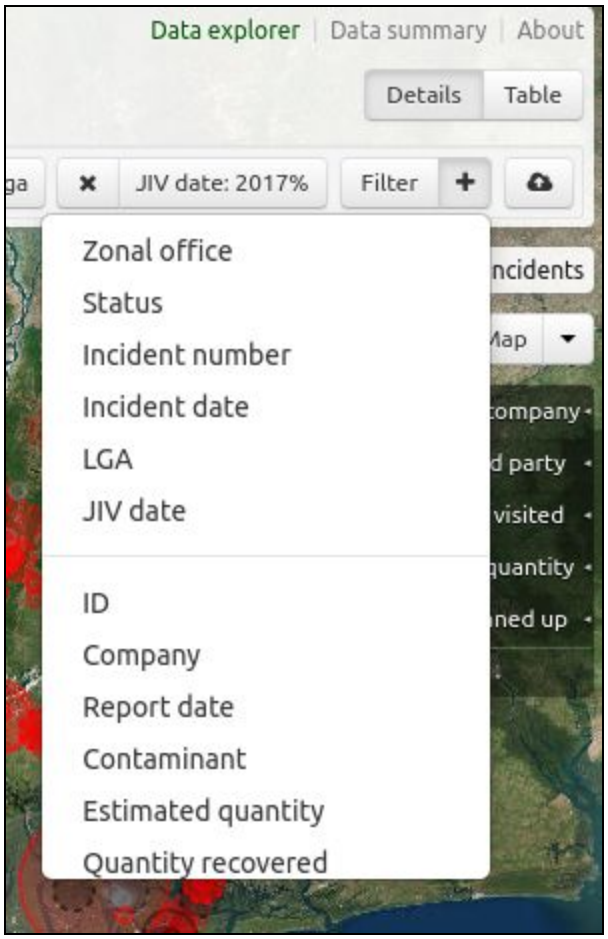


←- In this filter we are using the [LGA] fiter to search for records in an LGA containing the text 'aku' [LGA:%aku%]. Akuku-Toru is the LGA name that matches.

NOTE THAT NOT ALL SPILL RECORDS HAVE AN ENTRY IN THE [LGA] FIELD. AS SUCH THERE MAY BE SPILLS IN AN LGA THAT ARE NOT RETURNED EVEN THOUGH THEY ARE IN THE AREA.

LIKEWISE IF THE [LGA] FILTER IS SET TO EMPTY [LGA: empty] THIS WILL LIMIT YOUR RESULTS MASSIVELY AS IT IS ASKING ONLY FOR SPILL RECORDS THAT HAVE NO VALUE IN THE [LGA] DATA FIELD.

How to add and remove filters to search for oil spill records



← To add new filters to the filter bar, we click the [Filter [+]] Icon shown here

← This opens a dropdown menu of all the filters we can use to search for spill records by, which includes every field in the data structure.

In this way powerful search queries can be built and spill incidents looked up quickly with limited information known.

It also allows to limit the results displayed to specific Companies, LGA's, Habitats, etc so that the nature of spills can be explored and cross referenced in detail.

PLEASE TAKE CARE WHEN ADDING FILTERS THAT THEY ARE ALSO REMOVED WHEN YOU START LOOKING FOR SOMETHING ELSE.

IF YOU ARE NOT GETTING EXPECTED RESULTS RETURNED MAYBE CHECK THAT YOU DO NOT HAVE INCORRECT OR EXTRA FILTERS APPLIED THAT YOU DO NOT NEED.

ALSO PLEASE TAKE NOTE THAT TOO MANY FILTERS MAY HINDER YOUR SEARCH. EACH NEW FILTER ADDED IS ADDING EXTRA CRITERIA TO YOUR SEARCH WHICH MEANS ALL OF THEM MUST MATCH TO GET A RESULT.

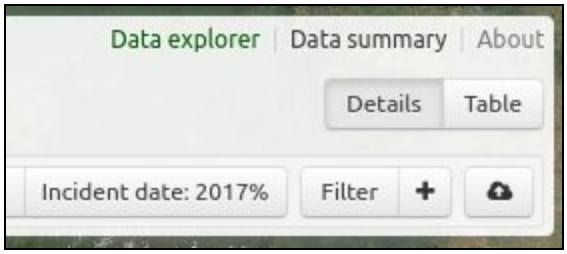
AS SUCH LESS FILTERS CAN OFTEN BE MORE HELPFUL THAN MORE.

