CADT- 1598

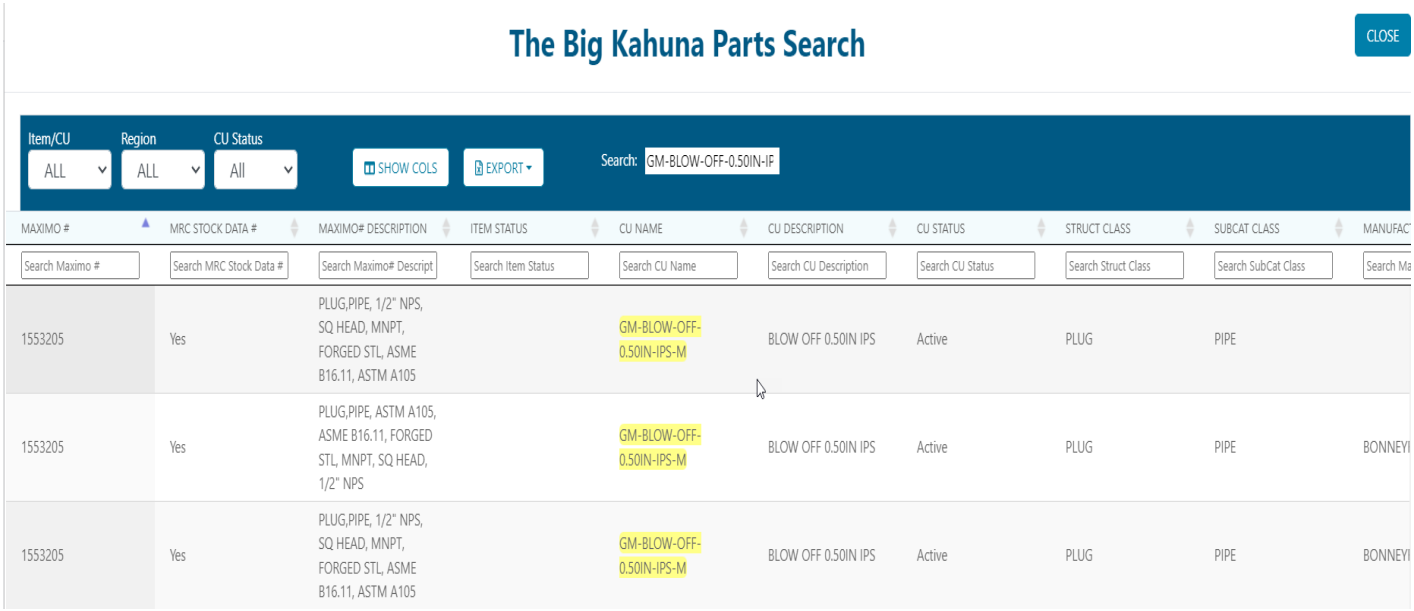
Big Search : Display Complex CU’s

Description: **Search results in Big Search should also show Complex CU's. Currently they are excluded.**