Practical workshop activities

In order to familiarise yourself with using the filter toolbar, spend a few minutes practicing using the filters by answering the following questions:

1. Use the main filters to find a spill where you only have the spill ID part .2019/NL/005/ - TIP: use the %% wildcards
2. Use the filters to isolate spill records in April 2017 in Delta State. TIP: use the [States affected:] filter combined with a date filter
3. Use the filters to isolate all gas leaks during 2018. TIP: ! signifies not, so a [contaminant:! Ga] filter is looking for spills that are NOT gas.
4. Use the filters to find out how many spills recorded in 2019 by the Warri Zonal Office. TIP: [Zonal office: Wa] combined with a date filter

Checking and using the 'Data summary' feature to explore spill metrics

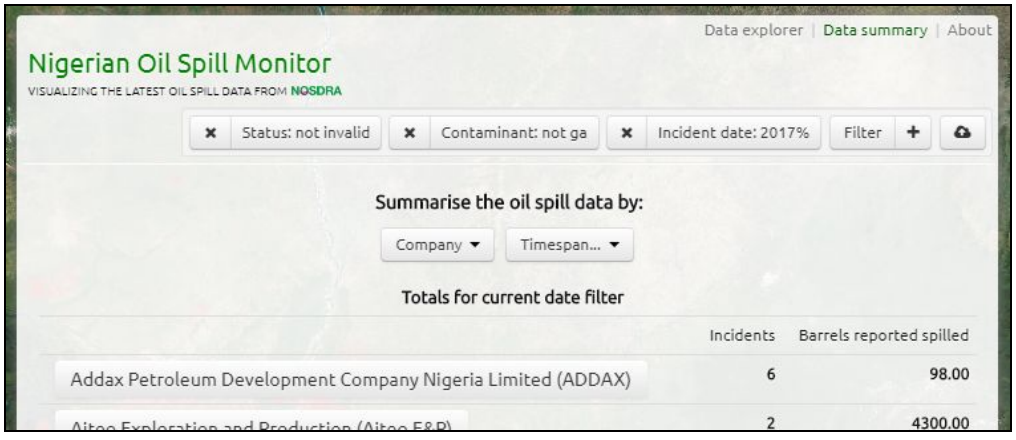


← The summary view can be accessed by clicking on the 'Data Summary' link at the top-right corner of the screen.

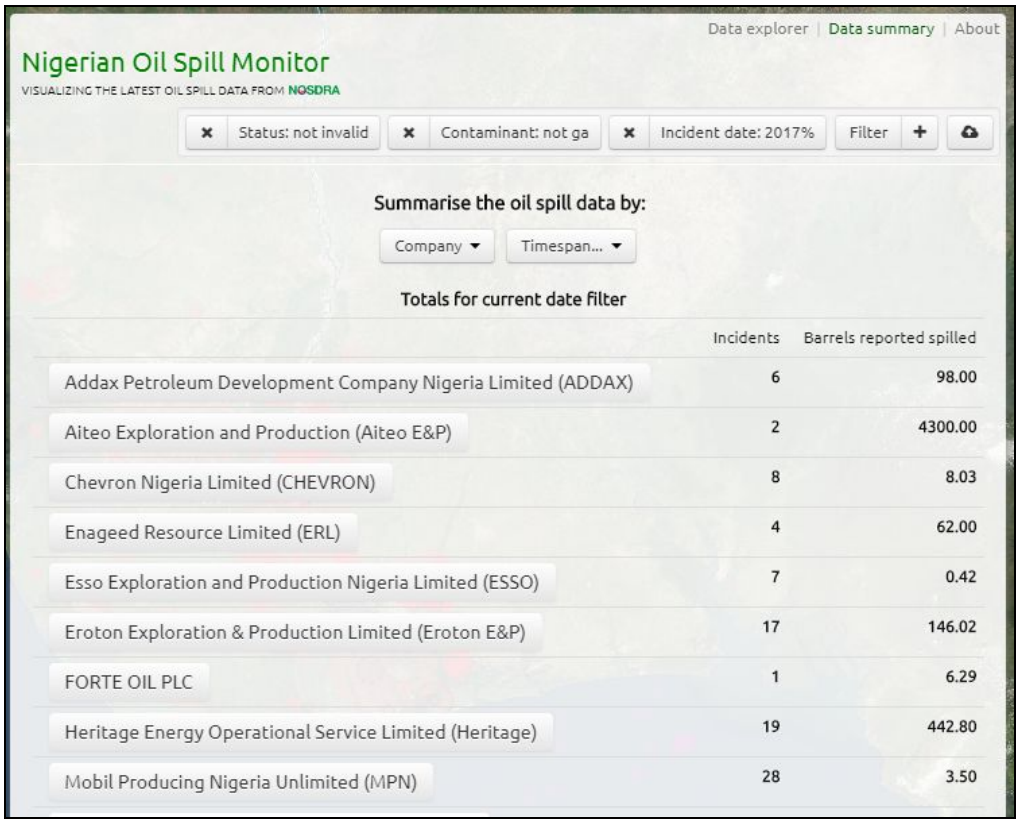
← Note that in this image the [Incident date:] filter is set to show all spill records in 2017

The first thing to note about the summary view is that the same filters apply to it and the map and table views. For the sake of this demonstration we are going to explore data from 2017. To do this we set the main filter to 2017.

By default the 'Data summary' display shows summary data by Company, showing the totals for the current date filter.:

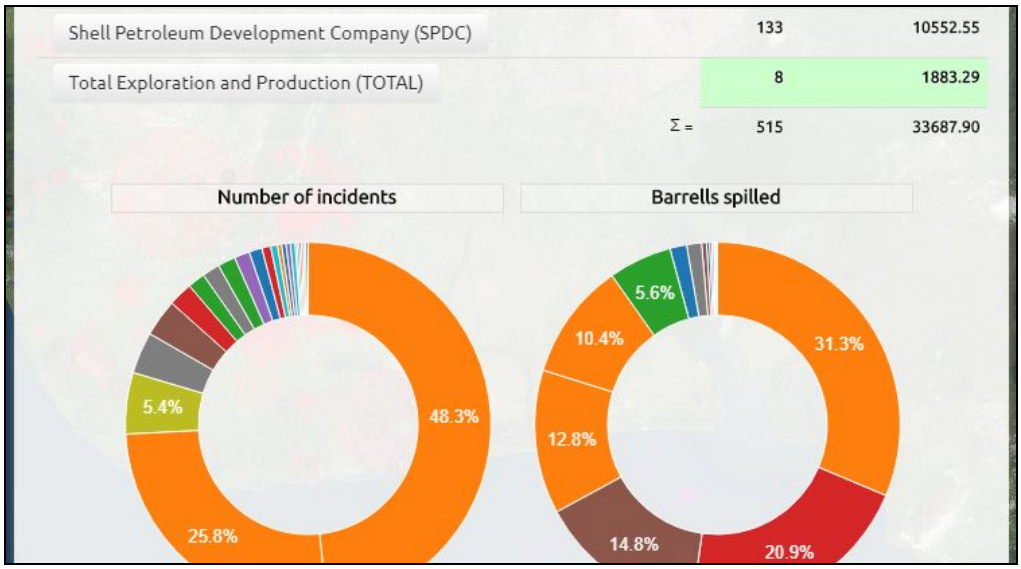


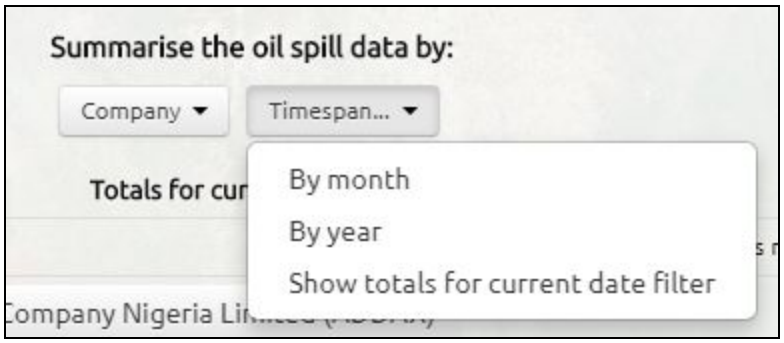
← It is important to note that the main filters always apply to everything displayed below.