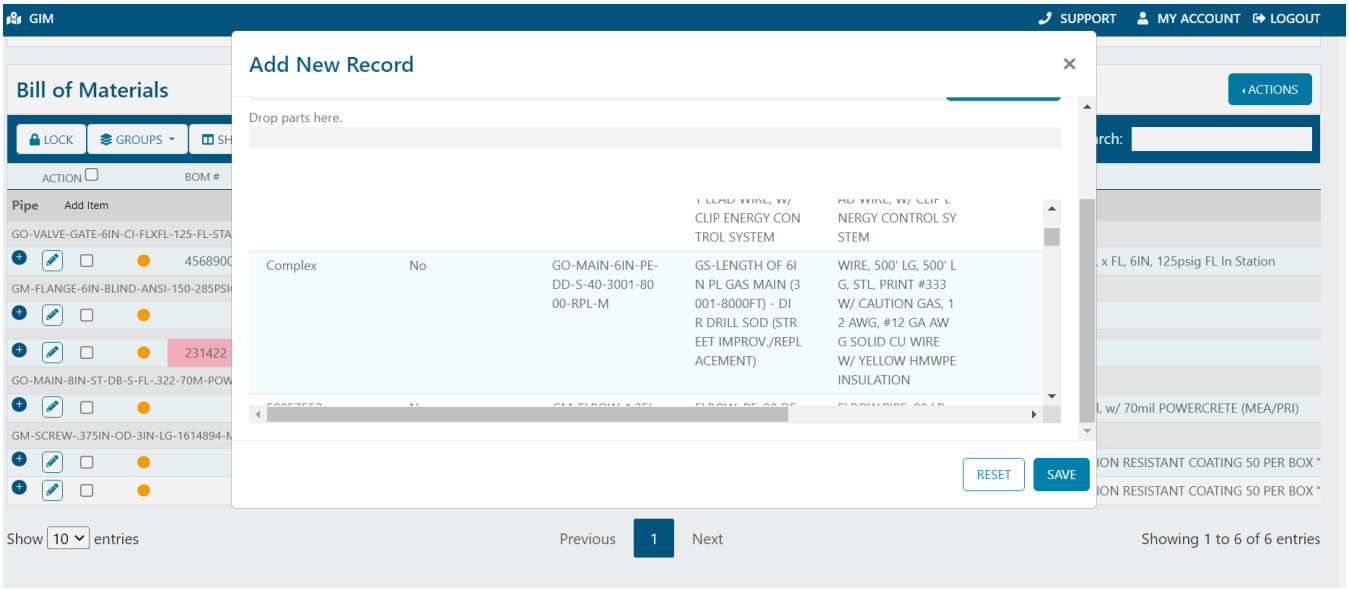
Example attached with Screenshot

- Example of complex CU

Example of how it currently shows up in Big Search. No indication that it is a complex CU and no list of the additional parts included in the complex CU



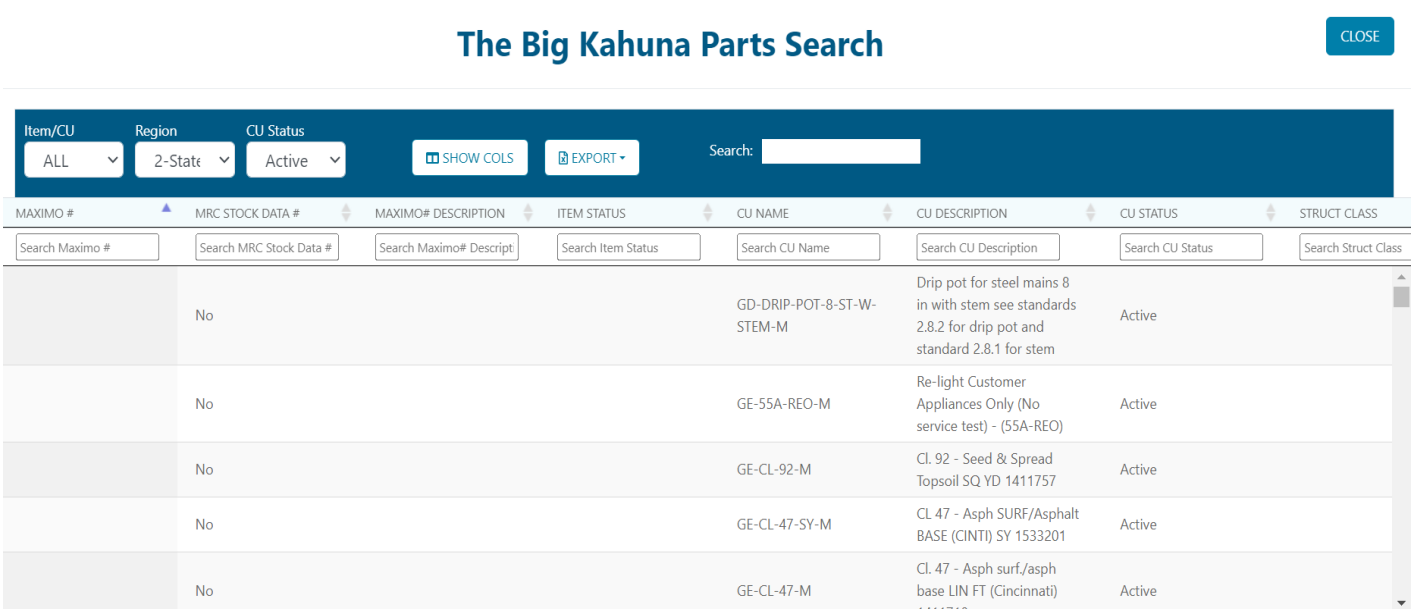
Analysis: I did the analysis based on the screenshot attached as shown in example so I found that how the complex CU's are displayed on a particular Design so when we click on design Id -> design number(15804) -> AddItem -> Inside the Add New Record -> Click on Filter table from here I analysis that how they are displaying the Complex CU's as shown below:



Conclusion: When the user click on Filter Table then in the backend (/ehubMaterialList) is called First they getting all the duplicates CU name -> then get only one CU name from duplicate List ad finally setting the itemNum as Complex as shown below:

```
SA added 08-21-2019 method
@RequestMapping(value = "/ehubMaterialList", method=RequestMethod.POST, produces = "application/json", consumes = "application/json")
public @ResponseBody List<Bomv2AddRowMaterialDTO> ehubMaterialList (@RequestBody GenericMessageRequest request,Model model)  {

    logger.debug("Starting ehubMaterialList()..");
    Instant processingStart = Instant.now();
    String region = (String) request.getData().get("region");
    List<Bomv2AddRowMaterialDTO> dataList=ehubGIMCompatibleUnitMaterialDao.getAllByFilter("ALL", region);
    //List<Bomv2AddRowMaterialDTO> dataList1=ehubGIMCompatibleUnitMaterialDao.getAllByFilter("ALL", region);
    /*List<Bomv2AddRowMaterialDTO> finalList = Stream.concat(dataList.stream(), getComplexByItemNumForMultiCU().stream()).collect(Collectors.toList());*/
    List<Bomv2AddRowMaterialDTO> LabordataList1=ehubCompatibleUnitDao.getAllByFilterLabor("ALL");
    dataList.addAll(LabordataList1);

    List<Bomv2AddRowMaterialDTO> duplicates =dataList.stream().collect(Collectors.groupingBy(p->p.getCompatibleUnitName(),Collectors.toList()))
            .values().stream().filter(i->i.size()>1).flatMap(j->j.stream()).collect(Collectors.toList()); //get duplicate cu name

    List<Bomv2AddRowMaterialDTO> unique=  duplicates.stream()
    .collect(Collectors.collectingAndThen(Collectors.toCollection(() -> new TreeSet<>(Comparator.comparing(Bomv2AddRowMaterialDTO::getCompatibleUnitName,String.
                            ArrayList::new)); //get only one cu name from duplicate list

    unique.stream().forEach(u -> u.setItemNum("Complex")); //Set itemnum as Complex
```

Solution: So after click on BigSearch it will triggere the backend control with an API name (/getAllItemsFromEhub) as shown below:



So In the Controller method I did the changes that getting all the duplicates CU name & then get only one CU name from duplicate List & then set the ItemNum as “Complex” as shown below:

```
}
 List<PartsLibSearchResultsDTO> duplicates =itemorCUList.stream().collect(Collectors.groupingBy(p->Optional.ofNullable(p.getCuName()),Collectors.toList()))
           .values().stream().filter(i->i.size()>1).flatMap(j->j.stream()).collect(Collectors.toList()); //get duplicate cu name

    List<PartsLibSearchResultsDTO> unique=  duplicates.stream().filter(Objects::nonNull).collect(Collectors.collectingAndThen(
        Collectors.toCollection(() -> new TreeSet<>(Comparator.comparing(dto->dto.getCuName(),Comparator.nullsLast(String.CASE_INSENSITIVE_ORDER))
                )),
        ArrayList::new
        ));
     //get only one cu name from duplicate list

    unique.stream().forEach(u -> u.setItemNum("Complex"));
```

RESULT:

The Big Kahuna Parts Search

CLOSE

Item/CU: ALL | Region: ALL | CU Status: All | SHOW COLS | EXPORT | Search:

MAXIMO #	MRC STOCK DATA #	MAXIMO# DESCRIPTION	ITEM STATUS	CU NAME	CU DESCRIPTION	CU ST
Search Maximo #	Search MRC Stock Data #	Search Maximo# Descript	Search Item Status	Search CU Name	Search CU Description	Searc
Complex	No			GM-COUPLING-1/2INCTS-ELEC-FUS-PE4710-ASTMD2513-F1055-P	COUPLING,PIPE, 1/2IN CTS, ELECTROFUSION, PE 4710, ASTM D2513, F1055, ELECTROFUSION X ELECTROFUSION, 4.0MM	Penc
Complex	No	POST, DRIVE, 30 INCHES IN LENGTH, F/ GAS SERVICE RISER, STL, DRIVE		GD-NEW-1IN-PE-CM-FS-150-250-M	1IN CTS Service C-M Free Standing Meter 150 to 250 Feet	Inact
Complex	No	POST, DRIVE, 30 INCHES IN LENGTH, F/ GAS SERVICE RISER, STL, DRIVE		GD-NEW-1IN-PE-CM-FS-0-75-M	1IN CTS Service C-M Free Standing Meter 0 to 75 Feet	Inact
Complex	No	POST, DRIVE, 30 INCHES IN LENGTH, F/ GAS		GD-NEW-1IN-PE-CM-	1IN CTS Service C-M Free Standing Meter 75 to 150 Feet	Inact