← Each company is listed separately with the number if incident and barrels reported spilled

At the bottom of the list are the numbers represented as pie charts:

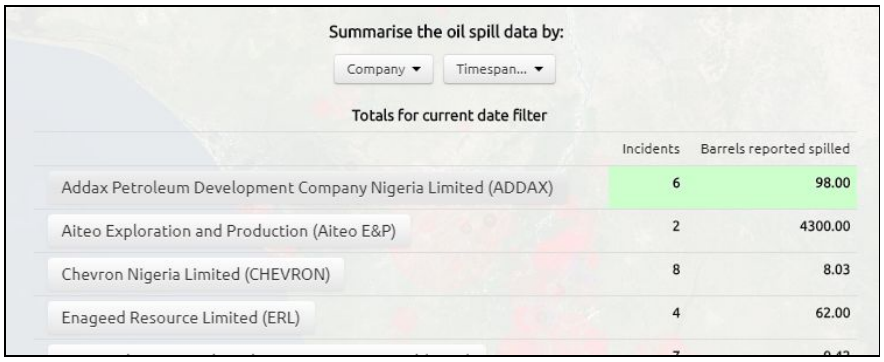




← By clicking on the 'Timespan' drop-down we can select to display all the data in this period by individual months or years.

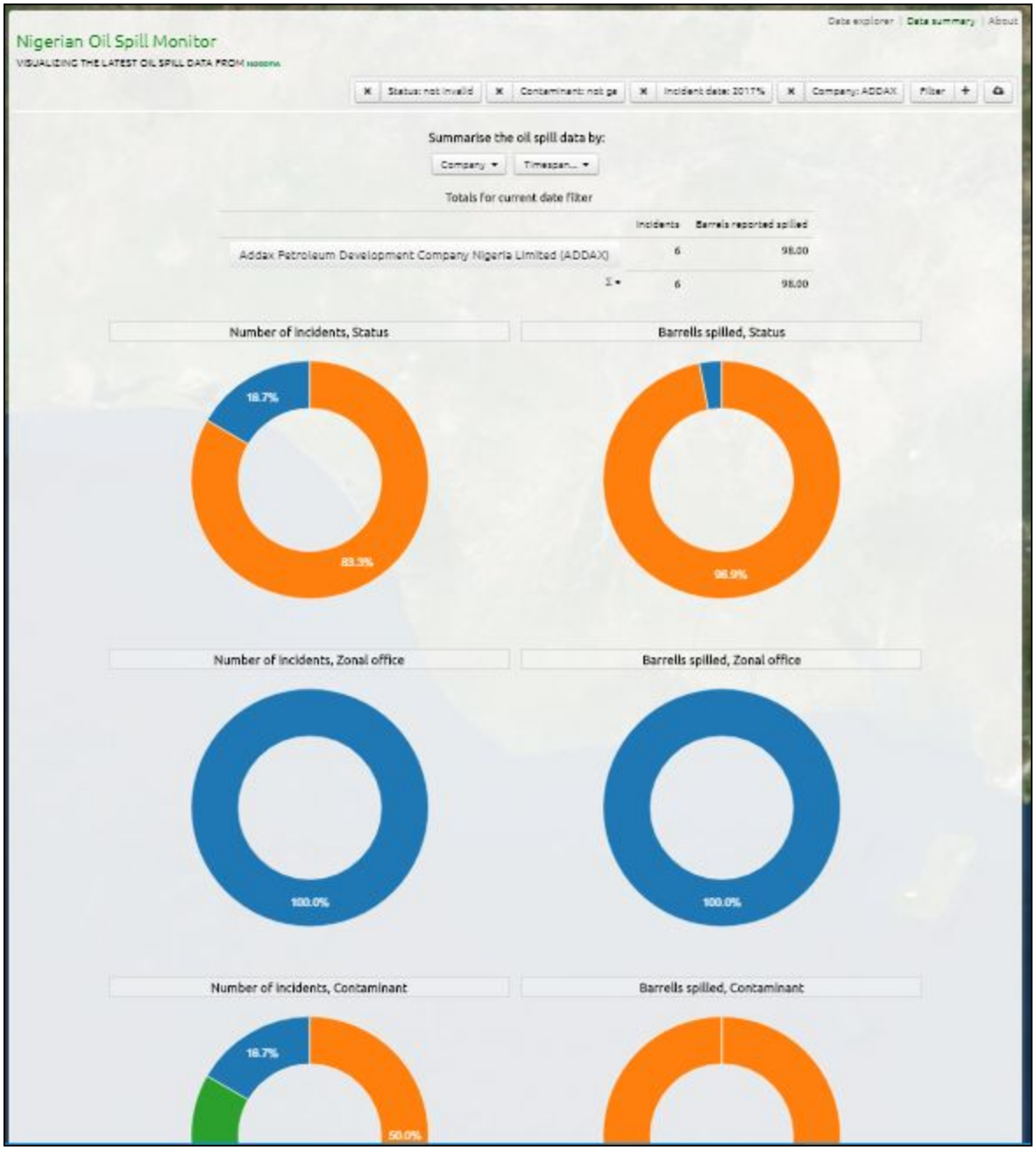
This also draws a graph which is useful when we want to drill down into the details of a specific company:

--> If we click on the name of a company we can drilldown to explore its spill records in more detail



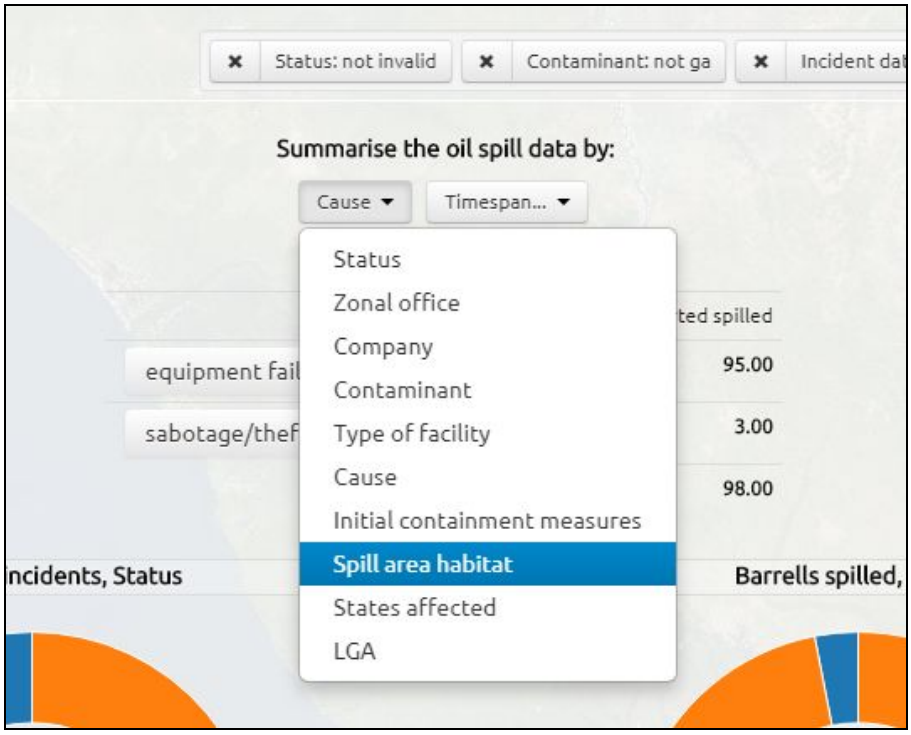
It is important to note that when drilling down to explore a metric like a specific company, that this is added to the main filter bar. Below we see that the filter [Company: ADDAX] has now been added to the main filter. We will want to remove this filter before we explore other companies or metrics:

Toward the bottom of the 'Data summary' screen there are a number of pie charts that show a breakdown of the available information.



By using the 'Data summary' drill-down feature more detailed understanding and insight can be ascertained from the data available within the Oil Spill Monitor system.

Further drilldown is then possible by selecting other metrics from the drop-down list:



The default metric displayed in the summary view, is 'Company', but this can be changed by selecting any of the other options in the list.

This will then redraw the graphs, charts and data using the new metric instead.

REMEMBER THAT YOU WILL NEED TO REMOVE PREVIOUSLY SET FILTERS TO RESET THE SUMMARY AND START A NEW DRILL-DOWN INTO THE DATA.

The geographical States and LGA summary information is very informative to indicate which states and LGA's are most impacted and in which ways.

The 'Spill area habitat' is also very telling, particularly when explored within the 'States affected' or 'Zonal Office' metrics. Here we can quickly see that in Bayelsa and Rivers a majority of spills occur in swamp areas, whereas in Rivers most are on Land.

The combination of top-level filters and metrics available in the summary view are very powerful, and when used correctly can give very useful comparisons and insights.

For more information on how to use the filters and the summary features of the Oil Spill Monitor please check out the training videos on nosdra.oilspillmonitor.ng/oilspillmonitor.html#training